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*Final*

**Data Summary Report  
June 2013 Basewide Sampling  
Niagara Falls Air Reserve Station, New York**

Prepared for  
**Air Force Civil Engineer Center**  
Environmental Restoration Division  
Lackland Air Force Base, Texas 78236-9853

Contract No. FA8903-09-D-8588, Delivery Order No. 0006

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- A: WATER LEVEL DATA
- B: CLIMATE DATA
- C: LABORATORY DATA AND VALIDATION SUMMARIES
- D: MONTHLY EFFLUENT POSITIVE ANALYTICAL RESULTS
- E: OPERATIONS AND MAINTENANCE FORMS

# 1.0 Introduction

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The U.S. Department of the Air Force, Air Force Civil Engineer Center (AFCEC), has retained Versar, Inc. and its teaming partner EA Engineering, PC and its affiliate EA Science and Technology (EA) on behalf of the 914<sup>th</sup> Airlift Wing Mission Support Group (MSG)/Civil Engineering-Environmental (CEV) under Contract No. FA8903-09-D-8588, Task Order 0006, to perform installation-wide groundwater monitoring in support of the Performance Based Remediation contract activities at the Niagara Falls Air Reserve Station (ARS) in Niagara Falls, New York.

The work related to the groundwater monitoring is conducted under the U.S. Department of Defense (DoD) Installation Restoration Program (IRP) and in compliance with the requirements of a New York State Department of Environmental Conservation (NYSDEC) Part 373 hazardous waste storage permit (Permit Number 9-2999-00005/00008 issued on 9 March 2010). The permit requires corrective action programs for all solid waste management units. Unless otherwise noted, all work was performed in accordance with the Work Plan for IRP activities prepared by EA (EA, 2010), Bhate's Addendum II to the 2011/2012 Sampling and Analysis Plan (SAP) (Bhate, 2012), and EA's 2013–2015 SAP (EA, 2013).

## 1.1 Report Organization

This report describes the field investigation tasks conducted during June 2013 under the installation-wide groundwater monitoring program including:

- Groundwater and surface water elevation measurements performed on 24 June 2013 (Section 2).
- Sampling of groundwater and surface water for long-term monitoring at Sites 3, 5, 7, 8, 10, and 13 performed in June 2013 (Section 2).
- Well inspections and maintenance performed on 24 June 2013 (Section 2).
- Performance monitoring and maintenance of the remedial systems at Sites 3, 10, and 13 performed on 26 June 2013 (Section 3).

Water level data are presented in Appendix A and June 2013 climate data are presented in Appendix B. Laboratory results and data validation reports for all the semi-annual groundwater and surface water sample results are presented in Appendix C. Appendix D presents the June 2013 monthly effluent sampling positive analytical results. June 2013 monthly operation and maintenance (O&M) inspection report forms are provided in Appendix E.

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## 2. Groundwater and Surface Water Gauging, Sampling, and Analysis

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### 2.1 Groundwater Gauging and Flow Direction

Groundwater and surface water level measurements were collected on 24 June 2013, from 114 existing monitoring wells and nine surface water locations (Figure 2-1 and Appendix A). To supplement the water level data, June 2013 daily precipitation data are presented in Appendix B.

Water levels in active pumping wells continually fluctuate and field measurements are evaluated relative to approximate elevation ranges within which the pumps are set to operate. Active groundwater extraction was temporarily terminated at Site 3 in May 2011 and is now in the post-termination monitoring phase in accordance with the NYSDEC Part 373 Permit. The pump was removed from pumping well PW3-3A on 24 May 2011 and no water has been discharged from this well since. At PW10-1, the actual water elevation at the time of measurement was used for contouring since pumping typically occurs once per month. Due to the frequent cycling at PW10-2, the water level varies between the high and low level; therefore, the midpoint elevation is used to approximate the water elevation. The actual groundwater elevations for wells PW13-1 and PW13-4D were used due to the narrow operational ranges of the pumps.

Groundwater elevation contour maps were prepared from the June 2013 water levels after conversion to elevations in feet above mean sea level, based on North American Datum 1983 for both the overburden and shallow bedrock water-bearing zones for each site (Figures 2-2 through 2-13). Surface water data were incorporated on the contour maps, where applicable. The June 2013 groundwater flow patterns are summarized below.

- Overburden groundwater flow at Site 3 is to the southeast toward Cayuga Creek at a horizontal gradient of 1.0–1.5%, (Figure 2-2). Groundwater flow in the shallow bedrock is also primarily to the southeast and east at a 1.0% horizontal gradient (Figure 2-3). A local high in the vicinity of MW3-6D creates additional radial components of flow to the north and south. A low surrounding the trench still exists causing a portion of the shallow bedrock groundwater to flow to the collection trench.
- The groundwater flow was generally to the southwest at Site 5 (Figure 2-4) at an average gradient of less than 0.5% in the central area and increased to approximately 2% near the northwest corner of the site. Shallow bedrock flow direction was also toward the southwest (Figure 2-5).
- No overburden groundwater flow map was prepared because only a single overburden well exists at Site 7. Shallow bedrock groundwater flow (Figure 2-6) was toward the southwest with a horizontal gradient estimated to be less than 0.4%.
- Overburden groundwater flow at Site 8 was to the southeast at a low gradient. The small tributary to Cayuga Creek near the site appeared to be a losing stream with groundwater flow away from the tributary (Figure 2-7). A mound in groundwater elevation was seen at MW8-1. General groundwater flow in the shallow bedrock was to the southeast at a very low magnitude gradient (Figure 2-8).
- The Site 10 overburden water level elevations indicate radial flow toward and captured by the groundwater collection trench and pumping well PW10-2 (Figure 2-9). Shallow bedrock groundwater flow was radial toward pumping well PW10-2 indicating capture by this well (Figure 2-10). Groundwater flow in deep bedrock was to the northeast (Figure 2-11).

- The Site 13 groundwater contours revealed localized flow toward shallow bedrock pumping wells PW13-1 and PW13-2 (see Figures 2-12 and 2-13). A groundwater flow divide in the shallow bedrock is interpreted to exist to the northeast of the site between Sites 5 and 13.

## 2.2 Groundwater and Surface Water Sampling and Analysis

Laboratory analysis of the June 2013 surface water and groundwater samples was performed by Accutest Laboratories (Accutest) of Marlborough, Massachusetts, a DoD-certified laboratory, in accordance with NYSDEC Analytical Services Protocol (ASP) of June 2005 and U.S. Environmental Protection Agency (EPA) SW-846 Methods (2007) [with updates - last updated in 2010]. These samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B. Monthly effluent monitoring samples were analyzed by the same laboratory for VOCs by Method 8260B and metals by EPA Method 6010B in accordance with Niagara County Sewer District (NCSD) Number 1 Industrial Waste Permit for Niagara Falls ARS, dated 1 May 2013. June 2013 effluent sampling is discussed in Section 3 of this report. A summary of the analyses performed per location is provided in Tables 2-1 and 2-2.

Surface water and groundwater sample results are included in Accutest laboratory reports MC22115 and MC22232 presented in Appendix C of this report. Positive results for target compounds present in one or more surface water or groundwater samples are listed in Tables 2-3 and 2-4. Metals are not included in these tables because this analysis was conducted only for permitted discharge locations. Analytical results for compounds with positive hits are bolded. Surface water analytical results (Table 2-3) were compared to NYSDEC Class C surface water standards and guidance values listed in the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, dated June 1998-with updates (NYSDEC, 1998). The groundwater analytical results for the contaminants of concern were compared to the Groundwater Protection Standards specified in the Part 373 Permit (Table 2-4). The analytical results for the remaining VOCs detected in the samples were compared to the Water Class GA standards and guidance values listed in the NYSDEC TOGS 1.1.1 (NYSDEC, 1998).

### 2.2.1 Surface Water Sampling

During the June 2013 sampling event, seven surface water samples (including one duplicate) were collected at seven locations, in support of monitoring efforts for Sites 3 and 10, in order to determine whether site-related contamination has entered nearby surface water bodies. At the time of sample collection, readings of pH, temperature, and conductivity were recorded (Table 2-5). One Part 373 Permit VOC, trichloroethene (TCE), was detected in the sample collected from SW10-5 (Table 2-3). There were no VOCs found in the surface water samples at concentrations exceeding the NYSDEC Class C surface water standards and guidance values.

### 2.2.2 Groundwater Sampling and Analysis

Twenty-one wells were sampled using passive diffusion bag (PDB) samplers deployed on 10 June 2013, approximately 2 weeks prior to sampling. The samplers remained, undisturbed, in the wells until retrieval on 25 June 2013. Grab samples were collected with dedicated bailers at active pumping wells PW10-1, PW10-2, PW13-1 and PW13-4D. Table 2-4 provides a summary of the analytical results. The June 2013 groundwater analytical data for each site are summarized below.

- One background well, MW8-11D, was sampled. There were no Part 373 Permit VOCs or other VOCs reported in the background well sample.
- Six Site 3 wells/piezometers were sampled and analyzed for VOCs. Two Part 373 Permit VOCs (vinyl chloride in all the samples and cis-1,2-dichloroethene [DCE] in one sample) were detected



at concentrations exceeding the Part 373 Permit groundwater protection standard. None of the other VOCs were detected in the Site 3 samples at concentrations exceeding the NYSDEC Class GA groundwater standards and guidance values.

- Six Site 5 wells (monitoring and former recovery wells) were sampled for VOCs. Five Part 373 Permit VOCs were detected at concentrations exceeding the Part 373 Permit groundwater protection standards. Vinyl chloride and cis-1,2-DCE concentrations exceeded the Part 373 Permit groundwater protection standards in all the wells sampled except for MW5-1DA and MW5-6. Other exceedances over the Part 373 Permit groundwater protection standards include TCE, 1,1-DCE, and trans-1,2-DCE in RW5-1; and trans-1,2-DCE in MW5-5D. None of the other VOCs were detected at concentrations exceeding the NYSDEC Class GA groundwater standards and guidance values.
- Two Site 8 wells were sampled and analyzed for VOCs. Two Part 373 Permit VOCs (cis-1,2-DCE in both samples and vinyl chloride in one sample) were detected at concentrations exceeding the Part 373 Permit groundwater protection standards. None of the other VOCs were detected at concentrations exceeding the NYSDEC Class GA groundwater standards and guidance values.
- Four Site 10 wells/piezometers were sampled and analyzed for VOCs in addition to the monthly Site 10 treatment system effluent sample. Seven Part 373 Permit VOCs were detected at concentrations exceeding the Part 373 Permit groundwater protection standards (Table 2-4). TCE and cis-1,2-DCE concentrations exceeded the Part 373 Permit groundwater protection standards in all samples except PZ10-07. The remaining exceedances include: benzene, carbon tetrachloride, chloroform, trans-1,2-DCE and vinyl chloride in PW10-2. None of the other VOCs were detected at concentrations exceeding the NYSDEC Class GA groundwater standards and guidance values.
- Two Site 13 wells were sampled and analyzed for VOCs in addition to a composite sample collected from the two pumping wells (PW13-1 and PW13-4D). Two Part 373 Permit VOCs (cis-1,2-DCE in both samples and vinyl chloride in one sample) were detected at concentrations exceeding the Part 373 Permit groundwater protection standards. The remaining exceedances include: cis-1,2-Dichloroethene, trichloroethene, and vinyl chloride in the pumping well composite sample.

### 2.2.3 Quality Assurance/Quality Control Results

All procedures were consistent with the EPA quality assurance (QA)/quality control (QC) requirements as described in SW-846 (EPA 2007 with updates). All analytical data have been reviewed for compliance with precision, accuracy, representativeness, completeness, and comparability parameters based on EPA's National Functional Guidelines for Organic Data Review (EPA, 2008). Data validation reports are included in Appendix C. The number of trip blanks, duplicates, and matrix spike/matrix spike duplicate sample sets collected during surface water and groundwater sampling are summarized in Table 2-6.

There were no QA/QC concerns that significantly affected data usability. Minor issues were addressed by adding validation qualifiers where necessary. Results and quantitation limits are considered to be estimated values when flagged "J." Any "J" qualifier not explicitly explained in the QA/QC review memorandum indicates that the level detected is below the quantitation limit, but above the method detection limit for organic compounds.

## 2.3 Well Inspection and Maintenance

Well inspections of all existing IRP groundwater wells and piezometers were performed in June 2013 (Figure 2-1). The purpose of these inspections was to determine and document the physical condition of the monitoring and pumping wells, and to identify maintenance actions required to keep the wells operational. The results of the inspections were documented on well inspection checklists that will be included in the annual comprehensive report to be submitted after the second semi-annual sampling event.

Well inspections included the following:

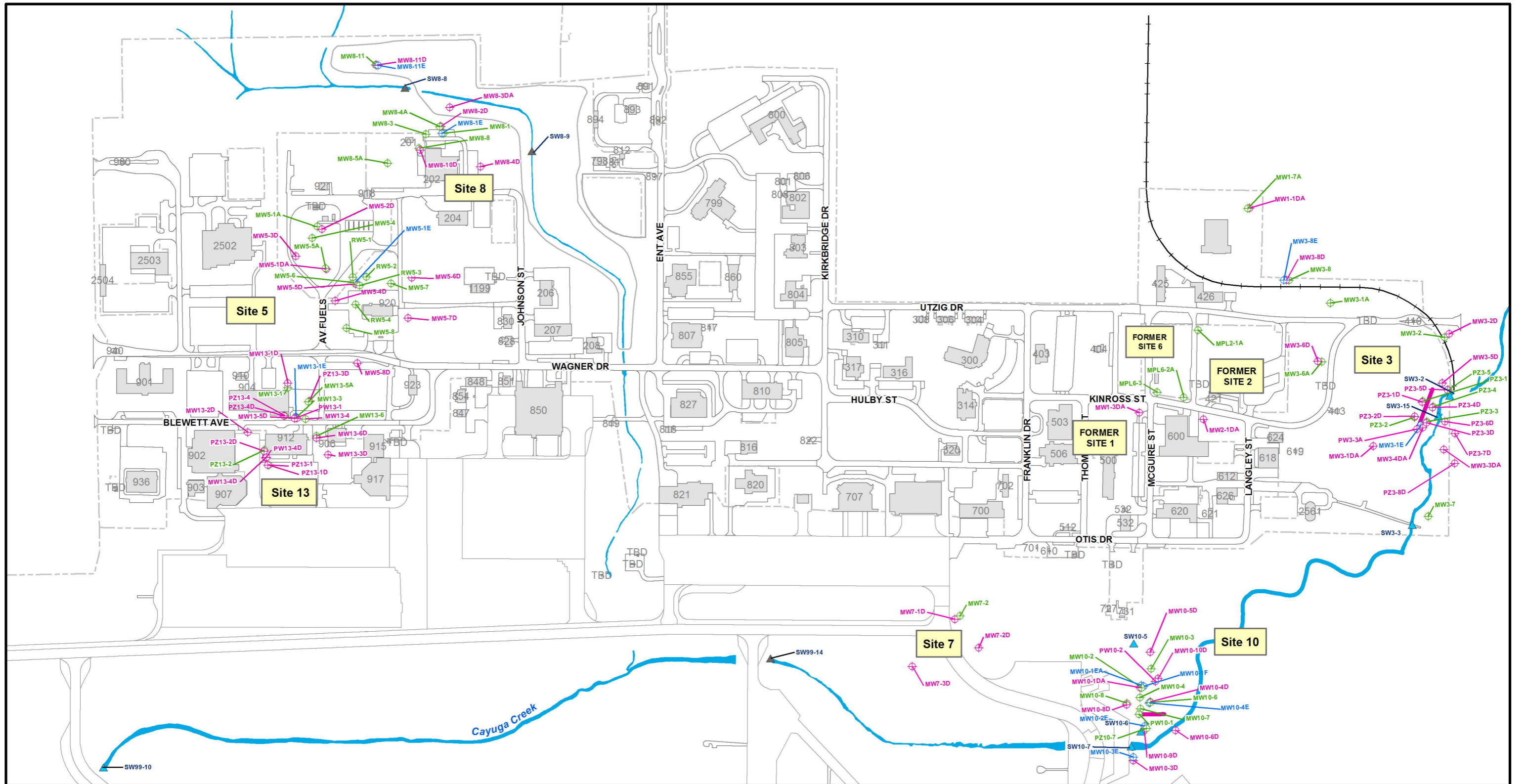
- Inspection of well identification marking and painting, protective casing lock, protective casing cover, monitoring well riser, concrete drainage pad, and guard posts.
- Inspection of each well casing annulus for the presence of trapped water.
- Determination of total depth of the well using a weighted tape measure.
- Determination of the presence of obstructions in the well.

The necessity for well maintenance was determined by the results of the well inspection. The following maintenance items were identified:

- One well requires a new label.
- One well requires new watertight well plugs.
- Two wells require patching of the concrete pad.
- Four wells require locks.
- Four wells require painting on associated stick-ups and/or ballards.
- Twelve well covers have either bolts missing or stripped bolts.

## 2.4 Decontamination and Investigation Derived Waste

All non-dedicated sampling tools were decontaminated before and after use. All solid waste generated during sampling, including PDB plastic and protective clothing used during sampling, was segregated and disposed of offsite.

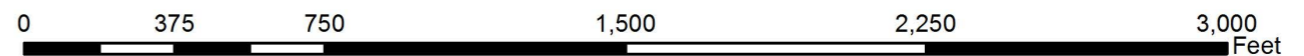


**Monitoring Wells**

- Deep Bedrock Well
- Overburden Well/Piezometer
- Shallow Bedrock Well/Piezometer
- Groundwater Collection Trench

**Surface Water Locations**

- Sample and Elevation
- Elevation Only



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 Niagara Falls Air Reserve Station  
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**FIGURE 2-1**  
 Installation-Wide Monitoring Well  
 and Sample Locations

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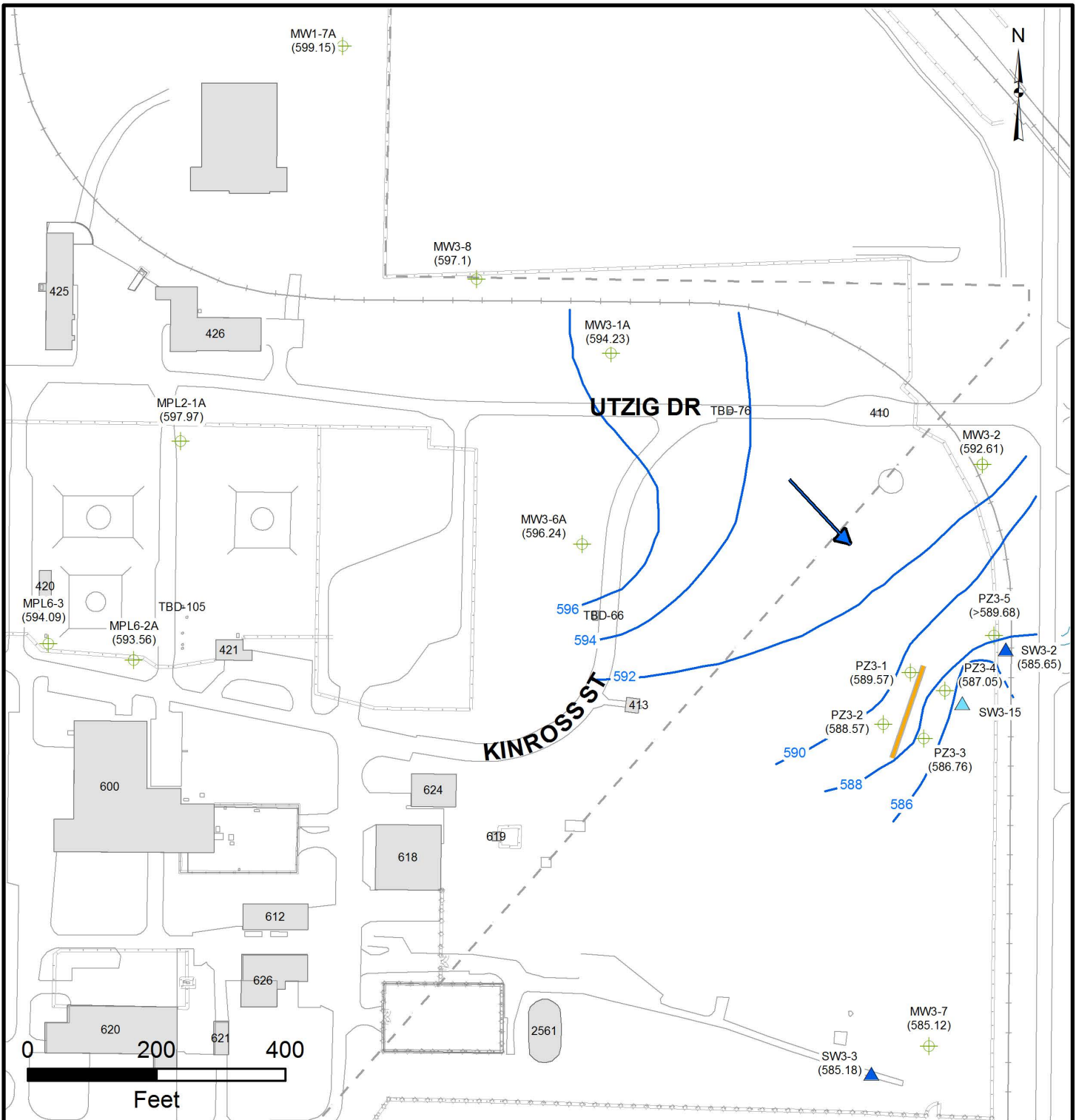
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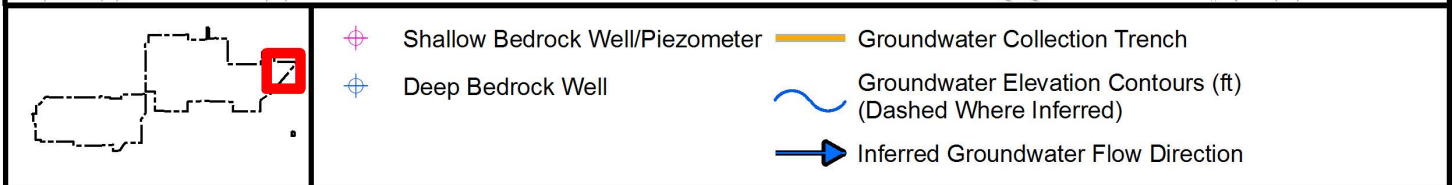
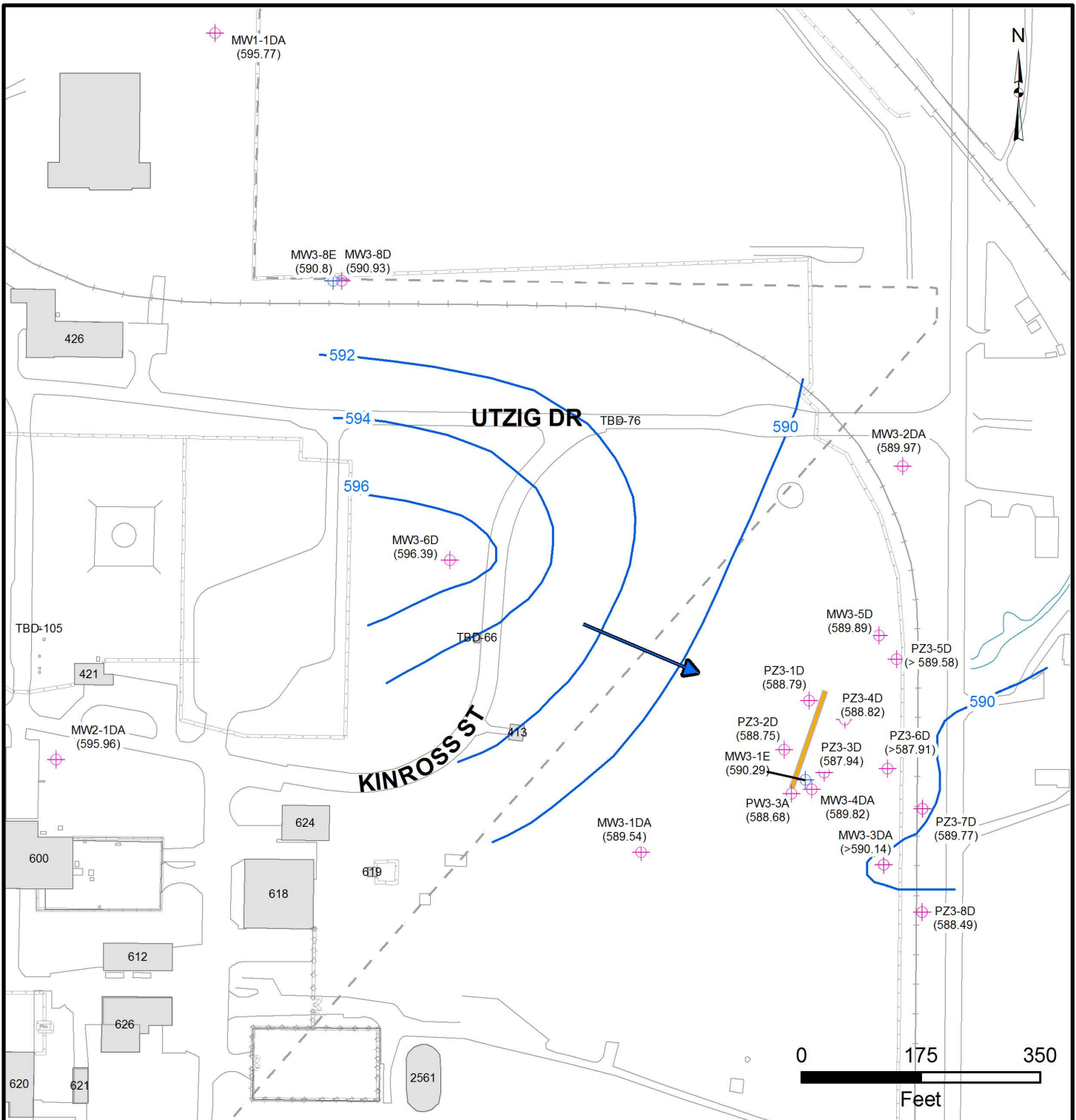


	Overburden Well/Piezometer	Groundwater Collection Trench
	Surface Water Sample	Groundwater Elevation Contours (ft) (Dashed Where Inferred)
	Surface Water Sample and Elevation Measurement	Inferred Groundwater Flow Direction

	Data Summary Report June 2013 Basewide Sampling Niagara Falls Air Reserve Station Niagara Falls, New York				<b>FIGURE 2-2</b> Overburden Groundwater Contour Map (June 2013) IRP Site 3		
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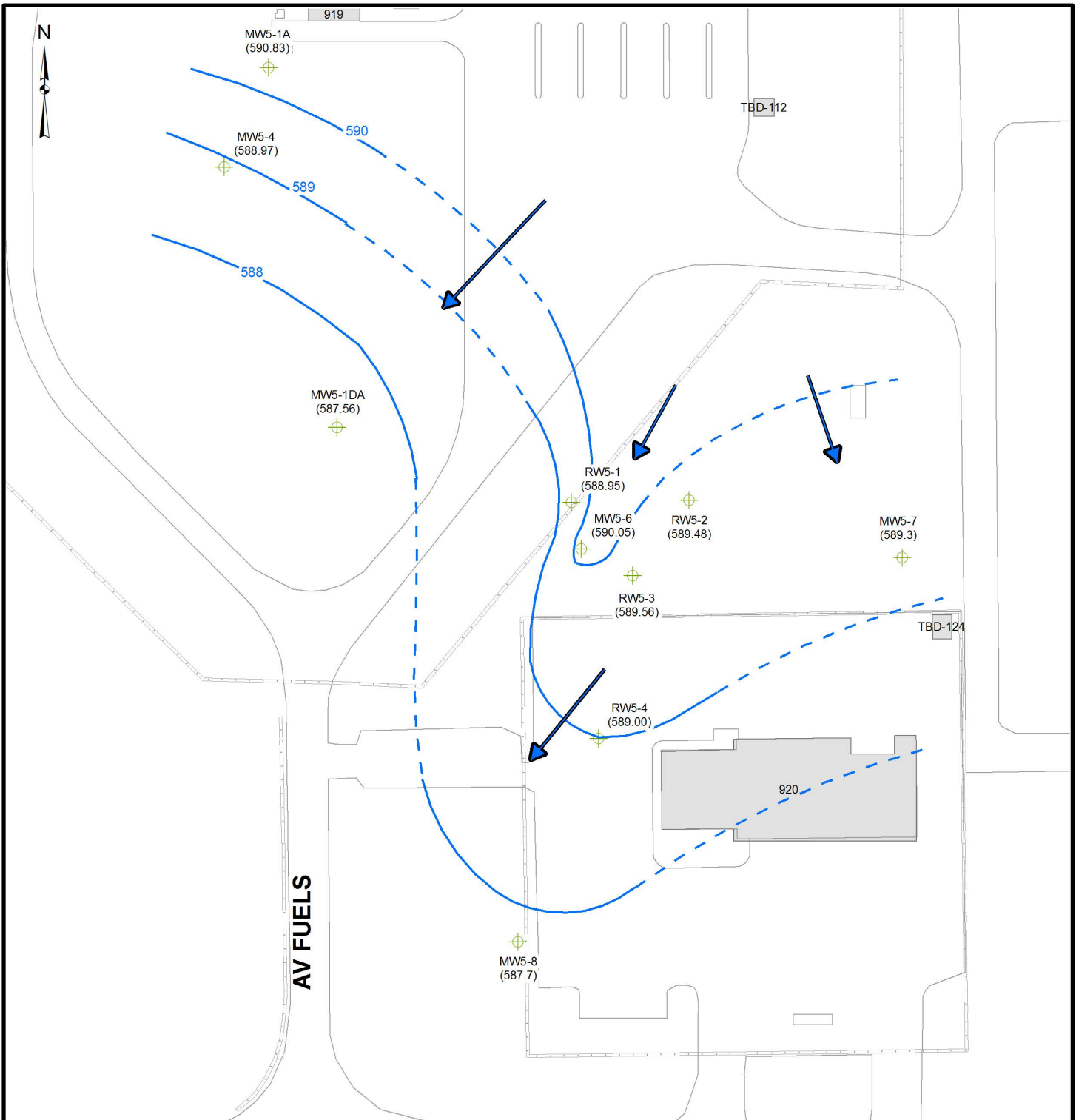
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 June 2013 Basewide Sampling  
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**FIGURE 2-3**  
 Shallow Bedrock Groundwater  
 Contour Map (June 2013)  
 IRP Site 3

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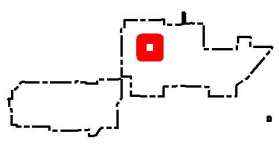
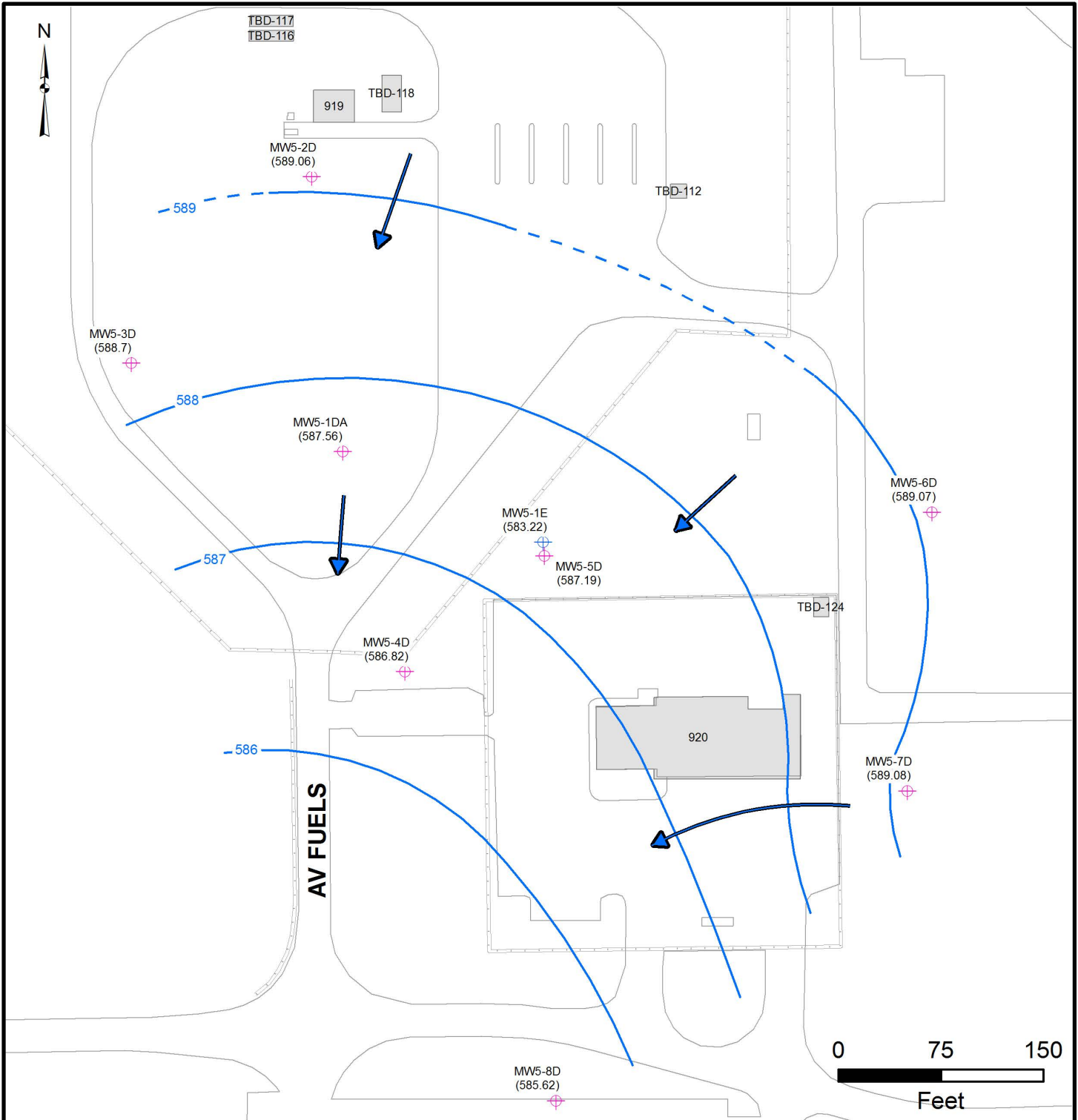




	Overburden Well	
	Groundwater Elevation Contours (ft) (Dashed Where Inferred)	
Inferred Groundwater Flow Direction		

		Data Summary Report June 2013 Basewide Sampling Niagara Falls Air Reserve Station Niagara Falls, New York				FIGURE 2-4 Overburden Groundwater Contour Map (June 2013) IRP Site 5	
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- Shallow Bedrock Well
- Deep Bedrock Well
- Groundwater Elevation Contours (ft) (Dashed Where Inferred)
- Inferred Groundwater Flow Direction

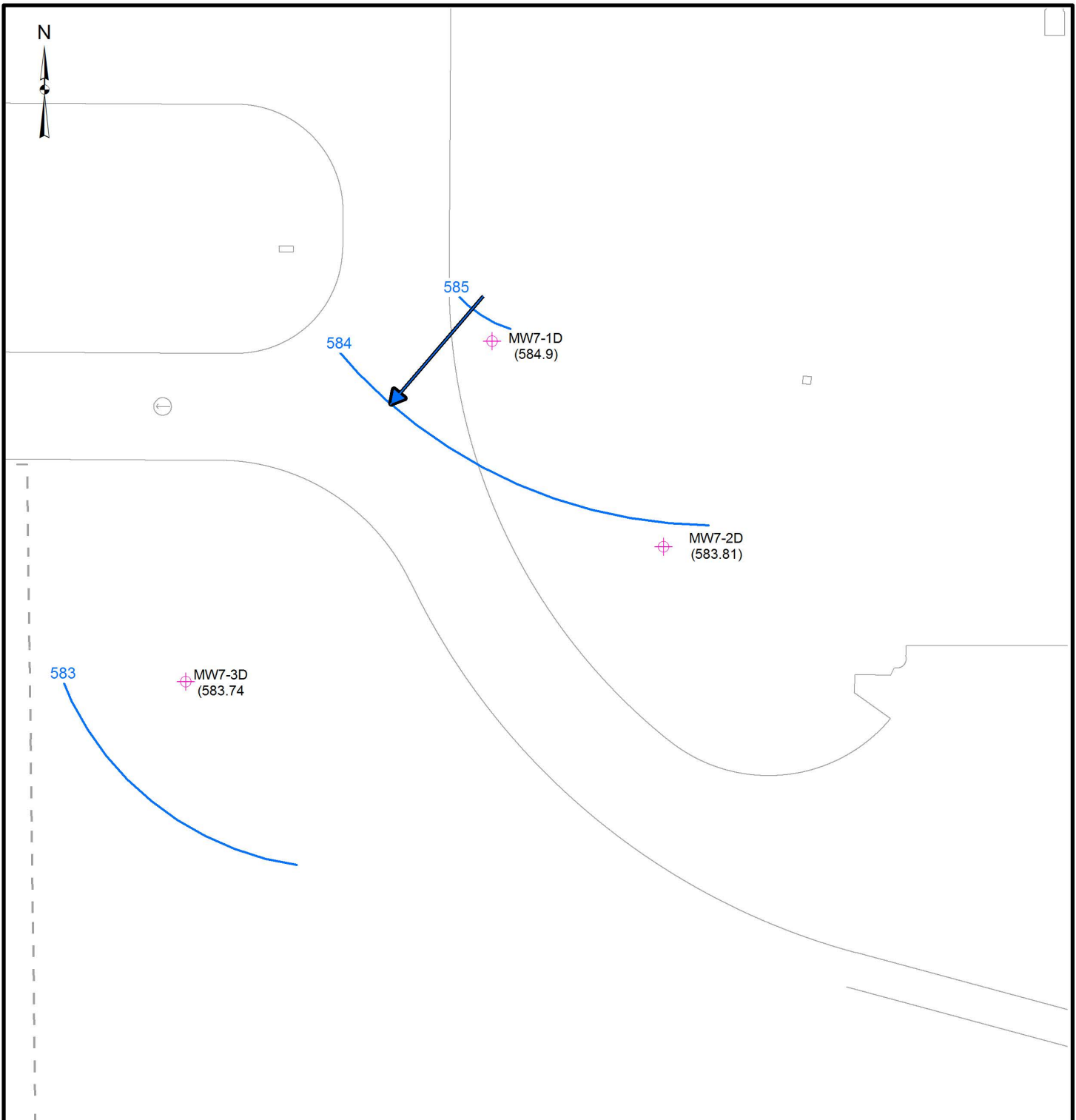


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FIGURE 2-5  
 Shallow Bedrock Groundwater  
 Contour Map (June 2013)  
 IRP Site 5

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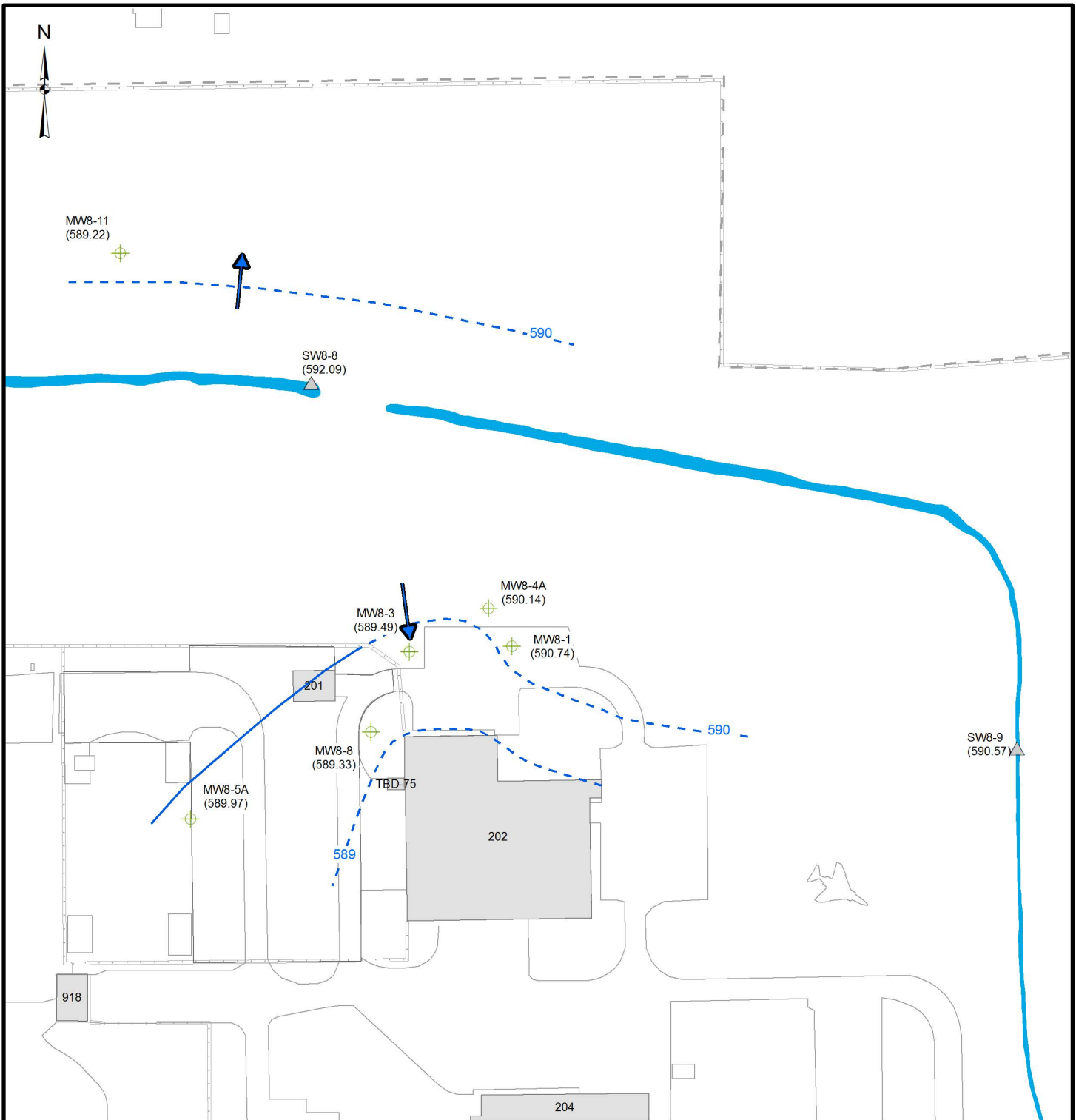
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	<ul style="list-style-type: none"> <li> Shallow Bedrock Well</li> <li> Groundwater Elevation Contours (ft) (Dashed Where Inferred)</li> <li> Inferred Groundwater Flow Direction</li> </ul>	<p>0    50    100</p> <p>Feet</p>
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		<p>Data Summary Report June 2013 Basewide Sampling Niagara Falls Air Reserve Station Niagara Falls, New York</p>				<p>FIGURE 2-6 Shallow Bedrock Groundwater Contour Map (June 2013) IRP Site 7</p>	
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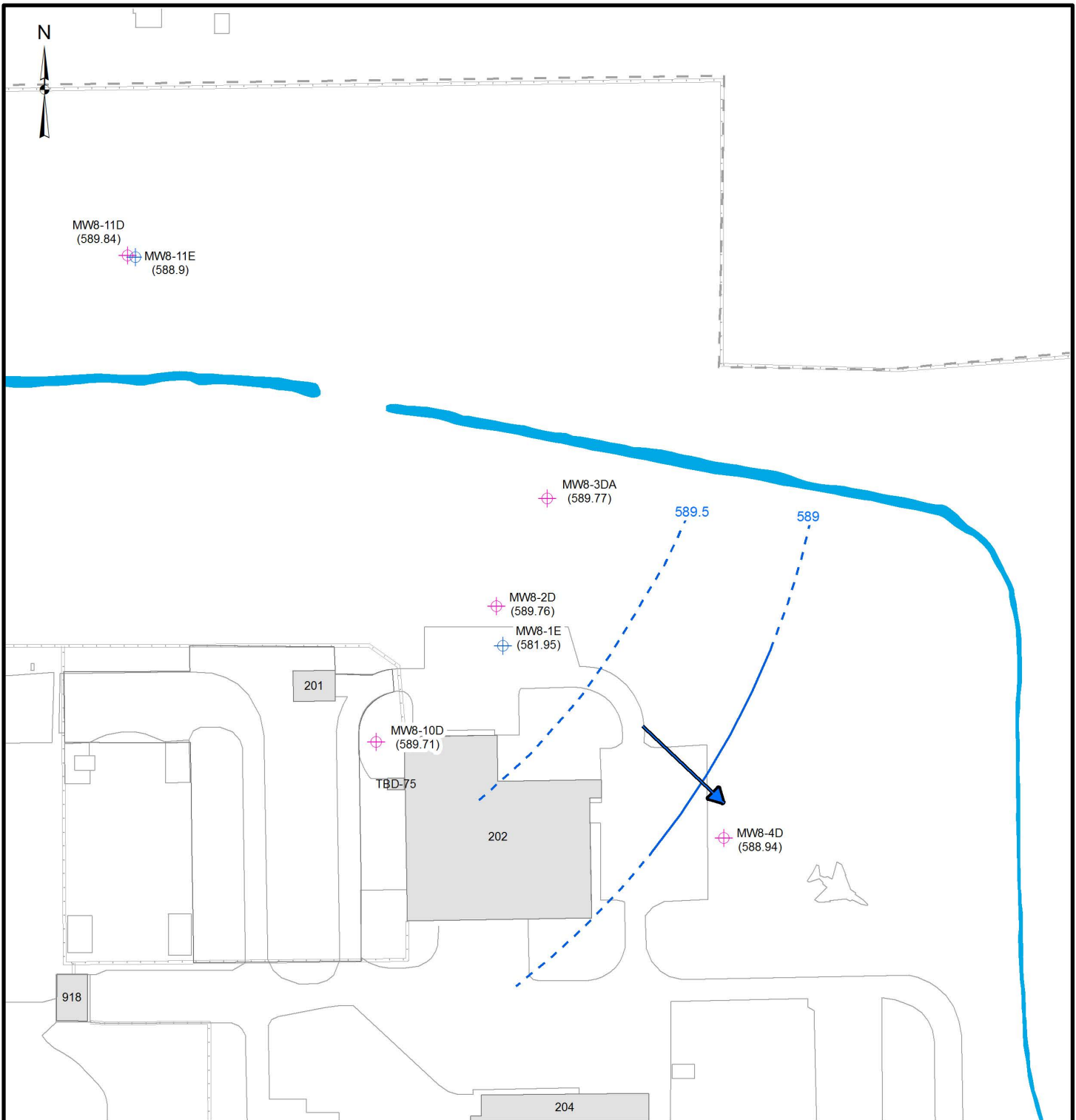


	<ul style="list-style-type: none"> <li> Overburden Well/Piezometer</li> <li> Surface Water Elevation Measurement</li> <li> Groundwater Elevation Contour (ft) (Dashed Where Inferred)</li> <li> Inferred Groundwater Flow Direction</li> </ul>	<p style="text-align: center;">0      75      150</p> <p style="text-align: center;">Feet</p>
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		<p>Data Summary Report June 2013 Basewide Sampling Niagara Falls Air Reserve Station Niagara Falls, New York</p>				<p>FIGURE 2-7 Overburden Groundwater Contour Map (June 2013) IRP Site 8</p>	
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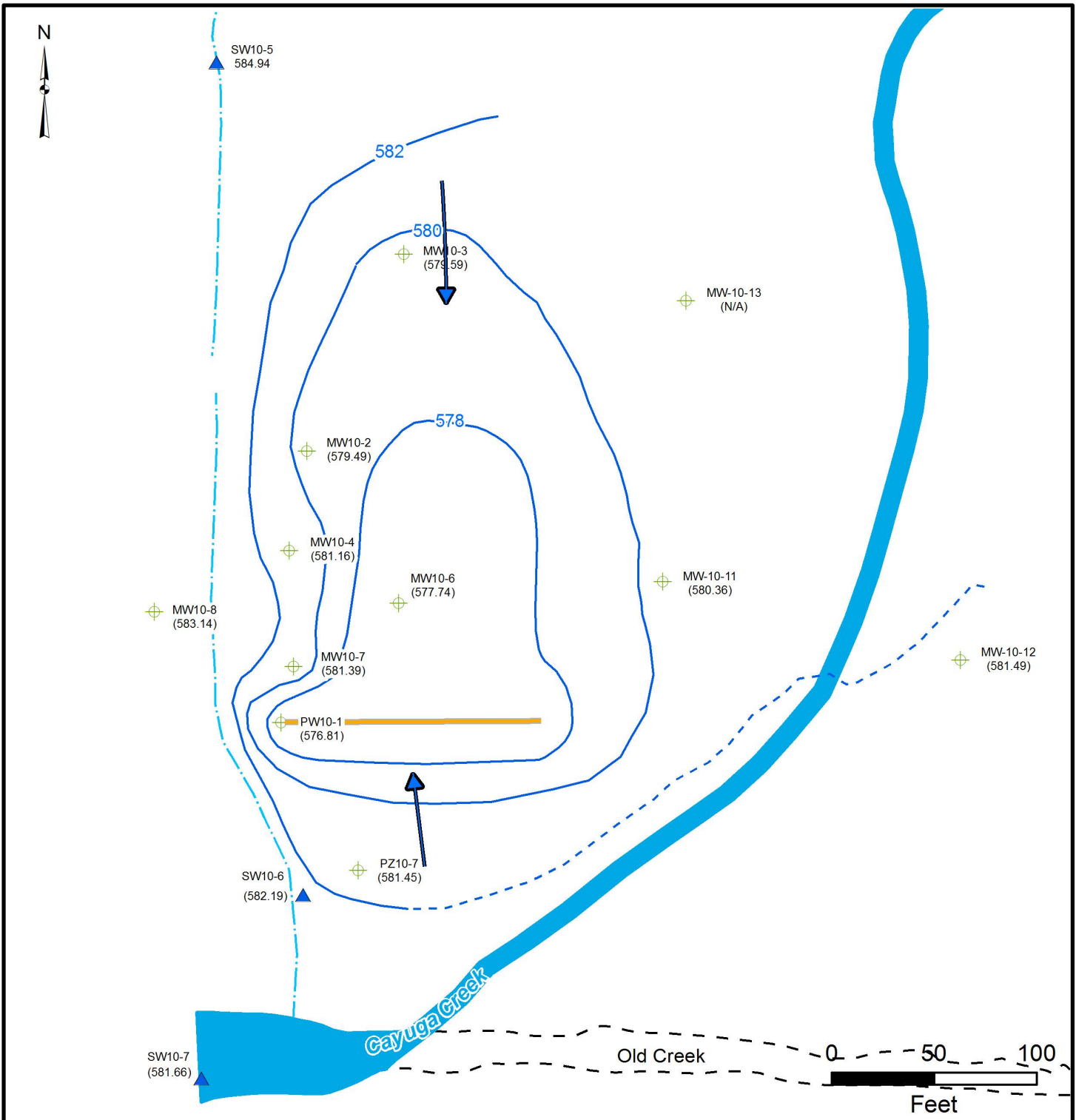




	<ul style="list-style-type: none"> <li> Shallow Bedrock Well</li> <li> Deep Bedrock Well</li> <li> Groundwater Elevation Contour (ft) (Dashed Where Inferred)</li> <li> Inferred Groundwater Flow Direction</li> </ul>	<p style="text-align: center;">0      100      200</p> <hr style="width: 100%; border: 1px solid black;"/> <p style="text-align: center;">Feet</p>
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		Data Summary Report June 2013 Basewide Sampling Niagara Falls Air Reserve Station Niagara Falls, New York				<b>FIGURE 2-8</b> Shallow Bedrock Groundwater Contour Map (June 2013) IRP Site 8	
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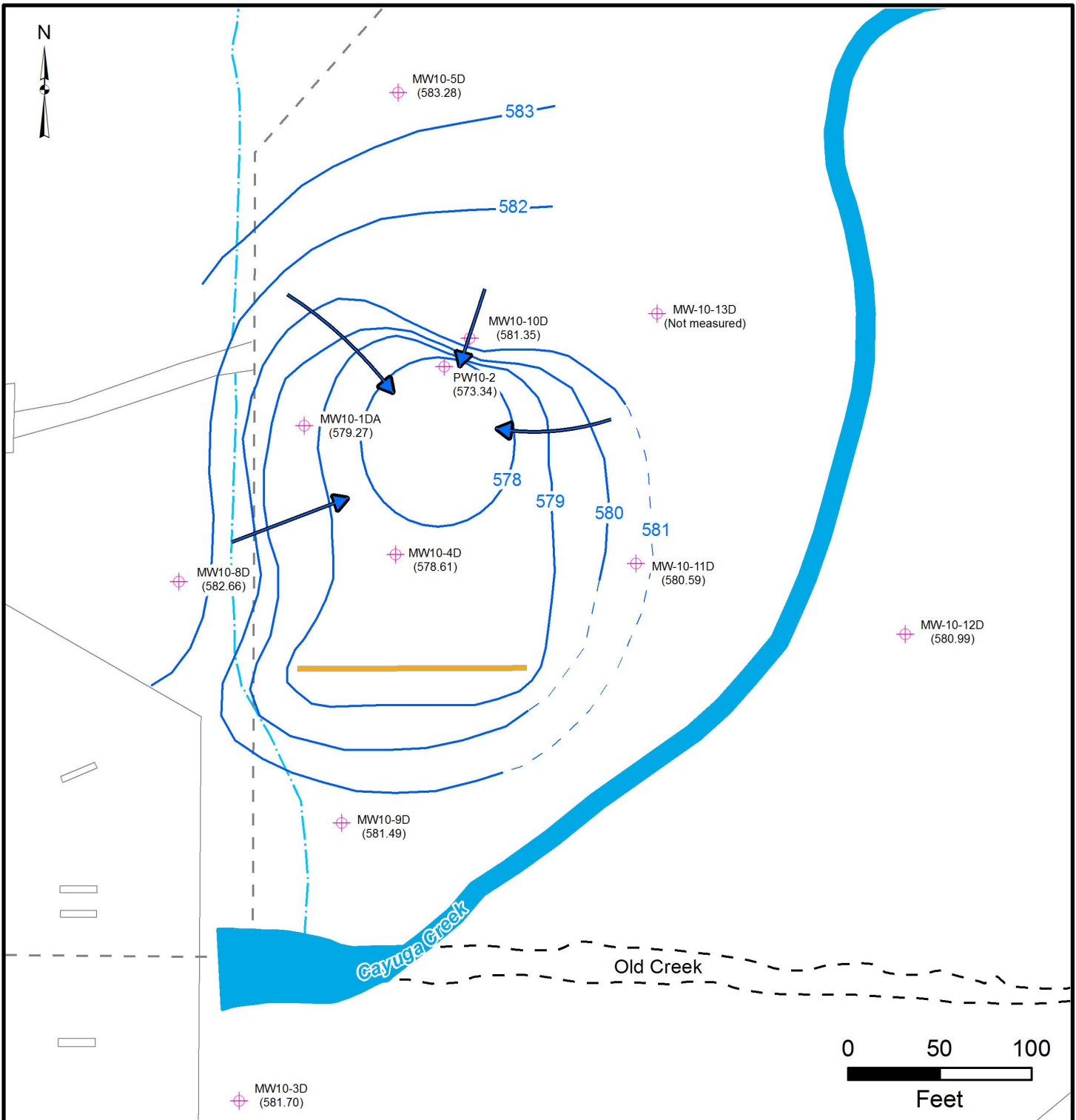
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	Overburden Well/Piezometer Surface Water Sample and Elevation Measurement Groundwater Collection Trench	Groundwater Elevation Contour (Dashed Where Inferred) Inferred Groundwater Flow Direction
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		Data Summary Report June 2013 Basewide Sampling Niagara Falls Air Reserve Station Niagara Falls, New York				FIGURE 2-9 Overburden Groundwater Contour Map (June 2013) IRP Site 10	
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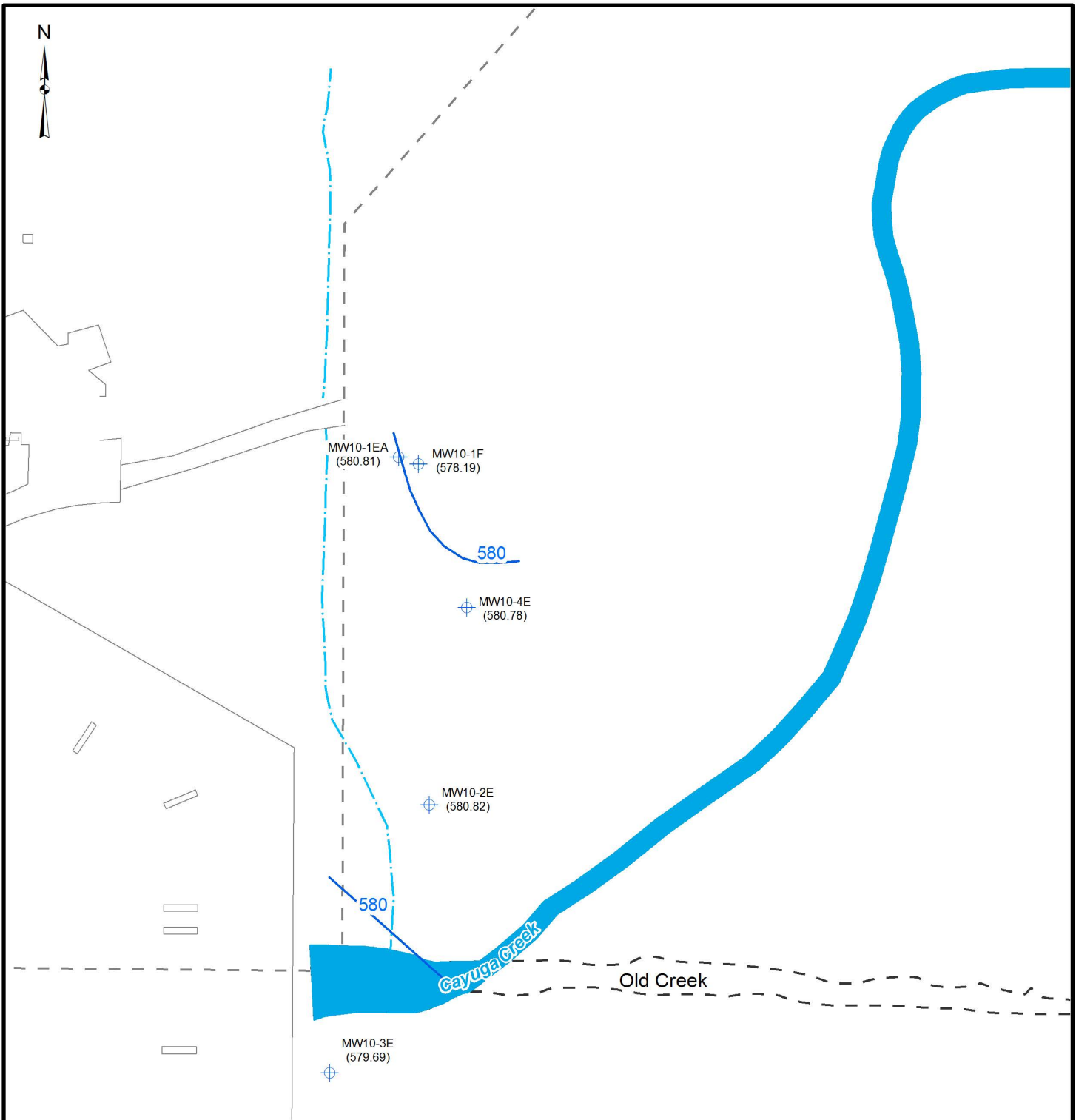
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	Shallow Bedrock Well	Groundwater Elevation Contours (ft) (Dashed Where Inferred)
Groundwater Collection Trench	Inferred Groundwater Flow Direction	

		<p>Data Summary Report June 2013 Basewide Sampling Niagara Falls Air Reserve Station Niagara Falls, New York</p>				<p>FIGURE 2-10 Shallow Bedrock Groundwater Contour Map (June 2013) IRP Site 10</p>	
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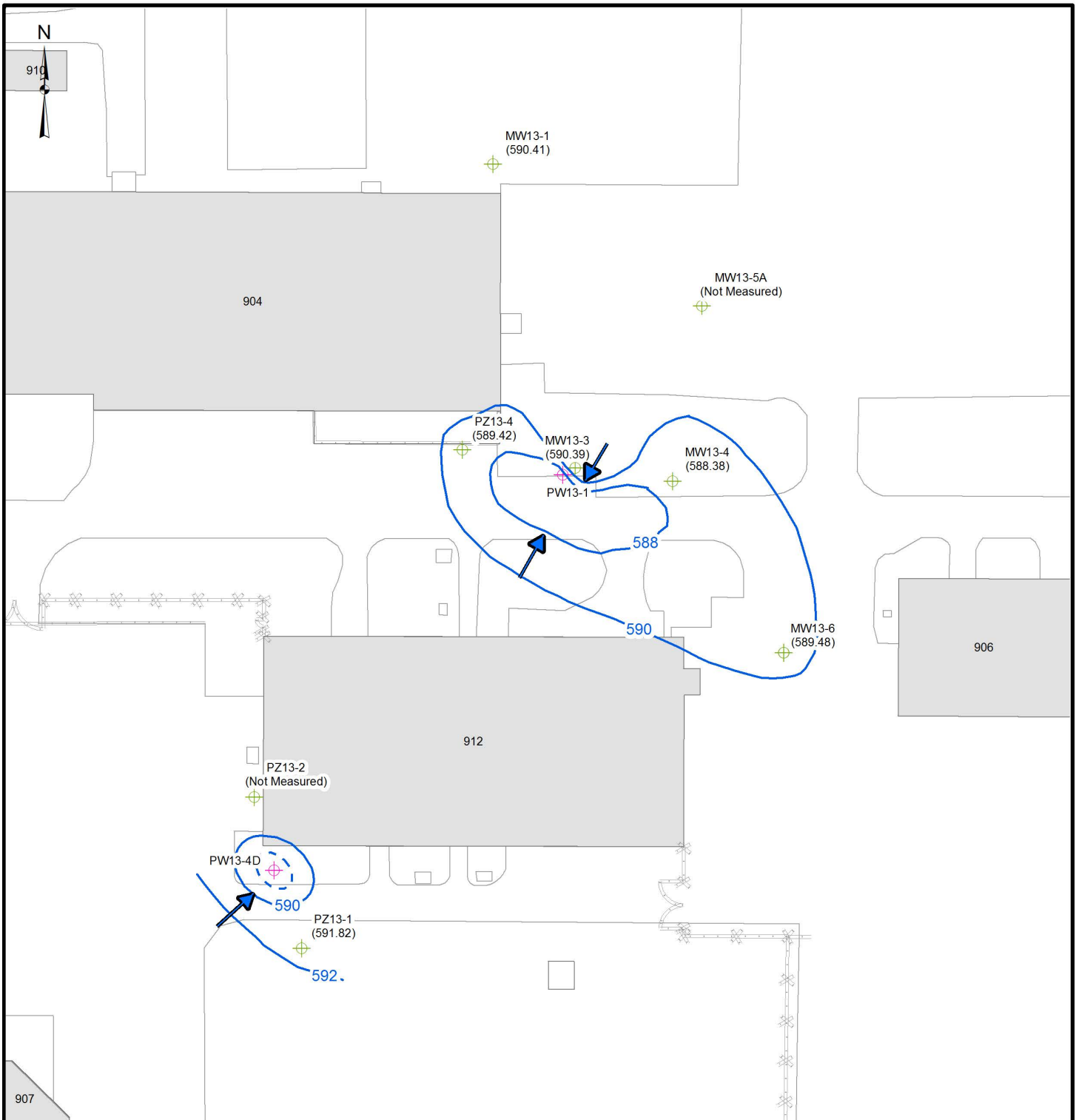


	<ul style="list-style-type: none"> <li> Deep Bedrock Well</li> <li> Groundwater Elevation Contour</li> <li> Inferred Groundwater Flow Direction</li> </ul>	<p>0      50      100</p> <p>Feet</p>
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		<p>Data Summary Report June 2013 Basewide Sampling Niagara Falls Air Reserve Station Niagara Falls, New York</p>				<p>FIGURE 2-11 Deep Bedrock Groundwater Contour Map (June 2013) IRP Site 10</p>	
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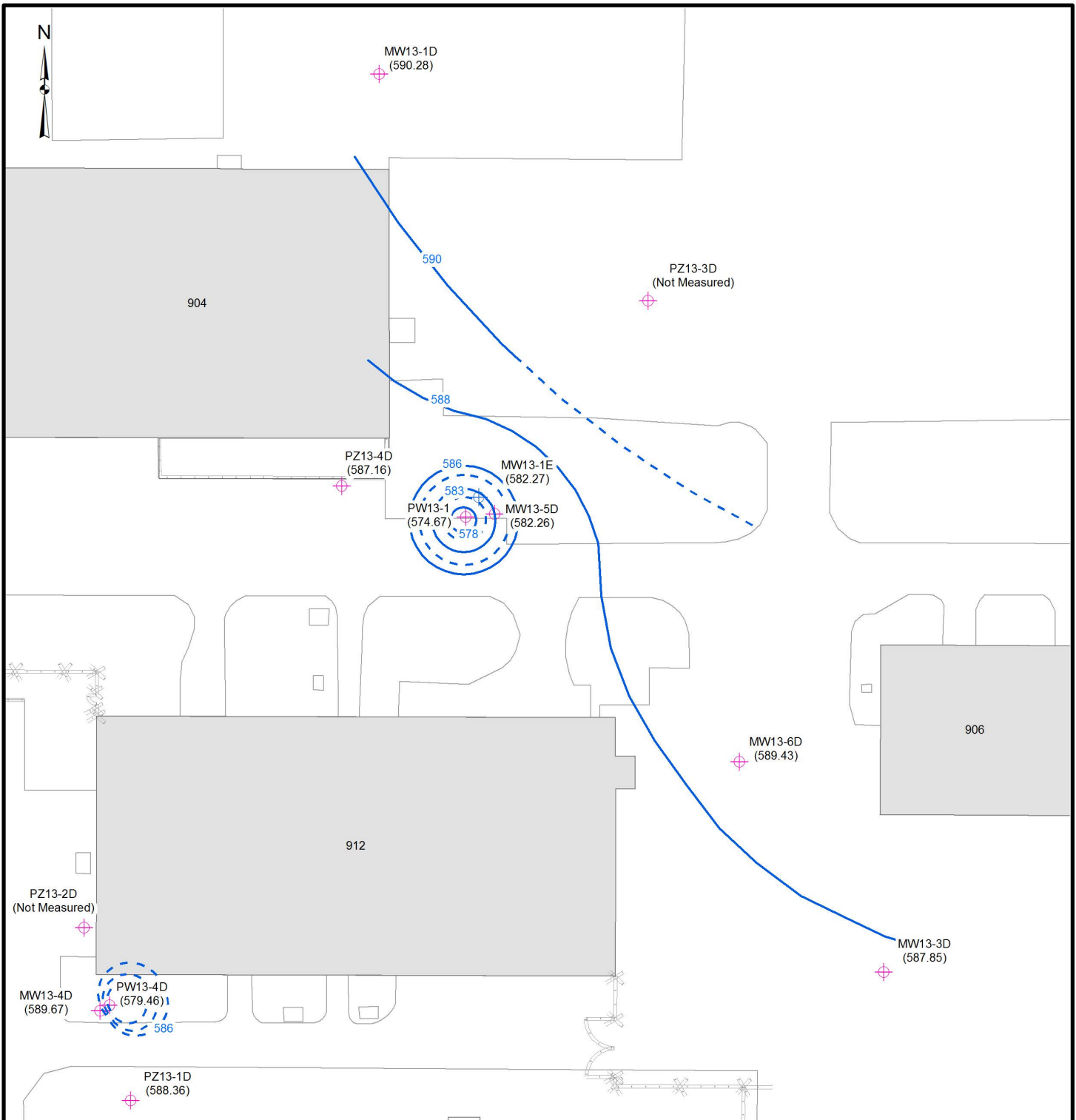




	<ul style="list-style-type: none"> <li> Overburden Well/Piezometer</li> <li> Shallow Bedrock Pumping Well</li> <li> Groundwater Elevation Contour (ft) (Dashed Where Inferred)</li> <li> Inferred Groundwater Flow Direction</li> </ul>	<p style="text-align: center;">0      50      100</p> <hr style="width: 100%; border: 1px solid black;"/> <p style="text-align: center;">Feet</p>
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		Data Summary Report June 2013 Basewide Sampling Niagara Falls Air Reserve Station Niagara Falls, New York				<b>FIGURE 2-12</b> Overburden Groundwater Contour Map (June 2013) IRP Site 13	
PROJECT MGR: BY	DESIGNED BY: FD	CREATED BY: FD	CHECKED BY: BY	SCALE: AS SHOWN	DATE: OCTOBER 2013	PROJECT NO: 6265401	FILE NO: G:\Projects\Federal\DDO\6265401_AFCEC_NFARS

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	<ul style="list-style-type: none"> <li> Shallow Bedrock Well/Piezometer</li> <li> Deep Bedrock Well</li> <li> Groundwater Elevation Contour (ft) (dashed where inferred)</li> <li> Inferred Groundwater Flow Direction</li> </ul>	<p style="text-align: center;">0                      50                      100</p> <p style="text-align: center;"> Feet</p>
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	<p>Data Summary Report June 2013 Basewide Sampling Niagara Falls Air Reserve Station Niagara Falls, New York</p>	<p>FIGURE 2-13 Shallow Bedrock Groundwater Contour Map (June 2013) IRP Site 13</p>
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PROJECT MGR: BY	DESIGNED BY: FD	CREATED BY: FD	CHECKED BY: BY	SCALE: AS SHOWN	DATE: OCTOBER 2013	PROJECT NO: 6265401	FILE NO: G:\Projects\Federal\DOD\6265401_AFECE_NFARS
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**TABLE 2-1**  
**June 2013 Surface Water Sample Collection Summary**  
**Data Summary Report June 2013 Basewide Sampling**  
**Niagara Falls Air Reserve Station, New York**

Location	Description	Sample Date	Analysis	Field QC Samples <sup>(a)</sup>
SW03-02	Cayuga Creek as it enters the base, upstream of Site 3	6/24/13	VOCs and basic field parameters <sup>(b)</sup> , and water level <sup>(c)</sup>	MS/MSD (VOCs)
SW03-03	Cayuga Creek near gravel road crossing, downstream of Site 3	6/24/13	VOCs and basic field parameters, and water level	
SW03-15	Cayuga Creek between SW3-2 and SW3-3, downstream of PW3-3A and the collection trench	6/24/13	VOCs and basic field parameters	
SW08-08	Unnamed tributary upstream of Site 8	6/24/13	Water level	
SW08-09	Unnamed tributary at east boundary of Site 8	6/24/13	Water level	
SW10-05	Drainage ditch upstream of fire training pit	6/24/13	VOCs and basic field parameters, and water level	
SW10-06 SW10-06/Q	Drainage ditch downstream of fire training pit at Site 10	6/24/13	VOCs and basic field parameters, and water level	Duplicate (VOCs)
SW10-07	Cayuga Creek downstream of Site 10 and confluence with drainage ditch	6/24/13	VOCs and basic field parameters, and water level	
SW99-10	Cayuga Creek near taxiway A2 just before it flows off base	6/24/13	VOCs and basic field parameters, and water level	
SW99-14	Cayuga Creek west of Site near taxiway A and closed runway	6/24/13	Water level	

<sup>(a)</sup> A trip blank was also shipped with the field samples.

<sup>(b)</sup> Basic field parameters include temperature, pH, and conductivity.

<sup>(c)</sup> Surface water elevation reference points

- SW3-2 = PK nail in wooden railroad tie.
- SW3-3 = East end of west gate (top edge of the bottom rail of gate over creek).
- SW8-8 = Top of west culvert pipe and cut.
- SW8-9 = Top of stake.
- SW10-5 = Top of concrete junction box.
- SW10-6 = Top of pipe.
- SW10-7 = Top of south culvert pipe and cut.
- SW99-10 = Top of concrete culvert.
- SW99-14 = Top of east culvert pipe and cut.

NOTE: QC = Quality control.  
VOC = Volatile organic compound (Method 8260B).  
MS/MSD = Matrix spike/matrix spike duplicate.  
/Q = Duplicate sample.

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**TABLE 2-2**  
**June 2013 Groundwater Sample Collection Summary**  
**Data Summary Report June 2013 Basewide Sampling**  
**Niagara Falls Air Reserve Station, New York**

Well Number	Sample Date	Purge/Sample Method	Sample Analyses	Field QC Samples <sup>(a)</sup>
<b>Background Well</b>				
MW08-11D	6/25/13	PDB	VOCs	
<b>Site 3</b>				
MW03-03DA MW03-03DA/Q	6/25/13	PDB	VOCs	Duplicate (VOCs)
MW03-04DA	6/25/13	PDB	VOCs	
PZ03-06D	6/25/13	PDB	VOCs	
PZ03-07D	6/25/13	PDB	VOCs	
PZ03-08D	6/25/13	PDB	VOCs	
PW03-03A <sup>(b)</sup>	6/25/13	PDB	VOCs	
<b>Site 5</b>				
MW05-01DA	6/25/13	PDB	VOCs	
MW05-05D	6/25/13	PDB	VOCs	
MW05-06	6/25/13	PDB	VOCs	
RW05-01	6/25/13	PDB	VOCs	
RW05-02	6/25/13	PDB	VOCs	
RW05-04	6/25/13	PDB	VOCs	
<b>Site 8</b>				
MW08-01	6/25/13	PDB	VOCs	
MW08-10D	6/25/13	PDB	VOCs	MS/MSD (VOCs)
<b>Site 10</b>				
MW10-03	Dry (6/25/13) –Not sampled			
MW10-07	6/25/13	PDB	VOCs	
PW10-01	6/25/13	Bailer (grab with no purge)	VOCs	
PW10-02	6/25/13	Bailer (grab with no purge)	VOCs	Duplicate (VOCs)
PW10-02/Q				
PZ10-07	6/25/13	PDB	VOCs	
<b>Site 13</b>				
MW13-04D	6/25/13	PDB	VOCs	MS/MSD (VOCs)
MW13-05D	6/25/13	PDB	VOCs	
PW13-01 <sup>(b)</sup>	6/26/13	Bailer (grab with no purge)	VOCs and metals <sup>(c)</sup>	
PW13-04D <sup>(b)</sup>	6/26/13	Bailer (grab with no purge)	VOCs and metals <sup>(c)</sup>	

(a) A trip blank was collected at the beginning of the sample collection event.

(b) Samples collected from PW13-1 and PW13-4D were composited as part of June effluent monitoring

(c) Metals include lead, nickel, and zinc.

NOTE: QC = Quality control.  
PDB = Passive diffusion bag.  
VOC = Volatile organic compound (Method 8260B).  
/Q = Duplicate sample.  
MS/MSD = Matrix spike/matrix spike duplicate.

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**TABLE 2-3**  
**Summary of Positive Validated June 2013 Surface Water Analytical Results**  
**Data Summary Report June 2013 Basewide Sampling**  
**Niagara Falls Air Reserve Station, New York**

Analyte	Screening Criteria <sup>(a)</sup>	Sample ID:	SW03-02	SW03-03	SW03-15	SW10-05	SW10-06	SW10-06/Q	SW10-07	SW99-10
		Date:	06/24/13	06/24/13	06/24/13	06/24/13	06/24/13	06/24/13	06/24/13	06/24/13
<b>Volatile Organic Compounds by Method SW8260B (µg/L)</b>										
TRICHLOROETHENE	40		1 U	1 U	1 U	<b>2.8 J</b>	1 U	1 U	1 U	1 U

(a) New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 (with updates), Class C Surface Water Standards and Guidance Values.

NOTE: ID = Identification.

µg/L = Micrograms per liter.

U = Not detected (lab reporting limit shown).

J = Estimated value.

/Q Designates field duplicate sample.

Shaded cells exceed the screening value.

**Bold** values denote positive hits.

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TABLE 2-4  
 Summary of Positive Validated June 2013 Groundwater Analytical Results  
 Data Summary Report June 2013 Basewide Sampling  
 Niagara Falls Air Reserve Station, New York

Analyte	Screening Criteria <sup>(a)</sup>	Background		Site 3						Site 5						Site 8		Site 10						Site 13			Trip Blanks
		MW8-11D 6/25/2013	MW3-3DA 6/25/2013	MW3-3DA/Q 6/25/2013	MW3-4DA 6/25/2013	PW3-3A 6/25/2013	PZ3-6D 6/25/2013	PZ3-7D 6/25/2013	PZ3-8D 6/25/2013	MW5-1DA 6/25/2013	MW5-5D 6/25/2013	MW5-6 6/25/2013	RW5-1 6/25/2013	RW5-2 6/25/2013	RW5-4 6/25/2013	MW8-1 6/25/2013	MW8-10D 6/25/2013	MW10-07 6/25/2013	PW10-01 6/25/2013	PW10-02 6/25/2013	PW10-02/Q 6/25/2013	PW10-07 6/25/2013	MW13-4D 6/25/2013	MW13-5D 6/25/2013	PW13-EFFL <sup>(b)</sup> 6/26/2013	TB-062513 6/25/2013	
<b>Part 373 Permit Volatile Organic Compounds by Method SW8260B (µg/L)</b>																											
1,1-DICHLOROETHENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.6	2.7	1 U	1 U	1 U	1 U	1 U
BENZENE	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.8	4.5	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10.9 J	6.6	1 UJ	1 U	1 U	1 U	1 U
CIS-1,2-DICHLOROETHENE	5	0.5 U	4.9	4.5	4.6	27.7	2.2	3.4	0.5 U	0.5 U	302 D	7.1	6370	119	342	6.7	7.0	27.9	75.8	1340 D	1300 D	0.5 U	18.1	20.9	17.1	0.5 U	
CHLOROFORM	7	1 U	1 U	1 U	1 U	0.9 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	9.3	9.8	1 U	1 U	1 U	1 U	1 U
TRANS-1,2-DICHLOROETHENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	19.6	1 U	177	1 U	1 U	1 U	1.2	1 U	1 U	23.7	17.6	1 U	1 U	1 U	1 U	1 U	
TRICHLOROETHENE	5	1 U	1 U	1 U	1 U	2.4 J	1 U	1 U	1 U	1 U	1 U	1 U	0.93 J	823 J	2.3 J	1 U	1 U	1 U	19.4 J	18.5 J	46.6 J	44.5	1 U	1 U	1.5 J	15.5	1 U
VINYL CHLORIDE	2	1 UJ	14.9 J	17.1 J	11.8 J	16.2 J	4.0 J	7.7 J	2.1 J	1 UJ	1020 J	1 UJ	172 J	17.7 J	246 J	14.3 J	1.4	1 UJ	1.9 J	79.4 J	80.2 J	1 UJ	15.0 J	1 UJ	5.1	1 UJ	
<b>Other Volatile Organic Compounds Detected by Method SW8260B (µg/L)</b>																											
CARBON DISULFIDE	60	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	44.4	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 UJ	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
ETHYLBENZENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.54 J	0.63 J	1 U	1 U	1 U	1 U	1 U
CHLOROETHANE	5	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2.1	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U

(a) New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

(b) PW13-EFFL is a composite of grab samples from PW13-1 and PW13-4D.

NOTE: µg/L = Micrograms per liter.

U = Analyte was analyzed for but not detected, method reporting limit provided

J = Analyte detected, estimated concentration

UJ = Estimated non-detect

D = Sample was diluted

/Q Designates field duplicate sample.

Shaded cells exceed the screening value.

**Bold** values denote detections.

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**Table 2-5**  
**Summary of June 2013 Field Measurements of Surface Water Samples**  
**Data Summary Report June 2013 Basewide Sampling**  
**Niagara Falls Air Reserve Station, New York**

Location ID	Date Sampled	pH (s.u.)	Temperature (°C)	Conductivity (µS/cm)
SW03-02	6/24/13	7.81	18.40	0.794
SW03-03	6/24/13	8.05	19.24	0.788
SW03-15	6/24/13	7.88	18.18	0.796
SW10-05	6/24/13	7.81	20.35	1.63
SW10-06	6/24/13	7.70	20.28	1.65
SW10-07	6/24/13	7.80	19.24	0.802
SW99-10	6/24/13	8.12	22.75	0.862

NOTE: ID = Identification.  
s.u. = Standard units.  
°C = Degrees Celsius.  
µS/cm = MicroSiemens per centimeter.

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**Table 2-6**  
**June 2013 Sampling and Analysis Summary**  
**Data Summary Report June 2013 Basewide Sampling**  
**Niagara Falls Air Reserve Station, New York**

Matrix	Analysis	Number of Field Samples	Number of Quality Assurance/ Quality Control Samples		
			Duplicates	Matrix Spike/Matrix Spike Duplicates	Trip Blanks <sup>(a)</sup>
Surface Water	EPA Method 8260B Volatile Organic Compounds	7	1	1/1	1
Groundwater		21	2	2/2	2

(a) Trip blanks collected at the rate of one per shipping cooler. Number includes one passive diffusion bag blank for groundwater.

NOTE: EPA = U.S. Environmental Protection Agency

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### 3. Performance Monitoring

In accordance with the NYSDEC Part 373 Hazardous Waste Storage Permit, Air Force Reserve Command (AFRC) is required to conduct performance monitoring to determine the effectiveness of the corrective actions implemented at Sites 3, 10, and 13.

#### 3.1 Effluent Monitoring

June 2013 effluent samples were submitted to Accutest for EPA Method 8260B VOC and Method 6010B metals analyses in accordance with the requirements of the NCS D permit.

VOCs in the form of chlorinated solvents have been identified as the primary contaminants of concern. Appendix D presents the positive analytical results from the June monthly event and includes a comparison of results to NYSDEC Class GA groundwater standards for reference purposes only. Metals are not considered site-related contaminants of concern, but are recorded for compliance with the NCS D discharge permit and are included in Appendix D for informational purposes only. Laboratory data reports and tabulated daily mass discharge rates can be found in the monthly Performance Monitoring Report submitted to the 914<sup>th</sup> MSG/CEV office under separate cover.

The Site 10 groundwater treatment system treats influent from groundwater collection trench PW10-1 and pumping well PW10-2. The monthly effluent monitoring sample representing NCS D Sample Point C was collected from the treatment system effluent (after the air stripper).

At Site 13, as approved by NYSDEC, in an attempt to increase mass removal efficiency and decrease water disposal costs at PW13-1 and PW13-4D, these pumping wells are being cycled on and off for three-month periods. The operational and non-operational periods for these two wells are summarized below. The Site 13 wells were active during the June 2013 sampling event and consistent with the sampling schedule specified in the SAP (EA 2013), a single composite sample was collected. Sample compositing was proportional to the cumulative flow for each well for the 24-hour period prior to sampling (25–26 June 2013) with 50% from PW13-1 and 50% from PW13-4D.

Site 13 Pumping Well Activity	
Pumping Condition	Period
Pumps on, discharge occurring	Inception to 29-Oct-04
Pumps off, no discharge	29-Oct-04 to 01-Feb-05
Pumps on, discharge occurring	01-Feb-05 to 27-April-05
Pumps off, no discharge	27-Apr-07 to 29-Jul-05
Pumps on, discharge occurring	29-Jul-05 to 27-Oct-05
Pumps off, no discharge	27-Oct-05 to 26-Jan-06
Pumps on, discharge occurring	26-Jan-06 to 27-Apr-06
Pumps off, no discharge	27-Apr-06 to 11-Aug-06
Pumps on, discharge occurring	11-Aug-06 to 15-Nov-06
Pumps off, no discharge	PW13-1: 15-Nov-06 to 21-Feb-07 PW13-4D: 15-Nov-06 to 06-Feb-07
Pumps on, discharge occurring	PW13-4D: 06-Feb-07 to 30-May-07 PW13-1: 21-Feb-07 to 28-Feb-07 22-Mar-07 to 30-May-07
Pumps off, no discharge	30-May-07 to 07-Sep-07
Pumps on, discharge occurring	07-Sep-07 to 29-Jan-08 (PW13-1 off 31-Oct 07 to 6 Dec 07)
Pumps off, no discharge	29-Jan-08 to 22-Apr-08
Pumps on, discharge occurring	22-Apr-08 to 30-Jul-08
Pumps off, no discharge	30-Jul-08 to 28-Oct-08
Pumps on, discharge occurring	28-Oct-08 to 29-Jan-09
Pumps off, no discharge	29-Jan-09 to 29-Apr-09

<b>Site 13 Pumping Well Activity</b>	
<b>Pumping Condition</b>	<b>Period</b>
Pumps on, discharge occurring	29-Apr-09 to 30-Jul-09
Pumps off, no discharge	30-Jul-09 to 29-Oct-09
Pumps on, discharge occurring	29-Oct-09 to 28-Jan-10
Pumps off, no discharge	28-Jan-10 to 29-Apr-10
Pumps on, discharge occurring	29-Apr-10 to 27-Jul-10 (PW13-4D off 9-Jun-10 to 21-Jun-10 and 24-Jul to 26-Jul-10) (PW13-1 off 21-Jun-10 to 23-Jun-10)
Pumps off, no discharge	27-Jul-10 to 25-Oct-2010
Pumps on, discharge occurring	25-Oct-2010 to 25 January 2011 (PW13-1 off 17-Nov-10 to 21-Nov-10) (PW13-1 off 26-Nov-10 to 28-Nov-10)
Pumps off, no discharge	PW13-1: 25-Jan-11 to 26-Apr-11 PW 13-4D: 25-Jan-11 to 24-Mar-11
Pumps on, discharge occurring	PW13-1: 26-Apr-11 to 25-Jul-11 (PW13-1 off 12-Jun-11 to 21-Jun-11) PW13-4D: 24-Mar-11 to 25-Jul-11
Pumps off, no discharge	25-Jul-11 to 25-Oct-11
Pumps on, discharge occurring	25-Oct-11 to 25-Jan-12
Pumps off, no discharge	25-Jan-12 to 23-Apr-12
Pumps on, discharge occurring	23-Apr-12 to 30-Jul-12 (PW13-4D off 30-Jun-12 to 10-Jul-12)
Pumps off, no discharge	30-Jul-12 to 05-Nov-12
Pumps on, discharge occurring	05-Nov-12 to 28-Jan-13
Pumps off, no discharge	28-Jan-13 to 24-Apr-13
Pumps on, discharge occurring	24-Apr-13 to 24-Jul-13
Pumps off, no discharge	24-Jul-13 to present

## 3.2 Operation and Maintenance

Monthly O&M inspection at the pumping wells at Sites 10 and 13 and at the treatment trailer at Site 10 was performed on 26 June 2013. The O&M inspection was recorded on forms designed specifically for the existing remedial system (see Appendix E).

## 4. References

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- EPA, 2008, *Contract Laboratory Program, National Functional Guidelines for Organic Data Review*, EPA 540/R-94-012, Office of Emergency and Remedial Response.

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**Appendix A**  
**Water Level Data**

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**TABLE A-1**  
**Groundwater Elevations, June 2013**  
**Data Summary Report June 2013 Basewide Sampling**  
**Niagara Falls Air Reserve Station, New York**

Location	Ground Elevation (ft AMSL)	TOIC Elevation (ft AMSL)	Well Depth (6/24/13)	Depth to Water (6/24/13)	Groundwater Elevation (6/24/13)
MW1-1DA	603.05	605.61	24.03	9.84	595.77
MW1-7A	603.04	605.71	12.97	6.56	599.15
MPL2-1A	602.2	603.29	13.43	5.32	597.97
MW2-1DA	597.36	599.39	14.41	3.43	595.96
MW3-1A	601.93	603.73	13.37	9.5	594.23
MW3-1DA	591.13	593.34	16	3.8	589.54
MW3-1E	589.23	591.54	44.14	1.25	590.29
MW3-2	597.23	598.46	10.12	5.85	592.61
MW3-2DA	597.13	599.04	22	9.07	589.97
MW3-3DA	588.83	590.14	16.95	TOC	> 590.14
MW3-4DA	588.83	591.02	15.62	1.2	589.82
MW3-5D	593.53	594.99	25.6	5.1	589.89
MW3-6A	600.53	602.38	10.96	6.14	596.24
MW3-6D	601.03	602.16	19	5.77	596.39
MW3-7	588.23	591.11	7.37	5.99	585.12
MW3-8	602.03	603.71	12.7	6.61	597.1
MW3-8D	601.93	603.83	23.7	12.9	590.93
MW3-8E	602.03	603.85	46.39	13.05	590.8
PW3-3A	589.03	589.89	13.9	1.21	588.68
PZ3-1	592.13	591.78	5.78	2.21	589.57
PZ3-1D	592.23	591.81	12.29	3.02	588.79
PZ3-2	590.93	590.12	4.2	1.55	588.57
PZ3-2D	591.03	590.55	12.8	1.8	588.75
PZ3-3	589.03	588.17	2.25	1.41	586.76
PZ3-3D	588.83	588.64	9.4	0.7	587.94
PZ3-4	590.63	589.99	3.27	2.94	587.05
PZ3-4D	590.83	590.57	11.55	1.75	588.82
PZ3-5	590.03	589.68	2.84	TOC	> 589.68
PZ3-5D	589.73	589.58	10.2	TOC	> 589.58
PZ3-6D	588.33	587.91	12.79	TOC	> 587.91
PZ3-7D	593.53	593.01	21.52	3.24	589.77
PZ3-8D	592.73	592.14	18.35	3.65	588.49
MW5-1A	-----	600.42	15.96	9.59	590.83
MW5-1DA	598.12	600.07	23.2	12.51	587.56
MW5-1E	596.56	596.39	57.16	13.17	583.22
MW5-2D	598.55	600.8	26.36	11.74	589.06
MW5-3D	598.61	600.5	24.96	11.8	588.7
MW5-4	596.96	599.42	15.55	10.45	588.97

NOTE: AMSL = Above Mean Sea Level.

TOIC = Top of Inner Casing

**TABLE A-1**  
**Groundwater Elevations, June 2013**  
**Data Summary Report June 2013 Basewide Sampling**  
**Niagara Falls Air Reserve Station, New York**

Location	Ground Elevation (ft AMSL)	TOIC Elevation (ft AMSL)	Well Depth (6/24/13)	Depth to Water (6/24/13)	Groundwater Elevation (6/24/13)
MW5-4D	597.9	597.34	25.9	10.52	586.82
MW5-5A	598	600.8	19.99	13.35	587.45
MW5-5D	597.5	597.12	27.26	9.93	587.19
MW5-6	596.64	596.42	13.51	6.37	590.05
MW5-6D	595.18	594.94	22.89	5.87	589.07
MW5-7	596.63	596.46	12.9	7.16	589.3
MW5-7D	595.38	595.14	16.15	6.06	589.08
MW5-8	594.55	594.14	10.49	6.44	587.7
MW5-8D	594.1	593.95	20.31	8.33	585.62
RW5-1	597.12	596.88	14.58	7.93	588.95
RW5-2	595.79	595.46	11.03	5.98	589.48
RW5-3	597.79	597.5	14.11	7.94	589.56
RW5-4	597.52	597.16	14.71	8.16	589
MPL6-2A	599.1	601.3	14.21	7.74	593.56
MPL6-3	599.46	601.58	15.57	7.49	594.09
MW7-1D	589.81	589.59	10.91	4.69	584.9
MW7-2	588.94	588.82	5.85	4.87	583.95
MW7-2D	588.32	588.08	15.2	4.27	583.81
MW7-3D	587.81	587.54	15	3.8	583.74
MW8-1	597.63	598.87	13.71	8.13	590.74
MW8-1E	598.57	598.52	50.56	16.57	581.95
MW8-2D	598.48	600.57	29.97	10.81	589.76
MW8-3	597.36	599.06	14.57	9.57	589.49
MW8-3DA	598.94	601.24	26.6	11.47	589.77
MW8-4A	598.49	600.4	11.81	10.26	590.14
MW8-4D	596.11	598.41	22.42	9.47	588.94
MW8-5A	597.9	600.02	15	10.05	589.97
MW8-8	598.1	600.18	13.89	10.85	589.33
MW8-10D	598.32	600.17	24.7	10.46	589.71
MW8-11	599.58	602.28	16.61	13.06	589.22
MW8-11D	599.53	601.99	27.2	12.15	589.84
MW8-11E	599.48	602.02	49.56	13.12	588.9
MW10-1DA	587.5	588.55	22.84	9.28	579.27
MW10-1EA	587.96	588.9	39.77	8.09	580.81
MW10-1F	588.11	588.73	59	10.54	578.19
MW10-2	588	590.38	8.78	8.78	DRY
MW10-2E	586.6	587.33	47.23	6.51	580.82
MW10-3	588.37	590.5	9.42	9.25	581.25
MW10-3D	586.5	586.26	25.76	4.56	581.7
MW10-3E	586.4	586.19	43.21	6.5	579.69



**TABLE A-1**  
**Groundwater Elevations, June 2013**  
**Data Summary Report June 2013 Basewide Sampling**  
**Niagara Falls Air Reserve Station, New York**

Location	Ground Elevation (ft AMSL)	TOIC Elevation (ft AMSL)	Well Depth (6/24/13)	Depth to Water (6/24/13)	Groundwater Elevation (6/24/13)
MW10-4	586.96	589.37	8.08	6.87	582.5
MW10-4D	587	587.76	19.91	9.15	578.61
MW10-4E	587	588.15	40.97	7.37	580.78
MW10-5D	588.08	589.05	19.64	5.77	583.28
MW10-6	587	586.35	9.61	8.61	577.74
MW10-7	586.95	587.29	8.97	5.9	581.39
MW10-8	587.49	588.02	9.23	4.85	583.17
MW10-8D	587.3	588.33	24.18	5.67	582.66
MW10-9D	586.52	587.03	20.26	5.54	581.49
MW10-10D	588.2	591.39	11.1	10.04	581.35
MW10-11	---	586.51	7.36	6.15	580.36
MW10-11D	---	586.58	17.31	5.99	580.59
MW10-12	---	587.76	8.39	6.27	581.49
MW10-12D	---	587.76	18.76	6.77	580.99
PW10-1	587.02	587.47	13.79	10.66	576.81
PW10-2	561.03	586.51	24.92	13.17	569.87 <sup>(a)</sup>
PZ10-7	586.9	586.8	10.02	5.35	581.45
MW13-1	595.79	598.91	10.06	8.5	590.41
MW13-1D	596	598.03	20.64	7.75	590.28
MW13-1E	595.8	598.02	43.8	15.75	582.27
MW13-2D	598	601.11	23.6	14.85	586.26
MW13-3	595.98	598.67	10.87	8.28	590.39
MW13-3D	592.1	591.94	15.92	4.09	587.85
MW13-4	595.36	598.38	10.94	10	588.38
MW13-4D	597.7	599.96	14.24	10.29	589.67
MW13-5D	595.6	597.49	20.68	15.23	582.26
MW13-6	594.64	594.06	6.76	4.58	589.48
MW13-6D	594.64	594.17	8.87	4.74	589.43
PW13-1	595.96	596.41	27.36	21.74	574.67
PW13-4D	598.13	598.5	22.83	19.04	579.46
PZ13-1	596	595.6	4.3	3.78	591.82
PZ13-1D	595.9	595.61	17.18	7.25	588.36
PZ13-4	597.1	596.26	9.59	6.84	589.42
PZ13-4D	597.1	596.61	22.32	9.45	587.16

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**TABLE A-2**  
**Surface Water Elevations, June 2013**  
*Data Summary Report June 2013 Basewide Sampling*  
**Niagara Falls Air Reserve Station, New York**

Location	Reference Point Elevation (ft AMSL)	Water Level (6/24/13)	Elevation (6/24/13)
SW3-2	594.55	8.9	585.65
SW3-3	587.78	2.6	585.18
SW10-5	589.49	4.55	584.94
SW10-6	582.65	0.46	582.19
SW10-7	589.56	7.9	581.66
SW8-8	596.84	4.75	592.09
SW8-9	591.17	0.6	590.57
SW99-10	585.58	12.86	572.72
SW99-14	585.93	6.84	579.09

NOTE: AMSL = Above Mean Sea Level

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# **Appendix B**

## **Climate Data**

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# Weather History for Niagara Falls, NY

Month of June, 2013

Month of June, 2013

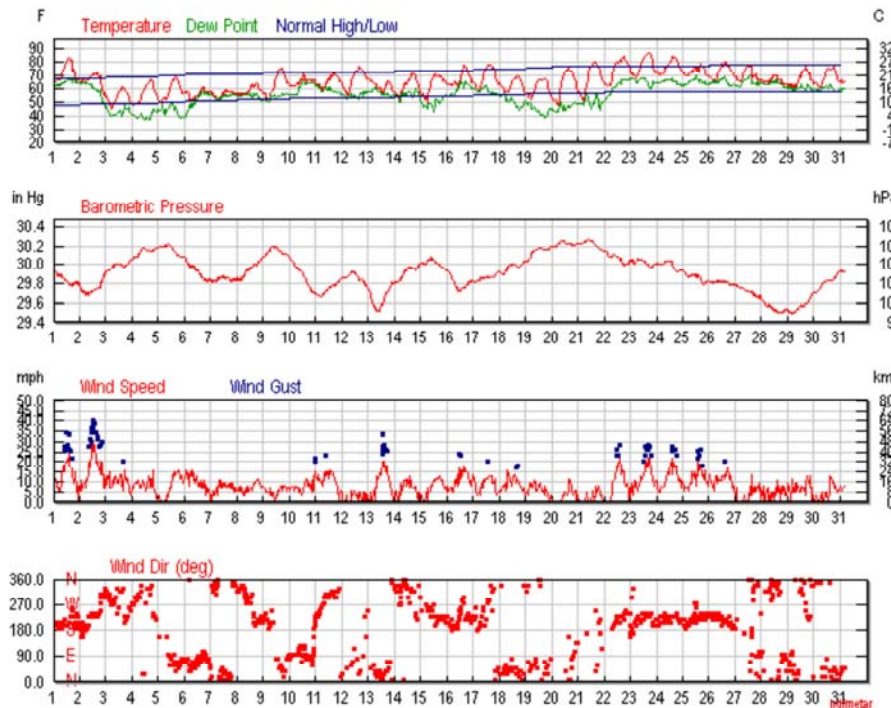
« Previous Month

June 1 2013 View

Next Month »

Daily Weekly **Monthly** Custom

	Max	Avg	Min	Sum
<b>Temperature</b>				
Max Temperature	87 °F	74 °F	59 °F	
Mean Temperature	77 °F	65 °F	53 °F	
Min Temperature	70 °F	57 °F	45 °F	
<b>Degree Days</b>				
Heating Degree Days (base 65)	12	3	0	80
Cooling Degree Days (base 65)	12	3	0	84
Growing Degree Days (base 50)	27	15	3	450
<b>Dew Point</b>				
Dew Point	70 °F	56 °F	37 °F	
<b>Precipitation</b>				
Precipitation	2.07 in	0.25 in	0.00 in	7.49 in
Snowdepth	-	-	-	-
<b>Wind</b>				
Wind	30 mph	7 mph	0 mph	
Gust Wind	40 mph	22 mph	16 mph	
<b>Sea Level Pressure</b>				
Sea Level Pressure	30.27 in	29.91 in	29.49 in	



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## Monthly Calendar Weather History Overview

Precipitation: Actual month total 7.49 Average month total 2.32

[Print This Weather Calendar](#)































« Previous Month

« 2012

June 2013

2014 »

Next Month »

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						<b>1</b>  Actual: 84   64 Precip: 0.72 Average: 67   47 Precip: 0.09
<b>2</b>  Actual: 73   53 Precip: 0.98 Average: 68   48 Precip: 0.09	<b>3</b>  Actual: 62   45 Precip: 0.00 Average: 69   48 Precip: 0.08	<b>4</b>  Actual: 66   46 Precip: 0.00 Average: 69   49 Precip: 0.08	<b>5</b>  Actual: 69   48 Precip: 0.00 Average: 70   50 Precip: 0.08	<b>6</b>  Actual: 60   51 Precip: 0.80 Average: 71   51 Precip: 0.08	<b>7</b>  Actual: 59   51 Precip: 0.03 Average: 71   51 Precip: 0.08	<b>8</b>  Actual: 64   55 Precip: 0.02 Average: 71   52 Precip: 0.08
<b>9</b>  Actual: 75   51 Precip: 0.00 Average: 72   52 Precip: 0.08	<b>10</b>  Actual: 72   62 Precip: 1.01 Average: 72   53 Precip: 0.08	<b>11</b>  Actual: 73   59 Precip: 0.07 Average: 72   53 Precip: 0.08	<b>12</b>  Actual: 77   55 Precip: 0.00 Average: 72   53 Precip: 0.08	<b>13</b>  Actual: 68   57 Precip: 0.72 Average: 72   53 Precip: 0.08	<b>14</b>  Actual: 72   51 Precip: 0.01 Average: 73   54 Precip: 0.08	<b>15</b>  Actual: 71   48 Precip: 0.00 Average: 73   54 Precip: 0.08
<b>16</b>  Actual: 79   62 Precip: 0.09 Average: 73   54 Precip: 0.08	<b>17</b>  Actual: 79   59 Precip: 0.00 Average: 74   55 Precip: 0.08	<b>18</b>  Actual: 70   55 Precip: 0.00 Average: 74   55 Precip: 0.08	<b>19</b>  Actual: 68   52 Precip: 0.00 Average: 75   56 Precip: 0.08	<b>20</b>  Actual: 75   46 Precip: 0.00 Average: 76   56 Precip: 0.08	<b>21</b>  Actual: 81   50 Precip: 0.00 Average: 76   56 Precip: 0.07	<b>22</b>  Actual: 84   62 Precip: 0.00 Average: 77   57 Precip: 0.07
<b>23</b>  Actual: 87   68 Precip: 0.17 Average: 77   57 Precip: 0.07	<b>24</b>  Actual: 84   70 Precip: 0.00 Average: 77   57 Precip: 0.07	<b>25</b>  Actual: 80   69 Precip: 0.12 Average: 77   57 Precip: 0.07	<b>26</b>  Actual: 80   66 Precip: 0.00 Average: 78   58 Precip: 0.07	<b>27</b>  Actual: 78   64 Precip: 0.65 Average: 78   58 Precip: 0.07	<b>28</b>  Actual: 71   62 Precip: 2.07 Average: 78   58 Precip: 0.07	<b>29</b>  Actual: 77   60 Precip: 0.03 Average: 78   58 Precip: 0.07
<b>30</b>  Actual: 75   61 Precip: 0.00 Average: 78   58 Precip: 0.07						

Calendar Legend



**Actual:** 90 | 58  
**Precip:** 0.00  
**Average:** 71 | 53  
**Precip:** 0.03

Data Category  
 Condition  
 High Temp.  
 Lo Temp.  
 Precip. (in inches)  
 Daily Avg. Temp.  
 Temps in \*F

-60 -30 0 30 60 90 120

Daily Weather History & Observations

2013	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Press. (in)			Visibility (mi)			Wind (mph)		Precip. (in)	Events	
	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	high	sum				
Jun	84	73	64	68	65	62	94	83	56	29.93	29.83	29.77	10	7	1	24	11	34	0.72	Rain, Thunderstorm

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2013	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Press. (in)			Visibility (mi)			Wind (mph)			Precip. (in)	Events
2	73	62	53	64	60	46	100	82	64	29.92	29.75	29.68	10	9	2	30	12	40	0.98	Rain , Thunderstorm
3	62	53	45	47	43	40	83	69	49	30.06	29.99	29.93	10	10	10	16	10	21	0.00	
4	66	56	46	45	40	37	80	57	36	30.18	30.14	30.07	10	10	10	16	8	20	0.00	
5	69	58	48	48	43	38	86	60	41	30.22	30.16	30.08	10	10	10	16	5	21	0.00	
6	60	56	51	57	52	40	96	88	55	30.06	29.91	29.82	10	7	2	16	11	18	0.80	Rain , Thunderstorm
7	59	55	51	55	54	51	100	96	82	29.88	29.85	29.82	10	3	0	10	6	-	0.03	Fog
8	64	60	55	56	55	51	100	91	72	30.09	29.93	29.84	10	5	0	12	6	-	0.02	Fog
9	75	63	51	56	54	50	97	75	50	30.20	30.14	30.09	10	8	2	8	5	-	0.00	Rain
10	72	66	62	66	62	55	100	89	73	30.07	29.84	29.69	10	8	1	15	8	22	1.01	Rain
11	73	66	59	63	59	55	100	83	61	29.86	29.73	29.66	10	8	2	16	11	23	0.07	Rain
12	77	66	55	58	55	52	93	66	43	29.93	29.86	29.75	10	10	10	6	2	-	0.00	Rain
13	68	62	57	61	57	54	96	87	68	29.81	29.62	29.52	10	6	2	21	8	33	0.72	Rain
14	72	61	51	60	55	50	100	84	53	30.01	29.90	29.80	10	7	0	13	5	-	0.01	Fog
15	71	60	48	55	49	43	86	64	39	30.08	30.02	29.94	10	10	10	13	5	20	0.00	
16	79	70	62	65	60	54	94	81	54	29.94	29.78	29.72	10	8	2	18	10	24	0.09	Rain
17	79	68	59	62	58	54	94	72	46	29.93	29.87	29.82	10	9	4	13	8	21	0.00	
18	70	64	55	56	51	44	90	69	42	30.04	29.96	29.89	10	10	10	16	8	21	0.00	
19	68	60	52	50	44	38	83	58	33	30.20	30.14	30.04	10	10	10	10	6	-	0.00	
20	75	60	46	50	46	43	86	58	35	30.25	30.22	30.19	10	10	10	12	2	-	0.00	
21	81	65	50	56	50	44	89	58	32	30.27	30.22	30.15	10	10	8	8	1	-	0.00	
22	84	73	62	67	61	51	79	65	54	30.15	30.06	29.99	10	10	9	22	6	29	0.00	Thunderstorm
23	87	77	68	68	66	60	93	72	41	30.07	30.02	29.97	10	8	2	22	9	29	0.17	Rain , Thunderstorm
24	84	77	70	68	65	62	83	69	53	30.04	29.99	29.92	10	10	8	22	10	28	0.00	
25	80	74	69	70	66	62	88	78	64	29.93	29.87	29.79	10	8	2	21	10	29	0.12	Rain
26	80	73	66	69	65	62	94	79	62	29.83	29.81	29.78	10	9	4	17	10	22	0.00	
27	78	70	64	70	65	61	97	83	74	29.79	29.71	29.64	10	9	3	14	4	25	0.65	Rain , Thunderstorm
28	71	66	62	66	64	60	100	92	81	29.63	29.54	29.50	10	5	1	10	4	-	2.07	Rain , Thunderstorm
29	77	68	60	63	60	58	94	83	52	29.70	29.56	29.49	10	10	10	13	7	-	0.03	Rain
30	75	68	61	63	60	57	94	76	54	29.93	29.81	29.71	10	10	10	13	3	-	0.00	

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## **Appendix C**

### **Laboratory Data and Validation Summaries**

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**Technical Report for**

**EA Engineering**

NFARS, Niagara Falls, NY

6265401

Accutest Job Number: MC21741

Sampling Date: 06/10/13

**Report to:**

EA Engineering  
6712 Brooklawn Parkway  
Syracuse, NY 13211  
fdesantis@eaest.com

ATTN: Frank DeSantis

Total number of pages in report: **125**



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



Reza Pand  
Lab Director

**Client Service contact: Frank DAgostino 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) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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## Sample Summary

EA Engineering

Job No: MC21741

NFARS, Niagara Falls, NY  
Project No: 6265401

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC21741-1	06/10/13	11:20 FD	06/13/13	AQ	Ground Water	PDB_BLK061013
MC21741-2	06/10/13	00:00 FD	06/13/13	AQ	Trip Blank Water	TRIP BLANK

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** EA Engineering

**Job No** MC21741

**Site:** NFARS, Niagara Falls, NY

**Report Date** 6/20/2013 3:24:50 PM

1 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 06/10/2013 and were received at Accutest on 06/13/2013 properly preserved, at 1.7 Deg. C and intact. These Samples received an Accutest job number of MC21741. 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 8260B

**Matrix:** AQ

**Batch ID:** MSH2033

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC21842-4MS, MC21842-4MSD were used as the QC samples indicated.
- MSH2033-BS/BSD for 4-Methyl-2-pentanone (MIBK) are outside control limits. Blank Spike meets program technical requirements.
- MC21842-4MS/MSD for 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Acetone, Carbon tetrachloride are outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC21741-2: The pH of the sample aliquot for VOA analysis was >2 at time of analysis.
- MSH2033-BS for Carbon tetrachloride: Outside control limits. Associated samples are non-detect for this compound.
- MSH2033-BS for 1,1,1,2-Tetrachloroethane are outside control limits. Blank Spike meets program technical requirements.

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 (MC21741).



## Summary of Hits

**Job Number:** MC21741  
**Account:** EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Collected:** 06/10/13



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

**MC21741-1      PDB\_BLK061013**

No hits reported in this sample.

**MC21741-2      TRIP BLANK**

No hits reported in this sample.

Sample Results

---

Report of Analysis

---

Accutest Laboratories

## Report of Analysis

Page 1 of 3

<b>Client Sample ID:</b> PDB_BLK061013	
<b>Lab Sample ID:</b> MC21741-1	<b>Date Sampled:</b> 06/10/13
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 06/13/13
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H61614.D	1	06/18/13	AMY	n/a	n/a	MSH2033
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> PDB_BLK061013	
<b>Lab Sample ID:</b> MC21741-1	<b>Date Sampled:</b> 06/10/13
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 06/13/13
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY	

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		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

<b>Client Sample ID:</b> PDB_BLK061013 <b>Lab Sample ID:</b> MC21741-1 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/10/13 <b>Date Received:</b> 06/13/13 <b>Percent Solids:</b> n/a
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**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	107%		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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Accutest Laboratories

## Report of Analysis

Page 1 of 3

<b>Client Sample ID:</b> TRIP BLANK		<b>Date Sampled:</b> 06/10/13
<b>Lab Sample ID:</b> MC21741-2		<b>Date Received:</b> 06/13/13
<b>Matrix:</b> AQ - Trip Blank Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	H61613.D	1	06/18/13	AMY	n/a	n/a	MSH2033
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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	06/10/13
<b>Lab Sample ID:</b>	MC21741-2	<b>Date Received:</b>	06/13/13
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		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

<b>Client Sample ID:</b> TRIP BLANK <b>Lab Sample ID:</b> MC21741-2 <b>Matrix:</b> AQ - Trip Blank Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/10/13 <b>Date Received:</b> 06/13/13 <b>Percent Solids:</b> n/a
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**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	110%		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

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## Misc. Forms

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## Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>MC21741</b>

Client / Reporting Information		Project Information										Requested Analysis ( see TEST CODE sheet)												Matrix Codes
<b>EA Engineering</b> Street Address: <b>671A Brooklawn Pkwy. Ste. 104</b> City: <b>Syracuse, NY 13411</b> Project Contact: <b>Frank DeSantis / E-mail: fdesantis@eaest.com</b> Phone #: <b>315-431-4610 / 315-431-4280</b> Sample(s) Name(s): <b>Rob Peterson / Frank DeSantis</b>		Project Name: <b>NFARS</b> Street: _____ City: <b>Niagara Falls, NY</b> Project #: <b>6265401</b> Client PO#: _____ Project Manager: <b>Ben Young</b> Attention: <b>northeastap@eaest.com</b>										Company Name: <b>EA Engineering</b> Street Address: <b>*See Comments.</b> City: _____ State: _____ Zip: _____												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Accutest Sample # _____ Field ID / Point of Collection _____		Billing Information ( If different from Report to ) MECH/DI Vial # _____ Date: _____ Time: _____ Sampled by: _____ Matrix: _____ # of bottles: _____ Number of preserved bottles: _____ FCI: _____ MECH: _____ HNO3: _____ H2SO4: _____ NONE: _____ DI Water: _____ MECH: _____ ENCORE: _____ Sterilizable: _____										Requested Analysis Grid (Columns 1-12): -1 <b>PDB-BLK-061013</b> -2 <b>Trip Blank</b>												

Turnaround Time ( Business days )		Approved By (Accutest PM): / Date:		Data Deliverable Information				Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> Std. 5 Business Days (By Contract only) <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY	_____	_____	_____	<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> CT RCP <input type="checkbox"/> MA MCP	<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input checked="" type="checkbox"/> EDD Format <b>EXPTMS</b> <input checked="" type="checkbox"/> Other <b>Level 4</b>	Send Invoice to <b>northeastap@eaest.com</b>			

Emergency & Rush T/A data available VIA Lablink

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

Relinquished by: <b>Robert Peterson</b> Date/Time: <b>06/10/13 1600</b>	Received By: <b>[Signature]</b> Date/Time: _____	Relinquished by: <b>[Signature]</b> Date/Time: _____	Received By: <b>[Signature]</b> Date/Time: _____
Relinquished by: <b>[Signature]</b> Date/Time: <b>6/11/13 1700</b>	Received By: <b>[Signature]</b> Date/Time: _____	Relinquished by: <b>[Signature]</b> Date/Time: _____	Received By: <b>[Signature]</b> Date/Time: _____
Relinquished by: <b>[Signature]</b> Date/Time: <b>6-12-13 14:00</b>	Received By: <b>5 via Fedex</b> Date/Time: <b>6/13/13 9:30</b>	Relinquished by: _____ Date/Time: _____	Received By: _____ Date/Time: _____

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Intact  Not Intact   
 Preserved where applicable   
 On Ice  Cooler Temp. **31°C** / **1.7°C**



### Internal Sample Tracking Chronicle

EA Engineering

Job No: MC21741

NFARS, Niagara Falls, NY  
Project No: 6265401

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC21741-1 Collected: 10-JUN-13 11:20 By: FD Received: 13-JUN-13 By: PDB_BLK061013						
MC21741-1	SW846 8260B	18-JUN-13 16:33	AMY			V8260STD
MC21741-2 Collected: 10-JUN-13 00:00 By: FD Received: 13-JUN-13 By: TRIP BLANK						
MC21741-2	SW846 8260B	18-JUN-13 16:05	AMY			V8260STD

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## GC/MS Volatiles

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## QC Data Summaries

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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**

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2033-MB	H61597.D	1	06/18/13	AMY	n/a	n/a	MSH2033

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21741-1, MC21741-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	

## Method Blank Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2033-MB	H61597.D	1	06/18/13	AMY	n/a	n/a	MSH2033

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21741-1, MC21741-2

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

## Method Blank Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2033-MB	H61597.D	1	06/18/13	AMY	n/a	n/a	MSH2033

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21741-1, MC21741-2

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	88% 70-130%
2037-26-5	Toluene-D8	101% 70-130%
460-00-4	4-Bromofluorobenzene	104% 70-130%



## Blank Spike/Blank Spike Duplicate Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2033-BS	H61594.D	1	06/18/13	AMY	n/a	n/a	MSH2033
MSH2033-BSD	H61595.D	1	06/18/13	AMY	n/a	n/a	MSH2033

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21741-1, MC21741-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	48.1	96	52.8	106	9	70-130/25
71-43-2	Benzene	50	49.5	99	48.2	96	3	70-130/25
108-86-1	Bromobenzene	50	55.8	112	54.1	108	3	70-130/25
74-97-5	Bromochloromethane	50	50.5	101	50.3	101	0	70-130/25
75-27-4	Bromodichloromethane	50	56.8	114	56.7	113	0	70-130/25
75-25-2	Bromoform	50	53.9	108	54.4	109	1	70-130/25
74-83-9	Bromomethane	50	48.8	98	47.6	95	2	70-130/25
78-93-3	2-Butanone (MEK)	50	40.1	80	42.4	85	6	70-130/25
104-51-8	n-Butylbenzene	50	53.4	107	51.1	102	4	70-130/25
135-98-8	sec-Butylbenzene	50	51.4	103	49.5	99	4	70-130/25
98-06-6	tert-Butylbenzene	50	53.0	106	50.9	102	4	70-130/25
75-15-0	Carbon disulfide	50	48.3	97	45.1	90	7	70-130/25
56-23-5	Carbon tetrachloride	50	66.7	133* a	62.8	126	6	70-130/25
108-90-7	Chlorobenzene	50	53.6	107	53.4	107	0	70-130/25
75-00-3	Chloroethane	50	44.3	89	42.5	85	4	70-130/25
67-66-3	Chloroform	50	50.5	101	50.0	100	1	70-130/25
74-87-3	Chloromethane	50	44.9	90	44.8	90	0	70-130/25
95-49-8	o-Chlorotoluene	50	50.2	100	48.8	98	3	70-130/25
106-43-4	p-Chlorotoluene	50	52.4	105	50.9	102	3	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	43.6	87	42.2	84	3	70-130/25
124-48-1	Dibromochloromethane	50	56.1	112	56.8	114	1	70-130/25
106-93-4	1,2-Dibromoethane	50	54.0	108	54.3	109	1	70-130/25
95-50-1	1,2-Dichlorobenzene	50	51.9	104	50.8	102	2	70-130/25
541-73-1	1,3-Dichlorobenzene	50	54.9	110	52.1	104	5	70-130/25
106-46-7	1,4-Dichlorobenzene	50	53.3	107	52.6	105	1	70-130/25
75-71-8	Dichlorodifluoromethane	50	48.2	96	45.6	91	6	70-130/25
75-34-3	1,1-Dichloroethane	50	44.3	89	44.1	88	0	70-130/25
107-06-2	1,2-Dichloroethane	50	51.3	103	51.7	103	1	70-130/25
75-35-4	1,1-Dichloroethene	50	51.1	102	48.9	98	4	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	46.5	93	46.9	94	1	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	48.0	96	49.4	99	3	70-130/25
78-87-5	1,2-Dichloropropane	50	42.2	84	41.8	84	1	70-130/25
142-28-9	1,3-Dichloropropane	50	49.2	98	48.8	98	1	70-130/25
594-20-7	2,2-Dichloropropane	50	47.3	95	45.0	90	5	70-130/25
563-58-6	1,1-Dichloropropene	50	53.3	107	52.5	105	2	70-130/25
10061-01-5	cis-1,3-Dichloropropene	50	43.8	88	42.7	85	3	70-130/25

\* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2033-BS	H61594.D	1	06/18/13	AMY	n/a	n/a	MSH2033
MSH2033-BSD	H61595.D	1	06/18/13	AMY	n/a	n/a	MSH2033

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21741-1, MC21741-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	46.1	92	44.8	90	3	70-130/25
100-41-4	Ethylbenzene	50	59.2	118	58.8	118	1	70-130/25
87-68-3	Hexachlorobutadiene	50	57.9	116	56.5	113	2	70-130/25
591-78-6	2-Hexanone	50	42.2	84	46.4	93	9	70-130/25
74-88-4	Iodomethane	50	54.8	110	52.2	104	5	70-130/25
98-82-8	Isopropylbenzene	50	54.0	108	52.2	104	3	70-130/25
99-87-6	p-Isopropyltoluene	50	58.9	118	56.3	113	5	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	44.2	88	43.3	87	2	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	31.7	63* b	32.2	64* b	2	70-130/25
74-95-3	Methylene bromide	50	48.5	97	48.3	97	0	70-130/25
75-09-2	Methylene chloride	50	44.7	89	44.9	90	0	70-130/25
91-20-3	Naphthalene	50	45.9	92	45.2	90	2	70-130/25
103-65-1	n-Propylbenzene	50	50.5	101	49.0	98	3	70-130/25
100-42-5	Styrene	50	58.3	117	58.3	117	0	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	66.0	132* b	65.0	130	2	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	44.4	89	43.8	88	1	70-130/25
127-18-4	Tetrachloroethene	50	60.8	122	59.4	119	2	70-130/25
108-88-3	Toluene	50	51.9	104	50.2	100	3	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	51.0	102	50.9	102	0	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	52.9	106	51.3	103	3	70-130/25
71-55-6	1,1,1-Trichloroethane	50	58.0	116	55.0	110	5	70-130/25
79-00-5	1,1,2-Trichloroethane	50	44.7	89	44.4	89	1	70-130/25
79-01-6	Trichloroethene	50	52.6	105	51.7	103	2	70-130/25
75-69-4	Trichlorofluoromethane	50	52.1	104	50.3	101	4	70-130/25
96-18-4	1,2,3-Trichloropropane	50	43.3	87	43.6	87	1	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	56.1	112	53.8	108	4	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	56.4	113	54.0	108	4	70-130/25
108-05-4	Vinyl Acetate	50	38.2	76	35.7	71	7	70-130/25
75-01-4	Vinyl chloride	50	43.7	87	42.9	86	2	70-130/25
	m,p-Xylene	100	121	121	119	119	2	70-130/25
95-47-6	o-Xylene	50	58.7	117	58.8	118	0	70-130/25
1330-20-7	Xylene (total)	150	180	120	178	119	1	70-130/25

\* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2033-BS	H61594.D	1	06/18/13	AMY	n/a	n/a	MSH2033
MSH2033-BSD	H61595.D	1	06/18/13	AMY	n/a	n/a	MSH2033

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21741-1, MC21741-2

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	92%	94%	70-130%
2037-26-5	Toluene-D8	101%	100%	70-130%
460-00-4	4-Bromofluorobenzene	103%	105%	70-130%

- (a) Outside control limits. Associated samples are non-detect for this compound.
- (b) Outside control limits. Blank Spike meets program technical requirements.

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC21842-4MS	H61610.D	5	06/18/13	AMY	n/a	n/a	MSH2033
MC21842-4MSD	H61611.D	5	06/18/13	AMY	n/a	n/a	MSH2033
MC21842-4	H61605.D	1	06/18/13	AMY	n/a	n/a	MSH2033

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21741-1, MC21741-2

CAS No.	Compound	MC21842-4 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	148	59* a	156	62* a	5	70-130/30
71-43-2	Benzene	ND	250	231	92	228	91	1	70-130/30
108-86-1	Bromobenzene	ND	250	251	100	251	100	0	70-130/30
74-97-5	Bromochloromethane	ND	250	245	98	239	96	2	70-130/30
75-27-4	Bromodichloromethane	ND	250	286	114	281	112	2	70-130/30
75-25-2	Bromoform	ND	250	255	102	261	104	2	70-130/30
74-83-9	Bromomethane	ND	250	242	97	226	90	7	70-130/30
78-93-3	2-Butanone (MEK)	ND	250	159	64* a	135	54* a	16	70-130/30
104-51-8	n-Butylbenzene	ND	250	247	99	244	98	1	70-130/30
135-98-8	sec-Butylbenzene	ND	250	235	94	231	92	2	70-130/30
98-06-6	tert-Butylbenzene	ND	250	244	98	246	98	1	70-130/30
75-15-0	Carbon disulfide	ND	250	190	76	189	76	1	70-130/30
56-23-5	Carbon tetrachloride	ND	250	346	138* a	336	134* a	3	70-130/30
108-90-7	Chlorobenzene	ND	250	258	103	254	102	2	70-130/30
75-00-3	Chloroethane	ND	250	193	77	194	78	1	70-130/30
67-66-3	Chloroform	ND	250	251	100	239	96	5	70-130/30
74-87-3	Chloromethane	ND	250	221	88	212	85	4	70-130/30
95-49-8	o-Chlorotoluene	ND	250	222	89	225	90	1	70-130/30
106-43-4	p-Chlorotoluene	ND	250	236	94	240	96	2	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	197	79	203	81	3	70-130/30
124-48-1	Dibromochloromethane	ND	250	270	108	272	109	1	70-130/30
106-93-4	1,2-Dibromoethane	ND	250	258	103	253	101	2	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	250	239	96	239	96	0	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	250	246	98	245	98	0	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	250	248	99	249	100	0	70-130/30
75-71-8	Dichlorodifluoromethane	ND	250	266	106	251	100	6	70-130/30
75-34-3	1,1-Dichloroethane	ND	250	209	84	204	82	2	70-130/30
107-06-2	1,2-Dichloroethane	ND	250	272	109	270	108	1	70-130/30
75-35-4	1,1-Dichloroethene	ND	250	246	98	234	94	5	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND	250	226	90	217	87	4	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND	250	225	90	214	86	5	70-130/30
78-87-5	1,2-Dichloropropane	ND	250	192	77	196	78	2	70-130/30
142-28-9	1,3-Dichloropropane	ND	250	224	90	227	91	1	70-130/30
594-20-7	2,2-Dichloropropane	ND	250	296	118	282	113	5	70-130/30
563-58-6	1,1-Dichloropropene	ND	250	260	104	257	103	1	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	250	214	86	206	82	4	70-130/30

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC21842-4MS	H61610.D	5	06/18/13	AMY	n/a	n/a	MSH2033
MC21842-4MSD	H61611.D	5	06/18/13	AMY	n/a	n/a	MSH2033
MC21842-4	H61605.D	1	06/18/13	AMY	n/a	n/a	MSH2033

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21741-1, MC21741-2

CAS No.	Compound	MC21842-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	232	93	229	92	1	70-130/30
100-41-4	Ethylbenzene	ND	250	284	114	275	110	3	70-130/30
87-68-3	Hexachlorobutadiene	ND	250	267	107	260	104	3	70-130/30
591-78-6	2-Hexanone	ND	250	165	66* a	172	69* a	4	70-130/30
74-88-4	Iodomethane	ND	250	260	104	252	101	3	70-130/30
98-82-8	Isopropylbenzene	ND	250	240	96	240	96	0	70-130/30
99-87-6	p-Isopropyltoluene	ND	250	276	110	268	107	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	72.6	250	278	82	273	80	2	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	143	57* a	144	58* a	1	70-130/30
74-95-3	Methylene bromide	ND	250	239	96	237	95	1	70-130/30
75-09-2	Methylene chloride	ND	250	212	85	206	82	3	70-130/30
91-20-3	Naphthalene	ND	250	180	72	191	76	6	70-130/30
103-65-1	n-Propylbenzene	ND	250	226	90	227	91	0	70-130/30
100-42-5	Styrene	ND	250	273	109	272	109	0	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	319	128	318	127	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	197	79	203	81	3	70-130/30
127-18-4	Tetrachloroethene	ND	250	308	123	296	118	4	70-130/30
108-88-3	Toluene	ND	250	246	98	239	96	3	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	250	213	85	217	87	2	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	250	225	90	231	92	3	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	250	294	118	278	111	6	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	250	206	82	210	84	2	70-130/30
79-01-6	Trichloroethene	ND	250	254	102	248	99	2	70-130/30
75-69-4	Trichlorofluoromethane	ND	250	278	111	260	104	7	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	250	192	77	198	79	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	250	254	102	254	102	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	250	252	101	251	100	0	70-130/30
108-05-4	Vinyl Acetate	ND	250	176	70	181	72	3	70-130/30
75-01-4	Vinyl chloride	ND	250	215	86	199	80	8	70-130/30
	m,p-Xylene	ND	500	568	114	559	112	2	70-130/30
95-47-6	o-Xylene	ND	250	280	112	272	109	3	70-130/30
1330-20-7	Xylene (total)	ND	750	848	113	831	111	2	70-130/30

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC21842-4MS	H61610.D	5	06/18/13	AMY	n/a	n/a	MSH2033
MC21842-4MSD	H61611.D	5	06/18/13	AMY	n/a	n/a	MSH2033
MC21842-4	H61605.D	1	06/18/13	AMY	n/a	n/a	MSH2033

The QC reported here applies to the following samples:

Method: SW846 8260B

MC21741-1, MC21741-2

CAS No.	Surrogate Recoveries	MS	MSD	MC21842-4	Limits
1868-53-7	Dibromofluoromethane	98%	97%	88%	70-130%
2037-26-5	Toluene-D8	102%	100%	101%	70-130%
460-00-4	4-Bromofluorobenzene	100%	102%	108%	70-130%

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

\* = Outside of Control Limits.

**Instrument Performance Check (BFB)**

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSH1993-BFB	<b>Injection Date:</b> 04/13/13
<b>Lab File ID:</b> H60284.D	<b>Injection Time:</b> 00:36
<b>Instrument ID:</b> GCMSH	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	616	16.2	Pass
75	30.0 - 60.0% of mass 95	1700	44.8	Pass
95	Base peak, 100% relative abundance	3797	100.0	Pass
96	5.0 - 9.0% of mass 95	286	7.53	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) <sup>a</sup>	Pass
174	50.0 - 150.0% of mass 95	3672	96.7	Pass
175	5.0 - 9.0% of mass 174	196	5.16 (5.34) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	3680	96.9 (100.2) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	227	5.98 (6.17) <sup>b</sup>	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
MSH1993-IC1993	H60284.D	04/13/13	00:36	00:00	Initial cal 5
MSH1993-IC1993	H60285.D	04/13/13	01:04	00:28	Initial cal 10
MSH1993-IC1993	H60286.D	04/13/13	01:31	00:55	Initial cal 25
MSH1993-ICC1993	H60287.D	04/13/13	01:59	01:23	Initial cal 50
MSH1993-IC1993	H60288.D	04/13/13	02:26	01:50	Initial cal 100
MSH1993-IC1993	H60289.D	04/13/13	02:54	02:18	Initial cal 200
MSH1993-IC1993	H60290.D	04/13/13	03:21	02:45	Initial cal 400
MSH1993-IC1993	H60299.D	04/13/13	09:14	08:38	Initial cal 0.5
MSH1993-IC1993	H60300.D	04/13/13	09:41	09:05	Initial cal 1
MSH1993-IC1993	H60301.D	04/13/13	10:09	09:33	Initial cal 2
MSH1993-ICV1993	H60302.D	04/13/13	10:36	10:00	Initial cal verification 50

## Instrument Performance Check (BFB)

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSH2033-BFB	<b>Injection Date:</b> 06/18/13
<b>Lab File ID:</b> H61593.D	<b>Injection Time:</b> 06:52
<b>Instrument ID:</b> GCMSH	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	6594	16.0	Pass
75	30.0 - 60.0% of mass 95	17040	41.3	Pass
95	Base peak, 100% relative abundance	41216	100.0	Pass
96	5.0 - 9.0% of mass 95	2907	7.05	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) <sup>a</sup>	Pass
174	50.0 - 150.0% of mass 95	46026	111.7	Pass
175	5.0 - 9.0% of mass 174	3307	8.02 (7.19) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	44769	108.6 (97.3) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	2953	7.16 (6.60) <sup>b</sup>	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
MSH2033-CC1993	H61593.D	06/18/13	06:52	00:00	Continuing cal 50
MSH2033-BS	H61594.D	06/18/13	07:19	00:27	Blank Spike
MSH2033-BSD	H61595.D	06/18/13	07:47	00:55	Blank Spike Duplicate
MSH2033-MB	H61597.D	06/18/13	08:42	01:50	Method Blank
ZZZZZZ	H61598.D	06/18/13	09:10	02:18	(unrelated sample)
ZZZZZZ	H61599.D	06/18/13	09:37	02:45	(unrelated sample)
ZZZZZZ	H61600.D	06/18/13	10:05	03:13	(unrelated sample)
ZZZZZZ	H61601.D	06/18/13	10:32	03:40	(unrelated sample)
ZZZZZZ	H61602.D	06/18/13	11:00	04:08	(unrelated sample)
ZZZZZZ	H61603.D	06/18/13	11:28	04:36	(unrelated sample)
MC21842-4	H61605.D	06/18/13	12:22	05:30	(used for QC only; not part of job MC21741)
ZZZZZZ	H61606.D	06/18/13	12:50	05:58	(unrelated sample)
ZZZZZZ	H61607.D	06/18/13	13:18	06:26	(unrelated sample)
ZZZZZZ	H61608.D	06/18/13	13:46	06:54	(unrelated sample)
ZZZZZZ	H61609.D	06/18/13	14:13	07:21	(unrelated sample)
MC21842-4MS	H61610.D	06/18/13	14:40	07:48	Matrix Spike
MC21842-4MSD	H61611.D	06/18/13	15:08	08:16	Matrix Spike Duplicate
ZZZZZZ	H61612.D	06/18/13	15:36	08:44	(unrelated sample)
MC21741-2	H61613.D	06/18/13	16:05	09:13	TRIP BLANK
MC21741-1	H61614.D	06/18/13	16:33	09:41	PDB_BLK061013
ZZZZZZ	H61615.D	06/18/13	17:00	10:08	(unrelated sample)
ZZZZZZ	H61616.D	06/18/13	17:28	10:36	(unrelated sample)
ZZZZZZ	H61617.D	06/18/13	17:56	11:04	(unrelated sample)
ZZZZZZ	H61618.D	06/18/13	18:23	11:31	(unrelated sample)



# Instrument Performance Check (BFB)

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSH2033-BFB	<b>Injection Date:</b> 06/18/13
<b>Lab File ID:</b> H61593.D	<b>Injection Time:</b> 06:52
<b>Instrument ID:</b> GCMSH	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	H61619.D	06/18/13	18:50	11:58	(unrelated sample)

6.4.2

6

# Volatile Internal Standard Area Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Check Std:</b> MSH2033-CC1993	<b>Injection Date:</b> 06/18/13
<b>Lab File ID:</b> H61593.D	<b>Injection Time:</b> 06:52
<b>Instrument ID:</b> GCMSH	<b>Method:</b> SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	163741	8.62	232550	9.49	100998	12.74	135449	15.32	26060	6.19
Upper Limit <sup>a</sup>	327482	9.12	465100	9.99	201996	13.24	270898	15.82	52120	6.69
Lower Limit <sup>b</sup>	81871	8.12	116275	8.99	50499	12.24	67725	14.82	13030	5.69

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH2033-BS	168422	8.62	237852	9.49	105625	12.74	138623	15.31	28093	6.19
MSH2033-BSD	171747	8.62	243728	9.49	106017	12.75	141324	15.32	28494	6.18
MSH2033-MB	153175	8.63	207909	9.49	87199	12.75	112525	15.31	28751	6.20
ZZZZZZ	145099	8.62	194887	9.49	82893	12.74	103208	15.31	24978	6.19
ZZZZZZ	143480	8.62	196948	9.49	81877	12.75	102754	15.32	24044	6.19
ZZZZZZ	134811	8.62	182523	9.49	77129	12.75	97129	15.32	22181	6.20
ZZZZZZ	133074	8.62	179064	9.49	75676	12.75	92633	15.32	20404	6.20
ZZZZZZ	131922	8.62	174327	9.49	74824	12.75	92825	15.32	20519	6.20
ZZZZZZ	154567	8.62	219186	9.49	89641	12.75	129819	15.32	41461	6.19
MC21842-4	154274	8.62	210046	9.49	87524	12.75	106565	15.32	27394	6.20
ZZZZZZ	155774	8.62	209792	9.49	88228	12.75	106533	15.32	25461	6.20
ZZZZZZ	143153	8.62	196916	9.49	81444	12.74	99576	15.31	24142	6.19
ZZZZZZ	141454	8.62	188318	9.49	79787	12.75	100114	15.32	23964	6.20
ZZZZZZ	132152	8.62	173321	9.49	74224	12.75	91878	15.32	19902	6.20
MC21842-4MS	139126	8.62	192180	9.49	86603	12.75	122737	15.31	22094	6.19
MC21842-4MSD	145616	8.63	196264	9.49	88156	12.75	123056	15.31	23856	6.20
ZZZZZZ	137076	8.62	186654	9.49	78131	12.75	98935	15.31	23774	6.19
MC21741-2 <sup>c</sup>	134778	8.62	182531	9.49	76104	12.75	94488	15.32	22693	6.19
MC21741-1	129469	8.62	174290	9.49	72800	12.75	91805	15.32	19453	6.20
ZZZZZZ	138591	8.63	183691	9.49	77130	12.75	95592	15.32	22979	6.19
ZZZZZZ	133613	8.62	176370	9.49	73090	12.74	90940	15.31	22258	6.20
ZZZZZZ	134506	8.62	175472	9.49	74839	12.75	94779	15.31	21233	6.20
ZZZZZZ	128320	8.62	166705	9.49	71798	12.75	90675	15.32	20098	6.20
ZZZZZZ	130230	8.62	170051	9.49	72357	12.74	100548	15.31	19768	6.20

- 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

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Method:</b> SW846 8260B	<b>Matrix:</b> AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC21741-1	H61614.D	91.0	101.0	107.0
MC21741-2	H61613.D	91.0	102.0	110.0
MC21842-4MS	H61610.D	98.0	102.0	100.0
MC21842-4MSD	H61611.D	97.0	100.0	102.0
MSH2033-BS	H61594.D	92.0	101.0	103.0
MSH2033-BSD	H61595.D	94.0	100.0	105.0
MSH2033-MB	H61597.D	88.0	101.0	104.0

Surrogate Compounds	Recovery Limits
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S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

# Initial Calibration Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSH1993-ICC1993  
**Lab FileID:** H60287.D

Response Factor Report MSH

Method : C:\msdchem\1\METHODS\H130412W.M (RTE Integrator)  
Title : SW-846 Method 8260  
Last Update : Sun Apr 14 08:49:23 2013  
Response via : Initial Calibration

Calibration Files

.5 =H60299.D 1 =H60300.D 2 =H60301.D 5 =H60284.D  
25 =H60286.D 50 =H60287.D 100 =H60288.D 200 =H60289.D  
400 =H60290.D 10 =H60285.D = =

Compound

Compound	.5	1	2	5	25	50	100	200	400	10	Avg	%RSD
1) Tert Butyl Alcohol-d9 -----ISTD-----												
2) tertiary butyl alcohol												
	0.892	0.931	0.965	1.013	1.148	1.105	1.088	1.081	1.028			8.92
3) Ethanol												
	0.061	0.098	0.112	0.120	0.143	0.142	0.146	0.106	0.116			24.98
---- Linear regression ---- Coefficient = 0.9996												
Response Ratio = -0.11916 + 0.14704 *A												
4) I pentafluorobenzene -----ISTD-----												
5) dichlorodifluoromethane												
	0.482	0.542	0.630	0.545	0.525	0.560	0.516	0.488	0.671	0.551		11.36
6) chloromethane												
	0.382	0.337	0.394	0.348	0.338	0.371	0.344	0.310	0.421	0.361		9.46
7) vinyl chloride												
	0.418	0.411	0.429	0.425	0.411	0.433	0.386	0.305	0.510	0.414		12.88
8) bromomethane												
	0.338	0.333	0.358	0.325	0.322	0.358	0.351	0.338	0.383	0.345		5.63
9) chloroethane												
	0.167	0.220	0.235	0.218	0.215	0.232	0.233	0.222	0.256	0.222		10.88
10) acetonitrile												
	0.019	0.036	0.040	0.041	0.042	0.006	0.031#					48.37
---- Linear regression ---- Coefficient = 0.9997												
Response Ratio = -0.00900 + 0.04354 *A												
11) trichlorofluoromethane												
	0.609	0.658	0.786	0.691	0.659	0.742	0.708	0.679	0.805	0.704		9.02
12) freon-113												
	0.327	0.386	0.392	0.364	0.438	0.398	0.398	0.452	0.395			9.92
13) acrolein												
	0.016	0.026	0.036	0.038	0.042	0.041	0.038	0.036	0.034#			25.41
---- Linear regression ---- Coefficient = 0.9985												
Response Ratio = 0.00368 + 0.03864 *A												
14) 1,1-dichloroethene												
	0.317	0.334	0.352	0.339	0.326	0.374	0.351	0.355	0.399	0.349		7.19
15) acetone												
	0.046	0.066	0.078	0.085	0.087	0.087	0.061	0.073				21.25
---- Linear regression ---- Coefficient = 0.9999												
Response Ratio = -0.00668 + 0.08759 *A												
16) ethyl ether												
	0.201	0.230	0.228	0.245	0.275	0.270	0.258	0.254	0.245			9.97
17) methyl acetate												

6.7.1  
6

# Initial Calibration Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSH1993-ICC1993  
**Lab FileID:** H60287.D

	0.301	0.330	0.376	0.406	0.394	0.384	0.350	0.363	10.43		
18) methylene chloride	0.370	0.425	0.426	0.408	0.416	0.460	0.437	0.431	0.492	0.429	7.89
19) methyl tert butyl ether	0.771	0.858	0.913	0.934	1.006	1.113	1.073	1.050	1.059	0.975	11.65
20) acrylonitrile	0.035	0.088	0.099	0.120	0.120	0.117	0.067	0.092	34.77		
---- Linear regression ---- Coefficient = 0.9993											
Response Ratio = -0.00929 + 0.11878 *A											
21) allyl chloride	0.353	0.375	0.405	0.429	0.479	0.447	0.428	0.447	0.420	9.75	
22) trans-1,2-dichloroethene	0.384	0.376	0.404	0.383	0.388	0.443	0.418	0.418	0.432	0.405	5.90
23) iodomethane	0.713	0.729	0.745	0.742	0.749	0.859	0.831	0.844	0.869	0.787	7.94
24) carbon disulfide	0.986	1.012	1.106	1.130	1.100	1.273	1.182	1.204	1.338	1.148	9.99
25) propionitrile	0.011	0.026	0.035	0.041	0.044	0.045	0.014	0.031#	45.74		
---- Linear regression ---- Coefficient = 0.9996											
Response Ratio = -0.00792 + 0.04599 *A											
26) vinyl acetate	0.233	0.297	0.364	0.385	0.398	0.392	0.266	0.333	20.22		
---- Linear regression ---- Coefficient = 0.9998											
Response Ratio = -0.02661 + 0.39709 *A											
27) chloroprene	0.417	0.450	0.450	0.520	0.468	0.449	0.507	0.466	7.77		
28) di-isopropyl ether	0.855	0.924	0.984	0.993	1.053	1.144	1.047	0.989	1.143	1.015	9.33
29) methacrylonitrile	0.133	0.169	0.186	0.190	0.190	0.188	0.169	0.175	11.79		
30) 2-butanone	0.031	0.039	0.044	0.044	0.042	0.021	0.037#	24.25			
---- Linear regression ---- Coefficient = 0.9988											
Response Ratio = -0.00230 + 0.04282 *A											
31) 1,1-dichloroethane	0.524	0.562	0.648	0.585	0.605	0.677	0.629	0.613	0.693	0.615	8.77
32) tert-butyl ethyl ether	0.823	0.904	0.924	0.977	1.067	1.161	1.081	1.043	1.061	1.005	10.52
33) Hexane	0.443	0.471	0.453	0.440	0.489	0.444	0.400	0.533	0.459	8.59	
34) isobutyl alcohol	0.021	0.032	0.036	0.036	0.033	0.031	0.036	0.032#	16.65		
---- Linear regression ---- Coefficient = 0.9978											
Response Ratio = 0.01466 + 0.03129 *A											
35) 2,2-dichloropropane	0.436	0.450	0.467	0.517	0.477	0.473	0.511	0.476	6.20		
36) cis-1,2-dichloroethene	0.401	0.431	0.446	0.426	0.452	0.498	0.473	0.472	0.489	0.454	7.00
37) ethyl acetate	0.135	0.175	0.178	0.178	0.160	0.158	0.170	0.165	9.41		
38) bromochloromethane	0.229	0.222	0.230	0.233	0.249	0.276	0.267	0.270	0.256	0.248	8.13
39) chloroform	0.642	0.632	0.662	0.681	0.721	0.796	0.734	0.711	0.771	0.706	7.98

# Initial Calibration Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSH1993-ICC1993  
**Lab FileID:** H60287.D

40)	dibromofluoromethane (s)	0.440	0.487	0.487	0.522	0.498	0.494	0.507	0.491	5.15
41)	1,1,1-trichloroethane	0.511	0.548	0.565	0.598	0.603	0.681	0.640	0.631	9.17
42) I	1,4-difluorobenzene -----ISTD-----									
43)	cyclohexane	0.329	0.340	0.367	0.353	0.332	0.404	0.351	0.366	8.22
44)	carbon tetrachloride	0.284	0.274	0.317	0.329	0.388	0.368	0.379	0.351	12.68
45)	1,1-dichloropropene	0.298	0.303	0.309	0.313	0.306	0.350	0.323	0.322	5.93
46)	benzene	0.702	0.988	1.000	0.957	0.944	0.992	1.071	1.002	10.63
47)	tetrahydrofuran	0.037	0.047	0.055	0.057	0.056	0.057	0.046	0.051	14.67
48)	1,2-dichloroethane	0.319	0.317	0.325	0.304	0.329	0.343	0.322	0.317	4.69
49)	tert-amyl methyl ether	0.606	0.601	0.582	0.598	0.679	0.721	0.698	0.694	8.08
50)	heptane	0.233	0.259	0.227	0.230	0.223	0.251	0.240	0.219	6.43
51)	trichloroethene	0.266	0.267	0.309	0.288	0.301	0.332	0.309	0.304	8.31
52)	1,2-dichloropropane	0.210	0.230	0.227	0.231	0.241	0.259	0.245	0.238	6.25
53)	dibromomethane	0.143	0.162	0.163	0.165	0.184	0.195	0.188	0.187	9.99
54)	bromodichloromethane	0.305	0.271	0.305	0.349	0.386	0.370	0.373	0.327	12.01
55)	methylcyclohexane	0.391	0.404	0.397	0.412	0.379	0.459	0.434	0.419	7.27
56)	2-chloroethyl vinyl ether	0.095	0.112	0.125	0.135	0.138	0.140	0.122	0.124	12.96
57)	methyl methacrylate	0.086	0.123	0.148	0.163	0.164	0.165	0.128	0.140	20.88
	---- Linear regression ----	Coefficient = 0.9998								
		Response Ratio = -0.01280 + 0.16672 *A								
58)	1,4-dioxane	0.001	0.002	0.003	0.003	0.003	0.003	0.002	0.002#	37.49
	---- Linear regression ----	Coefficient = 0.9997								
		Response Ratio = -0.00162 + 0.00301 *A								
59)	cis-1,3-dichloropropene	0.189	0.320	0.291	0.336	0.377	0.427	0.417	0.425	21.76
	---- Linear regression ----	Coefficient = 0.9997								
		Response Ratio = -0.01711 + 0.42558 *A								
60)	toluene-d8 (s)	0.965	1.047	1.008	1.128	1.086	1.076	1.083	1.056	5.16
61)	4-methyl-2-pentanone	0.134	0.167	0.191	0.202	0.197	0.196	0.176	0.181	13.14
62)	toluene	0.708	0.668	0.593	0.621	0.645	0.715	0.679	0.668	5.87
63)	trans-1,3-dichloropropene	0.083	0.191	0.201	0.212	0.266	0.306	0.352	0.355	34.41
	---- Linear regression ----	Coefficient = 0.9996								
		Response Ratio = -0.02121 + 0.36217 *A								

# Initial Calibration Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSH1993-ICC1993  
**Lab FileID:** H60287.D

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64)	1,1,2-trichloroethane	0.165	0.185	0.172	0.188	0.201	0.217	0.213	0.211	0.207	0.196	9.55
65)	ethyl methacrylate	0.195	0.245	0.293	0.323	0.312	0.305	0.242	0.273	0.273	17.24	
	---- Linear regression ----	Coefficient = 0.9994										
		Response Ratio = -0.00764 + 0.30829 *A										
66)	I chlorobenzene-d5	-----ISTD-----										
67)	tetrachloroethene	0.691	0.750	0.666	0.648	0.634	0.720	0.673	0.776	0.761	0.702	7.36
68)	1,3-dichloropropane	0.757	0.831	0.786	0.750	0.809	0.828	0.754	0.810	0.847	0.797	4.60
69)	dibromochloromethane	0.296	0.423	0.503	0.377	0.487	0.555	0.633	0.619	0.729	0.480	25.31
	---- Linear regression ----	Coefficient = 0.9947										
		Response Ratio = -0.08361 + 0.71677 *A										
70)	1,2-dibromoethane	0.415	0.542	0.494	0.498	0.547	0.574	0.550	0.624	0.556	0.533	11.05
71)	2-hexanone	0.036	0.213	0.256	0.270	0.255	0.283	0.189	0.215	0.215	39.77	
	---- Linear regression ----	Coefficient = 0.9981										
		Response Ratio = -0.03474 + 0.28311 *A										
72)	chlorobenzene	1.968	2.091	1.779	1.707	1.737	1.882	1.734	1.947	1.967	1.868	7.20
73)	1,1,1,2-tetrachloroethane	0.540	0.588	0.464	0.516	0.563	0.646	0.615	0.713	0.549	0.577	12.78
74)	ethylbenzene	1.919	2.643	2.728	2.542	2.537	2.527	2.763	2.514	2.768	2.850	10.13
75)	m,p-xylene	0.715	1.067	1.156	1.035	1.059	1.056	1.168	1.053	1.141	1.187	12.66
76)	o-xylene	0.747	1.196	1.173	1.034	1.100	1.109	1.202	1.094	1.200	1.225	12.72
77)	styrene	1.526	1.633	1.464	1.656	1.728	1.855	1.757	1.973	1.752	1.705	9.21
78)	bromoform	0.198	0.282	0.355	0.432	0.445	0.544	0.267	0.361	0.361	33.46	
	---- Linear regression ----	Coefficient = 0.9924										
		Response Ratio = -0.14839 + 0.54478 *A										
79)	trans-1,4-dichloro-2-butene	0.013	0.060	0.079	0.104	0.112	0.134	0.038	0.077	0.077	55.90	
	---- Linear regression ----	Coefficient = 0.9940										
		Response Ratio = -0.04142 + 0.13514 *A										
80)	I 1,4-dichlorobenzene-d	-----ISTD-----										
81)	isopropylbenzene	2.440	2.130	2.169	2.205	2.540	2.455	2.366	2.483	2.348	6.74	
82)	bromofluorobenzene (s)	0.680	0.714	0.701	0.761	0.744	0.727	0.759	0.726	0.726	4.17	
83)	bromobenzene	0.704	0.742	0.615	0.605	0.644	0.722	0.727	0.733	0.708	0.689	7.70
84)	1,1,2,2-tetrachloroethane	0.408	0.560	0.568	0.452	0.470	0.517	0.543	0.531	0.494	0.528	10.05
85)	1,2,3-trichloropropane	0.431	0.383	0.411	0.470	0.535	0.541	0.543	0.458	0.471	13.25	
86)	n-propylbenzene											

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# Initial Calibration Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSH1993-ICC1993  
**Lab FileID:** H60287.D

87)	2-chlorotoluene	2.551	2.699	2.349	2.421	2.465	2.835	2.729	2.583	2.724	2.595	6.29
		1.887	1.763	1.588	1.540	1.590	1.770	1.698	1.624	1.821	1.698	7.03
88)	4-chlorotoluene	2.025	1.573	1.551	1.549	1.602	1.771	1.715	1.663	1.767	1.691	9.05
89)	1,3,5-trimethylbenzene	1.830	1.903	1.771	1.863	1.881	2.169	2.095	2.044	2.089	1.961	7.14
90)	tert-butylbenzene	1.050	1.096	0.996	1.039	1.034	1.203	1.165	1.121	1.175	1.098	6.62
91)	1,2,4-trimethylbenzene	1.871	1.947	1.721	1.828	1.894	2.161	2.096	2.054	2.074	1.961	7.39
92)	sec-butylbenzene	2.605	2.635	2.307	2.459	2.424	2.835	2.741	2.637	2.802	2.605	6.85
93)	1,3-dichlorobenzene	1.335	1.381	1.181	1.203	1.251	1.423	1.418	1.423	1.352	1.330	7.16
94)	p-isopropyltoluene	2.028	2.135	1.890	1.944	1.889	2.226	2.169	2.051	2.214	2.061	6.46
95)	1,4-dichlorobenzene	1.592	1.581	1.392	1.309	1.306	1.456	1.425	1.373	1.505	1.438	7.36
96)	1,2-dichlorobenzene	1.382	1.343	1.194	1.217	1.250	1.416	1.408	1.419	1.393	1.336	6.78
97)	n-butylbenzene	1.528	1.709	1.572	1.758	1.698	2.004	1.946	1.840	1.953	1.779	9.53
98)	1,2-dibromo-3-chloropropane	0.048	0.065	0.073	0.083	0.086	0.088	0.071	0.073			19.30
	---- Linear regression ----	Coefficient = 0.9997										
		Response Ratio = -0.00898 + 0.08862 *A										
99)	1,3,5-trichlorobenzene	0.900	0.891	0.790	0.827	0.825	0.992	1.024	1.010	0.942	0.911	9.48
100)	1,2,4-trichlorobenzene	0.670	0.733	0.639	0.680	0.723	0.866	0.889	0.883	0.760	0.760	12.67
101)	hexachlorobutadiene	0.383	0.402	0.317	0.332	0.303	0.407	0.411	0.382	0.396	0.370	11.21
102)	naphthalene	1.281	1.230	1.340	1.496	1.724	1.795	1.741	1.432	1.505		14.78
103)	1,2,3-trichlorobenzene	0.593	0.526	0.565	0.606	0.712	0.736	0.713	0.642	0.636		12.13
104)	2-Methylnaphthalene	0.297	0.346	0.417	0.461	0.474	0.312	0.385				19.91
	---- Linear regression ----	Coefficient = 0.9993										
		Response Ratio = -0.04866 + 0.48482 *A										

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

H130412W.M Sun Apr 14 08:51:29 2013

6.7.1  
6



## Initial Calibration Verification

Job Number: MC21741  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSH1993-ICV1993  
 Lab FileID: H60302.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\130413\H60302.D Vial: 6  
 Acq On : 13 Apr 2013 10:36 am Operator: amym  
 Sample : cc1993-50 Inst : MSH  
 Misc : ms28517,MSH1993,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\H130412W.M (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Sun Apr 14 08:49:23 2013  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	Tert Butyl Alcohol-d9	1.000	1.000	0.0	89	0.00	6.27
2 M	tertiary butyl alcohol	1.028	1.135	-10.4	100	-0.02	6.36
		----- Amount	Calc.	%Drift	-----		
3 m	Ethanol	5000.000	4739.026	5.2	94	-0.02	5.16
		----- AvgRF	CCRF	%Dev	-----		
4 I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	8.70
5 M	dichlorodifluoromethane	0.551	0.534	3.1	111	0.00	4.07
6 P	chloromethane	0.361	0.416	-15.2	134	0.00	4.29
7 c	vinyl chloride	0.414	0.381	8.0	101	0.02	4.54
8 M	bromomethane	0.345	0.364	-5.5	123	0.00	5.02
9 M	chloroethane	0.222	0.246	-10.8	125	0.00	5.16
		----- Amount	Calc.	%Drift	-----		
10 M	acetonitrile	50.000	51.713	-3.4	110	0.03	5.81
		----- AvgRF	CCRF	%Dev	-----		
11 M	trichlorofluoromethane	0.704	0.664	5.7	110	0.00	5.78
12 M	freon-113	0.395	0.405	-2.5	121	0.00	6.55
		----- Amount	Calc.	%Drift	-----		
13 M	acrolein	250.000	91.934	63.2#	43	-0.03	5.77
		----- AvgRF	CCRF	%Dev	-----		
14 c	1,1-dichloroethene	0.349	0.363	-4.0	121	0.00	6.36
		----- Amount	Calc.	%Drift	-----		
15 M	acetone	50.000	72.497	-45.0#	168	0.01	5.90
		----- AvgRF	CCRF	%Dev	-----		
16 M	ethyl ether	0.245	0.227	7.3	101	0.00	6.01
17 M	methyl acetate	0.363	0.269	25.9#	78	-0.04	6.53
18 M	methylene chloride	0.429	0.428	0.2	112	0.00	6.51
19 M	methyl tert butyl ether	0.975	0.936	4.0	101	0.00	7.28
		----- Amount	Calc.	%Drift	-----		
20 M	acrylonitrile	50.000	42.419	15.2	101	0.01	6.41
		----- AvgRF	CCRF	%Dev	-----		
21 M	allyl chloride	0.420	0.445	-6.0	113	0.00	6.59

# Initial Calibration Verification

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSH1993-ICV1993  
**Lab FileID:** H60302.D

22 M	trans-1,2-dichloroethene	0.405	0.401	1.0	113	0.00	7.19
23 M	iodomethane	0.787	0.750	4.7	109	0.00	6.42
24 M	carbon disulfide	1.148	1.180	-2.8	117	0.00	6.78
		----- Amount	Calc.	%Drift	-----		
25 M	propionitrile	50.000	40.293	19.4	91	0.01	7.45
26 M	vinyl acetate	50.000	61.190	-22.4#	138	-0.05	7.54
		----- AvgRF	CCRF	%Dev	-----		
27 M	chloroprene	0.466	0.500	-7.3	121	0.00	7.81
28 M	di-isopropyl ether	1.015	0.987	2.8	102	0.00	7.85
29 M	methacrylonitrile	0.175	0.148	15.4	87	0.00	7.96
		----- Amount	Calc.	%Drift	-----		
30 M	2-butanone	50.000	58.129	-16.3	134	0.00	7.85
		----- AvgRF	CCRF	%Dev	-----		
31 P	1,1-dichloroethane	0.615	0.606	1.5	109	0.00	7.44
32 M	tert-butyl ethyl ether	1.005	1.038	-3.3	106	0.00	8.25
33 M	Hexane	0.459	0.472	-2.8	117	0.00	7.83
		----- Amount	Calc.	%Drift	-----		
34 M	isobutyl alcohol	250.000	249.136	0.3	105	0.00	8.24
		----- AvgRF	CCRF	%Dev	-----		
35 M	2,2-dichloropropane	0.476	0.559	-17.4	131	0.00	8.30
36 M	cis-1,2-dichloroethene	0.454	0.452	0.4	109	0.00	8.01
37 M	ethyl acetate	0.165	0.174	-5.5	106	0.00	8.24
38 M	bromochloromethane	0.248	0.248	0.0	109	0.00	8.18
39 c	chloroform	0.706	0.724	-2.5	109	0.00	8.22
40 S	dibromofluoromethane (s)	0.491	0.535	-9.0	120	0.00	8.34
41 M	1,1,1-trichloroethane	0.604	0.630	-4.3	114	0.00	8.97
42 I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00	9.57
43 M	cyclohexane	0.362	0.348	3.9	108	0.00	9.25
44 M	carbon tetrachloride	0.336	0.371	-10.4	117	0.00	9.33
45 M	1,1-dichloropropene	0.319	0.343	-7.5	116	0.00	9.14
46 M	benzene	0.972	1.056	-8.6	110	0.00	9.37
47 M	tetrahydrofuran	0.051	0.048#	5.9	89	0.00	8.54
48 M	1,2-dichloroethane	0.326	0.325	0.3	102	0.00	8.87
49 M	tert-amyl methyl ether	0.649	0.679	-4.6	103	0.00	9.49
50 M	heptane	0.238	0.267	-12.2	123	0.00	9.85
51 M	trichloroethene	0.302	0.306	-1.3	105	0.00	9.99
52 c	1,2-dichloropropane	0.237	0.244	-3.0	104	0.00	9.95
53 M	dibromomethane	0.175	0.183	-4.6	103	0.00	9.93
54 M	bromodichloromethane	0.336	0.362	-7.7	107	0.00	10.04
55 M	methylcyclohexane	0.418	0.438	-4.8	120	0.00	10.51
56 M	2-chloroethyl vinyl ether	0.124	0.114	8.1	94	-0.03	10.42
		----- Amount	Calc.	%Drift	-----		
57 M	methyl methacrylate	50.000	45.648	8.7	98	0.00	10.14
58 M	1,4-dioxane	250.000	231.264	7.5	100	0.00	10.13
59 M	cis-1,3-dichloropropene	50.000	47.624	4.8	106	0.00	10.66
		----- AvgRF	CCRF	%Dev	-----		
60 S	toluene-d8 (s)	1.056	1.217	-15.2	125	0.00	11.37
61 M	4-methyl-2-pentanone	0.181	0.176	2.8	95	0.00	10.76
62 c	toluene	0.663	0.698	-5.3	112	0.00	11.44
		----- Amount	Calc.	%Drift	-----		

6.7.2  
6

# Initial Calibration Verification

Job Number: MC21741  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSH1993-ICV1993  
 Lab FileID: H60302.D

63	M	trans-1,3-dichloropropene	50.000	48.828	2.3	112	-0.02	11.08
			AvgRF	CCRF	%Dev			
64	M	1,1,2-trichloroethane	0.196	0.200	-2.0	102	-0.01	11.25
			Amount	Calc.	%Drift			
65	M	ethyl methacrylate	50.000	47.075	5.8	100	-0.05	11.47
			AvgRF	CCRF	%Dev			
66	I	chlorobenzene-d5	1.000	1.000	0.0	94	0.00	12.83
67	M	tetrachloroethene	0.702	0.791	-12.7	118	0.00	12.18
68	M	1,3-dichloropropane	0.797	0.879	-10.3	102	0.00	11.49
			Amount	Calc.	%Drift			
69	M	dibromochloromethane	50.000	51.019	-2.0	110	0.00	11.78
			AvgRF	CCRF	%Dev			
70	M	1,2-dibromoethane	0.533	0.606	-13.7	104	-0.02	12.03
			Amount	Calc.	%Drift			
71	M	2-hexanone	50.000	68.387	-36.8#	130	0.00	11.62
			AvgRF	CCRF	%Dev			
72	P	chlorobenzene	1.868	1.935	-3.6	105	0.00	12.86
73	M	1,1,1,2-tetrachloroethane	0.577	0.670	-16.1	112	0.00	12.78
74	c	ethylbenzene	2.579	3.033	-17.6	113	0.00	13.04
75	M	m,p-xylene	1.064	1.246	-17.1	111	-0.02	13.22
76	M	o-xylene	1.108	1.262	-13.9	107	0.00	13.64
77	M	styrene	1.705	2.001	-17.4	109	-0.02	13.57
			Amount	Calc.	%Drift			
78	P	bromoform	50.000	50.888	-1.8	108	0.00	13.39
79	M	trans-1,4-dichloro-2-bute	50.000	33.078	33.8#	57	-0.01	13.63
			AvgRF	CCRF	%Dev			
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	96	0.00	15.39
81	M	isopropylbenzene	2.348	2.539	-8.1	110	0.00	14.00
82	S	bromofluorobenzene (s)	0.726	0.882	-21.5#	121	0.00	14.06
83	M	bromobenzene	0.689	0.768	-11.5	114	0.00	14.29
84	P	1,1,2,2-tetrachloroethane	0.507	0.585	-15.4	108	0.00	13.64
85	M	1,2,3-trichloropropane	0.471	0.521	-10.6	106	0.00	13.79
86	M	n-propylbenzene	2.595	2.835	-9.2	110	0.00	14.45
87	M	2-chlorotoluene	1.698	1.742	-2.6	105	0.00	14.56
88	M	4-chlorotoluene	1.691	1.835	-8.5	110	-0.02	14.64
89	M	1,3,5-trimethylbenzene	1.961	2.198	-12.1	112	0.00	14.73
90	M	tert-butylbenzene	1.098	1.168	-6.4	108	0.00	15.03
91	M	1,2,4-trimethylbenzene	1.961	2.192	-11.8	111	0.00	15.14
92	M	sec-butylbenzene	2.605	2.799	-7.4	111	0.00	15.26
93	M	1,3-dichlorobenzene	1.330	1.407	-5.8	108	0.00	15.36
94	M	p-isopropyltoluene	2.061	2.399	-16.4	122	0.00	15.43
95	M	1,4-dichlorobenzene	1.438	1.535	-6.7	113	0.00	15.42
96	M	1,2-dichlorobenzene	1.336	1.364	-2.1	104	0.00	15.79
97	M	n-butylbenzene	1.779	2.097	-17.9	118	-0.02	15.85
			Amount	Calc.	%Drift			
98	M	1,2-dibromo-3-chloropropa	50.000	49.857	0.3	104	0.00	16.27
			AvgRF	CCRF	%Dev			

# Initial Calibration Verification

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSH1993-ICV1993  
**Lab FileID:** H60302.D

99 M	1,3,5-trichlorobenzene	0.911	1.046	-14.8	122	-0.02	17.09
100 M	1,2,4-trichlorobenzene	0.760	0.862	-13.4	114	-0.02	17.65
101 M	hexachlorobutadiene	0.370	0.413	-11.6	131	0.00	17.96
102 M	naphthalene	1.505	1.548	-2.9	99	-0.02	17.93
103 M	1,2,3-trichlorobenzene	0.636	0.681	-7.1	108	-0.01	18.15
		-----	Amount	Calc.	%Drift	-----	
104 M	2-Methylnaphthalene	25.000	20.582	17.7	84	-0.09	19.41
		-----					
		-----					

(#) = Out of Range  
 H60287.D H130412W.M  
 SPCC's out = 0 CCC's out = 0  
 Mon Apr 15 08:50:24 2013

6.7.2

6

## Continuing Calibration Summary

Job Number: MC21741  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSH2033-CC1993  
 Lab FileID: H61593.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\130617\H61593.D Vial: 30  
 Acq On : 18 Jun 2013 6:52 am Operator: amym  
 Sample : cc1993-50 Inst : MSH  
 Misc : MS29140,MSH2033,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\H130412W.M (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Tue Jun 18 07:35:04 2013  
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	Tert Butyl Alcohol-d9	1.000	1.000	0.0	57	0.00	6.19
2 M	tertiary butyl alcohol	1.028	1.096	-6.6	62	0.00	6.27
	----- Amount	Calc.	%Drift	-----			
3 m	Ethanol	5000.000	3801.780	24.0#	47	0.00	5.09
	----- AvgRF	CCRF	%Dev	-----			
4 I	pentafluorobenzene	1.000	1.000	0.0	89	0.00	8.62
5 M	dichlorodifluoromethane	0.551	0.482	12.5	82	0.00	4.01
6 P	chloromethane	0.361	0.261	27.7#	69	0.00	4.22
7 c	vinyl chloride	0.414	0.361	12.8	78	0.00	4.47
8 M	bromomethane	0.345	0.304	11.9	84	0.00	4.94
9 M	chloroethane	0.222	0.169	23.9#	70	0.00	5.09
	----- Amount	Calc.	%Drift	-----			
10 M	acetonitrile	50.000	26.177	47.6#	34	0.00	5.71
	----- AvgRF	CCRF	%Dev	-----			
11 M	trichlorofluoromethane	0.704	0.720	-2.3	97	0.00	5.70
12 M	freon-113	0.395	0.395	0.0	96	0.00	6.47
	----- Amount	Calc.	%Drift	-----			
13 M	acrolein	250.000	87.427	65.0#	33	0.00	5.69
	----- AvgRF	CCRF	%Dev	-----			
14 c	1,1-dichloroethene	0.349	0.313	10.3	85	0.00	6.28
	----- Amount	Calc.	%Drift	-----			
15 M	acetone	50.000	44.709	10.6	82	0.00	5.82
	----- AvgRF	CCRF	%Dev	-----			
16 M	ethyl ether	0.245	0.185	24.5#	67	0.00	5.93
17 M	methyl acetate	0.363	0.160	55.9#	38#	0.00	6.45
18 M	methylene chloride	0.429	0.372	13.3	80	0.00	6.42
19 M	methyl tert butyl ether	0.975	0.849	12.9	75	0.00	7.21
	----- Amount	Calc.	%Drift	-----			
20 M	acrylonitrile	50.000	27.156	45.7#	50	0.00	6.32
	----- AvgRF	CCRF	%Dev	-----			
21 M	allyl chloride	0.420	0.300	28.6#	62	0.00	6.52

# Continuing Calibration Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSH2033-CC1993  
**Lab FileID:** H61593.D

22 M	trans-1,2-dichloroethene	0.405	0.380	6.2	87	0.00	7.11
23 M	iodomethane	0.787	0.802	-1.9	95	0.00	6.34
24 M	carbon disulfide	1.148	0.971	15.4	79	0.00	6.70
		----- Amount	Calc.	%Drift	-----		
25 M	propionitrile	50.000	25.351	49.3#	39	0.00	7.37
26 M	vinyl acetate	50.000	45.304	9.4	81	0.00	7.46
		----- AvgRF	CCRF	%Dev	-----		
27 M	chloroprene	0.466	0.435	6.7	86	0.00	7.73
28 M	di-isopropyl ether	1.015	0.731	28.0#	62	0.00	7.77
29 M	methacrylonitrile	0.175	0.102	41.7#	49#	0.00	7.88
		----- Amount	Calc.	%Drift	-----		
30 M	2-butanone	50.000	37.252	25.5#	68	0.00	7.78
		----- AvgRF	CCRF	%Dev	-----		
31 P	1,1-dichloroethane	0.615	0.514	16.4	76	0.00	7.36
32 M	tert-butyl ethyl ether	1.005	0.886	11.8	74	0.00	8.17
33 M	Hexane	0.459	0.359	21.8#	73	0.00	7.75
		----- Amount	Calc.	%Drift	-----		
34 M	isobutyl alcohol	250.000	210.835	15.7	73	0.00	8.17
		----- AvgRF	CCRF	%Dev	-----		
35 M	2,2-dichloropropane	0.476	0.435	8.6	83	0.00	8.22
36 M	cis-1,2-dichloroethene	0.454	0.418	7.9	82	0.00	7.93
37 M	ethyl acetate	0.165	0.140	15.2	70	0.00	8.17
38 M	bromochloromethane	0.248	0.241	2.8	86	0.00	8.10
39 c	chloroform	0.706	0.705	0.1	87	0.00	8.14
40 S	dibromofluoromethane (s)	0.491	0.511	-4.1	93	0.00	8.26
41 M	1,1,1-trichloroethane	0.604	0.670	-10.9	99	0.00	8.89
42 I	1,4-difluorobenzene	1.000	1.000	0.0	82	0.00	9.49
43 M	cyclohexane	0.362	0.298	17.7	74	0.00	9.17
44 M	carbon tetrachloride	0.336	0.423	-25.9#	105	0.00	9.25
45 M	1,1-dichloropropene	0.319	0.319	0.0	86	0.00	9.06
46 M	benzene	0.972	0.914	6.0	76	0.00	9.28
47 M	tetrahydrofuran	0.051	0.027#	47.1#	40#	0.00	8.47
48 M	1,2-dichloroethane	0.326	0.321	1.5	80	0.00	8.78
49 M	tert-amyl methyl ether	0.649	0.612	5.7	74	0.00	9.41
50 M	heptane	0.238	0.160	32.8#	59	0.00	9.78
51 M	trichloroethene	0.302	0.302	0.0	82	0.00	9.91
52 c	1,2-dichloropropane	0.237	0.197	16.9	67	0.00	9.87
53 M	dibromomethane	0.175	0.161	8.0	72	0.00	9.85
54 M	bromodichloromethane	0.336	0.365	-8.6	86	0.00	9.96
55 M	methylcyclohexane	0.418	0.386	7.7	84	0.00	10.43
56 M	2-chloroethyl vinyl ether	0.124	0.091	26.6#	59	0.00	10.34
		----- Amount	Calc.	%Drift	-----		
57 M	methyl methacrylate	50.000	36.342	27.3#	60	0.00	10.07
58 M	1,4-dioxane	250.000	188.486	24.6#	62	0.00	10.05
59 M	cis-1,3-dichloropropene	50.000	42.847	14.3	76	0.00	10.58
		----- AvgRF	CCRF	%Dev	-----		
60 S	toluene-d8 (s)	1.056	1.185	-12.2	96	0.00	11.29
61 M	4-methyl-2-pentanone	0.181	0.113	37.6#	49#	0.00	10.68
62 c	toluene	0.663	0.642	3.2	82	0.00	11.36
		----- Amount	Calc.	%Drift	-----		

6.7.3  
6

# Continuing Calibration Summary

Job Number: MC21741  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSH2033-CC1993  
 Lab FileID: H61593.D

63	M	trans-1,3-dichloropropene	50.000	42.121	15.8	76	0.00	11.00
			AvgRF	CCRF	%Dev			
64	M	1,1,2-trichloroethane	0.196	0.164	16.3	67	0.00	11.17
			Amount	Calc.	%Drift			
65	M	ethyl methacrylate	50.000	39.366	21.3#	66	0.00	11.39
			AvgRF	CCRF	%Dev			
66	I	chlorobenzene-d5	1.000	1.000	0.0	73	0.00	12.74
67	M	tetrachloroethene	0.702	0.825	-17.5	95	0.00	12.10
68	M	1,3-dichloropropane	0.797	0.765	4.0	69	0.00	11.41
			Amount	Calc.	%Drift			
69	M	dibromochloromethane	50.000	54.171	-8.3	91	0.00	11.70
			AvgRF	CCRF	%Dev			
70	M	1,2-dibromoethane	0.533	0.536	-0.6	71	0.00	11.95
			Amount	Calc.	%Drift			
71	M	2-hexanone	50.000	39.152	21.7#	53	0.00	11.54
			AvgRF	CCRF	%Dev			
72	P	chlorobenzene	1.868	1.831	2.0	77	0.00	12.78
73	M	1,1,1,2-tetrachloroethane	0.577	0.719	-24.6#	93	0.00	12.70
74	c	ethylbenzene	2.579	2.950	-14.4	85	0.00	12.96
75	M	m,p-xylene	1.064	1.195	-12.3	82	0.00	13.15
76	M	o-xylene	1.108	1.191	-7.5	78	0.00	13.56
77	M	styrene	1.705	1.921	-12.7	81	0.00	13.48
			Amount	Calc.	%Drift			
78	P	bromoform	50.000	54.865	-9.7	92	0.00	13.30
79	M	trans-1,4-dichloro-2-bute	50.000	42.958	14.1	69	0.00	13.72
			AvgRF	CCRF	%Dev			
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	79	0.00	15.32
81	M	isopropylbenzene	2.348	2.259	3.8	81	0.00	13.92
82	S	bromofluorobenzene (s)	0.726	0.847	-16.7	95	0.00	13.98
83	M	bromobenzene	0.689	0.728	-5.7	89	0.00	14.20
84	P	1,1,2,2-tetrachloroethane	0.507	0.438	13.6	67	0.00	13.56
85	M	1,2,3-trichloropropane	0.471	0.396	15.9	66	0.00	13.71
86	M	n-propylbenzene	2.595	2.321	10.6	74	0.00	14.37
87	M	2-chlorotoluene	1.698	1.523	10.3	75	0.00	14.48
88	M	4-chlorotoluene	1.691	1.554	8.1	76	0.00	14.56
89	M	1,3,5-trimethylbenzene	1.961	2.128	-8.5	89	0.00	14.65
90	M	tert-butylbenzene	1.098	1.062	3.3	81	0.00	14.95
91	M	1,2,4-trimethylbenzene	1.961	2.140	-9.1	89	0.00	15.06
92	M	sec-butylbenzene	2.605	2.423	7.0	79	0.00	15.18
93	M	1,3-dichlorobenzene	1.330	1.262	5.1	80	0.00	15.28
94	M	p-isopropyltoluene	2.061	2.199	-6.7	92	0.00	15.35
95	M	1,4-dichlorobenzene	1.438	1.463	-1.7	88	0.00	15.34
96	M	1,2-dichlorobenzene	1.336	1.268	5.1	80	0.00	15.71
97	M	n-butylbenzene	1.779	1.813	-1.9	84	0.00	15.77
			Amount	Calc.	%Drift			
98	M	1,2-dibromo-3-chloropropa	50.000	42.545	14.9	71	0.00	16.19
			AvgRF	CCRF	%Dev			

# Continuing Calibration Summary

**Job Number:** MC21741  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSH2033-CC1993  
**Lab FileID:** H61593.D

99 M	1,3,5-trichlorobenzene	0.911	0.921	-1.1	88	0.00	17.01
100 M	1,2,4-trichlorobenzene	0.760	0.738	2.9	80	0.00	17.56
101 M	hexachlorobutadiene	0.370	0.403	-8.9	105	0.00	17.87
102 M	naphthalene	1.505	1.232	18.1	65	0.00	17.84
103 M	1,2,3-trichlorobenzene	0.636	0.590	7.2	77	0.00	18.05
	----- Amount	Calc.	%Drift	-----			
104 M	2-Methylnaphthalene	25.000	18.008	28.0#	57	0.00	19.30
	-----			-----			

(#) = Out of Range  
 H61593.D H130412W.M

SPPC's out = 0 CCC's out = 0  
 Tue Jun 18 13:41:34 2013

6.7.3

6



GC/MS Volatiles

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Raw Data

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7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
Data File : H61614.D  
Acq On : 18 Jun 2013 4:33 pm  
Operator : amym  
Sample : mc21741-1  
Misc : MS29141,MSH2033,,,,5,1  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 19 12:14:29 2013  
Quant Method : C:\msdchem\1\METHODS\H130412W.M  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 18 07:35:04 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.197	65	19453	500.00	ug/L	0.00
4) pentafluorobenzene	8.621	168	129469	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.490	114	174290	50.00	ug/L	0.00
66) chlorobenzene-d5	12.747	82	72800	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.316	152	91805	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.261	113	57631	45.34	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.68%
60) toluene-d8 (s)	11.289	98	186172	50.57	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.14%
82) bromofluorobenzene (s)	13.978	95	71537	53.65	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	107.30%

Target Compounds Qvalue

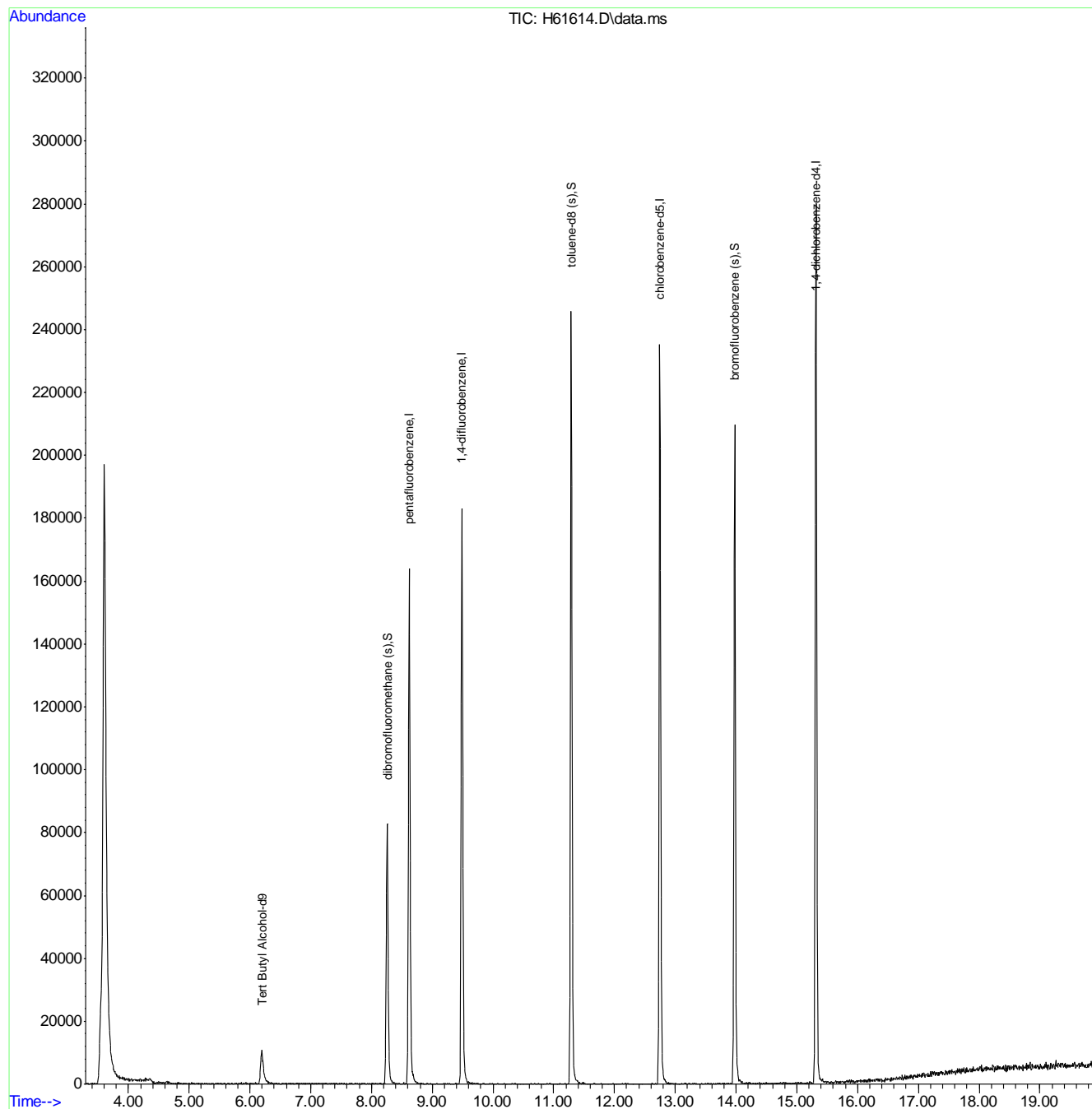
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.1  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
Data File : H61614.D  
Acq On : 18 Jun 2013 4:33 pm  
Operator : amym  
Sample : mc21741-1  
Misc : MS29141,MSH2033,,,,,5,1  
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 19 12:14:29 2013  
Quant Method : C:\msdchem\1\METHODS\H130412W.M  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 18 07:35:04 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
Data File : H61613.D  
Acq On : 18 Jun 2013 4:05 pm  
Operator : amym  
Sample : mc21741-2  
Misc : MS29141,MSH2033,,,,5,1  
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 19 12:13:48 2013  
Quant Method : C:\msdchem\1\METHODS\H130412W.M  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 18 07:35:04 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.187	65	22693	500.00	ug/L	0.00
4) pentafluorobenzene	8.622	168	134778	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.490	114	182531	50.00	ug/L	0.00
66) chlorobenzene-d5	12.751	82	76104	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.316	152	94488	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.255	113	59962	45.32	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.64%
60) toluene-d8 (s)	11.290	98	197311	51.18	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.36%
82) bromofluorobenzene (s)	13.976	95	75427	54.96	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	109.92%

Target Compounds Qvalue

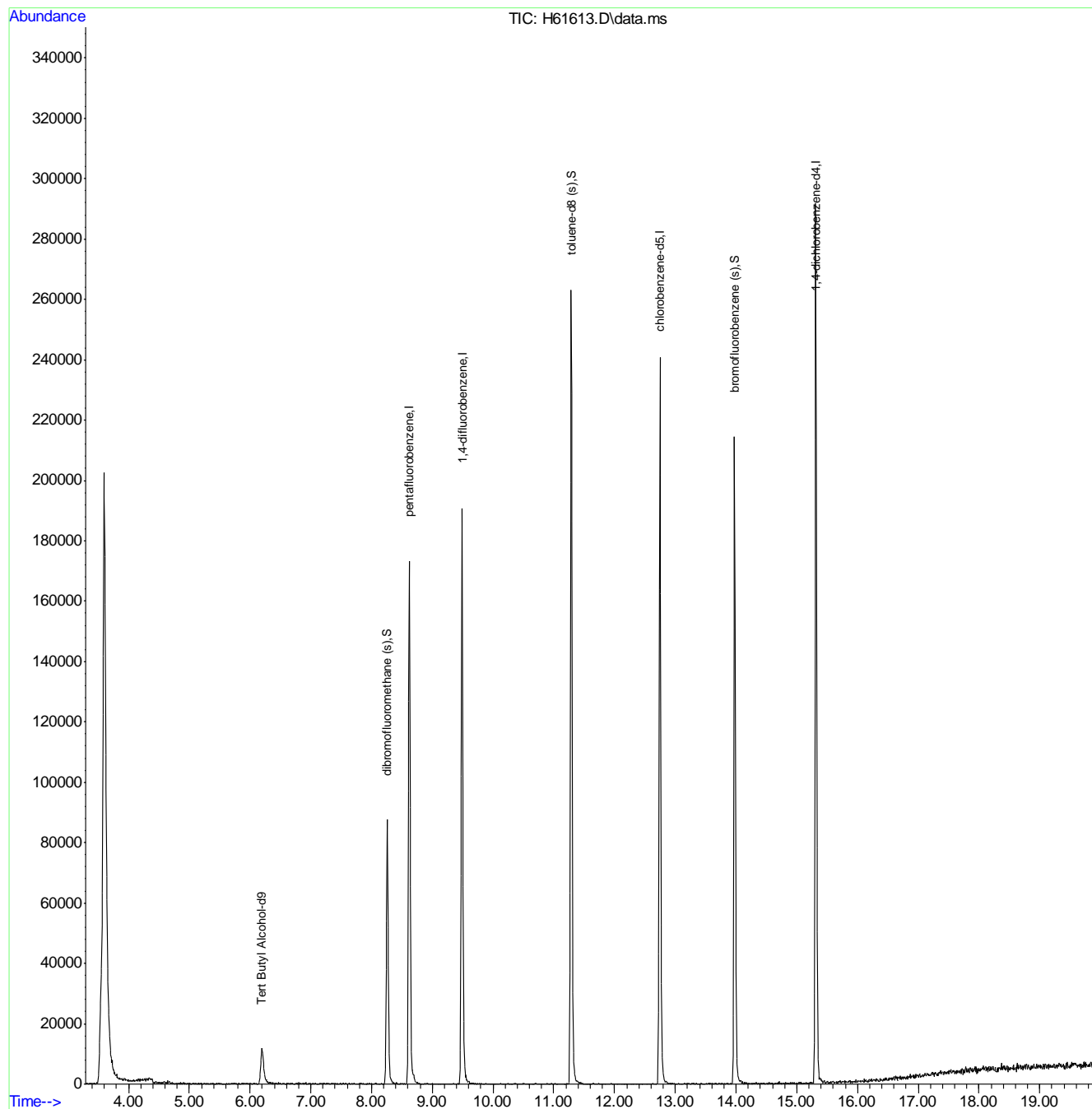
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.12  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
Data File : H61613.D  
Acq On : 18 Jun 2013 4:05 pm  
Operator : amym  
Sample : mc21741-2  
Misc : MS29141,MSH2033,,,,5,1  
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 19 12:13:48 2013  
Quant Method : C:\msdchem\1\METHODS\H130412W.M  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 18 07:35:04 2013  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61597.D  
 Acq On : 18 Jun 2013 8:42 am  
 Operator : amym  
 Sample : mb  
 Misc : MS29140,MSH2033,,,,5,1  
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jun 18 13:47:00 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.195	65	28751	500.00	ug/L	0.00
4) pentafluorobenzene	8.627	168	153175	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.488	114	207909	50.00	ug/L	0.00
66) chlorobenzene-d5	12.748	82	87199	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.314	152	112525	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.260	113	66491	44.22	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.44%
60) toluene-d8 (s)	11.287	98	221625	50.47	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.94%
82) bromofluorobenzene (s)	13.973	95	84889	51.94	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.88%

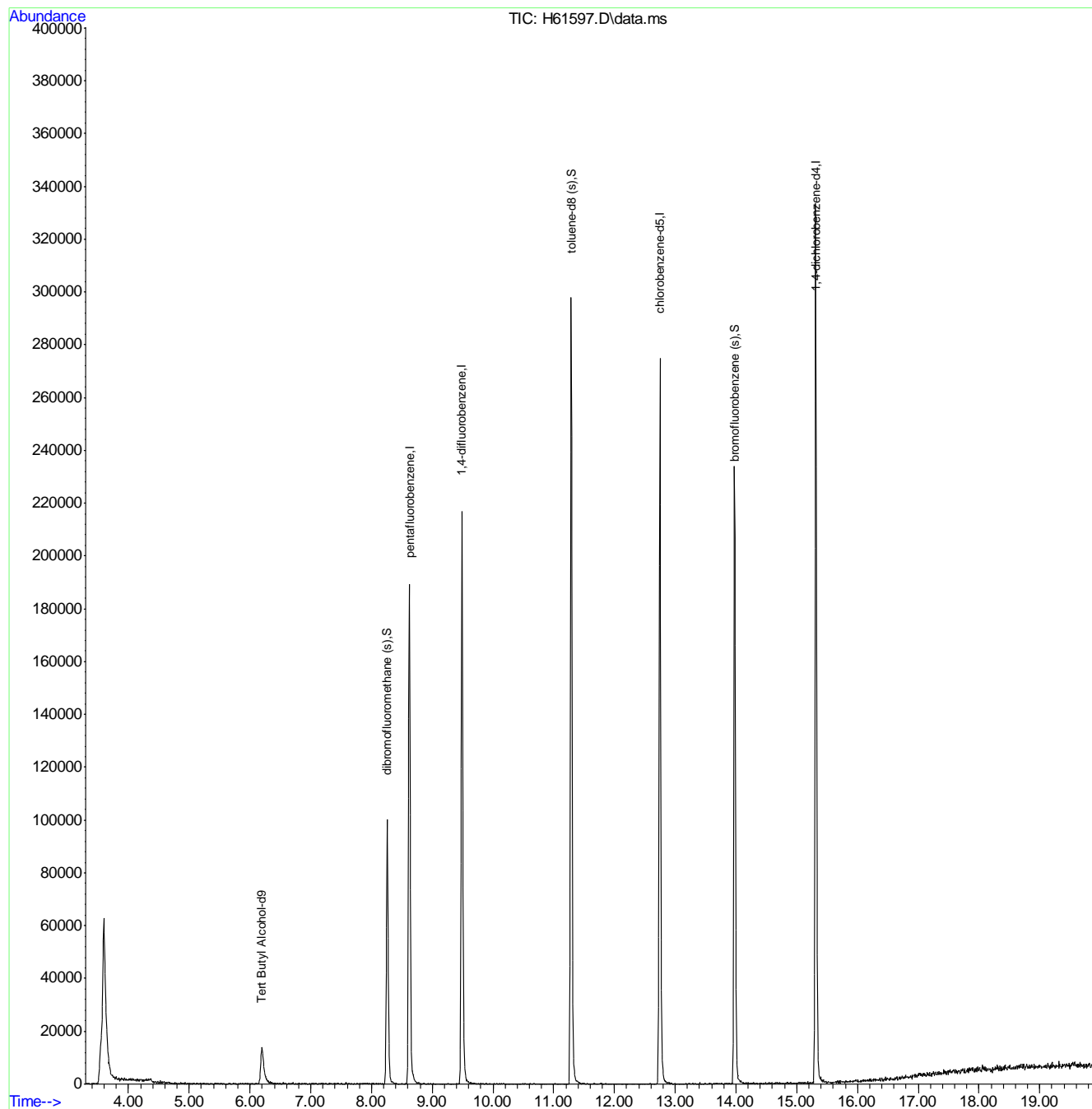
Target Compounds Qvalue

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

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
Data File : H61597.D  
Acq On : 18 Jun 2013 8:42 am  
Operator : amym  
Sample : mb  
Misc : MS29140,MSH2033,,,,,5,1  
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jun 18 13:47:00 2013  
Quant Method : C:\msdchem\1\METHODS\H130412W.M  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 18 07:35:04 2013  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61594.D  
 Acq On : 18 Jun 2013 7:19 am  
 Operator : amym  
 Sample : bs  
 Misc : MS29140,MSH2033,,,,5,1  
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jun 18 13:42:00 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.188	65	28093	500.00	ug/L	0.00
4) pentafluorobenzene	8.619	168	168422	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.487	114	237852	50.00	ug/L	0.00
66) chlorobenzene-d5	12.744	82	105625	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.313	152	138623	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.259	113	76055	46.00	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	92.00%
60) toluene-d8 (s)	11.287	98	252526	50.26	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.52%
82) bromofluorobenzene (s)	13.976	95	104143	51.72	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.44%
Target Compounds						
2) tertiary butyl alcohol	6.280	59	31759	549.96	ug/L	88
3) Ethanol	5.090	45	24030	3313.78	ug/L #	100
5) dichlorodifluoromethane	4.000	85	89468	48.21	ug/L	92
6) chloromethane	4.215	50	54561	44.93	ug/L	99
7) vinyl chloride	4.473	62	60949	43.69	ug/L	95
8) bromomethane	4.935	96	56763	48.83	ug/L	96
9) chloroethane	5.087	64	33112	44.29	ug/L	94
10) acetonitrile	5.715	41	3496	34.17	ug/L	71
11) trichlorofluoromethane	5.704	101	123488	52.07	ug/L	96
12) freon-113	6.470	101	69221	52.09	ug/L	97
13) acrolein	5.683	56	18652	138.56	ug/L	95
14) 1,1-dichloroethene	6.276	96	60178	51.12	ug/L	92
15) acetone	5.821	43	13078	48.14	ug/L	98
16) ethyl ether	5.930	59	29346	35.54	ug/L	100
17) methyl acetate	6.449	43	28349	23.19	ug/L	86
18) methylene chloride	6.424	84	64605	44.66	ug/L	92
19) methyl tert butyl ether	7.204	73	145183	44.20	ug/L	92
20) acrylonitrile	6.325	53	9137	26.75	ug/L	75
21) allyl chloride	6.516	41	52028	36.75	ug/L	91
22) trans-1,2-dichloroethene	7.112	96	65511	47.99	ug/L	92
23) iodomethane	6.332	142	145256	54.81	ug/L	96
24) carbon disulfide	6.699	76	186806	48.31	ug/L	99
25) propionitrile	7.377	54	2859	27.06	ug/L	100
26) vinyl acetate	7.465	43	46607	38.19	ug/L	95
27) chloroprene	7.723	53	79843	50.87	ug/L	95
28) di-isopropyl ether	7.772	45	119854	35.07	ug/L	89
29) methacrylonitrile	7.878	41	17773	30.15	ug/L	93
30) 2-butanone	7.772	72	5398	40.11	ug/L #	92
31) 1,1-dichloroethane	7.359	63	91892	44.35	ug/L	99
32) tert-butyl ethyl ether	8.171	59	150819	44.57	ug/L	95
33) Hexane	7.751	41	61072	39.49	ug/L	87
34) isobutyl alcohol	8.167	43	23009	194.88	ug/L	81
35) 2,2-dichloropropane	8.224	77	75837	47.30	ug/L	99
36) cis-1,2-dichloroethene	7.938	96	71148	46.50	ug/L	93



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61594.D  
 Acq On : 18 Jun 2013 7:19 am  
 Operator : amym  
 Sample : bs  
 Misc : MS29140,MSH2033,,,,5,1  
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jun 18 13:42:00 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.167	43	22972	41.36	ug/L	90
38) bromochloromethane	8.097	128	42158	50.47	ug/L #	82
39) chloroform	8.139	83	119998	50.48	ug/L	100
41) 1,1,1-trichloroethane	8.887	97	117994	57.98	ug/L	98
43) cyclohexane	9.173	56	70327	40.88	ug/L #	81
44) carbon tetrachloride	9.254	117	106642	66.68	ug/L	93
45) 1,1-dichloropropene	9.060	75	80971	53.33	ug/L	97
46) benzene	9.286	78	228889	49.52	ug/L	98
47) tetrahydrofuran	8.471	42	6425	26.51	ug/L	88
48) 1,2-dichloroethane	8.789	62	79512	51.29	ug/L	89
49) tert-amyl methyl ether	9.410	73	148347	48.03	ug/L	98
50) heptane	9.773	43	37179	32.84	ug/L	89
51) trichloroethene	9.907	95	75537	52.61	ug/L	93
52) 1,2-dichloropropane	9.872	63	47651	42.23	ug/L	97
53) dibromomethane	9.844	93	40390	48.45	ug/L	98
54) bromodichloromethane	9.964	83	90703	56.77	ug/L	98
55) methylcyclohexane	10.429	83	97831	49.20	ug/L	92
56) 2-chloroethyl vinyl ether	10.341	63	22085	37.51	ug/L	91
57) methyl methacrylate	10.062	69	26545	37.31	ug/L	96
58) 1,4-dioxane	10.066	88	1994	166.49	ug/L #	66
59) cis-1,3-dichloropropene	10.585	75	84594	43.80	ug/L	95
61) 4-methyl-2-pentanone	10.676	43	27203	31.67	ug/L	96
62) toluene	11.361	92	163954	51.95	ug/L	97
63) trans-1,3-dichloropropene	11.005	75	74320	46.07	ug/L	98
64) 1,1,2-trichloroethane	11.174	83	41602	44.73	ug/L	95
65) ethyl methacrylate	11.389	69	56340	39.66	ug/L	87
67) tetrachloroethene	12.102	166	90235	60.83	ug/L	94
68) 1,3-dichloropropane	11.407	76	82918	49.25	ug/L	99
69) dibromochloromethane	11.696	129	76163	56.13	ug/L	99
70) 1,2-dibromoethane	11.947	107	60827	54.01	ug/L	88
71) 2-hexanone	11.537	43	21586	42.23	ug/L	97
72) chlorobenzene	12.780	112	211387	53.57	ug/L	100
73) 1,1,1,2-tetrachloroethane	12.702	131	80438	65.99	ug/L	98
74) ethylbenzene	12.960	91	322294	59.16	ug/L	100
75) m,p-xylene	13.147	106	272325	121.18	ug/L	100
76) o-xylene	13.559	106	137456	58.72	ug/L	96
77) styrene	13.485	104	209883	58.28	ug/L	96
78) bromoform	13.302	173	46331	53.88	ug/L	96
79) trans-1,4-dichloro-2-b...	13.715	53	8271	44.29	ug/L #	84
81) isopropylbenzene	13.923	105	351558	54.00	ug/L	100
83) bromobenzene	14.205	156	106594	55.82	ug/L	88
84) 1,1,2,2-tetrachloroethane	13.559	83	62477	44.44	ug/L	93
85) 1,2,3-trichloropropane	13.708	75	56567	43.28	ug/L	97
86) n-propylbenzene	14.368	91	362986	50.45	ug/L	98
87) 2-chlorotoluene	14.484	91	236423	50.22	ug/L	97
88) 4-chlorotoluene	14.562	91	245790	52.44	ug/L	98
89) 1,3,5-trimethylbenzene	14.650	105	306717	56.43	ug/L	100
90) tert-butylbenzene	14.953	91	161377	53.03	ug/L	99
91) 1,2,4-trimethylbenzene	15.059	105	304805	56.07	ug/L	99
92) sec-butylbenzene	15.179	105	371180	51.39	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61594.D  
 Acq On : 18 Jun 2013 7:19 am  
 Operator : amym  
 Sample : bs  
 Misc : MS29140,MSH2033,,,,,5,1  
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jun 18 13:42:00 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.274	146	202349	54.89	ug/L	95
94) p-isopropyltoluene	15.356	119	336654	58.93	ug/L	99
95) 1,4-dichlorobenzene	15.345	146	212627	53.34	ug/L	99
96) 1,2-dichlorobenzene	15.712	146	192113	51.88	ug/L	98
97) n-butylbenzene	15.772	91	263375	53.41	ug/L	100
98) 1,2-dibromo-3-chloropr...	16.192	75	9459	43.57	ug/L	95
99) 1,3,5-trichlorobenzene	17.011	180	134430	53.20	ug/L	98
100) 1,2,4-trichlorobenzene	17.568	180	111529	52.91	ug/L	99
101) hexachlorobutadiene	17.872	225	59409	57.86	ug/L	98
102) naphthalene	17.840	128	191654	45.93	ug/L	100
103) 1,2,3-trichlorobenzene	18.059	180	90075	51.05	ug/L	97
104) 2-Methylnaphthalene	19.297	142	21470	20.99	ug/L	97

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



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61595.D  
 Acq On : 18 Jun 2013 7:47 am  
 Operator : amym  
 Sample : bsd  
 Misc : MS29140,MSH2033,,,,5,1  
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 18 13:43:06 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.183	65	28494	500.00	ug/L	-0.01
4) pentafluorobenzene	8.622	168	171747	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.490	114	243728	50.00	ug/L	0.00
66) chlorobenzene-d5	12.747	82	106017	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.316	152	141324	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.255	113	79511	47.16	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	94.32%
60) toluene-d8 (s)	11.286	98	256253	49.78	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.56%
82) bromofluorobenzene (s)	13.975	95	107328	52.29	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.58%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	6.275	59	31897	544.58	ug/L	91
3) Ethanol	5.093	45	23929	3260.79	ug/L #	100
5) dichlorodifluoromethane	3.999	85	86298	45.60	ug/L	99
6) chloromethane	4.214	50	55438	44.77	ug/L	98
7) vinyl chloride	4.465	62	60969	42.86	ug/L	97
8) bromomethane	4.934	96	56417	47.59	ug/L	95
9) chloroethane	5.089	64	32440	42.55	ug/L	94
10) acetone	5.728	41	3145	31.36	ug/L	76
11) trichlorofluoromethane	5.703	101	121700	50.33	ug/L	94
12) freon-113	6.473	101	70062	51.70	ug/L	90
13) acrolein	5.686	56	19133	139.41	ug/L	89
14) 1,1-dichloroethene	6.275	96	58716	48.91	ug/L	97
15) acetone	5.830	43	14750	52.84	ug/L	85
16) ethyl ether	5.936	59	31409	37.30	ug/L	100
17) methyl acetate	6.452	43	29901	23.99	ug/L	87
18) methylene chloride	6.423	84	66189	44.87	ug/L	87
19) methyl tert butyl ether	7.207	73	145010	43.29	ug/L	93
20) acrylonitrile	6.325	53	9202	26.46	ug/L	97
21) allyl chloride	6.512	41	52234	36.18	ug/L	84
22) trans-1,2-dichloroethene	7.111	96	68750	49.39	ug/L	88
23) iodomethane	6.332	142	141070	52.20	ug/L	99
24) carbon disulfide	6.699	76	177992	45.14	ug/L	98
25) propionitrile	7.390	54	3314	29.58	ug/L	100
26) vinyl acetate	7.461	43	44135	35.71	ug/L	96
27) chloroprene	7.725	53	79198	49.49	ug/L	96
28) di-isopropyl ether	7.771	45	121314	34.81	ug/L	86
29) methacrylonitrile	7.870	41	17855	29.70	ug/L	93
30) 2-butanone	7.778	72	5846	42.43	ug/L #	14
31) 1,1-dichloroethane	7.358	63	93110	44.07	ug/L	100
32) tert-butyl ethyl ether	8.167	59	151569	43.93	ug/L	97
33) Hexane	7.747	41	60345	38.26	ug/L	86
34) isobutyl alcohol	8.170	43	23117	191.65	ug/L	87
35) 2,2-dichloropropane	8.223	77	73634	45.04	ug/L	91
36) cis-1,2-dichloroethene	7.930	96	73111	46.86	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61595.D  
 Acq On : 18 Jun 2013 7:47 am  
 Operator : amym  
 Sample : bsd  
 Misc : MS29140,MSH2033,,,,5,1  
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 18 13:43:06 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.170	43	23235	41.02	ug/L	87
38) bromochloromethane	8.096	128	42878	50.34	ug/L #	84
39) chloroform	8.135	83	121235	50.02	ug/L	99
41) 1,1,1-trichloroethane	8.890	97	114060	54.96	ug/L	97
43) cyclohexane	9.172	56	68183	38.68	ug/L	83
44) carbon tetrachloride	9.257	117	102859	62.76	ug/L	99
45) 1,1-dichloropropene	9.063	75	81700	52.52	ug/L	98
46) benzene	9.285	78	228502	48.25	ug/L	99
47) tetrahydrofuran	8.463	42	7074	28.49	ug/L	71
48) 1,2-dichloroethane	8.788	62	82165	51.72	ug/L	90
49) tert-amyl methyl ether	9.416	73	150764	47.64	ug/L	96
50) heptane	9.776	43	37636	32.44	ug/L	95
51) trichloroethene	9.910	95	76135	51.75	ug/L	97
52) 1,2-dichloropropane	9.871	63	48370	41.83	ug/L	98
53) dibromomethane	9.846	93	41289	48.34	ug/L	94
54) bromodichloromethane	9.959	83	92899	56.74	ug/L	95
55) methylcyclohexane	10.429	83	93966	46.12	ug/L	95
56) 2-chloroethyl vinyl ether	10.340	63	20632	34.20	ug/L	88
57) methyl methacrylate	10.069	69	26350	36.26	ug/L	88
58) 1,4-dioxane	10.065	88	2043	166.47	ug/L	78
59) cis-1,3-dichloropropene	10.580	75	84429	42.71	ug/L	95
61) 4-methyl-2-pentanone	10.679	43	28368	32.23	ug/L	96
62) toluene	11.360	92	162440	50.22	ug/L	98
63) trans-1,3-dichloropropene	11.007	75	73900	44.79	ug/L	98
64) 1,1,2-trichloroethane	11.177	83	42350	44.43	ug/L	95
65) ethyl methacrylate	11.388	69	56460	38.81	ug/L	93
67) tetrachloroethene	12.101	166	88423	59.39	ug/L	98
68) 1,3-dichloropropane	11.410	76	82387	48.75	ug/L	96
69) dibromochloromethane	11.699	129	77501	56.83	ug/L	100
70) 1,2-dibromoethane	11.949	107	61429	54.34	ug/L	99
71) 2-hexanone	11.533	43	24149	46.36	ug/L	92
72) chlorobenzene	12.779	112	211337	53.35	ug/L	98
73) 1,1,1,2-tetrachloroethane	12.698	131	79466	64.95	ug/L	95
74) ethylbenzene	12.962	91	321319	58.76	ug/L	100
75) m,p-xylene	13.146	106	268173	118.89	ug/L	98
76) o-xylene	13.559	106	138211	58.83	ug/L	94
77) styrene	13.484	104	210570	58.25	ug/L	95
78) bromoform	13.301	173	47146	54.43	ug/L	96
79) trans-1,4-dichloro-2-b...	13.714	53	8084	43.53	ug/L #	80
81) isopropylbenzene	13.926	105	346779	52.24	ug/L	98
83) bromobenzene	14.204	156	105378	54.13	ug/L	90
84) 1,1,2,2-tetrachloroethane	13.562	83	62822	43.83	ug/L	96
85) 1,2,3-trichloropropane	13.710	75	58120	43.61	ug/L	95
86) n-propylbenzene	14.370	91	359757	49.05	ug/L	98
87) 2-chlorotoluene	14.483	91	234376	48.84	ug/L	99
88) 4-chlorotoluene	14.557	91	243352	50.93	ug/L	100
89) 1,3,5-trimethylbenzene	14.649	105	298976	53.95	ug/L	99
90) tert-butylbenzene	14.952	91	157877	50.89	ug/L	95
91) 1,2,4-trimethylbenzene	15.062	105	298345	53.84	ug/L	99
92) sec-butylbenzene	15.178	105	364623	49.52	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61595.D  
 Acq On : 18 Jun 2013 7:47 am  
 Operator : amym  
 Sample : bsd  
 Misc : MS29140,MSH2033,,,,,5,1  
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 18 13:43:06 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

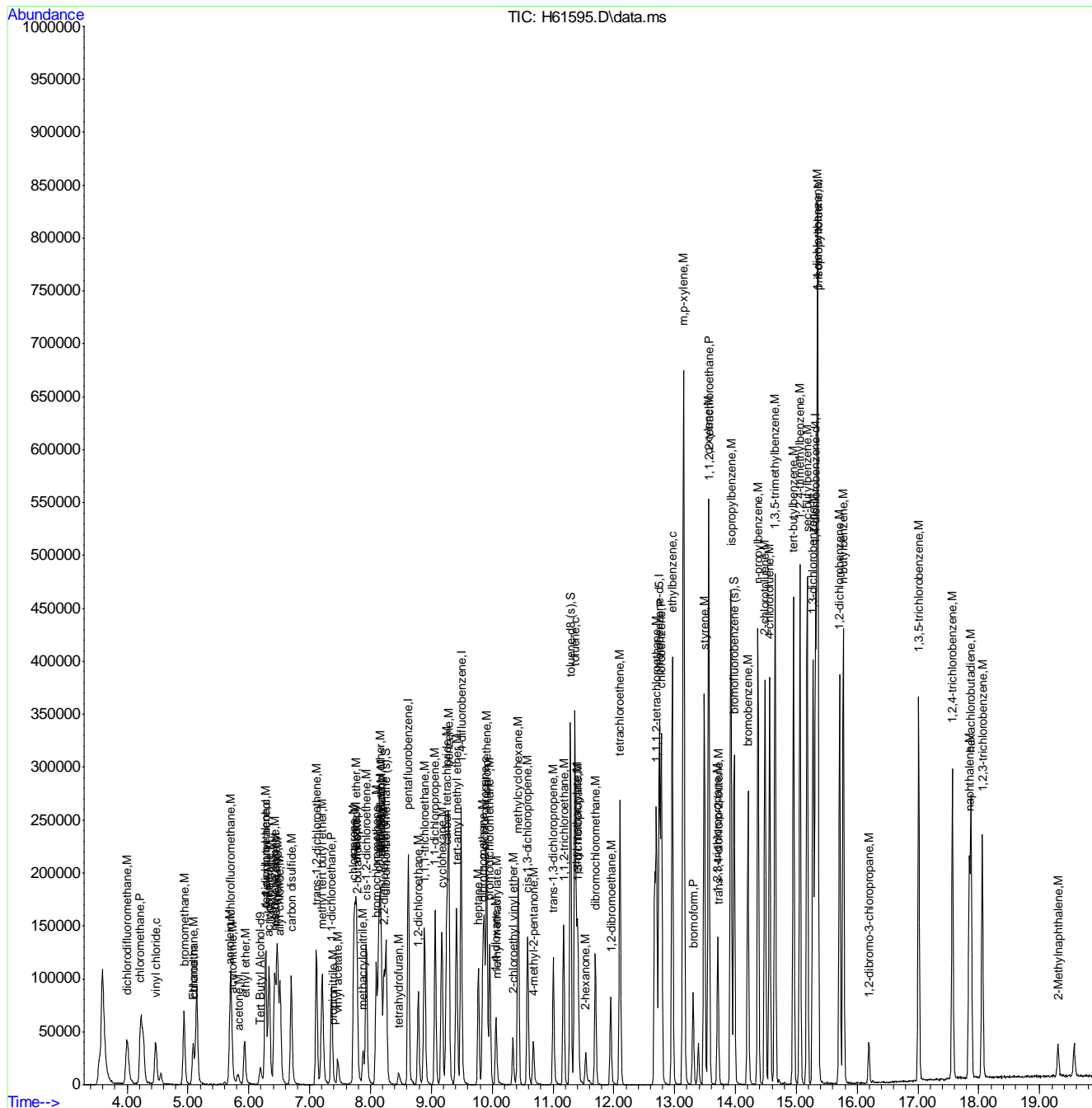
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.274	146	195825	52.11	ug/L	98
94) p-isopropyltoluene	15.351	119	327859	56.29	ug/L	99
95) 1,4-dichlorobenzene	15.344	146	213676	52.58	ug/L	100
96) 1,2-dichlorobenzene	15.711	146	191927	50.83	ug/L	96
97) n-butylbenzene	15.771	91	256719	51.06	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.191	75	9305	42.22	ug/L	87
99) 1,3,5-trichlorobenzene	17.010	180	130146	50.52	ug/L	99
100) 1,2,4-trichlorobenzene	17.564	180	110141	51.25	ug/L	95
101) hexachlorobutadiene	17.871	225	59123	56.48	ug/L	100
102) naphthalene	17.843	128	192062	45.15	ug/L	100
103) 1,2,3-trichlorobenzene	18.058	180	91538	50.89	ug/L	98
104) 2-Methylnaphthalene	19.303	142	21601	20.78	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
Data File : H61595.D  
Acq On : 18 Jun 2013 7:47 am  
Operator : amym  
Sample : bsd  
Misc : MS29140,MSH2033,,,,5,1  
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jun 18 13:43:06 2013  
Quant Method : C:\msdchem\1\METHODS\H130412W.M  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 18 07:35:04 2013  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61610.D  
 Acq On : 18 Jun 2013 2:40 pm  
 Operator : amym  
 Sample : mc21842-4ms  
 Misc : MS29141,MSH2033,,,,,5,5  
 ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jun 18 15:53:31 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.192	65	22094	500.00	ug/L	0.00
4) pentafluorobenzene	8.623	168	139126	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.491	114	192180	50.00	ug/L	0.00
66) chlorobenzene-d5	12.748	82	86603	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.314	152	122737	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.260	113	66818	48.92	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.84%
60) toluene-d8 (s)	11.287	98	206107	50.77	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.54%
82) bromofluorobenzene (s)	13.976	95	88738	49.78	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.56%
Target Compounds						
2) tertiary butyl alcohol	6.276	59	25594	563.54	ug/L	98
3) Ethanol	5.084	45	16099	2882.91	ug/L #	100
5) dichlorodifluoromethane	4.000	85	81624	53.25	ug/L	92
6) chloromethane	4.216	50	44293	44.15	ug/L	90
7) vinyl chloride	4.470	62	49547	43.00	ug/L	97
8) bromomethane	4.935	96	46468	48.39	ug/L	97
9) chloroethane	5.084	64	23881	38.67	ug/L	93
10) acetonitrile	5.729	41	2388	30.04	ug/L #	68
11) trichlorofluoromethane	5.701	101	109053	55.67	ug/L	99
12) freon-113	6.470	101	57618	52.49	ug/L	92
13) acrolein	5.694	56	15135	136.02	ug/L	92
14) 1,1-dichloroethene	6.280	96	47799	49.15	ug/L	97
15) acetone	5.821	43	6293	29.64	ug/L	94
16) ethyl ether	5.927	59	22554	33.07	ug/L	98
17) methyl acetate	6.453	43	20763	20.56	ug/L	93
18) methylene chloride	6.425	84	50660	42.39	ug/L	90
19) methyl tert butyl ether	7.204	73	150954	55.63	ug/L	91
20) acrylonitrile	6.322	53	6010	22.09	ug/L	70
21) allyl chloride	6.513	41	38783	33.16	ug/L	92
22) trans-1,2-dichloroethene	7.109	96	50819	45.07	ug/L	95
23) iodomethane	6.333	142	113833	52.00	ug/L	89
24) carbon disulfide	6.700	76	121337	37.99	ug/L	98
25) propionitrile	7.381	54	1901	23.46	ug/L	100
26) vinyl acetate	7.462	43	35257	35.26	ug/L	89
27) chloroprene	7.727	53	64792	49.98	ug/L	89
28) di-isopropyl ether	7.769	45	88072	31.19	ug/L	91
29) methacrylonitrile	7.875	41	11645	23.92	ug/L	97
30) 2-butanone	7.773	72	3464	31.76	ug/L #	78
31) 1,1-dichloroethane	7.356	63	71491	41.77	ug/L	98
32) tert-butyl ethyl ether	8.168	59	114948	41.12	ug/L	95
33) Hexane	7.751	41	50962	39.89	ug/L	86
34) isobutyl alcohol	8.171	43	17818	181.22	ug/L #	74
35) 2,2-dichloropropane	8.224	77	78395	59.19	ug/L	97
36) cis-1,2-dichloroethene	7.935	96	57220	45.27	ug/L	98



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61610.D  
 Acq On : 18 Jun 2013 2:40 pm  
 Operator : amym  
 Sample : mc21842-4ms  
 Misc : MS29141,MSH2033,,,,5,5  
 ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jun 18 15:53:31 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.171	43	18110	39.47	ug/L	92
38) bromochloromethane	8.097	128	33746	48.91	ug/L #	79
39) chloroform	8.140	83	98490	50.16	ug/L	96
41) 1,1,1-trichloroethane	8.891	97	98804	58.77	ug/L	98
43) cyclohexane	9.170	56	50360	36.23	ug/L #	81
44) carbon tetrachloride	9.251	117	89520	69.27	ug/L	96
45) 1,1-dichloropropene	9.064	75	63831	52.04	ug/L	97
46) benzene	9.286	78	172451	46.18	ug/L	95
47) tetrahydrofuran	8.464	42	4738	24.20	ug/L	92
48) 1,2-dichloroethane	8.789	62	68144	54.40	ug/L	91
49) tert-amyl methyl ether	9.413	73	111933	44.85	ug/L	98
50) heptane	9.773	43	31947	34.92	ug/L	86
51) trichloroethene	9.907	95	58840	50.72	ug/L	92
52) 1,2-dichloropropane	9.872	63	34956	38.34	ug/L	93
53) dibromomethane	9.844	93	32174	47.77	ug/L	93
54) bromodichloromethane	9.960	83	73851	57.21	ug/L	98
55) methylcyclohexane	10.430	83	72155	44.91	ug/L	91
57) methyl methacrylate	10.066	69	18621	32.90	ug/L	92
58) 1,4-dioxane	10.063	88	1343	143.28	ug/L	78
59) cis-1,3-dichloropropene	10.581	75	66873	42.89	ug/L	98
61) 4-methyl-2-pentanone	10.680	43	19780	28.50	ug/L	93
62) toluene	11.361	92	125241	49.11	ug/L	99
63) trans-1,3-dichloropropene	11.005	75	60377	46.30	ug/L	99
64) 1,1,2-trichloroethane	11.174	83	30890	41.10	ug/L	98
65) ethyl methacrylate	11.390	69	41379	36.16	ug/L	91
67) tetrachloroethene	12.102	166	75007	61.67	ug/L	90
68) 1,3-dichloropropane	11.411	76	61947	44.88	ug/L	98
69) dibromochloromethane	11.697	129	59784	53.99	ug/L	98
70) 1,2-dibromoethane	11.951	107	47662	51.62	ug/L	99
71) 2-hexanone	11.541	43	13186	33.03	ug/L	93
72) chlorobenzene	12.780	112	166720	51.53	ug/L	97
73) 1,1,1,2-tetrachloroethane	12.702	131	63739	63.78	ug/L	97
74) ethylbenzene	12.960	91	253319	56.71	ug/L	99
75) m,p-xylene	13.150	106	209294	113.59	ug/L	99
76) o-xylene	13.556	106	107536	56.03	ug/L	96
77) styrene	13.486	104	161324	54.63	ug/L	93
78) bromoform	13.306	173	35345	51.08	ug/L	99
79) trans-1,4-dichloro-2-b...	13.712	53	6901	44.80	ug/L #	88
81) isopropylbenzene	13.923	105	277135	48.07	ug/L	100
83) bromobenzene	14.206	156	84847	50.18	ug/L	88
84) 1,1,2,2-tetrachloroethane	13.560	83	48953	39.33	ug/L	94
85) 1,2,3-trichloropropane	13.708	75	44536	38.48	ug/L	96
86) n-propylbenzene	14.371	91	287577	45.14	ug/L	97
87) 2-chlorotoluene	14.484	91	185350	44.47	ug/L	98
88) 4-chlorotoluene	14.558	91	196130	47.26	ug/L	99
89) 1,3,5-trimethylbenzene	14.650	105	242471	50.38	ug/L	98
90) tert-butylbenzene	14.954	91	131563	48.83	ug/L	90
91) 1,2,4-trimethylbenzene	15.060	105	244616	50.82	ug/L	97
92) sec-butylbenzene	15.176	105	299977	46.91	ug/L	99
93) 1,3-dichlorobenzene	15.275	146	160889	49.29	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61610.D  
 Acq On : 18 Jun 2013 2:40 pm  
 Operator : amym  
 Sample : mc21842-4ms  
 Misc : MS29141,MSH2033,,,,5,5  
 ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jun 18 15:53:31 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

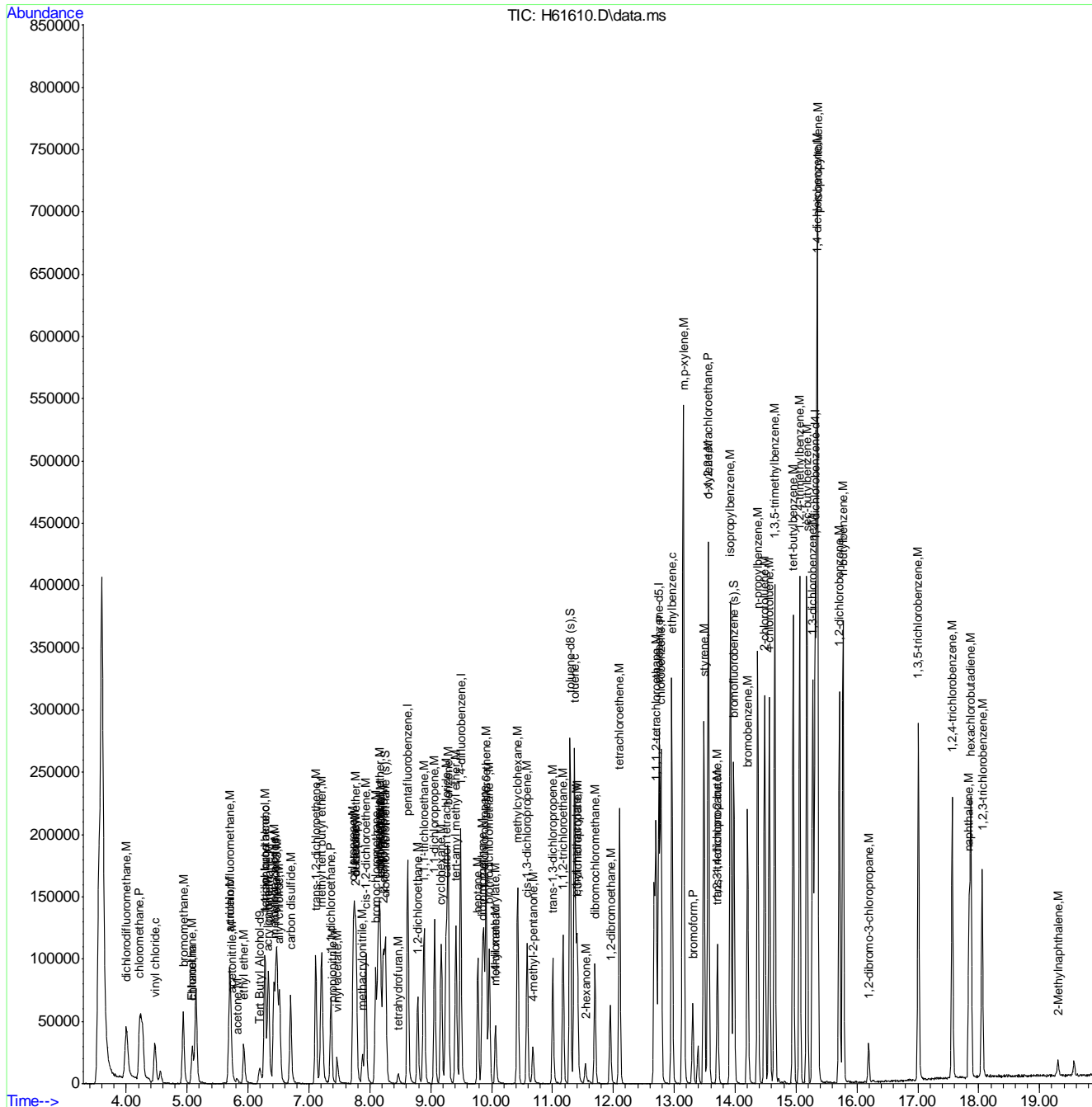
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.352	119	279019	55.16	ug/L	97
95) 1,4-dichlorobenzene	15.342	146	175254	49.66	ug/L	98
96) 1,2-dichlorobenzene	15.712	146	156573	47.75	ug/L	98
97) n-butylbenzene	15.772	91	215696	49.40	ug/L	96
98) 1,2-dibromo-3-chloropr...	16.192	75	7489	39.49	ug/L	89
99) 1,3,5-trichlorobenzene	17.007	180	107026	47.84	ug/L	99
100) 1,2,4-trichlorobenzene	17.565	180	83900	44.95	ug/L	96
101) hexachlorobutadiene	17.872	225	48518	53.37	ug/L	99
102) naphthalene	17.840	128	132879	35.97	ug/L	100
103) 1,2,3-trichlorobenzene	18.059	180	66448	42.53	ug/L	94
104) 2-Methylnaphthalene	19.301	142	9909	13.34	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61610.D  
 Acq On : 18 Jun 2013 2:40 pm  
 Operator : amym  
 Sample : mc21842-4ms  
 Misc : MS29141,MSH2033,,,,5,5  
 ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jun 18 15:53:31 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration



7.4.1  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61611.D  
 Acq On : 18 Jun 2013 3:08 pm  
 Operator : amym  
 Sample : mc21842-4msd  
 Misc : MS29141,MSH2033,,,,5,5  
 ALS Vial : 48 Sample Multiplier: 1

Quant Time: Jun 18 15:55:12 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.197	65	23856	500.00	ug/L	0.00
4) pentafluorobenzene	8.625	168	145616	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.490	114	196264	50.00	ug/L	0.00
66) chlorobenzene-d5	12.750	82	88156	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.312	152	123056	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.258	113	68990	48.26	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.52%
60) toluene-d8 (s)	11.289	98	207893	50.15	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.30%
82) bromofluorobenzene (s)	13.975	95	90792	50.80	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.60%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	6.278	59	25253	514.97	ug/L	90
3) Ethanol	5.093	45	17403	2885.77	ug/L #	100
5) dichlorodifluoromethane	3.995	85	80620	50.25	ug/L	100
6) chloromethane	4.221	50	44580	42.46	ug/L	97
7) vinyl chloride	4.465	62	48035	39.83	ug/L	97
8) bromomethane	4.934	96	45339	45.11	ug/L	100
9) chloroethane	5.086	64	25098	38.83	ug/L	97
10) acetonitrile	5.700	41	2174	27.48	ug/L #	63
11) trichlorofluoromethane	5.707	101	106425	51.91	ug/L	99
12) freon-113	6.469	101	57503	50.05	ug/L	93
13) acrolein	5.682	56	16345	140.50	ug/L	97
14) 1,1-dichloroethene	6.282	96	47658	46.82	ug/L	95
15) acetone	5.834	43	7000	31.26	ug/L	94
16) ethyl ether	5.933	59	22624	31.69	ug/L	100
17) methyl acetate	6.451	43	21239	20.10	ug/L	93
18) methylene chloride	6.427	84	51573	41.23	ug/L	85
19) methyl tert butyl ether	7.207	73	154800	54.51	ug/L	93
20) acrylonitrile	6.331	53	6368	22.32	ug/L	73
21) allyl chloride	6.515	41	40418	33.02	ug/L	91
22) trans-1,2-dichloroethene	7.111	96	50593	42.87	ug/L	99
23) iodomethane	6.335	142	115589	50.44	ug/L	93
24) carbon disulfide	6.698	76	126198	37.75	ug/L	97
25) propionitrile	7.376	54	2252	25.42	ug/L	100
26) vinyl acetate	7.468	43	37908	36.13	ug/L	99
27) chloroprene	7.729	53	66146	48.75	ug/L	87
28) di-isopropyl ether	7.775	45	89887	30.42	ug/L	84
29) methacrylonitrile	7.877	41	12853	25.22	ug/L	91
30) 2-butanone	7.778	72	3036	27.03	ug/L #	51
31) 1,1-dichloroethane	7.362	63	73027	40.76	ug/L	97
32) tert-butyl ethyl ether	8.170	59	118865	40.63	ug/L	96
33) Hexane	7.750	41	50821	38.01	ug/L	86
34) isobutyl alcohol	8.170	43	18985	184.91	ug/L #	76
35) 2,2-dichloropropane	8.226	77	78069	56.32	ug/L	93
36) cis-1,2-dichloroethene	7.933	96	57326	43.33	ug/L	95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61611.D  
 Acq On : 18 Jun 2013 3:08 pm  
 Operator : amym  
 Sample : mc21842-4msd  
 Misc : MS29141,MSH2033,,,,5,5  
 ALS Vial : 48 Sample Multiplier: 1

Quant Time: Jun 18 15:55:12 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.170	43	18803	39.16	ug/L	96
38) bromochloromethane	8.096	128	34541	47.83	ug/L #	80
39) chloroform	8.138	83	98127	47.75	ug/L	100
41) 1,1,1-trichloroethane	8.886	97	97705	55.53	ug/L	97
43) cyclohexane	9.169	56	51621	36.37	ug/L	88
44) carbon tetrachloride	9.253	117	88789	67.28	ug/L	92
45) 1,1-dichloropropene	9.063	75	64434	51.43	ug/L	98
46) benzene	9.285	78	174059	45.64	ug/L	95
47) tetrahydrofuran	8.466	42	4661	23.31	ug/L	98
48) 1,2-dichloroethane	8.784	62	69064	53.99	ug/L	90
49) tert-amyl methyl ether	9.412	73	115729	45.41	ug/L	97
50) heptane	9.772	43	31587	33.81	ug/L	96
51) trichloroethene	9.910	95	58749	49.59	ug/L	96
52) 1,2-dichloropropane	9.874	63	36499	39.20	ug/L	99
53) dibromomethane	9.846	93	32598	47.39	ug/L	97
54) bromodichloromethane	9.963	83	74031	56.15	ug/L	97
55) methylcyclohexane	10.428	83	71781	43.75	ug/L	94
57) methyl methacrylate	10.061	69	19384	33.46	ug/L	91
58) 1,4-dioxane	10.061	88	1596	162.31	ug/L	67
59) cis-1,3-dichloropropene	10.580	75	65461	41.20	ug/L	99
61) 4-methyl-2-pentanone	10.679	43	20394	28.77	ug/L	94
62) toluene	11.363	92	124497	47.80	ug/L	98
63) trans-1,3-dichloropropene	11.007	75	61056	45.88	ug/L	99
64) 1,1,2-trichloroethane	11.173	83	32179	41.93	ug/L	95
65) ethyl methacrylate	11.388	69	41397	35.45	ug/L	90
67) tetrachloroethene	12.101	166	73385	59.28	ug/L	96
68) 1,3-dichloropropane	11.409	76	63750	45.37	ug/L	90
69) dibromochloromethane	11.699	129	61376	54.40	ug/L	97
70) 1,2-dibromoethane	11.949	107	47471	50.50	ug/L	94
71) 2-hexanone	11.543	43	14149	34.48	ug/L	96
72) chlorobenzene	12.782	112	167152	50.75	ug/L	95
73) 1,1,1,2-tetrachloroethane	12.701	131	64690	63.59	ug/L	96
74) ethylbenzene	12.958	91	250035	54.99	ug/L	98
75) m,p-xylene	13.146	106	209642	111.77	ug/L	97
76) o-xylene	13.558	106	106254	54.39	ug/L	91
77) styrene	13.488	104	163798	54.50	ug/L	94
78) bromoform	13.301	173	37137	52.28	ug/L	99
79) trans-1,4-dichloro-2-b...	13.710	53	7311	46.01	ug/L #	79
81) isopropylbenzene	13.925	105	277831	48.07	ug/L	100
83) bromobenzene	14.201	156	85036	50.16	ug/L	87
84) 1,1,2,2-tetrachloroethane	13.562	83	50597	40.55	ug/L	97
85) 1,2,3-trichloropropane	13.710	75	46013	39.65	ug/L	92
86) n-propylbenzene	14.370	91	289436	45.32	ug/L	93
87) 2-chlorotoluene	14.483	91	187713	44.92	ug/L	98
88) 4-chlorotoluene	14.561	91	199831	48.03	ug/L	99
89) 1,3,5-trimethylbenzene	14.652	105	242328	50.22	ug/L	95
90) tert-butylbenzene	14.952	91	132857	49.18	ug/L	93
91) 1,2,4-trimethylbenzene	15.058	105	245082	50.79	ug/L	96
92) sec-butylbenzene	15.178	105	296843	46.30	ug/L	99
93) 1,3-dichlorobenzene	15.273	146	160178	48.95	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61611.D  
 Acq On : 18 Jun 2013 3:08 pm  
 Operator : amym  
 Sample : mc21842-4msd  
 Misc : MS29141,MSH2033,,,,5,5  
 ALS Vial : 48 Sample Multiplier: 1

Quant Time: Jun 18 15:55:12 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

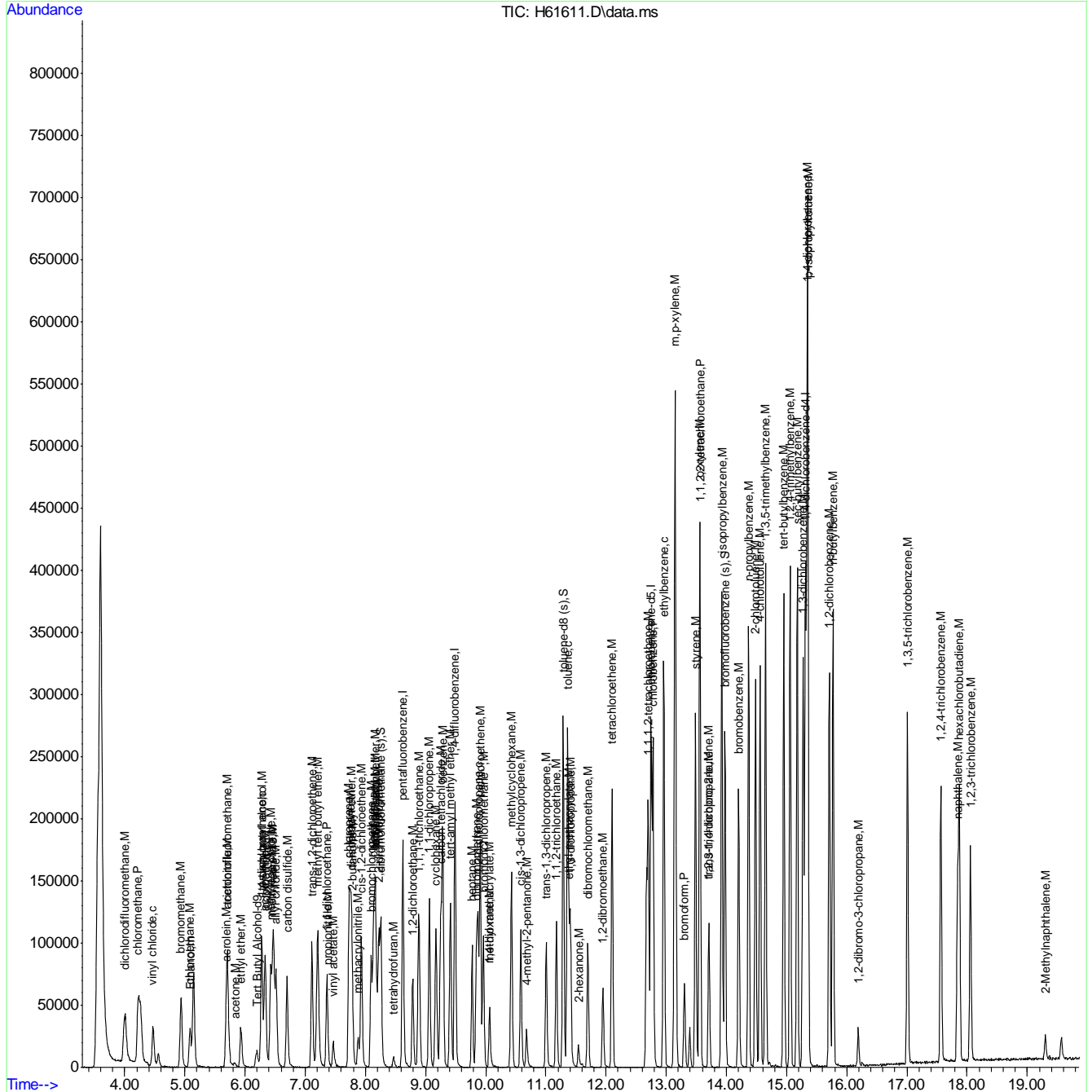
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.355	119	272206	53.67	ug/L	98
95) 1,4-dichlorobenzene	15.344	146	175967	49.73	ug/L	99
96) 1,2-dichlorobenzene	15.711	146	157060	47.77	ug/L	97
97) n-butylbenzene	15.771	91	213571	48.79	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.191	75	7749	40.60	ug/L	87
99) 1,3,5-trichlorobenzene	17.010	180	107291	47.83	ug/L	99
100) 1,2,4-trichlorobenzene	17.564	180	86501	46.23	ug/L	97
101) hexachlorobutadiene	17.871	225	47334	51.93	ug/L	99
102) naphthalene	17.842	128	141531	38.21	ug/L	100
103) 1,2,3-trichlorobenzene	18.058	180	67851	43.32	ug/L	98
104) 2-Methylnaphthalene	19.307	142	13842	16.62	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\
Data File : H61611.D
Acq On : 18 Jun 2013 3:08 pm
Operator : amym
Sample : mc21842-4msd
Misc : MS29141,MSH2033,,,5,5
ALS Vial : 48 Sample Multiplier: 1

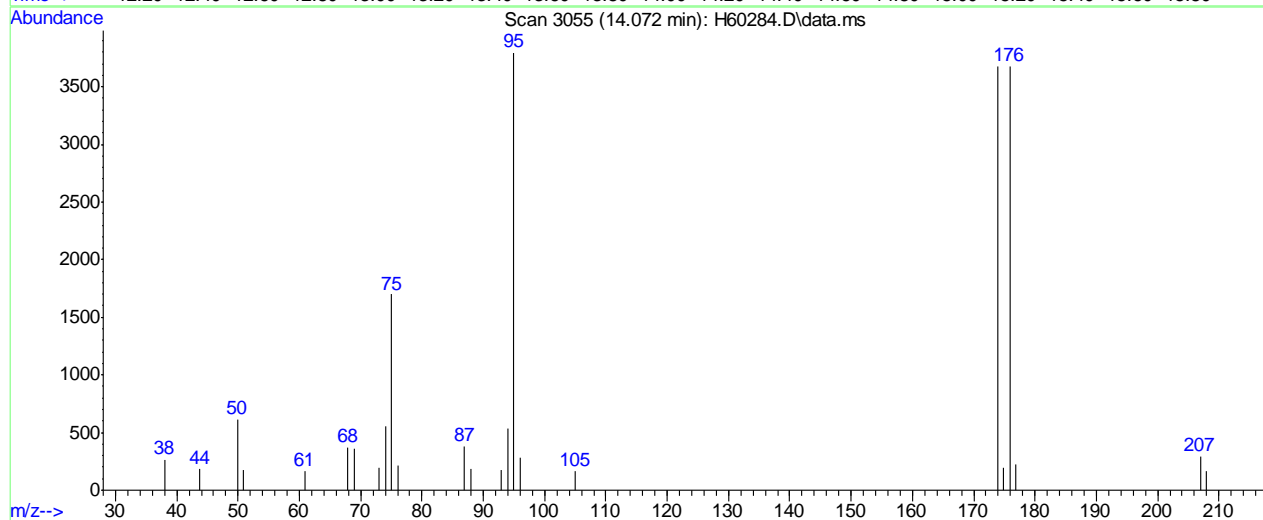
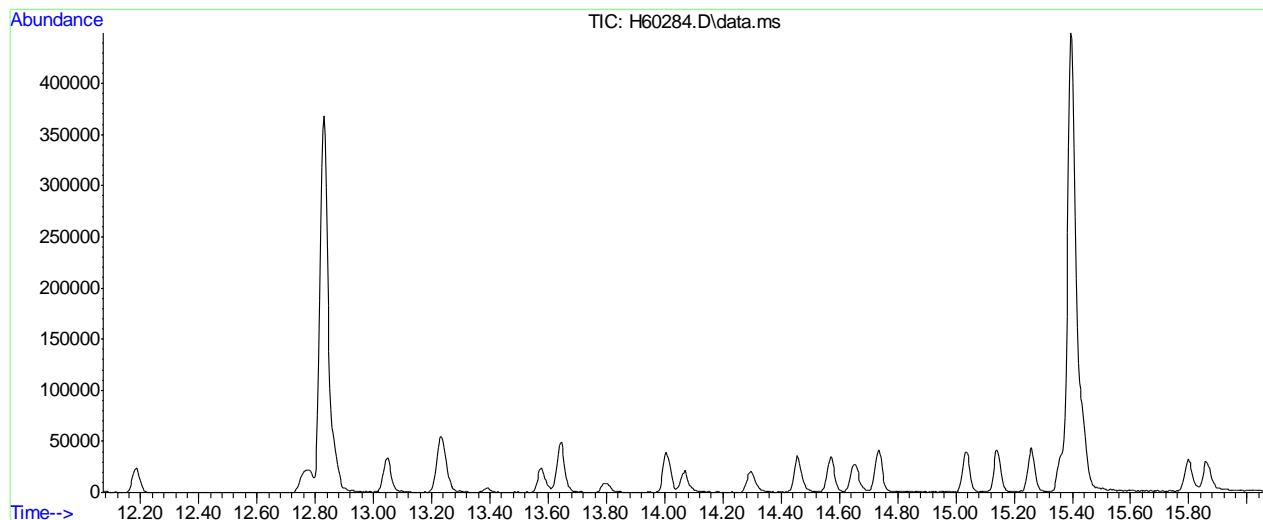
Quant Time: Jun 18 15:55:12 2013
Quant Method : C:\msdchem\1\METHODS\H130412W.M
Quant Title : SW-846 Method 8260
QLast Update : Tue Jun 18 07:35:04 2013
Response via : Initial Calibration



SW-846 Method 8260

Data File : C:\msdchem\1\DATA\130412\H60284.D Vial: 36  
 Acq On : 13 Apr 2013 12:36 am Operator: garyk  
 Sample : bfb Inst : MSH  
 Misc : ms28486,MSH1993,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\H130412W.M (RTE Integrator)  
 Title : SW-846 Method 8260



Spectrum Information: Scan 3055

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.2	616	PASS
75	95	30	60	44.8	1700	PASS
95	95	100	100	100.0	3797	PASS
96	95	5	9	7.5	286	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	96.7	3672	PASS
175	174	5	9	5.3	196	PASS
176	174	95	101	100.2	3680	PASS
177	176	5	9	6.2	227	PASS

H60284.D H130412W.M Sat Apr 13 10:05:46 2013



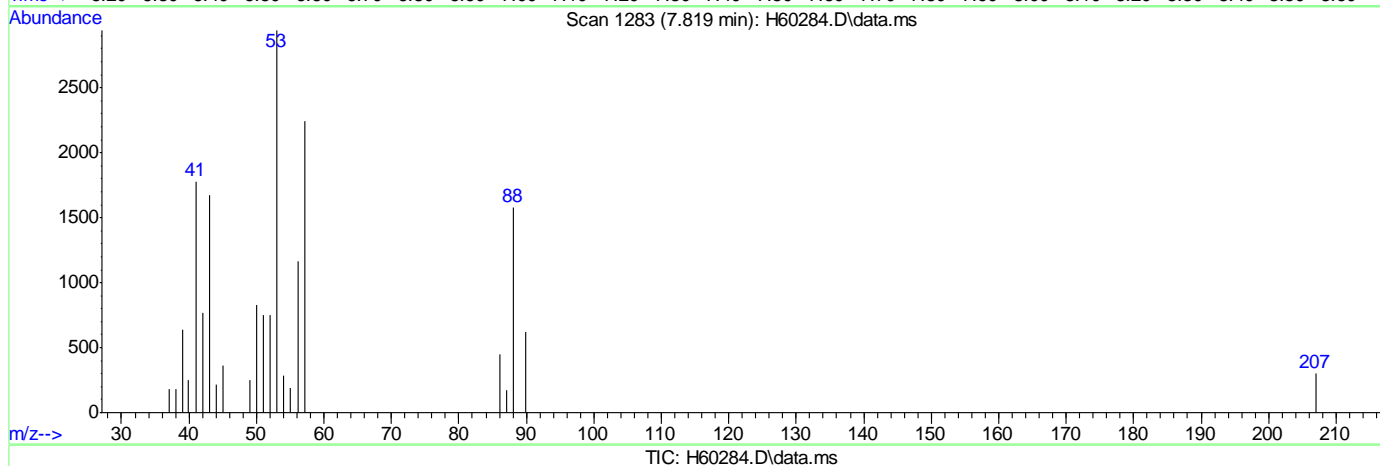
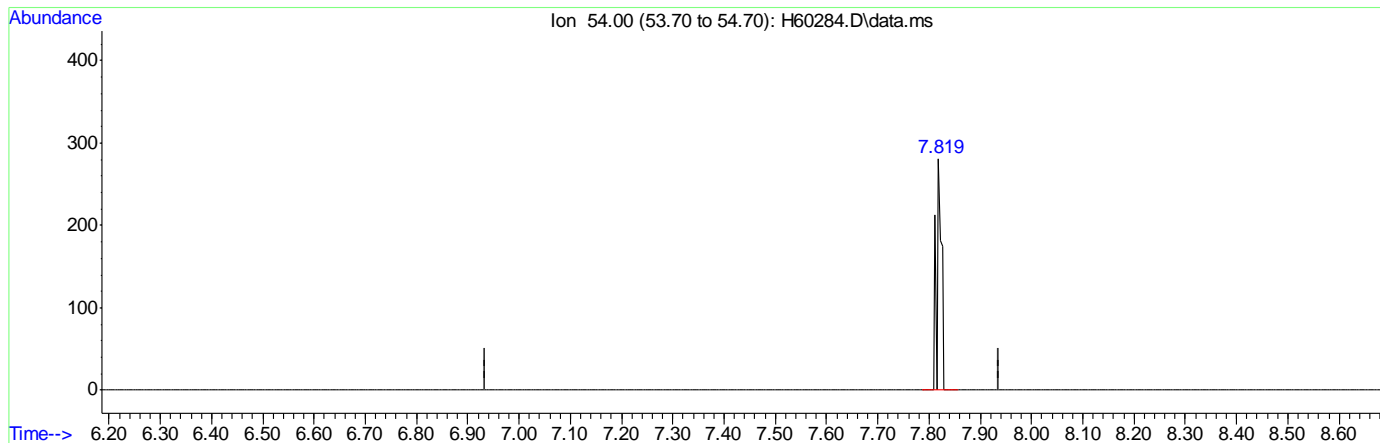
Scan 3055 (14.072 min): H60284.D\data.ms  
ic1993-5

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
38.00	265	86.90	382	207.00	296		
43.80	184	88.00	187	208.00	163		
49.90	616	92.90	175				
50.90	172	94.00	531				
60.90	169	95.00	3797				
67.90	372	96.00	286				
68.90	360	105.00	167				
72.90	197	173.90	3672				
74.00	553	174.90	196				
75.00	1700	175.90	3680				
76.00	210	176.90	227				

## Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\130412\  
Data File : H60284.D  
Acq On : 13 Apr 2013 12:36 am  
Operator : garyk  
Sample : ic1993-5  
Misc : ms28486,MSH1993,,,,5,1  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Apr 13 10:04:58 2013  
Quant Method : C:\msdchem\1\METHODS\H130412W.M  
Quant Title : SW-846 Method 8260  
QLast Update : Sat Apr 13 10:04:39 2013  
Response via : Initial Calibration



(25) propionitrile (M)

7.819min (+0.383) 1.20ug/L m

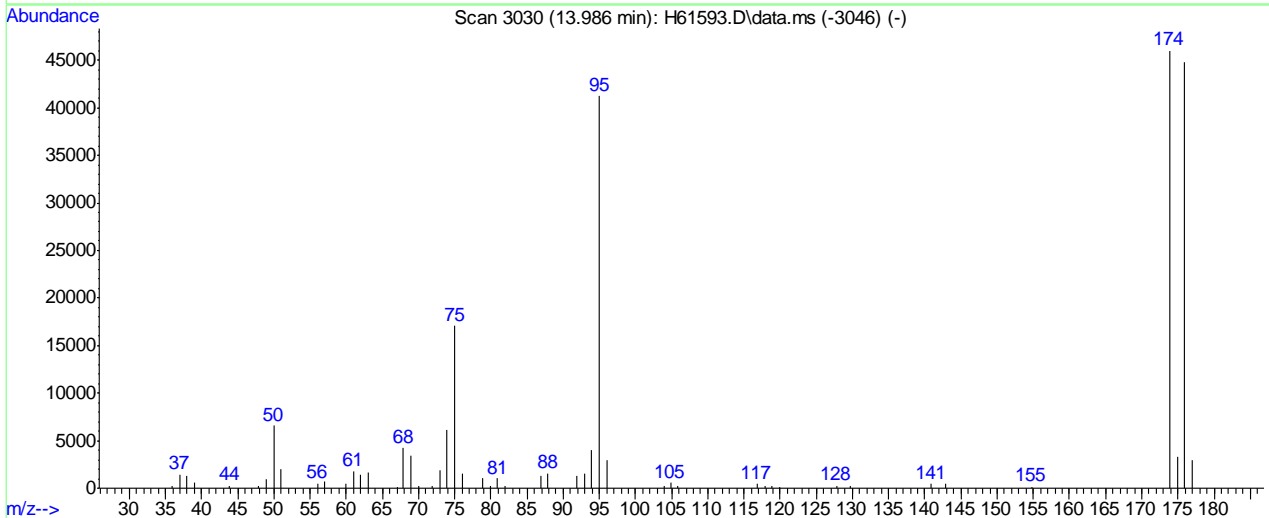
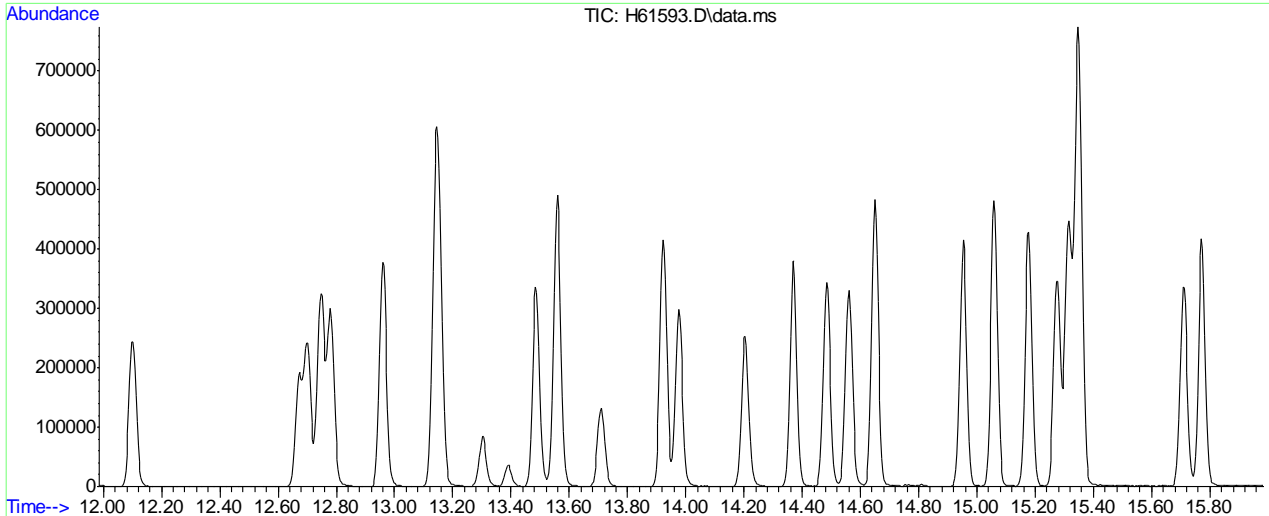
response 180

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

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\130617\H61593.D Vial: 30  
 Acq On : 18 Jun 2013 6:52 am Operator: amym  
 Sample : bfb Inst : MSH  
 Misc : MS29140,MSH2033,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\H130412W.M (RTE Integrator)  
 Title : SW-846 Method 8260



Spectrum Information: Scan 3030

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.0	6594	PASS
75	95	30	60	41.3	17040	PASS
95	95	100	100	100.0	41216	PASS
96	95	5	9	7.1	2907	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	111.7	46026	PASS
175	174	5	9	7.2	3307	PASS
176	174	95	101	97.3	44769	PASS
177	176	5	9	6.6	2953	PASS

H61593.D H130412W.M Tue Jun 18 13:40:03 2013

Scan 3030 (13.986 min): H61593.D\data.ms (-3046)

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.85	194	59.90	445	75.00	17040	95.00	41216
37.00	1477	61.00	1792	76.00	1552	96.00	2907
38.00	1309	62.00	1475	78.90	1112	103.90	198
39.00	553	63.00	1696	79.90	259	104.90	538
43.90	250	67.00	167	80.90	1050	105.90	206
47.80	256	67.90	4190	81.90	268	116.80	435
48.90	995	68.90	3464	86.90	1287	117.90	254
50.00	6594	70.00	234	87.90	1553	118.90	271
51.00	2047	71.90	253	91.90	1339	120.00	173
56.00	480	73.00	1895	93.00	1561	127.80	297
57.00	744	73.90	6126	93.90	4051	129.70	238

Scan 3030 (13.986 min): H61593.D\data.ms (-3046)

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
140.90	464						
142.90	429						
154.80	157						
173.85	46026						
174.90	3307						
175.90	44769						
176.90	2953						

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60284.D  
 Acq On : 13 Apr 2013 12:36 am  
 Operator : garyk  
 Sample : ic1993-5  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Apr 13 10:06:53 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.277	65	41392	500.00	ug/L	0.00
4) pentafluorobenzene	8.701	168	166443	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.569	114	257112	50.00	ug/L	0.00
66) chlorobenzene-d5	12.830	82	120584	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.395	152	148430	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.341	113	6598	0.56	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	1.12%#
60) toluene-d8 (s)	11.376	98	22331	0.56	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	1.12%#
82) bromofluorobenzene (s)	14.068	95	9078	0.58	ug/L	0.01
Spiked Amount	50.000	Range	70 - 130	Recovery	=	1.16%#
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	6.358	59	3852	42.31	ug/L	99
3) Ethanol	5.197	45	4047	331.60	ug/L #	100
5) dichlorodifluoromethane	4.061	85	10478	6.46	ug/L	95
6) chloromethane	4.279	50	6550	6.33	ug/L	98
7) vinyl chloride	4.530	62	7146	7.06	ug/L	87
8) bromomethane	5.010	96	5956	5.31	ug/L	97
9) chloroethane	5.162	64	3915	5.30	ug/L	96
11) trichlorofluoromethane	5.779	101	13075	5.79	ug/L	94
12) freon-113	6.541	101	6430	4.85	ug/L	94
13) acrolein	5.783	56	2167	17.01	ug/L	95
14) 1,1-dichloroethene	6.361	96	5864	4.94	ug/L	95
15) acetone	5.920	43	773	2.68	ug/L #	43
16) ethyl ether	6.015	59	3836	4.46	ug/L	88
17) methyl acetate	6.548	43	5004	3.92	ug/L	82
18) methylene chloride	6.513	84	7086	4.94	ug/L	96
19) methyl tert butyl ether	7.286	73	15202	4.35	ug/L	95
20) acrylonitrile	6.460	53	577	1.49	ug/L #	7
21) allyl chloride	6.598	41	6249	4.40	ug/L	87
22) trans-1,2-dichloroethene	7.191	96	6731	4.84	ug/L	88
23) iodomethane	6.418	142	12407	4.42	ug/L	87
24) carbon disulfide	6.785	76	18412	4.60	ug/L	95
25) propionitrile	7.819	54	180m	1.20	ug/L	
26) vinyl acetate	7.568	43	3870	2.96	ug/L	72
27) chloroprene	7.808	53	6937	4.65	ug/L	88
28) di-isopropyl ether	7.854	45	16383	4.98	ug/L	95
29) methacrylonitrile	7.981	41	2217	3.55	ug/L	98
31) 1,1-dichloroethane	7.445	63	10791	5.29	ug/L	90
32) tert-butyl ethyl ether	8.253	59	15382	4.44	ug/L	98
33) Hexane	7.836	41	7838	5.88	ug/L #	85
34) isobutyl alcohol	8.242	43	1743	16.63	ug/L	83
35) 2,2-dichloropropane	8.302	77	7263	4.61	ug/L	92
36) cis-1,2-dichloroethene	8.016	96	7417	4.72	ug/L	95
37) ethyl acetate	8.242	43	2248	4.28	ug/L	97
38) bromochloromethane	8.182	128	3831	4.26	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60284.D  
 Acq On : 13 Apr 2013 12:36 am  
 Operator : garyk  
 Sample : ic1993-5  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Apr 13 10:06:53 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) chloroform	8.217	83	11025	4.66	ug/L	92
41) 1,1,1-trichloroethane	8.973	97	9402	4.48	ug/L	90
43) cyclohexane	9.251	56	9427	5.00	ug/L	90
44) carbon tetrachloride	9.336	117	7046	3.62	ug/L	94
45) 1,1-dichloropropene	9.146	75	7932	4.78	ug/L	94
46) benzene	9.368	78	24618	4.85	ug/L	96
47) tetrahydrofuran	8.560	42	962	3.30	ug/L #	31
48) 1,2-dichloroethane	8.870	62	8350	5.11	ug/L	97
49) tert-amyl methyl ether	9.495	73	14957	4.19	ug/L	94
50) heptane	9.851	43	5839	5.20	ug/L	86
51) trichloroethene	9.989	95	7948	5.13	ug/L	84
52) 1,2-dichloropropane	9.957	63	5835	4.76	ug/L	93
53) dibromomethane	9.929	93	4200	4.37	ug/L	98
54) bromodichloromethane	10.045	83	6976	3.63	ug/L	99
55) methylcyclohexane	10.504	83	10219	4.74	ug/L	96
56) 2-chloroethyl vinyl ether	10.441	63	2448	3.40	ug/L	84
57) methyl methacrylate	10.169	69	2221	2.62	ug/L	89
58) 1,4-dioxane	10.158	88	84	5.49	ug/L #	8
59) cis-1,3-dichloropropene	10.677	75	7487	3.43	ug/L	89
61) 4-methyl-2-pentanone	10.786	43	3458	3.46	ug/L	79
62) toluene	11.446	92	15252	4.44	ug/L	90
63) trans-1,3-dichloropropene	11.093	75	5445	2.93	ug/L	96
64) 1,1,2-trichloroethane	11.256	83	4427	4.07	ug/L	94
65) ethyl methacrylate	11.496	69	5002	3.18	ug/L #	1
67) tetrachloroethene	12.184	166	8035	4.22	ug/L	97
68) 1,3-dichloropropane	11.499	76	9479	4.77	ug/L	90
69) dibromochloromethane	11.782	129	4540	2.54	ug/L	98
70) 1,2-dibromoethane	12.036	107	5951	3.89	ug/L	94
71) 2-hexanone	11.718	43	433	0.63	ug/L #	59
72) chlorobenzene	12.861	112	21456	4.50	ug/L	99
73) 1,1,1,2-tetrachloroethane	12.784	131	5600	3.21	ug/L	97
74) ethylbenzene	13.048	91	30657	4.52	ug/L	93
75) m,p-xylene	13.232	106	24949	8.92	ug/L	99
76) o-xylene	13.645	106	12467	4.24	ug/L	83
77) styrene	13.578	104	17651	3.65	ug/L	87
78) bromoform	13.391	173	2390	1.79	ug/L	95
79) trans-1,4-dichloro-2-b...	13.634	53	157	0.48	ug/L #	1
81) isopropylbenzene	14.005	105	31612	4.50	ug/L	95
83) bromobenzene	14.294	156	9122	4.19	ug/L	90
84) 1,1,2,2-tetrachloroethane	13.645	83	6707	4.58	ug/L	91
85) 1,2,3-trichloropropane	13.800	75	5680	3.53	ug/L	93
86) n-propylbenzene	14.453	91	34862	4.55	ug/L	99
87) 2-chlorotoluene	14.569	91	23574	4.91	ug/L	98
88) 4-chlorotoluene	14.650	91	23020	4.66	ug/L	97
89) 1,3,5-trimethylbenzene	14.735	105	26293	4.33	ug/L	95
90) tert-butylbenzene	15.035	91	14782	4.45	ug/L	88
91) 1,2,4-trimethylbenzene	15.137	105	25547	4.19	ug/L	91
92) sec-butylbenzene	15.261	105	34250	4.38	ug/L	98
93) 1,3-dichlorobenzene	15.360	146	17532	4.15	ug/L	96
94) p-isopropyltoluene	15.434	119	28050	4.61	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60284.D  
 Acq On : 13 Apr 2013 12:36 am  
 Operator : garyk  
 Sample : ic1993-5  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Apr 13 10:06:53 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) 1,4-dichlorobenzene	15.427	146	20659	5.11	ug/L	99
96) 1,2-dichlorobenzene	15.797	146	17718	4.21	ug/L	99
97) n-butylbenzene	15.861	91	23335	4.27	ug/L	97
98) 1,2-dibromo-3-chloropr...	16.284	75	708	2.71	ug/L #	58
99) 1,3,5-trichlorobenzene	17.099	180	11733	3.92	ug/L	100
100) 1,2,4-trichlorobenzene	17.664	180	9481	3.62	ug/L	91
101) hexachlorobutadiene	17.957	225	4707	4.15	ug/L	91
102) naphthalene	17.939	128	18254	3.53	ug/L	100
103) 1,2,3-trichlorobenzene	18.151	180	7803	3.69	ug/L	84
104) 2-Methylnaphthalene	19.443	142	1453	1.03	ug/L	99

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

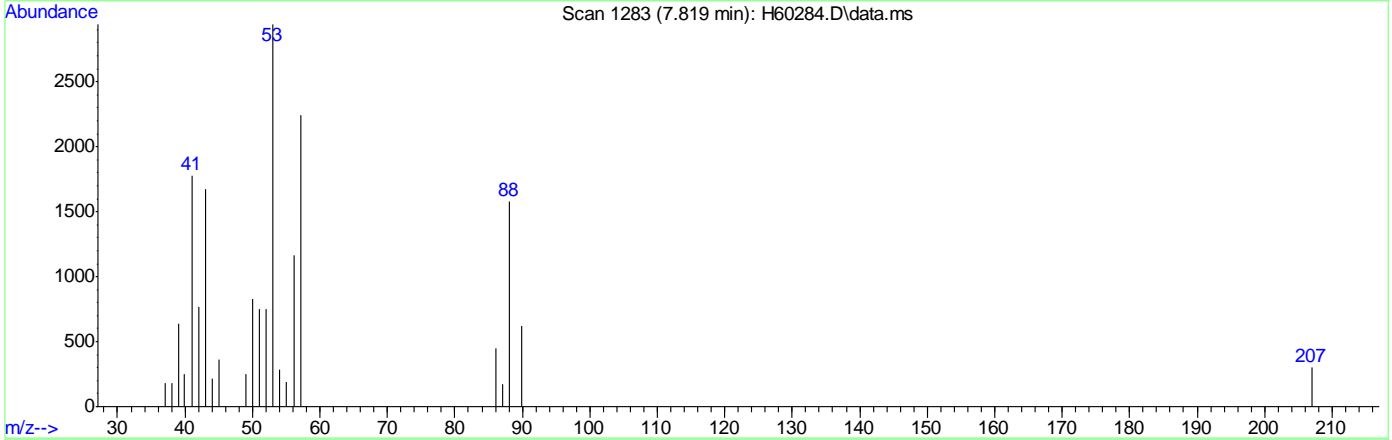
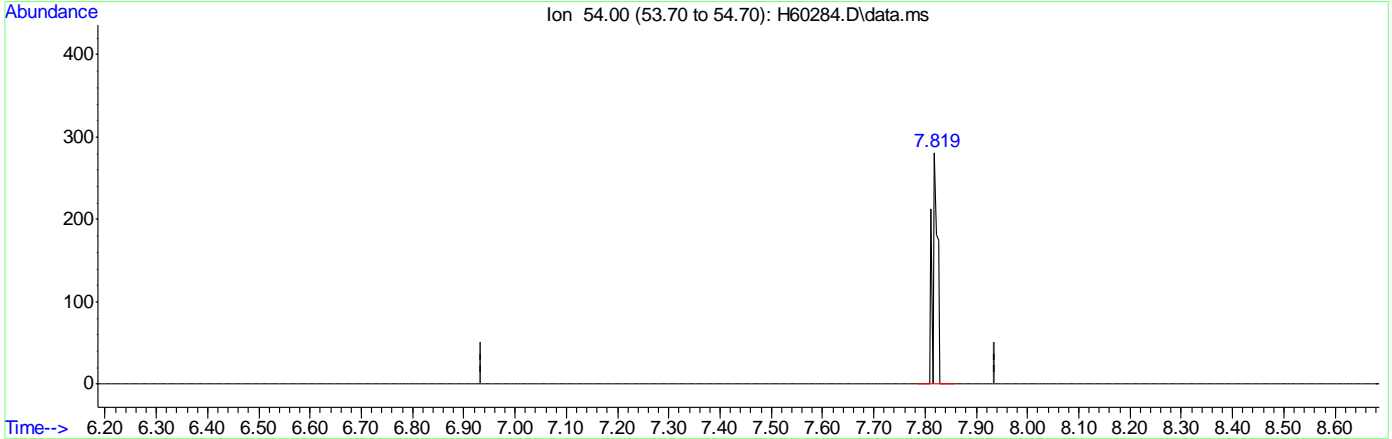




Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60284.D  
 Acq On : 13 Apr 2013 12:36 am  
 Operator : garyk  
 Sample : ic1993-5  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Apr 13 10:04:58 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration



TIC: H60284.D\data.ms

(25) propionitrile (M)  
 7.819min (+0.383) 1.20ug/L m  
 response 180

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

7.6.1.1  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60285.D  
 Acq On : 13 Apr 2013 1:04 am  
 Operator : garyk  
 Sample : ic1993-10  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 37 Sample Multiplier: 1

Quant Time: Apr 13 10:05:00 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.275	65	41488	500.00	ug/L	0.00
4) pentafluorobenzene	8.703	168	163728	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.571	114	253274	50.00	ug/L	0.00
66) chlorobenzene-d5	12.828	82	120457	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.397	152	148896	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.336	113	14940	1.28	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	2.56%#
60) toluene-d8 (s)	11.371	98	49355	1.26	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	2.52%#
82) bromofluorobenzene (s)	14.063	95	20332	1.30	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	2.60%#
Target Compounds						
2) tertiary butyl alcohol	6.360	59	8966	98.26	ug/L	95
3) Ethanol	5.174	45	8759	716.02	ug/L #	100
5) dichlorodifluoromethane	4.066	85	21964	13.76	ug/L	99
6) chloromethane	4.281	50	13786	13.55	ug/L	95
7) vinyl chloride	4.532	62	16696	16.76	ug/L	95
8) bromomethane	5.015	96	12547	11.36	ug/L	96
9) chloroethane	5.167	64	8377	11.53	ug/L	100
10) acetonitrile	5.792	41	203	1.45	ug/L #	45
11) trichlorofluoromethane	5.788	101	26354	11.87	ug/L	95
12) freon-113	6.547	101	14786	11.34	ug/L	96
13) acrolein	5.788	56	5858	46.75	ug/L	95
14) 1,1-dichloroethene	6.360	96	13060	11.19	ug/L	95
15) acetone	5.908	43	1996	7.04	ug/L #	43
16) ethyl ether	6.014	59	8308	9.83	ug/L	99
17) methyl acetate	6.547	43	11457	9.12	ug/L	88
18) methylene chloride	6.512	84	16111	11.43	ug/L	95
19) methyl tert butyl ether	7.291	73	34665	10.09	ug/L	100
20) acrylonitrile	6.427	53	2190	5.76	ug/L	96
21) allyl chloride	6.596	41	14625	10.48	ug/L	92
22) trans-1,2-dichloroethene	7.196	96	14143	10.33	ug/L	94
23) iodomethane	6.420	142	28468	10.31	ug/L	98
24) carbon disulfide	6.783	76	43823	11.12	ug/L	99
25) propionitrile	7.486	54	465	3.16	ug/L	100
26) vinyl acetate	7.556	43	8709	6.78	ug/L	88
27) chloroprene	7.810	53	16605	11.31	ug/L	96
28) di-isopropyl ether	7.853	45	37436	11.57	ug/L	93
29) methacrylonitrile	7.972	41	5523	9.00	ug/L	81
30) 2-butanone	7.881	72	703	5.11	ug/L #	1
31) 1,1-dichloroethane	7.443	63	22703	11.32	ug/L	97
32) tert-butyl ethyl ether	8.251	59	34757	10.19	ug/L	99
33) Hexane	7.828	41	17469	13.32	ug/L	86
34) isobutyl alcohol	8.244	43	5946	57.66	ug/L	94
35) 2,2-dichloropropane	8.304	77	16720	10.80	ug/L	93
36) cis-1,2-dichloroethene	8.018	96	16023	10.37	ug/L	89

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60285.D  
 Acq On : 13 Apr 2013 1:04 am  
 Operator : garyk  
 Sample : ic1993-10  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 37 Sample Multiplier: 1

Quant Time: Apr 13 10:05:00 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.244	43	5570	10.77	ug/L	91
38) bromochloromethane	8.184	128	8391	9.49	ug/L	99
39) chloroform	8.216	83	25241	10.84	ug/L	99
41) 1,1,1-trichloroethane	8.971	97	21652	10.49	ug/L	98
43) cyclohexane	9.250	56	20884	11.25	ug/L	98
44) carbon tetrachloride	9.331	117	17761	9.26	ug/L	95
45) 1,1-dichloropropene	9.144	75	17637	10.80	ug/L	97
46) benzene	9.366	78	54281	10.85	ug/L	98
47) tetrahydrofuran	8.558	42	2352	8.19	ug/L	96
48) 1,2-dichloroethane	8.869	62	18020	11.19	ug/L	98
49) tert-amyl methyl ether	9.493	73	33639	9.57	ug/L	95
50) heptane	9.853	43	13111	11.85	ug/L	94
51) trichloroethene	9.994	95	17188	11.27	ug/L	93
52) 1,2-dichloropropane	9.959	63	12847	10.64	ug/L	97
53) dibromomethane	9.931	93	9607	10.14	ug/L	88
54) bromodichloromethane	10.047	83	16574	8.76	ug/L	97
55) methylcyclohexane	10.510	83	23714	11.16	ug/L	93
56) 2-chloroethyl vinyl ether	10.436	63	6163	8.70	ug/L	89
57) methyl methacrylate	10.160	69	6507	7.79	ug/L	77
58) 1,4-dioxane	10.160	88	430	28.55	ug/L	73
59) cis-1,3-dichloropropene	10.668	75	17956	8.35	ug/L	99
61) 4-methyl-2-pentanone	10.774	43	8940	9.07	ug/L	89
62) toluene	11.445	92	34209	10.11	ug/L	94
63) trans-1,3-dichloropropene	11.092	75	13794	7.55	ug/L	98
64) 1,1,2-trichloroethane	11.254	83	10507	9.82	ug/L	90
65) ethyl methacrylate	11.473	69	12243	7.89	ug/L	78
67) tetrachloroethene	12.186	166	18325	9.65	ug/L	89
68) 1,3-dichloropropane	11.494	76	20413	10.28	ug/L	100
69) dibromochloromethane	11.784	129	11561	6.48	ug/L	98
70) 1,2-dibromoethane	12.038	107	13385	8.77	ug/L	91
71) 2-hexanone	11.671	43	4551	6.58	ug/L	66
72) chlorobenzene	12.860	112	47399	9.95	ug/L	99
73) 1,1,1,2-tetrachloroethane	12.782	131	13216	7.58	ug/L	95
74) ethylbenzene	13.043	91	68657	10.14	ug/L	99
75) m,p-xylene	13.230	106	57171	20.47	ug/L	98
76) o-xylene	13.640	106	29521	10.05	ug/L	94
77) styrene	13.573	104	42213	8.75	ug/L	99
78) bromoform	13.389	173	6426	4.83	ug/L	91
79) trans-1,4-dichloro-2-b...	13.820	53	910	2.78	ug/L #	1
81) isopropylbenzene	14.007	105	73950	10.50	ug/L	100
83) bromobenzene	14.293	156	21079	9.66	ug/L	96
84) 1,1,2,2-tetrachloroethane	13.647	83	15710	10.69	ug/L	99
85) 1,2,3-trichloropropane	13.795	75	13652	8.45	ug/L	98
86) n-propylbenzene	14.455	91	81133	10.55	ug/L	100
87) 2-chlorotoluene	14.568	91	54223	11.25	ug/L	99
88) 4-chlorotoluene	14.645	91	52624	10.63	ug/L	99
89) 1,3,5-trimethylbenzene	14.730	105	62209	10.22	ug/L	98
90) tert-butylbenzene	15.037	91	34993	10.49	ug/L	88
91) 1,2,4-trimethylbenzene	15.139	105	61766	10.09	ug/L	94
92) sec-butylbenzene	15.259	105	83443	10.63	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60285.D  
 Acq On : 13 Apr 2013 1:04 am  
 Operator : garyk  
 Sample : ic1993-10  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 37 Sample Multiplier: 1

Quant Time: Apr 13 10:05:00 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

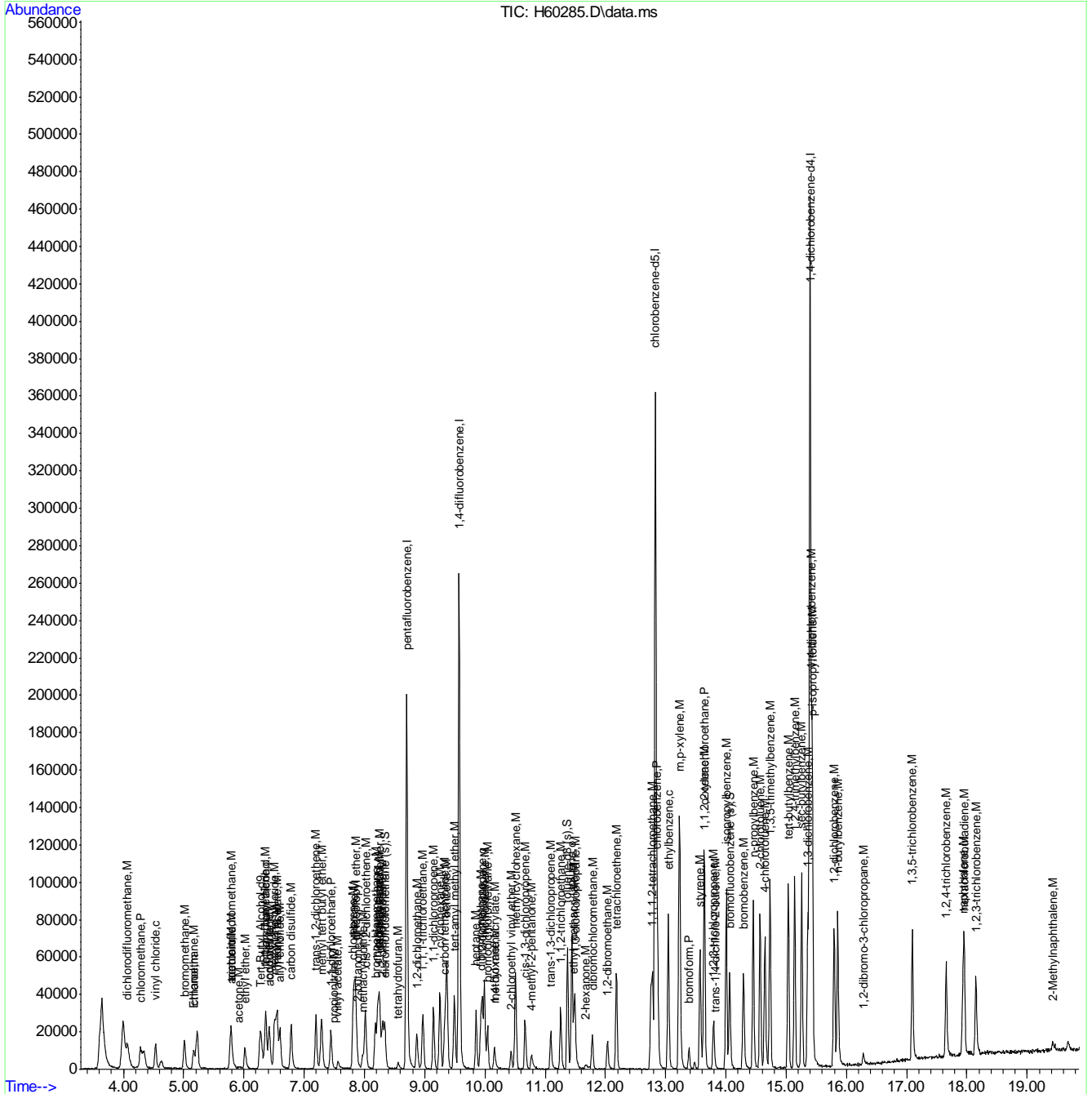
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.358	146	40257	9.50	ug/L	97
94) p-isopropyltoluene	15.436	119	65921	10.80	ug/L	98
95) 1,4-dichlorobenzene	15.425	146	44820	11.05	ug/L	96
96) 1,2-dichlorobenzene	15.796	146	41484	9.82	ug/L	97
97) n-butylbenzene	15.859	91	58171	10.62	ug/L	92
98) 1,2-dibromo-3-chloropr...	16.283	75	2110	8.05	ug/L #	73
99) 1,3,5-trichlorobenzene	17.094	180	28049	9.33	ug/L	97
100) 1,2,4-trichlorobenzene	17.659	180	22638	8.61	ug/L	100
101) hexachlorobutadiene	17.963	225	11804	10.38	ug/L	96
102) naphthalene	17.938	128	42638	8.22	ug/L	100
103) 1,2,3-trichlorobenzene	18.150	180	19105	9.00	ug/L	99
104) 2-Methylnaphthalene	19.423	142	4649	3.29	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60285.D  
 Acq On : 13 Apr 2013 1:04 am  
 Operator : garyk  
 Sample : ic1993-10  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 37 Sample Multiplier: 1

Quant Time: Apr 13 10:05:00 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60286.D  
 Acq On : 13 Apr 2013 1:31 am  
 Operator : garyk  
 Sample : ic1993-25  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 38 Sample Multiplier: 1

Quant Time: Apr 13 10:05:02 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.269	65	42540	500.00	ug/L	0.00
4) pentafluorobenzene	8.700	168	172159	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.572	114	266958	50.00	ug/L	0.00
66) chlorobenzene-d5	12.829	82	127775	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.394	152	163889	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.344	113	37749	3.09	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	6.18%#
60) toluene-d8 (s)	11.368	98	125746	3.04	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	6.08%#
82) bromofluorobenzene (s)	14.060	95	52636	3.07	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	6.14%#
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	6.357	59	20526	219.39	ug/L	99
3) Ethanol	5.171	45	23788	1896.51	ug/L #	100
5) dichlorodifluoromethane	4.067	85	46936	27.96	ug/L	96
6) chloromethane	4.285	50	29930	27.97	ug/L	99
7) vinyl chloride	4.536	62	36605	34.95	ug/L	95
8) bromomethane	5.016	96	27974	24.10	ug/L	94
9) chloroethane	5.171	64	18777	24.58	ug/L	92
10) acetonitrile	5.817	41	1606	10.93	ug/L	80
11) trichlorofluoromethane	5.789	101	59470	25.47	ug/L	96
12) freon-113	6.551	101	33781	24.65	ug/L	97
13) acrolein	5.768	56	14903	113.11	ug/L	95
14) 1,1-dichloroethene	6.364	96	29141	23.75	ug/L	93
15) acetone	5.916	43	5692	19.11	ug/L	94
16) ethyl ether	6.011	59	19600	22.05	ug/L	93
17) methyl acetate	6.533	43	28386	21.50	ug/L	98
18) methylene chloride	6.512	84	35096	23.68	ug/L	96
19) methyl tert butyl ether	7.285	73	80386	22.25	ug/L	100
20) acrylonitrile	6.413	53	7539	18.86	ug/L	73
21) allyl chloride	6.597	41	34859	23.75	ug/L	89
22) trans-1,2-dichloroethene	7.193	96	32978	22.92	ug/L	94
23) iodomethane	6.420	142	63859	21.99	ug/L	98
24) carbon disulfide	6.787	76	97291	23.49	ug/L	98
25) propionitrile	7.465	54	2260	14.59	ug/L	100
26) vinyl acetate	7.550	43	25555	18.91	ug/L	96
27) chloroprene	7.811	53	38750	25.09	ug/L	89
28) di-isopropyl ether	7.853	45	85517	25.14	ug/L	100
29) methacrylonitrile	7.970	41	14576	22.59	ug/L	86
30) 2-butanone	7.864	72	2686	18.57	ug/L #	54
31) 1,1-dichloroethane	7.440	63	50384	23.90	ug/L	98
32) tert-butyl ethyl ether	8.248	59	84092	23.44	ug/L	95
33) Hexane	7.832	41	38990	28.27	ug/L	89
34) isobutyl alcohol	8.248	43	13688	126.25	ug/L	98
35) 2,2-dichloropropane	8.305	77	38753	23.80	ug/L	95
36) cis-1,2-dichloroethene	8.019	96	36673	22.56	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60286.D  
 Acq On : 13 Apr 2013 1:31 am  
 Operator : garyk  
 Sample : ic1993-25  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 38 Sample Multiplier: 1

Quant Time: Apr 13 10:05:02 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.248	43	15066	27.72	ug/L	88
38) bromochloromethane	8.181	128	20028	21.54	ug/L	96
39) chloroform	8.220	83	58631	23.95	ug/L	97
41) 1,1,1-trichloroethane	8.972	97	51459	23.72	ug/L	100
43) cyclohexane	9.258	56	47080	24.06	ug/L	97
44) carbon tetrachloride	9.335	117	42330	20.94	ug/L	97
45) 1,1-dichloropropene	9.141	75	41765	24.26	ug/L	94
46) benzene	9.367	78	125952	23.90	ug/L	100
47) tetrahydrofuran	8.552	42	6322	20.88	ug/L	93
48) 1,2-dichloroethane	8.866	62	40637	23.95	ug/L	91
49) tert-amyl methyl ether	9.490	73	79848	21.55	ug/L	98
50) heptane	9.857	43	30675	26.30	ug/L	93
51) trichloroethene	9.988	95	38449	23.91	ug/L	97
52) 1,2-dichloropropane	9.953	63	30824	24.21	ug/L	99
53) dibromomethane	9.932	93	21988	22.03	ug/L	98
54) bromodichloromethane	10.041	83	40774	20.45	ug/L	98
55) methylcyclohexane	10.507	83	54968	24.55	ug/L	96
56) 2-chloroethyl vinyl ether	10.426	63	14942	20.00	ug/L	99
57) methyl methacrylate	10.143	69	16352	18.56	ug/L	94
58) 1,4-dioxane	10.143	88	1458	91.84	ug/L	80
59) cis-1,3-dichloropropene	10.662	75	44868	19.79	ug/L	95
61) 4-methyl-2-pentanone	10.764	43	22341	21.51	ug/L	95
62) toluene	11.442	92	82884	23.25	ug/L	98
63) trans-1,3-dichloropropene	11.085	75	35547	18.45	ug/L	90
64) 1,1,2-trichloroethane	11.255	83	25068	22.22	ug/L	100
65) ethyl methacrylate	11.474	69	32695	20.00	ug/L	76
67) tetrachloroethene	12.183	166	41376	20.53	ug/L	98
68) 1,3-dichloropropane	11.491	76	47939	22.77	ug/L	97
69) dibromochloromethane	11.781	129	31084	16.42	ug/L	99
70) 1,2-dibromoethane	12.031	107	31797	19.64	ug/L	97
71) 2-hexanone	11.636	43	13627	18.58	ug/L	87
72) chlorobenzene	12.860	112	109041	21.58	ug/L	99
73) 1,1,1,2-tetrachloroethane	12.783	131	32955	17.81	ug/L	98
74) ethylbenzene	13.040	91	162066	22.56	ug/L	96
75) m,p-xylene	13.227	106	135365	45.68	ug/L	98
76) o-xylene	13.637	106	70254	22.56	ug/L	92
77) styrene	13.566	104	105789	20.66	ug/L	96
78) bromoform	13.386	173	18033	12.77	ug/L	89
79) trans-1,4-dichloro-2-b...	13.796	53	3807	10.96	ug/L #	40
81) isopropylbenzene	14.004	105	177743	22.92	ug/L	97
83) bromobenzene	14.290	156	49586	20.64	ug/L	95
84) 1,1,2,2-tetrachloroethane	13.640	83	38545	23.82	ug/L	97
85) 1,2,3-trichloropropane	13.789	75	33684	18.94	ug/L	97
86) n-propylbenzene	14.452	91	198425	23.44	ug/L	99
87) 2-chlorotoluene	14.568	91	126199	23.79	ug/L	97
88) 4-chlorotoluene	14.642	91	126894	23.29	ug/L	99
89) 1,3,5-trimethylbenzene	14.731	105	152661	22.79	ug/L	97
90) tert-butylbenzene	15.034	91	85155	23.20	ug/L	88
91) 1,2,4-trimethylbenzene	15.140	105	149772	22.23	ug/L	97
92) sec-butylbenzene	15.256	105	201537	23.32	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60286.D  
 Acq On : 13 Apr 2013 1:31 am  
 Operator : garyk  
 Sample : ic1993-25  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 38 Sample Multiplier: 1

Quant Time: Apr 13 10:05:02 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.359	146	98597	21.15	ug/L	98
94) p-isopropyltoluene	15.433	119	159310	23.70	ug/L	95
95) 1,4-dichlorobenzene	15.426	146	107253	24.03	ug/L	99
96) 1,2-dichlorobenzene	15.796	146	99727	21.44	ug/L	97
97) n-butylbenzene	15.856	91	144094	23.90	ug/L	95
98) 1,2-dibromo-3-chloropr...	16.283	75	5312	18.42	ug/L	83
99) 1,3,5-trichlorobenzene	17.091	180	67802	20.49	ug/L	98
100) 1,2,4-trichlorobenzene	17.653	180	55721	19.26	ug/L	99
101) hexachlorobutadiene	17.956	225	27220	21.75	ug/L	93
102) naphthalene	17.931	128	109810	19.24	ug/L	100
103) 1,2,3-trichlorobenzene	18.150	180	46297	19.81	ug/L	99
104) 2-Methylnaphthalene	19.413	142	12174	7.83	ug/L	99

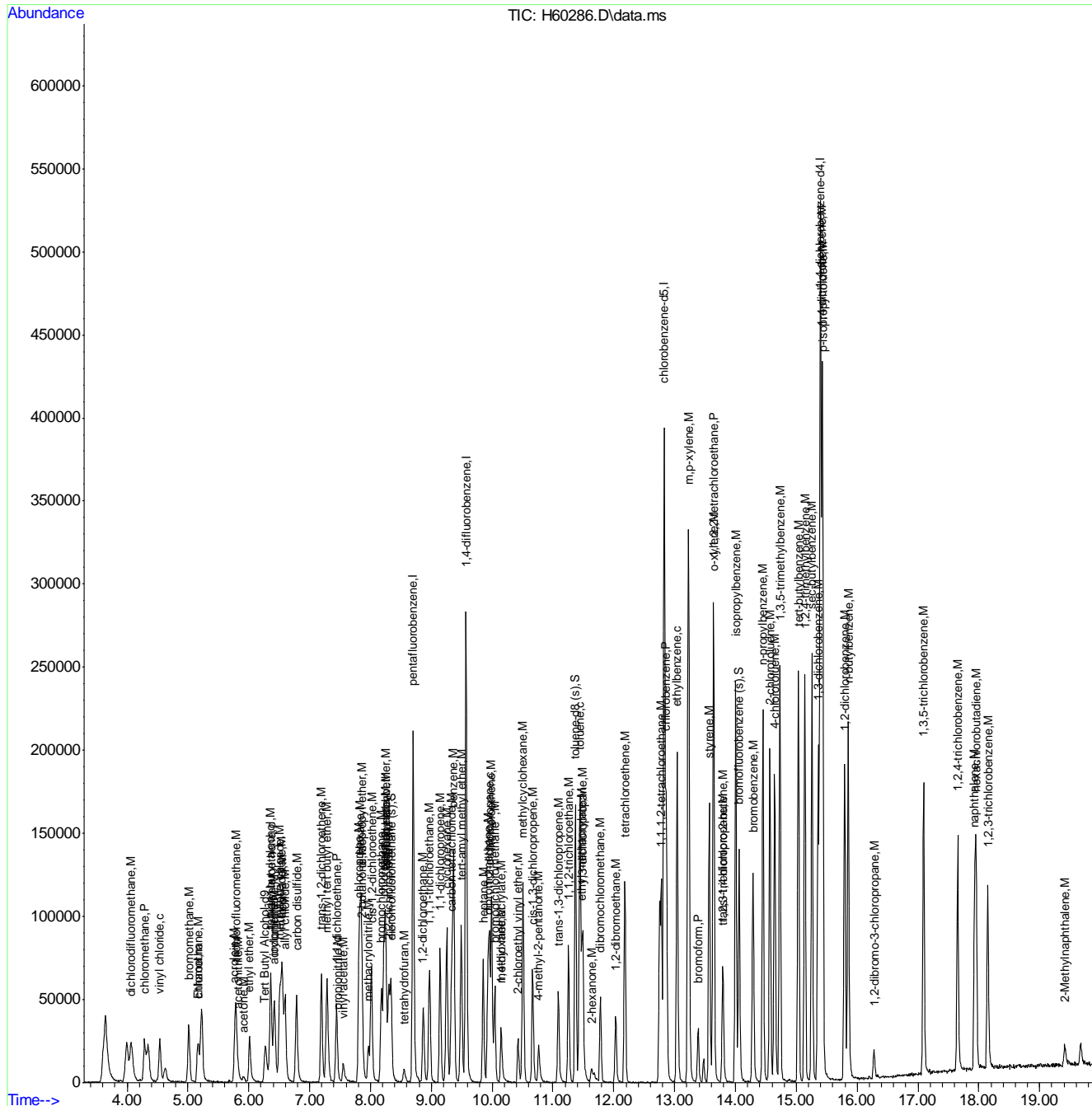
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60286.D  
 Acq On : 13 Apr 2013 1:31 am  
 Operator : garyk  
 Sample : ic1993-25  
 Misc : ms28486,MSH1993,,,,,5,1  
 ALS Vial : 38 Sample Multiplier: 1

Quant Time: Apr 13 10:05:02 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60287.D  
 Acq On : 13 Apr 2013 1:59 am  
 Operator : garyk  
 Sample : iccl1993-50  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 39 Sample Multiplier: 1

Quant Time: Apr 13 10:05:04 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.277	65	45606	500.00	ug/L	0.00
4) pentafluorobenzene	8.701	168	184108	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.569	114	283651	50.00	ug/L	0.00
66) chlorobenzene-d5	12.826	82	138858	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.395	152	171798	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.338	113	80766	6.18	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	12.36%#
60) toluene-d8 (s)	11.369	98	257369	5.85	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	11.70%#
82) bromofluorobenzene (s)	14.058	95	108356	6.03	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	12.06%#
Target Compounds						
2) tertiary butyl alcohol	6.355	59	46190	460.50	ug/L	100
3) Ethanol	5.158	45	54944	4085.96	ug/L #	100
5) dichlorodifluoromethane	4.064	85	96574	53.80	ug/L	100
6) chloromethane	4.287	50	62318	54.45	ug/L	95
7) vinyl chloride	4.544	62	75638	67.52	ug/L	98
8) bromomethane	5.014	96	59244	47.72	ug/L	100
9) chloroethane	5.165	64	39516	48.37	ug/L	94
10) acetonitrile	5.786	41	6591	41.94	ug/L	90
11) trichlorofluoromethane	5.783	101	121268	48.57	ug/L	97
12) freon-113	6.552	101	67017	45.73	ug/L	92
13) acrolein	5.765	56	35159	249.52	ug/L	100
14) 1,1-dichloroethene	6.362	96	60071	45.79	ug/L	97
15) acetone	5.910	43	14351	45.04	ug/L	92
16) ethyl ether	6.005	59	45073	47.43	ug/L	98
17) methyl acetate	6.531	43	69222	49.02	ug/L	99
18) methylene chloride	6.506	84	76562	48.30	ug/L	98
19) methyl tert butyl ether	7.286	73	185192	47.93	ug/L	99
20) acrylonitrile	6.411	53	18213	42.60	ug/L	92
21) allyl chloride	6.598	41	78957	50.31	ug/L	94
22) trans-1,2-dichloroethene	7.194	96	71425	46.42	ug/L	94
23) iodomethane	6.418	142	137969	44.43	ug/L	95
24) carbon disulfide	6.785	76	202476	45.71	ug/L	100
25) propionitrile	7.456	54	6407	38.67	ug/L	100
26) vinyl acetate	7.547	43	66982	46.34	ug/L	100
27) chloroprene	7.808	53	82859	50.17	ug/L	92
28) di-isopropyl ether	7.851	45	193853	53.29	ug/L	97
29) methacrylonitrile	7.964	41	34160	49.51	ug/L	97
30) 2-butanone	7.861	72	7121	46.03	ug/L #	51
31) 1,1-dichloroethane	7.438	63	111322	49.38	ug/L	97
32) tert-butyl ethyl ether	8.242	59	196430	51.21	ug/L	98
33) Hexane	7.830	41	80953	54.89	ug/L	86
34) isobutyl alcohol	8.246	43	32706	282.07	ug/L	99
35) 2,2-dichloropropane	8.306	77	85928	49.35	ug/L	95
36) cis-1,2-dichloroethene	8.017	96	83249	47.90	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60287.D  
 Acq On : 13 Apr 2013 1:59 am  
 Operator : garyk  
 Sample : iccl1993-50  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 39 Sample Multiplier: 1

Quant Time: Apr 13 10:05:04 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.246	43	32800	56.42	ug/L	92
38) bromochloromethane	8.179	128	45778	46.04	ug/L	92
39) chloroform	8.218	83	132767	50.72	ug/L	99
41) 1,1,1-trichloroethane	8.969	97	110972	47.82	ug/L	98
43) cyclohexane	9.252	56	94048	45.23	ug/L	99
44) carbon tetrachloride	9.329	117	93248	43.41	ug/L	97
45) 1,1-dichloropropene	9.146	75	86860	47.49	ug/L	97
46) benzene	9.365	78	281496	50.26	ug/L	100
47) tetrahydrofuran	8.546	42	15739	48.93	ug/L	100
48) 1,2-dichloroethane	8.867	62	93251	51.73	ug/L	96
49) tert-amyl methyl ether	9.492	73	192487	48.89	ug/L	98
50) heptane	9.852	43	63362	51.13	ug/L	93
51) trichloroethene	9.989	95	85379	49.98	ug/L	97
52) 1,2-dichloropropane	9.954	63	68409	50.57	ug/L	98
53) dibromomethane	9.929	93	52130	49.15	ug/L	96
54) bromodichloromethane	10.039	83	99111	46.79	ug/L	97
55) methylcyclohexane	10.504	83	107373	45.14	ug/L	99
56) 2-chloroethyl vinyl ether	10.423	63	35409	44.61	ug/L	98
57) methyl methacrylate	10.145	69	41839	44.70	ug/L	97
58) 1,4-dioxane	10.145	88	3612	214.12	ug/L	73
59) cis-1,3-dichloropropene	10.663	75	106859	44.37	ug/L	97
61) 4-methyl-2-pentanone	10.759	43	54066	48.98	ug/L	98
62) toluene	11.440	92	182895	48.28	ug/L	99
63) trans-1,3-dichloropropene	11.083	75	86730	42.36	ug/L	96
64) 1,1,2-trichloroethane	11.253	83	57140	47.67	ug/L	95
65) ethyl methacrylate	11.468	69	83006	47.78	ug/L	92
67) tetrachloroethene	12.181	166	88083	40.22	ug/L	91
68) 1,3-dichloropropane	11.489	76	112279	49.07	ug/L	100
69) dibromochloromethane	11.778	129	76999	37.42	ug/L	98
70) 1,2-dibromoethane	12.029	107	75996	43.19	ug/L	99
71) 2-hexanone	11.623	43	35607	44.68	ug/L	97
72) chlorobenzene	12.862	112	241244	43.93	ug/L	99
73) 1,1,1,2-tetrachloroethane	12.781	131	78161	38.88	ug/L	96
74) ethylbenzene	13.038	91	350830	44.93	ug/L	99
75) m,p-xylene	13.225	106	293404	91.12	ug/L	95
76) o-xylene	13.638	106	154008	45.50	ug/L	95
77) styrene	13.564	104	239926	43.13	ug/L	92
78) bromoform	13.384	173	49358	32.15	ug/L	99
79) trans-1,4-dichloro-2-b...	13.793	53	10986	29.10	ug/L #	88
81) isopropylbenzene	14.001	105	378821	46.61	ug/L	100
83) bromobenzene	14.287	156	110586	43.91	ug/L	98
84) 1,1,2,2-tetrachloroethane	13.642	83	88808	52.36	ug/L	100
85) 1,2,3-trichloropropane	13.790	75	80674	43.28	ug/L	98
86) n-propylbenzene	14.450	91	423406	47.71	ug/L	99
87) 2-chlorotoluene	14.566	91	273236	49.15	ug/L	98
88) 4-chlorotoluene	14.640	91	275248	48.19	ug/L	98
89) 1,3,5-trimethylbenzene	14.728	105	323166	46.02	ug/L	98
90) tert-butylbenzene	15.032	91	177568	46.15	ug/L	93
91) 1,2,4-trimethylbenzene	15.138	105	325377	46.08	ug/L	97
92) sec-butylbenzene	15.258	105	416460	45.97	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60287.D  
 Acq On : 13 Apr 2013 1:59 am  
 Operator : garyk  
 Sample : icc1993-50  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 39 Sample Multiplier: 1

Quant Time: Apr 13 10:05:04 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

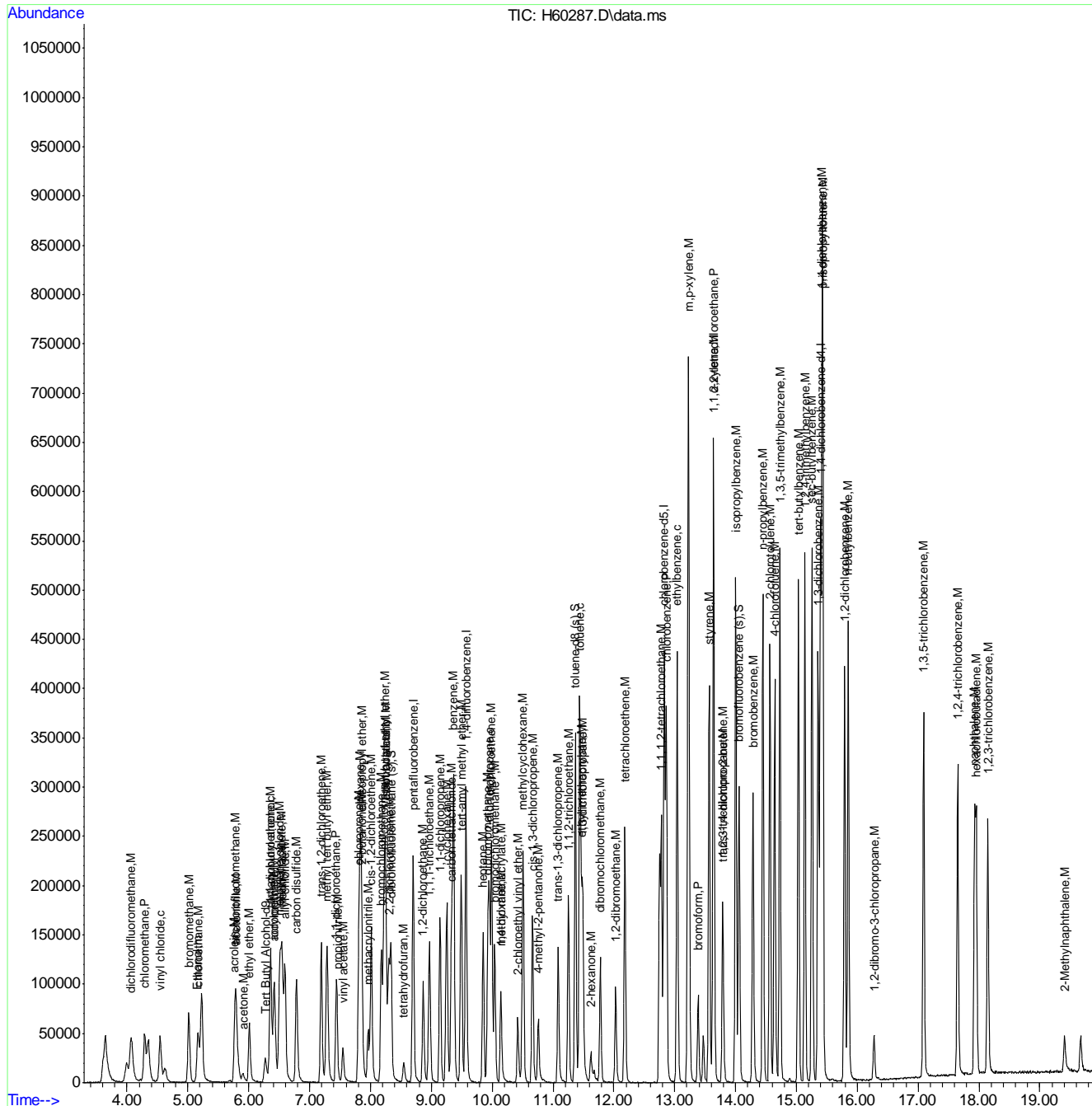
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.357	146	214931	43.98	ug/L	99
94) p-isopropyltoluene	15.431	119	324493	46.06	ug/L	98
95) 1,4-dichlorobenzene	15.424	146	224345	47.94	ug/L	99
96) 1,2-dichlorobenzene	15.791	146	214828	44.07	ug/L	99
97) n-butylbenzene	15.851	91	291646	46.15	ug/L	97
98) 1,2-dibromo-3-chloropr...	16.278	75	12607	41.69	ug/L	96
99) 1,3,5-trichlorobenzene	17.089	180	141734	40.87	ug/L	99
100) 1,2,4-trichlorobenzene	17.650	180	124222	40.96	ug/L	100
101) hexachlorobutadiene	17.957	225	52060	39.69	ug/L	96
102) naphthalene	17.929	128	256950	42.95	ug/L	100
103) 1,2,3-trichlorobenzene	18.144	180	104034	42.47	ug/L	99
104) 2-Methylnaphthalene	19.408	142	29703	18.23	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
Data File : H60287.D  
Acq On : 13 Apr 2013 1:59 am  
Operator : garyk  
Sample : icc1993-50  
Misc : ms28486,MSH1993,,,,5,1  
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Apr 13 10:05:04 2013  
Quant Method : C:\msdchem\1\METHODS\H130412W.M  
Quant Title : SW-846 Method 8260  
QLast Update : Sat Apr 13 10:04:39 2013  
Response via : Initial Calibration



7.6.4  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60288.D  
 Acq On : 13 Apr 2013 2:26 am  
 Operator : garyk  
 Sample : ic1993-100  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Apr 13 10:11:26 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.273	65	46601	500.00	ug/L	0.00
4) pentafluorobenzene	8.700	168	193137	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.572	114	300930	50.00	ug/L	0.00
66) chlorobenzene-d5	12.829	82	150457	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.395	152	182275	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.337	113	181352	13.22	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	26.44%#
60) toluene-d8 (s)	11.368	98	610764	13.08	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	26.16%#
82) bromofluorobenzene (s)	14.057	95	249538	13.08	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	26.16%#
Target Compounds						
2) tertiary butyl alcohol	6.357	59	106992	1043.91	ug/L	94
3) Ethanol	5.157	45	133228m	9696.08	ug/L	
5) dichlorodifluoromethane	4.071	85	216404	114.92	ug/L	97
6) chloromethane	4.293	50	143206	119.28	ug/L	98
7) vinyl chloride	4.551	62	167228	142.31	ug/L	99
8) bromomethane	5.020	96	138436	106.29	ug/L	100
9) chloroethane	5.165	64	89654	104.62	ug/L	96
10) acetone	5.775	41	15530	94.19	ug/L	97
11) trichlorofluoromethane	5.786	101	286578	109.41	ug/L	97
12) freon-113	6.551	101	169366	110.16	ug/L	99
13) acrolein	5.761	56	80511	544.67	ug/L	100
14) 1,1-dichloroethene	6.357	96	144415	104.93	ug/L	97
15) acetone	5.891	43	32817	98.19	ug/L	97
16) ethyl ether	6.008	59	106071	106.39	ug/L	98
17) methyl acetate	6.527	43	156909	105.91	ug/L	96
18) methylene chloride	6.509	84	177830	106.93	ug/L	97
19) methyl tert butyl ether	7.285	73	430057	106.11	ug/L	100
20) acrylonitrile	6.403	53	46369	103.39	ug/L	97
21) allyl chloride	6.594	41	184835	112.26	ug/L	96
22) trans-1,2-dichloroethene	7.194	96	171172	106.04	ug/L	97
23) iodomethane	6.417	142	331734	101.83	ug/L	96
24) carbon disulfide	6.784	76	491558	105.78	ug/L	99
25) propionitrile	7.444	54	15816	91.00	ug/L	100
26) vinyl acetate	7.543	43	148620	98.02	ug/L	100
27) chloroprene	7.808	53	200953	115.99	ug/L	92
28) di-isopropyl ether	7.850	45	441882	115.78	ug/L	96
29) methacrylonitrile	7.956	41	73515	101.56	ug/L	94
30) 2-butanone	7.857	72	17036	104.98	ug/L #	78
31) 1,1-dichloroethane	7.441	63	261322	110.50	ug/L	98
32) tert-butyl ethyl ether	8.249	59	448647	111.49	ug/L	97
33) Hexane	7.829	41	188757	122.00	ug/L	91
34) isobutyl alcohol	8.245	43	69728	573.26	ug/L	98
35) 2,2-dichloropropane	8.302	77	199796	109.39	ug/L	99
36) cis-1,2-dichloroethene	8.012	96	192287	105.46	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60288.D  
 Acq On : 13 Apr 2013 2:26 am  
 Operator : garyk  
 Sample : ic1993-100  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Apr 13 10:11:26 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.245	43	68779	112.78	ug/L	99
38) bromochloromethane	8.178	128	106522	102.13	ug/L	94
39) chloroform	8.217	83	307357	111.94	ug/L	99
41) 1,1,1-trichloroethane	8.969	97	263023	108.05	ug/L	99
43) cyclohexane	9.254	56	243358	110.32	ug/L	97
44) carbon tetrachloride	9.332	117	233515	102.46	ug/L	99
45) 1,1-dichloropropene	9.145	75	210733	108.60	ug/L	97
46) benzene	9.364	78	644493	108.47	ug/L	98
47) tetrahydrofuran	8.545	42	34470	101.00	ug/L	96
48) 1,2-dichloroethane	8.866	62	206607	108.02	ug/L	97
49) tert-amyl methyl ether	9.491	73	433896	103.87	ug/L	98
50) heptane	9.851	43	151229	115.03	ug/L	96
51) trichloroethene	9.988	95	199599	110.13	ug/L	97
52) 1,2-dichloropropane	9.950	63	155785	108.56	ug/L	100
53) dibromomethane	9.925	93	117641	104.55	ug/L	98
54) bromodichloromethane	10.041	83	232301	103.36	ug/L	100
55) methylcyclohexane	10.507	83	275994	109.36	ug/L	96
56) 2-chloroethyl vinyl ether	10.419	63	81150	96.37	ug/L	97
57) methyl methacrylate	10.144	69	98097	98.79	ug/L	92
58) 1,4-dioxane	10.144	88	8853	494.68	ug/L	68
59) cis-1,3-dichloropropene	10.662	75	256759	100.49	ug/L	100
61) 4-methyl-2-pentanone	10.754	43	121350	103.63	ug/L	99
62) toluene	11.439	92	430476	107.11	ug/L	97
63) trans-1,3-dichloropropene	11.082	75	211664	97.45	ug/L	97
64) 1,1,2-trichloroethane	11.252	83	130511	102.62	ug/L	98
65) ethyl methacrylate	11.463	69	194171	105.35	ug/L	96
67) tetrachloroethene	12.180	166	216788	91.36	ug/L	99
68) 1,3-dichloropropane	11.488	76	249253	100.54	ug/L	99
69) dibromochloromethane	11.778	129	190448	85.43	ug/L	99
70) 1,2-dibromoethane	12.028	107	172663	90.56	ug/L	99
71) 2-hexanone	11.612	43	81230	94.08	ug/L	100
72) chlorobenzene	12.861	112	566207	95.16	ug/L	98
73) 1,1,1,2-tetrachloroethane	12.780	131	194369	89.23	ug/L	98
74) ethylbenzene	13.037	91	831291	98.26	ug/L	99
75) m,p-xylene	13.228	106	703141	201.53	ug/L	99
76) o-xylene	13.637	106	361639	98.61	ug/L	96
77) styrene	13.563	104	558082	92.58	ug/L	96
78) bromoform	13.383	173	129866	78.08	ug/L	100
79) trans-1,4-dichloro-2-b...	13.792	53	31279	76.47	ug/L #	71
81) isopropylbenzene	14.001	105	925775	107.35	ug/L	99
83) bromobenzene	14.283	156	263298	98.55	ug/L	98
84) 1,1,2,2-tetrachloroethane	13.641	83	197996	110.03	ug/L	99
85) 1,2,3-trichloropropane	13.789	75	194999	98.60	ug/L	99
86) n-propylbenzene	14.449	91	1033606	109.78	ug/L	99
87) 2-chlorotoluene	14.565	91	645391	109.41	ug/L	99
88) 4-chlorotoluene	14.639	91	645487	106.51	ug/L	99
89) 1,3,5-trimethylbenzene	14.728	105	790582	106.10	ug/L	98
90) tert-butylbenzene	15.035	91	438388	107.38	ug/L	95
91) 1,2,4-trimethylbenzene	15.140	105	787894	105.17	ug/L	97
92) sec-butylbenzene	15.257	105	1033342	107.51	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60288.D  
 Acq On : 13 Apr 2013 2:26 am  
 Operator : garyk  
 Sample : ic1993-100  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Apr 13 10:11:26 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.356	146	518843	100.06	ug/L	98
94) p-isopropyltoluene	15.433	119	811606	108.58	ug/L	98
95) 1,4-dichlorobenzene	15.423	146	530928	106.94	ug/L	100
96) 1,2-dichlorobenzene	15.790	146	516098	99.79	ug/L	97
97) n-butylbenzene	15.850	91	730488	108.95	ug/L	98
98) 1,2-dibromo-3-chloropr...	16.273	75	30395	94.74	ug/L	94
99) 1,3,5-trichlorobenzene	17.092	180	361732	98.31	ug/L	99
100) 1,2,4-trichlorobenzene	17.649	180	315765	98.14	ug/L	98
101) hexachlorobutadiene	17.956	225	148409	106.63	ug/L	97
102) naphthalene	17.928	128	628542	99.03	ug/L	100
103) 1,2,3-trichlorobenzene	18.143	180	259440	99.83	ug/L	98
104) 2-Methylnaphthalene	19.400	142	75969	43.94	ug/L	97

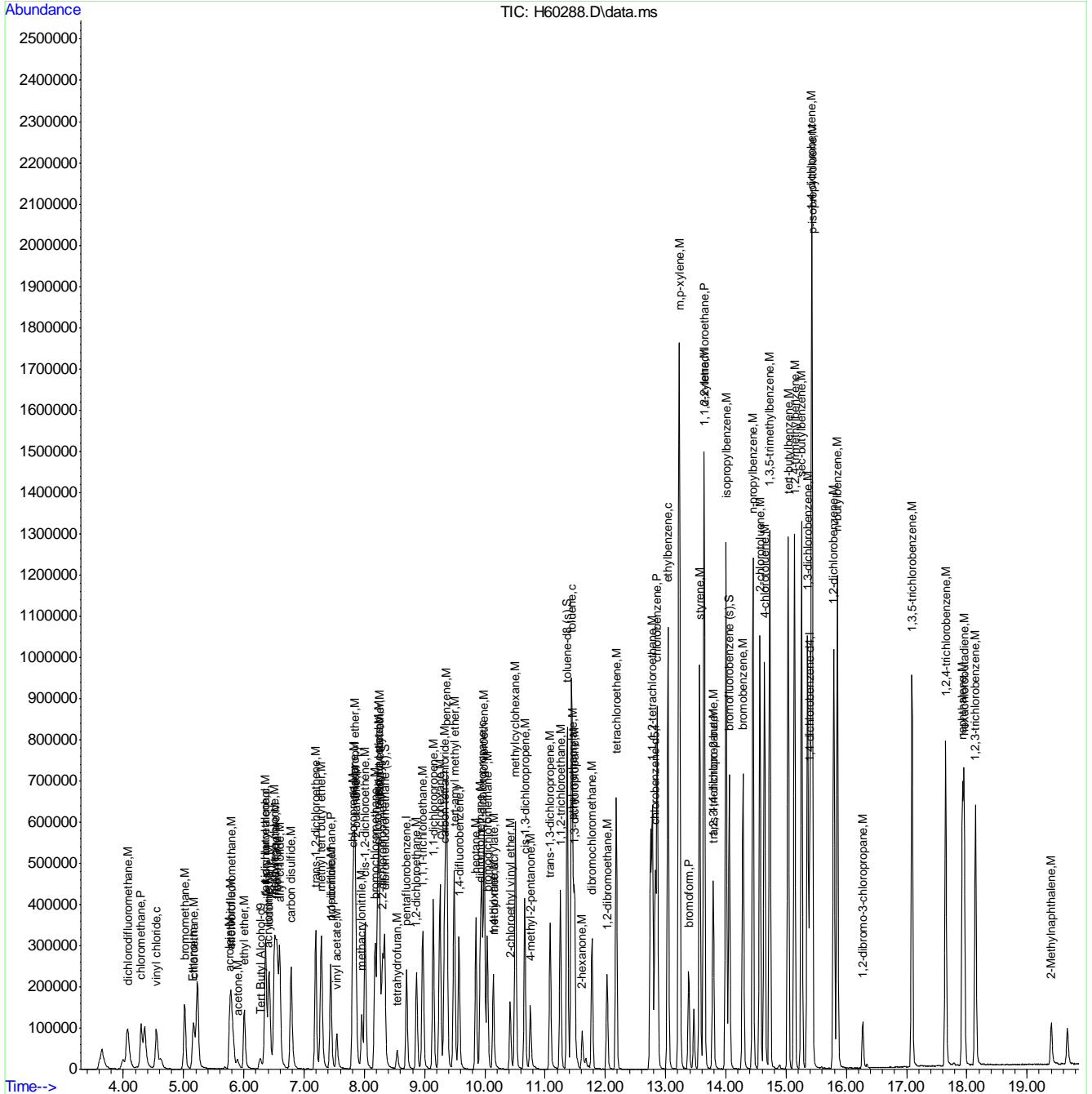
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
Data File : H60288.D  
Acq On : 13 Apr 2013 2:26 am  
Operator : garyk  
Sample : ic1993-100  
Misc : ms28486,MSH1993,,,,,5,1  
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Apr 13 10:11:26 2013  
Quant Method : C:\msdchem\1\METHODS\H130412W.M  
Quant Title : SW-846 Method 8260  
QLast Update : Sat Apr 13 10:04:39 2013  
Response via : Initial Calibration

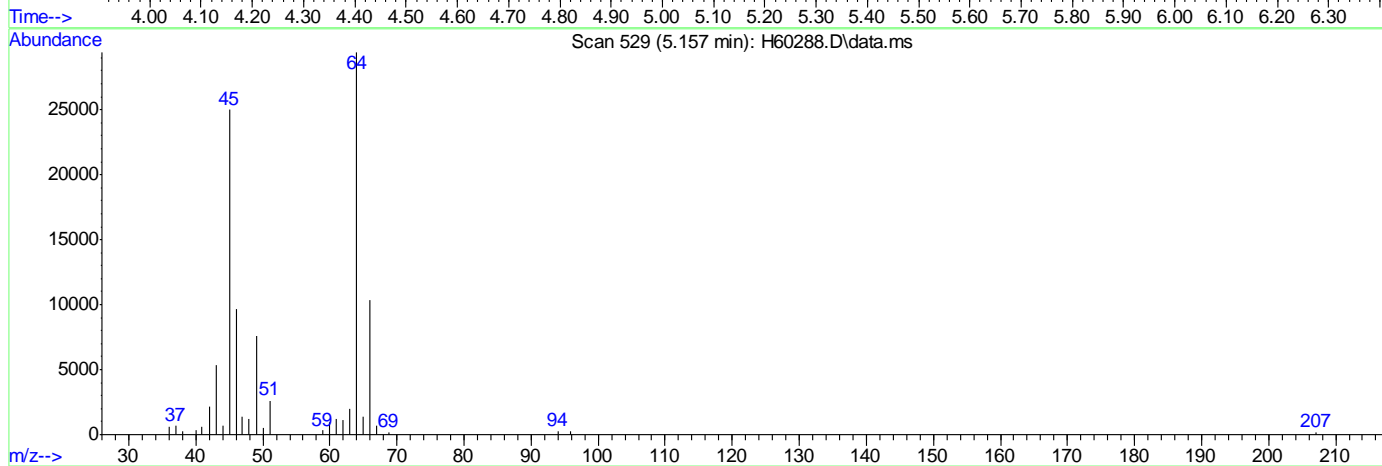
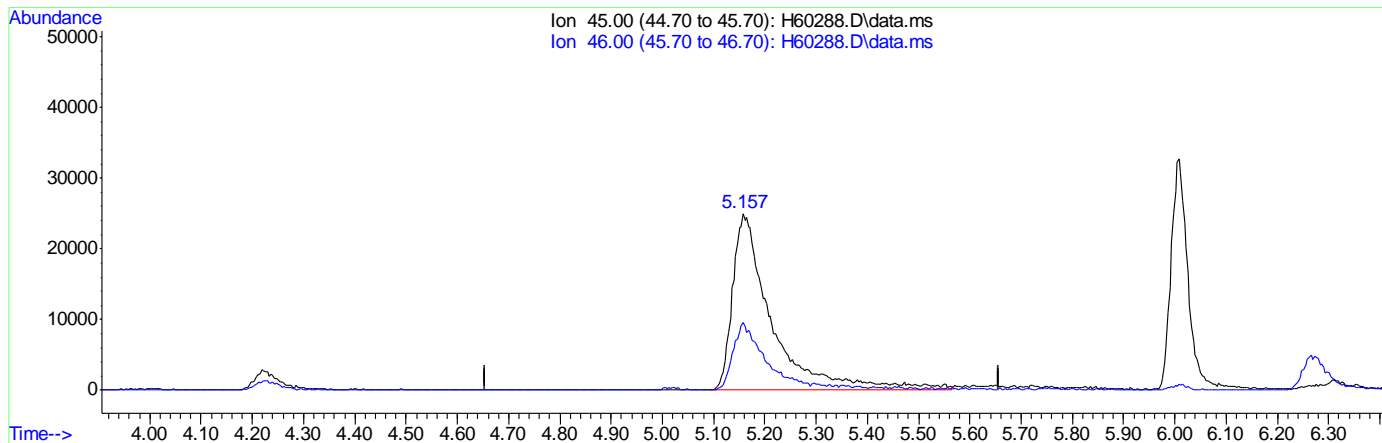


7.6.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60288.D  
 Acq On : 13 Apr 2013 2:26 am  
 Operator : garyk  
 Sample : ic1993-100  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Apr 13 10:05:06 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration



(3) Ethanol (m)

5.157min (+0.001) 9696.08ug/L m

response 133228

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

7.6.5.1  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60289.D  
 Acq On : 13 Apr 2013 2:54 am  
 Operator : garyk  
 Sample : ic1993-200  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Apr 13 10:12:45 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.276	65	54909	500.00	ug/L	0.00
4) pentafluorobenzene	8.704	168	213284	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.568	114	330947	50.00	ug/L	0.00
66) chlorobenzene-d5	12.829	82	172071	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.394	152	196670	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.340	113	382731	25.26	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	50.52%#
60) toluene-d8 (s)	11.368	98	1294351	25.20	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	50.40%#
82) bromofluorobenzene (s)	14.057	95	526556	25.58	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	51.16%#
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	6.353	59	242731	2009.97	ug/L	98
3) Ethanol	5.154	45	312586m	19307.31	ug/L	
5) dichlorodifluoromethane	4.067	85	440097	211.64	ug/L	100
6) chloromethane	4.296	50	293528	221.40	ug/L	96
7) vinyl chloride	4.554	62	328885	253.43	ug/L	99
8) bromomethane	5.016	96	299769	208.43	ug/L	99
9) chloroethane	5.164	64	198462	209.72	ug/L	99
10) acetonitrile	5.778	41	34752	190.87	ug/L	90
11) trichlorofluoromethane	5.789	101	604246	208.90	ug/L	100
12) freon-113	6.558	101	339266	199.82	ug/L	98
13) acrolein	5.761	56	173539	1063.12	ug/L	98
14) 1,1-dichloroethene	6.360	96	299057	196.77	ug/L	98
15) acetone	5.888	43	73921	200.28	ug/L	100
16) ethyl ether	6.004	59	230413	209.28	ug/L	96
17) methyl acetate	6.526	43	336236	205.52	ug/L	97
18) methylene chloride	6.505	84	373185	203.21	ug/L	99
19) methyl tert butyl ether	7.285	73	915180	204.48	ug/L	98
20) acrylonitrile	6.399	53	102127	206.21	ug/L	99
21) allyl chloride	6.597	41	381563	209.86	ug/L	97
22) trans-1,2-dichloroethene	7.190	96	356986	200.25	ug/L	99
23) iodomethane	6.420	142	708999	197.09	ug/L	99
24) carbon disulfide	6.784	76	1008723	196.57	ug/L	100
25) propionitrile	7.444	54	37748	196.68	ug/L	100
26) vinyl acetate	7.539	43	339927	203.01	ug/L	100
27) chloroprene	7.807	53	399571	208.85	ug/L	98
28) di-isopropyl ether	7.850	45	893320	211.96	ug/L	95
29) methacrylonitrile	7.955	41	161756	202.36	ug/L	97
30) 2-butanone	7.846	72	37389	208.64	ug/L	# 59
31) 1,1-dichloroethane	7.444	63	536990	205.62	ug/L	99
32) tert-butyl ethyl ether	8.248	59	921990	207.47	ug/L	99
33) Hexane	7.828	41	378979	221.81	ug/L	93
34) isobutyl alcohol	8.248	43	141173	1051.00	ug/L	94
35) 2,2-dichloropropane	8.308	77	407345	201.96	ug/L	98
36) cis-1,2-dichloroethene	8.012	96	403694	200.48	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60289.D  
 Acq On : 13 Apr 2013 2:54 am  
 Operator : garyk  
 Sample : ic1993-200  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Apr 13 10:12:45 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.248	43	136734	203.04	ug/L	99
38) bromochloromethane	8.174	128	227572	197.57	ug/L	93
39) chloroform	8.217	83	626354	206.57	ug/L	100
41) 1,1,1-trichloroethane	8.968	97	546107	203.15	ug/L	100
43) cyclohexane	9.254	56	465243	191.78	ug/L	97
44) carbon tetrachloride	9.335	117	487681	194.57	ug/L	98
45) 1,1-dichloropropene	9.141	75	428067	200.59	ug/L	99
46) benzene	9.367	78	1326603	203.03	ug/L	98
47) tetrahydrofuran	8.541	42	74042	197.27	ug/L	90
48) 1,2-dichloroethane	8.866	62	426478	202.75	ug/L	95
49) tert-amyl methyl ether	9.490	73	924467	201.24	ug/L	99
50) heptane	9.850	43	318268	220.12	ug/L	97
51) trichloroethene	9.988	95	409409	205.40	ug/L	99
52) 1,2-dichloropropane	9.953	63	324019	205.31	ug/L	98
53) dibromomethane	9.928	93	248710	200.99	ug/L	97
54) bromodichloromethane	10.041	83	489282	197.96	ug/L	99
55) methylcyclohexane	10.507	83	574373	206.94	ug/L	97
56) 2-chloroethyl vinyl ether	10.419	63	182599	197.17	ug/L	97
57) methyl methacrylate	10.140	69	216876	198.61	ug/L	99
58) 1,4-dioxane	10.133	88	19020	966.38	ug/L	82
59) cis-1,3-dichloropropene	10.662	75	552089	196.48	ug/L	98
61) 4-methyl-2-pentanone	10.754	43	260835	202.54	ug/L	99
62) toluene	11.438	92	898776	203.35	ug/L	100
63) trans-1,3-dichloropropene	11.082	75	469500	196.55	ug/L	98
64) 1,1,2-trichloroethane	11.251	83	281367	201.17	ug/L	98
65) ethyl methacrylate	11.463	69	413221	203.86	ug/L	95
67) tetrachloroethene	12.179	166	463230	170.69	ug/L	97
68) 1,3-dichloropropane	11.488	76	518833	183.00	ug/L	100
69) dibromochloromethane	11.777	129	425832	167.01	ug/L	99
70) 1,2-dibromoethane	12.028	107	378340	173.51	ug/L	99
71) 2-hexanone	11.611	43	175598	177.83	ug/L	97
72) chlorobenzene	12.860	112	1193762	175.43	ug/L	99
73) 1,1,1,2-tetrachloroethane	12.783	131	422958	169.78	ug/L	98
74) ethylbenzene	13.040	91	1730168	178.82	ug/L	100
75) m,p-xylene	13.227	106	1449485	363.26	ug/L	99
76) o-xylene	13.637	106	753301	179.60	ug/L	94
77) styrene	13.566	104	1209596	175.45	ug/L	98
78) bromoform	13.386	173	306582	161.17	ug/L	100
79) trans-1,4-dichloro-2-b...	13.789	53	77245	165.12	ug/L #	66
81) isopropylbenzene	14.000	105	1931118	207.55	ug/L	100
83) bromobenzene	14.283	156	571797	198.34	ug/L	95
84) 1,1,2,2-tetrachloroethane	13.640	83	418096	215.34	ug/L	96
85) 1,2,3-trichloropropane	13.789	75	425922	199.59	ug/L	100
86) n-propylbenzene	14.448	91	2146567	211.30	ug/L	98
87) 2-chlorotoluene	14.565	91	1335817	209.89	ug/L	99
88) 4-chlorotoluene	14.639	91	1349512	206.39	ug/L	99
89) 1,3,5-trimethylbenzene	14.731	105	1648422	205.04	ug/L	99
90) tert-butylbenzene	15.034	91	916511	208.07	ug/L	97
91) 1,2,4-trimethylbenzene	15.140	105	1648610	203.95	ug/L	99
92) sec-butylbenzene	15.257	105	2156343	207.93	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60289.D  
 Acq On : 13 Apr 2013 2:54 am  
 Operator : garyk  
 Sample : ic1993-200  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Apr 13 10:12:45 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

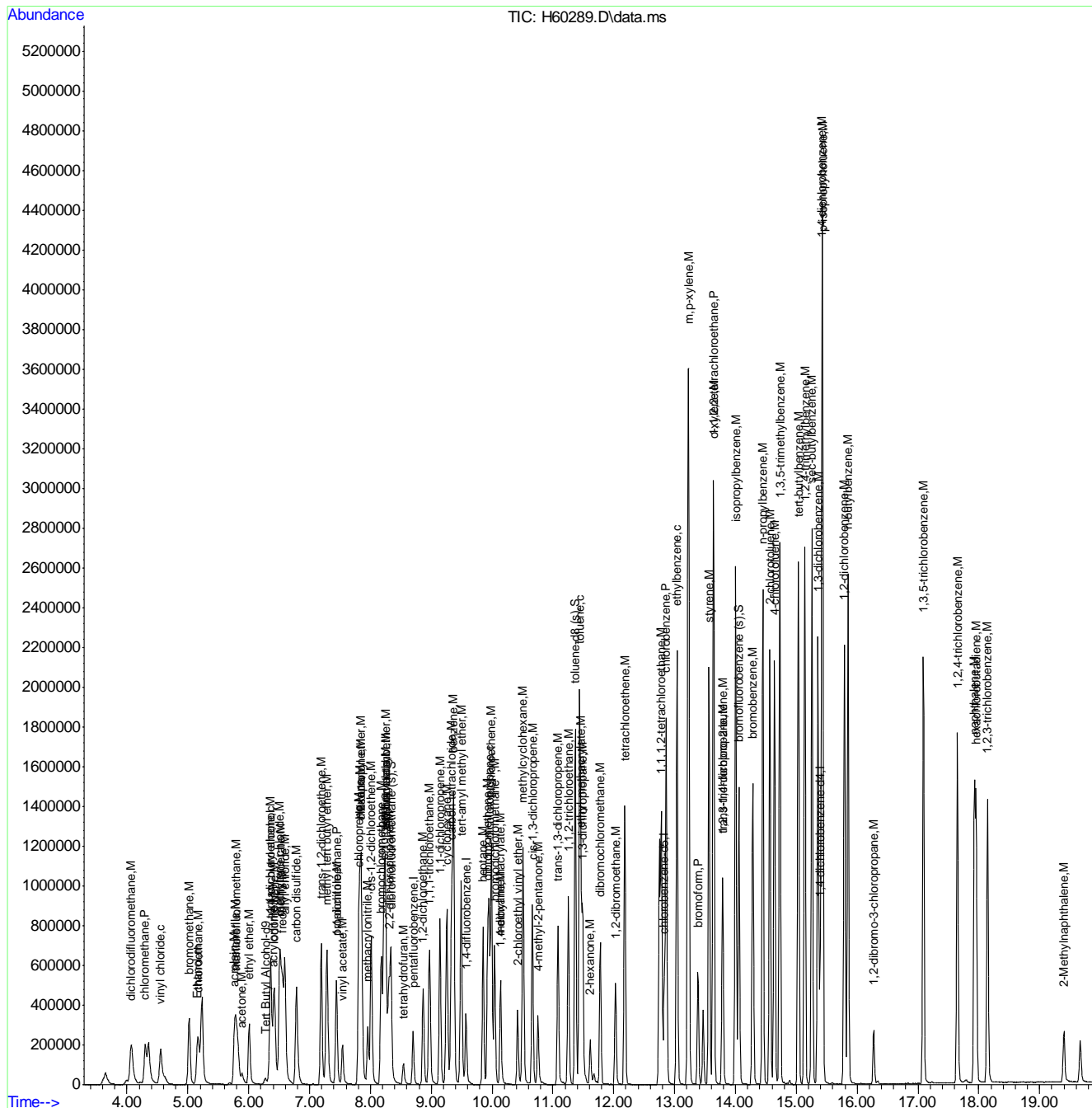
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.355	146	1115588	199.40	ug/L	98
94) p-isopropyltoluene	15.433	119	1706665	211.62	ug/L	99
95) 1,4-dichlorobenzene	15.422	146	1120986	209.26	ug/L	99
96) 1,2-dichlorobenzene	15.789	146	1107734	198.50	ug/L	99
97) n-butylbenzene	15.849	91	1531122	211.64	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.273	75	67636	195.39	ug/L	89
99) 1,3,5-trichlorobenzene	17.088	180	805802	202.97	ug/L	98
100) 1,2,4-trichlorobenzene	17.649	180	699248	201.43	ug/L	97
101) hexachlorobutadiene	17.956	225	323163	215.19	ug/L	98
102) naphthalene	17.928	128	1412319	206.24	ug/L	100
103) 1,2,3-trichlorobenzene	18.143	180	579174	206.56	ug/L	98
104) 2-Methylnaphthalene	19.399	142	181345	97.22	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
Data File : H60289.D  
Acq On : 13 Apr 2013 2:54 am  
Operator : garyk  
Sample : ic1993-200  
Misc : ms28486,MSH1993,,,,,5,1  
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Apr 13 10:12:45 2013  
Quant Method : C:\msdchem\1\METHODS\H130412W.M  
Quant Title : SW-846 Method 8260  
QLast Update : Sat Apr 13 10:04:39 2013  
Response via : Initial Calibration

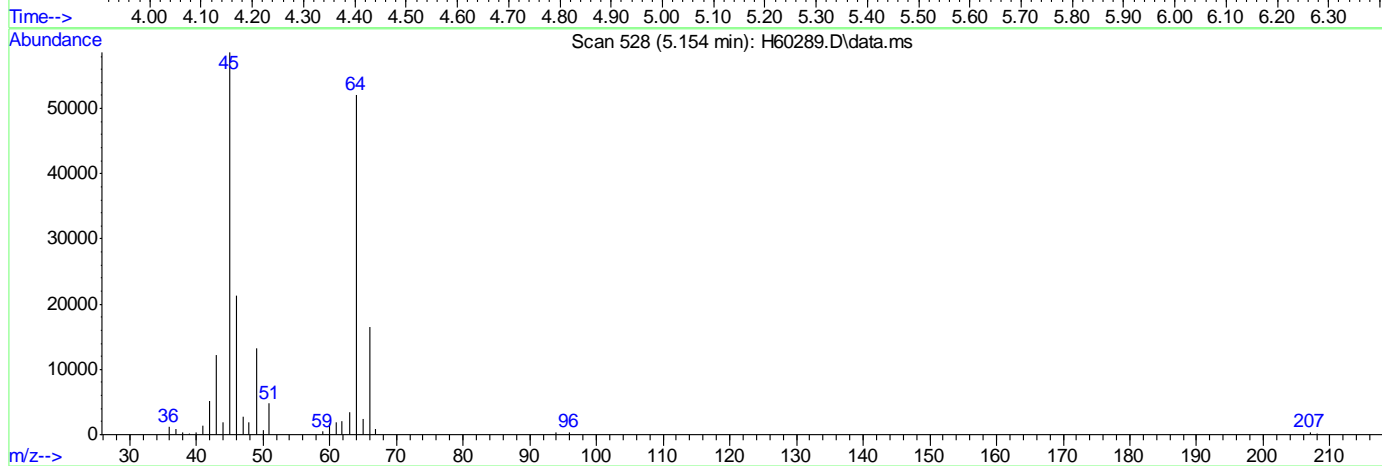
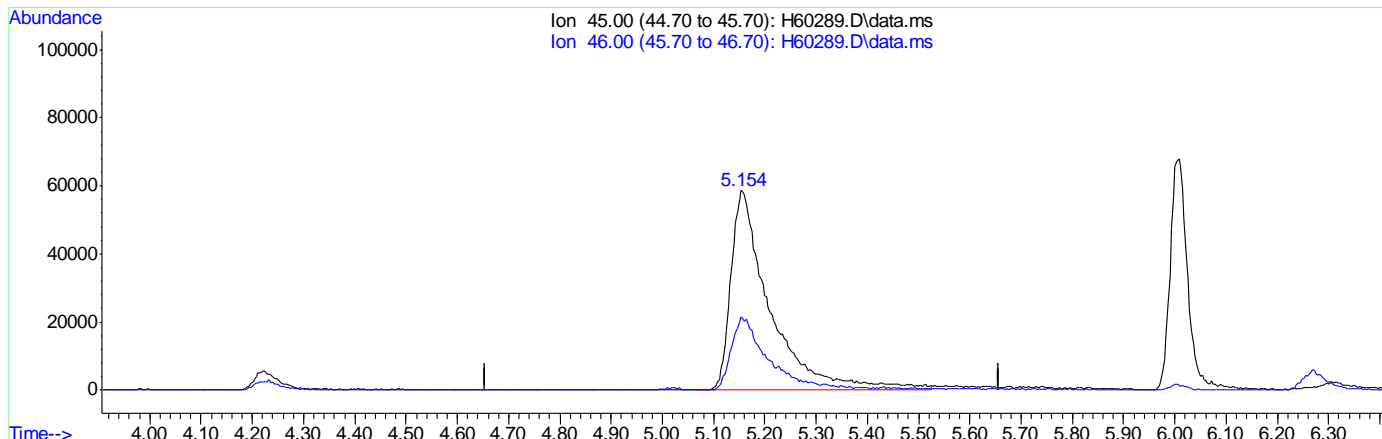


997

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60289.D  
 Acq On : 13 Apr 2013 2:54 am  
 Operator : garyk  
 Sample : ic1993-200  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Apr 13 10:05:08 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration



(3) Ethanol (m)

5.154min (-0.003) 19307.31ug/L m

response 312586

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

7.6.6.1  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60290.D  
 Acq On : 13 Apr 2013 3:21 am  
 Operator : garyk  
 Sample : ic1993-400  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 42 Sample Multiplier: 1

Quant Time: Apr 13 10:14:12 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Tert Butyl Alcohol-d9	6.272	65	60877	500.00	ug/L	0.00	
4) pentafluorobenzene	8.703	168	236987	50.00	ug/L	0.00	
42) 1,4-difluorobenzene	9.571	114	362490	50.00	ug/L	0.00	
66) chlorobenzene-d5	12.825	82	170274m	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.394	152	222745	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.336	113	842527	50.05	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.10%	
60) toluene-d8 (s)	11.367	98	2809326	49.94	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.88%	
82) bromofluorobenzene (s)	14.056	95	1165655	50.00	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.00%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	6.353	59	529863	3957.47	ug/L		94
3) Ethanol	5.156	45	711622m	39645.31	ug/L		
5) dichlorodifluoromethane	4.070	85	924957	400.32	ug/L		99
6) chloromethane	4.303	50	588345	399.38	ug/L		98
7) vinyl chloride	4.550	62	577323	400.38	ug/L		98
8) bromomethane	5.022	96	639917	400.42	ug/L		98
9) chloroethane	5.167	64	420917	400.30	ug/L		100
10) acetonitrile	5.774	41	80544	398.13	ug/L		95
11) trichlorofluoromethane	5.813	101	1286792	400.38	ug/L		99
12) freon-113	6.557	101	755215	400.32	ug/L		98
13) acrolein	5.756	56	361506	1993.13	ug/L		99
14) 1,1-dichloroethene	6.360	96	672213	398.06	ug/L		99
15) acetone	5.887	43	164173	400.32	ug/L		99
16) ethyl ether	6.007	59	489722	400.32	ug/L		99
17) methyl acetate	6.522	43	727516	400.21	ug/L		95
18) methylene chloride	6.508	84	817218	400.48	ug/L		96
19) methyl tert butyl ether	7.284	73	1990881	400.33	ug/L		99
20) acrylonitrile	6.395	53	221167	401.90	ug/L		98
21) allyl chloride	6.596	41	811844	401.85	ug/L		100
22) trans-1,2-dichloroethene	7.189	96	792939	400.32	ug/L		98
23) iodomethane	6.423	142	1600141	400.32	ug/L		99
24) carbon disulfide	6.787	76	2282601	400.32	ug/L		100
25) propionitrile	7.436	54	85443	400.67	ug/L		100
26) vinyl acetate	7.538	43	743140	399.42	ug/L		99
27) chloroprene	7.807	53	850764	400.21	ug/L		99
28) di-isopropyl ether	7.849	45	1874648	400.32	ug/L		93
29) methacrylonitrile	7.955	41	357021	401.97	ug/L		98
30) 2-butanone	7.845	72	79712	400.32	ug/L	#	62
31) 1,1-dichloroethane	7.440	63	1161658	400.32	ug/L		99
32) tert-butyl ethyl ether	8.248	59	1976670	400.32	ug/L		99
33) Hexane	7.828	41	758972	399.79	ug/L		93
34) isobutyl alcohol	8.251	43	295703	1981.25	ug/L		91
35) 2,2-dichloropropane	8.304	77	897149	400.32	ug/L		98
36) cis-1,2-dichloroethene	8.011	96	895662	400.32	ug/L		96



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60290.D  
 Acq On : 13 Apr 2013 3:21 am  
 Operator : garyk  
 Sample : ic1993-400  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 42 Sample Multiplier: 1

Quant Time: Apr 13 10:14:12 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.251	43	298737	399.23	ug/L	94
38) bromochloromethane	8.177	128	512352	400.32	ug/L	92
39) chloroform	8.216	83	1348835	400.34	ug/L	96
41) 1,1,1-trichloroethane	8.971	97	1195712	400.32	ug/L	98
43) cyclohexane	9.253	56	1062739	399.95	ug/L	94
44) carbon tetrachloride	9.335	117	1098145	400.00	ug/L	96
45) 1,1-dichloropropene	9.140	75	934457	399.79	ug/L	99
46) benzene	9.366	78	2863131	400.05	ug/L	99
47) tetrahydrofuran	8.541	42	164441	400.00	ug/L	89
48) 1,2-dichloroethane	8.865	62	920701	399.63	ug/L	97
49) tert-amyl methyl ether	9.490	73	2013108	400.09	ug/L	99
50) heptane	9.853	43	633988	400.33	ug/L	99
51) trichloroethene	9.987	95	881735	403.88	ug/L	95
52) 1,2-dichloropropane	9.952	63	691387	399.97	ug/L	97
53) dibromomethane	9.924	93	542436	400.22	ug/L	97
54) bromodichloromethane	10.040	83	1082924	400.03	ug/L	98
55) methylcyclohexane	10.506	83	1215471	399.81	ug/L	97
56) 2-chloroethyl vinyl ether	10.414	63	405737	400.00	ug/L	95
57) methyl methacrylate	10.139	69	478561	400.11	ug/L	96
58) 1,4-dioxane	10.129	88	43117	2000.09	ug/L	85
59) cis-1,3-dichloropropene	10.661	75	1231271	400.05	ug/L	97
61) 4-methyl-2-pentanone	10.750	43	569319	403.62	ug/L	98
62) toluene	11.438	92	1936484	400.02	ug/L	100
63) trans-1,3-dichloropropene	11.081	75	1046233	399.89	ug/L	99
64) 1,1,2-trichloroethane	11.251	83	612476	399.80	ug/L	99
65) ethyl methacrylate	11.462	69	884738	398.50	ug/L	98
67) tetrachloroethene	12.179	166	1057708	393.86	ug/L	97
68) 1,3-dichloropropane	11.487	76	1103848	393.44	ug/L	99
69) dibromochloromethane	11.777	129	993641	393.83	ug/L	98
70) 1,2-dibromoethane	12.027	107	849923	393.89	ug/L	97
71) 2-hexanone	11.611	43	385685	394.71	ug/L	97
72) chlorobenzene	12.860	112	2652190	393.86	ug/L	98
73) 1,1,1,2-tetrachloroethane	12.782	131	970928	393.86	ug/L	99
74) ethylbenzene	13.040	91	3770865	393.84	ug/L	99
75) m,p-xylene	13.227	106	3108736	787.31	ug/L	99
76) o-xylene	13.640	106	1634329	393.77	ug/L	99
77) styrene	13.566	104	2686970	393.86	ug/L	98
78) bromoform	13.386	173	741398	393.86	ug/L	98
79) trans-1,4-dichloro-2-b...	13.788	53	182327	393.86	ug/L #	65
81) isopropylbenzene	14.003	105	4215941	400.06	ug/L	99
83) bromobenzene	14.285	156	1305930	399.97	ug/L	92
84) 1,1,2,2-tetrachloroethane	13.640	83	879696	400.04	ug/L	98
85) 1,2,3-trichloropropane	13.788	75	966872	400.05	ug/L	99
86) n-propylbenzene	14.448	91	4602623	400.03	ug/L	96
87) 2-chlorotoluene	14.564	91	2894563	401.56	ug/L	97
88) 4-chlorotoluene	14.638	91	2962618	400.05	ug/L	96
89) 1,3,5-trimethylbenzene	14.730	105	3642622	400.05	ug/L	99
90) tert-butylbenzene	15.034	91	1996844	400.26	ug/L	97
91) 1,2,4-trimethylbenzene	15.139	105	3660458	399.82	ug/L	100
92) sec-butylbenzene	15.259	105	4698810	400.05	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60290.D  
 Acq On : 13 Apr 2013 3:21 am  
 Operator : garyk  
 Sample : ic1993-400  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 42 Sample Multiplier: 1

Quant Time: Apr 13 10:14:12 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.355	146	2534848	400.05	ug/L	98
94) p-isopropyltoluene	15.432	119	3654715	400.12	ug/L	98
95) 1,4-dichlorobenzene	15.422	146	2447130	403.35	ug/L	99
96) 1,2-dichlorobenzene	15.792	146	2528462	400.05	ug/L	98
97) n-butylbenzene	15.849	91	3277967	400.07	ug/L	98
98) 1,2-dibromo-3-chloropr...	16.269	75	156349	398.80	ug/L	90
99) 1,3,5-trichlorobenzene	17.087	180	1800242	400.38	ug/L	99
100) 1,2,4-trichlorobenzene	17.648	180	1572935	400.06	ug/L	97
101) hexachlorobutadiene	17.955	225	680352	400.01	ug/L	99
102) naphthalene	17.927	128	3102710	400.05	ug/L	100
103) 1,2,3-trichlorobenzene	18.142	180	1270427	400.05	ug/L	99
104) 2-Methylnaphthalene	19.399	142	422470	199.98	ug/L	98

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

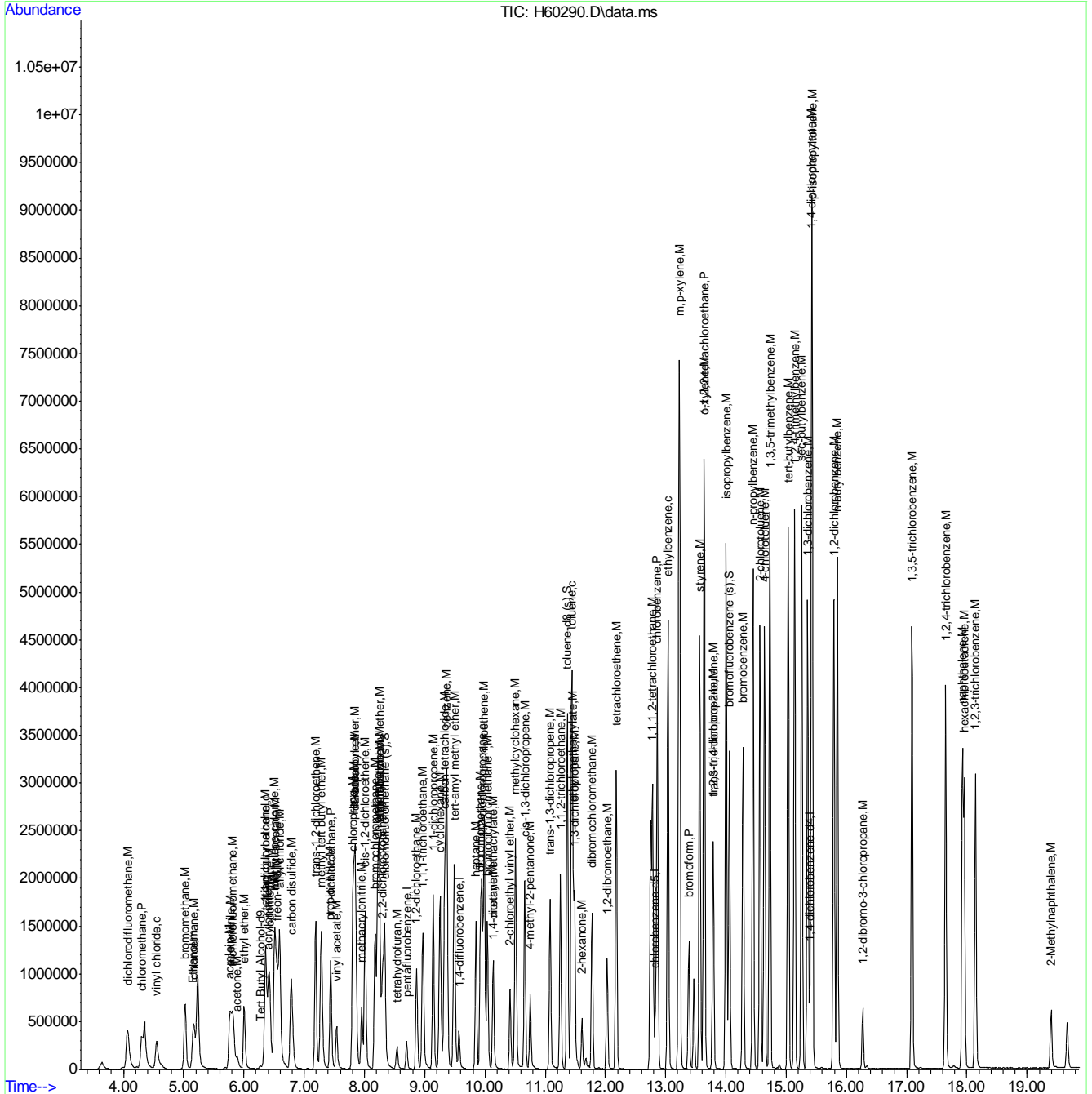
7.6.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60290.D  
 Acq On : 13 Apr 2013 3:21 am  
 Operator : garyk  
 Sample : ic1993-400  
 Misc : ms28486,MSH1993,,,,,5,1  
 ALS Vial : 42 Sample Multiplier: 1

Quant Time: Apr 13 10:14:12 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration

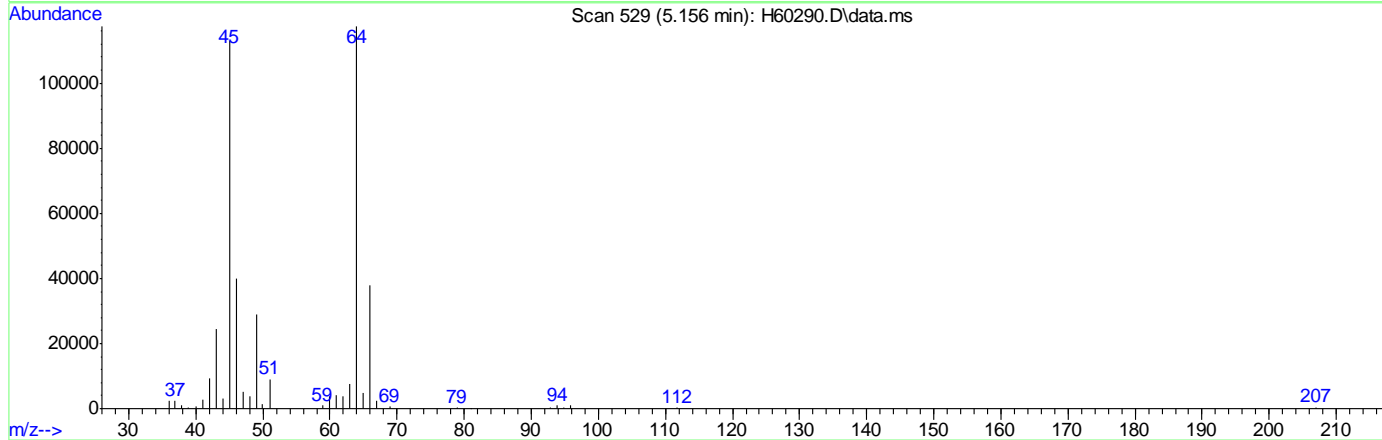
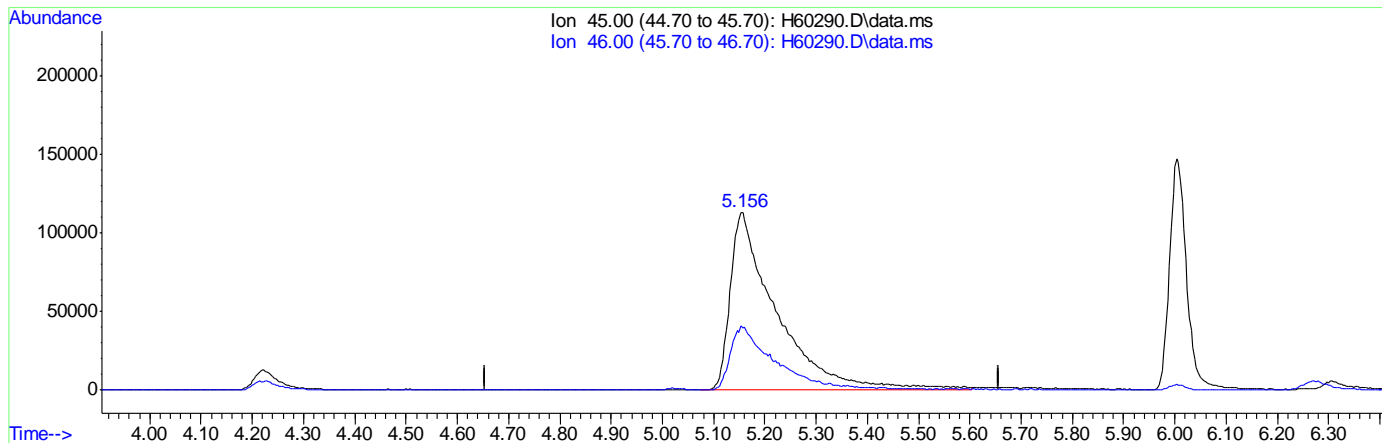


7.6.7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\130412\  
 Data File : H60290.D  
 Acq On : 13 Apr 2013 3:21 am  
 Operator : garyk  
 Sample : ic1993-400  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 42 Sample Multiplier: 1

Quant Time: Apr 13 10:05:10 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:04:39 2013  
 Response via : Initial Calibration



(3) Ethanol (m)

5.156min (0.000) 39645.31ug/L m

response 711622

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

7.6.7.1  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60299.D  
 Acq On : 13 Apr 2013 9:14 am  
 Operator : amym  
 Sample : ic1993-0.5  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 13 10:42:15 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:17:24 2013  
 Response via : Initial Calibration

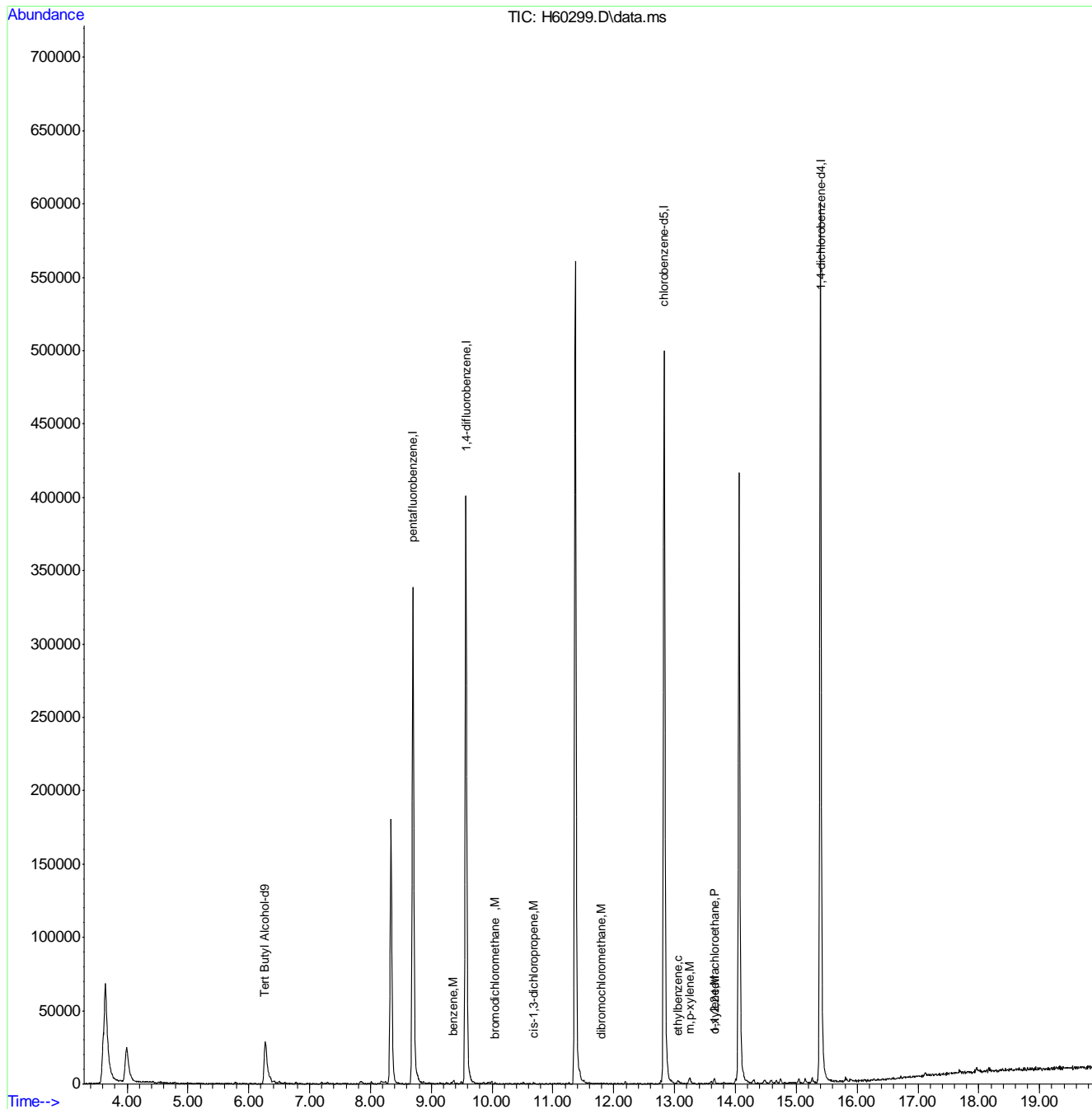
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Tert Butyl Alcohol-d9	6.268	65	62021	50.00	ug/L	0.00	
4) pentafluorobenzene	8.699	168	283923	50.00	ug/L	0.00	
42) 1,4-difluorobenzene	9.568	114	394895	50.00	ug/L	0.00	
66) chlorobenzene-d5	12.828	82	170374	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.397	152	203834	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	0.000	113	0d	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
46) benzene	9.363	78	2774	0.35	ug/L		88
54) bromodichloromethane	10.040	83	601	0.22	ug/L		81
59) cis-1,3-dichloropropene	10.683	75	747	0.25	ug/L		48
69) dibromochloromethane	11.791	129	504m	0.27	ug/L		
74) ethylbenzene	13.058	91	3270	0.36	ug/L		84
75) m,p-xylene	13.252	106	2437	0.65	ug/L		83
76) o-xylene	13.657	106	1273	0.33	ug/L #		66
84) 1,1,2,2-tetrachloroethane	13.654	83	831m	0.40	ug/L		

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

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130413\  
Data File : H60299.D  
Acq On : 13 Apr 2013 9:14 am  
Operator : amym  
Sample : ic1993-0.5  
Misc : ms28486,MSH1993,,,,5,1  
ALS Vial : 3 Sample Multiplier: 1

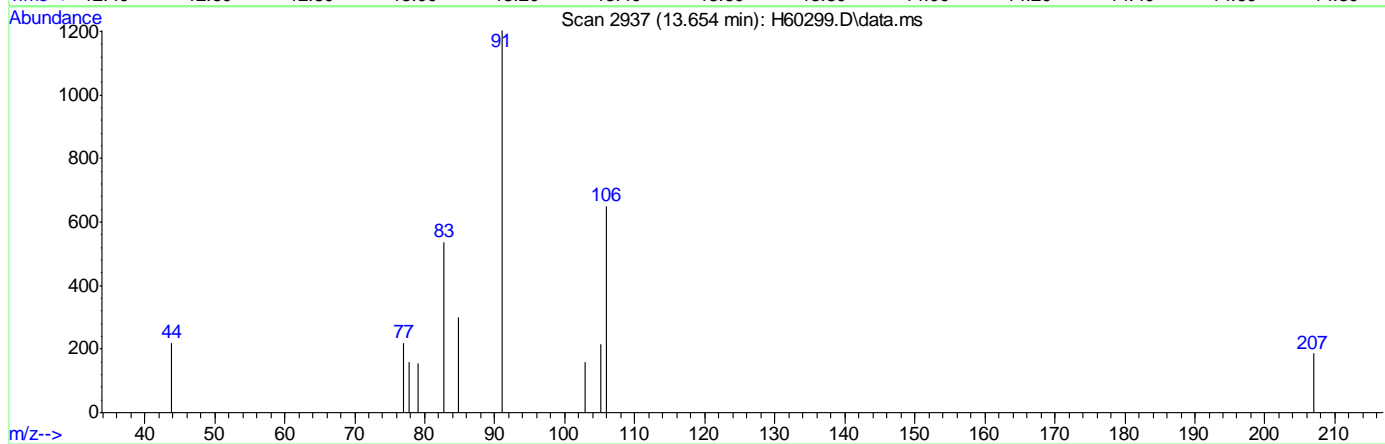
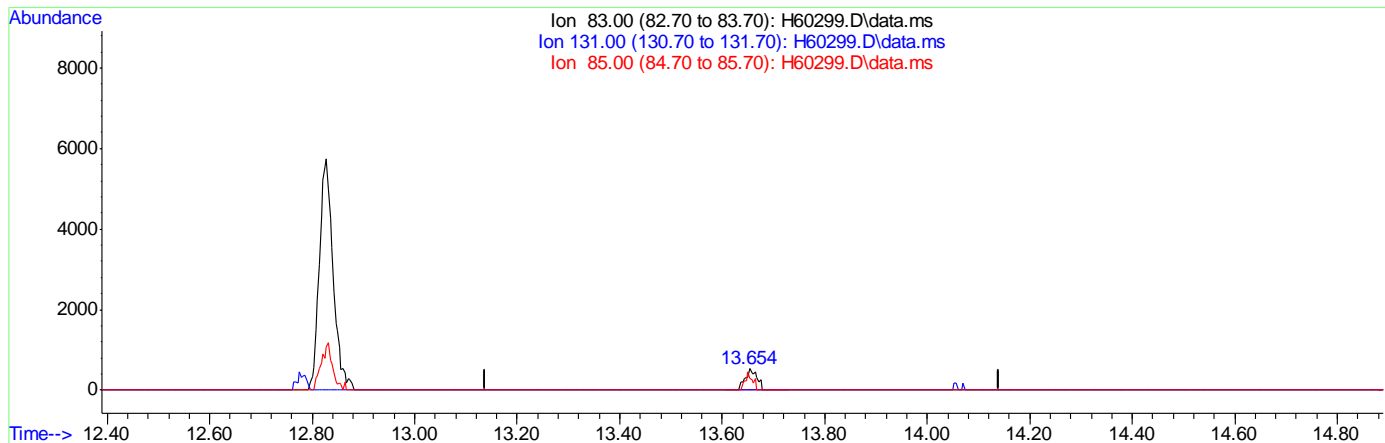
Quant Time: Apr 13 10:42:15 2013  
Quant Method : C:\msdchem\1\METHODS\H130412W.M  
Quant Title : SW-846 Method 8260  
QLast Update : Sat Apr 13 10:17:24 2013  
Response via : Initial Calibration



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60299.D  
 Acq On : 13 Apr 2013 9:14 am  
 Operator : amym  
 Sample : ic1993-0.5  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 13 10:17:59 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:17:24 2013  
 Response via : Initial Calibration



(84) 1,1,2,2-tetrachloroethane (P)

13.654min (+0.014) 0.40ug/L m

response 831

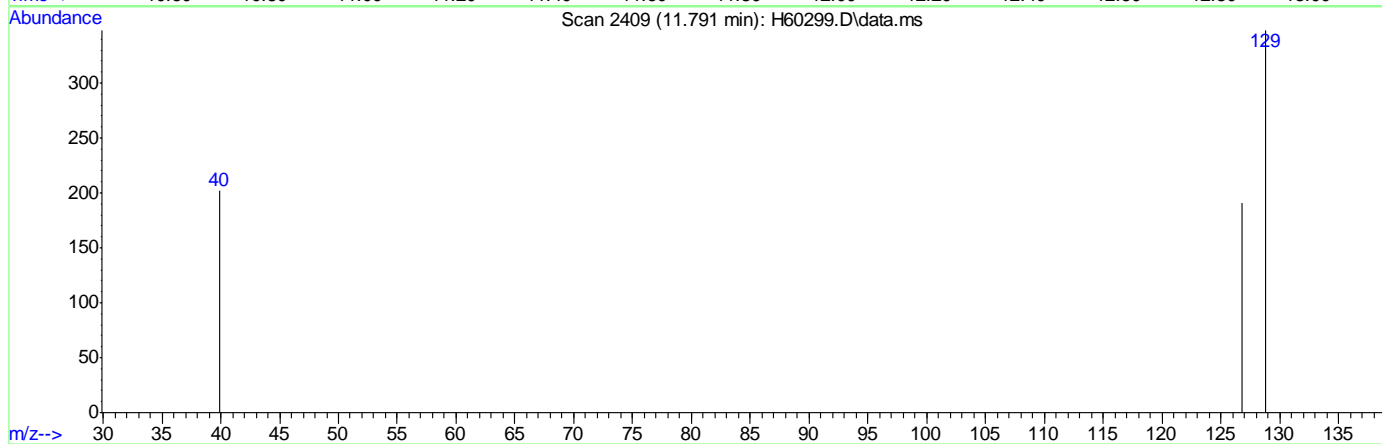
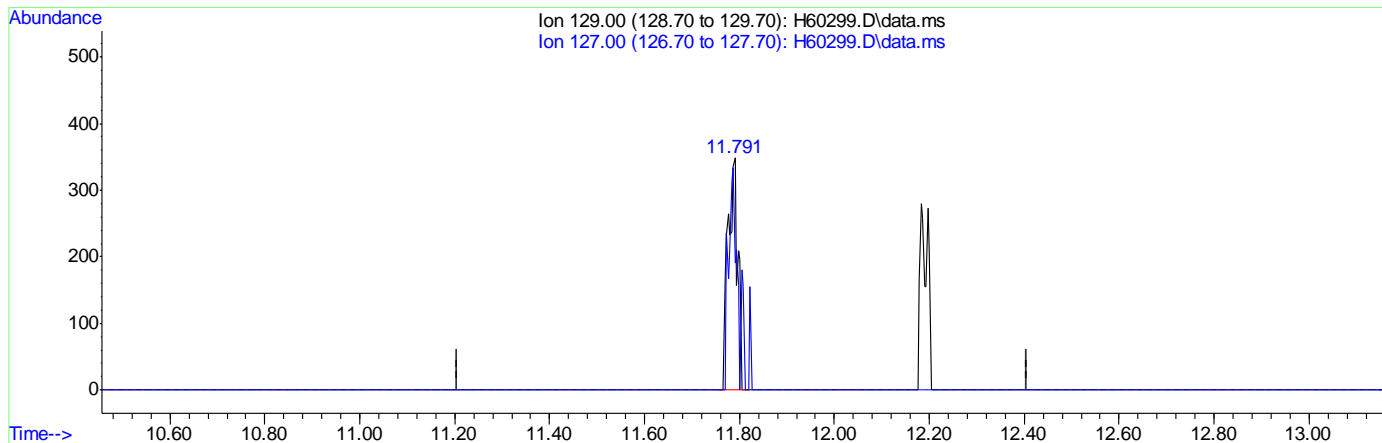
Ion	Exp%	Act%
83.00	100	100
131.00	11.90	0.00
85.00	64.40	55.58
0.00	0.00	0.00

7.6.8.1  
 7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60299.D  
 Acq On : 13 Apr 2013 9:14 am  
 Operator : amym  
 Sample : ic1993-0.5  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 13 10:19:12 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:17:24 2013  
 Response via : Initial Calibration



TIC: H60299.D\data.ms

(69) dibromochloromethane (M)

11.791min (+0.014) 0.27ug/L m

response 504

Ion	Exp%	Act%
129.00	100	100
127.00	75.20	54.89
0.00	0.00	0.00
0.00	0.00	0.00

7.682  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60300.D  
 Acq On : 13 Apr 2013 9:41 am  
 Operator : amym  
 Sample : ic1993-1  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 13 10:29:31 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:19:25 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Tert Butyl Alcohol-d9	6.282	65	42152	50.00	ug/L	0.01
4) pentafluorobenzene	8.703	168	190493	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.571	114	269616	50.00	ug/L	0.00
66) chlorobenzene-d5	12.828	82	117133	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.394	152	142298	50.00	ug/L	0.00
<b>System Monitoring Compounds</b>						
40) dibromofluoromethane (s)	0.000	113	0d	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%#	
<b>Target Compounds</b>						
						Qvalue
5) dichlorodifluoromethane	4.077	85	1837	0.86	ug/L	84
6) chloromethane	4.271	50	1455	1.06	ug/L	88
7) vinyl chloride	4.525	62	1594	1.01	ug/L	84
8) bromomethane	5.001	96	1286	0.97	ug/L	89
9) chloroethane	5.160	64	635	0.72	ug/L #	42
11) trichlorofluoromethane	5.785	101	2320	0.84	ug/L	97
12) freon-113	6.554	101	1304	0.94	ug/L #	75
14) 1,1-dichloroethene	6.360	96	1206	0.97	ug/L	95
18) methylene chloride	6.512	84	1409	0.84	ug/L	90
19) methyl tert butyl ether	7.291	73	2936	0.75	ug/L	88
22) trans-1,2-dichloroethene	7.200	96	1463	0.93	ug/L	92
23) iodomethane	6.420	142	2715	0.88	ug/L	99
24) carbon disulfide	6.790	76	3755	0.83	ug/L	99
28) di-isopropyl ether	7.863	45	3256	0.81	ug/L	91
31) 1,1-dichloroethane	7.447	63	1998	0.82	ug/L	97
32) tert-butyl ethyl ether	8.251	59	3136	0.79	ug/L	72
33) Hexane	7.842	41	1618	1.00	ug/L #	89
35) 2,2-dichloropropane	8.301	77	1490	0.90	ug/L	52
36) cis-1,2-dichloroethene	8.022	96	1528	0.86	ug/L	91
38) bromochloromethane	8.184	128	872	0.90	ug/L #	74
39) chloroform	8.220	83	2447	0.89	ug/L	80
41) 1,1,1-trichloroethane	8.971	97	1947	0.89	ug/L	92
43) cyclohexane	9.257	56	1773	0.89	ug/L #	79
44) carbon tetrachloride	9.342	117	1563	0.91	ug/L	92
45) 1,1-dichloropropene	9.151	75	1607	1.00	ug/L	91
46) benzene	9.373	78	5330	1.02	ug/L	93
48) 1,2-dichloroethane	8.876	62	1720	0.97	ug/L	71
49) tert-amyl methyl ether	9.500	73	3270	0.92	ug/L	87
50) heptane	9.867	43	1258	0.99	ug/L	68
51) trichloroethene	9.998	95	1437	0.85	ug/L	92
52) 1,2-dichloropropane	9.956	63	1131	0.87	ug/L	88
53) dibromomethane	9.927	93	771	0.79	ug/L #	81
54) bromodichloromethane	10.044	83	1365	0.80	ug/L	90
55) methylcyclohexane	10.510	83	2107	0.92	ug/L	91

7.6.9  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60300.D  
 Acq On : 13 Apr 2013 9:41 am  
 Operator : amym  
 Sample : ic1993-1  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 13 10:29:31 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:19:25 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
59) cis-1,3-dichloropropene	10.679	75	1723	0.91	ug/L	71
62) toluene	11.445	92	3816	1.08	ug/L	97
63) trans-1,3-dichloropropene	11.106	75	1029	0.69	ug/L	66
64) 1,1,2-trichloroethane	11.265	83	892	0.82	ug/L	78
67) tetrachloroethene	12.186	166	1619	0.99	ug/L #	75
68) 1,3-dichloropropane	11.498	76	1773	0.95	ug/L	86
69) dibromochloromethane	11.794	129	990	0.76	ug/L	92
70) 1,2-dibromoethane	12.052	107	972	0.76	ug/L #	67
72) chlorobenzene	12.867	112	4611	1.08	ug/L	93
73) 1,1,1,2-tetrachloroethane	12.789	131	1266	0.93	ug/L	96
74) ethylbenzene	13.061	91	6191	1.04	ug/L	93
75) m,p-xylene	13.241	106	5000	2.03	ug/L	98
76) o-xylene	13.643	106	2801	1.10	ug/L	82
77) styrene	13.594	104	3574	0.88	ug/L	96
78) bromoform	13.393	173	485	0.63	ug/L #	29
83) bromobenzene	14.296	156	2004	1.04	ug/L	88
84) 1,1,2,2-tetrachloroethane	13.650	83	1593	1.14	ug/L	84
86) n-propylbenzene	14.462	91	7259	0.99	ug/L	88
87) 2-chlorotoluene	14.575	91	5369	1.14	ug/L	89
88) 4-chlorotoluene	14.660	91	5764	1.22	ug/L	92
89) 1,3,5-trimethylbenzene	14.741	105	5209	0.92	ug/L	88
90) tert-butylbenzene	15.037	91	2989	0.95	ug/L	100
91) 1,2,4-trimethylbenzene	15.139	105	5326	0.95	ug/L	87
92) sec-butylbenzene	15.263	105	7413	1.00	ug/L	94
93) 1,3-dichlorobenzene	15.365	146	3798	1.01	ug/L	98
94) p-isopropyltoluene	15.439	119	5773	0.99	ug/L	90
95) 1,4-dichlorobenzene	15.429	146	4530	1.14	ug/L	87
96) 1,2-dichlorobenzene	15.806	146	3934	1.04	ug/L	82
97) n-butylbenzene	15.884	91	4350	0.84	ug/L	92
99) 1,3,5-trichlorobenzene	17.105	180	2560	0.98	ug/L #	95
100) 1,2,4-trichlorobenzene	17.684	180	1907	0.86	ug/L	74
101) hexachlorobutadiene	17.959	225	1089	1.05	ug/L	65

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



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60301.D  
 Acq On : 13 Apr 2013 10:09 am  
 Operator : amym  
 Sample : ic1993-2  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 13 10:31:31 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:29:43 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.274	65	44886	50.00	ug/L	0.00
4) pentafluorobenzene	8.702	168	197082	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.570	114	279638	50.00	ug/L	0.00
66) chlorobenzene-d5	12.830	82	121821	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.396	152	149087	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	0.000	113	0d	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	6.380	59	1602	1.88	ug/L	88
3) Ethanol	5.176	45	1088	9.78	ug/L #	100
5) dichlorodifluoromethane	4.068	85	4274	1.96	ug/L	96
6) chloromethane	4.280	50	2656	1.85	ug/L	100
7) vinyl chloride	4.527	62	3237	1.98	ug/L	98
8) bromomethane	5.011	96	2629	1.92	ug/L	98
9) chloroethane	5.159	64	1738	1.98	ug/L	98
11) trichlorofluoromethane	5.790	101	5190	1.86	ug/L	75
12) freon-113	6.549	101	2580	1.82	ug/L	86
13) acrolein	5.798	56	639	4.42	ug/L	95
14) 1,1-dichloroethene	6.369	96	2633	2.06	ug/L	93
16) ethyl ether	6.020	59	1587	1.60	ug/L	99
17) methyl acetate	6.570	43	1945	1.55	ug/L	91
18) methylene chloride	6.514	84	3354	1.98	ug/L	90
19) methyl tert butyl ether	7.294	73	6764	1.73	ug/L	99
21) allyl chloride	6.595	41	2780	1.64	ug/L	83
22) trans-1,2-dichloroethene	7.202	96	2966	1.84	ug/L	97
23) iodomethane	6.422	142	5744	1.84	ug/L	89
24) carbon disulfide	6.786	76	7980	1.74	ug/L	93
27) chloroprene	7.816	53	2911	1.74	ug/L	73
28) di-isopropyl ether	7.862	45	7282	1.80	ug/L	84
31) 1,1-dichloroethane	7.449	63	4427	1.81	ug/L	94
32) tert-butyl ethyl ether	8.250	59	7124	1.78	ug/L	89
33) Hexane	7.837	41	3492	2.08	ug/L #	84
34) isobutyl alcohol	8.250	43	822	6.49	ug/L	91
35) 2,2-dichloropropane	8.306	77	3471	2.04	ug/L	97
36) cis-1,2-dichloroethene	8.017	96	3394	1.88	ug/L	94
38) bromochloromethane	8.179	128	1754	1.77	ug/L #	72
39) chloroform	8.218	83	4981	1.77	ug/L	91
41) 1,1,1-trichloroethane	8.970	97	4321	1.94	ug/L	94
43) cyclohexane	9.249	56	3805	1.87	ug/L #	74
44) carbon tetrachloride	9.333	117	3178	1.81	ug/L	98
45) 1,1-dichloropropene	9.150	75	3387	2.02	ug/L	91
46) benzene	9.369	78	11182	2.06	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60301.D  
 Acq On : 13 Apr 2013 10:09 am  
 Operator : amym  
 Sample : ic1993-2  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 13 10:31:31 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:29:43 2013  
 Response via : Initial Calibration

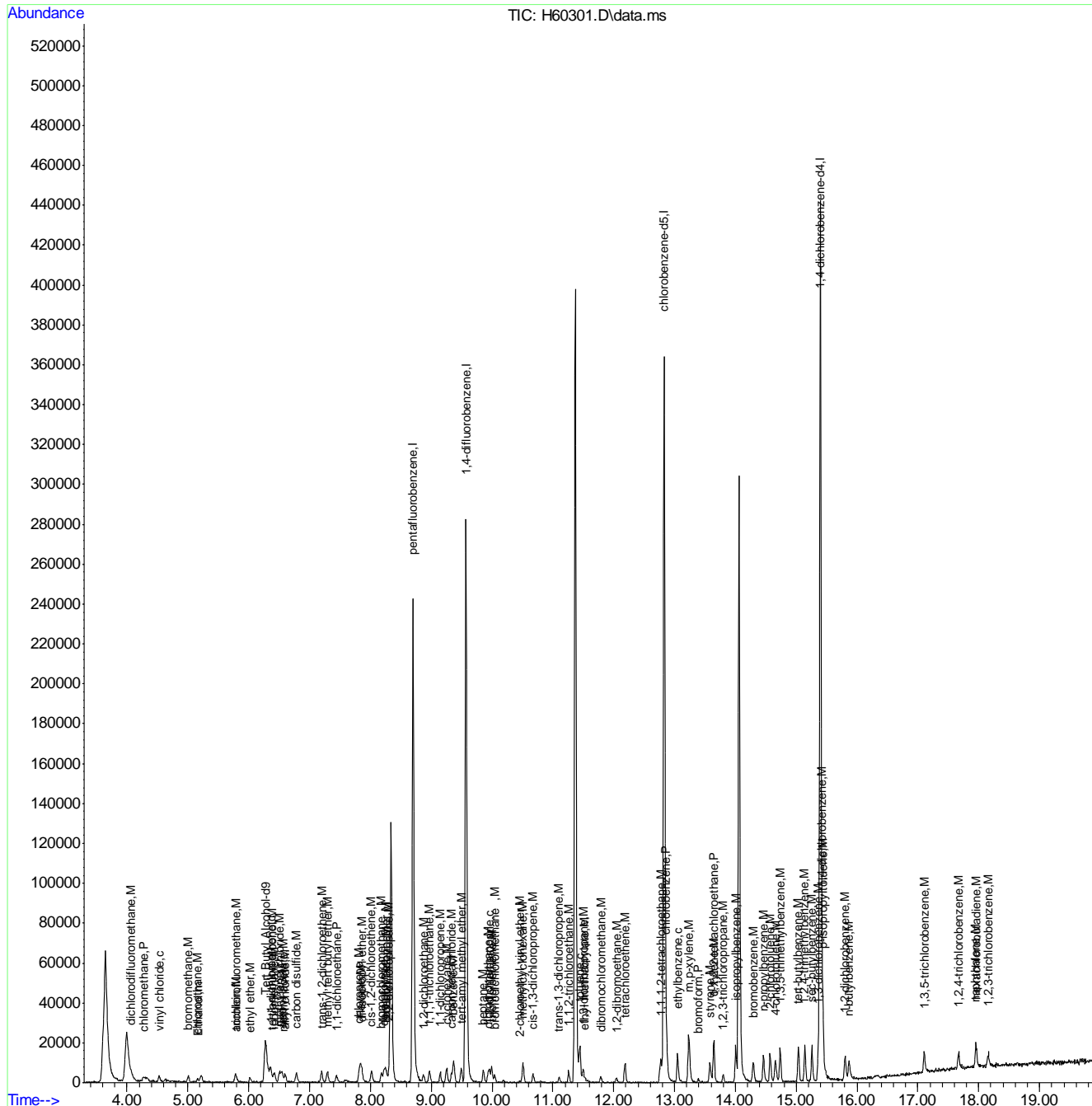
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) 1,2-dichloroethane	8.871	62	3550	1.94	ug/L	89
49) tert-amyl methyl ether	9.496	73	6720	1.83	ug/L	98
50) heptane	9.856	43	2902	2.20	ug/L	68
51) trichloroethene	9.993	95	2991	1.75	ug/L	90
52) 1,2-dichloropropane	9.954	63	2577	1.94	ug/L	88
53) dibromomethane	9.933	93	1815	1.83	ug/L	90
54) bromodichloromethane	10.046	83	3406	1.97	ug/L	83
55) methylcyclohexane	10.505	83	4516	1.92	ug/L	97
56) 2-chloroethyl vinyl ether	10.456	63	520	0.75	ug/L #	46
59) cis-1,3-dichloropropene	10.671	75	3255	1.67	ug/L	97
62) toluene	11.444	92	7467	2.01	ug/L	100
63) trans-1,3-dichloropropene	11.098	75	2247	1.51	ug/L	77
64) 1,1,2-trichloroethane	11.264	83	2068	1.88	ug/L	99
65) ethyl methacrylate	11.521	69	1725	1.13	ug/L #	18
67) tetrachloroethene	12.188	166	3653	2.15	ug/L	93
68) 1,3-dichloropropane	11.497	76	4050	2.10	ug/L	86
69) dibromochloromethane	11.786	129	2450	1.87	ug/L	91
70) 1,2-dibromoethane	12.047	107	2639	2.04	ug/L	79
72) chlorobenzene	12.859	112	10187	2.27	ug/L	94
73) 1,1,1,2-tetrachloroethane	12.781	131	2863	2.04	ug/L #	72
74) ethylbenzene	13.049	91	13294	2.13	ug/L	98
75) m,p-xylene	13.240	106	11270	4.39	ug/L	86
76) o-xylene	13.646	106	5717	2.13	ug/L	99
77) styrene	13.582	104	7958	1.91	ug/L	84
78) bromoform	13.392	173	1100	1.44	ug/L	84
81) isopropylbenzene	14.006	105	14550	2.09	ug/L	94
83) bromobenzene	14.291	156	4425	2.18	ug/L	97
84) 1,1,2,2-tetrachloroethane	13.642	83	3388	2.27	ug/L	95
85) 1,2,3-trichloropropane	13.797	75	2571	1.81	ug/L	98
86) n-propylbenzene	14.457	91	16097	2.09	ug/L	88
87) 2-chlorotoluene	14.570	91	10511	2.09	ug/L	95
88) 4-chlorotoluene	14.658	91	9378	1.84	ug/L	99
89) 1,3,5-trimethylbenzene	14.736	105	11347	1.93	ug/L	93
90) tert-butylbenzene	15.032	91	6535	2.00	ug/L #	60
91) 1,2,4-trimethylbenzene	15.138	105	11608	1.98	ug/L	91
92) sec-butylbenzene	15.258	105	15715	2.03	ug/L	99
93) 1,3-dichlorobenzene	15.361	146	8234	2.09	ug/L	96
94) p-isopropyltoluene	15.438	119	12730	2.08	ug/L	91
95) 1,4-dichlorobenzene	15.424	146	9431	2.23	ug/L	100
96) 1,2-dichlorobenzene	15.798	146	8007	2.01	ug/L	96
97) n-butylbenzene	15.869	91	10192	1.91	ug/L	92
99) 1,3,5-trichlorobenzene	17.107	180	5314	1.95	ug/L	97
100) 1,2,4-trichlorobenzene	17.672	180	4371	1.92	ug/L	100
101) hexachlorobutadiene	17.961	225	2398	2.20	ug/L	75
102) naphthalene	17.947	128	7641	1.67	ug/L	100
103) 1,2,3-trichlorobenzene	18.159	180	3536	1.85	ug/L	85

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60301.D  
 Acq On : 13 Apr 2013 10:09 am  
 Operator : amym  
 Sample : ic1993-2  
 Misc : ms28486,MSH1993,,,,5,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Apr 13 10:31:31 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sat Apr 13 10:29:43 2013  
 Response via : Initial Calibration



7.6.10  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60302.D  
 Acq On : 13 Apr 2013 10:36 am  
 Operator : amym  
 Sample : bs  
 Misc : ms28517,MSH1993,,,,5,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 14 08:50:26 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sun Apr 14 08:49:23 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Tert Butyl Alcohol-d9	6.272	65	40715	500.00	ug/L	0.00
4) pentafluorobenzene	8.703	168	200676	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.568	114	293075	50.00	ug/L	0.00
66) chlorobenzene-d5	12.828	82	130922	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.394	152	164608	50.00	ug/L	0.00
<b>System Monitoring Compounds</b>						
40) dibromofluoromethane (s)	8.336	113	96543	49.01	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.02%
60) toluene-d8 (s)	11.368	98	321110	51.87	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.74%
82) bromofluorobenzene (s)	14.056	95	130677	54.65	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	109.30%
<b>Target Compounds</b>						
2) tertiary butyl alcohol	6.357	59	46204	552.06	ug/L	95
3) Ethanol	5.160	45	51892	4739.03	ug/L #	100
5) dichlorodifluoromethane	4.066	85	107219	48.49	ug/L	96
6) chloromethane	4.289	50	83456	57.68	ug/L	95
7) vinyl chloride	4.543	62	76474	46.01	ug/L	97
8) bromomethane	5.016	96	73132	52.80	ug/L	99
9) chloroethane	5.164	64	49436	55.49	ug/L	95
10) acetone	5.806	41	7231	51.71	ug/L #	66
11) trichlorofluoromethane	5.785	101	133264	47.16	ug/L	99
12) freon-113	6.554	101	81328	51.36	ug/L	93
13) acrolein	5.771	56	14994	91.93	ug/L	95
14) 1,1-dichloroethene	6.360	96	72913	51.98	ug/L	97
15) acetone	5.898	43	24144	72.50	ug/L	95
16) ethyl ether	6.011	59	45545	46.29	ug/L	100
17) methyl acetate	6.533	43	53886	37.00	ug/L	97
18) methylene chloride	6.508	84	85918	49.84	ug/L	97
19) methyl tert butyl ether	7.285	73	187914	48.01	ug/L	99
20) acrylonitrile	6.410	53	18358	42.42	ug/L	87
21) allyl chloride	6.593	41	89373	52.98	ug/L	92
22) trans-1,2-dichloroethene	7.193	96	80451	49.46	ug/L	94
23) iodomethane	6.420	142	150605	47.69	ug/L	100
24) carbon disulfide	6.780	76	236707	51.38	ug/L	100
25) propionitrile	7.451	54	5849	40.29	ug/L	100
26) vinyl acetate	7.542	43	92181	61.19	ug/L	97
27) chloroprene	7.807	53	100387	53.68	ug/L	95
28) di-isopropyl ether	7.853	45	197999	48.62	ug/L	97
29) methacrylonitrile	7.959	41	29694	42.28	ug/L	95
30) 2-butanone	7.853	72	9528	58.13	ug/L #	68
31) 1,1-dichloroethane	7.444	63	121633	49.27	ug/L	99
32) tert-butyl ethyl ether	8.248	59	208293	51.66	ug/L	96
33) Hexane	7.828	41	94799	51.44	ug/L	95
34) isobutyl alcohol	8.245	43	34230	249.14	ug/L	85
35) 2,2-dichloropropane	8.305	77	112153	58.71	ug/L	97
36) cis-1,2-dichloroethene	8.012	96	90641	49.72	ug/L	96

7.6.11  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60302.D  
 Acq On : 13 Apr 2013 10:36 am  
 Operator : amym  
 Sample : bs  
 Misc : ms28517,MSH1993,,,,5,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 14 08:50:26 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sun Apr 14 08:49:23 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.245	43	34882	52.71	ug/L	99
38) bromochloromethane	8.178	128	49811	50.05	ug/L	96
39) chloroform	8.216	83	145372	51.33	ug/L	97
41) 1,1,1-trichloroethane	8.971	97	126526	52.18	ug/L	98
43) cyclohexane	9.250	56	101946	48.10	ug/L	96
44) carbon tetrachloride	9.335	117	108636	55.12	ug/L	99
45) 1,1-dichloropropene	9.144	75	100655	53.81	ug/L	97
46) benzene	9.367	78	309566	54.36	ug/L	96
47) tetrahydrofuran	8.544	42	13931	46.65	ug/L	98
48) 1,2-dichloroethane	8.866	62	95379	49.93	ug/L	94
49) tert-amyl methyl ether	9.490	73	199123	52.32	ug/L	97
50) heptane	9.850	43	78239	56.08	ug/L	96
51) trichloroethene	9.988	95	89806	50.76	ug/L	97
52) 1,2-dichloropropane	9.953	63	71468	51.40	ug/L	98
53) dibromomethane	9.928	93	53590	52.17	ug/L	98
54) bromodichloromethane	10.041	83	106231	53.96	ug/L	98
55) methylcyclohexane	10.507	83	128335	52.38	ug/L	97
56) 2-chloroethyl vinyl ether	10.422	63	33361	45.99	ug/L	98
57) methyl methacrylate	10.140	69	40858	45.65	ug/L	99
58) 1,4-dioxane	10.132	88	3598	231.26	ug/L #	60
59) cis-1,3-dichloropropene	10.662	75	113785	47.62	ug/L	99
61) 4-methyl-2-pentanone	10.757	43	51482	48.64	ug/L	98
62) toluene	11.438	92	204684	52.63	ug/L	99
63) trans-1,3-dichloropropene	11.082	75	97438	48.83	ug/L	97
64) 1,1,2-trichloroethane	11.251	83	58470	51.02	ug/L	99
65) ethyl methacrylate	11.466	69	82828	47.08	ug/L	89
67) tetrachloroethene	12.179	166	103550	56.32	ug/L	99
68) 1,3-dichloropropane	11.491	76	115079	55.15	ug/L	97
69) dibromochloromethane	11.777	129	84807	51.02	ug/L	100
70) 1,2-dibromoethane	12.027	107	79373	56.86	ug/L	96
71) 2-hexanone	11.618	43	46147	68.39	ug/L	98
72) chlorobenzene	12.860	112	253286	51.78	ug/L	99
73) 1,1,1,2-tetrachloroethane	12.779	131	87701	58.05	ug/L	97
74) ethylbenzene	13.040	91	397034	58.79	ug/L	99
75) m,p-xylene	13.224	106	326245	117.12	ug/L	98
76) o-xylene	13.637	106	165265	56.96	ug/L	88
77) styrene	13.566	104	261954	58.68	ug/L	96
78) bromoform	13.386	173	53162	50.89	ug/L	98
79) trans-1,4-dichloro-2-b...	13.633	53	6283	33.08	ug/L #	1
81) isopropylbenzene	14.004	105	417962	54.06	ug/L	100
83) bromobenzene	14.286	156	126393	55.74	ug/L	95
84) 1,1,2,2-tetrachloroethane	13.640	83	96326	57.70	ug/L	99
85) 1,2,3-trichloropropane	13.788	75	85775	55.26	ug/L	99
86) n-propylbenzene	14.448	91	466684	54.62	ug/L	100
87) 2-chlorotoluene	14.565	91	286829	51.31	ug/L	100
88) 4-chlorotoluene	14.642	91	302130	54.28	ug/L	98
89) 1,3,5-trimethylbenzene	14.730	105	361802	56.05	ug/L	98
90) tert-butylbenzene	15.030	91	192193	53.19	ug/L	91
91) 1,2,4-trimethylbenzene	15.136	105	360830	55.90	ug/L	97
92) sec-butylbenzene	15.256	105	460720	53.72	ug/L	100



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60302.D  
 Acq On : 13 Apr 2013 10:36 am  
 Operator : amym  
 Sample : bs  
 Misc : ms28517,MSH1993,,,,5,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 14 08:50:26 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sun Apr 14 08:49:23 2013  
 Response via : Initial Calibration

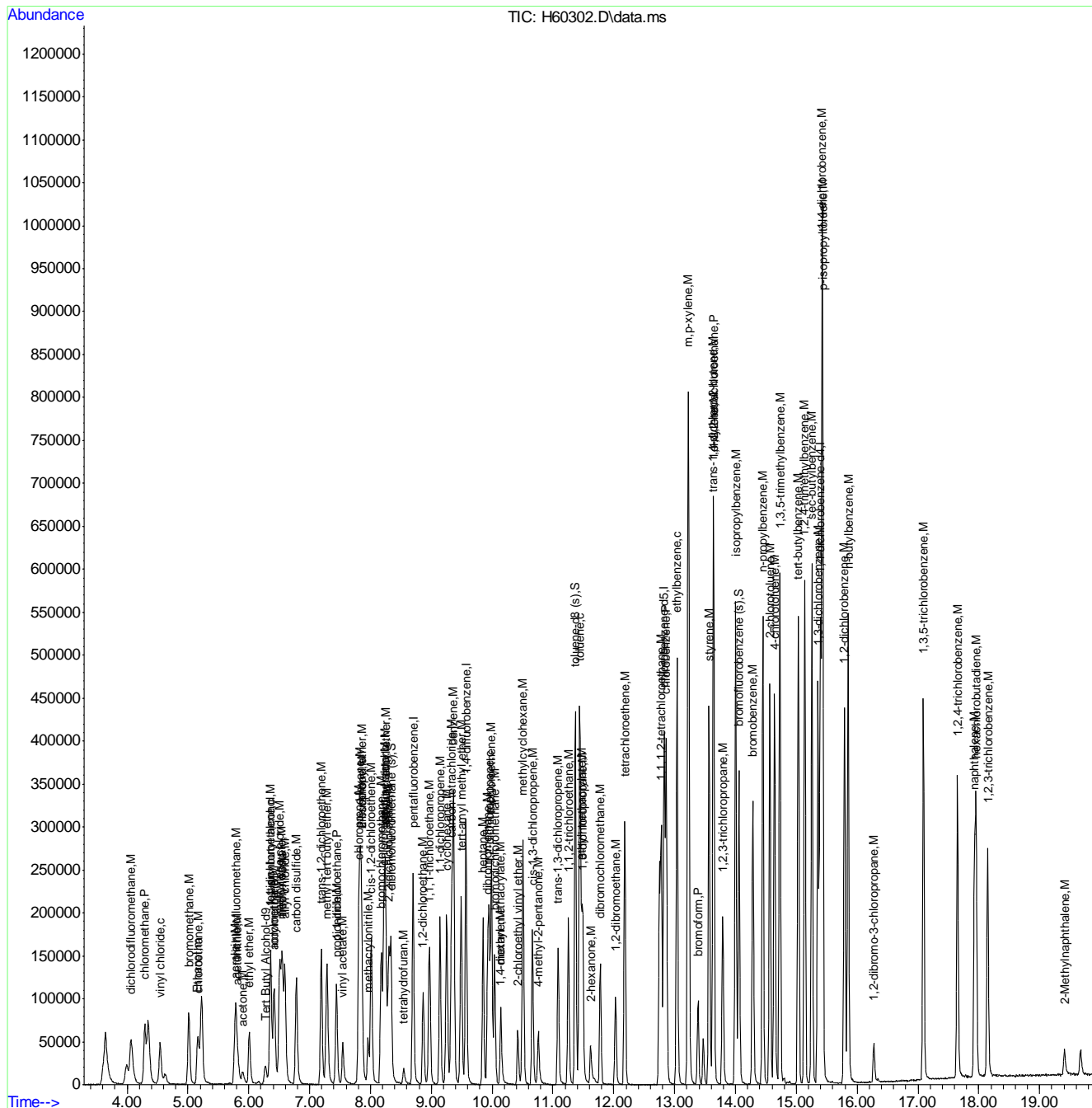
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.359	146	231680	52.93	ug/L	99
94) p-isopropyltoluene	15.429	119	394866	58.20	ug/L	98
95) 1,4-dichlorobenzene	15.422	146	252600	53.37	ug/L	99
96) 1,2-dichlorobenzene	15.789	146	224466	51.04	ug/L	98
97) n-butylbenzene	15.853	91	345103	58.93	ug/L	98
98) 1,2-dibromo-3-chloropr...	16.269	75	13067	49.86	ug/L	93
99) 1,3,5-trichlorobenzene	17.088	180	172209	57.40	ug/L	99
100) 1,2,4-trichlorobenzene	17.652	180	141868	56.68	ug/L	96
101) hexachlorobutadiene	17.956	225	67945	55.73	ug/L	97
102) naphthalene	17.931	128	254796	51.43	ug/L	100
103) 1,2,3-trichlorobenzene	18.146	180	112162	53.53	ug/L	98
104) 2-Methylnaphthalene	19.406	142	24841	20.58	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130413\  
 Data File : H60302.D  
 Acq On : 13 Apr 2013 10:36 am  
 Operator : amym  
 Sample : bs  
 Misc : ms28517,MSH1993,,,,5,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Apr 14 08:50:26 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Sun Apr 14 08:49:23 2013  
 Response via : Initial Calibration



7.6.11  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61593.D  
 Acq On : 18 Jun 2013 6:52 am  
 Operator : amym  
 Sample : cc1993-50  
 Misc : MS29140,MSH2033,,,,5,1  
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 18 13:40:41 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	6.194	65	26060	500.00	ug/L	0.00
4) pentafluorobenzene	8.622	168	163741	50.00	ug/L	0.00
42) 1,4-difluorobenzene	9.490	114	232550	50.00	ug/L	0.00
66) chlorobenzene-d5	12.743	82	100998	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.316	152	135449	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.258	113	75255	46.82	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.64%
60) toluene-d8 (s)	11.286	98	248002	50.49	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.98%
82) bromofluorobenzene (s)	13.975	95	103227	52.47	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.94%
Target Compounds						
2) tertiary butyl alcohol	6.272	59	28558	533.11	ug/L	89
3) Ethanol	5.086	45	26031	3801.78	ug/L #	100
5) dichlorodifluoromethane	4.006	85	78959	43.76	ug/L	99
6) chloromethane	4.218	50	42774	36.23	ug/L	97
7) vinyl chloride	4.472	62	59077	43.56	ug/L	99
8) bromomethane	4.938	96	49743	44.01	ug/L	100
9) chloroethane	5.086	64	27719	38.13	ug/L	99
10) acetonitrile	5.714	41	2259	26.18	ug/L	88
11) trichlorofluoromethane	5.704	101	117835	51.11	ug/L	99
12) freon-113	6.469	101	64658	50.05	ug/L	93
13) acrolein	5.693	56	11664	87.43	ug/L	95
14) 1,1-dichloroethene	6.279	96	51202	44.74	ug/L	92
15) acetone	5.820	43	11730	44.71	ug/L	81
16) ethyl ether	5.933	59	30255	37.69	ug/L	91
17) methyl acetate	6.448	43	26273	22.11	ug/L	86
18) methylene chloride	6.423	84	60943	43.33	ug/L	88
19) methyl tert butyl ether	7.210	73	138945	43.51	ug/L	88
20) acrylonitrile	6.325	53	9042	27.16	ug/L	95
21) allyl chloride	6.519	41	49050	35.64	ug/L	94
22) trans-1,2-dichloroethene	7.112	96	62250	46.90	ug/L	93
23) iodomethane	6.335	142	131260	50.94	ug/L	96
24) carbon disulfide	6.702	76	159048	42.31	ug/L	98
25) propionitrile	7.373	54	2522	25.35	ug/L	100
26) vinyl acetate	7.461	43	54556	45.30	ug/L	93
27) chloroprene	7.726	53	71303	46.73	ug/L	98
28) di-isopropyl ether	7.771	45	119765	36.04	ug/L	88
29) methacrylonitrile	7.881	41	16642	29.04	ug/L	89
30) 2-butanone	7.778	72	4847	37.25	ug/L #	58
31) 1,1-dichloroethane	7.362	63	84216	41.81	ug/L	98
32) tert-butyl ethyl ether	8.170	59	145057	44.09	ug/L	95
33) Hexane	7.750	41	58726	39.06	ug/L	84
34) isobutyl alcohol	8.167	43	24005	210.84	ug/L #	76
35) 2,2-dichloropropane	8.223	77	71219	45.69	ug/L	98
36) cis-1,2-dichloroethene	7.934	96	68497	46.05	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61593.D  
 Acq On : 18 Jun 2013 6:52 am  
 Operator : amym  
 Sample : ccl1993-50  
 Misc : MS29140,MSH2033,,,,5,1  
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 18 13:40:41 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.167	43	22959	42.52	ug/L	93
38) bromochloromethane	8.100	128	39406	48.52	ug/L #	78
39) chloroform	8.138	83	115488	49.98	ug/L	96
41) 1,1,1-trichloroethane	8.890	97	109779	55.48	ug/L	96
43) cyclohexane	9.172	56	69364	41.24	ug/L	82
44) carbon tetrachloride	9.254	117	98269	62.84	ug/L	98
45) 1,1-dichloropropene	9.063	75	74290	50.05	ug/L	96
46) benzene	9.282	78	212665	47.06	ug/L	95
47) tetrahydrofuran	8.467	42	6294	26.56	ug/L	79
48) 1,2-dichloroethane	8.784	62	74733	49.31	ug/L	92
49) tert-amyl methyl ether	9.412	73	142382	47.15	ug/L	99
50) heptane	9.776	43	37311	33.70	ug/L	91
51) trichloroethene	9.906	95	70132	49.96	ug/L	97
52) 1,2-dichloropropane	9.875	63	45745	41.46	ug/L	92
53) dibromomethane	9.846	93	37351	45.83	ug/L	95
54) bromodichloromethane	9.963	83	84879	54.34	ug/L	99
55) methylcyclohexane	10.429	83	89799	46.19	ug/L	95
56) 2-chloroethyl vinyl ether	10.337	63	21066	36.60	ug/L	91
57) methyl methacrylate	10.065	69	25204	36.34	ug/L	94
58) 1,4-dioxane	10.051	88	2257	188.49	ug/L #	46
59) cis-1,3-dichloropropene	10.584	75	80831	42.85	ug/L	95
61) 4-methyl-2-pentanone	10.676	43	26230	31.23	ug/L	94
62) toluene	11.360	92	149374	48.40	ug/L	98
63) trans-1,3-dichloropropene	11.004	75	66018	42.12	ug/L	100
64) 1,1,2-trichloroethane	11.173	83	38226	42.03	ug/L	92
65) ethyl methacrylate	11.388	69	54669	39.37	ug/L	95
67) tetrachloroethene	12.101	166	83324	58.75	ug/L	95
68) 1,3-dichloropropane	11.406	76	77288	48.01	ug/L	97
69) dibromochloromethane	11.699	129	69986	54.17	ug/L	99
70) 1,2-dibromoethane	11.946	107	54141	50.28	ug/L	100
71) 2-hexanone	11.540	43	18881	39.15	ug/L	91
72) chlorobenzene	12.779	112	184957	49.02	ug/L	98
73) 1,1,1,2-tetrachloroethane	12.701	131	72572	62.27	ug/L	97
74) ethylbenzene	12.959	91	297902	57.18	ug/L	99
75) m,p-xylene	13.146	106	241314	112.30	ug/L	93
76) o-xylene	13.559	106	120265	53.73	ug/L	91
77) styrene	13.485	104	193984	56.33	ug/L	96
78) bromoform	13.301	173	45388	54.87	ug/L	99
79) trans-1,4-dichloro-2-b...	13.717	53	7544	42.96	ug/L #	56
81) isopropylbenzene	13.922	105	306029	48.10	ug/L	98
83) bromobenzene	14.204	156	98645	52.86	ug/L	90
84) 1,1,2,2-tetrachloroethane	13.562	83	59380	43.23	ug/L	93
85) 1,2,3-trichloropropane	13.707	75	53578	41.95	ug/L	98
86) n-propylbenzene	14.367	91	314410	44.72	ug/L	97
87) 2-chlorotoluene	14.483	91	206293	44.85	ug/L	99
88) 4-chlorotoluene	14.561	91	210506	45.96	ug/L	96
89) 1,3,5-trimethylbenzene	14.649	105	288234	54.27	ug/L	95
90) tert-butylbenzene	14.953	91	143890	48.39	ug/L	93
91) 1,2,4-trimethylbenzene	15.058	105	289825	54.57	ug/L	100
92) sec-butylbenzene	15.178	105	328138	46.50	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61593.D  
 Acq On : 18 Jun 2013 6:52 am  
 Operator : amym  
 Sample : cc1993-50  
 Misc : MS29140,MSH2033,,,,5,1  
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 18 13:40:41 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration

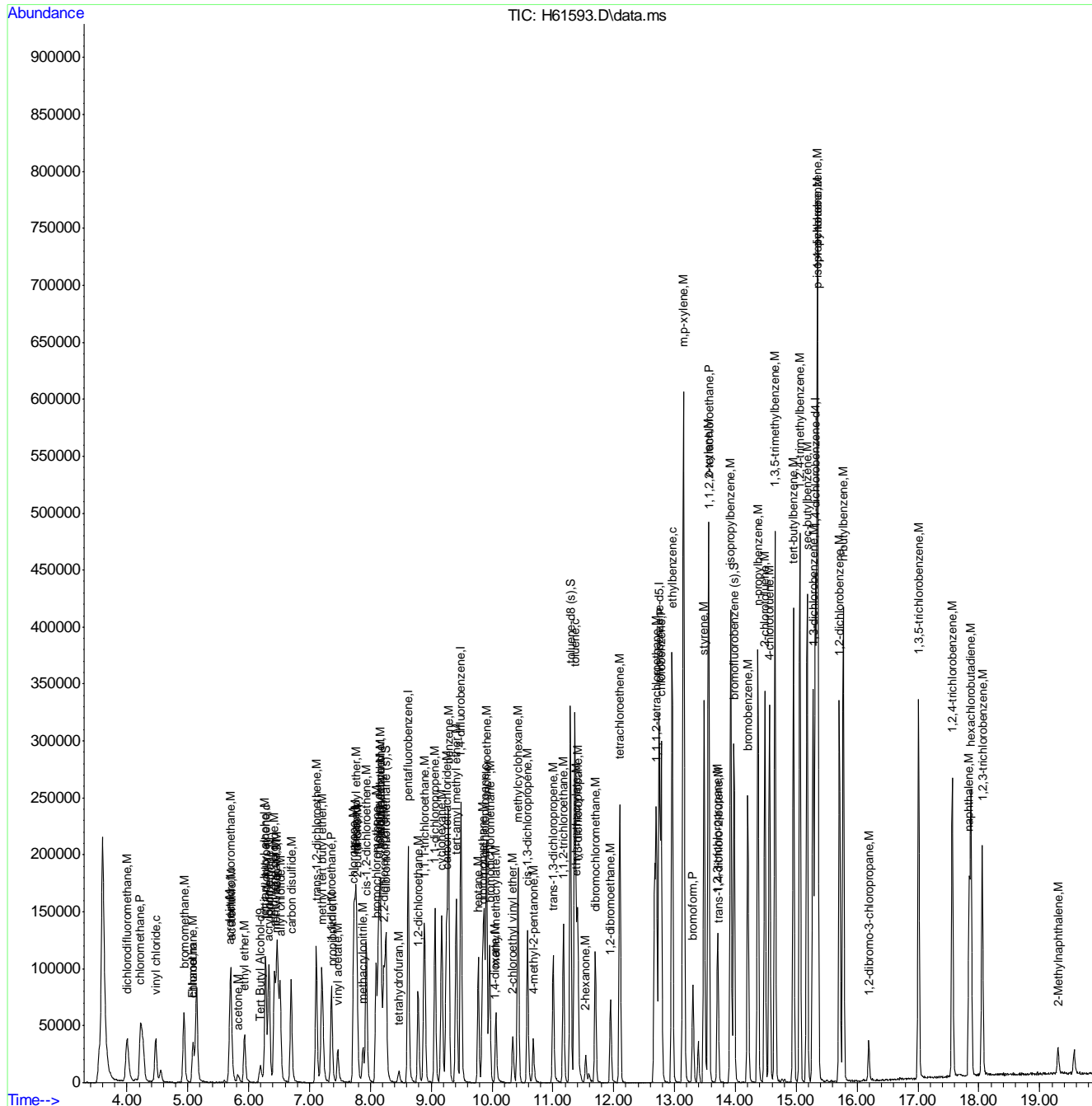
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.277	146	170956	47.46	ug/L	99
94) p-isopropyltoluene	15.351	119	297841	53.35	ug/L	98
95) 1,4-dichlorobenzene	15.341	146	198206	50.89	ug/L	98
96) 1,2-dichlorobenzene	15.711	146	171712	47.45	ug/L	99
97) n-butylbenzene	15.771	91	245631	50.98	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.191	75	8997	42.55	ug/L	94
99) 1,3,5-trichlorobenzene	17.010	180	124702	50.51	ug/L	99
100) 1,2,4-trichlorobenzene	17.564	180	99927	48.52	ug/L	95
101) hexachlorobutadiene	17.871	225	54596	54.42	ug/L	95
102) naphthalene	17.839	128	166904	40.94	ug/L	100
103) 1,2,3-trichlorobenzene	18.054	180	79910	46.35	ug/L	96
104) 2-Methylnaphthalene	19.304	142	17060	18.01	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\130617\  
 Data File : H61593.D  
 Acq On : 18 Jun 2013 6:52 am  
 Operator : amym  
 Sample : cc1993-50  
 Misc : MS29140,MSH2033,,,5,1  
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 18 13:40:41 2013  
 Quant Method : C:\msdchem\1\METHODS\H130412W.M  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 18 07:35:04 2013  
 Response via : Initial Calibration



7.6.12  
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Standards Data

Daily Saved File

Lot #	Description	Conc
MS9145/9163	V.260 Cal STD	200 ug/ml
9154/9158	V.260 BS (stds)	
9168	V.260 SS	
9122	V.260 2S	200 ug/ml
9168	V.260 2S/SS	

Tune file 1:	H 60284
Tune file 2:	H 60309
Initial Cal:	4/12/13
ID File:	H/30412W
ICAL Verified:	22 H60309
Sequence verified:	OK

Date: 4/12/13

Batch ID: MSH1993

Analysts: Amy Yang

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
H 60278	BFB		NA	NA	1	NA	5ml	NA	1:1	NA	
	79				2						
	80				3						
	81	ic1993-0.5	3.3		4						
	82	-1			5						
	83	-2			6						
	84	-5			7						
	85	-10			8						
	86	-25			9						
	87	ic1993-50			10						
	88	ic1993-100			11						
	89	-200			12						
	90	-400			13						
	91	blk	NA		14						
	92				15						
	93	icv1993-50	2.3		16						
	94	icv1993-50			17						
	95	blk	NA		18						
	96				19						
	97				20						
	98				21						
	99				22						
H 60521	ic1993-0.5	3.3			1						
	300	-1			2						
	01	-2			3						
	02	icv1993-50	2.3		4						
	03	BS icv1993-50			5						Tune 10:36am
	04	blk	NA		6						Tune 11:04am
	05	MB			7						✓
	06	MC 19636-1	0	MS-9517	V.260 MCP	8	GW				✓
	07	MC 19661-29			V.260 RCP	9	WTB		1:1	L2	✓

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.

MS001-04 Date: 12/02/08

Review: \_\_\_\_\_

7.7.1  
7

Standards Data

Daily Saved File

Lot #	Description	Conc
see previous page		

Tune file 1:	
Tune file 2:	see
Initial Cal:	previous
ID File:	
ICAL Verified:	page
Sequence verified:	

Date: 4/13/13

Batch ID: MSH 1993

Analysts: Amy Yang

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
H 60308	MC19661-41	1	MC-28517	VBBMCP	10	WTK	5ml	NA	1:1	6.2	✓
	09	↓	↓	↓	11	↓					✓
	10	MC19662-2	S	VBBMCP	12	GW					✓
	11	↓	↓	↓	13						✓
	12	MC19661-6		VBBMCP	14						cc 10x mtbe
	13	↓	↓	↓	15						cc 10x mtbe
	14	↓	↓	↓	16						cc 5x mtbe clear
	15	↓	↓	↓	17						cc 5x mtbe
	16	↓	↓	↓	18						✓
	17	↓	↓	↓	19						✓
	18	↓	↓	↓	20						✓
	19	↓	↓	↓	21						✓
	20	↓	↓	↓	22						✓
	21	↓	↓	↓	23						✓
	22	↓	↓	↓	24						✓
	23	↓	↓	↓	25						✓
	24	↓	↓	↓	26						✓
	25	↓	↓	↓	27						cc 10x mtbe 9.10p

OK 4-15-13

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.

MS001-04 Date: 12/02/08

Review: \_\_\_\_\_



Standards Data

Daily Saved File

Lot #	Description	Conc
MS 9254	V260CAL STD	2000
9261	V260 BS (stds)	200
9221	V26025/SS	250

Tune file 1:	4181593
Tune file 2:	NA
Initial Cal:	04/12/13
ID File:	H130912W
ICAL Verified:	MB
Sequence verified:	MB

Date: 6/18/13  
 Batch ID: MSH-2033  
 Analysts: Ag Yag  
 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
H 61593	CC1993-50	1	MS 9254	NA	30	NA	5ml	NA	1:1	NA	✓✓
	94 BS		MS 9261		31						✓✓
	95 BSD				32						✓✓
	96 BK	NA	NA		33						
	97 MB				34						✓✓
	98 MC21525-10	2	MS 2941	V260RCP	35	WTR				6.2	✓✓
	99 MC21892-1	1		V260 STD	36						✓✓
H/B/1000	MC21525-1	6		V260RCP	37	AW					✓✓
	01 -2	7			38						✓✓
	02 -3	7			39						✓✓
	03 MC21892-2	2		V260 STD	40						RR=1:100
X 04	-3	4			41						C.O? RR
	05 -4	3			42						✓✓
	06 MC21765-2	8	MS 29124	V26010L	43				1:100		✓✓
	07 MC21735-12	8		V260RCP	44				1:100		✓✓
	08 MC21843-1	9	MS 29132	V260 STD	45				1:1		✓✓
	09 MC21842-3	2	MS 29141	V260 STD	46						✓✓
	10 -9MS	4			47				1:5		✓✓
	11 -9MSD	4			48						✓✓
	12 -2	4			49				1:100		✓✓
	13 MC21741-2	1		V260 STD	50				1:1	7.2	
	14 -1	1			51					6.2	
	15 MC21640-1	1			1	W/W			1:2		
	16 -2	1			2				1:2.5		
	17 -3	1			3				1:1		
	18 -4	5			4				1:200		RR=1:10
	19 MC21721-1	5		V260 NATF	5	AW			1:1		
	20 BK	NA			6						

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.

MS001-04 Date: 12/02/08

Review: \_\_\_\_\_

20

7.7.2  
 7

6/19/13

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## SUMMARY OF THE ANALYTICAL DATA USABILITY NFARS, Niagara Falls, NY

### Water Volatile Organic Analyses

Samples Collected: June 10, 2013

Samples Received: June 13, 2013

Sample Delivery Group: MC21741

Laboratory Reference Numbers:

Lab Sample ID	Field ID
MC21741-1	PDB_BLK061013
MC21741-2	TRIP BLANK

Water samples were validated for analyses of volatile organics by the US EPA Region II data validation SOP (HW-24, Revision 2). Data were reviewed for usability according to the following criteria:

- \* - Data Completeness
- \* - GC/MS Tuning
- \* - Holding Times
- \* - Calibrations
- \* - Laboratory Blanks
- \* - Trip Blanks
- Field Blanks
- Storage Blank
- \* - System Monitoring Compound Recoveries
- \* - Internal Standard Recoveries
- Matrix Spike / Matrix Spike Duplicate
- Laboratory Control Samples
- \* - Compound Identification
- \* - Compound Quantitation

\* - Indicates that all criteria were met for this parameter.

### DATA VALIDATION SUMMARY

The minor problems with the laboratory control samples should be noted.

These are described in detail below.

#### Holding Times

Preserved aqueous samples and soils were analyzed within 14 days of collection.

#### Tunes

No problems were detected with the tunes associated with the samples of this delivery group.

**System Monitoring Compound Recoveries**

All of the surrogate recoveries were within the required limits.

**Calibrations**

The percent RSDs of several of the compounds in the initial calibration were greater than 20%, but none were detected in the samples. The data were not required to be qualified.

All percent differences in the continuing calibration were less than 20%.

**Matrix Spike and Matrix Spike Duplicate**

A matrix spike and matrix spike duplicate were not analyzed.

**Laboratory Control Sample**

All of the laboratory control sample recoveries were within the required limits with the exceptions of carbon tetrachloride (133%), 4-methyl-2-pentanone (63%) and 1,1,2-tetrachloroethane (132%).

The data for 4-methyl-2-pentanone were flagged with the "J" qualifier and are estimated values.

The compounds with high recoveries were not required to be qualified since none were detected in the samples.

**Method Blanks**

No compounds were detected in the method blank.

**Trip Blank**

No compounds were detected in the trip blank.

**Field Blank**

A field blank was not analyzed.

**Internal Standard Areas and Retention Times**

The recoveries and retention times of all internal standards were within the required quality control limits.

**Sample Results**

No problems were detected with the samples.

Technical Report for

EA Engineering

NFARS, Niagara Falls, NY

6265401

Accutest Job Number: MC22115

Sampling Date: 06/24/13

Report to:

EA Engineering  
6712 Brooklawn Parkway  
Syracuse, NY 13211  
fdesantis@eaest.com; mmiller@eaest.com  
  
ATTN: Frank DeSantis

Total number of pages in report: **151**



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



Reza Pand  
Lab Director

Client Service contact: Frank DAgostino 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) ISO 17025:2005 (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

EA Engineering

**Job No:** MC22115

NFARS, Niagara Falls, NY  
 Project No: 6265401

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC22115-1	06/24/13	08:47 FD	06/25/13	AQ	Surface Water	SW10-5
MC22115-2	06/24/13	08:28 FD	06/25/13	AQ	Surface Water	SW10-6
MC22115-3	06/24/13	08:28 FD	06/25/13	AQ	Surface Water	SW10-6Q
MC22115-4	06/24/13	08:39 FD	06/25/13	AQ	Surface Water	SW10-7
MC22115-5	06/24/13	09:40 FD	06/25/13	AQ	Surface Water	SW3-2
MC22115-5D	06/24/13	09:40 FD	06/25/13	AQ	Water Dup/MSD	SW3-2
MC22115-5S	06/24/13	09:40 FD	06/25/13	AQ	Water Matrix Spike	SW3-2
MC22115-6	06/24/13	09:24 FD	06/25/13	AQ	Surface Water	SW3-3
MC22115-7	06/24/13	09:32 FD	06/25/13	AQ	Surface Water	SW3-15
MC22115-8	06/24/13	10:40 FD	06/25/13	AQ	Surface Water	SW99-10
MC22115-9	06/24/13	00:00 FD	06/25/13	AQ	Trip Blank Water	TB-06242013

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** EA Engineering

**Job No** MC22115

**Site:** NFARS, Niagara Falls, NY

**Report Date** 7/2/2013 4:49:33 PM

8 Sample(s), 1 Trip Blank(s) were collected on 06/24/2013 and were received at Accutest on 06/25/2013 properly preserved, at 1.6 Deg. C and intact. These Samples received an Accutest job number of MC22115. 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 8260B

<b>Matrix</b> AQ	<b>Batch ID:</b> MSL3499
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC22115-5MS, MC22115-5MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Acetone, sec-Butylbenzene, Tetrachloroethene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Iodomethane, Methyl Tert Butyl Ether, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichloropropene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 2,2-Dichloropropane, 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dichlorodifluoromethane, Ethylbenzene, Isopropylbenzene, m,p-Xylene, Methyl Tert Butyl Ether, Methylene bromide, Methylene chloride, n-Butylbenzene, n-Propylbenzene, o-Chlorotoluene, o-Xylene, p-Chlorotoluene, p-Isopropyltoluene, sec-Butylbenzene, Styrene, Tetrachloroethene, Toluene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl Acetate, Vinyl chloride, Xylene (total) are outside control limits for sample MC22115-5MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MC22115-1,2,3,4,5,6,7,8, MC22115-5MS, MC22115-5MSD: 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(MC22115).



## Summary of Hits

**Job Number:** MC22115  
**Account:** EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Collected:** 06/24/13



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

**MC22115-1**      **SW10-5**

Trichloroethene <sup>a</sup>                      2.8      1.0      0.45      ug/l      SW846 8260B

**MC22115-2**      **SW10-6**

No hits reported in this sample.

**MC22115-3**      **SW10-6Q**

No hits reported in this sample.

**MC22115-4**      **SW10-7**

No hits reported in this sample.

**MC22115-5**      **SW3-2**

No hits reported in this sample.

**MC22115-6**      **SW3-3**

No hits reported in this sample.

**MC22115-7**      **SW3-15**

No hits reported in this sample.

**MC22115-8**      **SW99-10**

No hits reported in this sample.

**MC22115-9**      **TB-06242013**

No hits reported in this sample.

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

Sample Results

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Report of Analysis

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Accutest Laboratories

## Report of Analysis

Page 1 of 3

<b>Client Sample ID:</b> SW10-5		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-1		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L75139.D	1	07/01/13	KR	n/a	n/a	MSL3499
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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> SW10-5		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-1		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	2.8	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	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

<b>Client Sample ID:</b> SW10-5 <b>Lab Sample ID:</b> MC22115-1 <b>Matrix:</b> AQ - Surface Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/24/13 <b>Date Received:</b> 06/25/13 <b>Percent Solids:</b> n/a
---	---

**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	119%		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

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Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> SW10-6		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-2		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L75140.D	1	07/01/13	KR	n/a	n/a	MSL3499
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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> SW10-6		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-2		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	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

<b>Client Sample ID:</b> SW10-6 <b>Lab Sample ID:</b> MC22115-2 <b>Matrix:</b> AQ - Surface Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/24/13 <b>Date Received:</b> 06/25/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	116%		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

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## Report of Analysis

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<b>Client Sample ID:</b> SW10-6Q		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-3		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L75141.D	1	07/01/13	KR	n/a	n/a	MSL3499
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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> SW10-6Q	
<b>Lab Sample ID:</b> MC22115-3	<b>Date Sampled:</b> 06/24/13
<b>Matrix:</b> AQ - Surface Water	<b>Date Received:</b> 06/25/13
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	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

## Report of Analysis

<b>Client Sample ID:</b> SW10-6Q <b>Lab Sample ID:</b> MC22115-3 <b>Matrix:</b> AQ - Surface Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/24/13 <b>Date Received:</b> 06/25/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	106%		70-130%
460-00-4	4-Bromofluorobenzene	120%		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

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## Report of Analysis

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<b>Client Sample ID:</b> SW10-7		
<b>Lab Sample ID:</b> MC22115-4		<b>Date Sampled:</b> 06/24/13
<b>Matrix:</b> AQ - Surface Water		<b>Date Received:</b> 06/25/13
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L75142.D	1	07/01/13	KR	n/a	n/a	MSL3499
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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> SW10-7	
<b>Lab Sample ID:</b> MC22115-4	<b>Date Sampled:</b> 06/24/13
<b>Matrix:</b> AQ - Surface Water	<b>Date Received:</b> 06/25/13
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	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

## Report of Analysis

<b>Client Sample ID:</b> SW10-7 <b>Lab Sample ID:</b> MC22115-4 <b>Matrix:</b> AQ - Surface Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/24/13 <b>Date Received:</b> 06/25/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	121%		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

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## Report of Analysis

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<b>Client Sample ID:</b> SW3-2		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-5		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L75135.D	1	07/01/13	KR	n/a	n/a	MSL3499
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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> SW3-2		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-5		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	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

4.5  
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## Report of Analysis

<b>Client Sample ID:</b> SW3-2 <b>Lab Sample ID:</b> MC22115-5 <b>Matrix:</b> AQ - Surface Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/24/13 <b>Date Received:</b> 06/25/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	121%		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

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## Report of Analysis

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<b>Client Sample ID:</b> SW3-3		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-6		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L75143.D	1	07/01/13	KR	n/a	n/a	MSL3499
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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> SW3-3		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-6		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	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

## Report of Analysis

<b>Client Sample ID:</b> SW3-3 <b>Lab Sample ID:</b> MC22115-6 <b>Matrix:</b> AQ - Surface Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/24/13 <b>Date Received:</b> 06/25/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	121%		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

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## Report of Analysis

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<b>Client Sample ID:</b> SW3-15		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-7		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L75144.D	1	07/01/13	KR	n/a	n/a	MSL3499
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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> SW3-15		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-7		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	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

## Report of Analysis

<b>Client Sample ID:</b> SW3-15 <b>Lab Sample ID:</b> MC22115-7 <b>Matrix:</b> AQ - Surface Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/24/13 <b>Date Received:</b> 06/25/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	119%		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

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## Report of Analysis

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<b>Client Sample ID:</b> SW99-10		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-8		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	L75145.D	1	07/01/13	KR	n/a	n/a	MSL3499
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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> SW99-10		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-8		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Surface Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	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

## Report of Analysis

<b>Client Sample ID:</b> SW99-10 <b>Lab Sample ID:</b> MC22115-8 <b>Matrix:</b> AQ - Surface Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/24/13 <b>Date Received:</b> 06/25/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	119%		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

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Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> TB-06242013		
<b>Lab Sample ID:</b> MC22115-9		<b>Date Sampled:</b> 06/24/13
<b>Matrix:</b> AQ - Trip Blank Water		<b>Date Received:</b> 06/25/13
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L75127.D	1	07/01/13	KR	n/a	n/a	MSL3499
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> TB-06242013		<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-9		<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Trip Blank Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	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

<b>Client Sample ID:</b> TB-06242013	<b>Date Sampled:</b> 06/24/13
<b>Lab Sample ID:</b> MC22115-9	<b>Date Received:</b> 06/25/13
<b>Matrix:</b> AQ - Trip Blank Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> NFARS, Niagara Falls, NY	

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### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	119%		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

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### Custody Documents and Other Forms

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Includes the following where applicable:

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







### Internal Sample Tracking Chronicle

EA Engineering

Job No: MC22115

NFARS, Niagara Falls, NY  
 Project No: 6265401

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC22115-1	Collected: 24-JUN-13 08:47	By: FD		Received: 25-JUN-13	By:	
SW10-5						
MC22115-1	SW846 8260B	01-JUL-13 17:44	KR			V8260STD
MC22115-2	Collected: 24-JUN-13 08:28	By: FD		Received: 25-JUN-13	By:	
SW10-6						
MC22115-2	SW846 8260B	01-JUL-13 18:13	KR			V8260STD
MC22115-3	Collected: 24-JUN-13 08:28	By: FD		Received: 25-JUN-13	By:	
SW10-6Q						
MC22115-3	SW846 8260B	01-JUL-13 18:42	KR			V8260STD
MC22115-4	Collected: 24-JUN-13 08:39	By: FD		Received: 25-JUN-13	By:	
SW10-7						
MC22115-4	SW846 8260B	01-JUL-13 19:10	KR			V8260STD
MC22115-5	Collected: 24-JUN-13 09:40	By: FD		Received: 25-JUN-13	By:	
SW3-2						
MC22115-5	SW846 8260B	01-JUL-13 15:49	KR			V8260STD
MC22115-6	Collected: 24-JUN-13 09:24	By: FD		Received: 25-JUN-13	By:	
SW3-3						
MC22115-6	SW846 8260B	01-JUL-13 19:39	KR			V8260STD
MC22115-7	Collected: 24-JUN-13 09:32	By: FD		Received: 25-JUN-13	By:	
SW3-15						
MC22115-7	SW846 8260B	01-JUL-13 20:08	KR			V8260STD
MC22115-8	Collected: 24-JUN-13 10:40	By: FD		Received: 25-JUN-13	By:	
SW99-10						
MC22115-8	SW846 8260B	01-JUL-13 20:37	KR			V8260STD

## Internal Sample Tracking Chronicle

EA Engineering

Job No: MC22115

NFARS, Niagara Falls, NY  
Project No: 6265401

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
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MC22115-9 Collected: 24-JUN-13 00:00 By: FD Received: 25-JUN-13 By:  
TB-06242013

MC22115-9 SW846 8260B 01-JUL-13 11:55 KR V8260STD

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# Accutest Internal Chain of Custody

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Received:** 06/25/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC22115-1.2	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-1.2	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-1.2	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-1.2	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage
MC22115-2.3	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-2.3	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-2.3	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-2.3	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage
MC22115-3.1	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-3.1	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-3.1	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-3.1	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage
MC22115-4.1	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-4.1	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-4.1	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-4.1	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage
MC22115-5.4	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-5.4	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-5.4	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-5.4	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage
MC22115-5.6	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-5.6	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-5.6	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-5.6	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage
MC22115-5.7	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-5.7	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-5.7	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-5.7	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage
MC22115-5.9	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-5.9	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-5.9	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-5.9	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage
MC22115-6.3	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-6.3	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-6.3	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-6.3	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage

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# Accutest Internal Chain of Custody

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Received:** 06/25/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC22115-7.1	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-7.1	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-7.1	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-7.1	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage
MC22115-8.2	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-8.2	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-8.2	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-8.2	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage
MC22115-9.2	VOC Ref #3	Kerry Ryan	07/01/13 10:31	Retrieve from Storage
MC22115-9.2	Kerry Ryan	GCMSL	07/01/13 10:31	Load on Instrument
MC22115-9.2	GCMSL	Kerry Ryan	07/02/13 12:07	Unload from Instrument
MC22115-9.2	Kerry Ryan	VOC Ref #3	07/02/13 12:07	Return to Storage

5.3  
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## GC/MS Volatiles

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### QC Data Summaries

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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**

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3499-MB	L75126.D	1	07/01/13	KR	n/a	n/a	MSL3499

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22115-1, MC22115-2, MC22115-3, MC22115-4, MC22115-5, MC22115-6, MC22115-7, MC22115-8, MC22115-9

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	

## Method Blank Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3499-MB	L75126.D	1	07/01/13	KR	n/a	n/a	MSL3499

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22115-1, MC22115-2, MC22115-3, MC22115-4, MC22115-5, MC22115-6, MC22115-7, MC22115-8, MC22115-9

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

## Method Blank Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3499-MB	L75126.D	1	07/01/13	KR	n/a	n/a	MSL3499

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22115-1, MC22115-2, MC22115-3, MC22115-4, MC22115-5, MC22115-6, MC22115-7, MC22115-8, MC22115-9

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	98% 70-130%
2037-26-5	Toluene-D8	107% 70-130%
460-00-4	4-Bromofluorobenzene	116% 70-130%



**Blank Spike Summary**

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3499-BS	L75124.D	1	07/01/13	KR	n/a	n/a	MSL3499

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22115-1, MC22115-2, MC22115-3, MC22115-4, MC22115-5, MC22115-6, MC22115-7, MC22115-8, MC22115-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	48.0	96	70-130
71-43-2	Benzene	50	43.7	87	70-130
108-86-1	Bromobenzene	50	47.6	95	70-130
74-97-5	Bromochloromethane	50	44.1	88	70-130
75-27-4	Bromodichloromethane	50	45.2	90	70-130
75-25-2	Bromoform	50	46.1	92	70-130
74-83-9	Bromomethane	50	51.1	102	70-130
78-93-3	2-Butanone (MEK)	50	51.0	102	70-130
104-51-8	n-Butylbenzene	50	50.2	100	70-130
135-98-8	sec-Butylbenzene	50	55.0	110	70-130
98-06-6	tert-Butylbenzene	50	47.3	95	70-130
75-15-0	Carbon disulfide	50	45.8	92	70-130
56-23-5	Carbon tetrachloride	50	45.0	90	70-130
108-90-7	Chlorobenzene	50	49.3	99	70-130
75-00-3	Chloroethane	50	46.3	93	70-130
67-66-3	Chloroform	50	42.2	84	70-130
74-87-3	Chloromethane	50	51.3	103	70-130
95-49-8	o-Chlorotoluene	50	50.5	101	70-130
106-43-4	p-Chlorotoluene	50	52.0	104	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	47.5	95	70-130
124-48-1	Dibromochloromethane	50	47.1	94	70-130
106-93-4	1,2-Dibromoethane	50	48.8	98	70-130
95-50-1	1,2-Dichlorobenzene	50	49.9	100	70-130
541-73-1	1,3-Dichlorobenzene	50	50.6	101	70-130
106-46-7	1,4-Dichlorobenzene	50	46.8	94	70-130
75-71-8	Dichlorodifluoromethane	50	49.9	100	70-130
75-34-3	1,1-Dichloroethane	50	43.5	87	70-130
107-06-2	1,2-Dichloroethane	50	44.5	89	70-130
75-35-4	1,1-Dichloroethene	50	48.4	97	70-130
156-59-2	cis-1,2-Dichloroethene	50	42.4	85	70-130
156-60-5	trans-1,2-Dichloroethene	50	43.5	87	70-130
78-87-5	1,2-Dichloropropane	50	44.5	89	70-130
142-28-9	1,3-Dichloropropane	50	47.9	96	70-130
594-20-7	2,2-Dichloropropane	50	50.0	100	70-130
563-58-6	1,1-Dichloropropene	50	47.8	96	70-130
10061-01-5	cis-1,3-Dichloropropene	50	43.0	86	70-130

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3499-BS	L75124.D	1	07/01/13	KR	n/a	n/a	MSL3499

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22115-1, MC22115-2, MC22115-3, MC22115-4, MC22115-5, MC22115-6, MC22115-7, MC22115-8, MC22115-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	43.8	88	70-130
100-41-4	Ethylbenzene	50	45.5	91	70-130
87-68-3	Hexachlorobutadiene	50	51.6	103	70-130
591-78-6	2-Hexanone	50	51.7	103	70-130
74-88-4	Iodomethane	50	37.6	75	70-130
98-82-8	Isopropylbenzene	50	53.9	108	70-130
99-87-6	p-Isopropyltoluene	50	52.5	105	70-130
1634-04-4	Methyl Tert Butyl Ether	50	37.5	75	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	44.2	88	70-130
74-95-3	Methylene bromide	50	45.0	90	70-130
75-09-2	Methylene chloride	50	42.9	86	70-130
91-20-3	Naphthalene	50	46.6	93	70-130
103-65-1	n-Propylbenzene	50	53.1	106	70-130
100-42-5	Styrene	50	47.7	95	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	49.2	98	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	50.9	102	70-130
127-18-4	Tetrachloroethene	50	54.8	110	70-130
108-88-3	Toluene	50	41.1	82	70-130
87-61-6	1,2,3-Trichlorobenzene	50	49.7	99	70-130
120-82-1	1,2,4-Trichlorobenzene	50	49.8	100	70-130
71-55-6	1,1,1-Trichloroethane	50	47.7	95	70-130
79-00-5	1,1,2-Trichloroethane	50	44.2	88	70-130
79-01-6	Trichloroethene	50	44.6	89	70-130
75-69-4	Trichlorofluoromethane	50	47.0	94	70-130
96-18-4	1,2,3-Trichloropropane	50	48.1	96	70-130
95-63-6	1,2,4-Trimethylbenzene	50	46.1	92	70-130
108-67-8	1,3,5-Trimethylbenzene	50	46.9	94	70-130
108-05-4	Vinyl Acetate	50	35.1	70	70-130
75-01-4	Vinyl chloride	50	42.9	86	70-130
	m,p-Xylene	100	97.9	98	70-130
95-47-6	o-Xylene	50	51.0	102	70-130
1330-20-7	Xylene (total)	150	149	99	70-130

\* = Outside of Control Limits.

## Blank Spike Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSL3499-BS	L75124.D	1	07/01/13	KR	n/a	n/a	MSL3499

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22115-1, MC22115-2, MC22115-3, MC22115-4, MC22115-5, MC22115-6, MC22115-7, MC22115-8, MC22115-9

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	106%	70-130%
460-00-4	4-Bromofluorobenzene	111%	70-130%

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22115-5MS <sup>a</sup>	L75136.D	1	07/01/13	KR	n/a	n/a	MSL3499
MC22115-5MSD <sup>a</sup>	L75137.D	1	07/01/13	KR	n/a	n/a	MSL3499
MC22115-5 <sup>a</sup>	L75135.D	1	07/01/13	KR	n/a	n/a	MSL3499

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22115-1, MC22115-2, MC22115-3, MC22115-4, MC22115-5, MC22115-6, MC22115-7, MC22115-8, MC22115-9

CAS No.	Compound	MC22115-5 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	50	65.3	131* <sup>b</sup>	41.7	83	44* <sup>c</sup>	70-130/30	
71-43-2	Benzene	ND	50	54.6	109	38.1	76	36* <sup>c</sup>	70-130/30	
108-86-1	Bromobenzene	ND	50	58.5	117	41.8	84	33* <sup>c</sup>	70-130/30	
74-97-5	Bromochloromethane	ND	50	55.2	110	38.3	77	36* <sup>c</sup>	70-130/30	
75-27-4	Bromodichloromethane	ND	50	56.3	113	38.4	77	38* <sup>c</sup>	70-130/30	
75-25-2	Bromoform	ND	50	55.6	111	38.4	77	37* <sup>c</sup>	70-130/30	
74-83-9	Bromomethane	ND	50	59.5	119	45.7	91	26	70-130/30	
78-93-3	2-Butanone (MEK)	ND	50	64.3	129	43.2	86	39* <sup>c</sup>	70-130/30	
104-51-8	n-Butylbenzene	ND	50	60.9	122	44.6	89	31* <sup>c</sup>	70-130/30	
135-98-8	sec-Butylbenzene	ND	50	66.5	133* <sup>b</sup>	48.2	96	32* <sup>c</sup>	70-130/30	
98-06-6	tert-Butylbenzene	ND	50	57.1	114	42.4	85	30	70-130/30	
75-15-0	Carbon disulfide	ND	50	57.2	114	40.2	80	35* <sup>c</sup>	70-130/30	
56-23-5	Carbon tetrachloride	ND	50	54.5	109	37.9	76	36* <sup>c</sup>	70-130/30	
108-90-7	Chlorobenzene	ND	50	61.6	123	44.1	88	33* <sup>c</sup>	70-130/30	
75-00-3	Chloroethane	ND	50	58.3	117	40.0	80	37* <sup>c</sup>	70-130/30	
67-66-3	Chloroform	ND	50	53.2	106	37.1	74	36* <sup>c</sup>	70-130/30	
74-87-3	Chloromethane	ND	50	63.6	127	46.1	92	32* <sup>c</sup>	70-130/30	
95-49-8	o-Chlorotoluene	ND	50	61.5	123	44.2	88	33* <sup>c</sup>	70-130/30	
106-43-4	p-Chlorotoluene	ND	50	63.9	128	46.6	93	31* <sup>c</sup>	70-130/30	
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	57.8	116	40.7	81	35* <sup>c</sup>	70-130/30	
124-48-1	Dibromochloromethane	ND	50	58.4	117	40.5	81	36* <sup>c</sup>	70-130/30	
106-93-4	1,2-Dibromoethane	ND	50	61.7	123	42.0	84	38* <sup>c</sup>	70-130/30	
95-50-1	1,2-Dichlorobenzene	ND	50	62.3	125	44.8	90	33* <sup>c</sup>	70-130/30	
541-73-1	1,3-Dichlorobenzene	ND	50	62.3	125	44.3	89	34* <sup>c</sup>	70-130/30	
106-46-7	1,4-Dichlorobenzene	ND	50	57.2	114	41.3	83	32* <sup>c</sup>	70-130/30	
75-71-8	Dichlorodifluoromethane	ND	50	59.8	120	41.6	83	36* <sup>c</sup>	70-130/30	
75-34-3	1,1-Dichloroethane	ND	50	55.0	110	38.4	77	36* <sup>c</sup>	70-130/30	
107-06-2	1,2-Dichloroethane	ND	50	56.5	113	38.8	78	37* <sup>c</sup>	70-130/30	
75-35-4	1,1-Dichloroethene	ND	50	59.5	119	41.6	83	35* <sup>c</sup>	70-130/30	
156-59-2	cis-1,2-Dichloroethene	ND	50	52.9	106	37.2	74	35* <sup>c</sup>	70-130/30	
156-60-5	trans-1,2-Dichloroethene	ND	50	53.0	106	38.3	77	32* <sup>c</sup>	70-130/30	
78-87-5	1,2-Dichloropropane	ND	50	55.6	111	39.1	78	35* <sup>c</sup>	70-130/30	
142-28-9	1,3-Dichloropropane	ND	50	59.9	120	42.0	84	35* <sup>c</sup>	70-130/30	
594-20-7	2,2-Dichloropropane	ND	50	61.3	123	40.7	81	40* <sup>c</sup>	70-130/30	
563-58-6	1,1-Dichloropropene	ND	50	58.5	117	41.0	82	35* <sup>c</sup>	70-130/30	
10061-01-5	cis-1,3-Dichloropropene	ND	50	53.5	107	36.5	73	38* <sup>c</sup>	70-130/30	

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22115-5MS <sup>a</sup>	L75136.D	1	07/01/13	KR	n/a	n/a	MSL3499
MC22115-5MSD <sup>a</sup>	L75137.D	1	07/01/13	KR	n/a	n/a	MSL3499
MC22115-5 <sup>a</sup>	L75135.D	1	07/01/13	KR	n/a	n/a	MSL3499

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22115-1, MC22115-2, MC22115-3, MC22115-4, MC22115-5, MC22115-6, MC22115-7, MC22115-8, MC22115-9

CAS No.	Compound	MC22115-5 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	50	54.8	110	37.4	75	38* <sup>c</sup>	70-130/30
100-41-4	Ethylbenzene	ND	50	55.4	111	39.4	79	34* <sup>c</sup>	70-130/30
87-68-3	Hexachlorobutadiene	ND	50	59.7	119	45.7	91	27	70-130/30
591-78-6	2-Hexanone	ND	50	64.3	129	43.3	87	39* <sup>c</sup>	70-130/30
74-88-4	Iodomethane	ND	50	46.7	93	34.4	69* <sup>b</sup>	30	70-130/30
98-82-8	Isopropylbenzene	ND	50	64.9	130	46.6	93	33* <sup>c</sup>	70-130/30
99-87-6	p-Isopropyltoluene	ND	50	63.9	128	46.0	92	33* <sup>c</sup>	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	50	47.7	95	31.5	63* <sup>b</sup>	41* <sup>c</sup>	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	54.5	109	38.2	76	35* <sup>c</sup>	70-130/30
74-95-3	Methylene bromide	ND	50	56.7	113	40.2	80	34* <sup>c</sup>	70-130/30
75-09-2	Methylene chloride	ND	50	53.5	107	38.2	76	33* <sup>c</sup>	70-130/30
91-20-3	Naphthalene	ND	50	54.6	109	41.4	83	28	70-130/30
103-65-1	n-Propylbenzene	ND	50	63.8	128	46.9	94	31* <sup>c</sup>	70-130/30
100-42-5	Styrene	ND	50	58.5	117	41.7	83	34* <sup>c</sup>	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	59.9	120	42.3	85	34* <sup>c</sup>	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	62.1	124	43.4	87	35* <sup>c</sup>	70-130/30
127-18-4	Tetrachloroethene	ND	50	67.4	135* <sup>b</sup>	47.7	95	34* <sup>c</sup>	70-130/30
108-88-3	Toluene	ND	50	51.4	103	35.6	71	36* <sup>c</sup>	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	50	58.7	117	43.9	88	29	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	50	59.2	118	44.4	89	29	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	50	59.8	120	41.0	82	37* <sup>c</sup>	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	50	55.0	110	38.0	76	37* <sup>c</sup>	70-130/30
79-01-6	Trichloroethene	ND	50	55.5	111	39.1	78	35* <sup>c</sup>	70-130/30
75-69-4	Trichlorofluoromethane	ND	50	57.8	116	39.8	80	37* <sup>c</sup>	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	50	59.4	119	41.7	83	35* <sup>c</sup>	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	50	55.3	111	39.9	80	32* <sup>c</sup>	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	50	55.5	111	40.3	81	32* <sup>c</sup>	70-130/30
108-05-4	Vinyl Acetate	ND	50	40.3	81	26.2	52* <sup>b</sup>	42* <sup>c</sup>	70-130/30
75-01-4	Vinyl chloride	ND	50	53.5	107	36.9	74	37* <sup>c</sup>	70-130/30
	m,p-Xylene	ND	100	120	120	86.5	87	32* <sup>c</sup>	70-130/30
95-47-6	o-Xylene	ND	50	63.0	126	44.9	90	34* <sup>c</sup>	70-130/30
1330-20-7	Xylene (total)	ND	150	183	122	131	87	33* <sup>c</sup>	70-130/30

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22115-5MS <sup>a</sup>	L75136.D	1	07/01/13	KR	n/a	n/a	MSL3499
MC22115-5MSD <sup>a</sup>	L75137.D	1	07/01/13	KR	n/a	n/a	MSL3499
MC22115-5 <sup>a</sup>	L75135.D	1	07/01/13	KR	n/a	n/a	MSL3499

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22115-1, MC22115-2, MC22115-3, MC22115-4, MC22115-5, MC22115-6, MC22115-7, MC22115-8, MC22115-9

CAS No.	Surrogate Recoveries	MS	MSD	MC22115-5	Limits
1868-53-7	Dibromofluoromethane	99%	101%	99%	70-130%
2037-26-5	Toluene-D8	108%	108%	109%	70-130%
460-00-4	4-Bromofluorobenzene	110%	114%	121%	70-130%

- (a) The pH of the sample aliquot for VOA analysis was > 2 at time of analysis.
- (b) Outside control limits due to possible matrix interference. Refer to Blank Spike.
- (c) High RPD due to possible matrix interference and/or sample non-homogeneity.

\* = Outside of Control Limits.

**Instrument Performance Check (BFB)**

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSL3498-BFB	<b>Injection Date:</b> 06/30/13
<b>Lab File ID:</b> L75087.D	<b>Injection Time:</b> 12:15
<b>Instrument ID:</b> GCMSL	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	7105	24.9	Pass
75	30.0 - 60.0% of mass 95	14005	49.2	Pass
95	Base peak, 100% relative abundance	28485	100.0	Pass
96	5.0 - 9.0% of mass 95	1970	6.92	Pass
173	Less than 2.0% of mass 174	220	0.77 (0.84) <sup>a</sup>	Pass
174	50.0 - 150.0% of mass 95	26251	92.2	Pass
175	5.0 - 9.0% of mass 174	1800	6.32 (6.86) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	25515	89.6 (97.2) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	1534	5.39 (6.01) <sup>b</sup>	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
MSL3498-IC3498	L75090.D	06/30/13	13:44	01:29	Initial cal 0.5
MSL3498-IC3498	L75092.D	06/30/13	14:42	02:27	Initial cal 1
MSL3498-IC3498	L75093.D	06/30/13	15:11	02:56	Initial cal 2
MSL3498-IC3498	L75094.D	06/30/13	15:39	03:24	Initial cal 5
MSL3498-IC3498	L75095.D	06/30/13	16:08	03:53	Initial cal 10
MSL3498-IC3498	L75096.D	06/30/13	16:38	04:23	Initial cal 25
MSL3498-ICC3498	L75097.D	06/30/13	17:06	04:51	Initial cal 50
MSL3498-IC3498	L75098.D	06/30/13	17:35	05:20	Initial cal 100
MSL3498-IC3498	L75099.D	06/30/13	18:04	05:49	Initial cal 200
MSL3498-IC3498	L75100.D	06/30/13	18:33	06:18	Initial cal 400
MSL3498-ICV3498	L75103.D	06/30/13	19:59	07:44	Initial cal verification 50

**Instrument Performance Check (BFB)**

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSL3499-BFB	<b>Injection Date:</b> 07/01/13
<b>Lab File ID:</b> L75123.D	<b>Injection Time:</b> 09:59
<b>Instrument ID:</b> GCMSL	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	7367	18.2	Pass
75	30.0 - 60.0% of mass 95	18553	45.9	Pass
95	Base peak, 100% relative abundance	40461	100.0	Pass
96	5.0 - 9.0% of mass 95	2633	6.51	Pass
173	Less than 2.0% of mass 174	259	0.64 (0.71) <sup>a</sup>	Pass
174	50.0 - 150.0% of mass 95	36317	89.8	Pass
175	5.0 - 9.0% of mass 174	2511	6.21 (6.91) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	35112	86.8 (96.7) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	2484	6.14 (7.07) <sup>b</sup>	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
MSL3499-CC3498	L75123.D	07/01/13	09:59	00:00	Continuing cal 50
MSL3499-BS	L75124.D	07/01/13	10:28	00:29	Blank Spike
MSL3499-MB	L75126.D	07/01/13	11:26	01:27	Method Blank
MC22115-9	L75127.D	07/01/13	11:55	01:56	TB-06242013
ZZZZZZ	L75128.D	07/01/13	12:25	02:26	(unrelated sample)
ZZZZZZ	L75129.D	07/01/13	12:56	02:57	(unrelated sample)
ZZZZZZ	L75130.D	07/01/13	13:24	03:25	(unrelated sample)
ZZZZZZ	L75131.D	07/01/13	13:53	03:54	(unrelated sample)
ZZZZZZ	L75132.D	07/01/13	14:22	04:23	(unrelated sample)
ZZZZZZ	L75133.D	07/01/13	14:51	04:52	(unrelated sample)
ZZZZZZ	L75134.D	07/01/13	15:20	05:21	(unrelated sample)
MC22115-5	L75135.D	07/01/13	15:49	05:50	SW3-2
MC22115-5MS	L75136.D	07/01/13	16:17	06:18	Matrix Spike
MC22115-5MSD	L75137.D	07/01/13	16:46	06:47	Matrix Spike Duplicate
MC22115-1	L75139.D	07/01/13	17:44	07:45	SW10-5
MC22115-2	L75140.D	07/01/13	18:13	08:14	SW10-6
MC22115-3	L75141.D	07/01/13	18:42	08:43	SW10-6Q
MC22115-4	L75142.D	07/01/13	19:10	09:11	SW10-7
MC22115-6	L75143.D	07/01/13	19:39	09:40	SW3-3
MC22115-7	L75144.D	07/01/13	20:08	10:09	SW3-15
MC22115-8	L75145.D	07/01/13	20:37	10:38	SW99-10



# Volatile Internal Standard Area Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Check Std:</b> MSL3499-CC3498	<b>Injection Date:</b> 07/01/13
<b>Lab File ID:</b> L75123.D	<b>Injection Time:</b> 09:59
<b>Instrument ID:</b> GCMSL	<b>Method:</b> SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	115505	8.07	160088	8.90	84999	12.13	84197	14.68	46344	5.74
Upper Limit <sup>a</sup>	231010	8.57	320176	9.40	169998	12.63	168394	15.18	92688	6.24
Lower Limit <sup>b</sup>	57753	7.57	80044	8.40	42500	11.63	42099	14.18	23172	5.24

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSL3499-BS	116982	8.06	162983	8.90	87188	12.13	83999	14.68	45242	5.74
MSL3499-MB	116535	8.07	162134	8.90	83097	12.13	77812	14.69	47559	5.76
MC22115-9	120425	8.07	167574	8.90	85725	12.13	78710	14.69	44274	5.76
ZZZZZZ	122614	8.07	170716	8.90	88962	12.14	82447	14.69	49635	5.76
ZZZZZZ	119727	8.07	168865	8.90	88644	12.14	81255	14.69	52893	5.76
ZZZZZZ	119105	8.07	167442	8.90	87450	12.13	80327	14.69	43951	5.76
ZZZZZZ	121023	8.07	169264	8.90	87653	12.13	82973	14.68	44738	5.75
ZZZZZZ	121734	8.07	169062	8.90	86150	12.13	80468	14.69	51339	5.76
ZZZZZZ	120131	8.07	169376	8.90	88329	12.13	80086	14.69	45851	5.75
ZZZZZZ	120057	8.07	169574	8.90	88507	12.13	80433	14.69	48223	5.76
MC22115-5 <sup>c</sup>	121405	8.07	169061	8.90	88389	12.13	80369	14.69	46223	5.75
MC22115-5MS <sup>c</sup>	121262	8.06	168042	8.89	90746	12.13	88062	14.68	45109	5.73
MC22115-5MSD <sup>c</sup>	120496	8.06	168702	8.90	89768	12.13	86461	14.68	44341	5.74
MC22115-1 <sup>c</sup>	123840	8.07	172699	8.90	89196	12.13	82483	14.69	49756	5.76
MC22115-2 <sup>c</sup>	122541	8.07	172866	8.90	89837	12.13	83230	14.69	45751	5.75
MC22115-3 <sup>c</sup>	123346	8.07	174377	8.90	90190	12.13	81328	14.69	48274	5.75
MC22115-4 <sup>c</sup>	122969	8.07	171832	8.90	88148	12.13	81893	14.69	46572	5.76
MC22115-6 <sup>c</sup>	123631	8.07	173357	8.90	89927	12.14	81446	14.69	47987	5.76
MC22115-7 <sup>c</sup>	122382	8.07	172166	8.90	88959	12.13	83248	14.69	51344	5.75
MC22115-8 <sup>c</sup>	124415	8.07	172419	8.90	90322	12.14	82954	14.69	48433	5.76

- 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.

6.5.1  
6

# Volatile Surrogate Recovery Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Method:</b> SW846 8260B	<b>Matrix:</b> AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC22115-1	L75139.D	100.0	109.0	119.0
MC22115-2	L75140.D	100.0	108.0	116.0
MC22115-3	L75141.D	99.0	106.0	120.0
MC22115-4	L75142.D	99.0	108.0	121.0
MC22115-5	L75135.D	99.0	109.0	121.0
MC22115-6	L75143.D	99.0	107.0	121.0
MC22115-7	L75144.D	99.0	108.0	119.0
MC22115-8	L75145.D	99.0	109.0	119.0
MC22115-9	L75127.D	97.0	107.0	119.0
MC22115-5MS	L75136.D	99.0	108.0	110.0
MC22115-5MSD	L75137.D	101.0	108.0	114.0
MSL3499-BS	L75124.D	98.0	106.0	111.0
MSL3499-MB	L75126.D	98.0	107.0	116.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

# Initial Calibration Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3498-ICC3498  
**Lab FileID:** L75097.D

Response Factor Report MSL

Method : C:\msdchem\1\methods\1130630w.m (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Mon Jul 01 08:18:17 2013  
 Response via : Initial Calibration

Calibration Files

0.5 =L75090.D 2 =L75093.D 5 =L75094.D 50 =L75097.D  
 10 =L75095.D 200 =L75099.D 400 =L75100.D 25 =L75096.D  
 1 =L75092.D 100 =L75098.D = =

Compound

Compound	0.5	2	5	50	10	200	400	25	1	100	Avg	%RSD
1) tert butyl alcohol-d9 -----ISTD-----												
2) tertiary butyl alcohol			1.480	1.326	1.430	1.309	1.381	1.351		1.296	1.368	4.93
3) Ethanol			0.229	0.227	0.264	0.222	0.229	0.252		0.228	0.236	6.70
4) I pentafluorobenzene -----ISTD-----												
5) dichlorodifluoromethane			0.331	0.361	0.475	0.560	0.479	0.466	0.456	0.459	0.448	16.02
---- Linear regression ---- Coefficient = 0.9997												
Response Ratio = 0.00215 + 0.46755 *A												
6) chloromethane			0.581	0.617	0.594	0.648	0.651	0.681	0.582	0.608	0.620	5.85
7) vinyl chloride			0.530	0.609	0.663	0.728	0.650	0.572	0.647	0.839	0.646	13.67
8) bromomethane			0.227	0.219	0.222	0.245	0.251	0.240	0.212	0.240	0.232	6.02
9) chloroethane			0.328	0.316	0.276	0.323	0.275	0.256	0.281	0.273	0.291	9.39
10) ethyl ether			0.472	0.464	0.487	0.464	0.436	0.451		0.456	0.461	3.53
11) acetonitrile										0.000		-1.00
---- Quadratic regression ---- Coefficient = 0.0353												
Response Ratio = 0.00000 + 0.00000 *A + 0.00000 *A^2												
12) trichlorofluoromethane			0.358	0.428	0.555	0.635	0.571	0.543	0.555	0.624	0.555	16.60
---- Linear regression ---- Coefficient = 0.9994												
Response Ratio = 0.00954 + 0.54754 *A												
13) freon-113			0.209	0.300	0.347	0.300	0.288	0.299		0.289	0.290	14.14
14) acrolein			0.105	0.068	0.077	0.066	0.064	0.068		0.067	0.074	19.66
---- Linear regression ---- Coefficient = 0.9997												
Response Ratio = 0.02401 + 0.06349 *A												
15) 1,1-dichloroethene			0.285	0.287	0.298	0.342	0.303	0.299	0.293	0.487	0.290	20.25
---- Linear regression ---- Coefficient = 0.9998												
Response Ratio = 0.00017 + 0.29910 *A												

6.7.1  
6

# Initial Calibration Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3498-ICC3498  
**Lab FileID:** L75097.D

16)	acetone	0.128	0.122	0.132	0.113	0.089	0.122	0.107	0.116	12.62		
17)	Methyl Acetate	0.888	0.791	0.852	0.707	0.629	0.780	0.704	0.764	11.86		
18)	methylene chloride	0.445	0.390	0.395	0.408	0.398	0.388	0.386	0.399	5.10		
19)	methyl tert butyl ether	0.813	0.837	1.134	0.849	1.179	0.896	0.929	1.035	1.176	0.983	15.25
	---- Quadratic regression ----	Coefficient = 0.9983										
		Response Ratio = -0.10570 + 1.41539 *A + -0.06281 *A^2										
20)	acrylonitrile	0.346	0.308	0.303	0.276	0.250	0.278	0.277	0.291	10.57		
21)	allyl chloride	1.177	0.733	0.791	0.671	0.607	0.710	0.697	0.769	24.49		
	---- Linear regression ----	Coefficient = 0.9973										
		Response Ratio = 0.10297 + 0.60632 *A										
22)	trans-1,2-dichloroethene	0.320	0.351	0.358	0.383	0.370	0.360	0.365	0.485	0.364	0.373	12.16
23)	iodomethane	0.204	0.369	0.263	0.348	0.266	0.313	0.369	0.305	20.61		
	---- Quadratic regression ----	Coefficient = 0.9997										
		Response Ratio = -0.04081 + 0.43785 *A + -0.02079 *A^2										
24)	carbon disulfide	0.933	1.049	1.116	1.035	1.001	1.027	1.039	1.029	5.32		
25)	propionitrile	0.086	0.110	0.103	0.109	0.099	0.101	0.103	0.102	7.75		
26)	vinyl acetate	0.817	1.106	0.906	1.276	1.205	0.894	1.211	1.059	17.37		
	---- Linear regression ----	Coefficient = 0.9987										
		Response Ratio = -0.05751 + 1.22666 *A										
27)	chloroprene	0.713	0.829	0.903	0.837	0.732	0.805	0.819	0.806	8.04		
28)	di-isopropyl ether	2.100	2.065	1.995	2.062	1.920	1.770	1.952	1.951	1.977	5.33	
29)	methacrylonitrile	0.451	0.416	0.426	0.408	0.369	0.402	0.394	0.409	6.25		
30)	2-butanone	0.051	0.080	0.069	0.072	0.058	0.068	0.071	0.067	14.22		
31)	Hexane	0.748	0.743	0.882	0.716	0.659	0.771	0.720	0.748	9.20		
32)	1,1-dichloroethane	0.863	0.921	0.875	0.950	0.886	0.848	0.851	1.154	0.873	0.914	10.52
33)	tert-butyl ethyl ether	0.674	0.769	1.375	0.780	1.730	1.646	0.979	1.606	1.195	36.90	
	---- Linear regression ----	Coefficient = 0.9986										
		Response Ratio = -0.15366 + 1.68240 *A										
34)	isobutyl alcohol	0.041	0.030	0.024	0.035	0.033	0.023	0.032	0.031	20.16		
	---- Linear regression ----	Coefficient = 0.9990										
		Response Ratio = -0.01088 + 0.03395 *A										
35)	2,2-dichloropropane	0.225	0.510	0.333	0.384	0.300	0.426	0.510	0.384	27.85		
	---- Quadratic regression ----	Coefficient = 0.9954										
		Response Ratio = -0.01157 + 0.51654 *A + -0.02708 *A^2										

# Initial Calibration Summary

**Job Number:** MC22115  
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**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3498-ICC3498  
**Lab FileID:** L75097.D

36)	cis-1,2-dichloroethene	0.427	0.436	0.425	0.419	0.429	0.411	0.412	0.478	0.419	0.429	4.69
37)	ethyl acetate	0.430	0.253	0.260	0.251	0.229	0.230		0.240	0.271		26.41
	---- Linear regression ----	Coefficient = 0.9967										
	Response Ratio =	0.01384 + 0.23328 *A										
38)	bromochloromethane	0.198	0.201	0.203	0.204	0.198	0.193		0.199	0.199		1.85
39)	chloroform	0.724	0.769	0.719	0.754	0.719	0.694	0.690	0.964	0.709	0.749	11.27
40)	dibromofluoromethane (s)	0.303	0.351	0.365	0.341	0.328	0.354		0.340	0.340		5.91
41)	Tetrahydrofuran	0.278	0.204	0.227	0.195	0.177	0.210		0.187	0.211		15.89
	---- Linear regression ----	Coefficient = 0.9979										
	Response Ratio =	0.01074 + 0.18216 *A										
42)	1,1,1-trichloroethane	0.455	0.533	0.601	0.639	0.578	0.522	0.585	0.630	0.592	0.571	10.19
43) I	1,4-difluorobenzene	-----ISTD-----										
44)	Cyclohexane	0.422	0.576	0.672	0.599	0.593	0.596		0.581	0.577		13.08
45)	carbon tetrachloride	0.208	0.279	0.348	0.365	0.322	0.222	0.335	0.318	0.351	0.305	18.61
	---- Quadratic regression ----	Coefficient = 0.9993										
	Response Ratio =	-0.01772 + 0.41595 *A + -0.02391 *A^2										
46)	1,1-dichloropropene	0.312	0.348	0.375	0.361	0.361	0.347		0.350	0.351		5.58
47)	benzene	1.089	1.104	1.144	1.128	1.179	1.142	1.116	1.109	1.513	1.133	10.69
48)	1,2-dichloroethane	0.507	0.480	0.503	0.514	0.502	0.472	0.494	0.607	0.506	0.509	7.68
49)	tert-amyl methyl ether	0.536	0.661	0.672	0.576	0.829	0.817	0.558		0.766	0.677	17.21
	---- Linear regression ----	Coefficient = 0.9993										
	Response Ratio =	-0.07115 + 0.82705 *A										
50)	heptane	0.408	0.424	0.503	0.438	0.426	0.435		0.424	0.437		7.05
51)	trichloroethene	0.256	0.275	0.287	0.311	0.295	0.290	0.290	0.363	0.289	0.295	9.99
52)	1,2-dichloropropane	0.394	0.405	0.389	0.404	0.397	0.390	0.392		0.388	0.395	1.66
53)	dibromomethane	0.198	0.194	0.189	0.198	0.179	0.166	0.186		0.181	0.186	5.80
54)	bromodichloromethane	0.386	0.386	0.400	0.400	0.390	0.360	0.388	0.488	0.403	0.400	8.87
55)	Methylcyclohexane	0.269	0.374	0.403	0.389	0.391	0.374		0.374	0.368		12.23
56)	2-chloroethyl vinyl ether	0.003			0.004	0.004	0.002		0.004	0.003		28.48
	---- Linear regression ----	Coefficient = 0.9993										
	Response Ratio =	-0.00104 + 0.00395 *A										
57)	methyl methacrylate	0.232	0.229	0.228	0.236	0.229	0.220		0.224	0.229		2.31

# Initial Calibration Summary

**Job Number:** MC22115  
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**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3498-ICC3498  
**Lab FileID:** L75097.D

58)	1,4-dioxane	0.003	0.000	0.004	0.004	0.003	0.003	0.003	44.48				
	---- Linear regression ----	Coefficient = 0.9995											
		Response Ratio = -0.00398 + 0.00404 *A											
59)	cis-1,3-dichloropropene	0.134	0.310	0.372	0.489	0.424	0.519	0.483	0.457	0.374	0.505	0.407	28.82
	---- Linear regression ----	Coefficient = 0.9988											
		Response Ratio = 0.00305 + 0.49047 *A											
60)	toluene-d8 (s)	0.797	0.908	0.918	0.898	0.894	0.899	0.889	0.886	4.56			
61)	4-methyl-2-pentanone	0.575	0.501	0.456	0.479	0.438	0.478	0.470	0.485	9.15			
62)	toluene	0.942	0.760	0.732	0.697	0.751	0.710	0.708	0.695	1.089	0.703	0.779	16.86
63)	trans-1,3-dichloropropene	0.020	0.254	0.289	0.414	0.318	0.462	0.459	0.367	0.260	0.441	0.328	41.00
	---- Linear regression ----	Coefficient = 0.9998											
		Response Ratio = -0.02231 + 0.46165 *A											
64)	1,1,2-trichloroethane	0.109	0.265	0.250	0.249	0.253	0.253	0.251	0.240	0.283	0.247	0.240	19.75
	---- Linear regression ----	Coefficient = 1.0000											
		Response Ratio = -0.00118 + 0.25109 *A											
65)	ethyl methacrylate	0.425	0.444	0.428	0.449	0.416	0.427	0.437	0.432	2.65			
66) I	chlorobenzene-d5	-----ISTD-----											
67)	tetrachloroethene	0.298	0.400	0.422	0.494	0.540	0.480	0.441	0.498	0.471	0.484	0.453	14.93
68)	1,3-dichloropropane	0.845	0.814	0.856	0.764	0.670	0.800	0.794	0.792	7.84			
69)	dibromochloromethane	0.536	0.550	0.577	0.580	0.571	0.523	0.534	0.716	0.576	0.574	10.02	
70)	1,2-dibromoethane	0.501	0.510	0.542	0.549	0.519	0.473	0.517	0.524	0.517	4.59		
71)	2-hexanone	1.673	0.954	0.751	0.857	0.632	0.486	0.694	0.654	0.838	43.74		
	---- Quadratic regression ----	Coefficient = 0.9985											
		Response Ratio = 0.01052 + 0.74529 *A + -0.03240 *A^2											
72)	chlorobenzene	1.386	1.324	1.318	1.399	1.241	1.114	1.286	1.691	1.281	1.338	11.72	
73)	1,1,1,2-tetrachloroethane	0.495	0.514	0.508	0.511	0.489	0.445	0.498	0.500	0.495	4.42		
74)	ethylbenzene	2.765	2.629	2.481	2.397	2.594	2.241	2.012	2.369	3.340	2.317	2.515	14.31
75)	m,p-xylene	0.819	0.897	0.872	0.869	0.948	0.828	0.746	0.854	1.115	0.858	0.880	11.09
76)	o-xylene	0.697	0.819	0.872	0.841	0.927	0.796	0.720	0.819	1.054	0.823	0.837	12.08
77)	styrene	1.511	1.534	1.560	1.486	1.338	1.464	1.516	1.487	4.88			
78)	bromoform	0.334	0.419	0.436	0.428	0.460	0.428	0.409	0.252	0.436	0.400	16.37	
	---- Linear regression ----	Coefficient = 0.9988											
		Response Ratio = 0.00563 + 0.43301 *A											

# Initial Calibration Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3498-ICC3498  
**Lab FileID:** L75097.D

79)	trans-1,4-dichloro-2-butene	0.218	0.257	0.233	0.266	0.233	0.225	0.256	0.241	7.55			
80) I	1,4-dichlorobenzene-d -----ISTD-----												
81)	isopropylbenzene	2.044	2.084	2.205	2.075	2.020	2.069	2.057	2.079	2.86			
82)	bromofluorobenzene (s)	0.601	0.642	0.700	0.633	0.618	0.673	0.637	0.643	5.21			
83)	bromobenzene	0.692	0.655	0.681	0.661	0.661	0.636	0.651	0.662	2.82			
84)	1,1,2,2-tetrachloroethane	0.472	0.779	0.753	0.728	0.748	0.716	0.678	0.705	0.925	0.708	0.721	15.44
	---- Linear regression ----	Coefficient = 0.9993											
		Response Ratio = 0.02214 + 0.68303 *A											
85)	1,2,3-trichloropropane	0.806	0.830	0.827	0.859	0.819	0.772	0.826	0.820	3.23			
86)	n-propylbenzene	2.324	2.434	2.623	2.416	2.355	2.403	2.402	2.423	3.97			
87)	2-chlorotoluene	1.742	1.544	1.701	1.555	1.512	1.542	1.542	1.591	5.72			
88)	4-chlorotoluene	1.753	1.599	1.696	1.588	1.549	1.580	1.575	1.620	4.61			
89)	1,3,5-trimethylbenzene	1.927	1.978	1.970	2.062	1.950	1.914	1.928	2.745	1.937	2.046	12.99	
90)	tert-butylbenzene	0.246	0.212	0.242	0.204	0.195	0.225	0.208	0.219	8.89			
91)	1,2,4-trimethylbenzene	2.052	2.055	2.006	2.081	2.011	1.952	1.952	2.826	1.997	2.103	13.05	
92)	sec-butylbenzene	1.815	2.096	2.170	2.131	2.058	2.043	2.089	2.057	5.60			
93)	1,3-dichlorobenzene	1.079	1.006	1.005	1.041	1.048	1.019	0.977	1.197	1.024	1.044	6.16	
94)	p-isopropyltoluene	1.572	1.755	1.812	1.768	1.718	1.727	1.761	1.730	4.42			
95)	1,4-dichlorobenzene	1.161	1.184	1.133	1.172	1.161	1.139	1.094	1.479	1.136	1.184	9.58	
96)	1,2-dichlorobenzene	1.015	1.004	1.018	1.041	1.065	1.039	0.981	1.229	1.031	1.047	6.90	
97)	n-butylbenzene	1.536	1.741	1.717	1.774	1.720	1.658	1.759	1.701	4.80			
98)	1,2-dibromo-3-chloropropane	0.143	0.140	0.135	0.146	0.142	0.136	0.141	0.140	2.82			
99)	1,3,5-trichlorobenzene	0.746	0.771	0.759	0.836	0.826	0.740	0.803	0.783	4.95			
100)	1,2,4-trichlorobenzene	0.574	0.697	0.629	0.798	0.793	0.638	0.742	0.696	12.39			
101)	hexachlorobutadiene	0.276	0.339	0.340	0.390	0.388	0.330	0.362	0.347	11.30			
102)	naphthalene	1.135	1.894	1.461	2.131	2.057	1.616	1.979	1.753	20.72			
	---- Linear regression ----	Coefficient = 0.9994											
		Response Ratio = -0.13794 + 2.08938 *A											
103)	1,2,3-trichlorobenzene	0.522	0.662	0.578	0.742	0.737	0.600	0.695	0.648	12.94			
104)	2-Methylnaphthalene	0.332	0.362	0.341	0.783	0.855	0.302	0.553	0.504	45.84			
	---- Quadratic regression ----	Coefficient = 0.9967											
		Response Ratio = -0.07878 + 0.66566 *A + 0.05338 *A^2											

# Initial Calibration Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3498-ICC3498  
**Lab FileID:** L75097.D

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105) 1-Methylnaphthalene  
0.332 0.390 0.313 0.731 0.771 0.260 0.567 0.480 43.44  
---- Quadratic regression ---- Coefficient = 0.9974  
Response Ratio = -0.07518 + 0.66852 \*A + 0.03112 \*A^2

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

1130630w.m Mon Jul 01 08:23:44 2013

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6



## Initial Calibration Verification

Job Number: MC22115  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSL3498-ICV3498  
 Lab FileID: L75103.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\L130630\L75103.D Vial: 23  
 Acq On : 30 Jun 2013 7:59 pm Operator: amym  
 Sample : icv3498-50 Inst : MSL  
 Misc : ms29242,msl3498,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\l130630w.m (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Mon Jul 01 08:18:17 2013  
 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	tert butyl alcohol-d9	1.000	1.000	0.0	106	0.00	5.74
2	tertiary butyl alcohol	1.368	1.365	0.2	109	0.00	5.80
3	Ethanol	0.236	0.207	12.3	96	0.00	4.77
4 I	pentafluorobenzene	1.000	1.000	0.0	99	0.00	8.06
	----- Amount	Calc.	%Drift	-----			
5 M	dichlorodifluoromethane	50.000	55.241	-10.5	108	0.00	3.61
	----- AvgRF	CCRF	%Dev	-----			
6 P	chloromethane	0.620	0.706	-13.9	118	0.00	3.83
7 c	vinyl chloride	0.654	0.643	1.7	96	0.00	4.04
8 M	bromomethane	0.232	0.308	-32.8#	137	0.00	4.48
9 M	chloroethane	0.291	0.315	-8.2	113	0.00	4.63
10 M	ethyl ether	0.461	0.472	-2.4	101	0.00	5.44
	----- Amount	Calc.	%Drift	-----			
11 M	acetonitrile	50.000	0.000	100.0#	0	0.00	5.12
12 M	trichlorofluoromethane	50.000	52.546	-5.1	104	0.00	5.21
	----- AvgRF	CCRF	%Dev	-----			
13 M	freon-113	0.290	0.327	-12.8	108	0.00	5.95
	----- Amount	Calc.	%Drift	-----			
14 M	acrolein	250.000	517.203	-106.9#	197	0.01	5.21
15 c	1,1-dichloroethene	50.000	56.022	-12.0	111	0.00	5.76
	----- AvgRF	CCRF	%Dev	-----			
16 M	acetone	0.116	0.135	-16.4	110	0.00	5.33
17 M	Methyl Acetate	0.764	0.795	-4.1	99	0.00	5.92
18 M	methylene chloride	0.399	0.416	-4.3	104	0.00	5.90
	----- Amount	Calc.	%Drift	-----			
19 M	methyl tert butyl ether	50.000	47.500	5.0	103	0.00	6.66
	----- AvgRF	CCRF	%Dev	-----			
20 M	acrylonitrile	0.291	0.308	-5.8	99	0.00	5.80
	----- Amount	Calc.	%Drift	-----			
21 M	allyl chloride	50.000	49.690	0.6	95	0.00	5.99
	----- AvgRF	CCRF	%Dev	-----			

# Initial Calibration Verification

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**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3498-ICV3498  
**Lab FileID:** L75103.D

22	M	trans-1,2-dichloroethene	0.373	0.388	-4.0	107	0.00	6.55
			----- Amount	Calc.	%Drift	-----		
23	M	iodomethane	50.000	32.240	35.5#	62	0.00	5.80
			----- AvgRF	CCRF	%Dev	-----		
24	M	carbon disulfide	1.029	1.130	-9.8	107	0.00	6.14
25	M	propionitrile	0.102	0.108	-5.9	97	0.00	6.82
			----- Amount	Calc.	%Drift	-----		
26	M	vinyl acetate	50.000	35.228	29.5#	72	0.00	6.90
			----- AvgRF	CCRF	%Dev	-----		
27	M	chloroprene	0.806	0.923	-14.5	110	0.00	7.16
28	M	di-isopropyl ether	1.977	1.982	-0.3	98	0.00	7.23
29	M	methacrylonitrile	0.409	0.419	-2.4	100	0.00	7.31
30	M	2-butanone	0.067	0.085	-26.9#	106	0.00	7.22
31	M	Hexane	0.748	0.769	-2.8	103	0.00	7.21
32	P	1,1-dichloroethane	0.914	0.954	-4.4	108	0.00	6.81
			----- Amount	Calc.	%Drift	-----		
33	M	tert-butyl ethyl ether	50.000	49.196	1.6	108	0.00	7.61
34	M	isobutyl alcohol	250.000	240.053	4.0	99	0.00	7.61
35	M	2,2-dichloropropane	50.000	54.597	-9.2	101	0.00	7.65
			----- AvgRF	CCRF	%Dev	-----		
36	M	cis-1,2-dichloroethene	0.429	0.446	-4.0	104	0.00	7.37
			----- Amount	Calc.	%Drift	-----		
37	M	ethyl acetate	50.000	59.442	-18.9	114	0.00	7.51
			----- AvgRF	CCRF	%Dev	-----		
38	M	bromochloromethane	0.199	0.215	-8.0	106	0.00	7.52
39	c	chloroform	0.749	0.755	-0.8	104	0.00	7.56
40	S	dibromofluoromethane (s)	0.340	0.344	-1.2	97	0.00	7.68
			----- Amount	Calc.	%Drift	-----		
41	M	Tetrahydrofuran	50.000	54.014	-8.0	101	0.00	7.90
			----- AvgRF	CCRF	%Dev	-----		
42	M	1,1,1-trichloroethane	0.571	0.639	-11.9	105	0.00	8.30
43	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00	8.89
44	M	Cyclohexane	0.577	0.564	2.3	98	0.00	8.60
			----- Amount	Calc.	%Drift	-----		
45	M	carbon tetrachloride	50.000	49.540	0.9	106	0.00	8.66
			----- AvgRF	CCRF	%Dev	-----		
46	M	1,1-dichloropropene	0.351	0.372	-6.0	107	0.00	8.48
47	M	benzene	1.166	1.176	-0.9	104	0.00	8.68
48	M	1,2-dichloroethane	0.509	0.526	-3.3	105	0.00	8.20
			----- Amount	Calc.	%Drift	-----		
49	M	tert-amyl methyl ether	50.000	47.449	5.1	106	0.00	8.84
			----- AvgRF	CCRF	%Dev	-----		
50	M	heptane	0.437	0.412	5.7	97	0.00	9.21
51	M	trichloroethene	0.295	0.310	-5.1	108	0.00	9.32
52	c	1,2-dichloropropane	0.395	0.407	-3.0	105	0.00	9.27

# Initial Calibration Verification

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3498-ICV3498  
**Lab FileID:** L75103.D

53 M	dibromomethane	0.186	0.197	-5.9	104	0.00	9.24
54 M	bromodichloromethane	0.400	0.419	-4.7	105	0.00	9.36
55 M	Methylcyclohexane	0.368	0.387	-5.2	103	0.00	9.84
		----- Amount	Calc.	%Drift	-----		
56 M	2-chloroethyl vinyl ether	50.000	51.805	-3.6	111	0.00	9.84
		----- AvgRF	CCRF	%Dev	-----		
57 M	methyl methacrylate	0.229	0.235	-2.6	102	0.00	9.48
		----- Amount	Calc.	%Drift	-----		
58 M	1,4-dioxane	250.000	260.034	-4.0	110	0.00	9.48
59 M	cis-1,3-dichloropropene	50.000	48.918	2.2	99	0.00	9.99
		----- AvgRF	CCRF	%Dev	-----		
60 S	toluene-d8 (s)	0.886	0.913	-3.0	100	0.00	10.67
61 M	4-methyl-2-pentanone	0.485	0.510	-5.2	102	0.00	10.11
62 c	toluene	0.779	0.742	4.7	106	0.00	10.74
		----- Amount	Calc.	%Drift	-----		
63 M	trans-1,3-dichloropropene	50.000	51.572	-3.1	110	0.00	10.41
64 M	1,1,2-trichloroethane	50.000	50.571	-1.1	101	0.00	10.57
		----- AvgRF	CCRF	%Dev	-----		
65 M	ethyl methacrylate	0.432	0.447	-3.5	101	0.00	10.80
66 I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	12.13
67 M	tetrachloroethene	0.453	0.531	-17.2	109	0.00	11.49
68 M	1,3-dichloropropane	0.792	0.842	-6.3	105	0.00	10.81
69 M	dibromochloromethane	0.574	0.597	-4.0	105	0.00	11.08
70 M	1,2-dibromoethane	0.517	0.559	-8.1	104	0.00	11.33
		----- Amount	Calc.	%Drift	-----		
71 M	2-hexanone	50.000	55.111	-10.2	107	0.00	10.96
		----- AvgRF	CCRF	%Dev	-----		
72 P	chlorobenzene	1.338	1.485	-11.0	114	0.00	12.17
73 M	1,1,1,2-tetrachloroethane	0.495	0.535	-8.1	106	0.00	12.10
74 c	ethylbenzene	2.515	2.506	0.4	106	0.00	12.34
75 M	m,p-xylene	0.880	0.961	-9.2	112	0.00	12.53
76 M	o-xylene	0.837	0.942	-12.5	113	0.00	12.94
77 M	styrene	1.487	1.577	-6.1	104	0.00	12.86
		----- Amount	Calc.	%Drift	-----		
78 P	bromoform	50.000	50.381	-0.8	103	0.00	12.67
		----- AvgRF	CCRF	%Dev	-----		
79 M	trans-1,4-dichloro-2-bute	0.241	0.254	-5.4	100	0.00	13.11
80 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	14.68
81 M	isopropylbenzene	2.079	2.315	-11.4	114	0.00	13.31
82 S	bromofluorobenzene (s)	0.643	0.637	0.9	102	0.00	13.35
83 M	bromobenzene	0.662	0.681	-2.9	107	0.00	13.58
		----- Amount	Calc.	%Drift	-----		
84 P	1,1,2,2-tetrachloroethane	50.000	52.026	-4.1	103	0.00	12.96
		----- AvgRF	CCRF	%Dev	-----		
85 M	1,2,3-trichloropropane	0.820	0.839	-2.3	104	0.00	13.10
86 M	n-propylbenzene	2.423	2.669	-10.2	113	0.00	13.75

6.7.2  
6

# Initial Calibration Verification

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3498-ICV3498  
**Lab FileID:** L75103.D

87 M	2-chlorotoluene	1.591	1.712	-7.6	114	0.00	13.86
88 M	4-chlorotoluene	1.620	1.812	-11.9	116	0.00	13.94
89 M	1,3,5-trimethylbenzene	2.046	1.972	3.6	103	0.00	14.02
90 M	tert-butylbenzene	0.219	0.216	1.4	105	0.00	14.43
91 M	1,2,4-trimethylbenzene	2.103	2.022	3.9	104	0.00	14.43
92 M	sec-butylbenzene	2.057	2.350	-14.2	115	0.00	14.56
93 M	1,3-dichlorobenzene	1.044	1.114	-6.7	114	0.00	14.65
94 M	p-isopropyltoluene	1.730	1.906	-10.2	111	0.00	14.73
95 M	1,4-dichlorobenzene	1.184	1.166	1.5	106	0.00	14.71
96 M	1,2-dichlorobenzene	1.047	1.131	-8.0	114	0.00	15.09
97 M	n-butylbenzene	1.701	1.770	-4.1	104	0.00	15.15
98 M	1,2-dibromo-3-chloropropa	0.140	0.144	-2.9	106	0.00	15.56
99	1,3,5-trichlorobenzene	0.783	0.781	0.3	104	0.00	16.37
100 M	1,2,4-trichlorobenzene	0.696	0.726	-4.3	107	0.00	16.91
101 M	hexachlorobutadiene	0.347	0.360	-3.7	109	0.00	17.21
-----							
102 M	naphthalene	Amount 50.000	Calc. 48.813	%Drift 2.4	103	0.00	17.15
-----							
103 M	1,2,3-trichlorobenzene	AvgRF 0.648	CCRF 0.666	%Dev -2.8	103	0.00	17.37
-----							
104 m	2-Methylnaphthalene	Amount 25.000	Calc. 21.185	%Drift 15.3	121	0.00	18.39
105 m	1-Methylnaphthalene	Amount 25.000	Calc. 22.451	%Drift 10.2	122	0.00	18.61
-----							

(#) = Out of Range  
 L75097.D 1130630w.m

SPCC's out = 0 CCC's out = 0  
 Mon Jul 01 08:23:41 2013

## Continuing Calibration Summary

Job Number: MC22115  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSL3499-CC3498  
 Lab FileID: L75123.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\L130701\L75123.D Vial: 3  
 Acq On : 1 Jul 2013 9:59 am Operator: kerryr  
 Sample : cc3498-50 Inst : MSL  
 Misc : ms29242,msl3499,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\l130630w.m (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Mon Jul 01 10:23:45 2013  
 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	tert butyl alcohol-d9	1.000	1.000	0.0	100	0.00	5.74
2	tertiary butyl alcohol	1.368	1.355	1.0	102	0.00	5.80
3	Ethanol	0.236	0.226	4.2	99	0.00	4.76
4 I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	8.07
	----- Amount	Calc.	%Drift	-----			
5 M	dichlorodifluoromethane	50.000	52.391	-4.8	110	0.00	3.61
	----- AvgRF	CCRF	%Dev	-----			
6 P	chloromethane	0.620	0.588	5.2	105	0.00	3.83
7 c	vinyl chloride	0.654	0.652	0.3	104	0.00	4.04
8 M	bromomethane	0.232	0.248	-6.9	119	0.00	4.48
9 M	chloroethane	0.291	0.266	8.6	102	0.00	4.63
10 M	ethyl ether	0.461	0.437	5.2	100	0.00	5.45
	----- Amount	Calc.	%Drift	-----			
11 M	acetonitrile	50.000	0.000	100.0#	0	0.00	5.12
12 M	trichlorofluoromethane	50.000	51.475	-3.0	110	0.00	5.21
	----- AvgRF	CCRF	%Dev	-----			
13 M	freon-113	0.290	0.313	-7.9	111	0.00	5.95
	----- Amount	Calc.	%Drift	-----			
14 M	acrolein	250.000	231.691	7.3	99	0.00	5.20
15 c	1,1-dichloroethene	50.000	48.660	2.7	104	0.00	5.76
	----- AvgRF	CCRF	%Dev	-----			
16 M	acetone	0.116	0.111	4.3	97	0.00	5.33
17 M	Methyl Acetate	0.764	0.744	2.6	100	0.00	5.93
18 M	methylene chloride	0.399	0.373	6.5	100	0.00	5.90
	----- Amount	Calc.	%Drift	-----			
19 M	methyl tert butyl ether	50.000	42.260	15.5	98	0.00	6.67
	----- AvgRF	CCRF	%Dev	-----			
20 M	acrylonitrile	0.291	0.287	1.4	99	0.00	5.81
	----- Amount	Calc.	%Drift	-----			
21 M	allyl chloride	50.000	47.349	5.3	98	0.00	5.99
	----- AvgRF	CCRF	%Dev	-----			

# Continuing Calibration Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3499-CC3498  
**Lab FileID:** L75123.D

22	M	trans-1,2-dichloroethene	0.373	0.349	6.4	104	0.00	6.56
			----- Amount	Calc.	%Drift	-----		
23	M	iodomethane	50.000	36.400	27.2#	77	0.00	5.80
			----- AvgRF	CCRF	%Dev	-----		
24	M	carbon disulfide	1.029	1.012	1.7	102	0.00	6.14
25	M	propionitrile	0.102	0.102	0.0	98	0.00	6.82
			----- Amount	Calc.	%Drift	-----		
26	M	vinyl acetate	50.000	49.147	1.7	110	0.00	6.90
			----- AvgRF	CCRF	%Dev	-----		
27	M	chloroprene	0.806	0.804	0.2	103	0.00	7.16
28	M	di-isopropyl ether	1.977	1.883	4.8	100	0.00	7.23
29	M	methacrylonitrile	0.409	0.391	4.4	100	0.00	7.32
30	M	2-butanone	0.067	0.071	-6.0	95	0.00	7.22
31	M	Hexane	0.748	0.741	0.9	106	0.00	7.21
32	P	1,1-dichloroethane	0.914	0.837	8.4	102	0.00	6.81
			----- Amount	Calc.	%Drift	-----		
33	M	tert-butyl ethyl ether	50.000	41.274	17.5	95	0.00	7.62
34	M	isobutyl alcohol	250.000	209.337	16.3	92	0.00	7.61
35	M	2,2-dichloropropane	50.000	54.064	-8.1	107	0.00	7.65
			----- AvgRF	CCRF	%Dev	-----		
36	M	cis-1,2-dichloroethene	0.429	0.395	7.9	99	0.00	7.38
			----- Amount	Calc.	%Drift	-----		
37	M	ethyl acetate	50.000	46.022	8.0	96	0.00	7.52
			----- AvgRF	CCRF	%Dev	-----		
38	M	bromochloromethane	0.199	0.189	5.0	100	0.00	7.52
39	c	chloroform	0.749	0.682	8.9	101	0.00	7.57
40	S	dibromofluoromethane (s)	0.425	0.519	-22.1#	126	0.00	7.68
			----- Amount	Calc.	%Drift	-----		
41	M	Tetrahydrofuran	50.000	48.662	2.7	98	0.00	7.90
			----- AvgRF	CCRF	%Dev	-----		
42	M	1,1,1-trichloroethane	0.571	0.590	-3.3	104	0.00	8.30
43	I	1,4-difluorobenzene	1.000	1.000	0.0	103	0.00	8.90
44	M	Cyclohexane	0.577	0.610	-5.7	109	0.00	8.60
			----- Amount	Calc.	%Drift	-----		
45	M	carbon tetrachloride	50.000	47.837	4.3	106	0.00	8.66
			----- AvgRF	CCRF	%Dev	-----		
46	M	1,1-dichloropropene	0.351	0.354	-0.9	104	0.00	8.49
47	M	benzene	1.166	1.120	3.9	102	0.00	8.68
48	M	1,2-dichloroethane	0.509	0.491	3.5	100	0.00	8.20
			----- Amount	Calc.	%Drift	-----		
49	M	tert-amyl methyl ether	50.000	42.942	14.1	98	0.00	8.85
			----- AvgRF	CCRF	%Dev	-----		
50	M	heptane	0.437	0.469	-7.3	114	0.00	9.21
51	M	trichloroethene	0.295	0.285	3.4	102	0.00	9.32
52	c	1,2-dichloropropane	0.395	0.380	3.8	101	0.00	9.28

# Continuing Calibration Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3499-CC3498  
**Lab FileID:** L75123.D

53 M	dibromomethane	0.186	0.182	2.2	99	0.00	9.25
54 M	bromodichloromethane	0.400	0.388	3.0	100	0.00	9.36
55 M	Methylcyclohexane	0.368	0.385	-4.6	106	0.00	9.85
	----- Amount	Calc.	%Drift	-----			
56 M	2-chloroethyl vinyl ether	50.000	54.757	-9.5	123	0.00	9.85
	----- AvgRF	CCRF	%Dev	-----			
57 M	methyl methacrylate	0.229	0.224	2.2	101	0.00	9.48
	----- Amount	Calc.	%Drift	-----			
58 M	1,4-dioxane	250.000	232.806	6.9	98	0.00	9.47
59 M	cis-1,3-dichloropropene	50.000	48.302	3.4	100	0.00	9.99
	----- AvgRF	CCRF	%Dev	-----			
60 S	toluene-d8 (s)	1.108	1.449	-30.8#	131	0.00	10.67
61 M	4-methyl-2-pentanone	0.485	0.467	3.7	96	0.00	10.11
62 c	toluene	0.779	0.694	10.9	102	0.00	10.75
	----- Amount	Calc.	%Drift	-----			
63 M	trans-1,3-dichloropropene	50.000	46.339	7.3	101	0.00	10.41
64 M	1,1,2-trichloroethane	50.000	47.792	4.4	99	0.00	10.58
	----- AvgRF	CCRF	%Dev	-----			
65 M	ethyl methacrylate	0.432	0.426	1.4	99	0.00	10.81
66 I	chlorobenzene-d5	1.000	1.000	0.0	98	0.00	12.13
67 M	tetrachloroethene	0.453	0.522	-15.2	104	0.00	11.50
68 M	1,3-dichloropropane	0.792	0.843	-6.4	102	0.00	10.82
69 M	dibromochloromethane	0.574	0.593	-3.3	101	0.00	11.08
70 M	1,2-dibromoethane	0.517	0.542	-4.8	98	0.00	11.33
	----- Amount	Calc.	%Drift	-----			
71 M	2-hexanone	50.000	51.904	-3.8	98	0.00	10.97
	----- AvgRF	CCRF	%Dev	-----			
72 P	chlorobenzene	1.338	1.350	-0.9	100	0.00	12.17
73 M	1,1,1,2-tetrachloroethane	0.495	0.520	-5.1	100	0.00	12.10
74 c	ethylbenzene	2.515	2.474	1.6	101	0.00	12.35
75 M	m,p-xylene	0.880	0.907	-3.1	102	0.00	12.53
76 M	o-xylene	0.837	0.856	-2.3	100	0.00	12.94
77 M	styrene	1.487	1.549	-4.2	99	0.00	12.86
	----- Amount	Calc.	%Drift	-----			
78 P	bromoform	50.000	51.843	-3.7	102	0.00	12.67
	----- AvgRF	CCRF	%Dev	-----			
79 M	trans-1,4-dichloro-2-bute	0.241	0.268	-11.2	103	0.00	13.11
80 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	14.68
81 M	isopropylbenzene	2.079	2.152	-3.5	102	0.00	13.31
82 S	bromofluorobenzene (s)	0.804	1.093	-35.9#	134	0.00	13.35
83 M	bromobenzene	0.662	0.669	-1.1	101	0.00	13.58
	----- Amount	Calc.	%Drift	-----			
84 P	1,1,2,2-tetrachloroethane	50.000	54.020	-8.0	103	0.00	12.96
	----- AvgRF	CCRF	%Dev	-----			
85 M	1,2,3-trichloropropane	0.820	0.852	-3.9	101	0.00	13.10
86 M	n-propylbenzene	2.423	2.513	-3.7	102	0.00	13.75

# Continuing Calibration Summary

**Job Number:** MC22115  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSL3499-CC3498  
**Lab FileID:** L75123.D

87 M	2-chlorotoluene	1.591	1.592	-0.1	102	0.00	13.86
88 M	4-chlorotoluene	1.620	1.630	-0.6	100	0.00	13.94
89 M	1,3,5-trimethylbenzene	2.046	2.011	1.7	101	0.00	14.03
90 M	tert-butylbenzene	0.219	0.213	2.7	99	0.00	14.43
91 M	1,2,4-trimethylbenzene	2.103	2.024	3.8	99	0.00	14.43
92 M	sec-butylbenzene	2.057	2.181	-6.0	102	0.00	14.56
93 M	1,3-dichlorobenzene	1.044	1.022	2.1	100	0.00	14.65
94 M	p-isopropyltoluene	1.730	1.810	-4.6	102	0.00	14.73
95 M	1,4-dichlorobenzene	1.184	1.150	2.9	100	0.00	14.71
96 M	1,2-dichlorobenzene	1.047	1.042	0.5	101	0.00	15.09
97 M	n-butylbenzene	1.701	1.788	-5.1	101	0.00	15.15
98 M	1,2-dibromo-3-chloropropa	0.140	0.144	-2.9	101	0.00	15.56
99	1,3,5-trichlorobenzene	0.783	0.776	0.9	99	0.00	16.37
100 M	1,2,4-trichlorobenzene	0.696	0.696	0.0	98	0.00	16.91
101 M	hexachlorobutadiene	0.347	0.351	-1.2	102	0.00	17.21

		Amount	Calc.	%Drift			
102 M	naphthalene	50.000	47.041	5.9	95	0.00	17.15
		AvgRF	CCRF	%Dev			
103 M	1,2,3-trichlorobenzene	0.648	0.649	-0.2	96	0.00	17.37
		Amount	Calc.	%Drift			
104 m	2-Methylnaphthalene	25.000	18.026	27.9#	92	0.00	18.39
105 m	1-Methylnaphthalene	25.000	18.449	26.2#	89	0.00	18.61

(#) = Out of Range  
 L75097.D 1130630w.m

SPCC's out = 0 CCC's out = 0  
 Mon Jul 01 15:07:36 2013



GC/MS Volatiles

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Raw Data

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7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75139.D  
Acq On : 1 Jul 2013 5:44 pm  
Operator : kerryr  
Sample : mc22115-1  
Misc : ms29264,msl3499,,,,,5,1  
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 02 08:13:19 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.758	65	49756	500.00	ug/L	0.02
4) pentafluorobenzene	8.066	168	123840	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.898	114	172699	50.00	ug/L	0.00
66) chlorobenzene-d5	12.134	82	89196	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.686	152	82483	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.679	113	52833	50.16	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.32%
60) toluene-d8 (s)	10.676	98	208021	54.37	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.74%
82) bromofluorobenzene (s)	13.354	95	79072	59.62	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	119.24%
Target Compounds						
51) trichloroethene	9.320	95	2828	2.78	ug/L	Qvalue 84

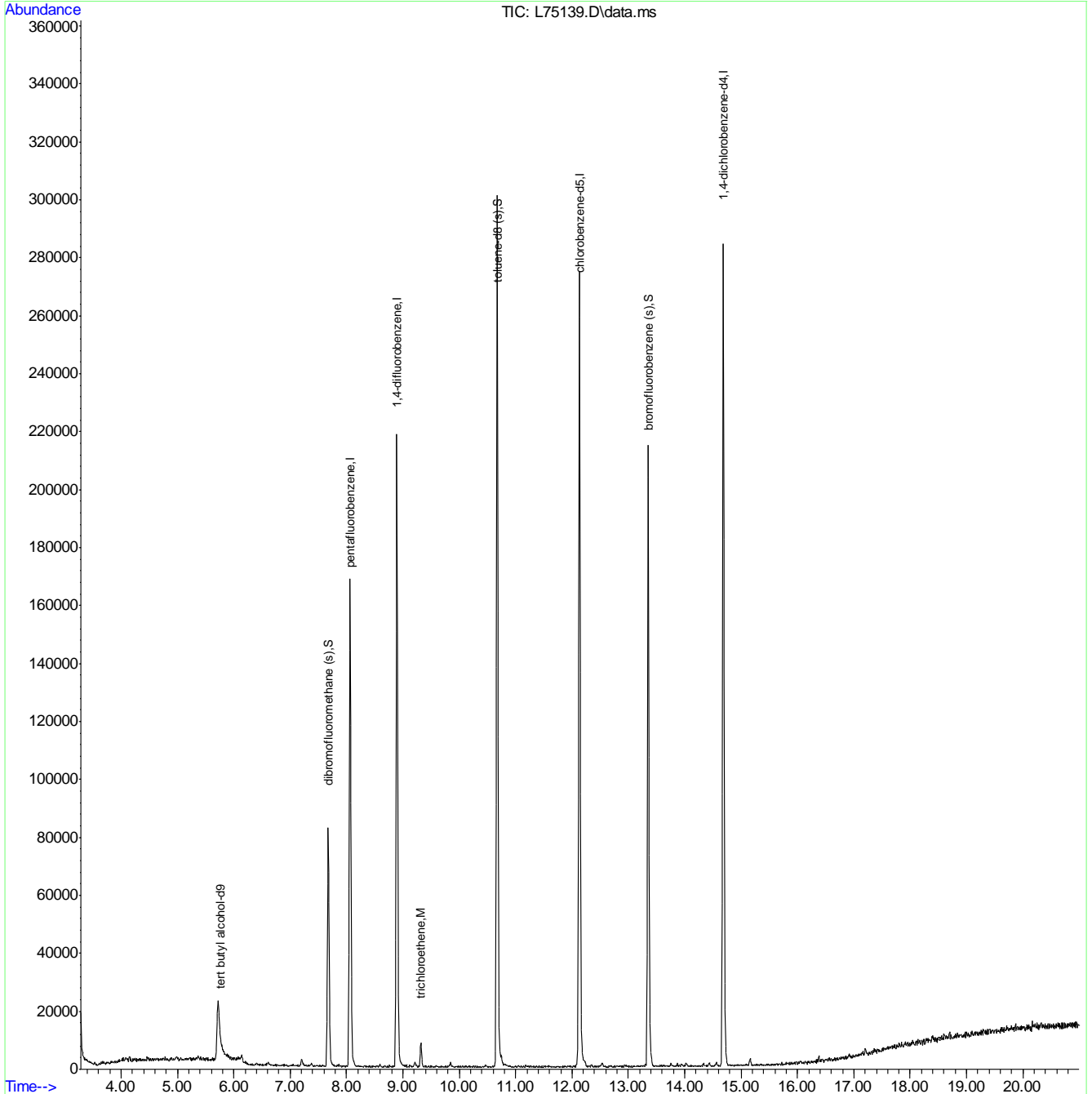
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.1  
7

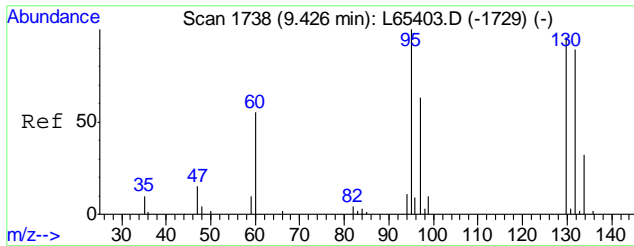
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75139.D  
Acq On : 1 Jul 2013 5:44 pm  
Operator : kerryr  
Sample : mc22115-1  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 19 Sample Multiplier: 1

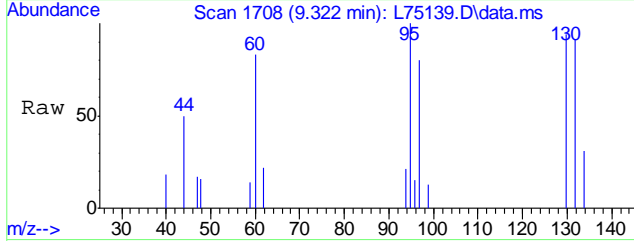
Quant Time: Jul 02 08:13:19 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration



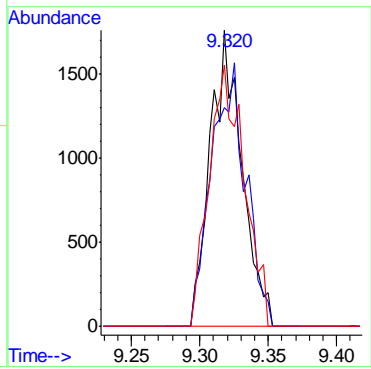
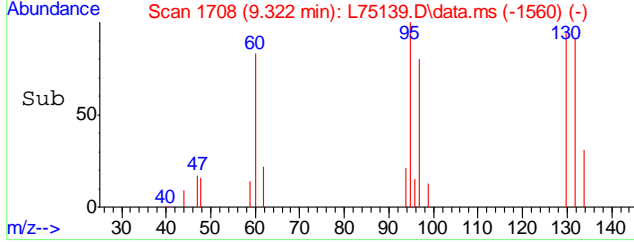
711  
7



#51  
 trichloroethene  
 Concen: 2.78 ug/L  
 RT: 9.320 min Scan# 1708  
 Delta R.T. 0.002 min  
 Lab File: L75139.D  
 Acq: 1 Jul 2013 5:44 pm



Tgt Ion	Resp	Lower	Upper
95	2828	100	
130	94.0	50.4	110.4
132	91.2	46.8	106.8



7.1.1  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75140.D  
Acq On : 1 Jul 2013 6:13 pm  
Operator : kerryr  
Sample : mc22115-2  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 02 08:14:23 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.754	65	45751	500.00	ug/L	0.02
4) pentafluorobenzene	8.066	168	122541	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.898	114	172866	50.00	ug/L	0.00
66) chlorobenzene-d5	12.135	82	89837	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.686	152	83230	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.679	113	51953	49.84	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.68%
60) toluene-d8 (s)	10.676	98	206855	54.01	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.02%
82) bromofluorobenzene (s)	13.354	95	77881	58.19	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	116.38%

Target Compounds Qvalue

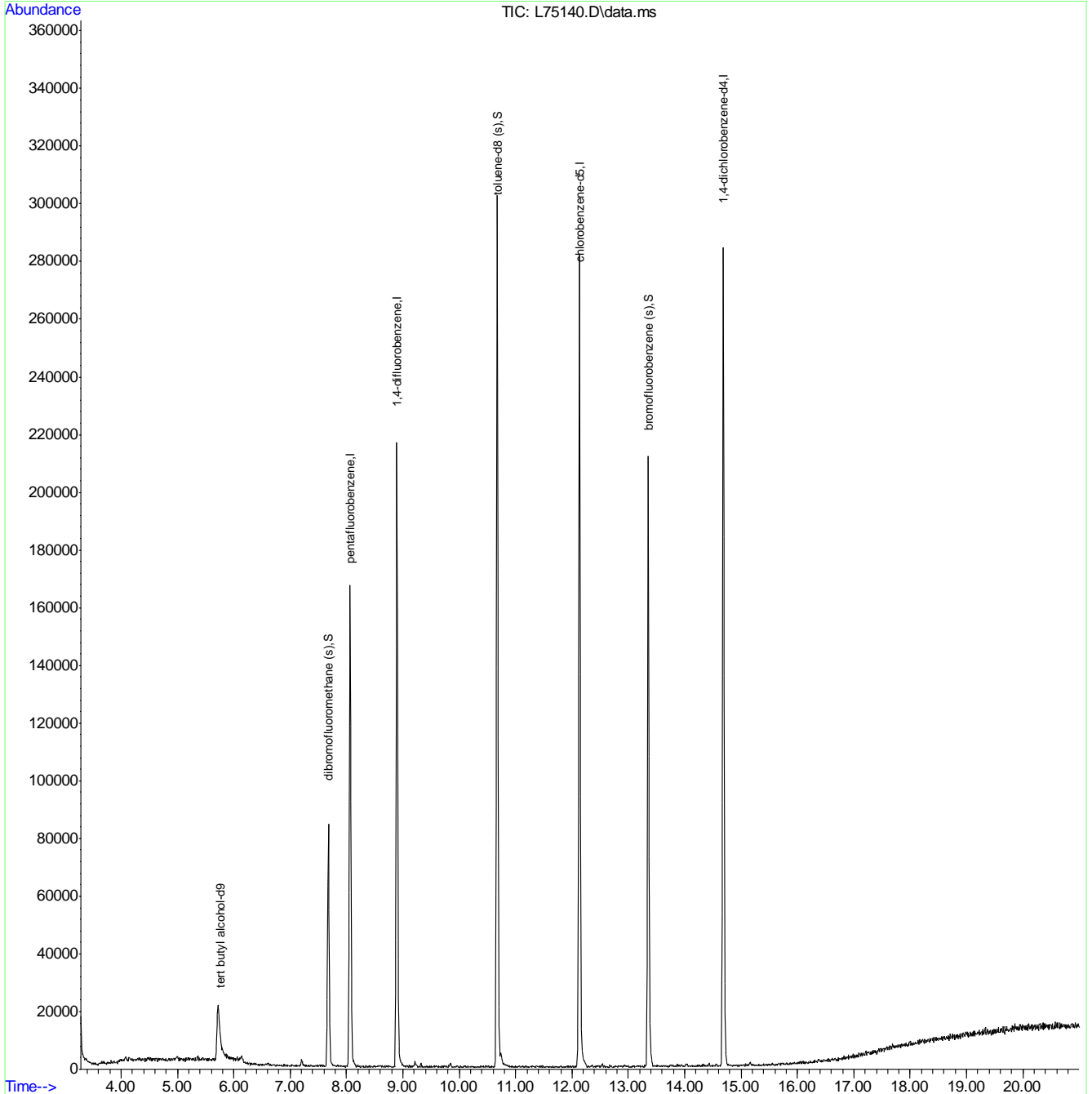
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.12  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75140.D  
Acq On : 1 Jul 2013 6:13 pm  
Operator : kerryr  
Sample : mc22115-2  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 02 08:14:23 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration



7.1.2  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75141.D  
Acq On : 1 Jul 2013 6:42 pm  
Operator : kerryr  
Sample : mc22115-3  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 02 08:15:25 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.753	65	48274	500.00	ug/L	0.02
4) pentafluorobenzene	8.066	168	123346	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.898	114	174377	50.00	ug/L	0.00
66) chlorobenzene-d5	12.135	82	90190	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.686	152	81328	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.679	113	52001	49.56	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.12%
60) toluene-d8 (s)	10.677	98	204830	53.02	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	106.04%
82) bromofluorobenzene (s)	13.354	95	78158	59.77	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	119.54%

Target Compounds Qvalue

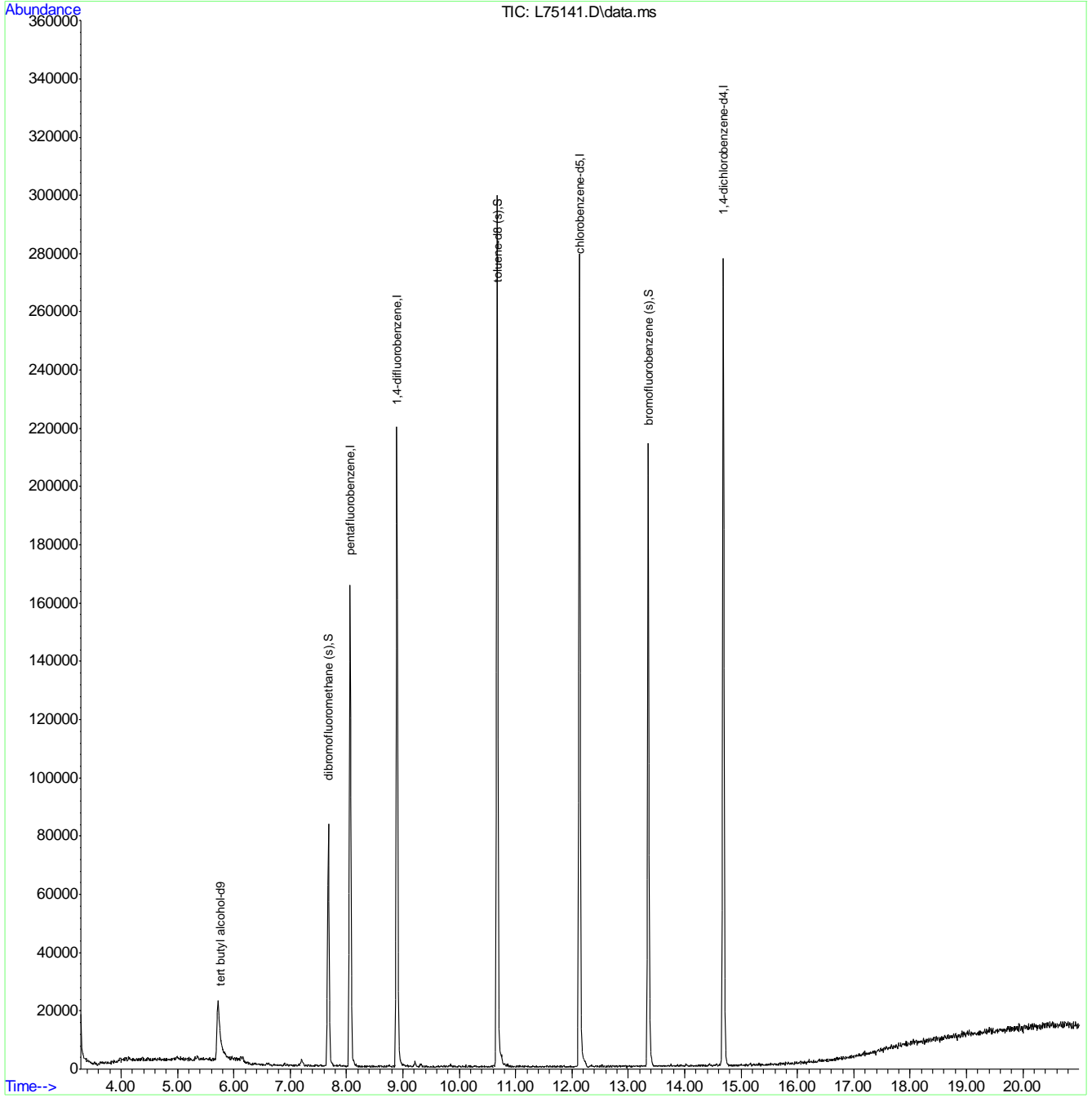
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.3  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75141.D  
Acq On : 1 Jul 2013 6:42 pm  
Operator : kerryr  
Sample : mc22115-3  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 02 08:15:25 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75142.D  
Acq On : 1 Jul 2013 7:10 pm  
Operator : kerryr  
Sample : mc22115-4  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jul 02 08:16:06 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.756	65	46572	500.00	ug/L	0.02
4) pentafluorobenzene	8.066	168	122969	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.898	114	171832	50.00	ug/L	0.00
66) chlorobenzene-d5	12.135	82	88148	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.686	152	81893	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.679	113	51652	49.38	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.76%
60) toluene-d8 (s)	10.677	98	205848	54.07	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.14%
82) bromofluorobenzene (s)	13.354	95	79660	60.50	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	121.00%

Target Compounds Qvalue

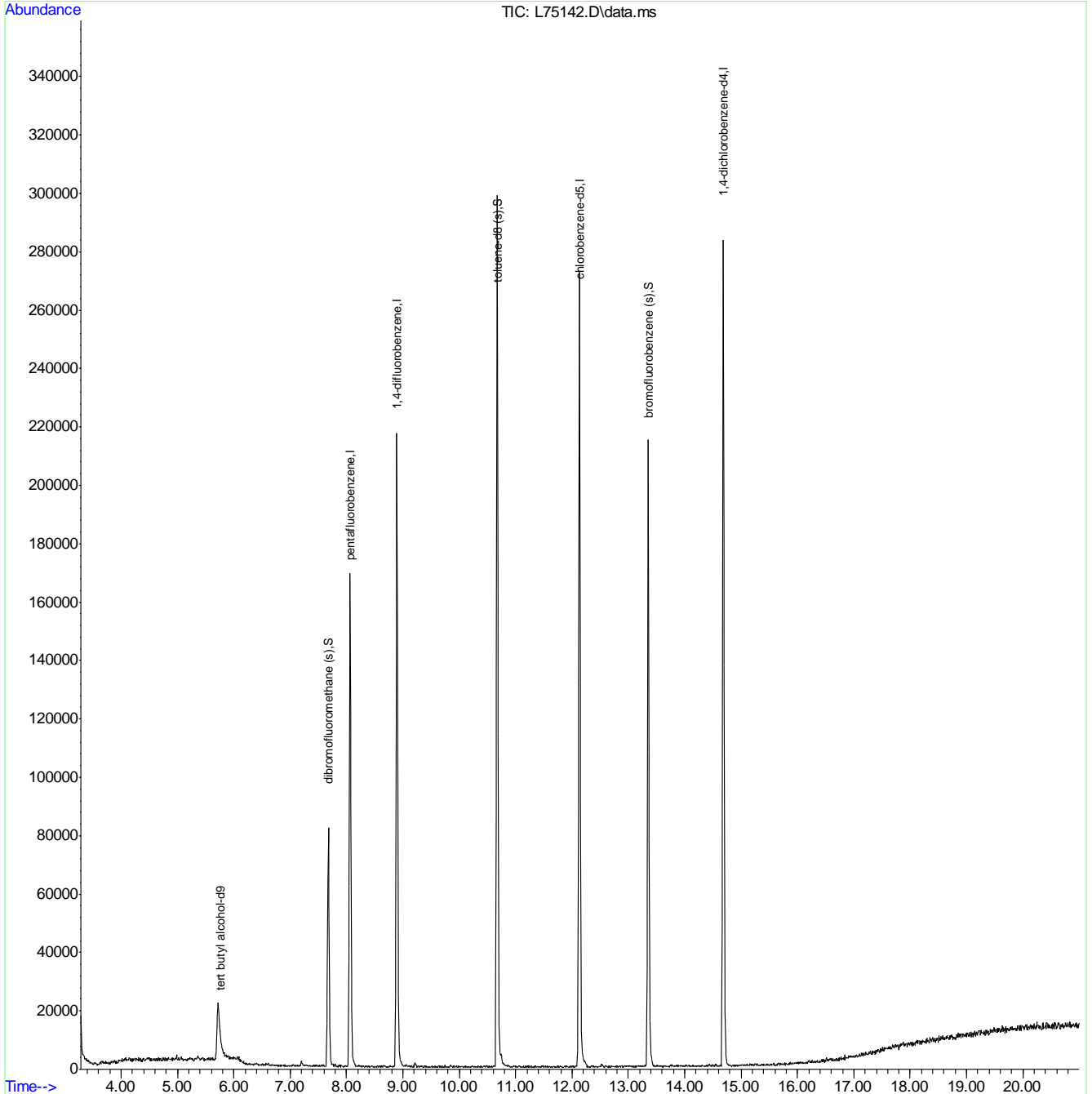
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.14  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75142.D  
Acq On : 1 Jul 2013 7:10 pm  
Operator : kerryr  
Sample : mc22115-4  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jul 02 08:16:06 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration



7.1.4  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75135.D  
Acq On : 1 Jul 2013 3:49 pm  
Operator : kerryr  
Sample : mc22115-5  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 02 08:09:41 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.752	65	46223	500.00	ug/L	0.02
4) pentafluorobenzene	8.066	168	121405	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.898	114	169061	50.00	ug/L	0.00
66) chlorobenzene-d5	12.135	82	88389	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.686	152	80369	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.679	113	51237	49.62	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.24%
60) toluene-d8 (s)	10.677	98	203386	54.30	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.60%
82) bromofluorobenzene (s)	13.355	95	78309	60.60	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	121.20%

Target Compounds Qvalue

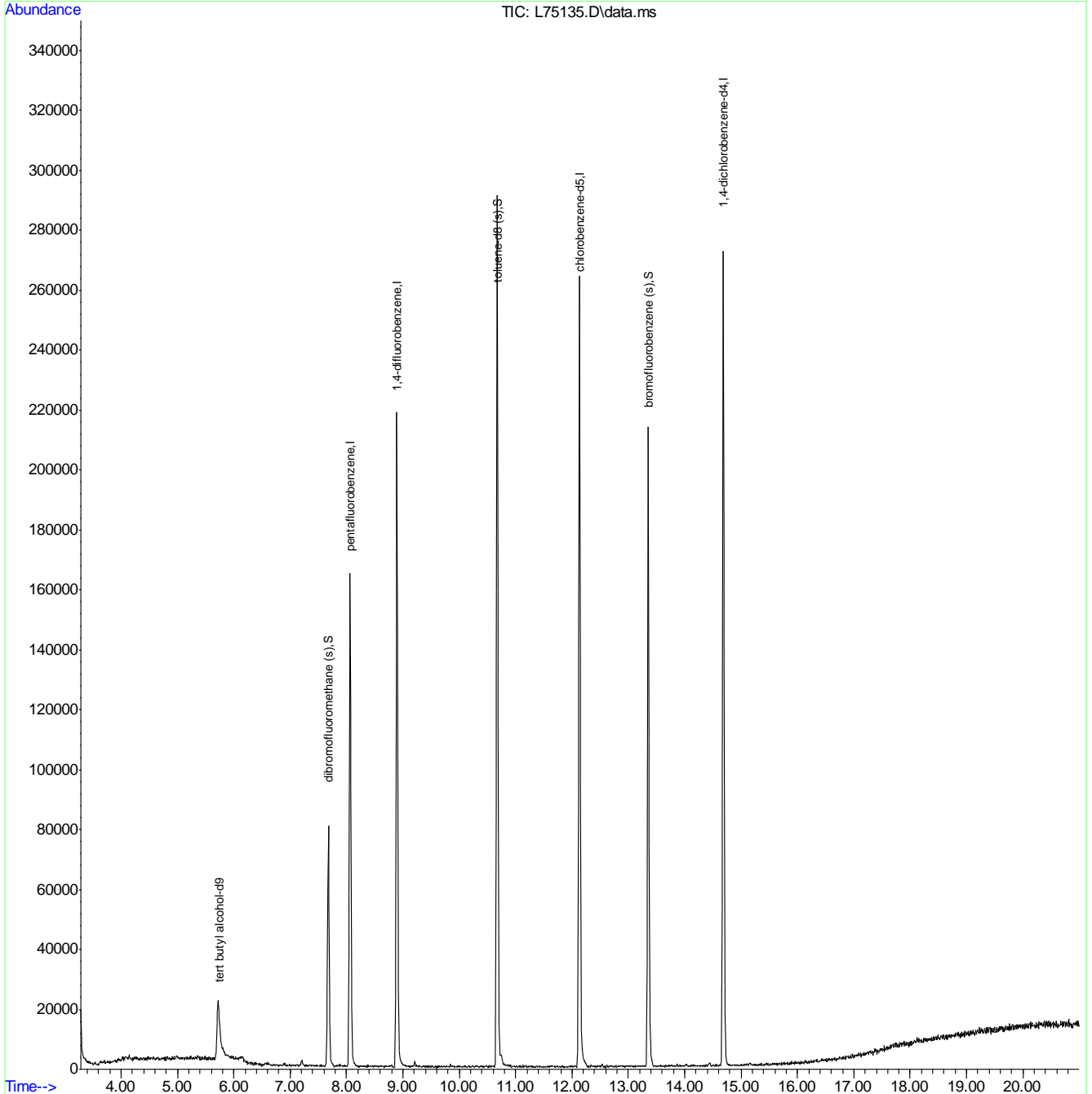
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.15  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75135.D  
Acq On : 1 Jul 2013 3:49 pm  
Operator : kerryr  
Sample : mc22115-5  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 02 08:09:41 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75143.D  
Acq On : 1 Jul 2013 7:39 pm  
Operator : kerryr  
Sample : mc22115-6  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 02 08:16:37 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.759	65	47987	500.00	ug/L	0.02
4) pentafluorobenzene	8.066	168	123631	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.898	114	173357	50.00	ug/L	0.00
66) chlorobenzene-d5	12.135	82	89927	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.686	152	81446	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.680	113	52266	49.70	ug/L	0.00
Spiked Amount	50.000	Range 70 - 130	Recovery	=	99.40%	
60) toluene-d8 (s)	10.676	98	204854	53.34	ug/L	0.00
Spiked Amount	50.000	Range 70 - 130	Recovery	=	106.68%	
82) bromofluorobenzene (s)	13.354	95	79100	60.40	ug/L	0.00
Spiked Amount	50.000	Range 70 - 130	Recovery	=	120.80%	

Target Compounds Qvalue

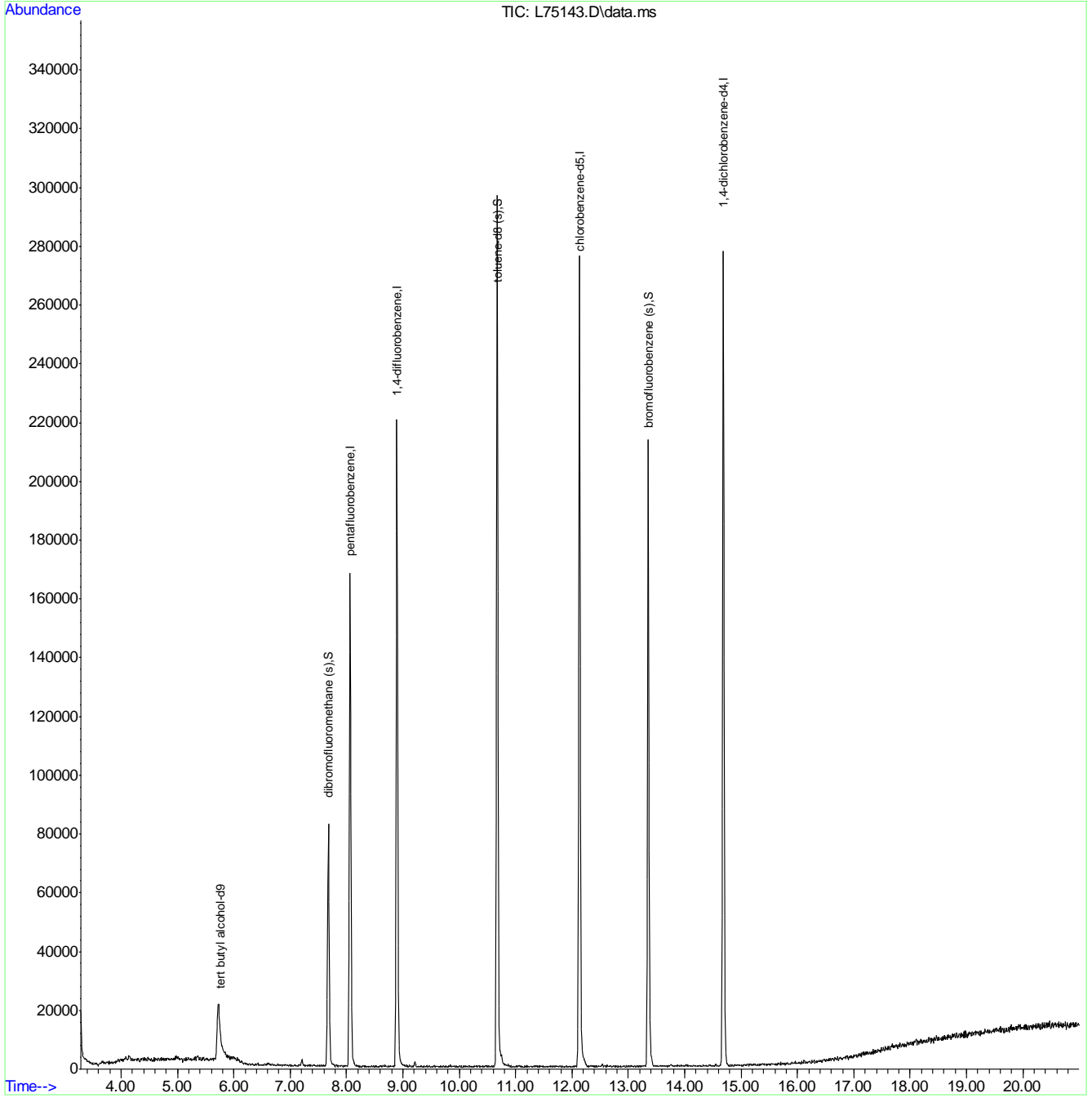
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.6  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75143.D  
Acq On : 1 Jul 2013 7:39 pm  
Operator : kerryr  
Sample : mc22115-6  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 02 08:16:37 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75144.D  
Acq On : 1 Jul 2013 8:08 pm  
Operator : kerryr  
Sample : mc22115-7  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 02 08:17:20 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.753	65	51344	500.00	ug/L	0.02
4) pentafluorobenzene	8.066	168	122382	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.897	114	172166	50.00	ug/L	0.00
66) chlorobenzene-d5	12.134	82	88959	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.686	152	83248	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.679	113	51664	49.63	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.26%
60) toluene-d8 (s)	10.676	98	205424	53.86	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	107.72%
82) bromofluorobenzene (s)	13.354	95	79538	59.42	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	118.84%

Target Compounds Qvalue

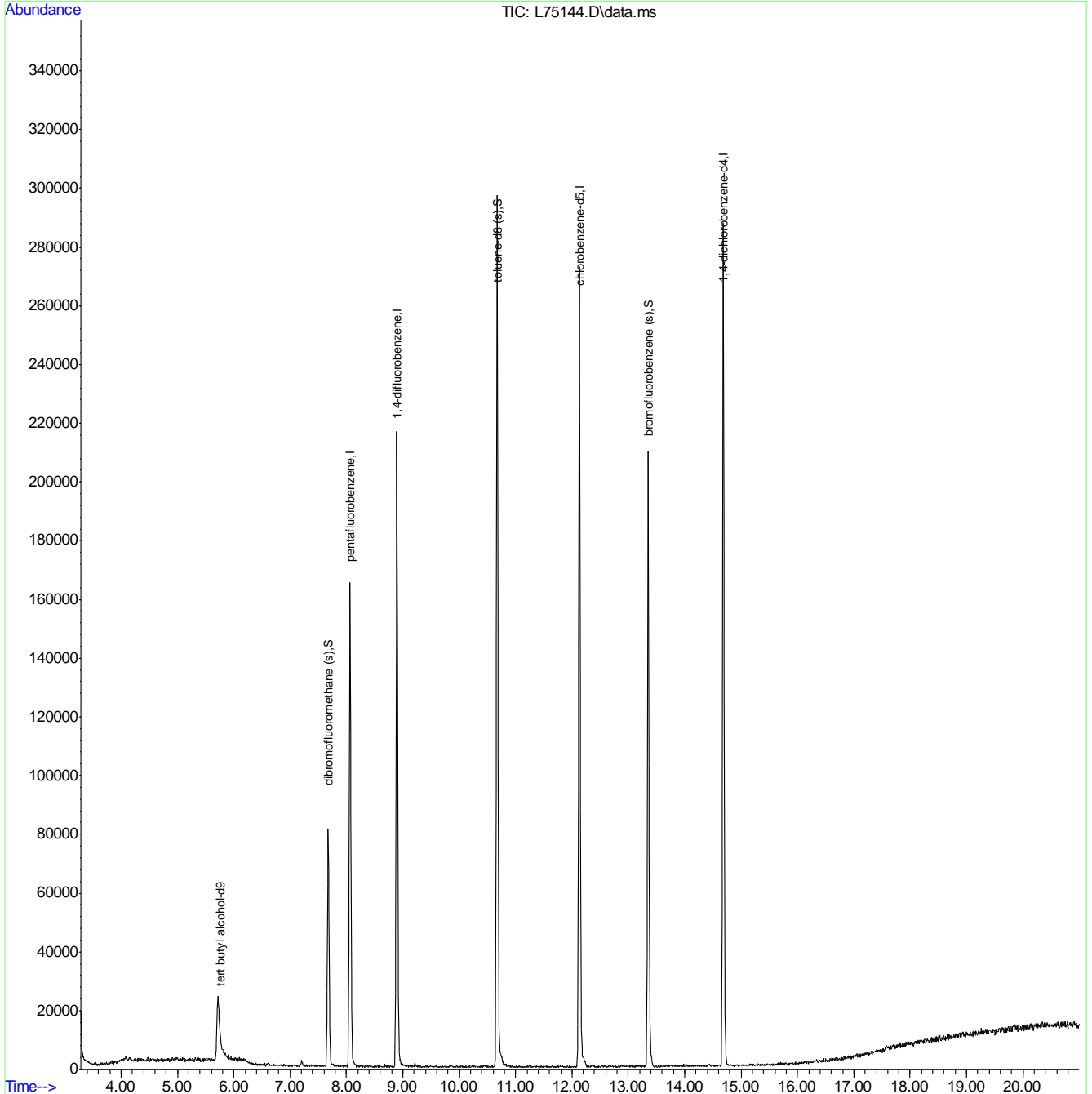
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.17  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75144.D  
Acq On : 1 Jul 2013 8:08 pm  
Operator : kerryr  
Sample : mc22115-7  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 02 08:17:20 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration



7.17  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75145.D  
Acq On : 1 Jul 2013 8:37 pm  
Operator : kerryr  
Sample : mc22115-8  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 02 08:18:07 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.756	65	48433	500.00	ug/L	0.02
4) pentafluorobenzene	8.067	168	124415	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.898	114	172419	50.00	ug/L	0.00
66) chlorobenzene-d5	12.135	82	90322	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.686	152	82954	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.680	113	52304	49.43	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.86%
60) toluene-d8 (s)	10.677	98	208518	54.59	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	109.18%
82) bromofluorobenzene (s)	13.354	95	79468	59.58	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	119.16%

Target Compounds Qvalue

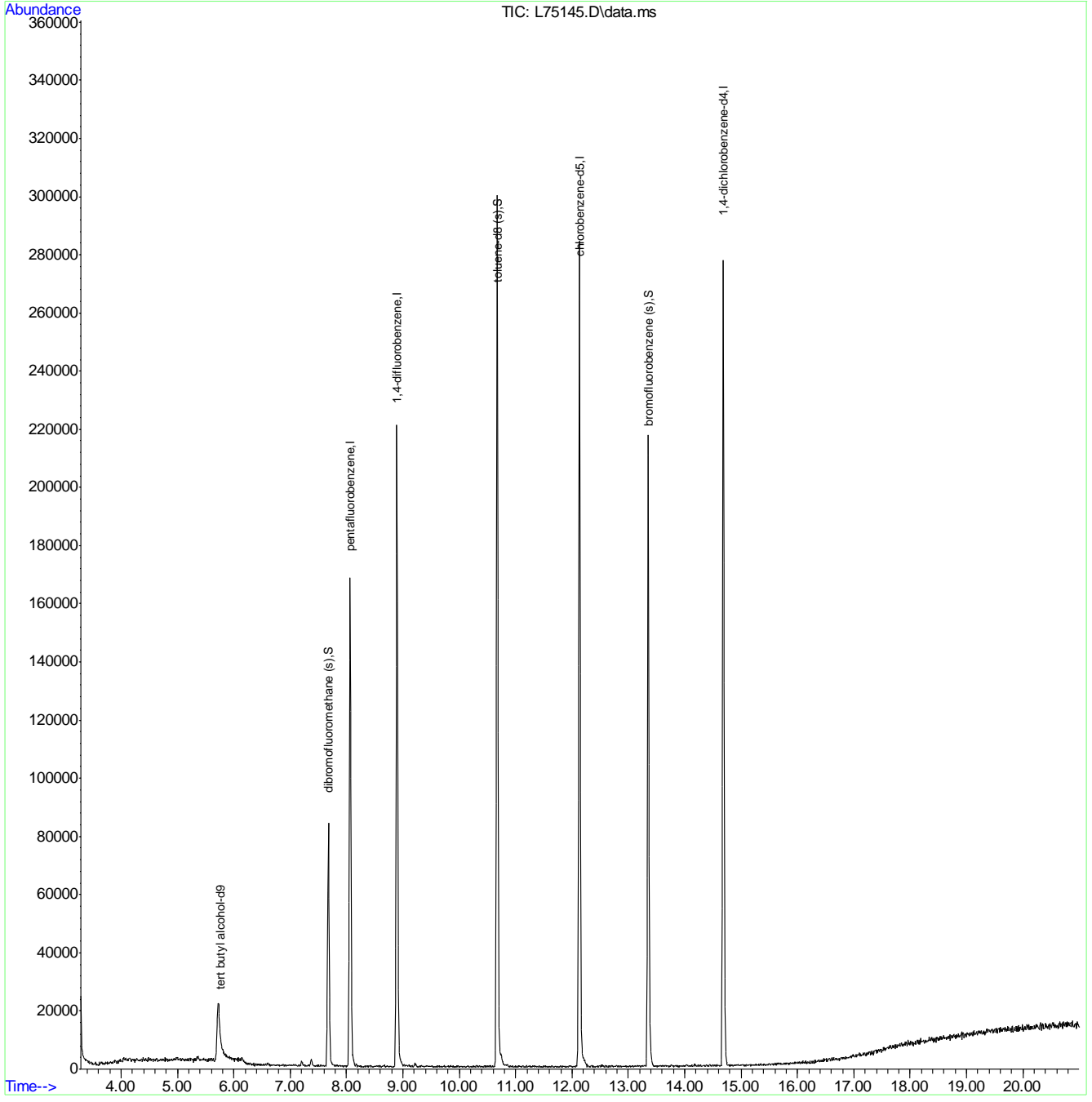
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.8  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75145.D  
Acq On : 1 Jul 2013 8:37 pm  
Operator : kerryr  
Sample : mc22115-8  
Misc : ms29264,msl3499,,,,5,1  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 02 08:18:07 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration



718  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75127.D  
 Acq On : 1 Jul 2013 11:55 am  
 Operator : kerryr  
 Sample : mc22115-9  
 Misc : ms29282,msl3499,,,,5,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 02 07:51:28 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.757	65	44274	500.00	ug/L	0.02
4) pentafluorobenzene	8.066	168	120425	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.898	114	167574	50.00	ug/L	0.00
66) chlorobenzene-d5	12.135	82	85725	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.686	152	78710	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.679	113	49879	48.70	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.40%
60) toluene-d8 (s)	10.677	98	198663	53.51	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	107.02%
82) bromofluorobenzene (s)	13.355	95	75266	59.47	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	118.94%

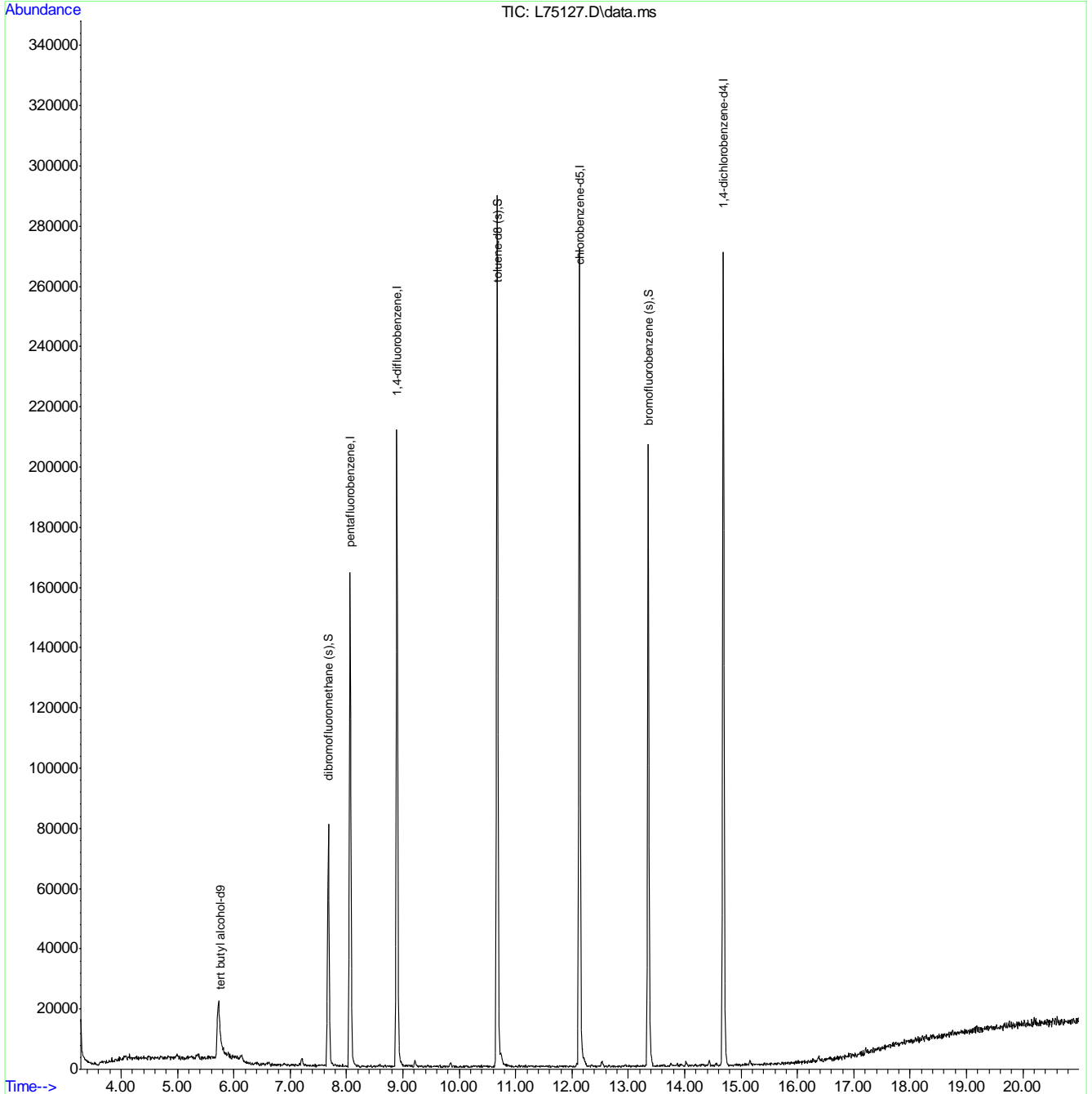
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75127.D  
Acq On : 1 Jul 2013 11:55 am  
Operator : kerryr  
Sample : mc22115-9  
Misc : ms29282,msl3499,,,,5,1  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 02 07:51:28 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75126.D  
 Acq On : 1 Jul 2013 11:26 am  
 Operator : kerryr  
 Sample : mb  
 Misc : ms29242,msl3499,,,,5,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 01 15:10:11 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.763	65	47559	500.00	ug/L	0.03
4) pentafluorobenzene	8.066	168	116535	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.898	114	162134	50.00	ug/L	0.00
66) chlorobenzene-d5	12.135	82	83097	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.687	152	77812	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.680	113	48632	49.06	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.12%
60) toluene-d8 (s)	10.676	98	191477	53.31	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	106.62%
82) bromofluorobenzene (s)	13.354	95	72846	58.22	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	116.44%

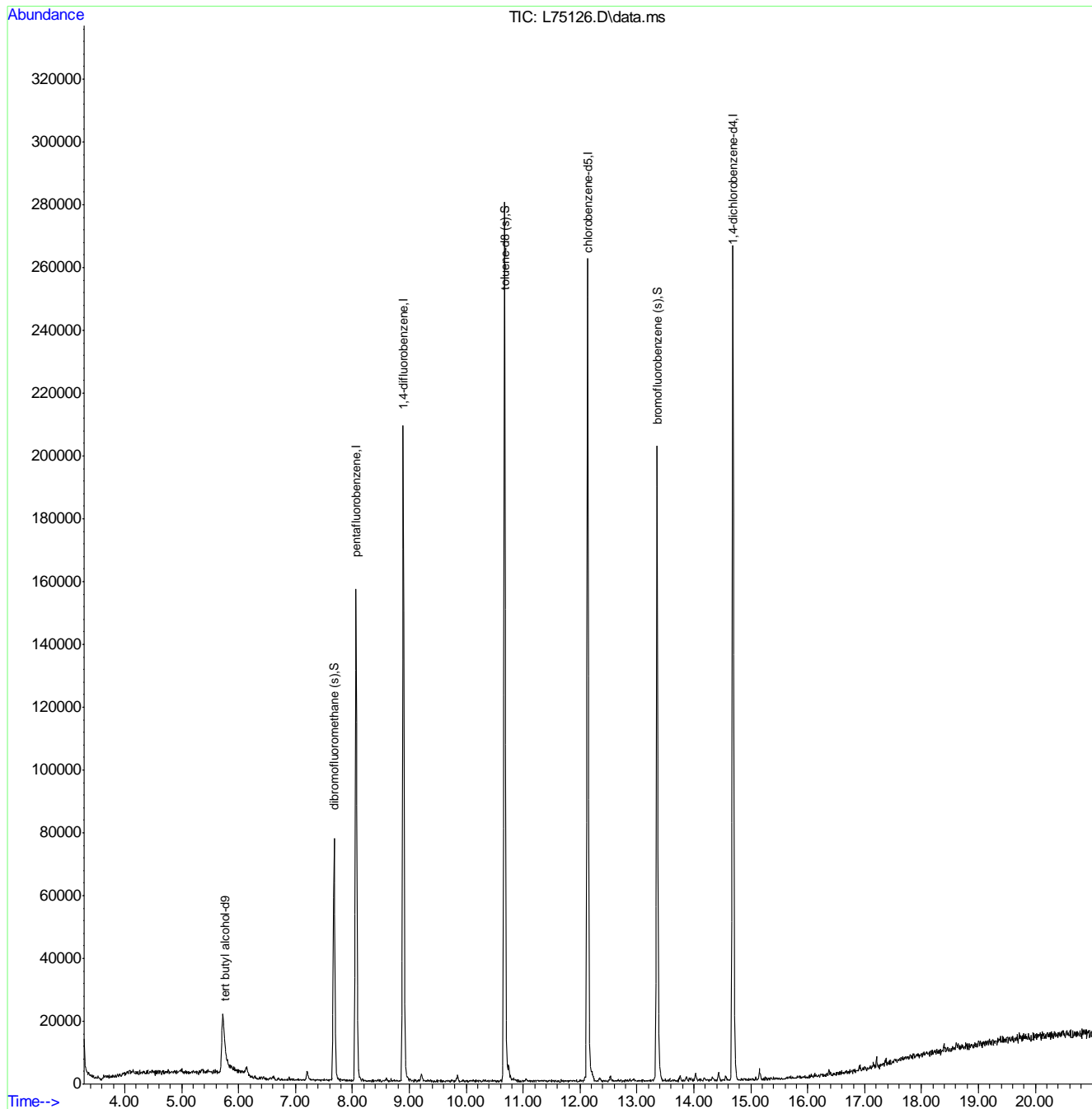
Target Compounds Qvalue

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

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75126.D  
Acq On : 1 Jul 2013 11:26 am  
Operator : kerryr  
Sample : mb  
Misc : ms29242,msl3499,,,,5,1  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 01 15:10:11 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75124.D  
 Acq On : 1 Jul 2013 10:28 am  
 Operator : kerryr  
 Sample : bs  
 Misc : ms29242,msl3499,,,,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 01 15:08:00 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.736	65	45242	500.00	ug/L	0.00
4) pentafluorobenzene	8.064	168	116982	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.895	114	162983	50.00	ug/L	0.00
66) chlorobenzene-d5	12.131	82	87188	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.684	152	83999	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.677	113	48871	49.12	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.24%
60) toluene-d8 (s)	10.673	98	190828	52.85	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	105.70%
82) bromofluorobenzene (s)	13.352	95	75167	55.65	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	111.30%
Target Compounds						
2) tertiary butyl alcohol	5.802	59	59487	480.68	ug/L	88
3) Ethanol	4.764	45	90408m	4238.50	ug/L	
5) dichlorodifluoromethane	3.613	85	54889	49.95	ug/L	98
6) chloromethane	3.831	50	74441	51.31	ug/L	99
7) vinyl chloride	4.041	62	65552	42.86	ug/L	95
8) bromomethane	4.478	96	27752	51.13	ug/L	93
9) chloroethane	4.626	64	31517	46.29	ug/L	97
10) ethyl ether	5.444	59	46338	42.92	ug/L	82
12) trichlorofluoromethane	5.210	101	61293	46.97	ug/L	99
13) freon-113	5.945	101	34384	50.63	ug/L	89
14) acrolein	5.202	56	59412	381.02	ug/L	99
15) 1,1-dichloroethene	5.756	96	33913	48.43	ug/L	95
16) acetone	5.332	58	13037	48.02	ug/L	# 65
17) Methyl Acetate	5.927	43	80107	44.80	ug/L	# 93
18) methylene chloride	5.901	84	40064	42.94	ug/L	83
19) methyl tert butyl ether	6.666	73	107560	37.46	ug/L	84
20) acrylonitrile	5.804	53	29947	43.96	ug/L	95
21) allyl chloride	5.986	41	72478	42.60	ug/L	90
22) trans-1,2-dichloroethene	6.555	96	37904	43.45	ug/L	98
23) iodomethane	5.802	142	32403	37.64	ug/L	80
24) carbon disulfide	6.140	76	110152	45.77	ug/L	99
25) propionitrile	6.818	54	10386	43.69	ug/L	100
26) vinyl acetate	6.905	43	94066	35.12	ug/L	99
27) chloroprene	7.163	53	92122	48.87	ug/L	96
28) di-isopropyl ether	7.231	45	194487	42.05	ug/L	97
29) methacrylonitrile	7.314	41	39071	40.80	ug/L	99
30) 2-butanone	7.218	72	7980	51.04	ug/L	# 46
31) Hexane	7.213	41	80218	45.82	ug/L	84
32) 1,1-dichloroethane	6.808	63	92960	43.49	ug/L	97
33) tert-butyl ethyl ether	7.616	59	128488	37.21	ug/L	93
34) isobutyl alcohol	7.610	43	14303	196.07	ug/L	# 8
35) 2,2-dichloropropane	7.647	77	55893	49.99	ug/L	91
36) cis-1,2-dichloroethene	7.375	96	42482	42.37	ug/L	95
37) ethyl acetate	7.516	43	27588	47.58	ug/L	90

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75124.D  
 Acq On : 1 Jul 2013 10:28 am  
 Operator : kerryr  
 Sample : bs  
 Misc : ms29242,msl3499,,,,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 01 15:08:00 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	7.523	128	20553	44.05	ug/L #	79
39) chloroform	7.565	83	74012	42.24	ug/L	96
41) Tetrahydrofuran	7.899	42	19585	43.01	ug/L	86
42) 1,1,1-trichloroethane	8.303	97	63722	47.73	ug/L	97
44) Cyclohexane	8.596	56	85923	45.69	ug/L #	88
45) carbon tetrachloride	8.657	117	54979	45.01	ug/L	97
46) 1,1-dichloropropene	8.484	75	54579	47.76	ug/L	91
47) benzene	8.676	78	166035	43.69	ug/L	98
48) 1,2-dichloroethane	8.199	62	73893	44.51	ug/L	98
49) tert-amyl methyl ether	8.844	73	91383	38.20	ug/L	93
50) heptane	9.213	43	67257	47.23	ug/L	93
51) trichloroethene	9.319	95	42852	44.56	ug/L	83
52) 1,2-dichloropropane	9.275	63	57212	44.48	ug/L	99
53) dibromomethane	9.245	93	27304	44.96	ug/L	86
54) bromodichloromethane	9.360	83	58962	45.22	ug/L	98
55) Methylcyclohexane	9.845	83	58161	48.50	ug/L	89
56) 2-chloroethyl vinyl ether	9.845	63	508	52.62	ug/L #	1
57) methyl methacrylate	9.478	69	31924	42.86	ug/L	86
58) 1,4-dioxane	9.477	88	2241	219.44	ug/L #	1
59) cis-1,3-dichloropropene	9.994	75	69207	42.98	ug/L	93
61) 4-methyl-2-pentanone	10.110	43	69963	44.25	ug/L	97
62) toluene	10.745	92	104371	41.12	ug/L	94
63) trans-1,3-dichloropropene	10.413	75	62234	43.77	ug/L	92
64) 1,1,2-trichloroethane	10.574	83	35988	44.20	ug/L	96
65) ethyl methacrylate	10.807	69	62182	44.12	ug/L #	50
67) tetrachloroethene	11.496	166	43277	54.81	ug/L	96
68) 1,3-dichloropropane	10.815	76	66103	47.88	ug/L	98
69) dibromochloromethane	11.080	129	47082	47.07	ug/L	97
70) 1,2-dibromoethane	11.328	107	44014	48.83	ug/L	97
71) 2-hexanone	10.969	43	65071	51.69	ug/L	100
72) chlorobenzene	12.166	112	114976	49.29	ug/L	88
73) 1,1,1,2-tetrachloroethane	12.096	131	42500	49.22	ug/L	96
74) ethylbenzene	12.344	91	199486	45.50	ug/L	97
75) m,p-xylene	12.528	106	150252	97.86	ug/L	86
76) o-xylene	12.936	106	74358	50.95	ug/L	90
77) styrene	12.861	104	123739	47.72	ug/L	85
78) bromoform	12.670	173	35301	46.10	ug/L	97
79) trans-1,4-dichloro-2-b...	13.107	53	19882	47.30	ug/L	94
81) isopropylbenzene	13.306	105	188095	53.85	ug/L	98
83) bromobenzene	13.575	156	52991	47.62	ug/L #	82
84) 1,1,2,2-tetrachloroethane	12.956	83	60288	50.92	ug/L	98
85) 1,2,3-trichloropropane	13.100	75	66218	48.08	ug/L	99
86) n-propylbenzene	13.752	91	216152	53.11	ug/L	98
87) 2-chlorotoluene	13.860	91	134957	50.49	ug/L	91
88) 4-chlorotoluene	13.940	91	141479	51.99	ug/L	91
89) 1,3,5-trimethylbenzene	14.025	105	161037	46.86	ug/L	95
90) tert-butylbenzene	14.430	91	17393	47.28	ug/L	98
91) 1,2,4-trimethylbenzene	14.431	105	162928	46.11	ug/L	95
92) sec-butylbenzene	14.557	105	190032	54.98	ug/L	95
93) 1,3-dichlorobenzene	14.647	146	88745	50.60	ug/L	96



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75124.D  
 Acq On : 1 Jul 2013 10:28 am  
 Operator : kerryr  
 Sample : bs  
 Misc : ms29242,msl3499,,,,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 01 15:08:00 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

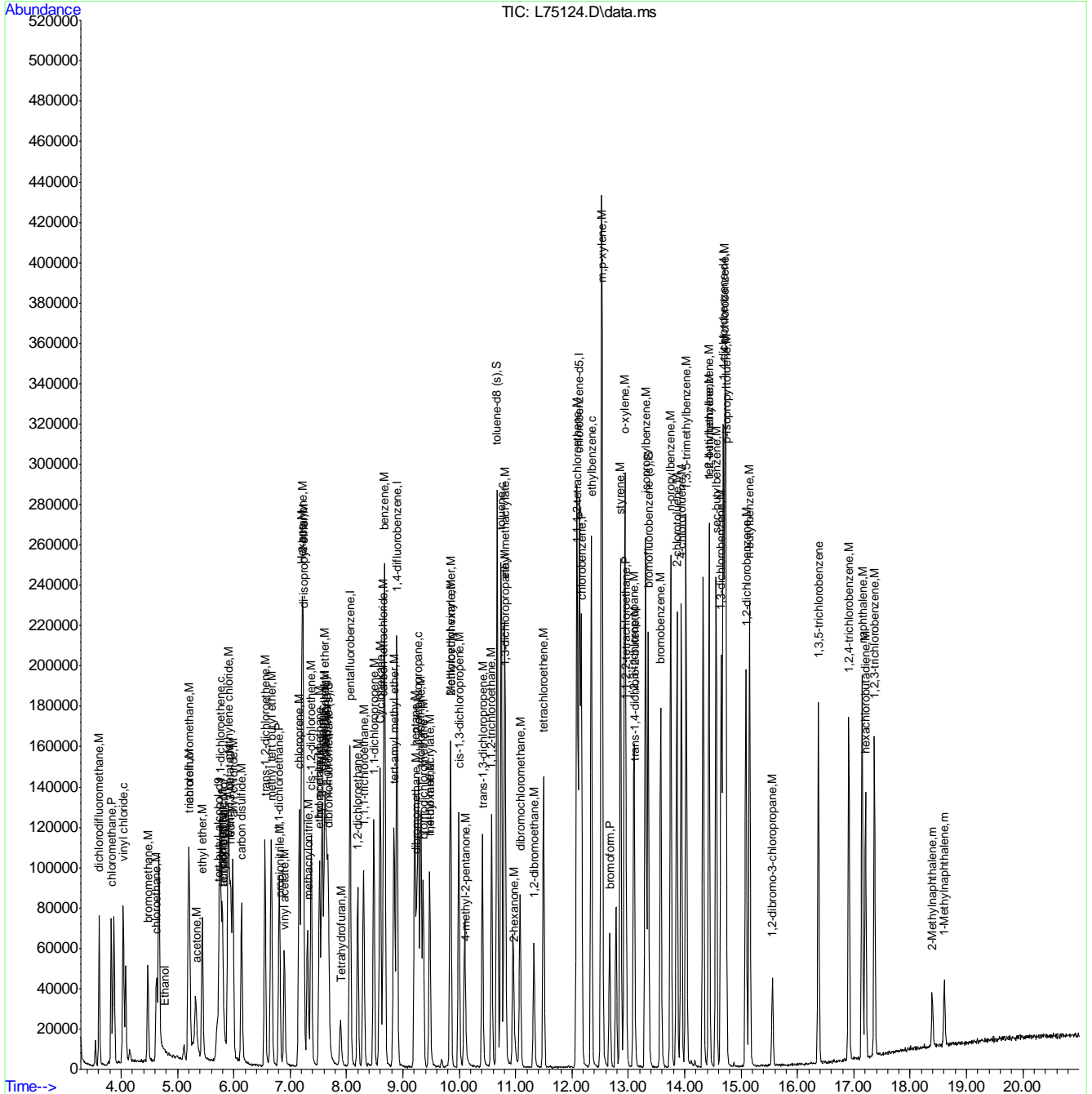
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	14.729	119	152710	52.53	ug/L	91
95) 1,4-dichlorobenzene	14.712	146	93078	46.78	ug/L	96
96) 1,2-dichlorobenzene	15.086	146	87852	49.95	ug/L	96
97) n-butylbenzene	15.151	91	143565	50.24	ug/L	94
98) 1,2-dibromo-3-chloropr...	15.556	75	11203	47.49	ug/L	72
99) 1,3,5-trichlorobenzene	16.373	180	62816	47.76	ug/L	95
100) 1,2,4-trichlorobenzene	16.912	180	58198	49.79	ug/L	100
101) hexachlorobutadiene	17.207	225	30062	51.64	ug/L	98
102) naphthalene	17.148	128	151935	46.59	ug/L	100
103) 1,2,3-trichlorobenzene	17.366	180	54058	49.66	ug/L	99
104) 2-Methylnaphthalene	18.394	142	14605	18.43	ug/L	96
105) 1-Methylnaphthalene	18.607	142	16788	20.19	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75124.D  
Acq On : 1 Jul 2013 10:28 am  
Operator : kerryr  
Sample : bs  
Misc : ms29242,msl3499,,,,5,1  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 01 15:08:00 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration



7.3.1  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75136.D  
 Acq On : 1 Jul 2013 4:17 pm  
 Operator : kerryr  
 Sample : mc22115-5ms  
 Misc : ms29264,msl3499,,,,5,1  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 02 08:10:06 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.731	65	45109	500.00	ug/L	0.00
4) pentafluorobenzene	8.064	168	121262	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.895	114	168042	50.00	ug/L	0.00
66) chlorobenzene-d5	12.130	82	90746	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.683	152	88062	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.676	113	50905	49.35	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.70%
60) toluene-d8 (s)	10.672	98	201459	54.11	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.22%
82) bromofluorobenzene (s)	13.352	95	78077	55.14	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	110.28%
Target Compounds						
2) tertiary butyl alcohol	5.800	59	76033	616.19	ug/L	94
3) Ethanol	4.751	45	113663	5344.46	ug/L	100
5) dichlorodifluoromethane	3.613	85	68023	59.76	ug/L	97
6) chloromethane	3.831	50	95631	63.59	ug/L	100
7) vinyl chloride	4.041	62	84788	53.48	ug/L	95
8) bromomethane	4.477	96	33502	59.55	ug/L	98
9) chloroethane	4.627	64	41114	58.25	ug/L	98
10) ethyl ether	5.443	59	59686	53.33	ug/L	83
12) trichlorofluoromethane	5.210	101	77964	57.84	ug/L	98
13) freon-113	5.944	101	43584	61.91	ug/L	89
14) acrolein	5.207	56	80848	506.11	ug/L	99
15) 1,1-dichloroethene	5.756	96	43161	59.47	ug/L	94
16) acetone	5.335	58	18369	65.27	ug/L #	56
17) Methyl Acetate	5.921	43	98434	53.10	ug/L	94
18) methylene chloride	5.900	84	51725	53.48	ug/L	82
19) methyl tert butyl ether	6.664	73	143879	47.67	ug/L	85
20) acrylonitrile	5.802	53	37809	53.54	ug/L	94
21) allyl chloride	5.989	41	97283	57.67	ug/L	89
22) trans-1,2-dichloroethene	6.555	96	47935	53.01	ug/L	91
23) iodomethane	5.798	142	42407	46.66	ug/L	85
24) carbon disulfide	6.140	76	142593	57.16	ug/L	99
25) propionitrile	6.815	54	13363	54.23	ug/L	100
26) vinyl acetate	6.903	43	112960	40.31	ug/L	98
27) chloroprene	7.162	53	118671	60.74	ug/L	95
28) di-isopropyl ether	7.230	45	251193	52.39	ug/L	94
29) methacrylonitrile	7.312	41	52192	52.57	ug/L	94
30) 2-butanone	7.215	72	10415	64.26	ug/L #	57
31) Hexane	7.213	41	101300	55.82	ug/L	88
32) 1,1-dichloroethane	6.807	63	121950	55.04	ug/L	98
33) tert-butyl ethyl ether	7.615	59	182166	49.21	ug/L	92
34) isobutyl alcohol	7.610	43	20054	259.56	ug/L #	6
35) 2,2-dichloropropane	7.647	77	70508	61.35	ug/L	89
36) cis-1,2-dichloroethene	7.374	96	54947	52.87	ug/L	92
37) ethyl acetate	7.513	43	35028	58.95	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75136.D  
 Acq On : 1 Jul 2013 4:17 pm  
 Operator : kerryr  
 Sample : mc22115-5ms  
 Misc : ms29264,msl3499,,,,5,1  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 02 08:10:06 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	7.523	128	26706	55.22	ug/L #	82
39) chloroform	7.565	83	96621	53.19	ug/L	94
41) Tetrahydrofuran	7.898	42	25167	54.02	ug/L	87
42) 1,1,1-trichloroethane	8.303	97	82826	59.85	ug/L	97
44) Cyclohexane	8.596	56	110426	56.95	ug/L	88
45) carbon tetrachloride	8.657	117	68393	54.46	ug/L	98
46) 1,1-dichloropropene	8.484	75	68936	58.51	ug/L	95
47) benzene	8.675	78	213770	54.56	ug/L	99
48) 1,2-dichloroethane	8.198	62	96742	56.52	ug/L	97
49) tert-amyl methyl ether	8.843	73	125187	49.34	ug/L	95
50) heptane	9.211	43	82412	56.12	ug/L	91
51) trichloroethene	9.318	95	55043	55.51	ug/L	83
52) 1,2-dichloropropane	9.274	63	73677	55.56	ug/L	99
53) dibromomethane	9.245	93	35475	56.65	ug/L	85
54) bromodichloromethane	9.360	83	75724	56.33	ug/L	99
55) Methylcyclohexane	9.845	83	73029	59.06	ug/L	87
56) 2-chloroethyl vinyl ether	9.844	63	638	61.22	ug/L #	1
57) methyl methacrylate	9.477	69	42012	54.70	ug/L	94
58) 1,4-dioxane	9.480	88	2987	269.27	ug/L	84
59) cis-1,3-dichloropropene	9.993	75	88721	53.51	ug/L	89
61) 4-methyl-2-pentanone	10.101	43	88817	54.48	ug/L	94
62) toluene	10.744	92	134415	51.36	ug/L	98
63) trans-1,3-dichloropropene	10.412	75	81316	54.83	ug/L	91
64) 1,1,2-trichloroethane	10.574	83	46217	55.00	ug/L	94
65) ethyl methacrylate	10.803	69	79534	54.74	ug/L #	59
67) tetrachloroethene	11.495	166	55419	67.43	ug/L	96
68) 1,3-dichloropropane	10.814	76	86046	59.88	ug/L	99
69) dibromochloromethane	11.079	129	60772	58.38	ug/L	100
70) 1,2-dibromoethane	11.326	107	57858	61.67	ug/L	97
71) 2-hexanone	10.967	43	83016	64.26	ug/L	97
72) chlorobenzene	12.165	112	149658	61.64	ug/L	87
73) 1,1,1,2-tetrachloroethane	12.095	131	53820	59.89	ug/L	97
74) ethylbenzene	12.343	91	252909	55.42	ug/L	97
75) m,p-xylene	12.527	106	191702	119.96	ug/L	85
76) o-xylene	12.935	106	95683	62.99	ug/L	83
77) styrene	12.861	104	157852	58.49	ug/L	84
78) bromoform	12.670	173	44175	55.56	ug/L	98
79) trans-1,4-dichloro-2-b...	13.107	53	25733	58.82	ug/L	95
81) isopropylbenzene	13.305	105	237723	64.92	ug/L	96
83) bromobenzene	13.575	156	68193	58.46	ug/L #	85
84) 1,1,2,2-tetrachloroethane	12.955	83	76672	62.11	ug/L	97
85) 1,2,3-trichloropropane	13.099	75	85709	59.36	ug/L	100
86) n-propylbenzene	13.751	91	272300	63.82	ug/L	95
87) 2-chlorotoluene	13.860	91	172423	61.53	ug/L	88
88) 4-chlorotoluene	13.939	91	182235	63.87	ug/L	91
89) 1,3,5-trimethylbenzene	14.025	105	200060	55.53	ug/L	96
90) tert-butylbenzene	14.430	91	22027	57.11	ug/L	93
91) 1,2,4-trimethylbenzene	14.430	105	204753	55.27	ug/L	95
92) sec-butylbenzene	14.556	105	240887	66.47	ug/L	96
93) 1,3-dichlorobenzene	14.647	146	114461	62.25	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75136.D  
 Acq On : 1 Jul 2013 4:17 pm  
 Operator : kerryr  
 Sample : mc22115-5ms  
 Misc : ms29264,msl3499,,,,,5,1  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 02 08:10:06 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

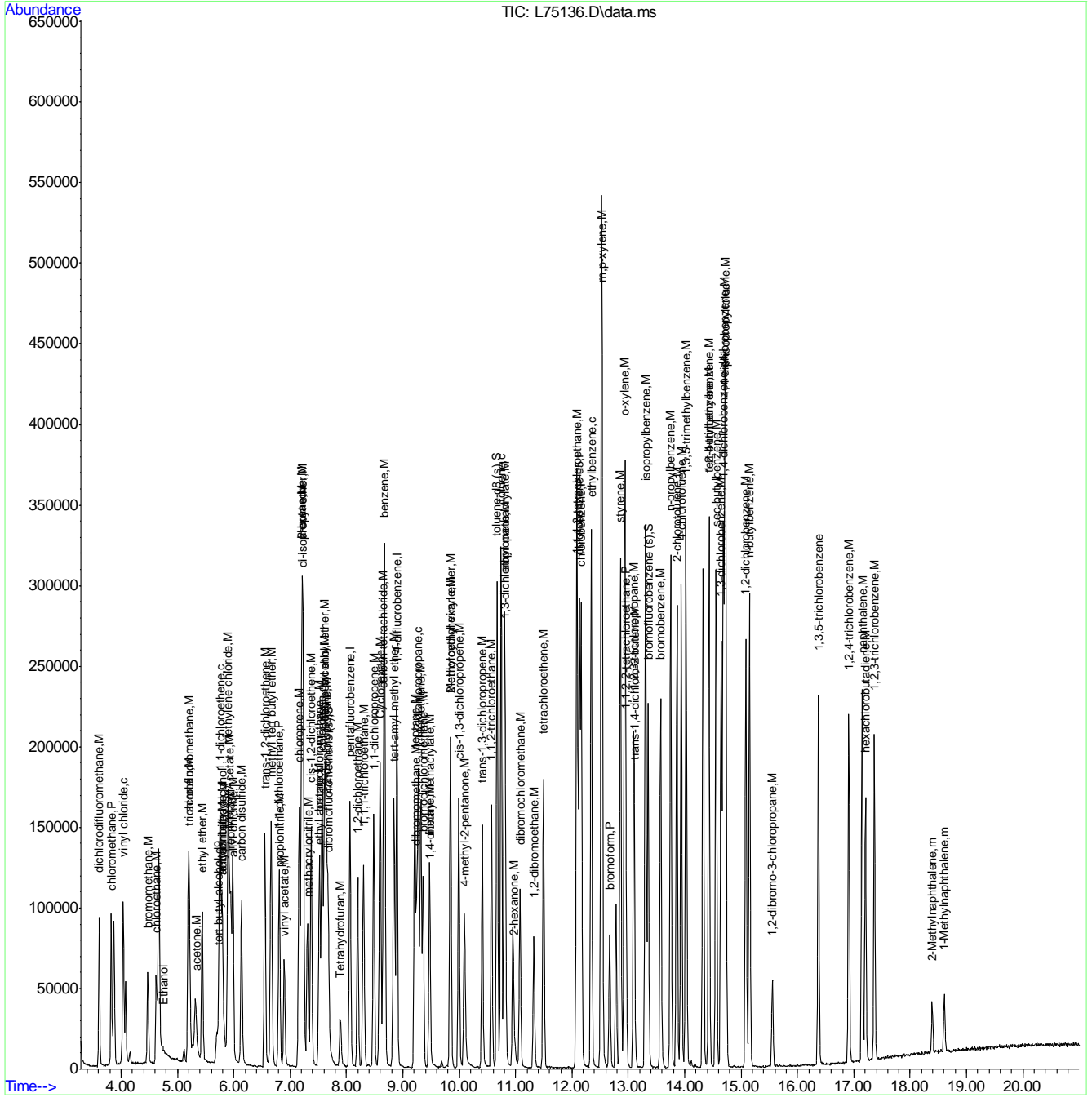
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	14.728	119	194670	63.87	ug/L	92
95) 1,4-dichlorobenzene	14.711	146	119315	57.20	ug/L	94
96) 1,2-dichlorobenzene	15.085	146	114839	62.28	ug/L	94
97) n-butylbenzene	15.150	91	182455	60.91	ug/L	92
98) 1,2-dibromo-3-chloropr...	15.556	75	14305	57.84	ug/L	75
99) 1,3,5-trichlorobenzene	16.372	180	80127	58.11	ug/L	99
100) 1,2,4-trichlorobenzene	16.912	180	72566	59.22	ug/L	100
101) hexachlorobutadiene	17.206	225	36448	59.72	ug/L	97
102) naphthalene	17.148	128	188959	54.65	ug/L	100
103) 1,2,3-trichlorobenzene	17.365	180	66950	58.67	ug/L	99
104) 2-Methylnaphthalene	18.393	142	16982	19.78	ug/L	99
105) 1-Methylnaphthalene	18.606	142	19294	21.58	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
Data File : L75136.D  
Acq On : 1 Jul 2013 4:17 pm  
Operator : kerryr  
Sample : mc22115-5ms  
Misc : ms29264,msl3499,,,,,5,1  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 02 08:10:06 2013  
Quant Method : C:\msdchem\1\methods\l130630w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 01 10:23:45 2013  
Response via : Initial Calibration



7.4.1  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75137.D  
 Acq On : 1 Jul 2013 4:46 pm  
 Operator : kerryr  
 Sample : mc22115-5msd  
 Misc : ms29264,msl3499,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 02 08:10:27 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.736	65	44341	500.00	ug/L	0.00
4) pentafluorobenzene	8.064	168	120496	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.895	114	168702	50.00	ug/L	0.00
66) chlorobenzene-d5	12.131	82	89768	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.684	152	86461	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.677	113	51676	50.42	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.84%
60) toluene-d8 (s)	10.673	98	201062	53.79	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	107.58%
82) bromofluorobenzene (s)	13.352	95	79316	57.05	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	114.10%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	5.803	59	51639	425.75	ug/L	90
3) Ethanol	4.762	45	80843	3867.09	ug/L #	42
5) dichlorodifluoromethane	3.613	85	47116	41.59	ug/L	100
6) chloromethane	3.831	50	68888	46.10	ug/L	95
7) vinyl chloride	4.041	62	58192	36.94	ug/L	92
8) bromomethane	4.478	96	25576	45.75	ug/L	98
9) chloroethane	4.627	64	28033	39.97	ug/L	96
10) ethyl ether	5.445	59	41457	37.28	ug/L	85
12) trichlorofluoromethane	5.210	101	53609	39.76	ug/L	99
13) freon-113	5.945	101	30376	43.42	ug/L	91
14) acrolein	5.209	56	55057	340.90	ug/L	99
15) 1,1-dichloroethene	5.756	96	30008	41.60	ug/L	94
16) acetone	5.331	58	11673	41.74	ug/L #	78
17) Methyl Acetate	5.925	43	68584	37.23	ug/L #	94
18) methylene chloride	5.901	84	36731	38.22	ug/L #	81
19) methyl tert butyl ether	6.667	73	91600	31.47	ug/L	81
20) acrylonitrile	5.809	53	24192	34.48	ug/L	88
21) allyl chloride	5.989	41	67726	37.86	ug/L	89
22) trans-1,2-dichloroethene	6.555	96	34420	38.31	ug/L	87
23) iodomethane	5.801	142	30212	34.42	ug/L	82
24) carbon disulfide	6.141	76	99629	40.19	ug/L	100
25) propionitrile	6.821	54	8994	36.73	ug/L	100
26) vinyl acetate	6.905	43	70558	26.21	ug/L	100
27) chloroprene	7.163	53	80954	41.70	ug/L	94
28) di-isopropyl ether	7.232	45	176587	37.07	ug/L	96
29) methacrylonitrile	7.314	41	34990	35.47	ug/L	94
30) 2-butanone	7.220	72	6962	43.23	ug/L #	47
31) Hexane	7.213	41	71532	39.66	ug/L	86
32) 1,1-dichloroethane	6.808	63	84574	38.42	ug/L	97
33) tert-butyl ethyl ether	7.616	59	109917	31.68	ug/L	94
34) isobutyl alcohol	7.610	43	12737	171.68	ug/L #	18
35) 2,2-dichloropropane	7.647	77	47085	40.68	ug/L	92
36) cis-1,2-dichloroethene	7.375	96	38402	37.18	ug/L	93
37) ethyl acetate	7.516	43	25001	41.51	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75137.D  
 Acq On : 1 Jul 2013 4:46 pm  
 Operator : kerryr  
 Sample : mc22115-5msd  
 Misc : ms29264,msl3499,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 02 08:10:27 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	7.524	128	18416	38.32	ug/L	92
39) chloroform	7.565	83	66883	37.05	ug/L	95
41) Tetrahydrofuran	7.899	42	17192	36.21	ug/L	89
42) 1,1,1-trichloroethane	8.303	97	56407	41.02	ug/L	94
44) Cyclohexane	8.596	56	76143	39.12	ug/L	88
45) carbon tetrachloride	8.657	117	47855	37.88	ug/L	99
46) 1,1-dichloropropene	8.484	75	48514	41.01	ug/L	91
47) benzene	8.676	78	149698	38.06	ug/L	99
48) 1,2-dichloroethane	8.200	62	66734	38.84	ug/L	93
49) tert-amyl methyl ether	8.845	73	78968	32.60	ug/L	96
50) heptane	9.212	43	58059	39.38	ug/L	92
51) trichloroethene	9.319	95	38905	39.08	ug/L	81
52) 1,2-dichloropropane	9.275	63	52052	39.10	ug/L	99
53) dibromomethane	9.246	93	25293	40.23	ug/L	87
54) bromodichloromethane	9.360	83	51784	38.37	ug/L	98
55) Methylcyclohexane	9.845	83	51369	41.38	ug/L	89
57) methyl methacrylate	9.478	69	29008	37.62	ug/L	90
58) 1,4-dioxane	9.475	88	1923	190.34	ug/L	78
59) cis-1,3-dichloropropene	9.994	75	60939	36.51	ug/L	91
61) 4-methyl-2-pentanone	10.111	43	62579	38.24	ug/L	97
62) toluene	10.745	92	93580	35.62	ug/L	98
63) trans-1,3-dichloropropene	10.413	75	54469	37.39	ug/L	88
64) 1,1,2-trichloroethane	10.574	83	32003	38.01	ug/L	96
65) ethyl methacrylate	10.807	69	55958	38.36	ug/L #	53
67) tetrachloroethene	11.496	166	38774	47.69	ug/L	96
68) 1,3-dichloropropane	10.815	76	59761	42.04	ug/L	98
69) dibromochloromethane	11.080	129	41683	40.48	ug/L	99
70) 1,2-dibromoethane	11.327	107	38970	41.99	ug/L	97
71) 2-hexanone	10.971	43	56740	43.33	ug/L	99
72) chlorobenzene	12.166	112	105934	44.10	ug/L	85
73) 1,1,1,2-tetrachloroethane	12.096	131	37577	42.27	ug/L	95
74) ethylbenzene	12.344	91	177870	39.40	ug/L	98
75) m,p-xylene	12.528	106	136710	86.48	ug/L	83
76) o-xylene	12.936	106	67480	44.91	ug/L #	80
77) styrene	12.862	104	111298	41.69	ug/L	80
78) bromoform	12.671	173	30363	38.41	ug/L	99
79) trans-1,4-dichloro-2-b...	13.108	53	17275	39.92	ug/L	94
81) isopropylbenzene	13.306	105	167403	46.56	ug/L	96
83) bromobenzene	13.576	156	47898	41.82	ug/L #	82
84) 1,1,2,2-tetrachloroethane	12.956	83	53175	43.40	ug/L	94
85) 1,2,3-trichloropropane	13.100	75	59077	41.67	ug/L	97
86) n-propylbenzene	13.752	91	196425	46.89	ug/L	98
87) 2-chlorotoluene	13.861	91	121637	44.21	ug/L	89
88) 4-chlorotoluene	13.940	91	130541	46.60	ug/L	91
89) 1,3,5-trimethylbenzene	14.026	105	142463	40.27	ug/L	93
90) tert-butylbenzene	14.431	91	16054	42.40	ug/L	88
91) 1,2,4-trimethylbenzene	14.431	105	145137	39.90	ug/L	97
92) sec-butylbenzene	14.557	105	171536	48.21	ug/L	98
93) 1,3-dichlorobenzene	14.647	146	79947	44.28	ug/L	97
94) p-isopropyltoluene	14.729	119	137551	45.97	ug/L	91



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75137.D  
 Acq On : 1 Jul 2013 4:46 pm  
 Operator : kerryr  
 Sample : mc22115-5msd  
 Misc : ms29264,msl3499,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 02 08:10:27 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

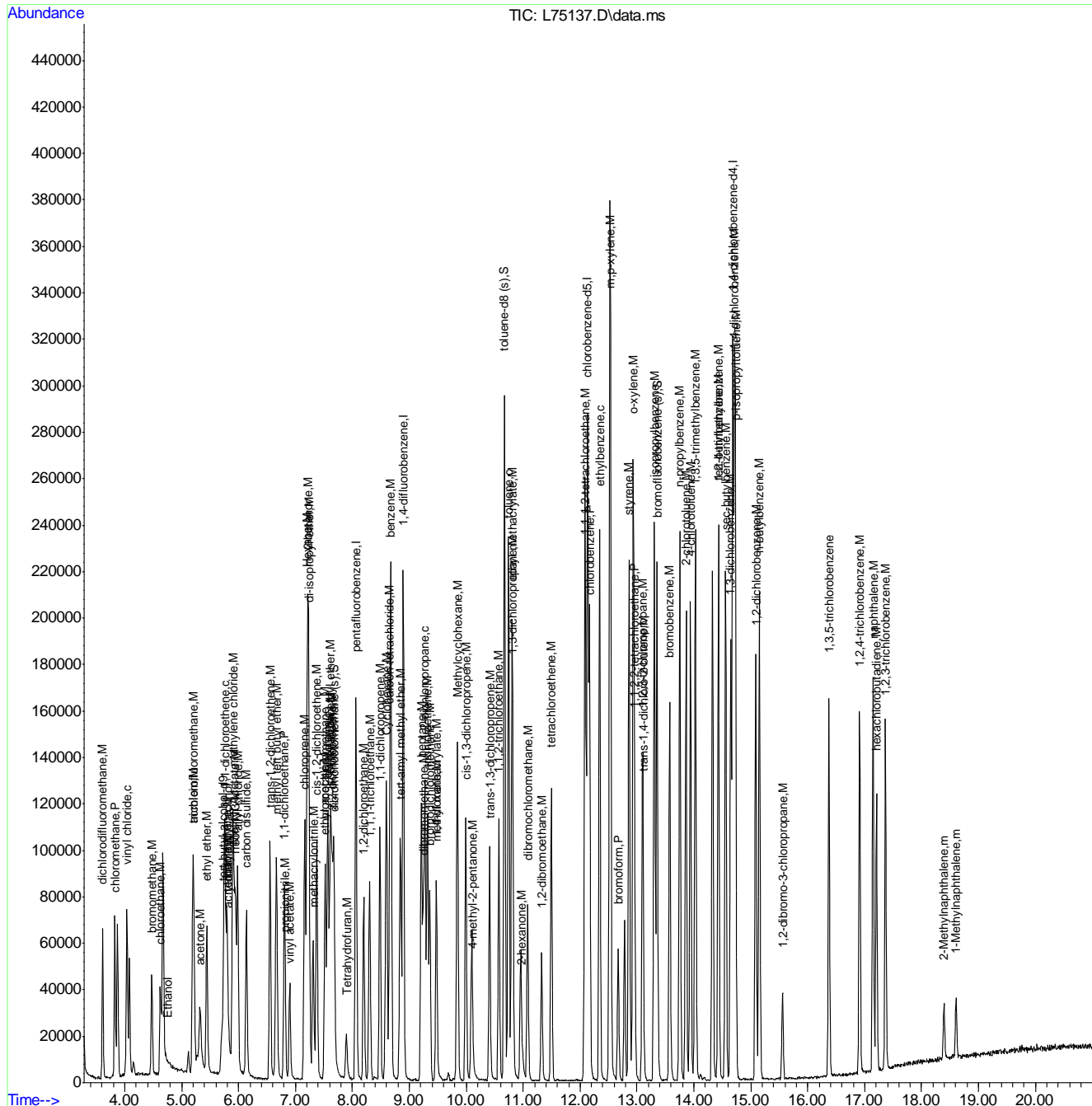
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) 1,4-dichlorobenzene	14.712	146	84652	41.33	ug/L	95
96) 1,2-dichlorobenzene	15.087	146	81133	44.81	ug/L	95
97) n-butylbenzene	15.151	91	131158	44.59	ug/L	91
98) 1,2-dibromo-3-chloropr...	15.556	75	9888	40.72	ug/L #	65
99) 1,3,5-trichlorobenzene	16.373	180	56286	41.58	ug/L	100
100) 1,2,4-trichlorobenzene	16.913	180	53425	44.40	ug/L	97
101) hexachlorobutadiene	17.207	225	27401	45.73	ug/L	99
102) naphthalene	17.148	128	137711	41.42	ug/L	100
103) 1,2,3-trichlorobenzene	17.366	180	49201	43.91	ug/L	99
104) 2-Methylnaphthalene	18.393	142	13666	17.31	ug/L	93
105) 1-Methylnaphthalene	18.607	142	14795	18.12	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\
Data File : L75137.D
Acq On : 1 Jul 2013 4:46 pm
Operator : kerryr
Sample : mc22115-5msd
Misc : ms29264,msl3499,,,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 02 08:10:27 2013
Quant Method : C:\msdchem\1\methods\l130630w.m
Quant Title : SW-846 Method 8260
QLast Update : Mon Jul 01 10:23:45 2013
Response via : Initial Calibration

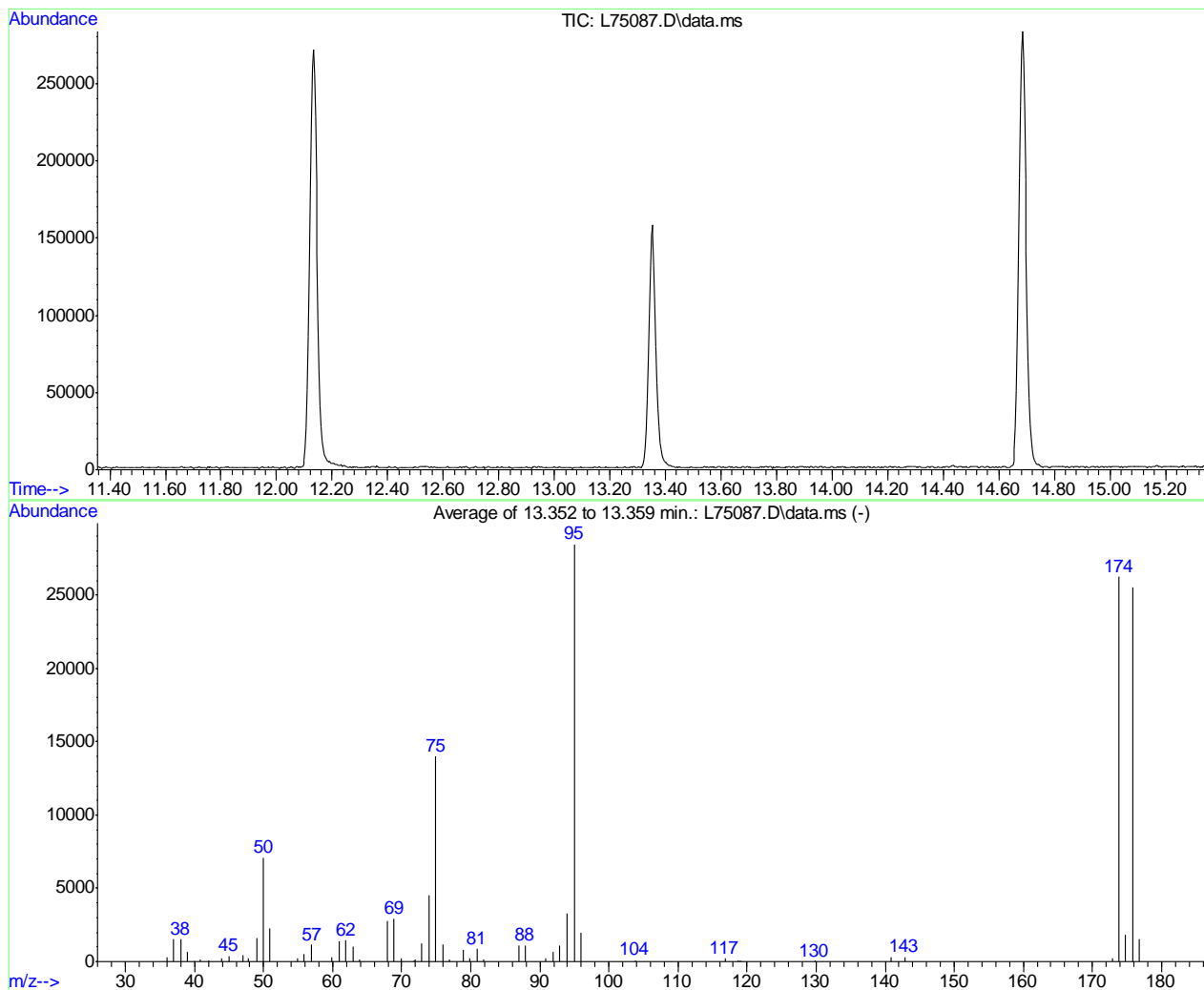


7.4.2 7

SW-846 Method 8260

Data File : C:\msdchem\1\data\L130630\L75087.D Vial: 7  
 Acq On : 30 Jun 2013 12:15 pm Operator: amym  
 Sample : bfb Inst : MSL  
 Misc : ms29242,msl3498,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\l130630w.m (RTE Integrator)  
 Title : SW-846 Method 8260



Spectrum Information: Average of 13.352 to 13.359 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.9	7105	PASS
75	95	30	60	49.2	14005	PASS
95	95	100	100	100.0	28485	PASS
96	95	5	9	6.9	1970	PASS
173	174	0.00	2	0.8	220	PASS
174	95	50	150	92.2	26251	PASS
175	174	5	9	6.9	1800	PASS
176	174	95	101	97.2	25515	PASS
177	176	5	9	6.0	1534	PASS

L75087.D L130630w.m Mon Jul 01 08:19:50 2013

Average of 13.352 to 13.359 min.: L75087.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	280	49.00	1626	67.90	2801	79.80	219
37.00	1507	50.00	7105	68.90	2934	80.85	854
37.95	1524	50.95	2286	69.90	194	81.80	175
38.95	685	54.95	242	71.80	74	86.90	1113
39.90	26	55.90	539	72.00	114	87.85	1118
40.85	116	56.95	1139	72.90	1275	90.85	252
42.00	104	59.90	290	73.95	4508	91.90	695
43.90	218	60.90	1409	74.95	14005	92.90	1079
44.95	378	61.90	1455	75.95	1157	93.95	3262
46.95	412	62.95	1001	76.85	158	94.95	28485
47.85	247	63.90	121	78.85	812	95.95	1970

Average of 13.352 to 13.359 min.: L75087.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
103.80	107	176.85	1534				
116.85	189						
118.70	56						
119.00	52						
129.80	56						
140.80	290						
142.80	295						
172.95	220						
173.90	26251						
174.80	1800						
175.85	25515						

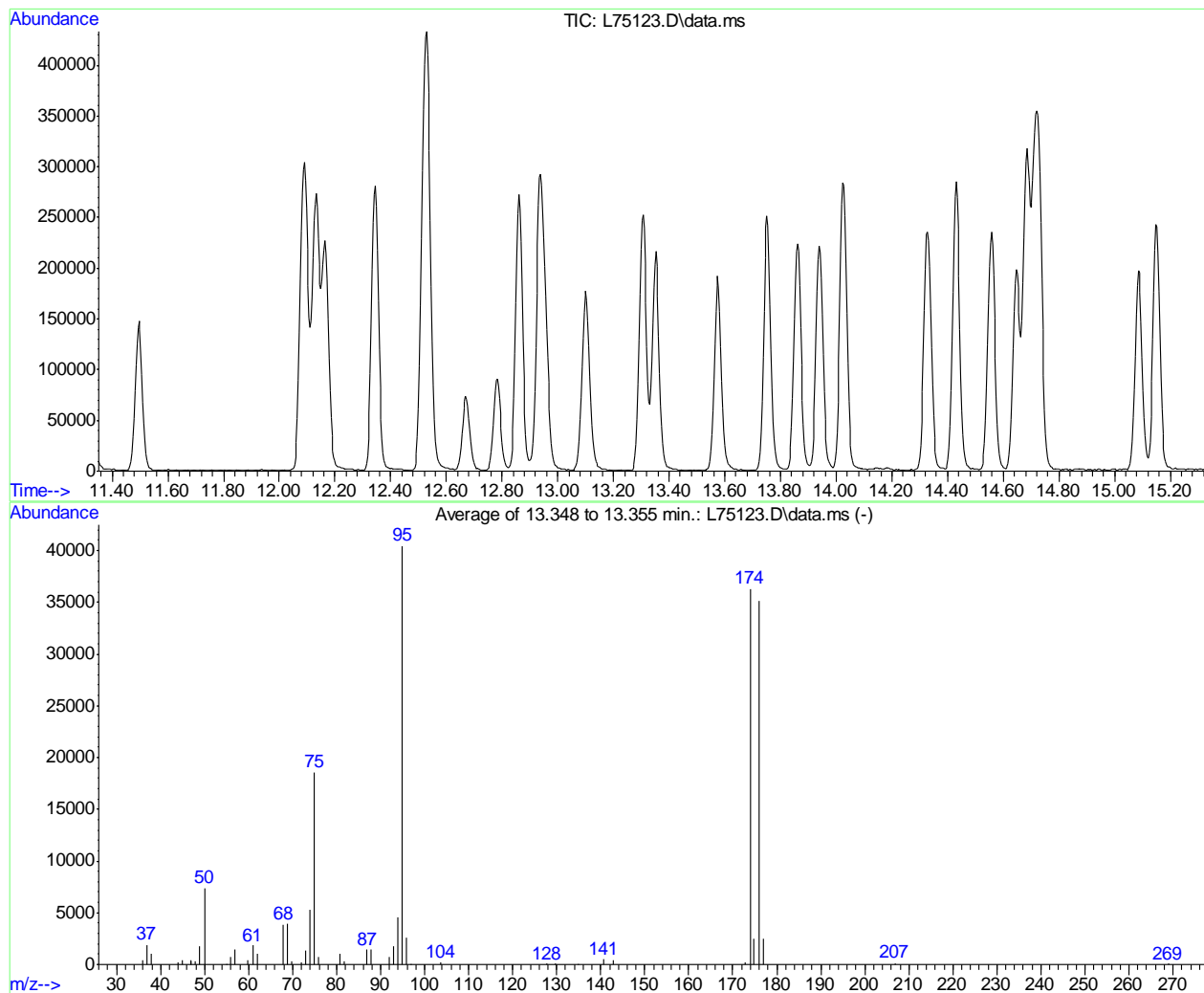
7.5.1

7

SW-846 Method 8260

Data File : C:\msdchem\1\data\L130701\L75123.D Vial: 3  
 Acq On : 1 Jul 2013 9:59 am Operator: kerryr  
 Sample : BFB Inst : MSL  
 Misc : ms29242,ms13499,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\l130630w.m (RTE Integrator)  
 Title : SW-846 Method 8260



Spectrum Information: Average of 13.348 to 13.355 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.2	7367	PASS
75	95	30	60	45.9	18553	PASS
95	95	100	100	100.0	40461	PASS
96	95	5	9	6.5	2633	PASS
173	174	0.00	2	0.7	259	PASS
174	95	50	150	89.8	36317	PASS
175	174	5	9	6.9	2511	PASS
176	174	95	101	96.7	35112	PASS
177	176	5	9	7.1	2484	PASS

L75123.D 1130630w.m Mon Jul 01 15:07:16 2013

Average of 13.348 to 13.355 min.: L75123.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	428	55.90	764	74.95	18553	96.90	52
36.90	1882	56.95	1468	75.90	781	103.75	181
37.95	1064	59.85	441	80.80	1011	127.80	66
43.90	190	60.90	1856	81.75	282	129.70	60
44.90	417	61.90	1005	86.90	1423	134.70	53
46.80	265	67.95	3873	87.90	1410	140.75	478
46.95	415	68.90	3890	91.90	731	142.75	396
47.85	267	69.90	306	92.90	1723	172.75	259
48.90	1780	71.95	242	93.95	4558	173.90	36317
50.00	7367	72.90	1384	94.95	40461	174.85	2511
55.00	2	73.90	5323	95.95	2633	175.85	35112

Average of 13.348 to 13.355 min.: L75123.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.85	2484						
206.80	125						
269.00	63						

7.5.2

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75090.D  
 Acq On : 30 Jun 2013 1:44 pm  
 Operator : amym  
 Sample : ic3498-0.5  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 07:48:30 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 07:46:15 2013  
 Response via : Initial Calibration

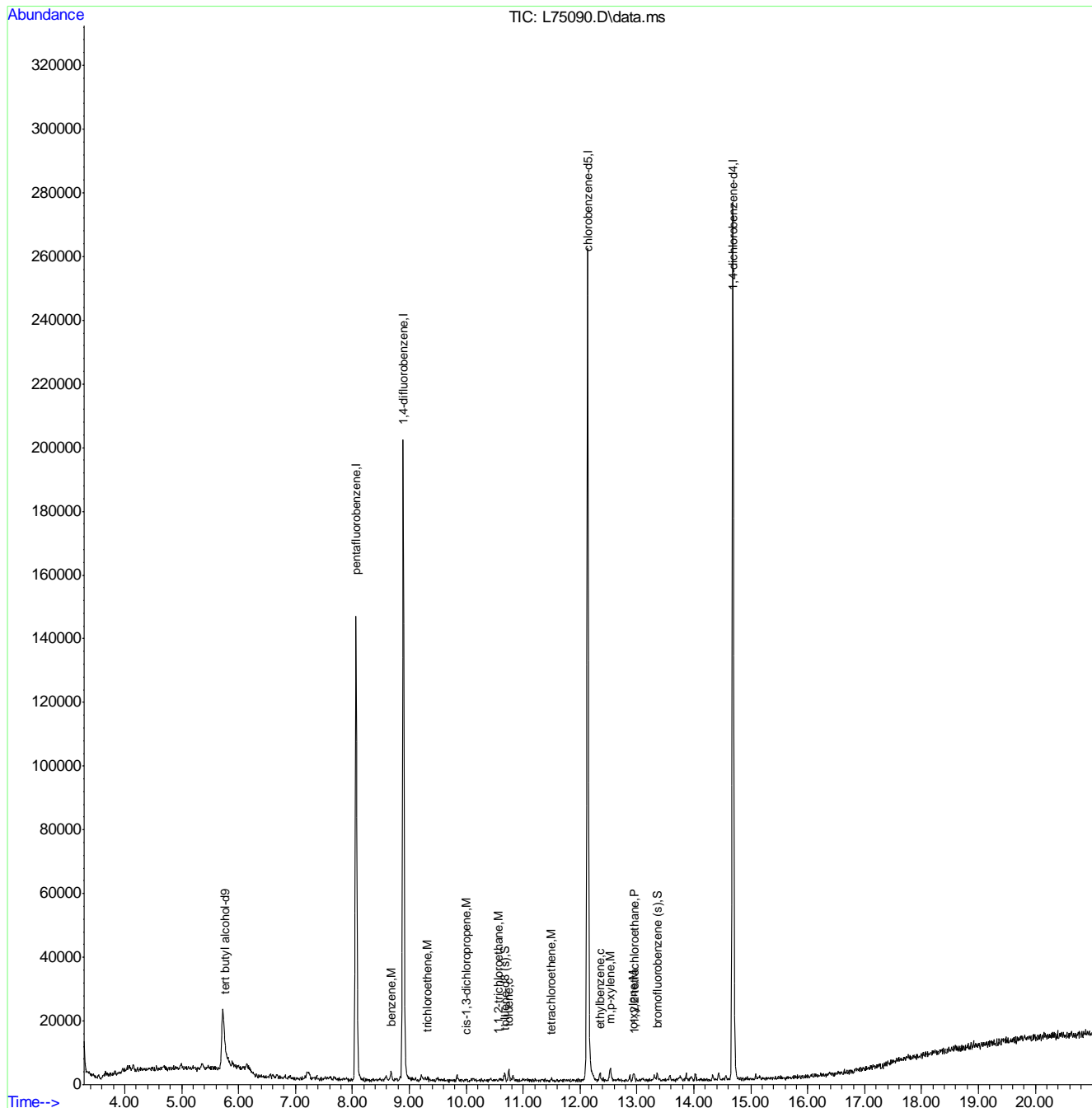
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	5.757	65	44621	500.00	ug/L	0.02	
4) pentafluorobenzene	8.067	168	111168	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	8.898	114	158202	50.00	ug/L	0.00	
66) chlorobenzene-d5	12.135	82	86193	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	14.686	152	81200	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)	10.676	98	2038	0.57	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	1.14%#	
82) bromofluorobenzene (s)	13.355	95	974	0.75	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	1.50%#	
Target Compounds							
							Qvalue
47) benzene	8.678	78	1723	0.48	ug/L		63
51) trichloroethene	9.318	95	273m	0.30	ug/L		
59) cis-1,3-dichloropropene	9.997	75	212m	0.14	ug/L		
62) toluene	10.748	92	1490	0.68	ug/L		88
64) 1,1,2-trichloroethane	10.573	83	173m	0.22	ug/L		
67) tetrachloroethene	11.496	166	257m	0.30	ug/L		
74) ethylbenzene	12.347	91	2383	0.58	ug/L		86
75) m,p-xylene	12.531	106	1411	0.94	ug/L		89
76) o-xylene	12.939	106	601	0.41	ug/L		84
84) 1,1,2,2-tetrachloroethane	12.959	83	383m	0.32	ug/L		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75090.D  
 Acq On : 30 Jun 2013 1:44 pm  
 Operator : amym  
 Sample : ic3498-0.5  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 01 07:48:30 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 07:46:15 2013  
 Response via : Initial Calibration



7.6.1  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75092.D  
 Acq On : 30 Jun 2013 2:42 pm  
 Operator : amym  
 Sample : ic3498-1  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 01 07:52:55 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 07:46:15 2013  
 Response via : Initial Calibration

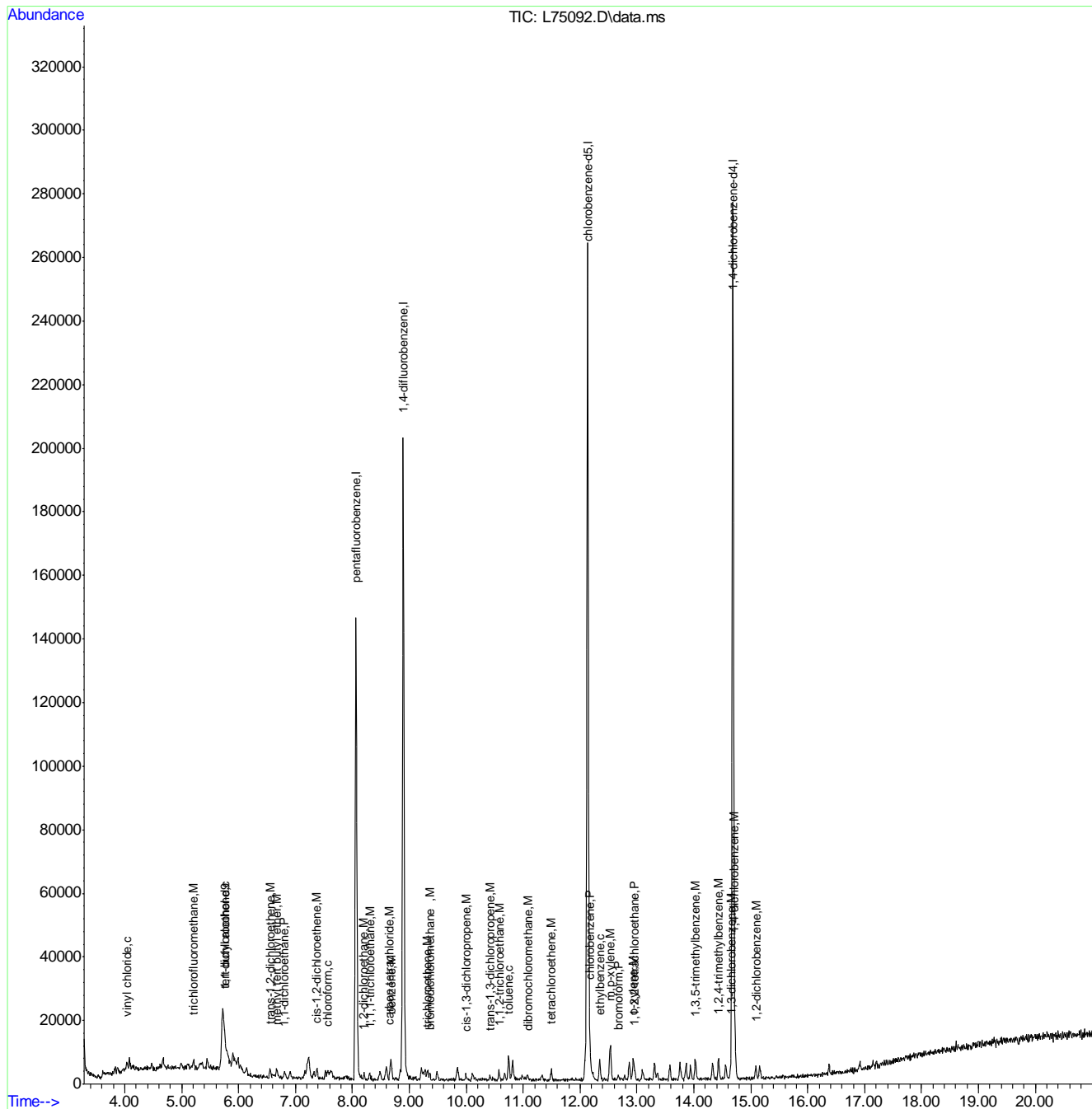
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	5.757	65	44420	500.00	ug/L	0.02	
4) pentafluorobenzene	8.066	168	110219	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	8.898	114	158258	50.00	ug/L	0.00	
66) chlorobenzene-d5	12.134	82	87020	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	14.685	152	81633	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	4.040	62	1849	1.27	ug/L		96
12) trichlorofluoromethane	5.210	101	1376	1.12	ug/L		88
15) 1,1-dichloroethene	5.757	96	1074	1.63	ug/L	#	71
19) methyl tert butyl ether	6.672	73	2281	0.91	ug/L		39
22) trans-1,2-dichloroethene	6.556	96	1069	1.35	ug/L	#	79
32) 1,1-dichloroethane	6.807	63	2544	1.32	ug/L		83
36) cis-1,2-dichloroethene	7.376	96	1053	1.12	ug/L		93
39) chloroform	7.565	83	2124	1.34	ug/L		84
42) 1,1,1-trichloroethane	8.305	97	1389	1.05	ug/L		93
45) carbon tetrachloride	8.658	117	1007	0.91	ug/L		69
47) benzene	8.678	78	4789	1.34	ug/L		94
48) 1,2-dichloroethane	8.203	62	1922	1.21	ug/L		85
51) trichloroethene	9.321	95	1149	1.26	ug/L		70
54) bromodichloromethane	9.362	83	1545	1.22	ug/L		80
59) cis-1,3-dichloropropene	9.997	75	1184	0.77	ug/L		57
62) toluene	10.748	92	3446	1.56	ug/L		85
63) trans-1,3-dichloropropene	10.418	75	822	0.63	ug/L		62
64) 1,1,2-trichloroethane	10.576	83	895	1.14	ug/L		88
67) tetrachloroethene	11.496	166	819	0.95	ug/L		93
69) dibromochloromethane	11.079	129	1246	1.24	ug/L		86
72) chlorobenzene	12.167	112	2943	1.28	ug/L		87
74) ethylbenzene	12.348	91	5813	1.39	ug/L		87
75) m,p-xylene	12.530	106	3880	2.56	ug/L		97
76) o-xylene	12.937	106	1834	1.25	ug/L		96
78) bromoform	12.670	173	439m	0.58	ug/L		
84) 1,1,2,2-tetrachloroethane	12.957	83	1511	1.27	ug/L		80
89) 1,3,5-trimethylbenzene	14.028	105	4481	1.39	ug/L		94
91) 1,2,4-trimethylbenzene	14.434	105	4614	1.41	ug/L		91
93) 1,3-dichlorobenzene	14.649	146	1954	1.19	ug/L		96
95) 1,4-dichlorobenzene	14.713	146	2414	1.30	ug/L		92
96) 1,2-dichlorobenzene	15.089	146	2006	1.21	ug/L		94

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

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75092.D  
 Acq On : 30 Jun 2013 2:42 pm  
 Operator : amym  
 Sample : ic3498-1  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 01 07:52:55 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 07:46:15 2013  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75093.D  
 Acq On : 30 Jun 2013 3:11 pm  
 Operator : amym  
 Sample : ic3498-2  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 01 07:58:35 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 07:53:39 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.759	65	47776	500.00	ug/L	0.02
4) pentafluorobenzene	8.066	168	110883	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.898	114	157922	50.00	ug/L	0.00
66) chlorobenzene-d5	12.134	82	85792	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.685	152	81402	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
5) dichlorodifluoromethane	3.612	85	1467	1.39	ug/L	89
6) chloromethane	3.828	50	2578	1.96	ug/L	98
7) vinyl chloride	4.040	62	2351	1.41	ug/L	56
8) bromomethane	4.478	96	1008	2.05	ug/L	72
9) chloroethane	4.628	64	1457	2.38	ug/L	76
12) trichlorofluoromethane	5.208	101	1588	1.21	ug/L	86
15) 1,1-dichloroethene	5.755	96	1262	1.28	ug/L	92
18) methylene chloride	5.902	84	1973	2.25	ug/L #	74
19) methyl tert butyl ether	6.673	73	3605	1.52	ug/L	84
22) trans-1,2-dichloroethene	6.556	96	1421	1.44	ug/L	96
28) di-isopropyl ether	7.236	45	9314	2.11	ug/L	95
32) 1,1-dichloroethane	6.808	63	3829	1.70	ug/L	85
33) tert-butyl ethyl ether	7.621	59	2990	0.98	ug/L	76
36) cis-1,2-dichloroethene	7.377	96	1894	1.89	ug/L	92
39) chloroform	7.565	83	3209	1.72	ug/L	84
42) 1,1,1-trichloroethane	8.304	97	2018	1.48	ug/L	91
45) carbon tetrachloride	8.656	117	1317	1.25	ug/L	82
47) benzene	8.678	78	6975	1.80	ug/L	98
48) 1,2-dichloroethane	8.203	62	3200	1.83	ug/L	85
49) tert-amyl methyl ether	8.848	73	3385	1.60	ug/L	89
51) trichloroethene	9.320	95	1619	1.75	ug/L	74
52) 1,2-dichloropropane	9.277	63	2487	2.03	ug/L	93
53) dibromomethane	9.248	93	1251	2.09	ug/L	97
54) bromodichloromethane	9.361	83	2437	1.74	ug/L	95
59) cis-1,3-dichloropropene	9.996	75	1960	1.56	ug/L	75
62) toluene	10.748	92	4800	1.67	ug/L	99
63) trans-1,3-dichloropropene	10.416	75	1607	1.65	ug/L	96
64) 1,1,2-trichloroethane	10.576	83	1677	2.48	ug/L	95
67) tetrachloroethene	11.496	166	1374	1.74	ug/L	86
69) dibromochloromethane	11.081	129	1838	1.66	ug/L	94
70) 1,2-dibromoethane	11.329	107	1719	1.85	ug/L	91
72) chlorobenzene	12.167	112	4756	1.82	ug/L	88
73) 1,1,1,2-tetrachloroethane	12.097	131	1699	1.95	ug/L #	78
74) ethylbenzene	12.350	91	9023	1.86	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75093.D  
 Acq On : 30 Jun 2013 3:11 pm  
 Operator : amym  
 Sample : ic3498-2  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 01 07:58:35 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 07:53:39 2013  
 Response via : Initial Calibration

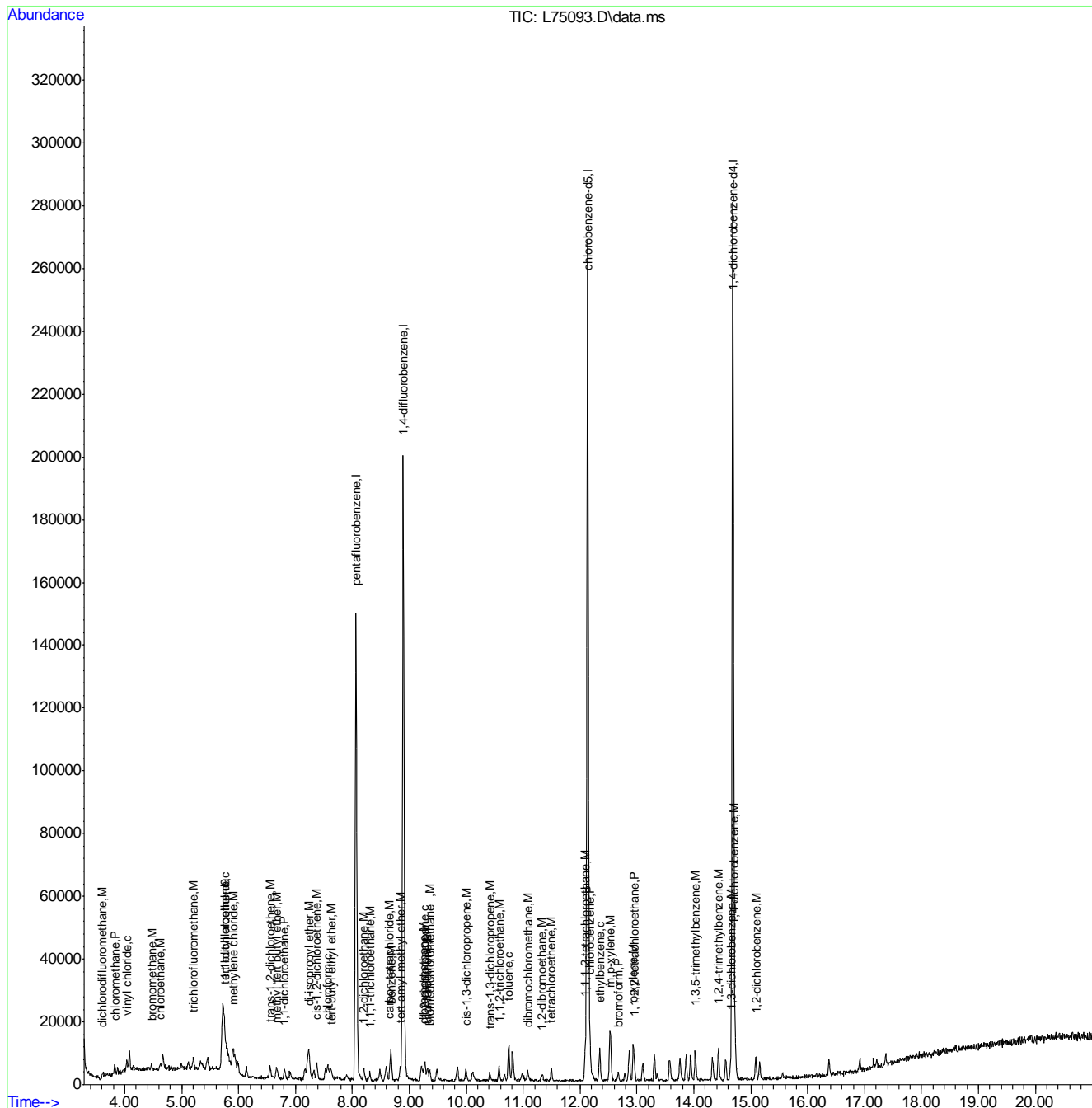
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
75) m,p-xylene	12.531	106	6157	3.84	ug/L	89
76) o-xylene	12.937	106	2811	1.90	ug/L #	75
78) bromoform	12.671	173	1146	1.94	ug/L	97
84) 1,1,2,2-tetrachloroethane	12.957	83	2538	2.20	ug/L	95
89) 1,3,5-trimethylbenzene	14.028	105	6275	1.57	ug/L	87
91) 1,2,4-trimethylbenzene	14.433	105	6681	1.64	ug/L	92
93) 1,3-dichlorobenzene	14.650	146	3514	1.96	ug/L	95
95) 1,4-dichlorobenzene	14.711	146	3781	1.75	ug/L	86
96) 1,2-dichlorobenzene	15.088	146	3306	1.81	ug/L	92

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75093.D  
 Acq On : 30 Jun 2013 3:11 pm  
 Operator : amym  
 Sample : ic3498-2  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 01 07:58:35 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 07:53:39 2013  
 Response via : Initial Calibration



7.6.3  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75094.D  
 Acq On : 30 Jun 2013 3:39 pm  
 Operator : amym  
 Sample : ic3498-5  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 01 08:03:39 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:02:33 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.754	65	48075	500.00	ug/L	0.02
4) pentafluorobenzene	8.066	168	111799	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.897	114	159393	50.00	ug/L	0.00
66) chlorobenzene-d5	12.134	82	85964	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.685	152	83429	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.677	113	3388	3.54	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	7.08%#
60) toluene-d8 (s)	10.676	98	12706	3.36	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	6.72%#
82) bromofluorobenzene (s)	13.353	95	5010	3.24	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	6.48%#
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	5.815	59	7114	53.74	ug/L	94
3) Ethanol	4.708	45	11000	478.22	ug/L #	42
5) dichlorodifluoromethane	3.613	85	4034	4.10	ug/L	98
6) chloromethane	3.831	50	6895	5.10	ug/L	92
7) vinyl chloride	4.041	62	6804	4.57	ug/L	94
8) bromomethane	4.476	96	2453	4.82	ug/L	94
9) chloroethane	4.628	64	3531	5.27	ug/L	96
10) ethyl ether	5.452	59	5278	5.06	ug/L	75
11) acetonitrile	5.116	41	3601	7.94	ug/L	86
12) trichlorofluoromethane	5.209	101	4783	4.04	ug/L	90
13) freon-113	5.944	101	2334	3.61	ug/L	82
14) acrolein	5.219	56	5877	34.06	ug/L	93
15) 1,1-dichloroethene	5.756	96	3205	4.40	ug/L #	83
16) acetone	5.335	58	1432	5.25	ug/L #	52
17) Methyl Acetate	5.931	43	9930	5.53	ug/L #	95
18) methylene chloride	5.900	84	4363	4.87	ug/L #	79
19) methyl tert butyl ether	6.671	73	9362	4.33	ug/L	68
20) acrylonitrile	5.811	53	3864	5.72	ug/L	78
21) allyl chloride	6.043	41	13164	7.17	ug/L #	43
22) trans-1,2-dichloroethene	6.555	96	3923	4.68	ug/L	96
23) iodomethane	5.793	142	2279	3.36	ug/L	84
24) carbon disulfide	6.140	76	10436	4.52	ug/L	99
25) propionitrile	6.818	54	965	4.28	ug/L	100
26) vinyl acetate	6.913	43	9133	4.14	ug/L	91
27) chloroprene	7.165	53	7972	4.38	ug/L	95
28) di-isopropyl ether	7.236	45	23087	5.11	ug/L	97
29) methacrylonitrile	7.320	41	5037	5.39	ug/L	95
30) 2-butanone	7.224	72	572	3.78	ug/L #	1
31) Hexane	7.218	41	8362	4.84	ug/L #	95
32) 1,1-dichloroethane	6.807	63	10301	4.97	ug/L	98
33) tert-butyl ethyl ether	7.619	59	8602	3.73	ug/L	87
34) isobutyl alcohol	7.619	43	2290	41.40	ug/L #	21
35) 2,2-dichloropropane	7.648	77	2511	2.80	ug/L	93
36) cis-1,2-dichloroethene	7.375	96	4879	5.06	ug/L	89

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75094.D  
 Acq On : 30 Jun 2013 3:39 pm  
 Operator : amym  
 Sample : ic3498-5  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 01 08:03:39 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:02:33 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.531	43	4812	7.61	ug/L	96
38) bromochloromethane	7.524	128	2213	4.98	ug/L	97
39) chloroform	7.565	83	8595	5.05	ug/L	94
41) Tetrahydrofuran	7.906	42	3106	6.28	ug/L	68
42) 1,1,1-trichloroethane	8.303	97	5954	4.62	ug/L	96
44) Cyclohexane	8.596	56	6725	3.71	ug/L #	85
45) carbon tetrachloride	8.657	117	4449	4.43	ug/L	88
46) 1,1-dichloropropene	8.485	75	4974	4.50	ug/L	93
47) benzene	8.678	78	18228	4.87	ug/L	97
48) 1,2-dichloroethane	8.202	62	7645	4.65	ug/L	95
49) tert-amyl methyl ether	8.855	73	10533	5.26	ug/L	77
50) heptane	9.209	43	6496	4.64	ug/L	94
51) trichloroethene	9.320	95	4378	4.90	ug/L	69
52) 1,2-dichloropropane	9.277	63	6451	5.12	ug/L	93
53) dibromomethane	9.247	93	3094	5.08	ug/L	91
54) bromodichloromethane	9.361	83	6151	4.74	ug/L	93
55) Methylcyclohexane	9.845	83	4287	3.75	ug/L	93
57) methyl methacrylate	9.484	69	3703	5.12	ug/L	94
59) cis-1,3-dichloropropene	9.996	75	5931	4.86	ug/L	90
61) 4-methyl-2-pentanone	10.125	43	9169	5.80	ug/L #	87
62) toluene	10.747	92	11667	4.60	ug/L	94
63) trans-1,3-dichloropropene	10.415	75	4607	4.89	ug/L	70
64) 1,1,2-trichloroethane	10.576	83	3983	5.27	ug/L	95
65) ethyl methacrylate	10.814	69	6773	4.91	ug/L #	22
67) tetrachloroethene	11.496	166	3626	4.68	ug/L	91
68) 1,3-dichloropropane	10.817	76	7262	5.14	ug/L	99
69) dibromochloromethane	11.080	129	4726	4.73	ug/L	96
70) 1,2-dibromoethane	11.329	107	4384	4.87	ug/L	97
71) 2-hexanone	10.995	43	8198	5.12	ug/L	95
72) chlorobenzene	12.166	112	11385	4.79	ug/L	85
73) 1,1,1,2-tetrachloroethane	12.095	131	4422	5.10	ug/L	88
74) ethylbenzene	12.348	91	21329	4.75	ug/L	94
75) m,p-xylene	12.529	106	14994	9.65	ug/L	91
76) o-xylene	12.936	106	7497	5.09	ug/L #	79
77) styrene	12.865	104	12985	4.98	ug/L	83
78) bromoform	12.671	173	3604	5.41	ug/L	93
79) trans-1,4-dichloro-2-b...	13.111	53	1872	4.58	ug/L	80
81) isopropylbenzene	13.307	105	17050	4.88	ug/L	92
83) bromobenzene	13.577	156	5770	5.22	ug/L #	62
84) 1,1,2,2-tetrachloroethane	12.956	83	6284	5.18	ug/L	92
85) 1,2,3-trichloropropane	13.101	75	6722	4.96	ug/L	93
86) n-propylbenzene	13.754	91	19392	4.77	ug/L	92
87) 2-chlorotoluene	13.861	91	14536	5.40	ug/L	95
88) 4-chlorotoluene	13.943	91	14625	5.34	ug/L	86
89) 1,3,5-trimethylbenzene	14.026	105	16503	4.76	ug/L	97
90) tert-butylbenzene	14.432	91	2054	5.43	ug/L	99
91) 1,2,4-trimethylbenzene	14.432	105	17143	4.80	ug/L	98
92) sec-butylbenzene	14.558	105	15141	4.44	ug/L	97
93) 1,3-dichlorobenzene	14.648	146	8396	4.81	ug/L	94
94) p-isopropyltoluene	14.730	119	13111	4.55	ug/L	92

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75094.D  
 Acq On : 30 Jun 2013 3:39 pm  
 Operator : amym  
 Sample : ic3498-5  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 01 08:03:39 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:02:33 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) 1,4-dichlorobenzene	14.711	146	9875	4.96	ug/L	94
96) 1,2-dichlorobenzene	15.087	146	8374	4.80	ug/L	90
97) n-butylbenzene	15.155	91	12816	4.57	ug/L	99
98) 1,2-dibromo-3-chloropr...	15.558	75	1192	5.14	ug/L #	62
99) 1,3,5-trichlorobenzene	16.374	180	6222	4.88	ug/L	98
100) 1,2,4-trichlorobenzene	16.914	180	4789	4.38	ug/L	96
101) hexachlorobutadiene	17.208	225	2305	4.19	ug/L	94
102) naphthalene	17.150	128	9470	3.51	ug/L	100
103) 1,2,3-trichlorobenzene	17.368	180	4355	4.27	ug/L	97
104) 2-Methylnaphthalene	18.395	142	1384	2.19	ug/L	96
105) 1-Methylnaphthalene	18.605	142	1385m	2.23	ug/L	

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





## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75095.D  
 Acq On : 30 Jun 2013 4:08 pm  
 Operator : amym  
 Sample : ic3498-10  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 01 08:03:59 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:03:48 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.750	65	46343	500.00	ug/L	0.01
4) pentafluorobenzene	8.065	168	110296	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.897	114	158933	50.00	ug/L	0.00
66) chlorobenzene-d5	12.133	82	85366	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.684	152	84163	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.677	113	8044	8.52	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	17.04%#
60) toluene-d8 (s)	10.674	98	29185	7.73	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	15.46%#
82) bromofluorobenzene (s)	13.353	95	11781	7.55	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	15.10%#
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	5.808	59	13257	103.89	ug/L	90
3) Ethanol	4.746	45	24473	1103.72	ug/L #	42
5) dichlorodifluoromethane	3.613	85	12354	12.72	ug/L	99
6) chloromethane	3.831	50	14284	10.71	ug/L	99
7) vinyl chloride	4.041	62	16062	10.93	ug/L	99
8) bromomethane	4.478	96	5407	10.78	ug/L	99
9) chloroethane	4.627	64	7135	10.80	ug/L	92
10) ethyl ether	5.449	59	10753	10.46	ug/L	82
11) acetonitrile	5.119	41	5262	11.76	ug/L	84
12) trichlorofluoromethane	5.210	101	14016	11.99	ug/L	88
13) freon-113	5.945	101	7652	12.01	ug/L	90
14) acrolein	5.209	56	8506	49.97	ug/L	93
15) 1,1-dichloroethene	5.756	96	7542	10.49	ug/L	91
16) acetone	5.334	58	2908	10.80	ug/L #	52
17) Methyl Acetate	5.934	43	18788	10.61	ug/L #	91
18) methylene chloride	5.902	84	9000	10.18	ug/L	88
19) methyl tert butyl ether	6.670	73	18724	8.77	ug/L	87
20) acrylonitrile	5.812	53	6687	10.03	ug/L	96
21) allyl chloride	5.990	41	17439	9.62	ug/L	91
22) trans-1,2-dichloroethene	6.555	96	8439	10.20	ug/L	93
23) iodomethane	5.794	142	5804	8.66	ug/L	84
24) carbon disulfide	6.140	76	24608	10.80	ug/L	99
25) propionitrile	6.820	54	2262	10.18	ug/L	100
26) vinyl acetate	6.913	43	19987	9.18	ug/L	98
27) chloroprene	7.164	53	19925	11.10	ug/L	87
28) di-isopropyl ether	7.235	45	45482	10.20	ug/L	95
29) methacrylonitrile	7.319	41	9401	10.20	ug/L	92
30) 2-butanone	7.223	72	1512	10.14	ug/L #	32
31) Hexane	7.214	41	19466	11.42	ug/L	84
32) 1,1-dichloroethane	6.808	63	20964	10.25	ug/L	98
33) tert-butyl ethyl ether	7.618	59	17217	7.57	ug/L	92
34) isobutyl alcohol	7.614	43	2666	40.24	ug/L #	1
35) 2,2-dichloropropane	7.647	77	7342	8.31	ug/L	97
36) cis-1,2-dichloroethene	7.376	96	9250	9.73	ug/L	93

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75095.D  
 Acq On : 30 Jun 2013 4:08 pm  
 Operator : amym  
 Sample : ic3498-10  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 01 08:03:59 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:03:48 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.525	43	5734	9.20	ug/L	60
38) bromochloromethane	7.524	128	4481	10.22	ug/L	93
39) chloroform	7.565	83	16624	9.90	ug/L	86
41) Tetrahydrofuran	7.905	42	5012	10.27	ug/L	94
42) 1,1,1-trichloroethane	8.303	97	14101	11.09	ug/L	89
44) Cyclohexane	8.596	56	21365	11.81	ug/L #	88
45) carbon tetrachloride	8.657	117	11599	11.58	ug/L	83
46) 1,1-dichloropropene	8.485	75	11914	10.82	ug/L	89
47) benzene	8.677	78	37478	10.04	ug/L	97
48) 1,2-dichloroethane	8.201	62	16323	9.96	ug/L	95
49) tert-amyl methyl ether	8.851	73	18313	9.17	ug/L	91
50) heptane	9.214	43	15994	11.46	ug/L	94
51) trichloroethene	9.319	95	9884	11.09	ug/L	99
52) 1,2-dichloropropane	9.276	63	12826	10.21	ug/L	93
53) dibromomethane	9.247	93	6279	10.35	ug/L	89
54) bromodichloromethane	9.361	83	12704	9.81	ug/L	95
55) Methylcyclohexane	9.845	83	12806	11.22	ug/L #	80
57) methyl methacrylate	9.483	69	7262	10.07	ug/L #	74
58) 1,4-dioxane	9.463	88	70m	9.03	ug/L	
59) cis-1,3-dichloropropene	9.996	75	13477	11.07	ug/L	94
61) 4-methyl-2-pentanone	10.115	43	14481	9.19	ug/L	97
62) toluene	10.746	92	23880	9.44	ug/L	99
63) trans-1,3-dichloropropene	10.416	75	10093	10.75	ug/L	87
64) 1,1,2-trichloroethane	10.576	83	8051	10.68	ug/L	91
65) ethyl methacrylate	10.813	69	13618	9.91	ug/L #	5
67) tetrachloroethene	11.495	166	9217	11.97	ug/L	88
68) 1,3-dichloropropane	10.816	76	14614	10.42	ug/L	99
69) dibromochloromethane	11.080	129	9894	9.97	ug/L	98
70) 1,2-dibromoethane	11.329	107	9367	10.47	ug/L	98
71) 2-hexanone	10.989	43	14640	9.22	ug/L	91
72) chlorobenzene	12.166	112	23890	10.11	ug/L	90
73) 1,1,1,2-tetrachloroethane	12.096	131	8730	10.14	ug/L	88
74) ethylbenzene	12.346	91	44282	9.93	ug/L	97
75) m,p-xylene	12.529	106	32361	20.97	ug/L	93
76) o-xylene	12.936	106	15828	10.82	ug/L #	75
77) styrene	12.863	104	26631	10.28	ug/L	79
78) bromoform	12.671	173	7302	11.03	ug/L	94
79) trans-1,4-dichloro-2-b...	13.109	53	3984	9.82	ug/L	93
81) isopropylbenzene	13.306	105	37113	10.54	ug/L	99
83) bromobenzene	13.576	156	11460	10.27	ug/L #	83
84) 1,1,2,2-tetrachloroethane	12.956	83	12589	10.28	ug/L	96
85) 1,2,3-trichloropropane	13.101	75	13925	10.18	ug/L	94
86) n-propylbenzene	13.753	91	44160	10.76	ug/L	100
87) 2-chlorotoluene	13.860	91	28637	10.54	ug/L	86
88) 4-chlorotoluene	13.941	91	28540	10.34	ug/L	88
89) 1,3,5-trimethylbenzene	14.026	105	34711	9.92	ug/L	99
90) tert-butylbenzene	14.431	91	4081	10.70	ug/L	85
91) 1,2,4-trimethylbenzene	14.431	105	35027	9.73	ug/L	95
92) sec-butylbenzene	14.557	105	36534	10.63	ug/L	97
93) 1,3-dichlorobenzene	14.647	146	17526	9.94	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75095.D  
 Acq On : 30 Jun 2013 4:08 pm  
 Operator : amym  
 Sample : ic3498-10  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 01 08:03:59 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:03:48 2013  
 Response via : Initial Calibration

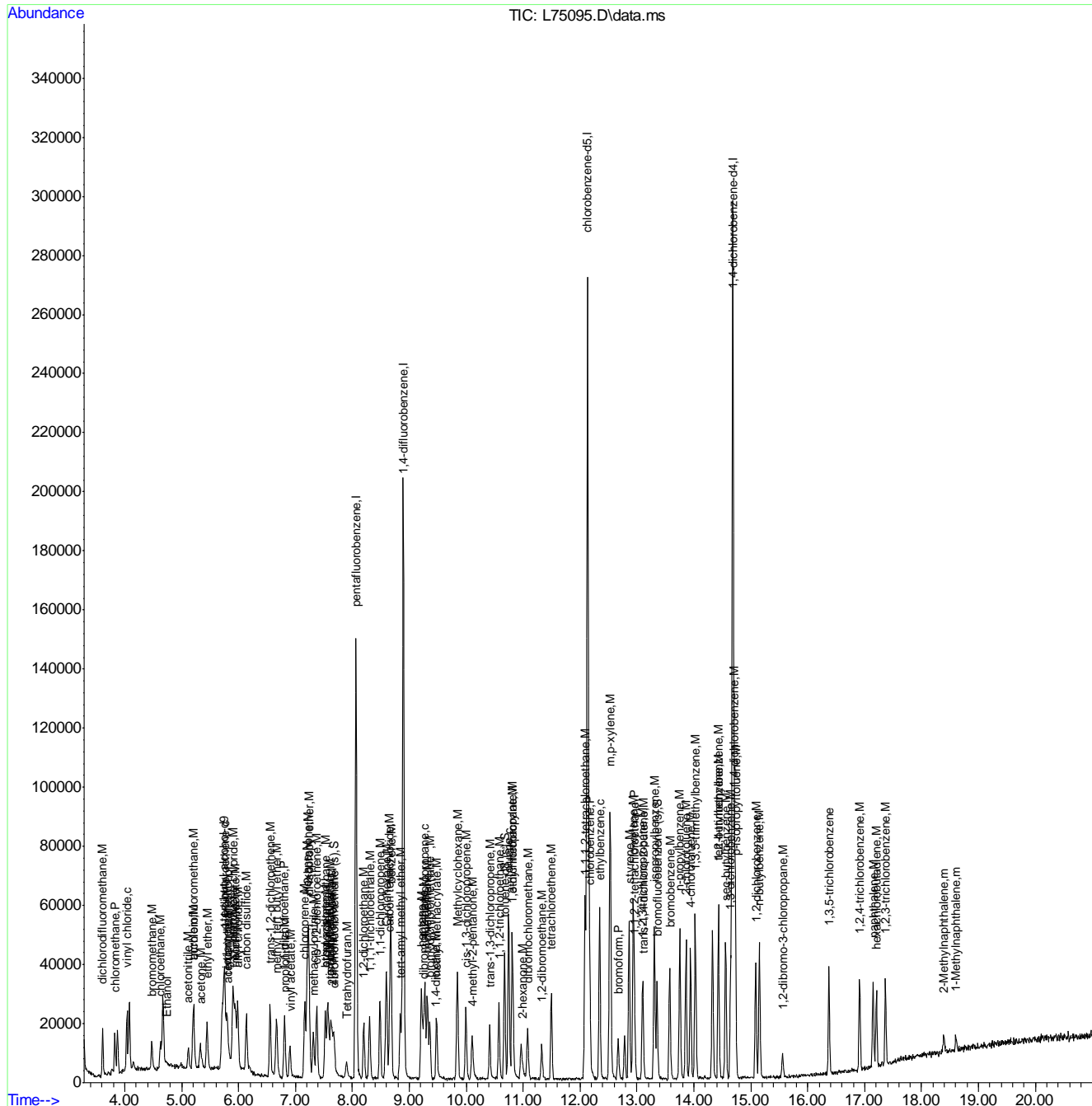
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	14.729	119	30508	10.50	ug/L	95
95) 1,4-dichlorobenzene	14.711	146	19730	9.82	ug/L	92
96) 1,2-dichlorobenzene	15.086	146	17526	9.96	ug/L	98
97) n-butylbenzene	15.152	91	28896	10.20	ug/L	93
98) 1,2-dibromo-3-chloropr...	15.557	75	2270	9.70	ug/L	82
99) 1,3,5-trichlorobenzene	16.373	180	12779	9.94	ug/L	95
100) 1,2,4-trichlorobenzene	16.913	180	10581	9.58	ug/L	91
101) hexachlorobutadiene	17.207	225	5721	10.32	ug/L	97
102) naphthalene	17.149	128	24590	9.03	ug/L	100
103) 1,2,3-trichlorobenzene	17.366	180	9736	9.46	ug/L	83
104) 2-Methylnaphthalene	18.393	142	2872	4.51	ug/L	89
105) 1-Methylnaphthalene	18.605	142	2633	4.20	ug/L	95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75095.D  
 Acq On : 30 Jun 2013 4:08 pm  
 Operator : amym  
 Sample : ic3498-10  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 01 08:03:59 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:03:48 2013  
 Response via : Initial Calibration



7.6.5  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75096.D  
 Acq On : 30 Jun 2013 4:38 pm  
 Operator : amym  
 Sample : ic3498-25  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 01 08:04:29 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:04:12 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.744	65	44907	500.00	ug/L	0.00
4) pentafluorobenzene	8.065	168	109572	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.896	114	154898	50.00	ug/L	0.00
66) chlorobenzene-d5	12.132	82	86265	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.684	152	84700	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.677	113	19398	20.67	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	41.34%#
60) toluene-d8 (s)	10.673	98	69653	18.93	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	37.86%#
82) bromofluorobenzene (s)	13.352	95	28497	18.14	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	36.28%#
Target Compounds						
2) tertiary butyl alcohol	5.806	59	30340	245.37	ug/L	97
3) Ethanol	4.779	45	56558m	2632.30	ug/L	
5) dichlorodifluoromethane	3.614	85	24967	25.88	ug/L	100
6) chloromethane	3.832	50	31894	24.06	ug/L	100
7) vinyl chloride	4.041	62	35462	24.30	ug/L	95
8) bromomethane	4.477	96	11596	23.26	ug/L	93
9) chloroethane	4.627	64	15382	23.43	ug/L	100
10) ethyl ether	5.447	59	24697	24.18	ug/L	82
11) acetonitrile	5.119	41	5944	13.37	ug/L	99
12) trichlorofluoromethane	5.210	101	30402	26.17	ug/L	94
13) freon-113	5.945	101	16404	25.92	ug/L	88
14) acrolein	5.210	56	18656	110.32	ug/L	93
15) 1,1-dichloroethene	5.756	96	16043	22.47	ug/L	97
16) acetone	5.343	58	6705	25.06	ug/L #	67
17) Methyl Acetate	5.929	43	42715	24.28	ug/L #	94
18) methylene chloride	5.902	84	20877	23.77	ug/L #	78
19) methyl tert butyl ether	6.668	73	50880	24.00	ug/L	85
20) acrylonitrile	5.812	53	15210	22.95	ug/L	89
21) allyl chloride	5.986	41	38903	21.61	ug/L	86
22) trans-1,2-dichloroethene	6.555	96	19986	24.32	ug/L	97
23) iodomethane	5.795	142	17161	25.79	ug/L	78
24) carbon disulfide	6.141	76	56276	24.86	ug/L	99
25) propionitrile	6.821	54	5557	25.17	ug/L	100
26) vinyl acetate	6.906	43	48967	22.65	ug/L	99
27) chloroprene	7.164	53	44118	24.73	ug/L	94
28) di-isopropyl ether	7.233	45	106942	24.15	ug/L	97
29) methacrylonitrile	7.318	41	22037	24.08	ug/L	99
30) 2-butanone	7.222	72	3701	24.98	ug/L #	15
31) Hexane	7.215	41	42241	24.94	ug/L	90
32) 1,1-dichloroethane	6.808	63	46614	22.95	ug/L	98
33) tert-butyl ethyl ether	7.618	59	53655	23.76	ug/L	93
34) isobutyl alcohol	7.609	43	6202	94.23	ug/L #	19
35) 2,2-dichloropropane	7.648	77	23316	26.56	ug/L	84
36) cis-1,2-dichloroethene	7.376	96	22588	23.92	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75096.D  
 Acq On : 30 Jun 2013 4:38 pm  
 Operator : amym  
 Sample : ic3498-25  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 01 08:04:29 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:04:12 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.520	43	12592	20.33	ug/L	90
38) bromochloromethane	7.524	128	10572	24.27	ug/L	91
39) chloroform	7.565	83	37805	22.66	ug/L	98
41) Tetrahydrofuran	7.902	42	11488	23.71	ug/L	100
42) 1,1,1-trichloroethane	8.303	97	32056	25.38	ug/L	98
44) Cyclohexane	8.597	56	46128	26.15	ug/L	92
45) carbon tetrachloride	8.657	117	25952	26.59	ug/L	96
46) 1,1-dichloropropene	8.485	75	26909	25.07	ug/L	93
47) benzene	8.676	78	85853	23.59	ug/L	97
48) 1,2-dichloroethane	8.200	62	38294	23.97	ug/L	94
49) tert-amyl methyl ether	8.847	73	43203	22.21	ug/L	96
50) heptane	9.212	43	33718	24.80	ug/L	94
51) trichloroethene	9.319	95	22427	25.82	ug/L	75
52) 1,2-dichloropropane	9.275	63	30323	24.78	ug/L	99
53) dibromomethane	9.246	93	14370	24.30	ug/L	87
54) bromodichloromethane	9.360	83	30032	23.81	ug/L	96
55) Methylcyclohexane	9.845	83	29000	26.08	ug/L	84
56) 2-chloroethyl vinyl ether	9.845	63	133m	15.80	ug/L	
57) methyl methacrylate	9.480	69	17032	24.24	ug/L	87
58) 1,4-dioxane	9.473	88	1071	141.81	ug/L	93
59) cis-1,3-dichloropropene	9.995	75	35360	29.79	ug/L	93
61) 4-methyl-2-pentanone	10.112	43	37013	24.10	ug/L	99
62) toluene	10.745	92	53841	21.83	ug/L	97
63) trans-1,3-dichloropropene	10.414	75	28437	31.08	ug/L	93
64) 1,1,2-trichloroethane	10.575	83	18621	25.35	ug/L	99
65) ethyl methacrylate	10.808	69	33061	24.69	ug/L #	33
67) tetrachloroethene	11.495	166	21470	27.60	ug/L	100
68) 1,3-dichloropropane	10.815	76	34487	24.32	ug/L	98
69) dibromochloromethane	11.080	129	23049	22.99	ug/L	99
70) 1,2-dibromoethane	11.328	107	22294	24.67	ug/L	97
71) 2-hexanone	10.974	43	29918	18.64	ug/L	97
72) chlorobenzene	12.166	112	55450	23.23	ug/L	87
73) 1,1,1,2-tetrachloroethane	12.096	131	21475	24.67	ug/L	96
74) ethylbenzene	12.345	91	102199	22.68	ug/L	97
75) m,p-xylene	12.528	106	73656	47.23	ug/L	83
76) o-xylene	12.935	106	35325	23.90	ug/L	94
77) styrene	12.862	104	63128	24.12	ug/L	85
78) bromoform	12.671	173	17657	26.39	ug/L	96
79) trans-1,4-dichloro-2-b...	13.108	53	9696	23.65	ug/L	93
81) isopropylbenzene	13.306	105	87629	24.73	ug/L	96
83) bromobenzene	13.576	156	26928	23.98	ug/L #	80
84) 1,1,2,2-tetrachloroethane	12.956	83	29849	24.23	ug/L	98
85) 1,2,3-trichloropropane	13.100	75	32699	23.76	ug/L	96
86) n-propylbenzene	13.753	91	101763	24.65	ug/L	95
87) 2-chlorotoluene	13.860	91	65315	23.89	ug/L	88
88) 4-chlorotoluene	13.941	91	66909	24.08	ug/L	88
89) 1,3,5-trimethylbenzene	14.026	105	81648	23.19	ug/L	93
90) tert-butylbenzene	14.429	91	9520	24.79	ug/L	95
91) 1,2,4-trimethylbenzene	14.431	105	82671	22.82	ug/L	93
92) sec-butylbenzene	14.557	105	86527	25.01	ug/L	94

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75096.D  
 Acq On : 30 Jun 2013 4:38 pm  
 Operator : amym  
 Sample : ic3498-25  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 01 08:04:29 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:04:12 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	14.647	146	41393	23.34	ug/L	94
94) p-isopropyltoluene	14.729	119	73120	25.02	ug/L	92
95) 1,4-dichlorobenzene	14.711	146	46333	22.91	ug/L	94
96) 1,2-dichlorobenzene	15.086	146	41566	23.47	ug/L	93
97) n-butylbenzene	15.151	91	70237	24.65	ug/L	92
98) 1,2-dibromo-3-chloropr...	15.556	75	5756	24.44	ug/L	86
99) 1,3,5-trichlorobenzene	16.372	180	31319	24.21	ug/L	98
100) 1,2,4-trichlorobenzene	16.912	180	27031	24.33	ug/L	96
101) hexachlorobutadiene	17.207	225	13968	25.03	ug/L	98
102) naphthalene	17.149	128	68432	24.98	ug/L	100
103) 1,2,3-trichlorobenzene	17.366	180	25393	24.52	ug/L	98
104) 2-Methylnaphthalene	18.393	142	6402	10.00	ug/L	94
105) 1-Methylnaphthalene	18.606	142	5503	8.73	ug/L	96

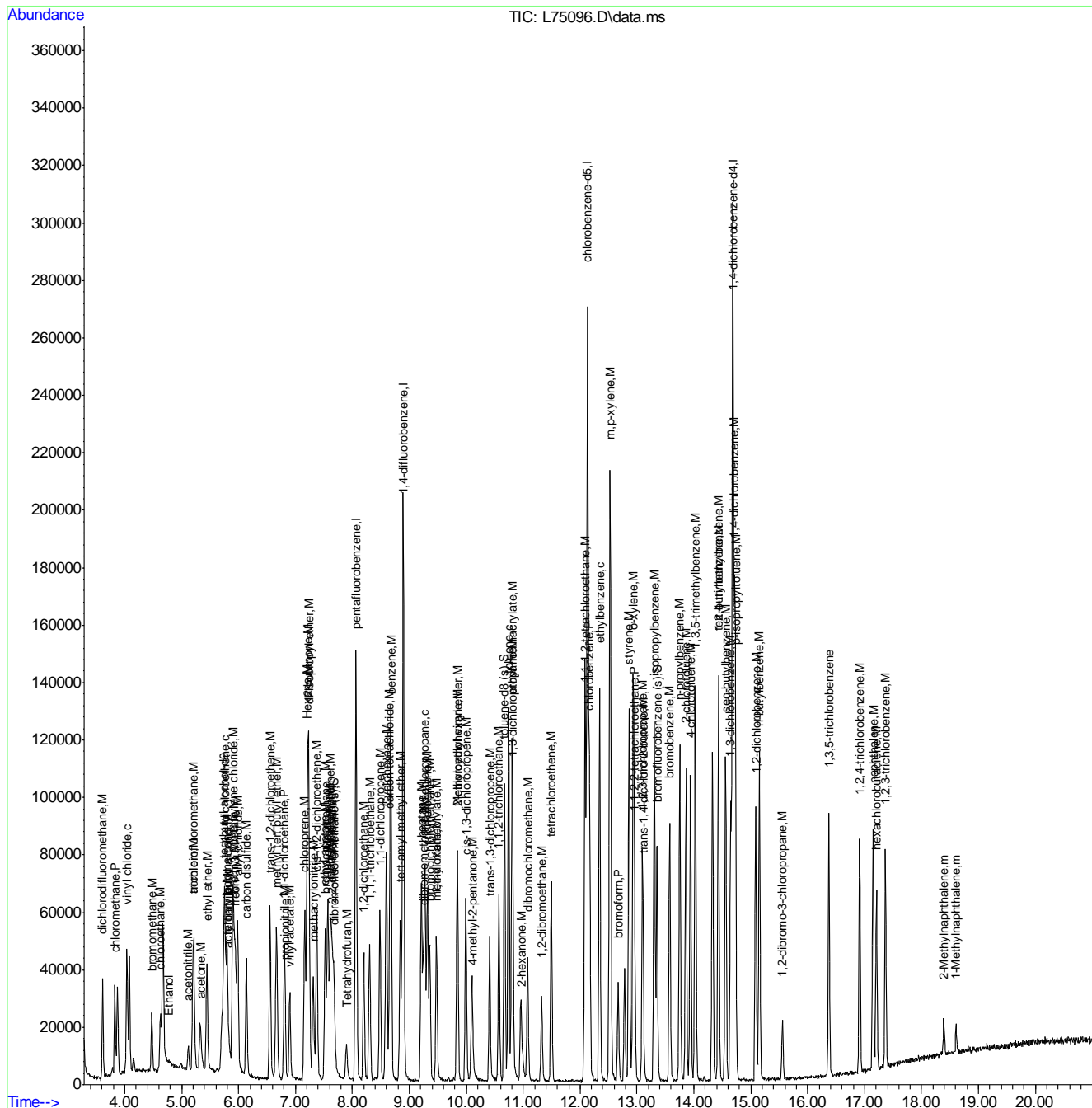
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\
Data File : L75096.D
Acq On : 30 Jun 2013 4:38 pm
Operator : amym
Sample : ic3498-25
Misc : ms29242,msl3498,,,5,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 01 08:04:29 2013
Quant Method : C:\msdchem\1\methods\l130630w.m
Quant Title : SW-846 Method 8260
QLast Update : Mon Jul 01 08:04:12 2013
Response via : Initial Calibration



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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75097.D  
 Acq On : 30 Jun 2013 5:06 pm  
 Operator : amym  
 Sample : icc3498-50  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 01 07:45:09 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Wed Jun 12 08:31:21 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	5.736	65	46487	500.00	ug/L	0.00	
4) pentafluorobenzene	8.064	168	108789	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	8.895	114	155681	50.00	ug/L	0.00	
66) chlorobenzene-d5	12.131	82	86633	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	14.683	152	85480	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	7.676	113	38154	30.22	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	60.44%#	
60) toluene-d8 (s)	10.673	98	141424	35.45	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	70.90%	
82) bromofluorobenzene (s)	13.352	95	54897	29.79	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	59.58%#	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	5.798	59	61661	510.12	ug/L		95
3) Ethanol	4.760	45	105349	6560.48	ug/L		99
5) dichlorodifluoromethane	3.613	85	51676	28.95	ug/L		98
6) chloromethane	3.831	50	64627	43.41	ug/L		100
7) vinyl chloride	4.040	62	72076	59.89	ug/L		95
8) bromomethane	4.477	96	24116	41.39	ug/L		96
9) chloroethane	4.627	64	30032	55.52	ug/L		98
10) ethyl ether	5.443	59	50501	62.07	ug/L		88
11) acetonitrile	5.116	41	5239	39.93	ug/L		82
12) trichlorofluoromethane	5.210	101	60411	30.55	ug/L		100
13) freon-113	5.944	101	32596	43.60	ug/L		94
14) acrolein	5.201	56	37240	380.68	ug/L		99
15) 1,1-dichloroethene	5.756	96	32461	48.26	ug/L		97
16) acetone	5.331	58	13221	128.85	ug/L	#	59
17) Methyl Acetate	5.923	43	86079	66.23	ug/L	#	94
18) methylene chloride	5.901	84	42922	48.30	ug/L	#	76
19) methyl tert butyl ether	6.665	73	123369	40.09	ug/L		85
20) acrylonitrile	5.807	53	33505	82.36	ug/L		99
21) allyl chloride	5.988	41	79699	62.21	ug/L		88
22) trans-1,2-dichloroethene	6.555	96	38944	40.20	ug/L		96
23) iodomethane	5.800	142	40166	50.76	ug/L		83
24) carbon disulfide	6.140	76	114171	45.21	ug/L		100
25) propionitrile	6.819	54	11973	56.30	ug/L		100
26) vinyl acetate	6.900	43	120284	40.75	ug/L		97
27) chloroprene	7.163	53	90199	49.30	ug/L		96
28) di-isopropyl ether	7.230	45	217011	50.28	ug/L		96
29) methacrylonitrile	7.313	41	45210	49.14	ug/L		99
30) 2-butanone	7.216	72	8650	56.15	ug/L	#	68
31) Hexane	7.214	41	80813	42.07	ug/L		92
32) 1,1-dichloroethane	6.807	63	95168	41.34	ug/L		98
33) tert-butyl ethyl ether	7.615	59	149538	45.56	ug/L		93
34) isobutyl alcohol	7.610	43	16465	222.63	ug/L	#	11
35) 2,2-dichloropropane	7.647	77	55473	33.84	ug/L		89
36) cis-1,2-dichloroethene	7.374	96	46220	45.16	ug/L		90

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75097.D  
 Acq On : 30 Jun 2013 5:06 pm  
 Operator : amym  
 Sample : icc3498-50  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 01 07:45:09 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Wed Jun 12 08:31:21 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.515	43	27559	35.08	ug/L	96
38) bromochloromethane	7.523	128	21833	51.63	ug/L #	82
39) chloroform	7.564	83	78251	35.37	ug/L	99
41) Tetrahydrofuran	7.897	42	22159	55.65	ug/L	94
42) 1,1,1-trichloroethane	8.302	97	65420	37.63	ug/L	98
44) Cyclohexane	8.596	56	89690	52.85	ug/L	90
45) carbon tetrachloride	8.657	117	54236	45.43	ug/L	98
46) 1,1-dichloropropene	8.484	75	54196	41.23	ug/L	93
47) benzene	8.676	78	175644	45.75	ug/L	100
48) 1,2-dichloroethane	8.198	62	78302	39.59	ug/L	98
49) tert-amyl methyl ether	8.843	73	104559	43.98	ug/L	94
50) heptane	9.211	43	66083	47.66	ug/L	93
51) trichloroethene	9.318	95	44690	43.01	ug/L	82
52) 1,2-dichloropropane	9.274	63	60510	52.41	ug/L	100
53) dibromomethane	9.245	93	29464	43.73	ug/L	82
54) bromodichloromethane	9.360	83	62285	41.50	ug/L	96
55) Methylcyclohexane	9.845	83	58245	46.48	ug/L	88
57) methyl methacrylate	9.477	69	35648	48.58	ug/L	81
59) cis-1,3-dichloropropene	9.993	75	76115	43.35	ug/L	95
61) 4-methyl-2-pentanone	10.106	43	77967	55.45	ug/L	97
62) toluene	10.744	92	108587	51.04	ug/L	97
63) trans-1,3-dichloropropene	10.412	75	64457	39.65	ug/L	88
64) 1,1,2-trichloroethane	10.574	83	38778	47.26	ug/L	98
65) ethyl methacrylate	10.806	69	69097	50.17	ug/L #	36
67) tetrachloroethene	11.495	166	42839	64.86	ug/L	99
68) 1,3-dichloropropane	10.814	76	70550	52.15	ug/L	97
69) dibromochloromethane	11.079	129	49952	67.17	ug/L	99
70) 1,2-dibromoethane	11.327	107	46969	60.94	ug/L	96
71) 2-hexanone	10.970	43	65083	78.15	ug/L	96
72) chlorobenzene	12.165	112	114198	68.57	ug/L	88
73) 1,1,1,2-tetrachloroethane	12.095	131	44037	65.29	ug/L	95
74) ethylbenzene	12.344	91	207633	57.72	ug/L	97
75) m,p-xylene	12.527	106	150635	125.40	ug/L	90
76) o-xylene	12.935	106	72857	64.58	ug/L	89
77) styrene	12.861	104	132912	65.44	ug/L	81
78) bromoform	12.670	173	37738	66.10	ug/L	97
79) trans-1,4-dichloro-2-b...	13.107	53	22235	52.21	ug/L	91
81) isopropylbenzene	13.305	105	178135	50.83	ug/L	96
83) bromobenzene	13.575	156	55997	54.24	ug/L #	78
84) 1,1,2,2-tetrachloroethane	12.955	83	62211	43.34	ug/L	96
85) 1,2,3-trichloropropane	13.099	75	70965	42.35	ug/L	99
86) n-propylbenzene	13.751	91	208098	49.33	ug/L	96
87) 2-chlorotoluene	13.860	91	131961	45.28	ug/L	90
88) 4-chlorotoluene	13.939	91	136687	45.67	ug/L	90
89) 1,3,5-trimethylbenzene	14.025	105	168355	46.26	ug/L	99
90) tert-butylbenzene	14.431	91	18122	8.39	ug/L	98
91) 1,2,4-trimethylbenzene	14.430	105	171449	46.20	ug/L	95
92) sec-butylbenzene	14.556	105	179141	45.87	ug/L	96
93) 1,3-dichlorobenzene	14.646	146	85885	49.05	ug/L	95
94) p-isopropyltoluene	14.728	119	150049	48.63	ug/L	92

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75097.D  
 Acq On : 30 Jun 2013 5:06 pm  
 Operator : amym  
 Sample : icc3498-50  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 01 07:45:09 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Wed Jun 12 08:31:21 2013  
 Response via : Initial Calibration

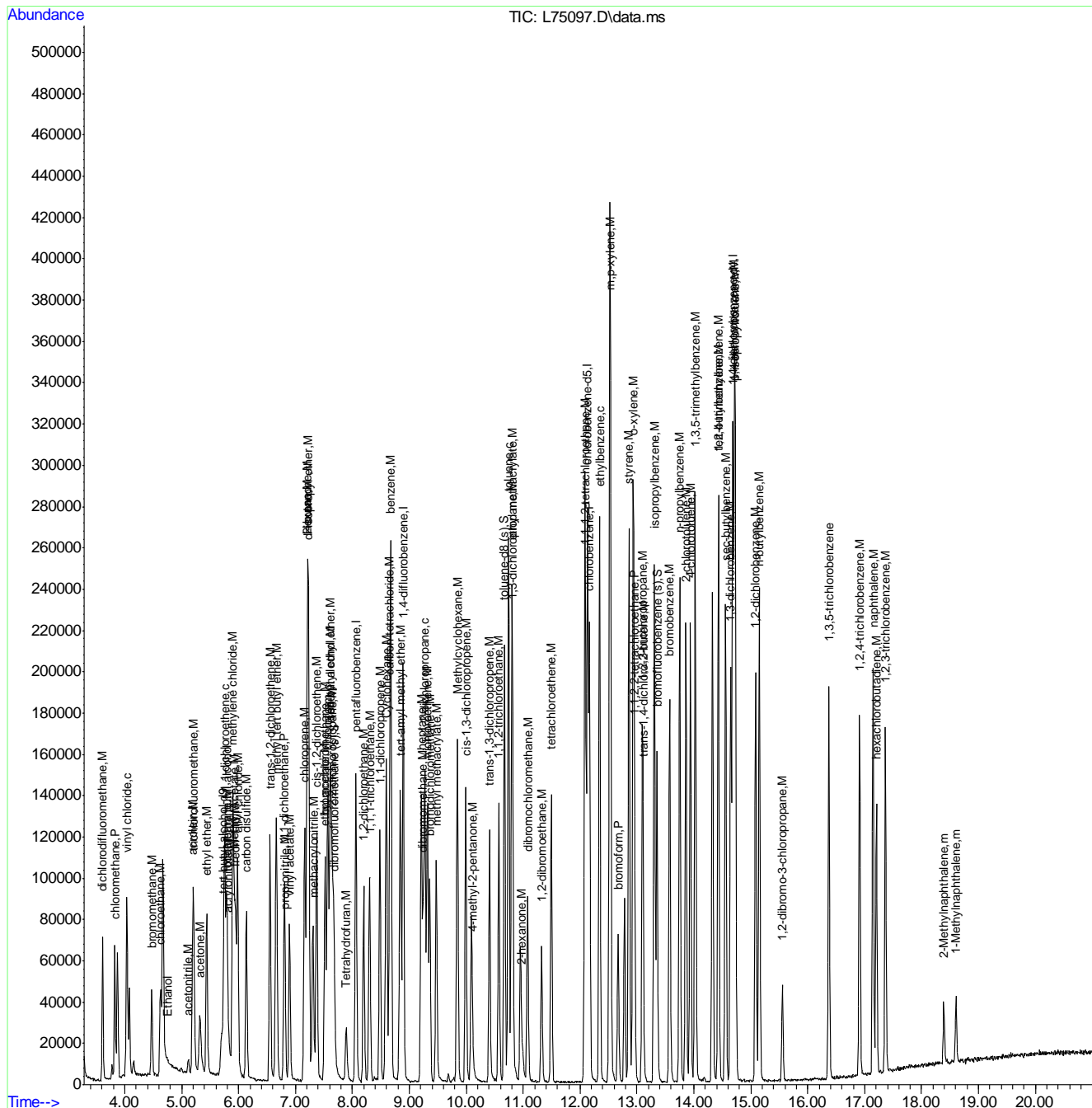
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) 1,4-dichlorobenzene	14.711	146	96886	52.56	ug/L	94
96) 1,2-dichlorobenzene	15.086	146	86976	50.14	ug/L	97
97) n-butylbenzene	15.150	91	148788	41.77	ug/L	94
98) 1,2-dibromo-3-chloropr...	15.556	75	11988	37.15	ug/L	78
99) 1,3,5-trichlorobenzene	16.372	180	65899	48.16	ug/L	96
100) 1,2,4-trichlorobenzene	16.912	180	59561	42.50	ug/L	97
101) hexachlorobutadiene	17.207	225	28982	40.66	ug/L	89
102) naphthalene	17.148	128	161911	47.15	ug/L	100
103) 1,2,3-trichlorobenzene	17.366	180	56601	42.68	ug/L	99
104) 2-Methylnaphthalene	18.393	142	15467	19.70	ug/L	98
105) 1-Methylnaphthalene	18.606	142	16666	19.03	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\
Data File : L75097.D
Acq On : 30 Jun 2013 5:06 pm
Operator : amym
Sample : icc3498-50
Misc : ms29242,msl3498,,,5,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 01 07:45:09 2013
Quant Method : C:\msdchem\1\methods\l130630w.m
Quant Title : SW-846 Method 8260
QLast Update : Wed Jun 12 08:31:21 2013
Response via : Initial Calibration



7.6.7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75098.D  
 Acq On : 30 Jun 2013 5:35 pm  
 Operator : amym  
 Sample : ic3498-100  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 01 08:05:02 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:04:44 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	5.728	65	42404	500.00	ug/L	0.00	
4) pentafluorobenzene	8.063	168	108999	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	8.894	114	154311	50.00	ug/L	0.00	
66) chlorobenzene-d5	12.129	82	88709	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	14.683	152	86784	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	7.676	113	74208	79.49	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	158.98%#	
60) toluene-d8 (s)	10.672	98	274284	74.84	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	149.68%#	
82) bromofluorobenzene (s)	13.351	95	110506	68.65	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	137.30%#	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	5.792	59	109914	941.37	ug/L		97
3) Ethanol	4.758	45	193641m	9548.51	ug/L		
5) dichlorodifluoromethane	3.613	85	100050	104.26	ug/L		98
6) chloromethane	3.830	50	132446	100.44	ug/L		98
7) vinyl chloride	4.040	62	140826	97.01	ug/L		96
8) bromomethane	4.478	96	52267	105.40	ug/L		100
9) chloroethane	4.626	64	59420	91.00	ug/L		99
10) ethyl ether	5.441	59	99371	97.80	ug/L		88
11) acetonitrile	5.118	41	5644	12.76	ug/L		97
12) trichlorofluoromethane	5.210	101	120923	104.65	ug/L		97
13) freon-113	5.945	101	63037	100.14	ug/L		92
14) acrolein	5.201	56	73042	434.20	ug/L		93
15) 1,1-dichloroethene	5.755	96	63126	88.86	ug/L		96
16) acetone	5.327	58	23233	87.30	ug/L	#	55
17) Methyl Acetate	5.919	43	153401	87.64	ug/L		94
18) methylene chloride	5.900	84	84053	96.22	ug/L	#	83
19) methyl tert butyl ether	6.663	73	256345	121.54	ug/L		86
20) acrylonitrile	5.803	53	60482	91.76	ug/L		97
21) allyl chloride	5.986	41	151917	84.83	ug/L		85
22) trans-1,2-dichloroethene	6.554	96	79329	97.02	ug/L		94
23) iodomethane	5.802	142	80433	121.50	ug/L		80
24) carbon disulfide	6.139	76	226459	100.57	ug/L		98
25) propionitrile	6.813	54	22530	102.59	ug/L		100
26) vinyl acetate	6.897	43	264043	122.75	ug/L		99
27) chloroprene	7.162	53	178628	100.66	ug/L		94
28) di-isopropyl ether	7.229	45	425358	96.56	ug/L		99
29) methacrylonitrile	7.309	41	85865	94.30	ug/L		94
30) 2-butanone	7.212	72	15531	105.39	ug/L	#	68
31) Hexane	7.212	41	156916	93.14	ug/L	#	83
32) 1,1-dichloroethane	6.807	63	190254	94.17	ug/L		98
33) tert-butyl ethyl ether	7.614	59	350104	155.82	ug/L		92
34) isobutyl alcohol	7.609	43	35017	534.81	ug/L	#	16
35) 2,2-dichloropropane	7.647	77	111242	127.37	ug/L		91
36) cis-1,2-dichloroethene	7.375	96	91387	97.27	ug/L		93

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75098.D  
 Acq On : 30 Jun 2013 5:35 pm  
 Operator : amym  
 Sample : ic3498-100  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 01 08:05:02 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:04:44 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.510	43	52296	84.86	ug/L	98
38) bromochloromethane	7.523	128	43367	100.10	ug/L #	86
39) chloroform	7.564	83	154651	93.20	ug/L	99
41) Tetrahydrofuran	7.894	42	40832	84.70	ug/L	92
42) 1,1,1-trichloroethane	8.303	97	129021	102.67	ug/L	97
44) Cyclohexane	8.596	56	179265	102.03	ug/L #	88
45) carbon tetrachloride	8.657	117	108337	111.43	ug/L	100
46) 1,1-dichloropropene	8.484	75	107990	100.99	ug/L	93
47) benzene	8.675	78	349690	96.44	ug/L	98
48) 1,2-dichloroethane	8.198	62	156069	98.06	ug/L	97
49) tert-amyl methyl ether	8.842	73	236289	121.92	ug/L	95
50) heptane	9.211	43	130891	96.62	ug/L	95
51) trichloroethene	9.318	95	89091	102.97	ug/L	77
52) 1,2-dichloropropane	9.274	63	119742	98.22	ug/L	99
53) dibromomethane	9.244	93	55815	94.74	ug/L	89
54) bromodichloromethane	9.359	83	124410	99.00	ug/L	98
55) Methylcyclohexane	9.844	83	115573	104.32	ug/L	89
56) 2-chloroethyl vinyl ether	9.842	63	1135	135.36	ug/L #	1
57) methyl methacrylate	9.474	69	69239	98.92	ug/L	92
58) 1,4-dioxane	9.478	88	5311	705.88	ug/L	85
59) cis-1,3-dichloropropene	9.992	75	155959	131.89	ug/L	95
61) 4-methyl-2-pentanone	10.098	43	144901	94.70	ug/L	97
62) toluene	10.744	92	216941	88.29	ug/L	99
63) trans-1,3-dichloropropene	10.410	75	136102	149.30	ug/L	91
64) 1,1,2-trichloroethane	10.574	83	76190	104.10	ug/L	97
65) ethyl methacrylate	10.802	69	135015	101.20	ug/L #	54
67) tetrachloroethene	11.495	166	85917	107.40	ug/L	98
68) 1,3-dichloropropane	10.814	76	140906	96.65	ug/L	98
69) dibromochloromethane	11.079	129	102240	99.16	ug/L	98
70) 1,2-dibromoethane	11.326	107	93036	100.11	ug/L	94
71) 2-hexanone	10.958	43	116000	70.27	ug/L	97
72) chlorobenzene	12.165	112	227234	92.57	ug/L	86
73) 1,1,1,2-tetrachloroethane	12.095	131	88663	99.06	ug/L	98
74) ethylbenzene	12.343	91	411134	88.73	ug/L	96
75) m,p-xylene	12.527	106	304273	189.74	ug/L	85
76) o-xylene	12.935	106	146017	96.09	ug/L	84
77) styrene	12.860	104	269011	99.96	ug/L	84
78) bromoform	12.670	173	77376	112.48	ug/L	99
79) trans-1,4-dichloro-2-b...	13.106	53	45360	107.58	ug/L	95
81) isopropylbenzene	13.305	105	357091	98.35	ug/L	96
83) bromobenzene	13.574	156	112961	98.19	ug/L #	82
84) 1,1,2,2-tetrachloroethane	12.954	83	122815	97.30	ug/L	96
85) 1,2,3-trichloropropane	13.099	75	143384	101.70	ug/L	99
86) n-propylbenzene	13.751	91	416872	98.54	ug/L	97
87) 2-chlorotoluene	13.860	91	267567	95.50	ug/L	87
88) 4-chlorotoluene	13.939	91	273386	96.01	ug/L	90
89) 1,3,5-trimethylbenzene	14.025	105	336199	93.21	ug/L	93
90) tert-butylbenzene	14.430	91	36095	91.74	ug/L	91
91) 1,2,4-trimethylbenzene	14.430	105	346547	93.37	ug/L	95
92) sec-butylbenzene	14.556	105	362613	102.28	ug/L	95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75098.D  
 Acq On : 30 Jun 2013 5:35 pm  
 Operator : amym  
 Sample : ic3498-100  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 01 08:05:02 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:04:44 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	14.646	146	177711	97.78	ug/L	96
94) p-isopropyltoluene	14.728	119	305677	102.07	ug/L	91
95) 1,4-dichlorobenzene	14.711	146	197119	95.11	ug/L	96
96) 1,2-dichlorobenzene	15.085	146	178908	98.59	ug/L	97
97) n-butylbenzene	15.150	91	305312	104.57	ug/L	93
98) 1,2-dibromo-3-chloropr...	15.555	75	24512	101.58	ug/L	74
99) 1,3,5-trichlorobenzene	16.371	180	139401	105.16	ug/L	100
100) 1,2,4-trichlorobenzene	16.912	180	128800	113.13	ug/L	99
101) hexachlorobutadiene	17.206	225	62905	109.99	ug/L	97
102) naphthalene	17.147	128	343410	122.37	ug/L	100
103) 1,2,3-trichlorobenzene	17.365	180	120562	113.62	ug/L	99
104) 2-Methylnaphthalene	18.393	142	47989	73.14	ug/L	97
105) 1-Methylnaphthalene	18.607	142	49192	76.13	ug/L	96

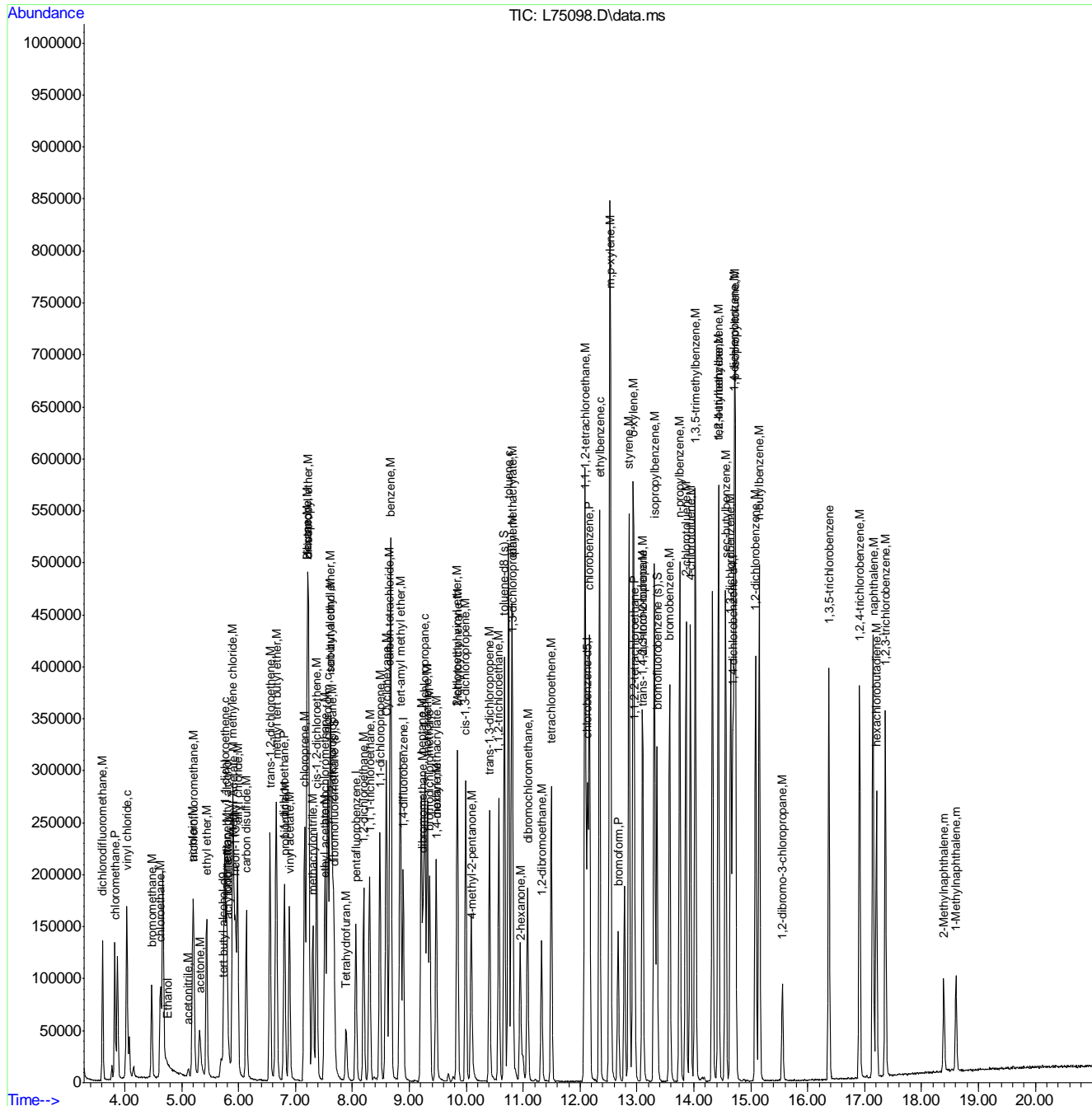
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75098.D  
 Acq On : 30 Jun 2013 5:35 pm  
 Operator : amym  
 Sample : ic3498-100  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 01 08:05:02 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:04:44 2013  
 Response via : Initial Calibration



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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75099.D  
 Acq On : 30 Jun 2013 6:04 pm  
 Operator : amym  
 Sample : ic3498-200  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 01 08:05:33 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:05:17 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	5.718	65	43901	500.00	ug/L	-0.02	
4) pentafluorobenzene	8.063	168	109091	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	8.894	114	153357	50.00	ug/L	0.00	
66) chlorobenzene-d5	12.127	82	92931	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	14.683	152	88311	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	7.677	113	148647	159.10	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	318.20%#	
60) toluene-d8 (s)	10.672	98	550725	151.20	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	302.40%#	
82) bromofluorobenzene (s)	13.351	95	223428	136.40	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	272.80%#	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	5.786	59	229845	1901.40	ug/L		95
3) Ethanol	4.747	45	389216m	18475.12	ug/L		
5) dichlorodifluoromethane	3.612	85	209006m	217.61	ug/L		
6) chloromethane	3.830	50	283901	215.12	ug/L		99
7) vinyl chloride	4.038	62	283522	195.14	ug/L		95
8) bromomethane	4.481	96	109696	221.02	ug/L		99
9) chloroethane	4.626	64	120081	183.75	ug/L		99
10) ethyl ether	5.441	59	202355	198.99	ug/L		83
11) acetonitrile	5.119	41	48450	109.46	ug/L		89
12) trichlorofluoromethane	5.210	101	249111	215.40	ug/L		98
13) freon-113	5.947	101	130833	207.66	ug/L		89
14) acrolein	5.195	56	144623	858.99	ug/L		99
15) 1,1-dichloroethene	5.756	96	132422	186.25	ug/L		92
16) acetone	5.324	58	49194	184.69	ug/L	#	58
17) Methyl Acetate	5.917	43	308446	176.08	ug/L		94
18) methylene chloride	5.900	84	173473	198.42	ug/L		84
19) methyl tert butyl ether	6.662	73	514465	243.72	ug/L		84
20) acrylonitrile	5.800	53	120610	182.83	ug/L		99
21) allyl chloride	5.985	41	292970	163.45	ug/L		91
22) trans-1,2-dichloroethene	6.554	96	161603	197.48	ug/L		93
23) iodomethane	5.804	142	152037	229.47	ug/L		83
24) carbon disulfide	6.139	76	451657	200.42	ug/L		99
25) propionitrile	6.808	54	47542	216.30	ug/L		100
26) vinyl acetate	6.895	43	556892	258.67	ug/L		99
27) chloroprene	7.161	53	365172	205.61	ug/L		98
28) di-isopropyl ether	7.228	45	837851	190.03	ug/L		98
29) methacrylonitrile	7.307	41	177896	195.21	ug/L		97
30) 2-butanone	7.211	72	31483	213.45	ug/L	#	71
31) Hexane	7.212	41	312248	185.19	ug/L	#	81
32) 1,1-dichloroethane	6.807	63	386546	191.16	ug/L		99
33) tert-butyl ethyl ether	7.613	59	754780	335.65	ug/L		94
34) isobutyl alcohol	7.608	43	75770	1156.25	ug/L	#	10
35) 2,2-dichloropropane	7.647	77	167602	191.74	ug/L		91
36) cis-1,2-dichloroethene	7.374	96	187200	199.08	ug/L		95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75099.D  
 Acq On : 30 Jun 2013 6:04 pm  
 Operator : amym  
 Sample : ic3498-200  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 01 08:05:33 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:05:17 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.507	43	109721	177.90	ug/L	98
38) bromochloromethane	7.522	128	89009	205.28	ug/L #	85
39) chloroform	7.564	83	313835	188.97	ug/L	98
41) Tetrahydrofuran	7.892	42	85125	176.43	ug/L	96
42) 1,1,1-trichloroethane	8.303	97	252418	200.69	ug/L	98
44) Cyclohexane	8.596	56	367221	210.30	ug/L	90
45) carbon tetrachloride	8.657	117	197799	204.71	ug/L	97
46) 1,1-dichloropropene	8.484	75	221431	208.37	ug/L	94
47) benzene	8.675	78	700706	194.46	ug/L	99
48) 1,2-dichloroethane	8.198	62	307789	194.58	ug/L	97
49) tert-amyl methyl ether	8.841	73	508232	263.87	ug/L	96
50) heptane	9.211	43	268584	199.50	ug/L	93
51) trichloroethene	9.318	95	180815	210.28	ug/L	80
52) 1,2-dichloropropane	9.274	63	243426	200.92	ug/L	100
53) dibromomethane	9.244	93	109699	187.36	ug/L	89
54) bromodichloromethane	9.359	83	239212	191.53	ug/L	98
55) Methylcyclohexane	9.845	83	238712	216.81	ug/L	89
56) 2-chloroethyl vinyl ether	9.845	63	2214	265.69	ug/L #	1
57) methyl methacrylate	9.473	69	144937	208.35	ug/L	95
58) 1,4-dioxane	9.485	88	12084	1616.06	ug/L	96
59) cis-1,3-dichloropropene	9.991	75	318395	270.93	ug/L	92
61) 4-methyl-2-pentanone	10.090	43	293710	193.14	ug/L	95
62) toluene	10.744	92	435268	178.25	ug/L	98
63) trans-1,3-dichloropropene	10.410	75	283172	312.56	ug/L	90
64) 1,1,2-trichloroethane	10.573	83	155113	213.26	ug/L	97
65) ethyl methacrylate	10.800	69	275268	207.60	ug/L	80
67) tetrachloroethene	11.495	166	178430	212.90	ug/L	95
68) 1,3-dichloropropane	10.814	76	283962	185.92	ug/L	99
69) dibromochloromethane	11.079	129	212217	196.47	ug/L	100
70) 1,2-dibromoethane	11.325	107	193026	198.26	ug/L	95
71) 2-hexanone	10.950	43	235024	135.90	ug/L	98
72) chlorobenzene	12.164	112	461495	179.46	ug/L	86
73) 1,1,1,2-tetrachloroethane	12.095	131	181829	193.93	ug/L	98
74) ethylbenzene	12.343	91	833098	171.64	ug/L	95
75) m,p-xylene	12.527	106	615872	366.61	ug/L	85
76) o-xylene	12.935	106	296028	185.95	ug/L	83
77) styrene	12.860	104	552557	195.99	ug/L	81
78) bromoform	12.670	173	170919	237.17	ug/L	99
79) trans-1,4-dichloro-2-b...	13.105	53	98753	223.58	ug/L	98
81) isopropylbenzene	13.305	105	732971	198.39	ug/L	96
83) bromobenzene	13.574	156	233664	199.59	ug/L #	80
84) 1,1,2,2-tetrachloroethane	12.955	83	252778	196.80	ug/L	97
85) 1,2,3-trichloropropane	13.098	75	303395	211.48	ug/L	99
86) n-propylbenzene	13.751	91	853312	198.21	ug/L	95
87) 2-chlorotoluene	13.860	91	549364	192.68	ug/L	90
88) 4-chlorotoluene	13.938	91	561108	193.65	ug/L	88
89) 1,3,5-trimethylbenzene	14.024	105	688889	187.69	ug/L	92
90) tert-butylbenzene	14.429	91	72070	180.01	ug/L	99
91) 1,2,4-trimethylbenzene	14.430	105	710546	188.14	ug/L	94
92) sec-butylbenzene	14.556	105	752781	208.65	ug/L	95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75099.D  
 Acq On : 30 Jun 2013 6:04 pm  
 Operator : amym  
 Sample : ic3498-200  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 01 08:05:33 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:05:17 2013  
 Response via : Initial Calibration

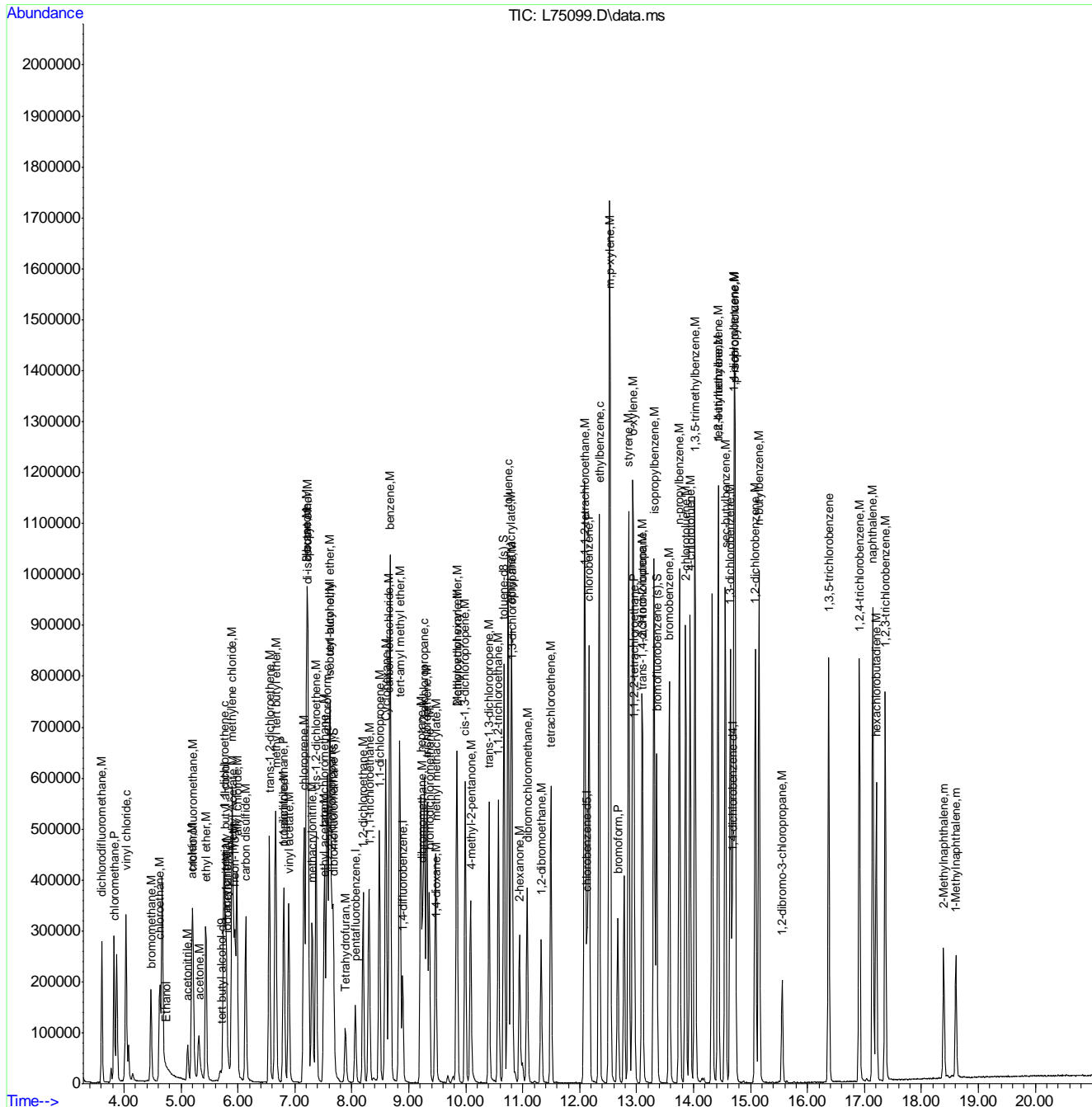
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	14.646	146	370048	200.09	ug/L	96
94) p-isopropyltoluene	14.727	119	624695	204.99	ug/L	92
95) 1,4-dichlorobenzene	14.711	146	410125	194.46	ug/L	96
96) 1,2-dichlorobenzene	15.085	146	376279	203.77	ug/L	96
97) n-butylbenzene	15.149	91	626761	210.95	ug/L	92
98) 1,2-dibromo-3-chloropr...	15.555	75	51674	210.45	ug/L	73
99) 1,3,5-trichlorobenzene	16.372	180	295297	218.92	ug/L	99
100) 1,2,4-trichlorobenzene	16.911	180	281817	243.25	ug/L	98
101) hexachlorobutadiene	17.207	225	137855	236.88	ug/L	99
102) naphthalene	17.147	128	752675	263.56	ug/L	100
103) 1,2,3-trichlorobenzene	17.365	180	262101	242.73	ug/L	98
104) 2-Methylnaphthalene	18.393	142	138244	207.04	ug/L	97
105) 1-Methylnaphthalene	18.606	142	129031	196.22	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75099.D  
 Acq On : 30 Jun 2013 6:04 pm  
 Operator : amym  
 Sample : ic3498-200  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 01 08:05:33 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:05:17 2013  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75100.D  
 Acq On : 30 Jun 2013 6:33 pm  
 Operator : amym  
 Sample : ic3498-400  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 01 08:06:00 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:05:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	5.707	65	38639	500.00	ug/L	-0.03	
4) pentafluorobenzene	8.063	168	111396	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	8.894	114	152339	50.00	ug/L	0.00	
66) chlorobenzene-d5	12.124	82	102228	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	14.684	152	89867	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	7.678	113	292374	306.74	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	613.48%#	
60) toluene-d8 (s)	10.672	98	1089337	303.47	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	606.94%#	
82) bromofluorobenzene (s)	13.351	95	443956	272.07	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	544.14%#	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	5.780	59	426965	4046.35	ug/L		92
3) Ethanol	4.722	45	707264m	38634.99	ug/L		
5) dichlorodifluoromethane	3.612	85	414981m	417.86	ug/L		
6) chloromethane	3.828	50	606973	445.59	ug/L		99
7) vinyl chloride	4.034	62	510055	344.84	ug/L		96
8) bromomethane	4.480	96	213530	415.09	ug/L		96
9) chloroethane	4.624	64	228034	345.73	ug/L		98
10) ethyl ether	5.441	59	388648	374.60	ug/L		85
11) acetonitrile	5.120	41	137006	324.08	ug/L		87
12) trichlorofluoromethane	5.209	101	484294	406.19	ug/L		99
13) freon-113	5.950	101	256929	396.82	ug/L		89
14) acrolein	5.194	56	283625	1689.44	ug/L		99
15) 1,1-dichloroethene	5.757	96	266151	369.77	ug/L		97
16) acetone	5.320	58	79473	295.97	ug/L	#	57
17) Methyl Acetate	5.915	43	560406	319.66	ug/L		94
18) methylene chloride	5.899	84	346149	388.17	ug/L		86
19) methyl tert butyl ether	6.662	73	798310	360.51	ug/L		83
20) acrylonitrile	5.797	53	222748	335.47	ug/L		99
21) allyl chloride	5.984	41	541144	304.95	ug/L		91
22) trans-1,2-dichloroethene	6.553	96	320678	384.37	ug/L		94
23) iodomethane	5.799	142	237105	342.06	ug/L		78
24) carbon disulfide	6.138	76	892145	387.55	ug/L		99
25) propionitrile	6.803	54	87882	386.32	ug/L		100
26) vinyl acetate	6.893	43	1073414	465.52	ug/L		99
27) chloroprene	7.161	53	652745	358.25	ug/L		97
28) di-isopropyl ether	7.229	45	1577735	352.95	ug/L		96
29) methacrylonitrile	7.306	41	329025	354.99	ug/L		100
30) 2-butanone	7.208	72	51357	337.20	ug/L	#	67
31) Hexane	7.212	41	587038	345.21	ug/L	#	76
32) 1,1-dichloroethane	6.808	63	756125	368.23	ug/L		99
33) tert-butyl ethyl ether	7.614	59	1466506	582.24	ug/L		94
34) isobutyl alcohol	7.611	43	149018	2170.45	ug/L	#	7
35) 2,2-dichloropropane	7.647	77	267556	301.83	ug/L		90
36) cis-1,2-dichloroethene	7.374	96	366321	381.73	ug/L		96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75100.D  
 Acq On : 30 Jun 2013 6:33 pm  
 Operator : amym  
 Sample : ic3498-400  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 01 08:06:00 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:05:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.506	43	204274	330.44	ug/L	100
38) bromochloromethane	7.523	128	176622	397.16	ug/L #	85
39) chloroform	7.565	83	618033	366.97	ug/L	100
41) Tetrahydrofuran	7.888	42	157804	326.71	ug/L	95
42) 1,1,1-trichloroethane	8.304	97	465376	362.20	ug/L	98
44) Cyclohexane	8.599	56	722655	413.07	ug/L	91
45) carbon tetrachloride	8.657	117	270360	280.85	ug/L	99
46) 1,1-dichloropropene	8.484	75	439720	413.67	ug/L	93
47) benzene	8.675	78	1360442	381.24	ug/L	100
48) 1,2-dichloroethane	8.198	62	574869	367.10	ug/L	96
49) tert-amyl methyl ether	8.840	73	995174	497.44	ug/L	98
50) heptane	9.210	43	519000	388.25	ug/L	93
51) trichloroethene	9.318	95	353769	411.82	ug/L	81
52) 1,2-dichloropropane	9.274	63	474896	394.32	ug/L	100
53) dibromomethane	9.244	93	202772	351.82	ug/L	86
54) bromodichloromethane	9.359	83	438214	355.09	ug/L	99
55) Methylcyclohexane	9.844	83	477078	430.17	ug/L	90
56) 2-chloroethyl vinyl ether	9.846	63	4668	521.14	ug/L #	1
57) methyl methacrylate	9.472	69	279390	401.52	ug/L	94
58) 1,4-dioxane	9.477	88	23935	2868.88	ug/L	94
59) cis-1,3-dichloropropene	9.991	75	589099	485.50	ug/L	94
61) 4-methyl-2-pentanone	10.087	43	533429	355.15	ug/L	93
62) toluene	10.744	92	862746	360.02	ug/L	99
63) trans-1,3-dichloropropene	10.409	75	558964	584.54	ug/L	88
64) 1,1,2-trichloroethane	10.573	83	305519	419.76	ug/L	97
65) ethyl methacrylate	10.797	69	507199	382.65	ug/L	98
67) tetrachloroethene	11.495	166	360602	388.36	ug/L	96
68) 1,3-dichloropropane	10.814	76	547813	329.92	ug/L	99
69) dibromochloromethane	11.080	129	427875	360.90	ug/L	100
70) 1,2-dibromoethane	11.326	107	386735	361.55	ug/L	98
71) 2-hexanone	10.945	43	397168	218.79	ug/L	96
72) chlorobenzene	12.165	112	910986	326.22	ug/L	87
73) 1,1,1,2-tetrachloroethane	12.096	131	364147	354.60	ug/L	97
74) ethylbenzene	12.343	91	1645295	313.07	ug/L	96
75) m,p-xylene	12.527	106	1219768	666.23	ug/L	83
76) o-xylene	12.936	106	589135	339.05	ug/L	84
77) styrene	12.861	104	1094479	354.09	ug/L	82
78) bromoform	12.671	173	349677	431.07	ug/L	100
79) trans-1,4-dichloro-2-b...	13.105	53	190931	385.38	ug/L	93
81) isopropylbenzene	13.306	105	1452190	386.77	ug/L	96
83) bromobenzene	13.575	156	474960	398.81	ug/L #	80
84) 1,1,2,2-tetrachloroethane	12.955	83	487439	373.58	ug/L	97
85) 1,2,3-trichloropropane	13.099	75	588551	399.32	ug/L	98
86) n-propylbenzene	13.752	91	1693197	387.08	ug/L	96
87) 2-chlorotoluene	13.860	91	1086888	376.91	ug/L	88
88) 4-chlorotoluene	13.939	91	1113525	379.66	ug/L	90
89) 1,3,5-trimethylbenzene	14.025	105	1376099	371.29	ug/L	93
90) tert-butylbenzene	14.430	91	140526	350.76	ug/L	97
91) 1,2,4-trimethylbenzene	14.431	105	1403181	367.83	ug/L	94
92) sec-butylbenzene	14.558	105	1479620	400.13	ug/L	95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75100.D  
 Acq On : 30 Jun 2013 6:33 pm  
 Operator : amym  
 Sample : ic3498-400  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 01 08:06:00 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:05:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	14.647	146	732434	389.16	ug/L	97
94) p-isopropyltoluene	14.728	119	1235082	396.62	ug/L	92
95) 1,4-dichlorobenzene	14.712	146	819083	382.97	ug/L	96
96) 1,2-dichlorobenzene	15.086	146	746732	396.44	ug/L	96
97) n-butylbenzene	15.150	91	1236915	405.40	ug/L	91
98) 1,2-dibromo-3-chloropr...	15.555	75	101828	404.00	ug/L	71
99) 1,3,5-trichlorobenzene	16.372	180	593568	425.71	ug/L	99
100) 1,2,4-trichlorobenzene	16.912	180	570004	466.66	ug/L	100
101) hexachlorobutadiene	17.207	225	278908	456.92	ug/L	97
102) naphthalene	17.147	128	1479109	483.36	ug/L	100
103) 1,2,3-trichlorobenzene	17.366	180	529765	465.55	ug/L	99
104) 2-Methylnaphthalene	18.392	142	307338	383.84	ug/L	99
105) 1-Methylnaphthalene	18.608	142	277059	356.82	ug/L	100

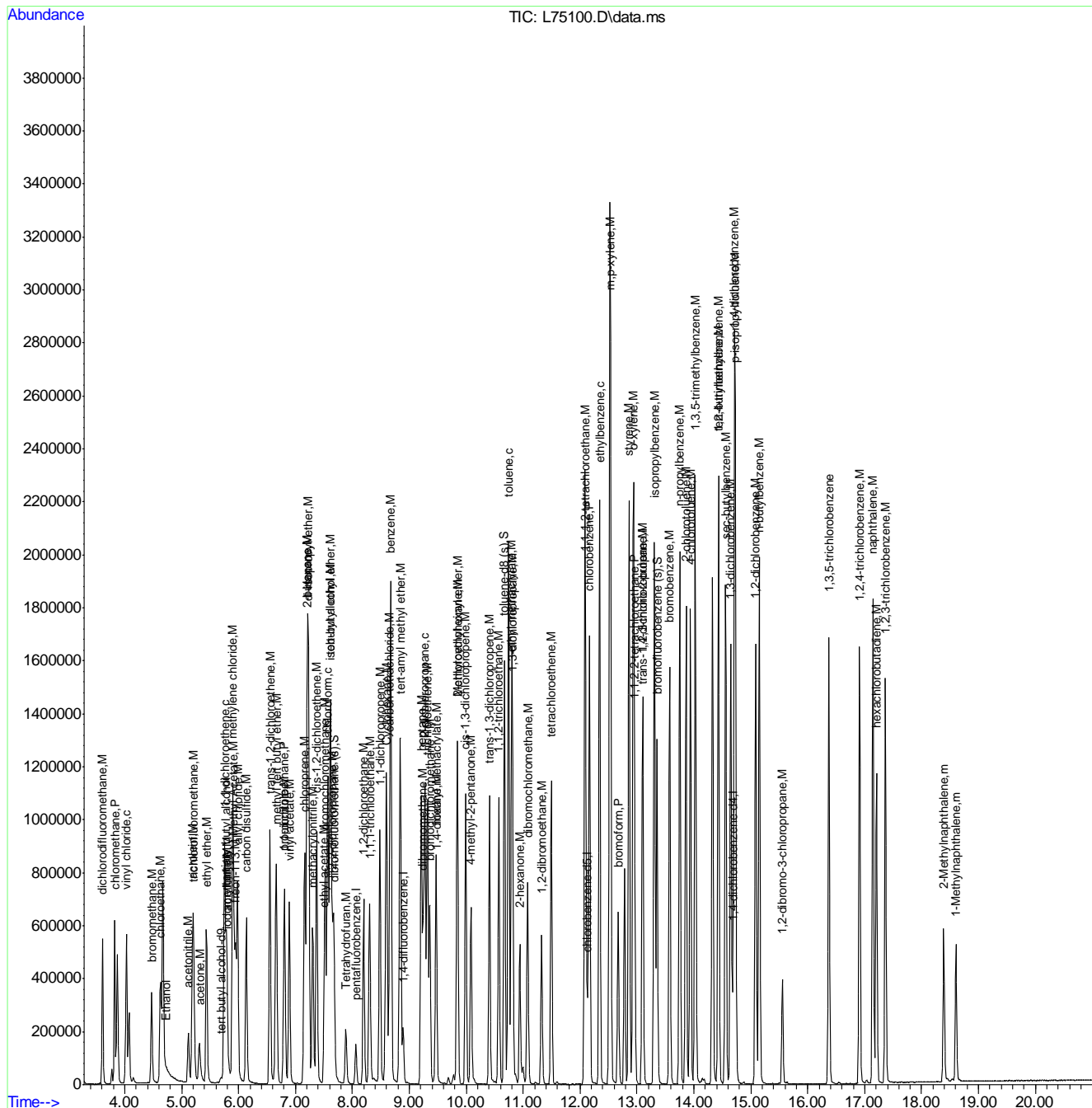
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\
Data File : L75100.D
Acq On : 30 Jun 2013 6:33 pm
Operator : amym
Sample : ic3498-400
Misc : ms29242,msl3498,,,5,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 01 08:06:00 2013
Quant Method : C:\msdchem\1\methods\l130630w.m
Quant Title : SW-846 Method 8260
QLast Update : Mon Jul 01 08:05:45 2013
Response via : Initial Calibration



7.6.10 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75103.D  
 Acq On : 30 Jun 2013 7:59 pm  
 Operator : amym  
 Sample : icv3498-50  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 01 08:22:53 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:18:17 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.735	65	49119	500.00	ug/L	0.00
4) pentafluorobenzene	8.064	168	107675	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.895	114	155618	50.00	ug/L	0.00
66) chlorobenzene-d5	12.130	82	87642	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.683	152	87756	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.676	113	37062	50.58	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.16%
60) toluene-d8 (s)	10.673	98	142028	51.49	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.98%
82) bromofluorobenzene (s)	13.352	95	55899	49.52	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.04%
Target Compounds						
2) tertiary butyl alcohol	5.797	59	67044	498.99	ug/L	96
3) Ethanol	4.766	45	101553	4385.21	ug/L	98
5) dichlorodifluoromethane	3.613	85	55853	55.24	ug/L	99
6) chloromethane	3.831	50	76007	56.92	ug/L	98
7) vinyl chloride	4.040	62	69199	49.15	ug/L	99
8) bromomethane	4.478	96	33112	66.28	ug/L	98
9) chloroethane	4.626	64	33951	54.17	ug/L	97
10) ethyl ether	5.443	59	50837	51.16	ug/L	84
12) trichlorofluoromethane	5.210	101	62986	52.55	ug/L	100
13) freon-113	5.945	101	35238	56.37	ug/L	89
14) acrolein	5.214	56	73306	517.20	ug/L	93
15) 1,1-dichloroethene	5.756	96	36102	56.02	ug/L	92
16) acetone	5.329	58	14581	58.35	ug/L	# 53
17) Methyl Acetate	5.922	43	85641	52.03	ug/L	# 94
18) methylene chloride	5.901	84	44820	52.19	ug/L	# 83
19) methyl tert butyl ether	6.665	73	127297	47.50	ug/L	88
20) acrylonitrile	5.803	53	33216	52.97	ug/L	96
21) allyl chloride	5.986	41	75968	49.69	ug/L	89
22) trans-1,2-dichloroethene	6.555	96	41756	52.00	ug/L	93
23) iodomethane	5.805	142	25074	32.24	ug/L	87
24) carbon disulfide	6.141	76	121708	54.94	ug/L	99
25) propionitrile	6.816	54	11597	53.00	ug/L	100
26) vinyl acetate	6.899	43	86867	35.23	ug/L	100
27) chloroprene	7.162	53	99343	57.26	ug/L	94
28) di-isopropyl ether	7.230	45	213406	50.13	ug/L	94
29) methacrylonitrile	7.312	41	45135	51.20	ug/L	99
30) 2-butanone	7.216	72	9188	63.84	ug/L	# 65
31) Hexane	7.213	41	82836	51.40	ug/L	# 95
32) 1,1-dichloroethane	6.807	63	102746	52.23	ug/L	99
33) tert-butyl ethyl ether	7.615	59	161695	49.20	ug/L	95
34) isobutyl alcohol	7.608	43	16381	240.05	ug/L	# 7
35) 2,2-dichloropropane	7.647	77	56010	54.60	ug/L	91
36) cis-1,2-dichloroethene	7.374	96	48028	52.04	ug/L	96
37) ethyl acetate	7.513	43	31351	59.44	ug/L	93

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75103.D  
 Acq On : 30 Jun 2013 7:59 pm  
 Operator : amym  
 Sample : icv3498-50  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 01 08:22:53 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:18:17 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	7.523	128	23144	53.90	ug/L #	83
39) chloroform	7.564	83	81266	50.38	ug/L	97
41) Tetrahydrofuran	7.899	42	22345	54.01	ug/L	99
42) 1,1,1-trichloroethane	8.303	97	68830	56.01	ug/L	96
44) Cyclohexane	8.596	56	87752	48.87	ug/L	93
45) carbon tetrachloride	8.657	117	57724	49.54	ug/L	98
46) 1,1-dichloropropene	8.484	75	57819	52.99	ug/L	93
47) benzene	8.676	78	183018	50.44	ug/L	99
48) 1,2-dichloroethane	8.199	62	81905	51.67	ug/L	96
49) tert-amyl methyl ether	8.844	73	111064	47.45	ug/L	95
50) heptane	9.212	43	64068	47.12	ug/L	95
51) trichloroethene	9.318	95	48245	52.54	ug/L	77
52) 1,2-dichloropropane	9.275	63	63303	51.55	ug/L	100
53) dibromomethane	9.245	93	30725	52.98	ug/L	89
54) bromodichloromethane	9.360	83	65259	52.42	ug/L	96
55) Methylcyclohexane	9.845	83	60163	52.54	ug/L #	84
56) 2-chloroethyl vinyl ether	9.841	63	475m	51.81	ug/L	
57) methyl methacrylate	9.476	69	36503	51.33	ug/L	88
58) 1,4-dioxane	9.480	88	2650	260.03	ug/L #	66
59) cis-1,3-dichloropropene	9.993	75	75150	48.92	ug/L	95
61) 4-methyl-2-pentanone	10.105	43	79422	52.61	ug/L	97
62) toluene	10.744	92	115535	47.67	ug/L	99
63) trans-1,3-dichloropropene	10.412	75	70628	51.57	ug/L	86
64) 1,1,2-trichloroethane	10.574	83	39337	50.57	ug/L	99
65) ethyl methacrylate	10.804	69	69546	51.68	ug/L #	63
67) tetrachloroethene	11.495	166	46552	58.65	ug/L	98
68) 1,3-dichloropropane	10.814	76	73771	53.15	ug/L	97
69) dibromochloromethane	11.079	129	52303	52.02	ug/L	98
70) 1,2-dibromoethane	11.327	107	48970	54.05	ug/L	99
71) 2-hexanone	10.964	43	69468	55.11	ug/L	95
72) chlorobenzene	12.165	112	130151	55.50	ug/L	84
73) 1,1,1,2-tetrachloroethane	12.095	131	46852	53.98	ug/L	96
74) ethylbenzene	12.344	91	219647	49.83	ug/L	95
75) m,p-xylene	12.527	106	168400	109.11	ug/L	85
76) o-xylene	12.935	106	82518	56.25	ug/L	84
77) styrene	12.861	104	138201	53.02	ug/L	82
78) bromoform	12.670	173	38732	50.38	ug/L	98
79) trans-1,4-dichloro-2-b...	13.107	53	22275	52.72	ug/L	92
81) isopropylbenzene	13.305	105	203169	55.68	ug/L	98
83) bromobenzene	13.575	156	59752	51.40	ug/L #	85
84) 1,1,2,2-tetrachloroethane	12.955	83	64311	52.03	ug/L	95
85) 1,2,3-trichloropropane	13.099	75	73649	51.18	ug/L	99
86) n-propylbenzene	13.751	91	234253	55.09	ug/L	97
87) 2-chlorotoluene	13.860	91	150251	53.80	ug/L	91
88) 4-chlorotoluene	13.939	91	158988	55.92	ug/L	89
89) 1,3,5-trimethylbenzene	14.025	105	173028	48.19	ug/L	95
90) tert-butylbenzene	14.429	91	18944	49.29	ug/L	92
91) 1,2,4-trimethylbenzene	14.430	105	177486	48.08	ug/L	96
92) sec-butylbenzene	14.557	105	206224	57.11	ug/L	95
93) 1,3-dichlorobenzene	14.646	146	97777	53.36	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75103.D  
 Acq On : 30 Jun 2013 7:59 pm  
 Operator : amym  
 Sample : icv3498-50  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 01 08:22:53 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:18:17 2013  
 Response via : Initial Calibration

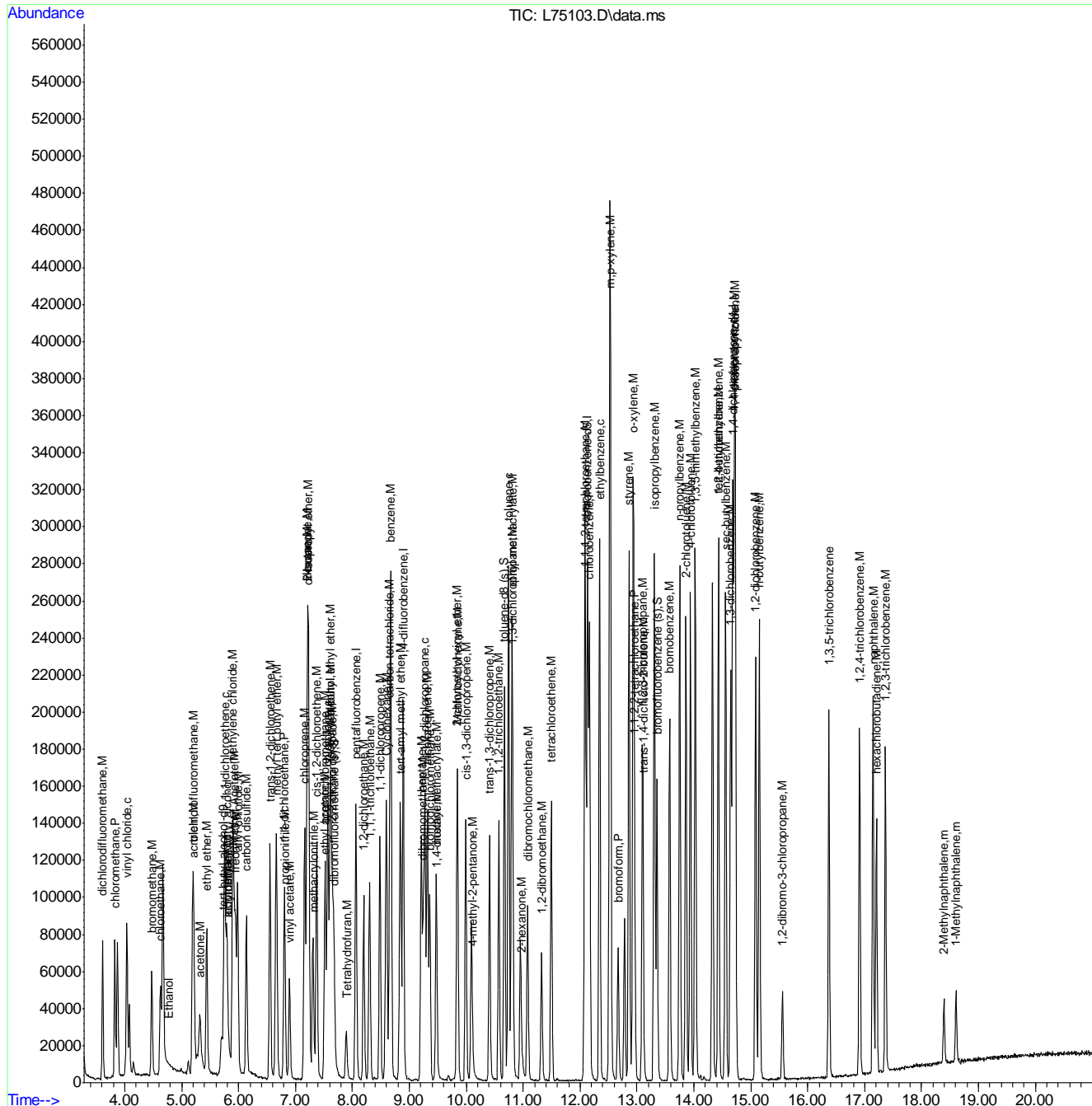
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	14.728	119	167301	55.08	ug/L	91
95) 1,4-dichlorobenzene	14.711	146	102284	49.21	ug/L	96
96) 1,2-dichlorobenzene	15.086	146	99244	54.01	ug/L	96
97) n-butylbenzene	15.151	91	155330	52.03	ug/L	94
98) 1,2-dibromo-3-chloropr...	15.556	75	12671	51.41	ug/L	79
99) 1,3,5-trichlorobenzene	16.372	180	68539	49.88	ug/L	99
100) 1,2,4-trichlorobenzene	16.912	180	63704	52.17	ug/L	96
101) hexachlorobutadiene	17.207	225	31552	51.88	ug/L	97
102) naphthalene	17.148	128	166899	48.81	ug/L	100
103) 1,2,3-trichlorobenzene	17.366	180	58476	51.42	ug/L	100
104) 2-Methylnaphthalene	18.394	142	18678	21.19	ug/L	99
105) 1-Methylnaphthalene	18.606	142	20296	22.45	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130630\  
 Data File : L75103.D  
 Acq On : 30 Jun 2013 7:59 pm  
 Operator : amym  
 Sample : icv3498-50  
 Misc : ms29242,msl3498,,,,5,1  
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 01 08:22:53 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 08:18:17 2013  
 Response via : Initial Calibration



7.6.11  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75123.D  
 Acq On : 1 Jul 2013 9:59 am  
 Operator : kerryr  
 Sample : cc3498-50  
 Misc : ms29242,msl3499,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 01 15:01:17 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	5.743	65	46344	500.00	ug/L	0.00
4) pentafluorobenzene	8.065	168	115505	50.00	ug/L	0.00
43) 1,4-difluorobenzene	8.896	114	160088	50.00	ug/L	0.00
66) chlorobenzene-d5	12.132	82	84999	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	14.685	152	84197	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	7.677	113	47935	48.79	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.58%
60) toluene-d8 (s)	10.674	98	185601	52.33	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.66%
82) bromofluorobenzene (s)	13.353	95	73617	54.38	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	108.76%
Target Compounds						
2) tertiary butyl alcohol	5.804	59	62812	495.48	ug/L	87
3) Ethanol	4.761	45	104531m	4784.09	ug/L	
5) dichlorodifluoromethane	3.614	85	56836	52.39	ug/L	97
6) chloromethane	3.832	50	67866	47.37	ug/L	99
7) vinyl chloride	4.042	62	75314	49.87	ug/L	93
8) bromomethane	4.478	96	28597	53.36	ug/L	100
9) chloroethane	4.627	64	30780	45.78	ug/L	97
10) ethyl ether	5.445	59	50520	47.39	ug/L	84
12) trichlorofluoromethane	5.211	101	66212	51.48	ug/L	95
13) freon-113	5.946	101	36137	53.89	ug/L	91
14) acrolein	5.203	56	36758	231.69	ug/L	99
15) 1,1-dichloroethene	5.757	96	33641	48.66	ug/L	98
16) acetone	5.333	58	12771	47.64	ug/L	# 61
17) Methyl Acetate	5.929	43	85947	48.68	ug/L	# 93
18) methylene chloride	5.902	84	43069	46.75	ug/L	# 78
19) methyl tert butyl ether	6.666	73	120786	42.26	ug/L	86
20) acrylonitrile	5.807	53	33127	49.25	ug/L	99
21) allyl chloride	5.986	41	78213	47.35	ug/L	90
22) trans-1,2-dichloroethene	6.556	96	40336	46.83	ug/L	88
23) iodomethane	5.799	142	30831	36.40	ug/L	85
24) carbon disulfide	6.141	76	116896	49.19	ug/L	99
25) propionitrile	6.820	54	11750	50.06	ug/L	100
26) vinyl acetate	6.904	43	132625	49.15	ug/L	100
27) chloroprene	7.164	53	92890	49.91	ug/L	99
28) di-isopropyl ether	7.231	45	217476	47.62	ug/L	98
29) methacrylonitrile	7.315	41	45216	47.82	ug/L	97
30) 2-butanone	7.218	72	8196	53.09	ug/L	# 46
31) Hexane	7.214	41	85549	49.49	ug/L	# 80
32) 1,1-dichloroethane	6.808	63	96713	45.83	ug/L	99
33) tert-butyl ethyl ether	7.616	59	142662	41.27	ug/L	93
34) isobutyl alcohol	7.611	43	15163	209.34	ug/L	# 5
35) 2,2-dichloropropane	7.648	77	59519	54.06	ug/L	87
36) cis-1,2-dichloroethene	7.376	96	45587	46.05	ug/L	88
37) ethyl acetate	7.516	43	26399	46.02	ug/L	95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75123.D  
 Acq On : 1 Jul 2013 9:59 am  
 Operator : kerryr  
 Sample : cc3498-50  
 Misc : ms29242,msl3499,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 01 15:01:17 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	7.524	128	21850	47.43	ug/L #	89
39) chloroform	7.566	83	78730	45.50	ug/L	94
41) Tetrahydrofuran	7.899	42	21718	48.66	ug/L	90
42) 1,1,1-trichloroethane	8.304	97	68186	51.72	ug/L	98
44) Cyclohexane	8.597	56	97690	52.89	ug/L	87
45) carbon tetrachloride	8.658	117	57368	47.84	ug/L	100
46) 1,1-dichloropropene	8.486	75	56614	50.44	ug/L	94
47) benzene	8.677	78	179307	48.04	ug/L	99
48) 1,2-dichloroethane	8.200	62	78599	48.20	ug/L	96
49) tert-amyl methyl ether	8.845	73	102320	42.94	ug/L	95
50) heptane	9.213	43	75033	53.64	ug/L	96
51) trichloroethene	9.319	95	45611	48.29	ug/L	82
52) 1,2-dichloropropane	9.275	63	60897	48.20	ug/L	100
53) dibromomethane	9.246	93	29154	48.87	ug/L	89
54) bromodichloromethane	9.361	83	62160	48.54	ug/L	97
55) Methylcyclohexane	9.846	83	61682	52.36	ug/L #	83
56) 2-chloroethyl vinyl ether	9.845	63	526	54.76	ug/L #	1
57) methyl methacrylate	9.478	69	35890	49.06	ug/L	90
58) 1,4-dioxane	9.474	88	2374	232.81	ug/L #	38
59) cis-1,3-dichloropropene	9.994	75	76341	48.30	ug/L	96
61) 4-methyl-2-pentanone	10.105	43	74797	48.16	ug/L	95
62) toluene	10.746	92	111073	44.55	ug/L	96
63) trans-1,3-dichloropropene	10.414	75	64922	46.34	ug/L	94
64) 1,1,2-trichloroethane	10.575	83	38233	47.79	ug/L	97
65) ethyl methacrylate	10.806	69	68219	49.28	ug/L #	44
67) tetrachloroethene	11.496	166	44363	57.63	ug/L	98
68) 1,3-dichloropropane	10.816	76	71638	53.22	ug/L	99
69) dibromochloromethane	11.081	129	50409	51.70	ug/L	95
70) 1,2-dibromoethane	11.328	107	46043	52.40	ug/L	93
71) 2-hexanone	10.971	43	63688	51.90	ug/L	97
72) chlorobenzene	12.167	112	114768	50.46	ug/L	87
73) 1,1,1,2-tetrachloroethane	12.097	131	44232	52.55	ug/L	93
74) ethylbenzene	12.345	91	210251	49.19	ug/L	97
75) m,p-xylene	12.529	106	154118	102.96	ug/L	84
76) o-xylene	12.936	106	72779	51.15	ug/L	83
77) styrene	12.862	104	131635	52.07	ug/L	81
78) bromoform	12.671	173	38640	51.84	ug/L	96
79) trans-1,4-dichloro-2-b...	13.108	53	22791	55.62	ug/L	88
81) isopropylbenzene	13.307	105	181177	51.75	ug/L	98
83) bromobenzene	13.577	156	56358	50.53	ug/L #	82
84) 1,1,2,2-tetrachloroethane	12.957	83	63997	54.02	ug/L	99
85) 1,2,3-trichloropropane	13.101	75	71738	51.96	ug/L	98
86) n-propylbenzene	13.753	91	211565	51.86	ug/L	98
87) 2-chlorotoluene	13.862	91	134008	50.01	ug/L	91
88) 4-chlorotoluene	13.941	91	137232	50.31	ug/L	90
89) 1,3,5-trimethylbenzene	14.026	105	169360	49.17	ug/L	95
90) tert-butylbenzene	14.431	91	17972	48.74	ug/L	89
91) 1,2,4-trimethylbenzene	14.432	105	170403	48.11	ug/L	94
92) sec-butylbenzene	14.558	105	183613	53.00	ug/L	97
93) 1,3-dichlorobenzene	14.648	146	86036	48.94	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75123.D  
 Acq On : 1 Jul 2013 9:59 am  
 Operator : kerryr  
 Sample : cc3498-50  
 Misc : ms29242,msl3499,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 01 15:01:17 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	14.730	119	152388	52.29	ug/L	91
95) 1,4-dichlorobenzene	14.712	146	96836	48.56	ug/L	95
96) 1,2-dichlorobenzene	15.087	146	87716	49.75	ug/L	96
97) n-butylbenzene	15.152	91	150541	52.56	ug/L	91
98) 1,2-dibromo-3-chloropr...	15.557	75	12140	51.34	ug/L	77
99) 1,3,5-trichlorobenzene	16.373	180	65298	49.53	ug/L	99
100) 1,2,4-trichlorobenzene	16.913	180	58594	50.01	ug/L	97
101) hexachlorobutadiene	17.208	225	29549	50.64	ug/L	95
102) naphthalene	17.150	128	153894	47.04	ug/L	100
103) 1,2,3-trichlorobenzene	17.367	180	54606	50.05	ug/L	100
104) 2-Methylnaphthalene	18.395	142	14157	18.03	ug/L	98
105) 1-Methylnaphthalene	18.607	142	14796	18.45	ug/L	96

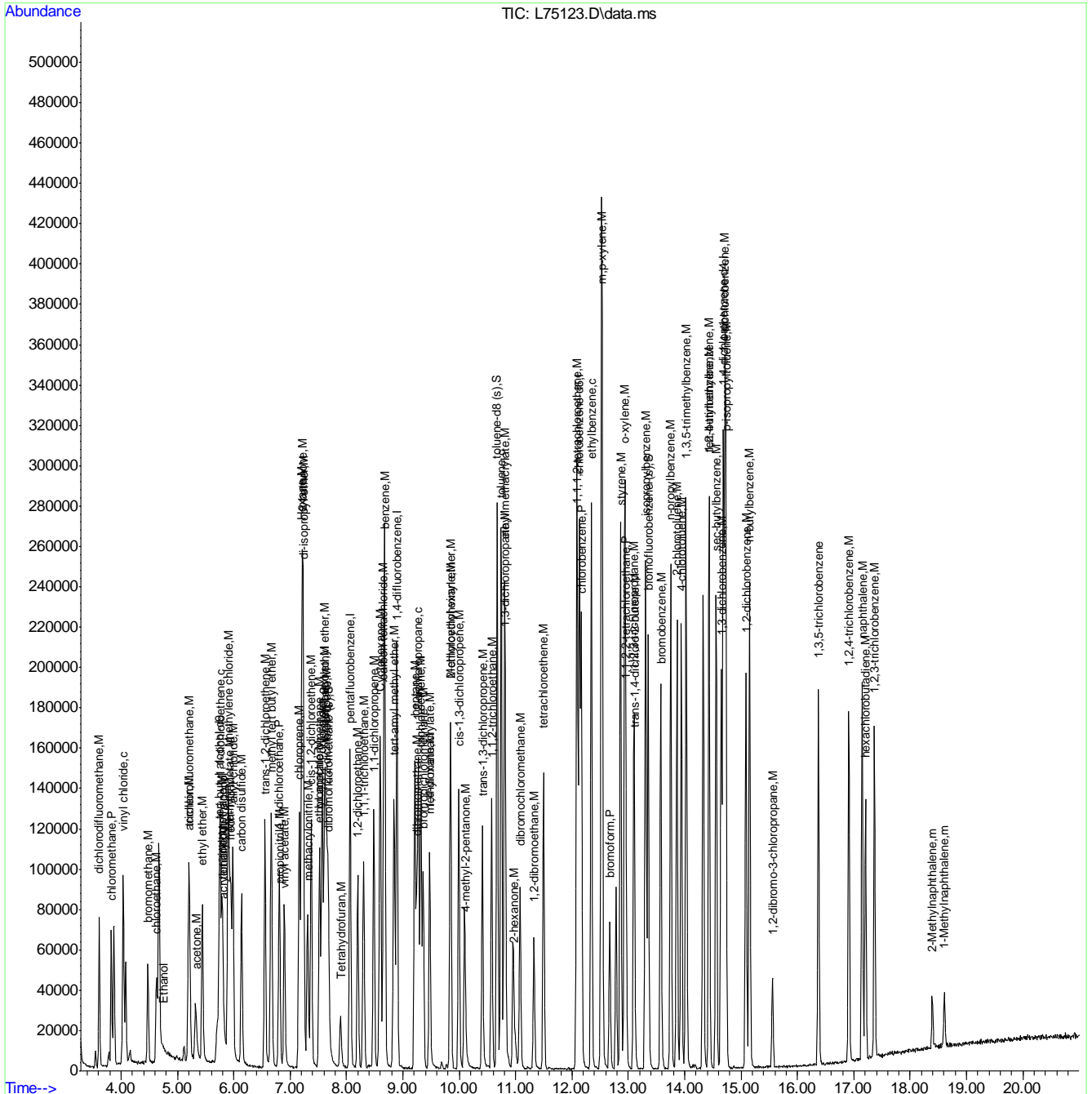
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\L130701\  
 Data File : L75123.D  
 Acq On : 1 Jul 2013 9:59 am  
 Operator : kerryr  
 Sample : cc3498-50  
 Misc : ms29242,msl3499,,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 01 15:01:17 2013  
 Quant Method : C:\msdchem\1\methods\l130630w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 01 10:23:45 2013  
 Response via : Initial Calibration



Standards Data

Daily Saved File

Lot #	Description	Conc
MS 9277	STUO CL	200 ug/ml
9264	BS	200
065	LS	50
348	SS	200

Tune file 1:	L75087
Tune file 2:	NA
Initial Cal:	6/30/13
ID File:	L130630
ICAL Verified:	KR
Sequence verified:	KL

Date: 6/29/13  
 Batch ID: MSL 3498  
 Analysts: KR  
 Signature: NA

\*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
L75087	HR	NA	NA	NA	1	NA	Sml	NA	1:1	ND	STUO CL
"	70	↓	↓	↓	2	↓	↓	↓	↓	↓	↓
"	71	↓	↓	↓	3	↓	↓	↓	↓	↓	↓
"	72	↓	↓	↓	4	↓	↓	↓	↓	↓	↓
"	73	↓	↓	↓	5	↓	↓	↓	↓	↓	↓
"	74	↓	↓	↓	6	↓	↓	↓	↓	↓	↓
"	75	↓	↓	↓	7	↓	↓	↓	↓	↓	↓
"	76	↓	↓	↓	8	↓	↓	↓	↓	↓	↓
"	77	↓	↓	↓	9	↓	↓	↓	↓	↓	↓
"	78	↓	↓	↓	10	↓	↓	↓	↓	↓	↓
"	79	↓	↓	↓	11	↓	↓	↓	↓	↓	↓
"	80	↓	↓	↓	12	↓	↓	↓	↓	↓	↓
"	81	↓	↓	↓	13	↓	↓	↓	↓	↓	↓
"	82	↓	↓	↓	14	↓	↓	↓	↓	↓	↓
"	83	↓	↓	↓	15	↓	↓	↓	↓	↓	↓
"	84	↓	↓	↓	16	↓	↓	↓	↓	↓	↓
"	85	↓	↓	↓	17	↓	↓	↓	↓	↓	↓
"	86	↓	↓	↓	18	↓	↓	↓	↓	↓	↓
"	87	↓	↓	↓	19	↓	↓	↓	↓	↓	↓
"	88	↓	↓	↓	20	↓	↓	↓	↓	↓	↓
"	89	↓	↓	↓	21	↓	↓	↓	↓	↓	↓
"	90	↓	↓	↓	22	↓	↓	↓	↓	↓	↓
"	91	↓	↓	↓	23	↓	↓	↓	↓	↓	↓
"	92	↓	↓	↓	24	↓	↓	↓	↓	↓	↓
"	93	↓	↓	↓	25	↓	↓	↓	↓	↓	↓
"	94	↓	↓	↓	26	↓	↓	↓	↓	↓	↓
"	95	↓	↓	↓	27	↓	↓	↓	↓	↓	↓
"	96	↓	↓	↓	28	↓	↓	↓	↓	↓	↓
"	97	↓	↓	↓	29	↓	↓	↓	↓	↓	↓
"	98	↓	↓	↓	30	↓	↓	↓	↓	↓	↓
"	99	↓	↓	↓	31	↓	↓	↓	↓	↓	↓
"	100	↓	↓	↓	32	↓	↓	↓	↓	↓	↓
"	101	↓	↓	↓	33	↓	↓	↓	↓	↓	↓
"	102	↓	↓	↓	34	↓	↓	↓	↓	↓	↓
"	103	↓	↓	↓	35	↓	↓	↓	↓	↓	↓
"	104	↓	↓	↓	36	↓	↓	↓	↓	↓	↓
"	105	↓	↓	↓	37	↓	↓	↓	↓	↓	↓
"	106	↓	↓	↓	38	↓	↓	↓	↓	↓	↓
"	107	↓	↓	↓	39	↓	↓	↓	↓	↓	↓
"	108	↓	↓	↓	40	↓	↓	↓	↓	↓	↓
"	109	↓	↓	↓	41	↓	↓	↓	↓	↓	↓
"	110	↓	↓	↓	42	↓	↓	↓	↓	↓	↓
"	111	↓	↓	↓	43	↓	↓	↓	↓	↓	↓
"	112	↓	↓	↓	44	↓	↓	↓	↓	↓	↓
"	113	↓	↓	↓	45	↓	↓	↓	↓	↓	↓
"	114	↓	↓	↓	46	↓	↓	↓	↓	↓	↓
"	115	↓	↓	↓	47	↓	↓	↓	↓	↓	↓
"	116	↓	↓	↓	48	↓	↓	↓	↓	↓	↓
"	117	↓	↓	↓	49	↓	↓	↓	↓	↓	↓
"	118	↓	↓	↓	50	↓	↓	↓	↓	↓	↓
"	119	↓	↓	↓	51	↓	↓	↓	↓	↓	↓
"	120	↓	↓	↓	52	↓	↓	↓	↓	↓	↓
"	121	↓	↓	↓	53	↓	↓	↓	↓	↓	↓
"	122	↓	↓	↓	54	↓	↓	↓	↓	↓	↓
"	123	↓	↓	↓	55	↓	↓	↓	↓	↓	↓
"	124	↓	↓	↓	56	↓	↓	↓	↓	↓	↓
"	125	↓	↓	↓	57	↓	↓	↓	↓	↓	↓
"	126	↓	↓	↓	58	↓	↓	↓	↓	↓	↓
"	127	↓	↓	↓	59	↓	↓	↓	↓	↓	↓
"	128	↓	↓	↓	60	↓	↓	↓	↓	↓	↓
"	129	↓	↓	↓	61	↓	↓	↓	↓	↓	↓
"	130	↓	↓	↓	62	↓	↓	↓	↓	↓	↓
"	131	↓	↓	↓	63	↓	↓	↓	↓	↓	↓
"	132	↓	↓	↓	64	↓	↓	↓	↓	↓	↓
"	133	↓	↓	↓	65	↓	↓	↓	↓	↓	↓
"	134	↓	↓	↓	66	↓	↓	↓	↓	↓	↓
"	135	↓	↓	↓	67	↓	↓	↓	↓	↓	↓
"	136	↓	↓	↓	68	↓	↓	↓	↓	↓	↓
"	137	↓	↓	↓	69	↓	↓	↓	↓	↓	↓
"	138	↓	↓	↓	70	↓	↓	↓	↓	↓	↓
"	139	↓	↓	↓	71	↓	↓	↓	↓	↓	↓
"	140	↓	↓	↓	72	↓	↓	↓	↓	↓	↓
"	141	↓	↓	↓	73	↓	↓	↓	↓	↓	↓
"	142	↓	↓	↓	74	↓	↓	↓	↓	↓	↓
"	143	↓	↓	↓	75	↓	↓	↓	↓	↓	↓
"	144	↓	↓	↓	76	↓	↓	↓	↓	↓	↓
"	145	↓	↓	↓	77	↓	↓	↓	↓	↓	↓
"	146	↓	↓	↓	78	↓	↓	↓	↓	↓	↓
"	147	↓	↓	↓	79	↓	↓	↓	↓	↓	↓
"	148	↓	↓	↓	80	↓	↓	↓	↓	↓	↓
"	149	↓	↓	↓	81	↓	↓	↓	↓	↓	↓
"	150	↓	↓	↓	82	↓	↓	↓	↓	↓	↓
"	151	↓	↓	↓	83	↓	↓	↓	↓	↓	↓
"	152	↓	↓	↓	84	↓	↓	↓	↓	↓	↓
"	153	↓	↓	↓	85	↓	↓	↓	↓	↓	↓
"	154	↓	↓	↓	86	↓	↓	↓	↓	↓	↓
"	155	↓	↓	↓	87	↓	↓	↓	↓	↓	↓
"	156	↓	↓	↓	88	↓	↓	↓	↓	↓	↓
"	157	↓	↓	↓	89	↓	↓	↓	↓	↓	↓
"	158	↓	↓	↓	90	↓	↓	↓	↓	↓	↓
"	159	↓	↓	↓	91	↓	↓	↓	↓	↓	↓
"	160	↓	↓	↓	92	↓	↓	↓	↓	↓	↓
"	161	↓	↓	↓	93	↓	↓	↓	↓	↓	↓
"	162	↓	↓	↓	94	↓	↓	↓	↓	↓	↓
"	163	↓	↓	↓	95	↓	↓	↓	↓	↓	↓
"	164	↓	↓	↓	96	↓	↓	↓	↓	↓	↓
"	165	↓	↓	↓	97	↓	↓	↓	↓	↓	↓
"	166	↓	↓	↓	98	↓	↓	↓	↓	↓	↓
"	167	↓	↓	↓	99	↓	↓	↓	↓	↓	↓
"	168	↓	↓	↓	100	↓	↓	↓	↓	↓	↓

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.

Standards Data

Daily Saved File

Lot #	Description	Conc
MS9277	V82601C	200 ug/ml
↓ 9261	BS	200 ↓
↓ 9279	IS/S	50 ↓

Tune file 1: L75123
Tune file 2: NA
Initial Cal: 6/30/13
ID File: L130630 L
ICAL Verified: KR
Sequence verified: KR

Date: 7/1/13  
 Batch ID: MSL3499  
 Analysts: KR  
 Signature: KR

\*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
L75121	Blank	NA	NA	NA	1	NA	5ml	NA	1:1	NA	
	22	↓	↓	↓	2	↓	↓	↓	↓	↓	
	23	0.3498-10	2	MS9277	3	↓	↓	↓	↓	↓	✓ MS9277
	24	bs	3	MS9261	4	↓	↓	↓	↓	↓	✓ MS9261
	25	ibit	NA	NA	5	↓	↓	↓	↓	↓	
	26	mb	↓	↓	6	↓	↓	↓	↓	↓	✓
	27	MC22115-9	2	MS29282	7	W/B	↓	↓	↓	72	✓
	28	MC21949-14	2	MS29268	8	6W	↓	↓	↓	↓	✓
	29	MC21906-4	1	MS29249	9	↓	↓	↓	1:10	↓	✓ E1
	30	MC22109-1	1	MS29264	10	RCP	↓	↓	1:1	↓	✓
	31	MC22101-15	3	MS29269	11	STD+MTX	↓	↓	↓	↓	✓
	32	↓ -19	3	↓	12	↓	↓	↓	↓	↓	✓
	33	MC21949-15	3	MS29268	13	↓	↓	↓	↓	↓	✓
	34	↓ -16	2	↓	14	↓	↓	↓	↓	72	✓
	35	MC22115-5	9	MS29282	15	S/D	↓	↓	↓	72	✓
	36	↓ -5ms	74.6	↓	16	↓	↓	↓	↓	↓	✓
	37	↓ -5ms	↓	↓	17	↓	↓	↓	↓	↓	✓
	38	blank	NA	↓	18	↓	↓	↓	↓	NA	
	39	MC22115-1	2	↓	19	↓	↓	↓	↓	72	✓
	40	-2	3	↓	20	↓	↓	↓	↓	↓	✓
	41	-3	1	↓	21	↓	↓	↓	↓	↓	✓
	42	-4	1	↓	22	↓	↓	↓	↓	↓	✓
	43	-6	3	↓	23	↓	↓	↓	↓	↓	✓
	44	-7	1	↓	24	↓	↓	↓	↓	↓	✓
	45	↓ -F	2	↓	25	↓	↓	↓	↓	↓	✓
	46	blank	NA	NA	26	NA	↓	↓	↓	↓	
	47	↓	↓	↓	27	↓	↓	↓	↓	↓	

KR 7/2/13

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.

7.7.2  
 7

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**SUMMARY OF THE ANALYTICAL DATA USABILITY  
NFARS, Niagara Falls, NY**

**Water Volatile Organic Analyses**  
**Samples Collected: June 24, 2013**  
**Samples Received: June 25, 2013**  
**Sample Delivery Group: MC22115**  
**Laboratory Reference Numbers:**

<b>Lab Sample ID</b>	<b>Field ID</b>
MC22115-1	SW10-5
MC22115-2	SW10-6
MC22115-3	SW10-6Q
MC22115-4	SW10-7
MC22115-5	SW3-2
MC22115-5D	SW3-2MS
MC22115-5S	SW3-2MSD
MC22115-6	SW3-3
MC22115-7	SW3-15
MC22115-8	SW99-10
MC22115-9	TB-06242013

Water samples were validated for analyses of volatile organics by the US EPA Region II data validation SOP (HW-24, Revision 2). Data were reviewed for usability according to the following criteria:

- \* - Data Completeness
- \* - GC/MS Tuning
- \* - Holding Times
  - Calibrations
- \* - Laboratory Blanks
  - Trip Blanks
  - Field Blanks
  - Storage Blank
- \* - System Monitoring Compound Recoveries
- \* - Internal Standard Recoveries
  - Matrix Spike / Matrix Spike Duplicate
- \* - Laboratory Control Samples
- \* - Compound Identification
- \* - Compound Quantitation

\* - Indicates that all criteria were met for this parameter.

**DATA VALIDATION SUMMARY**

No problems were detected that would affect the use of the data.

## Holding Times

Preserved aqueous samples and soils were analyzed within 14 days of collection.

## Tunes

No problems were detected with the tunes associated with the samples of this delivery group.

## System Monitoring Compound Recoveries

All of the surrogate recoveries were within the required limits.

## Calibrations

The percent RSDs of several of the compounds in the initial calibration were greater than 20%, but none were detected in the samples. The data were not required to be qualified.

All percent differences in the continuing calibration were less than 20%.

## Matrix Spike and Matrix Spike Duplicate

**Sample MC22115-5 / SW3-2 was used as the matrix spike and matrix spike duplicate. All recoveries were within the required limits with the following exceptions:**

Compound	MS %Rec,	MSD % Rec.
Iodomethane		69%
Hexachlorobutadiene	69%	
Acetone	131%	
sec-Butylbenzene	133%	
Tetrachloroethene	135%	
Methyl Tert Butyl Ether		63%
Vinyl Acetate		52%

Data for compounds with low recoveries were flagged with the :J: qualifier and are estimated values,

None of the compounds with the high recoveries were detected in the samples and the high recoveries do not affect the use of undetected data.

Many compounds had RPDs above the 30% quality control limit.

These were only flagged with the "J" qualifier when they were detected in a sample.

## Laboratory Control Sample

All of the laboratory control sample recoveries were within the required limits.

## Method Blanks

No compounds were detected in the method blank.

**Trip Blank**

No compounds were detected in the trip blank.

**Field Blank**

No compounds were detected in the field blank.

**Internal Standard Areas and Retention Times**

The recoveries and retention times of all internal standards were within the required quality control limits.

**Sample Results**

No problems were detected with the samples.

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Technical Report for

EA Engineering

NFARS, Niagara Falls, NY

6265401

Accutest Job Number: MC22232

Sampling Date: 06/25/13

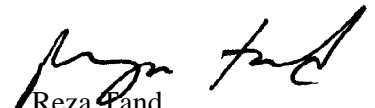
Report to:

EA Engineering  
6712 Brooklawn Parkway  
Syracuse, NY 13211  
fdesantis@eaest.com; mmiller@eaest.com  
  
ATTN: Frank DeSantis

Total number of pages in report: **446**



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



Reza Pand  
Lab Director

Client Service contact: Frank DAgostino 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) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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## Sample Summary

EA Engineering

Job No: MC22232

NFARS, Niagara Falls, NY  
Project No: 6265401

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC22232-1	06/25/13	08:15 RP	06/27/13	AQ	Ground Water	MW3-3DA
MC22232-2	06/25/13	07:57 RP	06/27/13	AQ	Ground Water	MW3-4DA
MC22232-3	06/25/13	07:50 RP	06/27/13	AQ	Ground Water	PW3-3A
MC22232-4	06/25/13	08:20 RP	06/27/13	AQ	Ground Water	PZ3-6D
MC22232-5	06/25/13	12:35 RP	06/27/13	AQ	Ground Water	PZ3-7D
MC22232-6	06/25/13	12:40 RP	06/27/13	AQ	Ground Water	PZ3-8D
MC22232-7	06/25/13	10:35 RP	06/27/13	AQ	Ground Water	MW5-1DA
MC22232-8	06/25/13	10:08 RP	06/27/13	AQ	Ground Water	MW5-5D
MC22232-9	06/25/13	10:13 RP	06/27/13	AQ	Ground Water	MW5-6
MC22232-10	06/25/13	10:30 RP	06/27/13	AQ	Ground Water	RW5-1
MC22232-11	06/25/13	10:22 RP	06/27/13	AQ	Ground Water	RW5-2
MC22232-12	06/25/13	10:00 RP	06/27/13	AQ	Ground Water	RW5-4
MC22232-13	06/25/13	08:40 RP	06/27/13	AQ	Ground Water	MW8-1



## Sample Summary

(continued)

EA Engineering

**Job No:** MC22232

NFARS, Niagara Falls, NY  
 Project No: 6265401

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC22232-14	06/25/13	08:47 RP	06/27/13	AQ	Ground Water	MW8-10D
MC22232-14D	06/25/13	08:47 RP	06/27/13	AQ	Water Dup/MSD	MW8-10D
MC22232-14S	06/25/13	08:47 RP	06/27/13	AQ	Water Matrix Spike	MW8-10D
MC22232-15	06/25/13	09:00 RP	06/27/13	AQ	Ground Water	MW8-11D
MC22232-16	06/25/13	10:54 RP	06/27/13	AQ	Ground Water	MW10-7
MC22232-17	06/25/13	11:10 RP	06/27/13	AQ	Ground Water	PW10-1
MC22232-18	06/25/13	11:07 RP	06/27/13	AQ	Ground Water	PW10-2
MC22232-19	06/25/13	11:23 RP	06/27/13	AQ	Ground Water	PW10-7
MC22232-20	06/25/13	09:43 RP	06/27/13	AQ	Ground Water	MW13-4D
MC22232-20D	06/25/13	09:43 RP	06/27/13	AQ	Water Dup/MSD	MW13-4D
MC22232-20S	06/25/13	09:43 RP	06/27/13	AQ	Water Matrix Spike	MW13-4D
MC22232-21	06/25/13	09:25 RP	06/27/13	AQ	Ground Water	MW13-5D
MC22232-22	06/25/13	11:07 RP	06/27/13	AQ	Ground Water	PW10-2Q



### Sample Summary (continued)

EA Engineering

Job No: MC22232

NFARS, Niagara Falls, NY  
Project No: 6265401

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
MC22232-23	06/25/13	08:13 RP	06/27/13	AQ	Ground Water	MW3-3DAQ
MC22232-24	06/25/13	00:00 RP	06/27/13	AQ	Trip Blank Water	TB-062513

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** EA Engineering

**Job No** MC22232

**Site:** NFARS, Niagara Falls, NY

**Report Date** 7/13/2013 5:29:25 PM

23 Sample(s), 1 Trip Blank(s) were collected on 06/25/2013 and were received at Accutest on 06/27/2013 properly preserved, at 2.5 Deg. C and intact. These Samples received an Accutest job number of MC22232. 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 8260B

<b>Matrix</b> AQ	<b>Batch ID:</b> MSN2928
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC22232-14MS, MC22232-14MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 2-Butanone (MEK), Acetone, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Acetone, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

<b>Matrix</b> AQ	<b>Batch ID:</b> MSN2929
------------------	--------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC22232-20MS, MC22232-20MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 2,2-Dichloropropane are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for Tetrachloroethene, Trichloroethene, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Acetone, Vinyl Acetate, Vinyl chloride, Tetrachloroethene, Trichloroethene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for Tetrachloroethene, Trichloroethene are outside control limits for sample MC22232-20MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

<b>Matrix</b> AQ	<b>Batch ID:</b> MSV802
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC22424-2MS, MC22424-2MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for Hexachlorobutadiene, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Butanone (MEK), Acetone, Carbon tetrachloride, Dichlorodifluoromethane, Hexachlorobutadiene, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Butanone (MEK), Acetone, Hexachlorobutadiene, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

<b>Matrix</b> AQ	<b>Batch ID:</b> MSV803
------------------	-------------------------

- Sample(s) MC22412-1MS, MC22412-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MS/MSD Recovery(s) for cis-1,2-Dichloroethene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

## Volatiles by GCMS By Method SW846 8260B

**Matrix** AQ

**Batch ID:** MSV803

- MC22232-22: Sample reanalyzed past recommended hold time.

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 (MC22232).



## Summary of Hits

**Job Number:** MC22232  
**Account:** EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Collected:** 06/25/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
<b>MC22232-1</b>		<b>MW3-3DA</b>				
	cis-1,2-Dichloroethene	4.9	1.0	0.54	ug/l	SW846 8260B
	Vinyl chloride	14.9	1.0	0.61	ug/l	SW846 8260B
<b>MC22232-2</b>		<b>MW3-4DA</b>				
	cis-1,2-Dichloroethene	4.6	1.0	0.54	ug/l	SW846 8260B
	Vinyl chloride	11.8	1.0	0.61	ug/l	SW846 8260B
<b>MC22232-3</b>		<b>PW3-3A</b>				
	Chloroform	0.90 J	1.0	0.50	ug/l	SW846 8260B
	cis-1,2-Dichloroethene	27.7	1.0	0.54	ug/l	SW846 8260B
	Trichloroethene	2.4	1.0	0.45	ug/l	SW846 8260B
	Vinyl chloride	16.2	1.0	0.61	ug/l	SW846 8260B
<b>MC22232-4</b>		<b>PZ3-6D</b>				
	cis-1,2-Dichloroethene	2.2	1.0	0.54	ug/l	SW846 8260B
	Vinyl chloride	4.0	1.0	0.61	ug/l	SW846 8260B
<b>MC22232-5</b>		<b>PZ3-7D</b>				
	cis-1,2-Dichloroethene	3.4	1.0	0.54	ug/l	SW846 8260B
	Vinyl chloride	7.7	1.0	0.61	ug/l	SW846 8260B
<b>MC22232-6</b>		<b>PZ3-8D</b>				
	Vinyl chloride	2.1	1.0	0.61	ug/l	SW846 8260B
<b>MC22232-7</b>		<b>MW5-1DA</b>				
No hits reported in this sample.						
<b>MC22232-8</b>		<b>MW5-5D</b>				
	Carbon disulfide	44.4	5.0	0.59	ug/l	SW846 8260B
	cis-1,2-Dichloroethene	302	1.0	0.54	ug/l	SW846 8260B
	trans-1,2-Dichloroethene	19.6	1.0	0.54	ug/l	SW846 8260B
	Vinyl chloride	1020	50	30	ug/l	SW846 8260B
<b>MC22232-9</b>		<b>MW5-6</b>				
	Chloroethane	2.1	2.0	0.84	ug/l	SW846 8260B

## Summary of Hits

**Job Number:** MC22232  
**Account:** EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Collected:** 06/25/13



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
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cis-1,2-Dichloroethene		7.1	1.0	0.54	ug/l	SW846 8260B
Trichloroethene		0.93 J	1.0	0.45	ug/l	SW846 8260B

**MC22232-10 RW5-1**

1,1-Dichloroethene		10.2	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		6370	100	54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		177	1.0	0.54	ug/l	SW846 8260B
Trichloroethene		823	100	45	ug/l	SW846 8260B
Vinyl chloride		172	1.0	0.61	ug/l	SW846 8260B

**MC22232-11 RW5-2**

cis-1,2-Dichloroethene		119	1.0	0.54	ug/l	SW846 8260B
Trichloroethene		2.3	1.0	0.45	ug/l	SW846 8260B
Vinyl chloride		17.7	1.0	0.61	ug/l	SW846 8260B

**MC22232-12 RW5-4**

cis-1,2-Dichloroethene		342	1.0	0.54	ug/l	SW846 8260B
Vinyl chloride		246	1.0	0.61	ug/l	SW846 8260B

**MC22232-13 MW8-1**

cis-1,2-Dichloroethene		6.7	1.0	0.54	ug/l	SW846 8260B
Vinyl chloride		14.3	1.0	0.61	ug/l	SW846 8260B

**MC22232-14 MW8-10D**

cis-1,2-Dichloroethene		7.0	1.0	0.54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		1.2	1.0	0.54	ug/l	SW846 8260B
Vinyl chloride		1.4	1.0	0.61	ug/l	SW846 8260B

**MC22232-15 MW8-11D**

No hits reported in this sample.

**MC22232-16 MW10-7**

cis-1,2-Dichloroethene		27.9	1.0	0.54	ug/l	SW846 8260B
Trichloroethene		19.4	1.0	0.45	ug/l	SW846 8260B

**MC22232-17 PW10-1**

cis-1,2-Dichloroethene		75.8	1.0	0.54	ug/l	SW846 8260B
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## Summary of Hits

**Job Number:** MC22232  
**Account:** EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Collected:** 06/25/13



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
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Trichloroethene		18.5	1.0	0.45	ug/l	SW846 8260B
Vinyl chloride		1.9	1.0	0.61	ug/l	SW846 8260B

**MC22232-18 PW10-2**

Benzene		3.8	0.50	0.45	ug/l	SW846 8260B
Carbon tetrachloride		10.9	1.0	0.62	ug/l	SW846 8260B
Chloroform		9.3	1.0	0.50	ug/l	SW846 8260B
1,1-Dichloroethene		2.6	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene		1340	100	54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		23.7	1.0	0.54	ug/l	SW846 8260B
Ethylbenzene		0.54 J	1.0	0.38	ug/l	SW846 8260B
Trichloroethene		46.6	1.0	0.45	ug/l	SW846 8260B
Vinyl chloride		79.4	1.0	0.61	ug/l	SW846 8260B

**MC22232-19 PW10-7**

No hits reported in this sample.

**MC22232-20 MW13-4D**

cis-1,2-Dichloroethene		18.1	1.0	0.54	ug/l	SW846 8260B
Vinyl chloride		15.0	1.0	0.61	ug/l	SW846 8260B

**MC22232-21 MW13-5D**

cis-1,2-Dichloroethene		20.9	1.0	0.54	ug/l	SW846 8260B
Trichloroethene		1.5	1.0	0.45	ug/l	SW846 8260B

**MC22232-22 PW10-2Q**

Benzene		4.5	0.50	0.45	ug/l	SW846 8260B
Carbon tetrachloride		6.6	1.0	0.62	ug/l	SW846 8260B
Chloroform		9.8	1.0	0.50	ug/l	SW846 8260B
1,1-Dichloroethene		2.7	1.0	0.67	ug/l	SW846 8260B
cis-1,2-Dichloroethene <sup>a</sup>		1300	100	54	ug/l	SW846 8260B
trans-1,2-Dichloroethene		17.6	1.0	0.54	ug/l	SW846 8260B
Ethylbenzene		0.63 J	1.0	0.38	ug/l	SW846 8260B
Trichloroethene		44.5	1.0	0.45	ug/l	SW846 8260B
Vinyl chloride		80.2	1.0	0.61	ug/l	SW846 8260B

**MC22232-23 MW3-3DAQ**

cis-1,2-Dichloroethene		4.5	1.0	0.54	ug/l	SW846 8260B
Vinyl chloride		17.1	1.0	0.61	ug/l	SW846 8260B

## Summary of Hits

**Job Number:** MC22232  
**Account:** EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Collected:** 06/25/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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**MC22232-24    TB-062513**

No hits reported in this sample.

(a) Sample reanalyzed past recommended hold time.

Sample Results

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Report of Analysis

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Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW3-3DA		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-1		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78006.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.9	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW3-3DA		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-1		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	14.9	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		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

<b>Client Sample ID:</b> MW3-3DA <b>Lab Sample ID:</b> MC22232-1 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		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

4.1  
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## Report of Analysis

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<b>Client Sample ID:</b> MW3-4DA		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-2		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78007.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.6	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW3-4DA		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-2		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	11.8	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		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

4.2  
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## Report of Analysis

<b>Client Sample ID:</b> MW3-4DA <b>Lab Sample ID:</b> MC22232-2 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		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

4.2  
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## Report of Analysis

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<b>Client Sample ID:</b> PW3-3A		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-3		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78008.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	0.90	1.0	0.50	ug/l	J
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	27.7	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> PW3-3A		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-3		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	2.4	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	16.2	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		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

4.3  
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## Report of Analysis

<b>Client Sample ID:</b> PW3-3A <b>Lab Sample ID:</b> MC22232-3 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**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	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

4.3  
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## Report of Analysis

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<b>Client Sample ID:</b> PZ3-6D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-4		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78009.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.2	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b>	PZ3-6D	<b>Date Sampled:</b>	06/25/13
<b>Lab Sample ID:</b>	MC22232-4	<b>Date Received:</b>	06/27/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	4.0	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		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

<b>Client Sample ID:</b> PZ3-6D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-4		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

### 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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<b>Client Sample ID:</b> PZ3-7D		
<b>Lab Sample ID:</b> MC22232-5		<b>Date Sampled:</b> 06/25/13
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 06/27/13
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78011.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.4	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> PZ3-7D	
<b>Lab Sample ID:</b> MC22232-5	<b>Date Sampled:</b> 06/25/13
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 06/27/13
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	7.7	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		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

<b>Client Sample ID:</b> PZ3-7D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-5		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		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

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## Report of Analysis

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<b>Client Sample ID:</b> PZ3-8D		
<b>Lab Sample ID:</b> MC22232-6		<b>Date Sampled:</b> 06/25/13
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 06/27/13
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78012.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> PZ3-8D	
<b>Lab Sample ID:</b> MC22232-6	<b>Date Sampled:</b> 06/25/13
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 06/27/13
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	2.1	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		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

<b>Client Sample ID:</b> PZ3-8D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-6		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		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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<b>Client Sample ID:</b> MW5-1DA		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-7		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78013.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW5-1DA		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-7		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		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

<b>Client Sample ID:</b> MW5-1DA <b>Lab Sample ID:</b> MC22232-7 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		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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<b>Client Sample ID:</b> MW5-5D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-8		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78014.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2	V20641.D	50	07/09/13	AMY	n/a	n/a	MSV802

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

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	44.4	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	302	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	19.6	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW5-5D	<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-8	<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> NFARS, Niagara Falls, NY	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	1020 <sup>a</sup>	50	30	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%	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

## Report of Analysis

<b>Client Sample ID:</b> MW5-5D <b>Lab Sample ID:</b> MC22232-8 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%	101%	70-130%
460-00-4	4-Bromofluorobenzene	99%	99%	70-130%

(a) Result is from Run# 2

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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<b>Client Sample ID:</b> MW5-6		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-9		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V20648.D	1	07/09/13	AMY	n/a	n/a	MSV802
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	2.1	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	7.1	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW5-6		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-9		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	0.93	1.0	0.45	ug/l	J
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		70-130%

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

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## Report of Analysis

<b>Client Sample ID:</b> MW5-6 <b>Lab Sample ID:</b> MC22232-9 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**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	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

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## Report of Analysis

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<b>Client Sample ID:</b> RW5-1		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-10		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78016.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2	V20642.D	100	07/09/13	AMY	n/a	n/a	MSV802

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

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	10.2	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	6370 <sup>a</sup>	100	54	ug/l	
156-60-5	trans-1,2-Dichloroethene	177	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b>	RW5-1	<b>Date Sampled:</b>	06/25/13
<b>Lab Sample ID:</b>	MC22232-10	<b>Date Received:</b>	06/27/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	823 <sup>a</sup>	100	45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	172	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%	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

## Report of Analysis

<b>Client Sample ID:</b> RW5-1		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-10		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

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### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	95%	101%	70-130%
460-00-4	4-Bromofluorobenzene	97%	99%	70-130%

(a) Result is from Run# 2

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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<b>Client Sample ID:</b> RW5-2		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-11		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V20645.D	1	07/09/13	AMY	n/a	n/a	MSV802
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	119	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b>	RW5-2	<b>Date Sampled:</b>	06/25/13
<b>Lab Sample ID:</b>	MC22232-11	<b>Date Received:</b>	06/27/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	2.3	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	17.7	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		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

<b>Client Sample ID:</b> RW5-2		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-11		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

### 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	99%		70-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit

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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<b>Client Sample ID:</b> RW5-4		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-12		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78018.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	342	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b>	RW5-4	<b>Date Sampled:</b>	06/25/13
<b>Lab Sample ID:</b>	MC22232-12	<b>Date Received:</b>	06/27/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	246	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		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

<b>Client Sample ID:</b> RW5-4		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-12		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

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### 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	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

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## Report of Analysis

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<b>Client Sample ID:</b> MW8-1		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-13		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78019.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	6.7	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW8-1		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-13		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	14.3	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		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

<b>Client Sample ID:</b> MW8-1 <b>Lab Sample ID:</b> MC22232-13 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**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	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

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## Report of Analysis

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<b>Client Sample ID:</b> MW8-10D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-14		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78004.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	7.0	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.2	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW8-10D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-14		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	1.4	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		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

<b>Client Sample ID:</b> MW8-10D <b>Lab Sample ID:</b> MC22232-14 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	98%		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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<b>Client Sample ID:</b> MW8-11D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-15		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78020.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW8-11D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-15		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		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

<b>Client Sample ID:</b> MW8-11D <b>Lab Sample ID:</b> MC22232-15 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**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

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## Report of Analysis

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<b>Client Sample ID:</b> MW10-7		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-16		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78021.D	1	07/08/13	JB	n/a	n/a	MSN2928
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	27.9	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW10-7	
<b>Lab Sample ID:</b> MC22232-16	<b>Date Sampled:</b> 06/25/13
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 06/27/13
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY	

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	19.4	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		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

<b>Client Sample ID:</b> MW10-7 <b>Lab Sample ID:</b> MC22232-16 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%		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

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## Report of Analysis

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<b>Client Sample ID:</b> PW10-1		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-17		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V20635.D	1	07/09/13	AMY	n/a	n/a	MSV802
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	75.8	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> PW10-1		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-17		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	18.5	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	1.9	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	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

## Report of Analysis

<b>Client Sample ID:</b> PW10-1		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-17		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

### 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	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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<b>Client Sample ID:</b> PW10-2		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-18		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V20636.D	1	07/09/13	AMY	n/a	n/a	MSV802
Run #2	V20656.D	100	07/09/13	AMY	n/a	n/a	MSV803

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

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	3.8	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	10.9	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	9.3	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	2.6	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	1340 <sup>a</sup>	100	54	ug/l	
156-60-5	trans-1,2-Dichloroethene	23.7	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> PW10-2		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-18		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	0.54	1.0	0.38	ug/l	J
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	46.6	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	79.4	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	103%	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

<b>Client Sample ID:</b> PW10-2	<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-18	<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> NFARS, Niagara Falls, NY	

### VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	102%	101%	70-130%
460-00-4	4-Bromofluorobenzene	99%	99%	70-130%

(a) Result is from Run# 2

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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<b>Client Sample ID:</b> PW10-7		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-19		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	V20647.D	1	07/09/13	AMY	n/a	n/a	MSV802

Run #1	Purge Volume
Run #2	5.0 ml

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> PW10-7		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-19		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		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

<b>Client Sample ID:</b> PW10-7 <b>Lab Sample ID:</b> MC22232-19 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**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	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

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## Report of Analysis

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<b>Client Sample ID:</b> MW13-4D	
<b>Lab Sample ID:</b> MC22232-20	<b>Date Sampled:</b> 06/25/13
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 06/27/13
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> NFARS, Niagara Falls, NY	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	N78033.D	1	07/09/13	JB	n/a	n/a	MSN2929

Run #1	Purge Volume
Run #2	5.0 ml

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	18.1	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW13-4D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-20		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	15.0	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		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

<b>Client Sample ID:</b> MW13-4D <b>Lab Sample ID:</b> MC22232-20 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**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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<b>Client Sample ID:</b> MW13-5D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-21		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78034.D	1	07/09/13	JB	n/a	n/a	MSN2929
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	20.9	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW13-5D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-21		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	1.5	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		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

<b>Client Sample ID:</b> MW13-5D		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-21		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

### 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	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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<b>Client Sample ID:</b> PW10-2Q		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-22		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78035.D	1	07/09/13	JB	n/a	n/a	MSN2929
Run #2 <sup>a</sup>	V20657.D	100	07/10/13	AMY	n/a	n/a	MSV803

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

## VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	4.5	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	6.6	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	9.8	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	2.7	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	1300 <sup>b</sup>	100	54	ug/l	
156-60-5	trans-1,2-Dichloroethene	17.6	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> PW10-2Q		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-22		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	0.63	1.0	0.38	ug/l	J
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	44.5	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	80.2	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	103%	70-130%

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

<b>Client Sample ID:</b> PW10-2Q <b>Lab Sample ID:</b> MC22232-22 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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4.22  
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**VOA 8260 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	99%	102%	70-130%
460-00-4	4-Bromofluorobenzene	95%	100%	70-130%

- (a) Sample reanalyzed past recommended hold time.
- (b) Result is from Run# 2

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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<b>Client Sample ID:</b> MW3-3DAQ		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-23		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V20646.D	1	07/09/13	AMY	n/a	n/a	MSV802
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.5	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> MW3-3DAQ		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-23		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	17.1	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		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

<b>Client Sample ID:</b> MW3-3DAQ <b>Lab Sample ID:</b> MC22232-23 <b>Matrix:</b> AQ - Ground Water <b>Method:</b> SW846 8260B <b>Project:</b> NFARS, Niagara Falls, NY	<b>Date Sampled:</b> 06/25/13 <b>Date Received:</b> 06/27/13 <b>Percent Solids:</b> n/a
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**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	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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<b>Client Sample ID:</b> TB-062513	<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-24	<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Trip Blank Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> NFARS, Niagara Falls, NY	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N78030.D	1	07/08/13	JB	n/a	n/a	MSN2929
Run #2							

Run #1	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	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	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

<b>Client Sample ID:</b> TB-062513		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-24		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Trip Blank Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

**VOA 8260 List**

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		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

<b>Client Sample ID:</b> TB-062513		<b>Date Sampled:</b> 06/25/13
<b>Lab Sample ID:</b> MC22232-24		<b>Date Received:</b> 06/27/13
<b>Matrix:</b> AQ - Trip Blank Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B		
<b>Project:</b> NFARS, Niagara Falls, NY		

4.24  
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**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	95%		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

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### Custody Documents and Other Forms

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Includes the following where applicable:

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







## Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** MC22232      **Client:** EA      **Immediate Client Services Action Required:** No  
**Date / Time Received:** 6/27/2013      **Delivery Method:** \_\_\_\_\_      **Client Service Action Required at Login:** No  
**Project:** NFARS      **No. Coolers:** 2      **Airbill #'s:** \_\_\_\_\_

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

**Cooler Temperature**      Y or N  
 1. Temp criteria achieved:    
 2. Cooler temp verification: \_\_\_\_\_ Infared gun  
 3. Cooler media: \_\_\_\_\_ Ice (bag)

**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

5.1  
5

### Internal Sample Tracking Chronicle

EA Engineering

Job No: MC22232

NFARS, Niagara Falls, NY  
 Project No: 6265401

5.2  
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC22232-1	Collected: 25-JUN-13 08:15	By: RP		Received: 27-JUN-13	By: AF	
MW3-3DA						
MC22232-1	SW846 8260B	08-JUL-13 12:30	JB			V8260STD
MC22232-2	Collected: 25-JUN-13 07:57	By: RP		Received: 27-JUN-13	By: AF	
MW3-4DA						
MC22232-2	SW846 8260B	08-JUL-13 12:58	JB			V8260STD
MC22232-3	Collected: 25-JUN-13 07:50	By: RP		Received: 27-JUN-13	By: AF	
PW3-3A						
MC22232-3	SW846 8260B	08-JUL-13 13:26	JB			V8260STD
MC22232-4	Collected: 25-JUN-13 08:20	By: RP		Received: 27-JUN-13	By: AF	
PZ3-6D						
MC22232-4	SW846 8260B	08-JUL-13 13:54	JB			V8260STD
MC22232-5	Collected: 25-JUN-13 12:35	By: RP		Received: 27-JUN-13	By: AF	
PZ3-7D						
MC22232-5	SW846 8260B	08-JUL-13 14:51	JB			V8260STD
MC22232-6	Collected: 25-JUN-13 12:40	By: RP		Received: 27-JUN-13	By: AF	
PZ3-8D						
MC22232-6	SW846 8260B	08-JUL-13 15:19	JB			V8260STD
MC22232-7	Collected: 25-JUN-13 10:35	By: RP		Received: 27-JUN-13	By: AF	
MW5-1DA						
MC22232-7	SW846 8260B	08-JUL-13 15:47	JB			V8260STD
MC22232-8	Collected: 25-JUN-13 10:08	By: RP		Received: 27-JUN-13	By: AF	
MW5-5D						
MC22232-8	SW846 8260B	08-JUL-13 16:15	JB			V8260STD
MC22232-8	SW846 8260B	09-JUL-13 17:08	AMY			V8260STD

### Internal Sample Tracking Chronicle

EA Engineering

Job No: MC22232

NFARS, Niagara Falls, NY  
 Project No: 6265401

5.2  
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC22232-9 Collected: 25-JUN-13 10:13 By: RP Received: 27-JUN-13 By: AF MW5-6						
MC22232-9	SW846 8260B	09-JUL-13 20:13	AMY			V8260STD
MC22232-10 Collected: 25-JUN-13 10:30 By: RP Received: 27-JUN-13 By: AF RW5-1						
MC22232-10	SW846 8260B	08-JUL-13 17:11	JB			V8260STD
MC22232-10	SW846 8260B	09-JUL-13 17:34	AMY			V8260STD
MC22232-11 Collected: 25-JUN-13 10:22 By: RP Received: 27-JUN-13 By: AF RW5-2						
MC22232-11	SW846 8260B	09-JUL-13 18:54	AMY			V8260STD
MC22232-12 Collected: 25-JUN-13 10:00 By: RP Received: 27-JUN-13 By: AF RW5-4						
MC22232-12	SW846 8260B	08-JUL-13 18:08	JB			V8260STD
MC22232-13 Collected: 25-JUN-13 08:40 By: RP Received: 27-JUN-13 By: AF MW8-1						
MC22232-13	SW846 8260B	08-JUL-13 18:36	JB			V8260STD
MC22232-14 Collected: 25-JUN-13 08:47 By: RP Received: 27-JUN-13 By: AF MW8-10D						
MC22232-14	SW846 8260B	08-JUL-13 11:34	JB			V8260STD
MC22232-15 Collected: 25-JUN-13 09:00 By: RP Received: 27-JUN-13 By: AF MW8-11D						
MC22232-15	SW846 8260B	08-JUL-13 19:04	JB			V8260STD
MC22232-16 Collected: 25-JUN-13 10:54 By: RP Received: 27-JUN-13 By: AF MW10-7						

### Internal Sample Tracking Chronicle

EA Engineering

Job No: MC22232

NFARS, Niagara Falls, NY  
Project No: 6265401

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC22232-1	SW846 8260B	08-JUL-13 19:32	JB			V8260STD
MC22232-17 Collected: 25-JUN-13 11:10 By: RP Received: 27-JUN-13 By: AF PW10-1						
MC22232-17	SW846 8260B	09-JUL-13 14:28	AMY			V8260STD
MC22232-18 Collected: 25-JUN-13 11:07 By: RP Received: 27-JUN-13 By: AF PW10-2						
MC22232-18	SW846 8260B	09-JUL-13 14:55	AMY			V8260STD
MC22232-18	SW846 8260B	09-JUL-13 23:44	AMY			V8260STD
MC22232-19 Collected: 25-JUN-13 11:23 By: RP Received: 27-JUN-13 By: AF PW10-7						
MC22232-19	SW846 8260B	09-JUL-13 19:47	AMY			V8260STD
MC22232-20 Collected: 25-JUN-13 09:43 By: RP Received: 27-JUN-13 By: AF MW13-4D						
MC22232-20	SW846 8260B	09-JUL-13 01:10	JB			V8260STD
MC22232-21 Collected: 25-JUN-13 09:25 By: RP Received: 27-JUN-13 By: AF MW13-5D						
MC22232-21	SW846 8260B	09-JUL-13 01:39	JB			V8260STD
MC22232-22 Collected: 25-JUN-13 11:07 By: RP Received: 27-JUN-13 By: AF PW10-2Q						
MC22232-22	SW846 8260B	09-JUL-13 02:07	JB			V8260STD
MC22232-22	SW846 8260B	10-JUL-13 00:11	AMY			V8260STD
MC22232-23 Collected: 25-JUN-13 08:13 By: RP Received: 27-JUN-13 By: AF MW3-3DAQ						
MC22232-23	SW846 8260B	09-JUL-13 19:20	AMY			V8260STD

### Internal Sample Tracking Chronicle

EA Engineering

Job No: MC22232

NFARS, Niagara Falls, NY  
Project No: 6265401

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
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MC22232-24 Collected: 25-JUN-13 00:00 By: RP Received: 27-JUN-13 By: AF  
TB-062513

MC22232-24 SW846 8260B 08-JUL-13 23:46 JB V8260STD

5.2  
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# Accutest Internal Chain of Custody

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Received:** 06/27/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC22232-1.1	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-1.1	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-1.1	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-1.1	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-2.2	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-2.2	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-2.2	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-2.2	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-3.2	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-3.2	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-3.2	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-3.2	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-4.1	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-4.1	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-4.1	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-4.1	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-5.3	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-5.3	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-5.3	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-5.3	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-6.3	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-6.3	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-6.3	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-6.3	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-7.1	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-7.1	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-7.1	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-7.1	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-8.1	VOC Ref #3	Amy Min Yang	07/09/13 13:13	Retrieve from Storage
MC22232-8.1	Amy Min Yang	GCMSV	07/09/13 13:13	Load on Instrument
MC22232-8.1	GCMSV	Amy Min Yang	07/10/13 11:34	Unload from Instrument
MC22232-8.1	Amy Min Yang	VOC Ref #3	07/10/13 11:34	Return to Storage
MC22232-8.2	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-8.2	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-8.2	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-8.2	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:23	Return to Storage

5.3  
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# Accutest Internal Chain of Custody

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Received:** 06/27/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC22232-9.1	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-9.1	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-9.1	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-9.1	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-9.2	VOC Ref #3	Amy Min Yang	07/09/13 13:13	Retrieve from Storage
MC22232-9.2	Amy Min Yang	GCMSV	07/09/13 13:13	Load on Instrument
MC22232-9.2	GCMSV	Amy Min Yang	07/10/13 11:34	Unload from Instrument
MC22232-9.2	Amy Min Yang	VOC Ref #3	07/10/13 11:34	Return to Storage
MC22232-10.1	VOC Ref #3	Amy Min Yang	07/09/13 13:13	Retrieve from Storage
MC22232-10.1	Amy Min Yang	GCMSV	07/09/13 13:13	Load on Instrument
MC22232-10.1	GCMSV	Amy Min Yang	07/10/13 11:34	Unload from Instrument
MC22232-10.1	Amy Min Yang	VOC Ref #3	07/10/13 11:34	Return to Storage
MC22232-10.3	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-10.3	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-10.3	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-10.3	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-11.1	VOC Ref #3	Amy Min Yang	07/09/13 13:13	Retrieve from Storage
MC22232-11.1	Amy Min Yang	GCMSV	07/09/13 13:13	Load on Instrument
MC22232-11.1	GCMSV	Amy Min Yang	07/10/13 11:34	Unload from Instrument
MC22232-11.1	Amy Min Yang	VOC Ref #3	07/10/13 11:34	Return to Storage
MC22232-11.2	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-11.2	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-11.2	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-11.2	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-12.1	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-12.1	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-12.1	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-12.1	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-13.3	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-13.3	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-13.3	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-13.3	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-14.2	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-14.2	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-14.2	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument

5.3  
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# Accutest Internal Chain of Custody

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Received:** 06/27/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC22232-14.2	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-14.4	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-14.4	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-14.4	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-14.4	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-14.5	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-14.5	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-14.5	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-14.5	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-14.7	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-14.7	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-14.7	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-14.7	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-15.1	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-15.1	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-15.1	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-15.1	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-16.2	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-16.2	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-16.2	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-16.2	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-17.1	VOC Ref #3	Amy Min Yang	07/09/13 13:13	Retrieve from Storage
MC22232-17.1	Amy Min Yang	GCMSV	07/09/13 13:13	Load on Instrument
MC22232-17.1	GCMSV	Amy Min Yang	07/10/13 11:34	Unload from Instrument
MC22232-17.1	Amy Min Yang	VOC Ref #3	07/10/13 11:34	Return to Storage
MC22232-17.3	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-17.3	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-17.3	GCMSN	Jaclyn Bergeron	07/08/13 14:41	Unload from Instrument
MC22232-17.3	Jaclyn Bergeron	VOC Ref #3	07/08/13 14:41	Return to Storage
MC22232-18.1	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-18.1	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-18.1	GCMSN	Jaclyn Bergeron	07/08/13 14:41	Unload from Instrument
MC22232-18.1	Jaclyn Bergeron	VOC Ref #3	07/08/13 14:41	Return to Storage
MC22232-18.1	VOC Ref #3	Amy Min Yang	07/09/13 13:13	Retrieve from Storage
MC22232-18.1	Amy Min Yang	GCMSV	07/09/13 13:13	Load on Instrument
MC22232-18.1	GCMSV	Amy Min Yang	07/10/13 11:34	Unload from Instrument

5.3  
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# Accutest Internal Chain of Custody

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Received:** 06/27/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC22232-18.1	Amy Min Yang	VOC Ref #3	07/10/13 11:34	Return to Storage
MC22232-18.2	VOC Ref #3	Amy Min Yang	07/09/13 16:42	Retrieve from Storage
MC22232-18.2	Amy Min Yang	GCMSV	07/09/13 16:42	Load on Instrument
MC22232-18.2	GCMSV	Amy Min Yang	07/10/13 11:34	Unload from Instrument
MC22232-18.2	Amy Min Yang	VOC Ref #3	07/10/13 11:34	Return to Storage
MC22232-19.1	VOC Ref #3	Amy Min Yang	07/09/13 13:13	Retrieve from Storage
MC22232-19.1	Amy Min Yang	GCMSV	07/09/13 13:13	Load on Instrument
MC22232-19.1	GCMSV	Amy Min Yang	07/10/13 11:34	Unload from Instrument
MC22232-19.1	Amy Min Yang	VOC Ref #3	07/10/13 11:34	Return to Storage
MC22232-19.2	VOC Ref #3	Jaclyn Bergeron	07/08/13 10:33	Retrieve from Storage
MC22232-19.2	Jaclyn Bergeron	GCMSN	07/08/13 10:33	Load on Instrument
MC22232-19.2	GCMSN	Jaclyn Bergeron	07/08/13 13:54	Unload from Instrument
MC22232-19.2	Jaclyn Bergeron	VOC Ref #3	07/08/13 13:54	Return to Storage
MC22232-20.1	VOC Ref #3	Jaclyn Bergeron	07/08/13 14:47	Retrieve from Storage
MC22232-20.1	Jaclyn Bergeron	GCMSN	07/08/13 14:47	Load on Instrument
MC22232-20.1	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-20.1	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-20.4	VOC Ref #3	Jaclyn Bergeron	07/08/13 14:47	Retrieve from Storage
MC22232-20.4	Jaclyn Bergeron	GCMSN	07/08/13 14:47	Load on Instrument
MC22232-20.4	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-20.4	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-20.5	VOC Ref #3	Jaclyn Bergeron	07/08/13 14:47	Retrieve from Storage
MC22232-20.5	Jaclyn Bergeron	GCMSN	07/08/13 14:47	Load on Instrument
MC22232-20.5	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-20.5	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-20.9	VOC Ref #3	Jaclyn Bergeron	07/08/13 14:47	Retrieve from Storage
MC22232-20.9	Jaclyn Bergeron	GCMSN	07/08/13 14:47	Load on Instrument
MC22232-20.9	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-20.9	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-21.2	VOC Ref #3	Jaclyn Bergeron	07/08/13 14:47	Retrieve from Storage
MC22232-21.2	Jaclyn Bergeron	GCMSN	07/08/13 14:47	Load on Instrument
MC22232-21.2	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-21.2	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-22.1	VOC Ref #3	Amy Min Yang	07/09/13 13:13	Retrieve from Storage
MC22232-22.1	Amy Min Yang	GCMSV	07/09/13 13:13	Load on Instrument

5.3  
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# Accutest Internal Chain of Custody

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY  
**Received:** 06/27/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC22232-22.1	GCMSV	Amy Min Yang	07/10/13 11:34	Unload from Instrument
MC22232-22.1	Amy Min Yang	VOC Ref #3	07/10/13 11:34	Return to Storage
MC22232-22.2	VOC Ref #3	Jaclyn Bergeron	07/08/13 14:47	Retrieve from Storage
MC22232-22.2	Jaclyn Bergeron	GCMSN	07/08/13 14:47	Load on Instrument
MC22232-22.2	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-22.2	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-23.1	VOC Ref #3	Amy Min Yang	07/09/13 13:13	Retrieve from Storage
MC22232-23.1	Amy Min Yang	GCMSV	07/09/13 13:13	Load on Instrument
MC22232-23.1	GCMSV	Amy Min Yang	07/10/13 11:34	Unload from Instrument
MC22232-23.1	Amy Min Yang	VOC Ref #3	07/10/13 11:34	Return to Storage
MC22232-23.3	VOC Ref #3	Jaclyn Bergeron	07/08/13 14:47	Retrieve from Storage
MC22232-23.3	Jaclyn Bergeron	GCMSN	07/08/13 14:47	Load on Instrument
MC22232-23.3	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-23.3	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage
MC22232-24.1	VOC Ref #3	Jaclyn Bergeron	07/08/13 14:47	Retrieve from Storage
MC22232-24.1	Jaclyn Bergeron	GCMSN	07/08/13 14:47	Load on Instrument
MC22232-24.1	GCMSN	Jaclyn Bergeron	07/09/13 09:20	Unload from Instrument
MC22232-24.1	Jaclyn Bergeron	VOC Ref #3	07/09/13 09:22	Return to Storage

5.3  
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## GC/MS Volatiles

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## QC Data Summaries

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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**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2928-MB	N78003.D	1	07/08/13	JB	n/a	n/a	MSN2928

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-1, MC22232-2, MC22232-3, MC22232-4, MC22232-5, MC22232-6, MC22232-7, MC22232-8, MC22232-10, MC22232-12, MC22232-13, MC22232-14, MC22232-15, MC22232-16

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	

## Method Blank Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2928-MB	N78003.D	1	07/08/13	JB	n/a	n/a	MSN2928

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-1, MC22232-2, MC22232-3, MC22232-4, MC22232-5, MC22232-6, MC22232-7, MC22232-8, MC22232-10, MC22232-12, MC22232-13, MC22232-14, MC22232-15, MC22232-16

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

## Method Blank Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2928-MB	N78003.D	1	07/08/13	JB	n/a	n/a	MSN2928

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-1, MC22232-2, MC22232-3, MC22232-4, MC22232-5, MC22232-6, MC22232-7, MC22232-8, MC22232-10, MC22232-12, MC22232-13, MC22232-14, MC22232-15, MC22232-16

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	88% 70-130%
2037-26-5	Toluene-D8	98% 70-130%
460-00-4	4-Bromofluorobenzene	98% 70-130%

**Method Blank Summary**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2929-MB	N78029.D	1	07/08/13	JB	n/a	n/a	MSN2929

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-20, MC22232-21, MC22232-22, MC22232-24

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	

## Method Blank Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2929-MB	N78029.D	1	07/08/13	JB	n/a	n/a	MSN2929

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-20, MC22232-21, MC22232-22, MC22232-24

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	



## Method Blank Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2929-MB	N78029.D	1	07/08/13	JB	n/a	n/a	MSN2929

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-20, MC22232-21, MC22232-22, MC22232-24

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	89% 70-130%
2037-26-5	Toluene-D8	100% 70-130%
460-00-4	4-Bromofluorobenzene	95% 70-130%

**Method Blank Summary**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV802-MB	V20626.D	1	07/09/13	AMY	n/a	n/a	MSV802

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-8, MC22232-9, MC22232-10, MC22232-11, MC22232-17, MC22232-18, MC22232-19, MC22232-23

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.7	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.3	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	

## Method Blank Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV802-MB	V20626.D	1	07/09/13	AMY	n/a	n/a	MSV802

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-8, MC22232-9, MC22232-10, MC22232-11, MC22232-17, MC22232-18, MC22232-19, MC22232-23

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
74-88-4	Iodomethane	ND	5.0	1.1	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.42	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

## Method Blank Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV802-MB	V20626.D	1	07/09/13	AMY	n/a	n/a	MSV802

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-8, MC22232-9, MC22232-10, MC22232-11, MC22232-17, MC22232-18, MC22232-19, MC22232-23

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 70-130%
2037-26-5	Toluene-D8	102% 70-130%
460-00-4	4-Bromofluorobenzene	99% 70-130%

**Method Blank Summary**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV803-MB	V20655.D	1	07/09/13	AMY	n/a	n/a	MSV803

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-18, MC22232-22

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	101%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

**Blank Spike Summary**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2928-BS	N78001.D	1	07/08/13	JB	n/a	n/a	MSN2928

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-1, MC22232-2, MC22232-3, MC22232-4, MC22232-5, MC22232-6, MC22232-7, MC22232-8, MC22232-10, MC22232-12, MC22232-13, MC22232-14, MC22232-15, MC22232-16

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	62.6	125	70-130
71-43-2	Benzene	50	55.2	110	70-130
108-86-1	Bromobenzene	50	53.3	107	70-130
74-97-5	Bromochloromethane	50	53.2	106	70-130
75-27-4	Bromodichloromethane	50	56.5	113	70-130
75-25-2	Bromoform	50	46.5	93	70-130
74-83-9	Bromomethane	50	50.6	101	70-130
78-93-3	2-Butanone (MEK)	50	55.4	111	70-130
104-51-8	n-Butylbenzene	50	53.1	106	70-130
135-98-8	sec-Butylbenzene	50	57.4	115	70-130
98-06-6	tert-Butylbenzene	50	56.0	112	70-130
75-15-0	Carbon disulfide	50	53.4	107	70-130
56-23-5	Carbon tetrachloride	50	52.1	104	70-130
108-90-7	Chlorobenzene	50	55.0	110	70-130
75-00-3	Chloroethane	50	53.4	107	70-130
67-66-3	Chloroform	50	53.2	106	70-130
74-87-3	Chloromethane	50	55.3	111	70-130
95-49-8	o-Chlorotoluene	50	55.3	111	70-130
106-43-4	p-Chlorotoluene	50	58.2	116	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	53.2	106	70-130
124-48-1	Dibromochloromethane	50	48.7	97	70-130
106-93-4	1,2-Dibromoethane	50	52.4	105	70-130
95-50-1	1,2-Dichlorobenzene	50	57.6	115	70-130
541-73-1	1,3-Dichlorobenzene	50	56.9	114	70-130
106-46-7	1,4-Dichlorobenzene	50	53.6	107	70-130
75-71-8	Dichlorodifluoromethane	50	48.0	96	70-130
75-34-3	1,1-Dichloroethane	50	54.8	110	70-130
107-06-2	1,2-Dichloroethane	50	54.5	109	70-130
75-35-4	1,1-Dichloroethene	50	53.5	107	70-130
156-59-2	cis-1,2-Dichloroethene	50	52.7	105	70-130
156-60-5	trans-1,2-Dichloroethene	50	54.5	109	70-130
78-87-5	1,2-Dichloropropane	50	53.6	107	70-130
142-28-9	1,3-Dichloropropane	50	53.2	106	70-130
594-20-7	2,2-Dichloropropane	50	38.2	76	70-130
563-58-6	1,1-Dichloropropene	50	55.9	112	70-130
10061-01-5	cis-1,3-Dichloropropene	50	46.3	93	70-130

\* = Outside of Control Limits.

## Blank Spike Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2928-BS	N78001.D	1	07/08/13	JB	n/a	n/a	MSN2928

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-1, MC22232-2, MC22232-3, MC22232-4, MC22232-5, MC22232-6, MC22232-7, MC22232-8, MC22232-10, MC22232-12, MC22232-13, MC22232-14, MC22232-15, MC22232-16

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	49.2	98	70-130
100-41-4	Ethylbenzene	50	51.1	102	70-130
87-68-3	Hexachlorobutadiene	50	52.7	105	70-130
591-78-6	2-Hexanone	50	54.5	109	70-130
74-88-4	Iodomethane	50	55.5	111	70-130
98-82-8	Isopropylbenzene	50	57.4	115	70-130
99-87-6	p-Isopropyltoluene	50	55.7	111	70-130
1634-04-4	Methyl Tert Butyl Ether	50	49.4	99	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	52.0	104	70-130
74-95-3	Methylene bromide	50	53.6	107	70-130
75-09-2	Methylene chloride	50	51.3	103	70-130
91-20-3	Naphthalene	50	51.1	102	70-130
103-65-1	n-Propylbenzene	50	56.7	113	70-130
100-42-5	Styrene	50	49.3	99	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	50.3	101	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	48.5	97	70-130
127-18-4	Tetrachloroethene	50	52.5	105	70-130
108-88-3	Toluene	50	54.4	109	70-130
87-61-6	1,2,3-Trichlorobenzene	50	55.0	110	70-130
120-82-1	1,2,4-Trichlorobenzene	50	54.1	108	70-130
71-55-6	1,1,1-Trichloroethane	50	52.1	104	70-130
79-00-5	1,1,2-Trichloroethane	50	55.0	110	70-130
79-01-6	Trichloroethene	50	59.5	119	70-130
75-69-4	Trichlorofluoromethane	50	49.5	99	70-130
96-18-4	1,2,3-Trichloropropane	50	50.5	101	70-130
95-63-6	1,2,4-Trimethylbenzene	50	51.9	104	70-130
108-67-8	1,3,5-Trimethylbenzene	50	51.4	103	70-130
108-05-4	Vinyl Acetate	50	38.9	78	70-130
75-01-4	Vinyl chloride	50	41.3	83	70-130
	m,p-Xylene	100	107	107	70-130
95-47-6	o-Xylene	50	57.8	116	70-130
1330-20-7	Xylene (total)	150	165	110	70-130

\* = Outside of Control Limits.

## Blank Spike Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2928-BS	N78001.D	1	07/08/13	JB	n/a	n/a	MSN2928

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-1, MC22232-2, MC22232-3, MC22232-4, MC22232-5, MC22232-6, MC22232-7, MC22232-8, MC22232-10, MC22232-12, MC22232-13, MC22232-14, MC22232-15, MC22232-16

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	91%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	94%	70-130%

\* = Outside of Control Limits.



**Blank Spike Summary**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2929-BS	N78027.D	1	07/08/13	JB	n/a	n/a	MSN2929

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-20, MC22232-21, MC22232-22, MC22232-24

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	51.9	104	70-130
71-43-2	Benzene	50	51.9	104	70-130
108-86-1	Bromobenzene	50	51.7	103	70-130
74-97-5	Bromochloromethane	50	52.9	106	70-130
75-27-4	Bromodichloromethane	50	54.2	108	70-130
75-25-2	Bromoform	50	45.6	91	70-130
74-83-9	Bromomethane	50	45.4	91	70-130
78-93-3	2-Butanone (MEK)	50	48.1	96	70-130
104-51-8	n-Butylbenzene	50	49.0	98	70-130
135-98-8	sec-Butylbenzene	50	54.3	109	70-130
98-06-6	tert-Butylbenzene	50	52.6	105	70-130
75-15-0	Carbon disulfide	50	49.8	100	70-130
56-23-5	Carbon tetrachloride	50	49.6	99	70-130
108-90-7	Chlorobenzene	50	54.8	110	70-130
75-00-3	Chloroethane	50	50.3	101	70-130
67-66-3	Chloroform	50	50.7	101	70-130
74-87-3	Chloromethane	50	46.0	92	70-130
95-49-8	o-Chlorotoluene	50	52.4	105	70-130
106-43-4	p-Chlorotoluene	50	54.5	109	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	49.8	100	70-130
124-48-1	Dibromochloromethane	50	47.9	96	70-130
106-93-4	1,2-Dibromoethane	50	51.2	102	70-130
95-50-1	1,2-Dichlorobenzene	50	55.8	112	70-130
541-73-1	1,3-Dichlorobenzene	50	54.1	108	70-130
106-46-7	1,4-Dichlorobenzene	50	50.8	102	70-130
75-71-8	Dichlorodifluoromethane	50	44.8	90	70-130
75-34-3	1,1-Dichloroethane	50	52.5	105	70-130
107-06-2	1,2-Dichloroethane	50	52.1	104	70-130
75-35-4	1,1-Dichloroethene	50	49.7	99	70-130
156-59-2	cis-1,2-Dichloroethene	50	50.1	100	70-130
156-60-5	trans-1,2-Dichloroethene	50	51.7	103	70-130
78-87-5	1,2-Dichloropropane	50	51.4	103	70-130
142-28-9	1,3-Dichloropropane	50	52.7	105	70-130
594-20-7	2,2-Dichloropropane	50	33.3	67* a	70-130
563-58-6	1,1-Dichloropropene	50	53.6	107	70-130
10061-01-5	cis-1,3-Dichloropropene	50	44.4	89	70-130

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2929-BS	N78027.D	1	07/08/13	JB	n/a	n/a	MSN2929

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-20, MC22232-21, MC22232-22, MC22232-24

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	46.0	92	70-130
100-41-4	Ethylbenzene	50	49.8	100	70-130
87-68-3	Hexachlorobutadiene	50	48.6	97	70-130
591-78-6	2-Hexanone	50	49.8	100	70-130
74-88-4	Iodomethane	50	47.5	95	70-130
98-82-8	Isopropylbenzene	50	53.9	108	70-130
99-87-6	p-Isopropyltoluene	50	52.3	105	70-130
1634-04-4	Methyl Tert Butyl Ether	50	45.9	92	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	47.8	96	70-130
74-95-3	Methylene bromide	50	53.8	108	70-130
75-09-2	Methylene chloride	50	50.2	100	70-130
91-20-3	Naphthalene	50	50.5	101	70-130
103-65-1	n-Propylbenzene	50	53.0	106	70-130
100-42-5	Styrene	50	49.4	99	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	49.4	99	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	41.5	83	70-130
127-18-4	Tetrachloroethene	50	50.3	101	70-130
108-88-3	Toluene	50	52.9	106	70-130
87-61-6	1,2,3-Trichlorobenzene	50	53.9	108	70-130
120-82-1	1,2,4-Trichlorobenzene	50	53.8	108	70-130
71-55-6	1,1,1-Trichloroethane	50	49.1	98	70-130
79-00-5	1,1,2-Trichloroethane	50	53.4	107	70-130
79-01-6	Trichloroethene	50	60.0	120	70-130
75-69-4	Trichlorofluoromethane	50	45.7	91	70-130
96-18-4	1,2,3-Trichloropropane	50	47.6	95	70-130
95-63-6	1,2,4-Trimethylbenzene	50	49.3	99	70-130
108-67-8	1,3,5-Trimethylbenzene	50	48.8	98	70-130
108-05-4	Vinyl Acetate	50	35.9	72	70-130
75-01-4	Vinyl chloride	50	37.7	75	70-130
	m,p-Xylene	100	105	105	70-130
95-47-6	o-Xylene	50	57.7	115	70-130
1330-20-7	Xylene (total)	150	163	109	70-130

\* = Outside of Control Limits.

## Blank Spike Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2929-BS	N78027.D	1	07/08/13	JB	n/a	n/a	MSN2929

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-20, MC22232-21, MC22232-22, MC22232-24

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	90%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	94%	70-130%

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

\* = Outside of Control Limits.

**Blank Spike Summary**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV802-BS	V20624.D	1	07/09/13	AMY	n/a	n/a	MSV802

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-8, MC22232-9, MC22232-10, MC22232-11, MC22232-17, MC22232-18, MC22232-19, MC22232-23

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	47.1	94	70-130
71-43-2	Benzene	50	46.3	93	70-130
108-86-1	Bromobenzene	50	53.7	107	70-130
74-97-5	Bromochloromethane	50	47.6	95	70-130
75-27-4	Bromodichloromethane	50	54.8	110	70-130
75-25-2	Bromoform	50	53.7	107	70-130
74-83-9	Bromomethane	50	56.2	112	70-130
78-93-3	2-Butanone (MEK)	50	47.7	95	70-130
104-51-8	n-Butylbenzene	50	54.4	109	70-130
135-98-8	sec-Butylbenzene	50	58.0	116	70-130
98-06-6	tert-Butylbenzene	50	59.5	119	70-130
75-15-0	Carbon disulfide	50	61.2	122	70-130
56-23-5	Carbon tetrachloride	50	60.3	121	70-130
108-90-7	Chlorobenzene	50	54.9	110	70-130
75-00-3	Chloroethane	50	50.0	100	70-130
67-66-3	Chloroform	50	49.0	98	70-130
74-87-3	Chloromethane	50	45.4	91	70-130
95-49-8	o-Chlorotoluene	50	54.8	110	70-130
106-43-4	p-Chlorotoluene	50	55.9	112	70-130
96-12-8	1,2-Dibromo-3-chloropropane	50	45.7	91	70-130
124-48-1	Dibromochloromethane	50	54.1	108	70-130
106-93-4	1,2-Dibromoethane	50	51.5	103	70-130
95-50-1	1,2-Dichlorobenzene	50	55.6	111	70-130
541-73-1	1,3-Dichlorobenzene	50	56.4	113	70-130
106-46-7	1,4-Dichlorobenzene	50	52.1	104	70-130
75-71-8	Dichlorodifluoromethane	50	58.4	117	70-130
75-34-3	1,1-Dichloroethane	50	45.4	91	70-130
107-06-2	1,2-Dichloroethane	50	50.6	101	70-130
75-35-4	1,1-Dichloroethene	50	50.5	101	70-130
156-59-2	cis-1,2-Dichloroethene	50	43.4	87	70-130
156-60-5	trans-1,2-Dichloroethene	50	46.0	92	70-130
78-87-5	1,2-Dichloropropane	50	45.7	91	70-130
142-28-9	1,3-Dichloropropane	50	46.3	93	70-130
594-20-7	2,2-Dichloropropane	50	62.5	125	70-130
563-58-6	1,1-Dichloropropene	50	53.6	107	70-130
10061-01-5	cis-1,3-Dichloropropene	50	48.2	96	70-130

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV802-BS	V20624.D	1	07/09/13	AMY	n/a	n/a	MSV802

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-8, MC22232-9, MC22232-10, MC22232-11, MC22232-17, MC22232-18, MC22232-19, MC22232-23

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	50	52.7	105	70-130
100-41-4	Ethylbenzene	50	53.6	107	70-130
87-68-3	Hexachlorobutadiene	50	68.5	137* a	70-130
591-78-6	2-Hexanone	50	53.6	107	70-130
74-88-4	Iodomethane	50	46.5	93	70-130
98-82-8	Isopropylbenzene	50	57.8	116	70-130
99-87-6	p-Isopropyltoluene	50	58.1	116	70-130
1634-04-4	Methyl Tert Butyl Ether	50	43.6	87	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	39.7	79	70-130
74-95-3	Methylene bromide	50	48.6	97	70-130
75-09-2	Methylene chloride	50	41.9	84	70-130
91-20-3	Naphthalene	50	47.9	96	70-130
103-65-1	n-Propylbenzene	50	55.9	112	70-130
100-42-5	Styrene	50	51.3	103	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	59.2	118	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	46.9	94	70-130
127-18-4	Tetrachloroethene	50	59.2	118	70-130
108-88-3	Toluene	50	49.8	100	70-130
87-61-6	1,2,3-Trichlorobenzene	50	53.4	107	70-130
120-82-1	1,2,4-Trichlorobenzene	50	55.0	110	70-130
71-55-6	1,1,1-Trichloroethane	50	53.3	107	70-130
79-00-5	1,1,2-Trichloroethane	50	48.6	97	70-130
79-01-6	Trichloroethene	50	52.7	105	70-130
75-69-4	Trichlorofluoromethane	50	53.0	106	70-130
96-18-4	1,2,3-Trichloropropane	50	47.0	94	70-130
95-63-6	1,2,4-Trimethylbenzene	50	52.5	105	70-130
108-67-8	1,3,5-Trimethylbenzene	50	53.1	106	70-130
108-05-4	Vinyl Acetate	50	34.2	68* a	70-130
75-01-4	Vinyl chloride	50	39.0	78	70-130
	m,p-Xylene	100	110	110	70-130
95-47-6	o-Xylene	50	56.6	113	70-130
1330-20-7	Xylene (total)	150	167	111	70-130

\* = Outside of Control Limits.

## Blank Spike Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV802-BS	V20624.D	1	07/09/13	AMY	n/a	n/a	MSV802

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-8, MC22232-9, MC22232-10, MC22232-11, MC22232-17, MC22232-18, MC22232-19, MC22232-23

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

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

\* = Outside of Control Limits.

**Blank Spike Summary**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV803-BS	V20653.D	1	07/09/13	AMY	n/a	n/a	MSV803

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-18, MC22232-22

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
156-59-2	cis-1,2-Dichloroethene	50	43.7	87	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22232-14MS	N78024.D	1	07/08/13	JB	n/a	n/a	MSN2928
MC22232-14MSD	N78025.D	1	07/08/13	JB	n/a	n/a	MSN2928
MC22232-14	N78004.D	1	07/08/13	JB	n/a	n/a	MSN2928

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-1, MC22232-2, MC22232-3, MC22232-4, MC22232-5, MC22232-6, MC22232-7, MC22232-8, MC22232-10, MC22232-12, MC22232-13, MC22232-14, MC22232-15, MC22232-16

CAS No.	Compound	MC22232-14 Spike		MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
		ug/l	Q						
67-64-1	Acetone	ND	50	30.2	60* a	30.3	61* a	0	70-130/30
71-43-2	Benzene	ND	50	53.7	107	51.9	104	3	70-130/30
108-86-1	Bromobenzene	ND	50	52.4	105	51.1	102	3	70-130/30
74-97-5	Bromochloromethane	ND	50	51.6	103	52.4	105	2	70-130/30
75-27-4	Bromodichloromethane	ND	50	55.1	110	52.8	106	4	70-130/30
75-25-2	Bromoform	ND	50	43.8	88	44.1	88	1	70-130/30
74-83-9	Bromomethane	ND	50	41.3	83	46.2	92	11	70-130/30
78-93-3	2-Butanone (MEK)	ND	50	33.5	67* a	37.7	75	12	70-130/30
104-51-8	n-Butylbenzene	ND	50	54.4	109	52.1	104	4	70-130/30
135-98-8	sec-Butylbenzene	ND	50	57.2	114	55.2	110	4	70-130/30
98-06-6	tert-Butylbenzene	ND	50	55.3	111	53.7	107	3	70-130/30
75-15-0	Carbon disulfide	ND	50	52.4	105	50.9	102	3	70-130/30
56-23-5	Carbon tetrachloride	ND	50	52.8	106	50.6	101	4	70-130/30
108-90-7	Chlorobenzene	ND	50	54.7	109	53.6	107	2	70-130/30
75-00-3	Chloroethane	ND	50	51.8	104	50.5	101	3	70-130/30
67-66-3	Chloroform	ND	50	51.5	103	50.3	101	2	70-130/30
74-87-3	Chloromethane	ND	50	44.8	90	48.2	96	7	70-130/30
95-49-8	o-Chlorotoluene	ND	50	53.0	106	52.1	104	2	70-130/30
106-43-4	p-Chlorotoluene	ND	50	56.4	113	54.2	108	4	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	48.1	96	49.4	99	3	70-130/30
124-48-1	Dibromochloromethane	ND	50	46.5	93	46.0	92	1	70-130/30
106-93-4	1,2-Dibromoethane	ND	50	50.2	100	50.7	101	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	50	56.0	112	55.4	111	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	50	54.9	110	53.1	106	3	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	50	52.3	105	51.7	103	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND	50	48.1	96	47.1	94	2	70-130/30
75-34-3	1,1-Dichloroethane	ND	50	53.7	107	51.8	104	4	70-130/30
107-06-2	1,2-Dichloroethane	ND	50	52.6	105	51.9	104	1	70-130/30
75-35-4	1,1-Dichloroethene	ND	50	52.4	105	51.2	102	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	7.0	50	58.5	103	55.4	97	5	70-130/30
156-60-5	trans-1,2-Dichloroethene	1.2	50	54.6	107	52.7	103	4	70-130/30
78-87-5	1,2-Dichloropropane	ND	50	51.4	103	50.0	100	3	70-130/30
142-28-9	1,3-Dichloropropane	ND	50	50.7	101	51.3	103	1	70-130/30
594-20-7	2,2-Dichloropropane	ND	50	47.7	95	44.9	90	6	70-130/30
563-58-6	1,1-Dichloropropene	ND	50	56.5	113	54.2	108	4	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	50	46.4	93	45.3	91	2	70-130/30

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22232-14MS	N78024.D	1	07/08/13	JB	n/a	n/a	MSN2928
MC22232-14MSD	N78025.D	1	07/08/13	JB	n/a	n/a	MSN2928
MC22232-14	N78004.D	1	07/08/13	JB	n/a	n/a	MSN2928

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-1, MC22232-2, MC22232-3, MC22232-4, MC22232-5, MC22232-6, MC22232-7, MC22232-8, MC22232-10, MC22232-12, MC22232-13, MC22232-14, MC22232-15, MC22232-16

CAS No.	Compound	MC22232-14 Spike		MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
		ug/l	Q ug/l						
10061-02-6	trans-1,3-Dichloropropene	ND	50	47.5	95	48.1	96	1	70-130/30
100-41-4	Ethylbenzene	ND	50	50.8	102	49.8	100	2	70-130/30
87-68-3	Hexachlorobutadiene	ND	50	53.5	107	51.2	102	4	70-130/30
591-78-6	2-Hexanone	ND	50	38.2	76	40.7	81	6	70-130/30
74-88-4	Iodomethane	ND	50	47.6	95	48.9	98	3	70-130/30
98-82-8	Isopropylbenzene	ND	50	55.7	111	54.0	108	3	70-130/30
99-87-6	p-Isopropyltoluene	ND	50	55.7	111	54.3	109	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	50	43.9	88	45.9	92	4	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	47.1	94	48.3	97	3	70-130/30
74-95-3	Methylene bromide	ND	50	51.7	103	52.3	105	1	70-130/30
75-09-2	Methylene chloride	ND	50	50.3	101	49.1	98	2	70-130/30
91-20-3	Naphthalene	ND	50	49.2	98	50.9	102	3	70-130/30
103-65-1	n-Propylbenzene	ND	50	55.2	110	53.5	107	3	70-130/30
100-42-5	Styrene	ND	50	48.6	97	47.2	94	3	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	49.5	99	48.0	96	3	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	50.0	100	51.1	102	2	70-130/30
127-18-4	Tetrachloroethene	ND	50	53.8	108	51.4	103	5	70-130/30
108-88-3	Toluene	ND	50	54.7	109	53.2	106	3	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	50	52.9	106	53.2	106	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	50	53.5	107	53.2	106	1	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	50	51.9	104	50.0	100	4	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	50	53.5	107	52.7	105	2	70-130/30
79-01-6	Trichloroethene	ND	50	53.2	106	52.1	104	2	70-130/30
75-69-4	Trichlorofluoromethane	ND	50	48.9	98	47.7	95	2	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	50	46.5	93	47.7	95	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	50	50.2	100	48.8	98	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	50	49.9	100	48.6	97	3	70-130/30
108-05-4	Vinyl Acetate	ND	50	33.8	68* a	34.3	69* a	1	70-130/30
75-01-4	Vinyl chloride	1.4	50	40.2	78	39.8	77	1	70-130/30
	m,p-Xylene	ND	100	108	108	105	105	3	70-130/30
95-47-6	o-Xylene	ND	50	57.2	114	55.6	111	3	70-130/30
1330-20-7	Xylene (total)	ND	150	165	110	160	107	3	70-130/30

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22232-14MS	N78024.D	1	07/08/13	JB	n/a	n/a	MSN2928
MC22232-14MSD	N78025.D	1	07/08/13	JB	n/a	n/a	MSN2928
MC22232-14	N78004.D	1	07/08/13	JB	n/a	n/a	MSN2928

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-1, MC22232-2, MC22232-3, MC22232-4, MC22232-5, MC22232-6, MC22232-7, MC22232-8, MC22232-10, MC22232-12, MC22232-13, MC22232-14, MC22232-15, MC22232-16

CAS No.	Surrogate Recoveries	MS	MSD	MC22232-14 Limits	
1868-53-7	Dibromofluoromethane	94%	91%	89%	70-130%
2037-26-5	Toluene-D8	102%	102%	98%	70-130%
460-00-4	4-Bromofluorobenzene	94%	93%	101%	70-130%

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

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22232-20MS	N78050.D	1	07/09/13	JB	n/a	n/a	MSN2929
MC22232-20MSD	N78051.D	1	07/09/13	JB	n/a	n/a	MSN2929
MC22232-20	N78033.D	1	07/09/13	JB	n/a	n/a	MSN2929

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-20, MC22232-21, MC22232-22, MC22232-24

CAS No.	Compound	MC22232-20 Spike		MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
		ug/l	Q						
67-64-1	Acetone	ND	50	36.4	73	32.5	65* a	11	70-130/30
71-43-2	Benzene	ND	50	53.4	107	53.6	107	0	70-130/30
108-86-1	Bromobenzene	ND	50	52.3	105	51.2	102	2	70-130/30
74-97-5	Bromochloromethane	ND	50	53.7	107	52.3	105	3	70-130/30
75-27-4	Bromodichloromethane	ND	50	55.7	111	54.8	110	2	70-130/30
75-25-2	Bromoform	ND	50	49.0	98	45.3	91	8	70-130/30
74-83-9	Bromomethane	ND	50	42.8	86	49.2	98	14	70-130/30
78-93-3	2-Butanone (MEK)	ND	50	41.2	82	37.4	75	10	70-130/30
104-51-8	n-Butylbenzene	ND	50	52.0	104	52.2	104	0	70-130/30
135-98-8	sec-Butylbenzene	ND	50	56.1	112	55.9	112	0	70-130/30
98-06-6	tert-Butylbenzene	ND	50	54.8	110	54.2	108	1	70-130/30
75-15-0	Carbon disulfide	ND	50	52.5	105	50.7	101	3	70-130/30
56-23-5	Carbon tetrachloride	ND	50	52.6	105	51.3	103	3	70-130/30
108-90-7	Chlorobenzene	ND	50	55.4	111	55.5	111	0	70-130/30
75-00-3	Chloroethane	ND	50	50.9	102	52.7	105	3	70-130/30
67-66-3	Chloroform	ND	50	51.8	104	50.9	102	2	70-130/30
74-87-3	Chloromethane	ND	50	55.8	112	51.7	103	8	70-130/30
95-49-8	o-Chlorotoluene	ND	50	52.7	105	52.6	105	0	70-130/30
106-43-4	p-Chlorotoluene	ND	50	55.0	110	54.9	110	0	70-130/30
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	53.4	107	48.7	97	9	70-130/30
124-48-1	Dibromochloromethane	ND	50	48.9	98	47.7	95	2	70-130/30
106-93-4	1,2-Dibromoethane	ND	50	53.0	106	51.1	102	4	70-130/30
95-50-1	1,2-Dichlorobenzene	ND	50	56.2	112	56.7	113	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND	50	55.1	110	54.4	109	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND	50	52.1	104	51.4	103	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND	50	47.6	95	46.3	93	3	70-130/30
75-34-3	1,1-Dichloroethane	ND	50	52.6	105	52.7	105	0	70-130/30
107-06-2	1,2-Dichloroethane	ND	50	53.9	108	52.6	105	2	70-130/30
75-35-4	1,1-Dichloroethene	ND	50	52.4	105	51.7	103	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	18.1	50	68.3	100	65.6	95	4	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND	50	52.9	106	53.1	106	0	70-130/30
78-87-5	1,2-Dichloropropane	ND	50	52.4	105	51.6	103	2	70-130/30
142-28-9	1,3-Dichloropropane	ND	50	54.5	109	52.3	105	4	70-130/30
594-20-7	2,2-Dichloropropane	ND	50	39.5	79	37.9	76	4	70-130/30
563-58-6	1,1-Dichloropropene	ND	50	55.9	112	54.0	108	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	ND	50	46.4	93	45.0	90	3	70-130/30

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22232-20MS	N78050.D	1	07/09/13	JB	n/a	n/a	MSN2929
MC22232-20MSD	N78051.D	1	07/09/13	JB	n/a	n/a	MSN2929
MC22232-20	N78033.D	1	07/09/13	JB	n/a	n/a	MSN2929

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-20, MC22232-21, MC22232-22, MC22232-24

CAS No.	Compound	MC22232-20 Spike		MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
		ug/l	Q ug/l						
10061-02-6	trans-1,3-Dichloropropene	ND	50	47.9	96	47.0	94	2	70-130/30
100-41-4	Ethylbenzene	ND	50	51.5	103	51.3	103	0	70-130/30
87-68-3	Hexachlorobutadiene	ND	50	52.1	104	51.4	103	1	70-130/30
591-78-6	2-Hexanone	ND	50	46.9	94	40.8	82	14	70-130/30
74-88-4	Iodomethane	ND	50	40.5	81	47.8	96	17	70-130/30
98-82-8	Isopropylbenzene	ND	50	55.4	111	55.0	110	1	70-130/30
99-87-6	p-Isopropyltoluene	ND	50	55.4	111	54.6	109	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND	50	49.3	99	45.6	91	8	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	56.2	112	49.4	99	13	70-130/30
74-95-3	Methylene bromide	ND	50	54.6	109	52.5	105	4	70-130/30
75-09-2	Methylene chloride	ND	50	51.1	102	49.5	99	3	70-130/30
91-20-3	Naphthalene	ND	50	52.5	105	51.4	103	2	70-130/30
103-65-1	n-Propylbenzene	ND	50	54.4	109	54.4	109	0	70-130/30
100-42-5	Styrene	ND	50	48.7	97	48.5	97	0	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	50.5	101	48.6	97	4	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	56.4	113	52.3	105	8	70-130/30
127-18-4	Tetrachloroethene	ND	50	92.6	185* a	67.4	135* a	32* b	70-130/30
108-88-3	Toluene	ND	50	53.6	107	54.0	108	1	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND	50	54.8	110	54.3	109	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND	50	53.5	107	53.2	106	1	70-130/30
71-55-6	1,1,1-Trichloroethane	ND	50	52.6	105	50.7	101	4	70-130/30
79-00-5	1,1,2-Trichloroethane	ND	50	55.2	110	53.3	107	4	70-130/30
79-01-6	Trichloroethene	ND	50	101	202* a	70.0	140* a	36* b	70-130/30
75-69-4	Trichlorofluoromethane	ND	50	48.8	98	47.7	95	2	70-130/30
96-18-4	1,2,3-Trichloropropane	ND	50	53.1	106	47.9	96	10	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND	50	49.7	99	49.9	100	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND	50	48.9	98	49.3	99	1	70-130/30
108-05-4	Vinyl Acetate	ND	50	34.6	69* a	30.0	60* a	14	70-130/30
75-01-4	Vinyl chloride	15.0	50	50.6	71	49.7	69* a	2	70-130/30
	m,p-Xylene	ND	100	110	110	108	108	2	70-130/30
95-47-6	o-Xylene	ND	50	58.9	118	58.1	116	1	70-130/30
1330-20-7	Xylene (total)	ND	150	169	113	166	111	2	70-130/30

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22232-20MS	N78050.D	1	07/09/13	JB	n/a	n/a	MSN2929
MC22232-20MSD	N78051.D	1	07/09/13	JB	n/a	n/a	MSN2929
MC22232-20	N78033.D	1	07/09/13	JB	n/a	n/a	MSN2929

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-20, MC22232-21, MC22232-22, MC22232-24

CAS No.	Surrogate Recoveries	MS	MSD	MC22232-20 Limits	
1868-53-7	Dibromofluoromethane	91%	91%	91%	70-130%
2037-26-5	Toluene-D8	101%	100%	101%	70-130%
460-00-4	4-Bromofluorobenzene	93%	93%	98%	70-130%

- (a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
- (b) High RPD due to possible matrix interference and/or sample non-homogeneity.

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22424-2MS	V20639.D	5	07/09/13	AMY	n/a	n/a	MSV802
MC22424-2MSD	V20640.D	5	07/09/13	AMY	n/a	n/a	MSV802
MC22424-2 <sup>a</sup>	V20628.D	1	07/09/13	AMY	n/a	n/a	MSV802

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-8, MC22232-9, MC22232-10, MC22232-11, MC22232-17, MC22232-18, MC22232-19, MC22232-23

CAS No.	Compound	MC22424-2 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	112	45* <sup>b</sup>	117	47* <sup>b</sup>	4	70-130/30	
71-43-2	Benzene	0.54	250	223	89	217	87	3	70-130/30	
108-86-1	Bromobenzene	ND	250	257	103	255	102	1	70-130/30	
74-97-5	Bromochloromethane	ND	250	229	92	224	90	2	70-130/30	
75-27-4	Bromodichloromethane	ND	250	278	111	268	107	4	70-130/30	
75-25-2	Bromoform	ND	250	255	102	251	100	2	70-130/30	
74-83-9	Bromomethane	ND	250	291	116	282	113	3	70-130/30	
78-93-3	2-Butanone (MEK)	ND	250	152	61* <sup>b</sup>	150	60* <sup>b</sup>	1	70-130/30	
104-51-8	n-Butylbenzene	ND	250	268	107	260	104	3	70-130/30	
135-98-8	sec-Butylbenzene	ND	250	283	113	278	111	2	70-130/30	
98-06-6	tert-Butylbenzene	ND	250	298	119	292	117	2	70-130/30	
75-15-0	Carbon disulfide	ND	250	300	120	293	117	2	70-130/30	
56-23-5	Carbon tetrachloride	ND	250	328	131* <sup>b</sup>	310	124	6	70-130/30	
108-90-7	Chlorobenzene	ND	250	263	105	254	102	3	70-130/30	
75-00-3	Chloroethane	ND	250	261	104	251	100	4	70-130/30	
67-66-3	Chloroform	ND	250	252	101	244	98	3	70-130/30	
74-87-3	Chloromethane	ND	250	243	97	249	100	2	70-130/30	
95-49-8	o-Chlorotoluene	ND	250	265	106	263	105	1	70-130/30	
106-43-4	p-Chlorotoluene	ND	250	272	109	269	108	1	70-130/30	
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	216	86	223	89	3	70-130/30	
124-48-1	Dibromochloromethane	ND	250	261	104	256	102	2	70-130/30	
106-93-4	1,2-Dibromoethane	ND	250	241	96	235	94	3	70-130/30	
95-50-1	1,2-Dichlorobenzene	ND	250	266	106	266	106	0	70-130/30	
541-73-1	1,3-Dichlorobenzene	ND	250	270	108	268	107	1	70-130/30	
106-46-7	1,4-Dichlorobenzene	ND	250	250	100	247	99	1	70-130/30	
75-71-8	Dichlorodifluoromethane	ND	250	332	133* <sup>b</sup>	315	126	5	70-130/30	
75-34-3	1,1-Dichloroethane	ND	250	230	92	222	89	4	70-130/30	
107-06-2	1,2-Dichloroethane	ND	250	272	109	259	104	5	70-130/30	
75-35-4	1,1-Dichloroethene	ND	250	251	100	243	97	3	70-130/30	
156-59-2	cis-1,2-Dichloroethene	ND	250	207	83	206	82	0	70-130/30	
156-60-5	trans-1,2-Dichloroethene	ND	250	225	90	218	87	3	70-130/30	
78-87-5	1,2-Dichloropropane	ND	250	220	88	215	86	2	70-130/30	
142-28-9	1,3-Dichloropropane	ND	250	220	88	214	86	3	70-130/30	
594-20-7	2,2-Dichloropropane	ND	250	307	123	298	119	3	70-130/30	
563-58-6	1,1-Dichloropropene	ND	250	272	109	260	104	5	70-130/30	
10061-01-5	cis-1,3-Dichloropropene	ND	250	227	91	221	88	3	70-130/30	

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22424-2MS	V20639.D	5	07/09/13	AMY	n/a	n/a	MSV802
MC22424-2MSD	V20640.D	5	07/09/13	AMY	n/a	n/a	MSV802
MC22424-2 <sup>a</sup>	V20628.D	1	07/09/13	AMY	n/a	n/a	MSV802

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-8, MC22232-9, MC22232-10, MC22232-11, MC22232-17, MC22232-18, MC22232-19, MC22232-23

CAS No.	Compound	MC22424-2 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	ND	250	258	103	250	100	3	70-130/30	
100-41-4	Ethylbenzene	0.52	250	264	105	252	101	5	70-130/30	
87-68-3	Hexachlorobutadiene	ND	250	335	134* <sup>b</sup>	341	136* <sup>b</sup>	2	70-130/30	
591-78-6	2-Hexanone	ND	250	181	72	177	71	2	70-130/30	
74-88-4	Iodomethane	ND	250	227	91	222	89	2	70-130/30	
98-82-8	Isopropylbenzene	ND	250	279	112	275	110	1	70-130/30	
99-87-6	p-Isopropyltoluene	ND	250	286	114	281	112	2	70-130/30	
1634-04-4	Methyl Tert Butyl Ether	ND	250	206	82	207	83	0	70-130/30	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	192	77	188	75	2	70-130/30	
74-95-3	Methylene bromide	ND	250	242	97	237	95	2	70-130/30	
75-09-2	Methylene chloride	ND	250	200	80	197	79	2	70-130/30	
91-20-3	Naphthalene	ND	250	198	79	223	89	12	70-130/30	
103-65-1	n-Propylbenzene	ND	250	272	109	268	107	1	70-130/30	
100-42-5	Styrene	ND	250	241	96	234	94	3	70-130/30	
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	291	116	280	112	4	70-130/30	
79-34-5	1,1,2,2-Tetrachloroethane	ND	250	217	87	220	88	1	70-130/30	
127-18-4	Tetrachloroethene	ND	250	290	116	277	111	5	70-130/30	
108-88-3	Toluene	ND	250	245	98	238	95	3	70-130/30	
87-61-6	1,2,3-Trichlorobenzene	ND	250	225	90	251	100	11	70-130/30	
120-82-1	1,2,4-Trichlorobenzene	ND	250	251	100	260	104	4	70-130/30	
71-55-6	1,1,1-Trichloroethane	ND	250	280	112	269	108	4	70-130/30	
79-00-5	1,1,2-Trichloroethane	ND	250	233	93	229	92	2	70-130/30	
79-01-6	Trichloroethene	ND	250	264	106	252	101	5	70-130/30	
75-69-4	Trichlorofluoromethane	ND	250	310	124	288	115	7	70-130/30	
96-18-4	1,2,3-Trichloropropane	ND	250	222	89	224	90	1	70-130/30	
95-63-6	1,2,4-Trimethylbenzene	0.49	250	256	102	251	100	2	70-130/30	
108-67-8	1,3,5-Trimethylbenzene	ND	250	257	103	254	102	1	70-130/30	
108-05-4	Vinyl Acetate	ND	250	168	67* <sup>b</sup>	164	66* <sup>b</sup>	2	70-130/30	
75-01-4	Vinyl chloride	ND	250	199	80	190	76	5	70-130/30	
	m,p-Xylene	0.97	500	530	106	507	101	4	70-130/30	
95-47-6	o-Xylene	0.65	250	273	109	265	106	3	70-130/30	
1330-20-7	Xylene (total)	1.6	750	803	107	772	103	4	70-130/30	

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22424-2MS	V20639.D	5	07/09/13	AMY	n/a	n/a	MSV802
MC22424-2MSD	V20640.D	5	07/09/13	AMY	n/a	n/a	MSV802
MC22424-2 <sup>a</sup>	V20628.D	1	07/09/13	AMY	n/a	n/a	MSV802

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-8, MC22232-9, MC22232-10, MC22232-11, MC22232-17, MC22232-18, MC22232-19, MC22232-23

CAS No.	Surrogate Recoveries	MS	MSD	MC22424-2	Limits
1868-53-7	Dibromofluoromethane	106%	105%	98%	70-130%
2037-26-5	Toluene-D8	102%	102%	101%	70-130%
460-00-4	4-Bromofluorobenzene	99%	101%	97%	70-130%

(a) Sample received outside the holding time.

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

\* = Outside of Control Limits.



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC22412-1MS	V20660.D	5	07/10/13	AMY	n/a	n/a	MSV803
MC22412-1MSD	V20661.D	5	07/10/13	AMY	n/a	n/a	MSV803
MC22412-1	V20659.D	1	07/10/13	AMY	n/a	n/a	MSV803

The QC reported here applies to the following samples:

Method: SW846 8260B

MC22232-18, MC22232-22

CAS No.	Compound	MC22412-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
156-59-2	cis-1,2-Dichloroethene	1510	E	250	1650	56* a	1630	48* a	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC22412-1	Limits
1868-53-7	Dibromofluoromethane	105%	105%	105%	70-130%
2037-26-5	Toluene-D8	100%	102%	100%	70-130%
460-00-4	4-Bromofluorobenzene	101%	100%	99%	70-130%

(a) Outside control limits due to high level in sample relative to spike amount.

\* = Outside of Control Limits.

**Instrument Performance Check (BFB)**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSN2927-BFB	<b>Injection Date:</b> 07/07/13
<b>Lab File ID:</b> N77980.D	<b>Injection Time:</b> 13:58
<b>Instrument ID:</b> GCMSN	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	22272	23.2	Pass
75	30.0 - 60.0% of mass 95	48888	50.9	Pass
95	Base peak, 100% relative abundance	95960	100.0	Pass
96	5.0 - 9.0% of mass 95	6789	7.07	Pass
173	Less than 2.0% of mass 174	613	0.64 (0.81) <sup>a</sup>	Pass
174	50.0 - 150.0% of mass 95	75648	78.8	Pass
175	5.0 - 9.0% of mass 174	5733	5.97 (7.58) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	76080	79.3 (100.6) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	4676	4.87 (6.15) <sup>b</sup>	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
MSN2927-IC2927	N77982.D	07/07/13	14:55	00:57	Initial cal 0.5
MSN2927-IC2927	N77983.D	07/07/13	15:23	01:25	Initial cal 1
MSN2927-IC2927	N77984.D	07/07/13	15:51	01:53	Initial cal 2
MSN2927-IC2927	N77985.D	07/07/13	16:19	02:21	Initial cal 5
MSN2927-IC2927	N77986.D	07/07/13	16:47	02:49	Initial cal 10
MSN2927-IC2927	N77987.D	07/07/13	17:15	03:17	Initial cal 25
MSN2927-ICC2927	N77988.D	07/07/13	17:44	03:46	Initial cal 50
MSN2927-IC2927	N77989.D	07/07/13	18:12	04:14	Initial cal 100
MSN2927-IC2927	N77990.D	07/07/13	18:40	04:42	Initial cal 200
MSN2927-IC2927	N77991.D	07/07/13	19:08	05:10	Initial cal 400
MSN2927-ICV2927	N77994.D	07/07/13	20:33	06:35	Initial cal verification 50

**Instrument Performance Check (BFB)**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSN2928-BFB	<b>Injection Date:</b> 07/08/13
<b>Lab File ID:</b> N78000.D	<b>Injection Time:</b> 09:41
<b>Instrument ID:</b> GCMSN	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	2895	19.4	Pass
75	30.0 - 60.0% of mass 95	6276	42.1	Pass
95	Base peak, 100% relative abundance	14920	100.0	Pass
96	5.0 - 9.0% of mass 95	806	5.40	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) <sup>a</sup>	Pass
174	50.0 - 150.0% of mass 95	14926	100.0	Pass
175	5.0 - 9.0% of mass 174	1257	8.42 (8.42) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	14393	96.5 (96.4) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	1053	7.06 (7.32) <sup>b</sup>	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
MSN2928-CC2927	N78000.D	07/08/13	09:41	00:00	Continuing cal 50
MSN2928-BS	N78001.D	07/08/13	10:09	00:28	Blank Spike
MSN2926-BS1	N78001.D	07/08/13	10:09	00:28	Blank Spike
MSN2928-MB	N78003.D	07/08/13	11:05	01:24	Method Blank
MSN2926-MB1	N78003.D	07/08/13	11:05	01:24	Method Blank
MC22232-14	N78004.D	07/08/13	11:34	01:53	MW8-10D
ZZZZZ	N78005.D	07/08/13	12:02	02:21	(unrelated sample)
MC22232-1	N78006.D	07/08/13	12:30	02:49	MW3-3DA
MC22232-2	N78007.D	07/08/13	12:58	03:17	MW3-4DA
MC22232-3	N78008.D	07/08/13	13:26	03:45	PW3-3A
MC22232-4	N78009.D	07/08/13	13:54	04:13	PZ3-6D
ZZZZZ	N78010.D	07/08/13	14:23	04:42	(unrelated sample)
MC22232-5	N78011.D	07/08/13	14:51	05:10	PZ3-7D
MC22232-6	N78012.D	07/08/13	15:19	05:38	PZ3-8D
MC22232-7	N78013.D	07/08/13	15:47	06:06	MW5-1DA
MC22232-8	N78014.D	07/08/13	16:15	06:34	MW5-5D
MC22232-10	N78016.D	07/08/13	17:11	07:30	RW5-1
MC22232-12	N78018.D	07/08/13	18:08	08:27	RW5-4
MC22232-13	N78019.D	07/08/13	18:36	08:55	MW8-1
MC22232-15	N78020.D	07/08/13	19:04	09:23	MW8-11D
MC22232-16	N78021.D	07/08/13	19:32	09:51	MW10-7
MC22166-4MS	N78022.D	07/08/13	20:01	10:20	Matrix Spike
MC22166-4MSD	N78023.D	07/08/13	20:29	10:48	Matrix Spike Duplicate
MC22232-14MS	N78024.D	07/08/13	20:57	11:16	Matrix Spike

# Instrument Performance Check (BFB)

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSN2928-BFB	<b>Injection Date:</b> 07/08/13
<b>Lab File ID:</b> N78000.D	<b>Injection Time:</b> 09:41
<b>Instrument ID:</b> GCMSN	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MC22232-14MSD	N78025.D	07/08/13	21:25	11:44	Matrix Spike Duplicate

6.4.2  
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**Instrument Performance Check (BFB)**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSN2929-BFB	<b>Injection Date:</b> 07/08/13
<b>Lab File ID:</b> N78026.D	<b>Injection Time:</b> 21:53
<b>Instrument ID:</b> GCMSN	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	12252	24.5	Pass
75	30.0 - 60.0% of mass 95	23104	46.1	Pass
95	Base peak, 100% relative abundance	50064	100.0	Pass
96	5.0 - 9.0% of mass 95	4058	8.11	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) <sup>a</sup>	Pass
174	50.0 - 150.0% of mass 95	32608	65.1	Pass
175	5.0 - 9.0% of mass 174	2739	5.47 (8.40) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	32536	65.0 (99.8) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	1855	3.71 (5.70) <sup>b</sup>	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
MSN2929-CC2927	N78026.D	07/08/13	21:53	00:00	Continuing cal 50
MSN2929-BS	N78027.D	07/08/13	22:21	00:28	Blank Spike
MSN2929-MB	N78029.D	07/08/13	23:18	01:25	Method Blank
MC22232-24	N78030.D	07/08/13	23:46	01:53	TB-062513
ZZZZZZ	N78031.D	07/09/13	00:14	02:21	(unrelated sample)
ZZZZZZ	N78032.D	07/09/13	00:42	02:49	(unrelated sample)
MC22232-20	N78033.D	07/09/13	01:10	03:17	MW13-4D
MC22232-21	N78034.D	07/09/13	01:39	03:46	MW13-5D
MC22232-22	N78035.D	07/09/13	02:07	04:14	PW10-2Q
ZZZZZZ	N78037.D	07/09/13	03:03	05:10	(unrelated sample)
ZZZZZZ	N78038.D	07/09/13	03:31	05:38	(unrelated sample)
ZZZZZZ	N78039.D	07/09/13	03:59	06:06	(unrelated sample)
ZZZZZZ	N78040.D	07/09/13	04:28	06:35	(unrelated sample)
ZZZZZZ	N78041.D	07/09/13	04:56	07:03	(unrelated sample)
ZZZZZZ	N78042.D	07/09/13	05:24	07:31	(unrelated sample)
ZZZZZZ	N78044.D	07/09/13	06:20	08:27	(unrelated sample)
ZZZZZZ	N78045.D	07/09/13	06:48	08:55	(unrelated sample)
ZZZZZZ	N78046.D	07/09/13	07:17	09:24	(unrelated sample)
ZZZZZZ	N78047.D	07/09/13	07:45	09:52	(unrelated sample)
ZZZZZZ	N78048.D	07/09/13	08:13	10:20	(unrelated sample)
ZZZZZZ	N78049.D	07/09/13	08:41	10:48	(unrelated sample)
MC22232-20MS	N78050.D	07/09/13	09:09	11:16	Matrix Spike
MC22232-20MSD	N78051.D	07/09/13	09:38	11:45	Matrix Spike Duplicate

**Instrument Performance Check (BFB)**

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSV776-BFB	<b>Injection Date:</b> 06/24/13
<b>Lab File ID:</b> V19971.D	<b>Injection Time:</b> 18:20
<b>Instrument ID:</b> GCMSV	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	30379	20.1	Pass
75	30.0 - 60.0% of mass 95	69843	46.2	Pass
95	Base peak, 100% relative abundance	151339	100.0	Pass
96	5.0 - 9.0% of mass 95	10272	6.79	Pass
173	Less than 2.0% of mass 174	984	0.65 (0.76) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	129925	85.9	Pass
175	5.0 - 9.0% of mass 174	9674	6.39 (7.45) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	129763	85.7 (99.9) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	8539	5.64 (6.58) <sup>b</sup>	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
MSV776-IC776	V19972.D	06/24/13	18:46	00:26	Initial cal 0.5
MSV776-IC776	V19973.D	06/24/13	19:13	00:53	Initial cal 1
MSV776-IC776	V19974.D	06/24/13	19:39	01:19	Initial cal 2
MSV776-IC776	V19975.D	06/24/13	20:06	01:46	Initial cal 5
MSV776-IC776	V19976.D	06/24/13	20:32	02:12	Initial cal 10
MSV776-IC776	V19977.D	06/24/13	20:59	02:39	Initial cal 25
MSV776-ICC776	V19978.D	06/24/13	21:25	03:05	Initial cal 50
MSV776-IC776	V19979.D	06/24/13	21:51	03:31	Initial cal 100
MSV776-IC776	V19980.D	06/24/13	22:17	03:57	Initial cal 200
MSV776-IC776	V19981.D	06/24/13	22:44	04:24	Initial cal 400
MSV776-ICV776	V19986.D	06/25/13	00:55	06:35	Initial cal verification 50

## Instrument Performance Check (BFB)

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSV802-BFB **Injection Date:** 07/09/13  
**Lab File ID:** V20623.D **Injection Time:** 09:11  
**Instrument ID:** GCMSV

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	29496	20.1	Pass
75	30.0 - 60.0% of mass 95	71344	48.5	Pass
95	Base peak, 100% relative abundance	147008	100.0	Pass
96	5.0 - 9.0% of mass 95	9879	6.72	Pass
173	Less than 2.0% of mass 174	1028	0.70 (0.87) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	118192	80.4	Pass
175	5.0 - 9.0% of mass 174	9496	6.46 (8.03) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	118376	80.5 (100.2) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	8155	5.55 (6.89) <sup>b</sup>	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
MSV802-CC776	V20623.D	07/09/13	09:11	00:00	Continuing cal 50
MSV801-BS1	V20624.D	07/09/13	09:38	00:27	Blank Spike
MSV802-BS	V20624.D	07/09/13	09:38	00:27	Blank Spike
MSV801-MB1	V20626.D	07/09/13	10:30	01:19	Method Blank
MSV802-MB	V20626.D	07/09/13	10:30	01:19	Method Blank
ZZZZZZ	V20627.D	07/09/13	10:56	01:45	(unrelated sample)
MC22424-2	V20628.D	07/09/13	11:23	02:12	(used for QC only; not part of job MC22232)
ZZZZZZ	V20629.D	07/09/13	11:48	02:37	(unrelated sample)
ZZZZZZ	V20630.D	07/09/13	12:15	03:04	(unrelated sample)
ZZZZZZ	V20631.D	07/09/13	12:42	03:31	(unrelated sample)
ZZZZZZ	V20632.D	07/09/13	13:08	03:57	(unrelated sample)
ZZZZZZ	V20634.D	07/09/13	14:02	04:51	(unrelated sample)
MC22232-17	V20635.D	07/09/13	14:28	05:17	PW10-1
MC22232-18	V20636.D	07/09/13	14:55	05:44	PW10-2
ZZZZZZ	V20638.D	07/09/13	15:48	06:37	(unrelated sample)
MC22424-2MS	V20639.D	07/09/13	16:14	07:03	Matrix Spike
MC22424-2MSD	V20640.D	07/09/13	16:41	07:30	Matrix Spike Duplicate
MC22232-8	V20641.D	07/09/13	17:08	07:57	MW5-5D
MC22232-10	V20642.D	07/09/13	17:34	08:23	RW5-1
ZZZZZZ	V20643.D	07/09/13	18:01	08:50	(unrelated sample)
ZZZZZZ	V20644.D	07/09/13	18:27	09:16	(unrelated sample)
MC22232-11	V20645.D	07/09/13	18:54	09:43	RW5-2
MC22232-23	V20646.D	07/09/13	19:20	10:09	MW3-3DAQ
MC22232-19	V20647.D	07/09/13	19:47	10:36	PW10-7

# Instrument Performance Check (BFB)

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSV802-BFB	<b>Injection Date:</b> 07/09/13
<b>Lab File ID:</b> V20623.D	<b>Injection Time:</b> 09:11
<b>Instrument ID:</b> GCMSV	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
MC22232-9	V20648.D	07/09/13	20:13	11:02	MW5-6
MC22342-8MS	V20649.D	07/09/13	20:40	11:29	Matrix Spike
MC22342-8MSD	V20650.D	07/09/13	21:05	11:54	Matrix Spike Duplicate

6.4.5

6



## Instrument Performance Check (BFB)

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Sample:</b> MSV803-BFB	<b>Injection Date:</b> 07/09/13
<b>Lab File ID:</b> V20651.D	<b>Injection Time:</b> 21:32
<b>Instrument ID:</b> GCMSV	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	14367	23.0	Pass
75	30.0 - 60.0% of mass 95	33552	53.6	Pass
95	Base peak, 100% relative abundance	62584	100.0	Pass
96	5.0 - 9.0% of mass 95	4657	7.44	Pass
173	Less than 2.0% of mass 174	420	0.67 (0.99) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	42368	67.7	Pass
175	5.0 - 9.0% of mass 174	3493	5.58 (8.24) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	41736	66.7 (98.5) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	3056	4.88 (7.32) <sup>b</sup>	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
MSV803-CC776	V20652.D	07/09/13	21:58	00:26	Continuing cal 50
MSV803-BS	V20653.D	07/09/13	22:24	00:52	Blank Spike
MSV803-MB	V20655.D	07/09/13	23:17	01:45	Method Blank
MC22232-18	V20656.D	07/09/13	23:44	02:12	PW10-2
MC22232-22	V20657.D	07/10/13	00:11	02:39	PW10-2Q
ZZZZZZ	V20658.D	07/10/13	00:37	03:05	(unrelated sample)
MC22412-1	V20659.D	07/10/13	01:04	03:32	(used for QC only; not part of job MC22232)
MC22412-1MS	V20660.D	07/10/13	01:30	03:58	Matrix Spike
MC22412-1MSD	V20661.D	07/10/13	01:57	04:25	Matrix Spike Duplicate
ZZZZZZ	V20663.D	07/10/13	02:50	05:18	(unrelated sample)
ZZZZZZ	V20664.D	07/10/13	03:17	05:45	(unrelated sample)
ZZZZZZ	V20665.D	07/10/13	03:43	06:11	(unrelated sample)
ZZZZZZ	V20666.D	07/10/13	04:10	06:38	(unrelated sample)
ZZZZZZ	V20667.D	07/10/13	04:36	07:04	(unrelated sample)
ZZZZZZ	V20668.D	07/10/13	05:02	07:30	(unrelated sample)
ZZZZZZ	V20669.D	07/10/13	05:28	07:56	(unrelated sample)
ZZZZZZ	V20670.D	07/10/13	05:54	08:22	(unrelated sample)
ZZZZZZ	V20671.D	07/10/13	06:20	08:48	(unrelated sample)
ZZZZZZ	V20672.D	07/10/13	06:47	09:15	(unrelated sample)
ZZZZZZ	V20673.D	07/10/13	07:14	09:42	(unrelated sample)
ZZZZZZ	V20674.D	07/10/13	07:41	10:09	(unrelated sample)
ZZZZZZ	V20675.D	07/10/13	08:08	10:36	(unrelated sample)
ZZZZZZ	V20676.D	07/10/13	08:35	11:03	(unrelated sample)

# Volatile Internal Standard Area Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Check Std:</b> MSN2928-CC2927	<b>Injection Date:</b> 07/08/13
<b>Lab File ID:</b> N78000.D	<b>Injection Time:</b> 09:41
<b>Instrument ID:</b> GCMSN	<b>Method:</b> SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	206436	9.01	324114	9.87	169720	13.13	144723	15.69	76950	6.57
Upper Limit <sup>a</sup>	412872	9.51	648228	10.37	339440	13.63	289446	16.19	153900	7.07
Lower Limit <sup>b</sup>	103218	8.51	162057	9.37	84860	12.63	72362	15.19	38475	6.07

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN2928-BS	207282	9.01	323123	9.87	171862	13.13	144381	15.69	80152	6.57
MSN2926-BS1	207282	9.01	323123	9.87	171862	13.13	144381	15.69	80152	6.57
MSN2928-MB	204615	9.01	315908	9.88	155915	13.13	129034	15.69	72324	6.59
MSN2926-MB1	204615	9.01	315908	9.88	155915	13.13	129034	15.69	72324	6.59
MC22232-14	203845	9.01	315367	9.88	157029	13.13	123996	15.69	63452	6.58
ZZZZZ	203821	9.01	319964	9.88	156659	13.13	127893	15.69	67082	6.58
MC22232-1	206590	9.01	314055	9.88	156285	13.13	128214	15.69	68391	6.58
MC22232-2	199952	9.01	312784	9.87	153615	13.13	126936	15.69	66524	6.59
MC22232-3	202815	9.01	314487	9.88	157853	13.13	125963	15.69	79058	6.58
MC22232-4	203439	9.01	307202	9.88	154573	13.13	125823	15.69	65184	6.57
ZZZZZ	195095	9.01	301626	9.88	150647	13.13	127579	15.69	66894	6.58
MC22232-5	194835	9.01	303208	9.88	149737	13.13	123133	15.69	60262	6.58
MC22232-6	201695	9.01	307057	9.88	153918	13.13	124565	15.69	66400	6.58
MC22232-7	200241	9.01	310004	9.88	152539	13.13	127222	15.69	62605	6.58
MC22232-8	203212	9.01	310152	9.88	154028	13.13	129613	15.69	66828	6.58
MC22232-10	222689	9.01	331605	9.88	156159	13.13	128283	15.69	58858	6.58
MC22232-12	196355	9.01	296790	9.88	151090	13.13	127593	15.69	68983	6.58
MC22232-13	193661	9.01	295376	9.88	149749	13.13	127296	15.69	58755	6.58
MC22232-15	197465	9.01	301377	9.88	150237	13.13	125246	15.69	67544	6.57
MC22232-16	194505	9.01	299806	9.88	150272	13.13	123985	15.69	64357	6.58
MC22166-4MS	195522	9.01	304317	9.88	160353	13.13	140835	15.69	70711	6.57
MC22166-4MSD	197314	9.01	303433	9.88	163092	13.13	146069	15.69	68115	6.57
MC22232-14MS	198032	9.01	309191	9.88	165401	13.13	143998	15.69	62646	6.57
MC22232-14MSD	203882	9.01	316961	9.88	170160	13.13	148762	15.69	74239	6.57

- 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.

# Volatile Internal Standard Area Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Check Std:</b> MSN2929-CC2927	<b>Injection Date:</b> 07/08/13
<b>Lab File ID:</b> N78026.D	<b>Injection Time:</b> 21:53
<b>Instrument ID:</b> GCMSN	<b>Method:</b> SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	203961	9.01	319439	9.87	169018	13.13	146384	15.69	76986	6.57
Upper Limit <sup>a</sup>	407922	9.51	638878	10.37	338036	13.63	292768	16.19	153972	7.07
Lower Limit <sup>b</sup>	101981	8.51	159720	9.37	84509	12.63	73192	15.19	38493	6.07

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN2929-BS	208232	9.01	324247	9.87	171494	13.13	148762	15.69	79616	6.57
MSN2929-MB	202654	9.01	312449	9.88	157561	13.13	133113	15.69	77163	6.58
MC22232-24	201305	9.01	305529	9.87	154417	13.13	130359	15.69	67751	6.58
ZZZZZZ	199959	9.01	307059	9.88	154063	13.13	130457	15.69	69642	6.58
ZZZZZZ	201568	9.01	311721	9.88	156836	13.13	131811	15.69	68728	6.58
MC22232-20	197035	9.01	305114	9.88	153992	13.13	130564	15.69	71703	6.57
MC22232-21	192228	9.01	295409	9.88	147510	13.13	126860	15.69	72546	6.57
MC22232-22	198256	9.01	302928	9.88	149207	13.13	129310	15.69	64273	6.58
ZZZZZZ	196023	9.01	295031	9.88	147998	13.13	128811	15.69	76509	6.57
ZZZZZZ	193066	9.01	300529	9.88	148005	13.13	128753	15.69	85417	6.57
ZZZZZZ	185328	9.01	283964	9.88	143235	13.13	125462	15.69	71127	6.57
ZZZZZZ	192978	9.01	296231	9.88	146131	13.13	127019	15.69	78302	6.57
ZZZZZZ	192799	9.01	297616	9.88	146821	13.13	128441	15.69	79771	6.57
ZZZZZZ	192561	9.01	295338	9.88	148773	13.13	125159	15.69	77691	6.57
ZZZZZZ	190409	9.01	290422	9.88	145119	13.13	123893	15.69	85026	6.57
ZZZZZZ	188883	9.01	295299	9.88	145964	13.13	125603	15.69	82837	6.58
ZZZZZZ	183390	9.01	288785	9.88	151442	13.13	121133	15.69	78228	6.58
ZZZZZZ	191552	9.01	292548	9.88	167242	13.13	128086	15.69	79336	6.57
ZZZZZZ	194279	9.01	307290	9.88	179250	13.13	138285	15.69	85166	6.57
ZZZZZZ	193037	9.01	298836	9.88	165076	13.13	127156	15.69	83744	6.57
MC22232-20MS	195340	9.01	303802	9.87	162396	13.13	144194	15.69	88703	6.57
MC22232-20MSD	201634	9.01	312330	9.87	165409	13.13	146333	15.69	73990	6.57

- 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.

# Volatile Internal Standard Area Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Check Std:</b> MSV802-CC776	<b>Injection Date:</b> 07/09/13
<b>Lab File ID:</b> V20623.D	<b>Injection Time:</b> 09:11
<b>Instrument ID:</b> GCMSV	<b>Method:</b> SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	290813	6.56	420323	7.74	220801	11.08	228065	13.29	78309	3.50
Upper Limit <sup>a</sup>	581626	7.06	840646	8.24	441602	11.58	456130	13.79	156618	4.00
Lower Limit <sup>b</sup>	145407	6.06	210162	7.24	110401	10.58	114033	12.79	39155	3.00

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV801-BS1	299810	6.56	435714	7.75	228436	11.08	234883	13.29	75522	3.50
MSV802-BS	299810	6.56	435714	7.75	228436	11.08	234883	13.29	75522	3.50
MSV801-MB1	287057	6.57	420797	7.75	220614	11.08	226860	13.29	70091	3.51
MSV802-MB	287057	6.57	420797	7.75	220614	11.08	226860	13.29	70091	3.51
ZZZZZZ	284853	6.57	414027	7.75	216099	11.08	224129	13.29	65576	3.51
MC22424-2	278915	6.57	403972	7.75	212836	11.08	221030	13.29	65629	3.51
ZZZZZZ	275113	6.56	407297	7.75	213128	11.08	221309	13.29	59450	3.50
ZZZZZZ	276637	6.57	403751	7.75	212306	11.08	218737	13.29	65884	3.51
ZZZZZZ	272301	6.56	398373	7.75	210809	11.08	215732	13.29	61759	3.50
ZZZZZZ	272005	6.56	397806	7.74	207059	11.08	214360	13.29	62136	3.50
ZZZZZZ	258353	6.56	377205	7.75	202370	11.08	206723	13.29	58558	3.50
MC22232-17	255987	6.56	369489	7.75	198881	11.08	201928	13.29	58847	3.50
MC22232-18	249656	6.57	363605	7.75	194846	11.08	200260	13.29	60170	3.51
ZZZZZZ	241873	6.57	352747	7.75	190962	11.08	193617	13.29	54700	3.51
MC22424-2MS	242563	6.56	351152	7.75	189243	11.08	198207	13.29	59529	3.50
MC22424-2MSD	249789	6.56	365307	7.75	197877	11.08	201667	13.29	62526	3.50
MC22232-8	250205	6.57	369281	7.75	195949	11.08	201382	13.29	59742	3.51
MC22232-10	249984	6.57	362668	7.75	194792	11.08	197926	13.29	60080	3.50
ZZZZZZ	241830	6.57	352959	7.75	190114	11.08	196557	13.29	62221	3.52
ZZZZZZ	240625	6.57	349913	7.75	189060	11.08	194719	13.29	53135	3.51
MC22232-11	238877	6.57	343847	7.75	185946	11.08	189670	13.29	54950	3.51
MC22232-23	232175	6.57	339469	7.75	186007	11.08	186261	13.29	54394	3.51
MC22232-19	226528	6.57	332509	7.75	181066	11.08	184818	13.29	53151	3.51
MC22232-9	227680	6.56	331183	7.75	179789	11.08	185716	13.29	53800	3.50
MC22342-8MS	233699	6.57	334840	7.75	183341	11.08	190472	13.29	56664	3.51
MC22342-8MSD	241823	6.57	346612	7.75	189033	11.08	196978	13.29	58857	3.51

- 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.

# Volatile Internal Standard Area Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Check Std:</b> MSV803-CC776	<b>Injection Date:</b> 07/09/13
<b>Lab File ID:</b> V20652.D	<b>Injection Time:</b> 21:58
<b>Instrument ID:</b> GCMSV	<b>Method:</b> SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	251912	6.57	362047	7.75	196826	11.08	201448	13.29	60602	3.51
Upper Limit <sup>a</sup>	503824	7.07	724094	8.25	393652	11.58	402896	13.79	121204	4.01
Lower Limit <sup>b</sup>	125956	6.07	181024	7.25	98413	10.58	100724	12.79	30301	3.01

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV803-BS	257356	6.56	372409	7.75	199972	11.08	207735	13.29	61567	3.50
MSV803-MB	254512	6.57	372575	7.75	200017	11.08	203586	13.29	60039	3.51
MC22232-18	246913	6.57	362417	7.75	195897	11.08	197901	13.29	55961	3.51
MC22232-22 <sup>c</sup>	242116	6.56	355386	7.75	192652	11.08	193539	13.29	54277	3.50
ZZZZZZ	238000	6.57	349122	7.75	189534	11.08	191770	13.29	55554	3.51
MC22412-1	246660	6.57	358307	7.76	192775	11.08	199129	13.29	58688	3.52
MC22412-1MS	237554	6.57	340699	7.75	185385	11.08	191533	13.29	60365	3.51
MC22412-1MSD	242799	6.57	349652	7.75	190191	11.08	196241	13.29	66615	3.51
ZZZZZZ	231545	6.57	340888	7.76	183983	11.08	189507	13.29	67106	3.51
ZZZZZZ	238807	6.57	349837	7.75	186019	11.08	192011	13.29	66243	3.51
ZZZZZZ	237018	6.57	343384	7.75	185283	11.08	189386	13.29	66246	3.51
ZZZZZZ	230774	6.57	334843	7.75	180676	11.08	183007	13.29	66603	3.51
ZZZZZZ	220880	6.57	323444	7.75	174610	11.08	178638	13.29	63893	3.51
ZZZZZZ	220235	6.57	323645	7.76	175665	11.08	178070	13.29	63596	3.52
ZZZZZZ	217777	6.57	319452	7.75	173482	11.08	180020	13.29	62434	3.51
ZZZZZZ	216055	6.57	315736	7.75	172740	11.08	177374	13.29	61617	3.52
ZZZZZZ	213918	6.57	314596	7.75	172270	11.08	177111	13.29	61992	3.51
ZZZZZZ	215851	6.57	311266	7.75	170040	11.08	173442	13.29	61580	3.51
ZZZZZZ	213163	6.58	308135	7.76	169994	11.08	175749	13.29	62383	3.51
ZZZZZZ	213296	6.58	310724	7.76	172568	11.08	177140	13.29	63567	3.52
ZZZZZZ	210066	6.58	306434	7.76	166650	11.08	172368	13.29	63083	3.52
ZZZZZZ	211647	6.58	311077	7.77	173044	11.08	178650	13.29	65212	3.52

- 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) Sample reanalyzed past recommended hold time.

6.5.4  
6

# Volatile Surrogate Recovery Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Method:</b> SW846 8260B	<b>Matrix:</b> AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC22232-1	N78006.D	89.0	99.0	100.0
MC22232-2	N78007.D	90.0	98.0	99.0
MC22232-3	N78008.D	92.0	100.0	101.0
MC22232-4	N78009.D	88.0	100.0	100.0
MC22232-5	N78011.D	91.0	99.0	99.0
MC22232-6	N78012.D	88.0	99.0	100.0
MC22232-7	N78013.D	89.0	99.0	98.0
MC22232-8	V20641.D	102.0	101.0	99.0
MC22232-8	N78014.D	90.0	99.0	99.0
MC22232-9	V20648.D	105.0	102.0	99.0
MC22232-10	V20642.D	102.0	101.0	99.0
MC22232-10	N78016.D	93.0	95.0	97.0
MC22232-11	V20645.D	103.0	101.0	99.0
MC22232-12	N78018.D	89.0	100.0	96.0
MC22232-13	N78019.D	89.0	101.0	96.0
MC22232-14	N78004.D	89.0	98.0	101.0
MC22232-15	N78020.D	89.0	100.0	97.0
MC22232-16	N78021.D	90.0	99.0	99.0
MC22232-17	V20635.D	102.0	102.0	100.0
MC22232-18	V20636.D	104.0	102.0	99.0
MC22232-18	V20656.D	103.0	101.0	99.0
MC22232-19	V20647.D	105.0	102.0	99.0
MC22232-20	N78033.D	91.0	101.0	98.0
MC22232-21	N78034.D	89.0	100.0	98.0
MC22232-22	V20657.D	103.0	102.0	100.0
MC22232-22	N78035.D	96.0	99.0	95.0
MC22232-23	V20646.D	105.0	102.0	100.0
MC22232-24	N78030.D	88.0	102.0	95.0
MC22232-14MS	N78024.D	94.0	102.0	94.0
MC22232-14MSD	N78025.D	91.0	102.0	93.0
MC22232-20MS	N78050.D	91.0	101.0	93.0
MC22232-20MSD	N78051.D	91.0	100.0	93.0
MC22412-1MS	V20660.D	105.0	100.0	101.0
MC22412-1MSD	V20661.D	105.0	102.0	100.0
MC22424-2MS	V20639.D	106.0	102.0	99.0
MC22424-2MSD	V20640.D	105.0	102.0	101.0
MSN2928-BS	N78001.D	91.0	100.0	94.0
MSN2928-MB	N78003.D	88.0	98.0	98.0
MSN2929-BS	N78027.D	90.0	99.0	94.0
MSN2929-MB	N78029.D	89.0	100.0	95.0

# Volatile Surrogate Recovery Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

<b>Method:</b> SW846 8260B	<b>Matrix:</b> AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MSV802-BS	V20624.D	102.0	102.0	100.0
MSV802-MB	V20626.D	99.0	102.0	99.0
MSV803-BS	V20653.D	103.0	102.0	100.0
MSV803-MB	V20655.D	101.0	102.0	98.0

Surrogate Compounds	Recovery Limits
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S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

6.6.1  
6

# Initial Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSN2927-ICC2927  
**Lab FileID:** N77988.D

Response Factor Report MSN

Method : C:\msdchem\1\methods\n130707w.m (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Calibration Files

1 =N77983.D 2 =N77984.D 5 =N77985.D 50 =N77988.D  
 100 =N77989.D 200 =N77990.D 400 =N77991.D 0.5 =N77982.D  
 25 =N77987.D 10 =N77986.D = =

Compound	1	2	5	50	100	200	400	0.5	25	10	Avg	%RSD	
1) tert butyl alcohol-d9 -----ISTD-----													
2) tertiary butyl alcohol			1.451	1.367	1.385	1.339	1.283		1.208	1.350	1.341	5.77	
3) Ethanol			0.285	0.259	0.245	0.232	0.203		0.228	0.269	0.246	11.18	
4) I pentafluorobenzene -----ISTD-----													
5) dichlorodifluoromethane			0.675	0.616	0.632	0.647	0.586	0.570	0.627	0.613	0.621	5.34	
6) chloromethane			0.687	0.688	0.681	0.651	0.648	0.708	0.674	0.704	0.680	3.23	
7) vinyl chloride			0.623	0.755	0.675	0.654	0.664	0.613	0.574	0.662	0.687	0.656	7.77
8) bromomethane			0.126	0.144	0.210	0.260	0.289	0.275	0.175	0.162	0.205	30.71	
---- Linear regression ---- Coefficient = 0.9983													
Response Ratio = -0.02840 + 0.28127 *A													
9) chloroethane			0.352	0.350	0.333	0.329	0.307	0.289	0.314	0.353	0.328	7.12	
10) ethyl ether			0.480	0.472	0.475	0.460	0.451		0.412	0.474	0.461	5.16	
11) acetonitrile											0.000	-1.00	
---- Quadratic regression ---- Coefficient = 0.0516													
Response Ratio = 0.00000 + 0.00000 *A + 0.00000 *A^2													
12) trichlorofluoromethane			0.774	0.835	0.812	0.821	0.841	0.756	0.743	0.819	0.803	0.800	4.36
13) freon-113			0.435	0.437	0.449	0.411	0.405		0.440	0.422	0.428	3.77	
14) acrolein			0.051	0.059	0.059	0.058	0.058		0.052	0.055	0.056	6.22	
15) 1,1-dichloroethene			0.460	0.478	0.462	0.405	0.411	0.381	0.368	0.401	0.461	0.425	9.51
16) acetone			0.075	0.083	0.091	0.079	0.065		0.082	0.097	0.082	12.76	
17) Methyl Acetate			0.781	0.757	0.753	0.721	0.698		0.662	0.781	0.736	6.02	
18) methylene chloride			0.502	0.510	0.509	0.514	0.490	0.490	0.460	0.537	0.502	4.49	
19) methyl tert butyl ether			0.736	0.780	0.953	1.214	1.300	1.276	1.289	1.023	1.031	1.067	20.34
---- Linear regression ---- Coefficient = 0.9998													

6.7.1  
6



# Initial Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSN2927-ICC2927  
**Lab FileID:** N77988.D

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Response Ratio = -0.04851 + 1.29400 \*A

20) acrylonitrile	0.201 0.238 0.238 0.229 0.233	0.197 0.205 0.220	8.27
21) allyl chloride	0.863 0.973 1.024 0.958 0.808	0.901 0.950 0.925	7.87
22) trans-1,2-dichloroethene	0.350 0.457 0.476 0.460 0.480 0.463 0.459	0.441 0.453 0.449	8.68
23) iodomethane	0.175 0.386 0.448 0.445 0.405	0.281 0.223 0.338	32.84
	---- Linear regression ---- Coefficient = 0.9963		
	Response Ratio = -0.00849 + 0.41563 *A		
24) carbon disulfide	1.544 1.520 1.512 1.566 1.497 1.477	1.456 1.519 1.511	2.32
25) propionitrile	0.008 0.007 0.006 0.005	0.009 0.016 0.008	47.60
	---- Quadratic regression ---- Coefficient = 0.9980		
	Response Ratio = 0.00201 + 0.00618 *A + -0.00023 *A^2		
26) vinyl acetate	0.781 0.757 0.753 0.721 0.698	0.662 0.781 0.736	6.02
27) chloroprene	0.902 0.957 0.987 0.930 0.911	0.906 0.911 0.929	3.44
28) di-isopropyl ether	2.241 2.282 2.327 2.381 2.268 2.159	2.162 2.366 2.273	3.70
29) methacrylonitrile	0.395 0.399 0.408 0.411 0.400 0.403	0.379 0.424 0.402	3.26
30) 2-butanone	0.028 0.068 0.073 0.070 0.062	0.060 0.045 0.058	28.16
	---- Linear regression ---- Coefficient = 0.9951		
	Response Ratio = 0.00446 + 0.06351 *A		
31) Hexane	1.039 0.980 0.954 0.964 0.890 0.852	0.918 0.949 0.943	6.07
32) 1,1-dichloroethane	0.859 0.985 0.999 0.992 1.023 0.992 0.972	0.931 1.018 0.975	5.24
33) tert-butyl ethyl ether	0.392 0.595 1.294 1.485 1.555 1.644	0.956 0.751 1.084	43.89
	---- Linear regression ---- Coefficient = 0.9990		
	Response Ratio = -0.23945 + 1.65729 *A		
34) isobutyl alcohol	0.417 0.396 0.398 0.373 0.350	0.375 0.414 0.389	6.23
35) 2,2-dichloropropane	0.158 0.523 0.624 0.633 0.666	0.400 0.266 0.467	42.42
	---- Linear regression ---- Coefficient = 0.9995		
	Response Ratio = -0.11114 + 0.67601 *A		
36) cis-1,2-dichloroethene	0.478 0.521 0.490 0.509 0.542 0.524 0.516	0.477 0.530 0.510	4.52
37) ethyl acetate	2.086 1.980 1.991 1.866 1.751	1.873 2.070 1.945	6.23
38) bromochloromethane	0.213 0.238 0.240 0.226 0.214	0.210 0.232 0.225	5.51
39) chloroform	0.836 0.853 0.898 0.914 0.938 0.924 0.900	0.864 0.929 0.895	4.03
40) dibromofluoromethane (s)	0.498 0.516 0.522 0.511 0.508	0.514 0.518 0.512	1.56
41) Tetrahydrofuran			

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# Initial Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSN2927-ICC2927  
**Lab FileID:** N77988.D

	0.170	0.187	0.199	0.188	0.192		0.166	0.192	0.185	6.49		
42) 1,1,1-trichloroethane	0.401	0.618	0.664	0.734	0.798	0.758	0.772	0.687	0.649	0.676	17.71	
	---- Linear regression ---- Coefficient = 0.9998											
	Response Ratio = -0.01658 + 0.77328 *A											
43) I 1,4-difluorobenzene	-----ISTD-----											
44) Cyclohexane	0.636	0.706	0.683	0.687	0.639	0.636	0.681	0.651	0.665	4.13		
45) carbon tetrachloride	0.256	0.279	0.330	0.391	0.407	0.395	0.400	0.367	0.337	0.351	15.61	
	---- Linear regression ---- Coefficient = 0.9999											
	Response Ratio = -0.00721 + 0.40011 *A											
46) 1,1-dichloropropene	0.385	0.398	0.420	0.427	0.414	0.415	0.402	0.405	0.408	3.31		
47) benzene	1.199	1.274	1.292	1.253	1.286	1.262	1.223	1.102	1.191	1.295	1.238	4.91
48) 1,2-dichloroethane	0.381	0.463	0.475	0.499	0.505	0.500	0.496	0.453	0.515	0.476	8.66	
49) tert-amyl methyl ether	0.255	0.304	0.576	0.649	0.688	0.721	0.429	0.344	0.496	37.29		
	---- Linear regression ---- Coefficient = 0.9991											
	Response Ratio = -0.10009 + 0.72708 *A											
50) heptane	0.454	0.430	0.430	0.405	0.406	0.424	0.442	0.427	4.19			
51) trichloroethene	0.301	0.341	0.344	0.332	0.345	0.335	0.330	0.327	0.352	0.334	4.44	
52) 1,2-dichloropropane	0.371	0.388	0.382	0.388	0.389	0.383	0.347	0.389	0.379	3.81		
53) dibromomethane	0.157	0.196	0.201	0.206	0.207	0.205	0.178	0.210	0.195	9.35		
54) bromodichloromethane	0.308	0.388	0.434	0.455	0.470	0.467	0.470	0.408	0.432	0.426	12.35	
55) Methylcyclohexane	0.548	0.540	0.550	0.503	0.510	0.533	0.522	0.530	3.48			
56) 2-chloroethyl vinyl ether	0.388	0.382	0.388	0.389	0.383	0.347	0.389	0.381	3.98			
57) methyl methacrylate	0.166	0.202	0.213	0.215	0.217	0.173	0.181	0.195	11.12			
58) 1,4-dioxane	0.003	0.003	0.003	0.003	0.003	0.003	0.003	4.31				
59) cis-1,3-dichloropropene	0.255	0.340	0.414	0.502	0.533	0.540	0.548	0.225	0.432	0.427	0.421	27.59
	---- Linear regression ---- Coefficient = 0.9998											
	Response Ratio = -0.02440 + 0.54927 *A											
60) toluene-d8 (s)	1.173	1.215	1.189	1.155	1.129	1.075	1.242	1.251	1.178	5.01		
61) 4-methyl-2-pentanone	0.386	0.404	0.411	0.401	0.408	0.349	0.379	0.391	5.63			
62) toluene	0.707	0.737	0.796	0.765	0.782	0.758	0.740	0.724	0.799	0.756	4.26	
63) trans-1,3-dichloropropene	0.184	0.252	0.316	0.415	0.442	0.458	0.471	0.135	0.344	0.334	0.335	34.67
	---- Linear regression ---- Coefficient = 0.9996											
	Response Ratio = -0.03001 + 0.47137 *A											

6.7.1

6

# Initial Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSN2927-ICC2927  
**Lab FileID:** N77988.D

64)	1,1,2-trichloroethane	0.158	0.229	0.237	0.253	0.258	0.254	0.254	0.228	0.249	0.236	13.28	
65)	ethyl methacrylate	0.323	0.387	0.404	0.405	0.393			0.336	0.362	0.373	8.84	
66)	I chlorobenzene-d5	-----ISTD-----											
67)	tetrachloroethene	0.537	0.645	0.627	0.604	0.621	0.586	0.604	0.563	0.598	0.598	5.53	
68)	1,3-dichloropropane	0.702	0.840	0.889	0.946	1.002	0.943	0.963	0.842	0.911	0.893	10.05	
69)	dibromochloromethane	0.332	0.512	0.566	0.625	0.668	0.661	0.691	0.108	0.524	0.591	0.528	34.24
		---- Linear regression ---- Coefficient = 0.9995											
		Response Ratio = -0.03429 + 0.68968 *A											
70)	1,2-dibromoethane	0.449	0.527	0.553	0.582	0.575	0.595		0.480	0.560	0.540	9.54	
71)	2-hexanone	0.581	0.606	0.663	0.609	0.589			0.544	0.637	0.604	6.39	
72)	chlorobenzene	1.496	1.546	1.624	1.583	1.629	1.564	1.596	1.424	1.607	1.563	4.26	
73)	1,1,1,2-tetrachloroethane	0.485	0.498	0.561	0.576	0.616	0.594	0.611	0.322	0.526	0.593	0.538	16.48
		---- Linear regression ---- Coefficient = 0.9998											
		Response Ratio = -0.01381 + 0.61008 *A											
74)	ethylbenzene	2.788	3.017	3.022	2.978	3.084	2.954	2.972	2.727	3.050	2.955	4.05	
75)	m,p-xylene	0.977	1.031	1.114	1.052	1.107	1.041	1.054	0.983	0.980	1.082	1.042	4.83
76)	o-xylene	0.847	1.027	0.973	0.999	1.051	1.003	1.027	0.738	0.900	1.035	0.960	10.54
77)	styrene	1.688	1.764	1.875	1.822	1.875			1.572	1.737	1.762	6.18	
78)	bromoform	0.182	0.368	0.423	0.468	0.472	0.506		0.349	0.382	0.394	25.88	
		---- Linear regression ---- Coefficient = 0.9988											
		Response Ratio = -0.05228 + 0.50602 *A											
79)	trans-1,4-dichloro-2-butene	0.078	0.151	0.191	0.206	0.229			0.115	0.103	0.153	37.19	
		---- Linear regression ---- Coefficient = 0.9972											
		Response Ratio = -0.05570 + 0.23204 *A											
80)	I 1,4-dichlorobenzene-d	-----ISTD-----											
81)	isopropylbenzene	3.194	3.005	3.005	2.915	2.905			2.948	3.146	3.017	3.73	
82)	bromofluorobenzene (s)	1.091	1.079	1.050	1.031	1.027			1.096	1.126	1.071	3.43	
83)	bromobenzene	0.750	0.876	0.805	0.814	0.805	0.803		0.749	0.829	0.804	5.13	
84)	1,1,2,2-tetrachloroethane	0.781	0.795	0.899	0.850	0.849	0.835	0.843	0.676	0.770	0.855	0.815	7.66
85)	1,2,3-trichloropropane	0.773	0.821	0.889	0.898	0.935			0.746	0.793	0.837	8.55	
86)	n-propylbenzene	3.916	3.698	3.688	3.597	3.531			3.625	3.881	3.705	3.88	
87)	2-chlorotoluene	2.503	2.237	2.292	2.199	2.192			2.228	2.421	2.296	5.23	

# Initial Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSN2927-ICC2927  
**Lab FileID:** N77988.D

88)	4-chlorotoluene	2.414	2.290	2.296	2.248	2.204	2.170	2.418	2.292	4.20
89)	1,3,5-trimethylbenzene	3.010	3.063	2.876	2.900	2.796	2.772	3.077	2.902	4.66
90)	tert-butylbenzene	1.804	1.625	1.632	1.584	1.529	1.586	1.740	1.643	5.84
91)	1,2,4-trimethylbenzene	2.894	2.942	2.852	2.890	2.820	2.739	3.004	2.861	3.21
92)	sec-butylbenzene	3.590	3.415	3.412	3.258	3.181	3.308	3.564	3.390	4.49
93)	1,3-dichlorobenzene	1.593	1.523	1.480	1.426	1.440	1.333	1.488	1.456	5.16
94)	p-isopropyltoluene	2.840	2.760	2.779	2.667	2.572	2.632	2.829	2.726	3.78
95)	1,4-dichlorobenzene	1.437	1.612	1.601	1.525	1.553	1.422	1.614	1.527	4.83
96)	1,2-dichlorobenzene	1.187	1.284	1.416	1.373	1.411	1.258	1.452	1.349	6.45
97)	n-butylbenzene	2.731	2.909	3.004	2.943	2.848	2.747	2.935	2.874	3.59
98)	1,2-dibromo-3-chloropropane	0.129	0.151	0.163	0.162	0.168	0.138	0.162	0.153	9.51
99)	1,2,4-trichlorobenzene	0.945	1.011	1.050	1.074	1.048	0.893	0.953	0.996	6.75
100)	1,3,5-trichlorobenzene	1.236	1.179	1.171	1.162	1.121	1.064	1.226	1.166	5.10
101)	hexachlorobutadiene	0.692	0.618	0.620	0.611	0.588	0.594	0.650	0.625	5.75
102)	naphthalene	1.373	1.597	2.103	2.234	2.305	1.719	1.720	1.928	19.31
	---- Linear regression ----	Coefficient = 0.9997								
		Response Ratio = -0.19843 + 2.38543 *A								
103)	1,2,3-trichlorobenzene	0.842	0.973	1.011	1.023	1.006	0.822	0.888	0.938	9.10
104)	2-methylnaphthalene	0.593	0.725	0.841	1.018	1.093	0.616	0.680	0.834	25.46
	---- Linear regression ----	Coefficient = 0.9991								
		Response Ratio = -0.06891 + 1.11934 *A								
105)	1-methylnaphthalene	0.756	0.700	0.886	0.991	1.004	0.632	0.652	0.824	19.02
	---- Linear regression ----	Coefficient = 0.9991								
		Response Ratio = -0.02489 + 0.98352 *A								

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

n130707w.m Mon Jul 08 09:36:00 2013

## Initial Calibration Verification

Job Number: MC22232  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSN2927-ICV2927  
 Lab FileID: N77994.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\N130707\N77994.D Vial: 39  
 Acq On : 7 Jul 2013 8:33 pm Operator: amym  
 Sample : icv2927-50 Inst : MSN  
 Misc : MS29311,MSN2927,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n130707w.m (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Mon Jul 08 09:34:55 2013  
 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	tert butyl alcohol-d9	1.000	1.000	0.0	112	-0.01	6.57
2	tertiary butyl alcohol	1.341	1.302	2.9	107	0.00	6.65
3 T	Ethanol	0.246	0.205	16.7	89	0.00	5.42
4 I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	9.01
5 M	dichlorodifluoromethane	0.621	0.626	-0.8	105	0.00	4.25
6 P	chloromethane	0.680	0.701	-3.1	110	0.00	4.51
7 c	vinyl chloride	0.656	0.528	19.5	86	0.00	4.75
	----- Amount	Calc.	%Drift	-----			
8 M	bromomethane	50.000	44.001	12.0	111	0.00	5.25
	----- AvgRF	CCRF	%Dev	-----			
9 M	chloroethane	0.328	0.344	-4.9	110	0.00	5.42
10 M	ethyl ether	0.461	0.436	5.4	98	0.00	6.31
	----- Amount	Calc.	%Drift	-----			
11 M	acetonitrile	50.000	0.000	100.0#	0	0.00	5.97
	----- AvgRF	CCRF	%Dev	-----			
12 M	trichlorofluoromethane	0.800	0.786	1.8	102	0.00	6.08
13 M	freon-113	0.428	0.447	-4.4	109	0.00	6.85
14 M	acrolein	0.056	0.088	-57.1#	158	0.00	6.06
15 c	1,1-dichloroethene	0.425	0.443	-4.2	117	0.00	6.65
16 M	acetone	0.082	0.100	-22.0#	129	0.00	6.20
17 M	Methyl Acetate	0.736	0.564	23.4#	79	0.00	6.84
18 M	methylene chloride	0.502	0.501	0.2	105	0.00	6.81
	----- Amount	Calc.	%Drift	-----			
19 M	methyl tert butyl ether	50.000	45.838	8.3	100	0.00	7.59
	----- AvgRF	CCRF	%Dev	-----			
20 M	acrylonitrile	0.220	0.218	0.9	97	0.00	6.72
21 M	allyl chloride	0.925	0.956	-3.4	105	0.00	6.90
22 M	trans-1,2-dichloroethene	0.449	0.467	-4.0	108	0.00	7.50
	----- Amount	Calc.	%Drift	-----			
23 M	iodomethane	50.000	49.083	1.8	110	0.00	6.72
	----- AvgRF	CCRF	%Dev	-----			
24 M	carbon disulfide	1.511	1.585	-4.9	112	0.00	7.09

# Initial Calibration Verification

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSN2927-ICV2927  
**Lab FileID:** N77994.D

		Amount	Calc.	%Drift			
25 M	propionitrile	50.000	40.650	18.7	90	0.00	6.63
		AvgRF	CCRF	%Dev			
26 M	vinyl acetate	0.736	0.564	23.4#	79	0.00	6.84
27 M	chloroprene	0.929	1.032	-11.1	115	0.00	8.12
28 M	di-isopropyl ether	2.273	2.149	5.5	98	0.00	8.15
29 M	methacrylonitrile	0.402	0.371	7.7	97	-0.02	8.28
		Amount	Calc.	%Drift			
30 M	2-butanone	50.000	53.577	-7.2	113	0.00	8.16
		AvgRF	CCRF	%Dev			
31 M	Hexane	0.943	0.910	3.5	101	-0.01	8.14
32 P	1,1-dichloroethane	0.975	1.028	-5.4	110	0.00	7.75
		Amount	Calc.	%Drift			
33 M	tert-butyl ethyl ether	50.000	44.829	10.3	103	0.00	8.55
		AvgRF	CCRF	%Dev			
34 M	isobutyl alcohol	0.389	0.372	4.4	100	0.00	8.15
		Amount	Calc.	%Drift			
35 M	2,2-dichloropropane	50.000	46.944	6.1	106	0.00	8.62
		AvgRF	CCRF	%Dev			
36 M	cis-1,2-dichloroethene	0.510	0.507	0.6	106	0.00	8.33
37 M	ethyl acetate	1.945	1.861	4.3	100	0.00	8.15
38 M	bromochloromethane	0.225	0.227	-0.9	101	0.00	8.49
39 c	chloroform	0.895	0.905	-1.1	105	0.00	8.53
40 S	dibromofluoromethane (s)	0.512	0.475	7.2	98	0.00	8.65
41 M	Tetrahydrofuran	0.185	0.170	8.1	97	0.00	8.86
		Amount	Calc.	%Drift			
42 M	1,1,1-trichloroethane	50.000	50.391	-0.8	111	0.00	9.28
		AvgRF	CCRF	%Dev			
43 I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	9.88
44 M	Cyclohexane	0.665	0.669	-0.6	104	0.00	9.56
		Amount	Calc.	%Drift			
45 M	carbon tetrachloride	50.000	50.601	-1.2	108	0.00	9.64
		AvgRF	CCRF	%Dev			
46 M	1,1-dichloropropene	0.408	0.449	-10.0	113	0.00	9.45
47 M	benzene	1.238	1.270	-2.6	107	0.00	9.68
48 M	1,2-dichloroethane	0.476	0.488	-2.5	103	0.00	9.18
		Amount	Calc.	%Drift			
49 M	tert-amyl methyl ether	50.000	44.862	10.3	101	0.00	9.79
		AvgRF	CCRF	%Dev			
50 M	heptane	0.427	0.401	6.1	99	0.00	10.15
51 M	trichloroethene	0.334	0.346	-3.6	110	0.00	10.30
52 c	1,2-dichloropropane	0.379	0.377	0.5	105	0.00	10.27
53 M	dibromomethane	0.195	0.198	-1.5	104	0.00	10.24
54 M	bromodichloromethane	0.426	0.449	-5.4	105	0.00	10.35
55 M	Methylcyclohexane	0.530	0.548	-3.4	107	0.00	10.81
56 M	2-chloroethyl vinyl ether	0.381	0.377	1.0	105	0.00	10.27

6.7.2  
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# Initial Calibration Verification

Job Number: MC22232  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSN2927-ICV2927  
 Lab FileID: N77994.D

57 M	methyl methacrylate	0.195	0.190	2.6	99	0.00	10.44
58 M	1,4-dioxane	0.003	0.003	0.0	97	0.00	10.44
		----- Amount	Calc.	%Drift	-----		
59 M	cis-1,3-dichloropropene	50.000	45.713	8.6	101	0.00	10.97
		----- AvgRF	CCRF	%Dev	-----		
60 S	toluene-d8 (s)	1.178	1.159	1.6	101	0.00	11.67
61 M	4-methyl-2-pentanone	0.391	0.375	4.1	98	0.00	11.06
62 c	toluene	0.756	0.780	-3.2	108	0.00	11.75
		----- Amount	Calc.	%Drift	-----		
63 M	trans-1,3-dichloropropene	50.000	47.507	5.0	107	-0.01	11.38
		----- AvgRF	CCRF	%Dev	-----		
64 M	1,1,2-trichloroethane	0.236	0.239	-1.3	100	0.00	11.56
65 M	ethyl methacrylate	0.373	0.363	2.7	99	0.00	11.75
66 I	chlorobenzene-d5	1.000	1.000	0.0	110	0.00	13.13
67 M	tetrachloroethene	0.598	0.614	-2.7	112	0.00	12.48
68 M	1,3-dichloropropane	0.893	0.890	0.3	104	0.00	11.79
		----- Amount	Calc.	%Drift	-----		
69 M	dibromochloromethane	50.000	45.463	9.1	105	0.00	12.08
		----- AvgRF	CCRF	%Dev	-----		
70 M	1,2-dibromoethane	0.540	0.530	1.9	106	-0.01	12.33
71 M	2-hexanone	0.604	0.642	-6.3	117	0.00	11.92
72 P	chlorobenzene	1.563	1.602	-2.5	112	0.00	13.16
		----- Amount	Calc.	%Drift	-----		
73 M	1,1,1,2-tetrachloroethane	50.000	46.639	6.7	106	0.00	13.08
		----- AvgRF	CCRF	%Dev	-----		
74 c	ethylbenzene	2.955	2.884	2.4	107	0.00	13.34
75 M	m,p-xylene	1.042	1.062	-1.9	111	-0.01	13.52
76 M	o-xylene	0.960	1.046	-9.0	115	0.00	13.94
77 M	styrene	1.762	1.653	6.2	103	0.00	13.86
		----- Amount	Calc.	%Drift	-----		
78 P	bromoform	50.000	43.580	12.8	101	0.00	13.69
79 M	trans-1,4-dichloro-2-bute	50.000	41.333	17.3	99	0.00	14.08
		----- AvgRF	CCRF	%Dev	-----		
80 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	15.69
81 M	isopropylbenzene	3.017	3.280	-8.7	116	0.00	14.29
82 S	bromofluorobenzene (s)	1.071	1.014	5.3	100	0.00	14.35
83 M	bromobenzene	0.804	0.805	-0.1	106	0.00	14.58
84 P	1,1,2,2-tetrachloroethane	0.815	0.781	4.2	97	0.00	13.94
85 M	1,2,3-trichloropropane	0.837	0.794	5.1	102	0.00	14.08
86 M	n-propylbenzene	3.705	4.022	-8.6	115	0.00	14.74
87 M	2-chlorotoluene	2.296	2.375	-3.4	113	0.00	14.86
88 M	4-chlorotoluene	2.292	2.495	-8.9	115	0.00	14.93
89 M	1,3,5-trimethylbenzene	2.902	2.825	2.7	104	0.00	15.02
90 M	tert-butylbenzene	1.643	1.768	-7.6	115	0.00	15.32
91 M	1,2,4-trimethylbenzene	2.861	2.792	2.4	104	0.00	15.43
92 M	sec-butylbenzene	3.390	3.677	-8.5	114	0.00	15.54
93 M	1,3-dichlorobenzene	1.456	1.500	-3.0	111	0.00	15.65
94 M	p-isopropyltoluene	2.726	2.895	-6.2	111	0.00	15.72





## Continuing Calibration Summary

Job Number: MC22232  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSN2928-CC2927  
 Lab FileID: N78000.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\N130708\N78000.D Vial: 17  
 Acq On : 8 Jul 2013 9:41 am Operator: jaclynb  
 Sample : cc2927-50 Inst : MSN  
 Misc : MS29311,MSN2928,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n130707w.m (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Mon Jul 08 09:34:55 2013  
 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	tert butyl alcohol-d9	1.000	1.000	0.0	110	-0.01	6.57
2	tertiary butyl alcohol	1.341	1.342	-0.1	108	0.00	6.65
3 T	Ethanol	0.246	0.249	-1.2	106	0.00	5.43
4 I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	9.01
5 M	dichlorodifluoromethane	0.621	0.597	3.9	102	0.00	4.25
6 P	chloromethane	0.680	0.628	7.6	99	0.00	4.51
7 c	vinyl chloride	0.656	0.642	2.1	106	0.00	4.76
	----- Amount	Calc.	%Drift	-----			
8 M	bromomethane	50.000	41.246	17.5	105	0.00	5.25
	----- AvgRF	CCRF	%Dev	-----			
9 M	chloroethane	0.328	0.323	1.5	105	0.00	5.42
10 M	ethyl ether	0.461	0.458	0.7	105	0.00	6.31
	----- Amount	Calc.	%Drift	-----			
11 M	acetonitrile	50.000	0.000	100.0#	0	0.00	5.97
	----- AvgRF	CCRF	%Dev	-----			
12 M	trichlorofluoromethane	0.800	0.794	0.8	104	0.00	6.08
13 M	freon-113	0.428	0.415	3.0	102	0.00	6.85
14 M	acrolein	0.056	0.046	17.9	83	0.00	6.07
15 c	1,1-dichloroethene	0.425	0.402	5.4	107	0.00	6.66
16 M	acetone	0.082	0.087	-6.1	113	0.00	6.20
17 M	Methyl Acetate	0.736	0.690	6.3	98	0.00	6.84
18 M	methylene chloride	0.502	0.489	2.6	104	0.00	6.81
	----- Amount	Calc.	%Drift	-----			
19 M	methyl tert butyl ether	50.000	46.208	7.6	102	0.00	7.59
	----- AvgRF	CCRF	%Dev	-----			
20 M	acrylonitrile	0.220	0.219	0.5	99	0.00	6.72
21 M	allyl chloride	0.925	0.891	3.7	99	0.00	6.90
22 M	trans-1,2-dichloroethene	0.449	0.455	-1.3	107	-0.01	7.50
	----- Amount	Calc.	%Drift	-----			
23 M	iodomethane	50.000	46.361	7.3	105	0.00	6.72
	----- AvgRF	CCRF	%Dev	-----			
24 M	carbon disulfide	1.511	1.493	1.2	107	0.00	7.09

# Continuing Calibration Summary

Job Number: MC22232  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSN2928-CC2927  
 Lab FileID: N78000.D

	Amount	Calc.	%Drift				
25 M	propionitrile	50.000	56.897	-13.8	116	0.00	6.63
	AvgRF	CCRF	%Dev				
26 M	vinyl acetate	0.736	0.690	6.3	98	0.00	6.84
27 M	chloroprene	0.929	0.917	1.3	103	0.00	8.12
28 M	di-isopropyl ether	2.273	2.203	3.1	102	0.00	8.15
29 M	methacrylonitrile	0.402	0.400	0.5	106	-0.02	8.28
	Amount	Calc.	%Drift				
30 M	2-butanone	50.000	47.557	4.9	102	0.00	8.16
	AvgRF	CCRF	%Dev				
31 M	Hexane	0.943	0.793	15.9	90	-0.01	8.14
32 P	1,1-dichloroethane	0.975	0.973	0.2	106	0.00	7.75
	Amount	Calc.	%Drift				
33 M	tert-butyl ethyl ether	50.000	42.922	14.2	99	0.00	8.55
	AvgRF	CCRF	%Dev				
34 M	isobutyl alcohol	0.389	0.353	9.3	96	0.00	8.15
	Amount	Calc.	%Drift				
35 M	2,2-dichloropropane	50.000	35.306	29.4#	76	0.00	8.62
	AvgRF	CCRF	%Dev				
36 M	cis-1,2-dichloroethene	0.510	0.505	1.0	107	0.00	8.33
37 M	ethyl acetate	1.945	1.766	9.2	96	0.00	8.15
38 M	bromochloromethane	0.225	0.227	-0.9	103	0.00	8.49
39 c	chloroform	0.895	0.892	0.3	105	0.00	8.53
40 S	dibromofluoromethane (s)	0.512	0.456	10.9	95	0.00	8.65
41 M	Tetrahydrofuran	0.185	0.168	9.2	97	0.00	8.86
	Amount	Calc.	%Drift				
42 M	1,1,1-trichloroethane	50.000	48.207	3.6	107	0.00	9.28
	AvgRF	CCRF	%Dev				
43 I	1,4-difluorobenzene	1.000	1.000	0.0	107	0.00	9.87
44 M	Cyclohexane	0.665	0.669	-0.6	105	0.00	9.56
	Amount	Calc.	%Drift				
45 M	carbon tetrachloride	50.000	48.145	3.7	103	0.00	9.65
	AvgRF	CCRF	%Dev				
46 M	1,1-dichloropropene	0.408	0.418	-2.5	107	0.00	9.46
47 M	benzene	1.238	1.253	-1.2	107	0.00	9.68
48 M	1,2-dichloroethane	0.476	0.478	-0.4	102	0.00	9.18
	Amount	Calc.	%Drift				
49 M	tert-amyl methyl ether	50.000	43.253	13.5	98	0.00	9.79
	AvgRF	CCRF	%Dev				
50 M	heptane	0.427	0.321	24.8#	80	0.00	10.15
51 M	trichloroethene	0.334	0.360	-7.8	116	0.00	10.30
52 c	1,2-dichloropropane	0.379	0.375	1.1	105	0.00	10.27
53 M	dibromomethane	0.195	0.196	-0.5	104	0.00	10.24
54 M	bromodichloromethane	0.426	0.443	-4.0	104	0.00	10.35
55 M	Methylcyclohexane	0.530	0.518	2.3	103	0.00	10.81
56 M	2-chloroethyl vinyl ether	0.381	0.375	1.6	105	0.00	10.27

6.7.3

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# Continuing Calibration Summary

Job Number: MC22232  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSN2928-CC2927  
 Lab FileID: N78000.D

57 M	methyl methacrylate	0.195	0.193	1.0	102	0.00	10.44
58 M	1,4-dioxane	0.003	0.003	0.0	106	0.00	10.45
		----- Amount	Calc.	%Drift	-----		
59 M	cis-1,3-dichloropropene	50.000	44.180	11.6	98	0.00	10.97
		----- AvgRF	CCRF	%Dev	-----		
60 S	toluene-d8 (s)	1.178	1.149	2.5	101	0.00	11.67
61 M	4-methyl-2-pentanone	0.391	0.390	0.3	103	0.00	11.06
62 c	toluene	0.756	0.760	-0.5	106	0.00	11.75
		----- Amount	Calc.	%Drift	-----		
63 M	trans-1,3-dichloropropene	50.000	43.249	13.5	97	-0.01	11.38
		----- AvgRF	CCRF	%Dev	-----		
64 M	1,1,2-trichloroethane	0.236	0.242	-2.5	102	0.00	11.56
65 M	ethyl methacrylate	0.373	0.374	-0.3	103	0.00	11.75
66 I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	13.13
67 M	tetrachloroethene	0.598	0.579	3.2	105	0.00	12.48
68 M	1,3-dichloropropane	0.893	0.901	-0.9	104	0.00	11.79
		----- Amount	Calc.	%Drift	-----		
69 M	dibromochloromethane	50.000	46.190	7.6	105	0.00	12.08
		----- AvgRF	CCRF	%Dev	-----		
70 M	1,2-dibromoethane	0.540	0.527	2.4	104	-0.01	12.33
71 M	2-hexanone	0.604	0.568	6.0	102	0.00	11.92
72 P	chlorobenzene	1.563	1.502	3.9	104	0.00	13.16
		----- Amount	Calc.	%Drift	-----		
73 M	1,1,1,2-tetrachloroethane	50.000	47.919	4.2	108	0.00	13.08
		----- AvgRF	CCRF	%Dev	-----		
74 c	ethylbenzene	2.955	2.854	3.4	105	0.00	13.34
75 M	m,p-xylene	1.042	1.017	2.4	106	-0.01	13.52
76 M	o-xylene	0.960	0.958	0.2	105	0.00	13.94
77 M	styrene	1.762	1.696	3.7	105	0.00	13.86
		----- Amount	Calc.	%Drift	-----		
78 P	bromoform	50.000	45.051	9.9	104	0.00	13.69
79 M	trans-1,4-dichloro-2-bute	50.000	40.019	20.0	94	0.00	14.08
		----- AvgRF	CCRF	%Dev	-----		
80 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	15.69
81 M	isopropylbenzene	3.017	2.978	1.3	105	0.00	14.29
82 S	bromofluorobenzene (s)	1.071	0.991	7.5	98	0.00	14.35
83 M	bromobenzene	0.804	0.781	2.9	103	0.00	14.58
84 P	1,1,2,2-tetrachloroethane	0.815	0.738	9.4	92	0.00	13.94
85 M	1,2,3-trichloropropane	0.837	0.793	5.3	103	0.00	14.08
86 M	n-propylbenzene	3.705	3.633	1.9	104	0.00	14.74
87 M	2-chlorotoluene	2.296	2.200	4.2	105	0.00	14.86
88 M	4-chlorotoluene	2.292	2.240	2.3	104	0.00	14.93
89 M	1,3,5-trimethylbenzene	2.902	2.823	2.7	104	0.00	15.02
90 M	tert-butylbenzene	1.643	1.628	0.9	107	0.00	15.32
91 M	1,2,4-trimethylbenzene	2.861	2.788	2.6	104	0.00	15.43
92 M	sec-butylbenzene	3.390	3.339	1.5	104	0.00	15.54
93 M	1,3-dichlorobenzene	1.456	1.379	5.3	103	0.00	15.65
94 M	p-isopropyltoluene	2.726	2.683	1.6	103	0.00	15.72

6.7.3  
6

# Continuing Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSN2928-CC2927  
**Lab FileID:** N78000.D

95 M	1,4-dichlorobenzene	1.527	1.463	4.2	102	0.00	15.72
96 M	1,2-dichlorobenzene	1.349	1.354	-0.4	105	0.00	16.09
97 M	n-butylbenzene	2.874	2.714	5.6	99	0.00	16.13
98 M	1,2-dibromo-3-chloropropa	0.153	0.149	2.6	105	0.00	16.56
99 M	1,2,4-trichlorobenzene	0.996	0.960	3.6	101	0.00	17.95
100 M	1,3,5-trichlorobenzene	1.166	1.116	4.3	101	0.00	17.38
101 M	hexachlorobutadiene	0.625	0.593	5.1	102	0.00	18.26
		----- Amount	Calc.	%Drift	-----		
102 M	naphthalene	50.000	45.056	9.9	99	0.00	18.24
		----- AvgRF	CCRF	%Dev	-----		
103 M	1,2,3-trichlorobenzene	0.938	0.917	2.2	100	0.00	18.46
		----- Amount	Calc.	%Drift	-----		
104 M	2-methylnaphthalene	25.000	21.096	15.6	102	0.28	20.03
105	1-methylnaphthalene	25.000	21.770	12.9	97	0.00	20.03
-----							

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 N77988.D    n130707w.m              Mon Jul 08 10:11:32 2013

6.7.3

6

## Continuing Calibration Summary

Job Number: MC22232  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSN2929-CC2927  
 Lab FileID: N78026.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\N130708\N78026.D Vial: 43  
 Acq On : 8 Jul 2013 9:53 pm Operator: jaclynb  
 Sample : cc2927-50 Inst : MSN  
 Misc : MS29348,MSN2929,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n130707w.m (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Mon Jul 08 09:34:55 2013  
 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	tert butyl alcohol-d9	1.000	1.000	0.0	110	-0.01	6.57
2	tertiary butyl alcohol	1.341	1.182	11.9	95	0.00	6.65
3 T	Ethanol	0.246	0.216	12.2	92	0.00	5.42
4 I	pentafluorobenzene	1.000	1.000	0.0	107	0.00	9.01
5 M	dichlorodifluoromethane	0.621	0.514	17.2	87	0.00	4.25
6 P	chloromethane	0.680	0.487	28.4#	76	0.00	4.51
7 c	vinyl chloride	0.656	0.546	16.8	89	0.00	4.76
	----- Amount	Calc.	%Drift	-----			
8 M	bromomethane	50.000	36.566	26.9#	90	0.00	5.26
	----- AvgRF	CCRF	%Dev	-----			
9 M	chloroethane	0.328	0.281	14.3	90	0.00	5.42
10 M	ethyl ether	0.461	0.410	11.1	92	0.00	6.31
	----- Amount	Calc.	%Drift	-----			
11 M	acetonitrile	50.000	0.000	100.0#	0	0.00	5.97
	----- AvgRF	CCRF	%Dev	-----			
12 M	trichlorofluoromethane	0.800	0.675	15.6	88	0.00	6.08
13 M	freon-113	0.428	0.358	16.4	87	0.00	6.85
14 M	acrolein	0.056	0.051	8.9	92	0.00	6.06
15 c	1,1-dichloroethene	0.425	0.357	16.0	94	0.00	6.66
16 M	acetone	0.082	0.047	42.7#	60	0.00	6.20
17 M	Methyl Acetate	0.736	0.638	13.3	90	0.00	6.84
18 M	methylene chloride	0.502	0.429	14.5	90	0.00	6.80
	----- Amount	Calc.	%Drift	-----			
19 M	methyl tert butyl ether	50.000	41.667	16.7	90	0.00	7.59
	----- AvgRF	CCRF	%Dev	-----			
20 M	acrylonitrile	0.220	0.198	10.0	89	0.00	6.72
21 M	allyl chloride	0.925	0.836	9.6	92	0.00	6.90
22 M	trans-1,2-dichloroethene	0.449	0.407	9.4	94	0.00	7.50
	----- Amount	Calc.	%Drift	-----			
23 M	iodomethane	50.000	38.237	23.5#	85	0.00	6.72
	----- AvgRF	CCRF	%Dev	-----			
24 M	carbon disulfide	1.511	1.321	12.6	93	0.00	7.09

# Continuing Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSN2929-CC2927  
**Lab FileID:** N78026.D

	Amount	Calc.	%Drift			
25 M	propionitrile	50.000	52.473	-4.9	108	0.00 6.63
	AvgRF	CCRF	%Dev			
26 M	vinyl acetate	0.736	0.638	13.3	90	0.00 6.84
27 M	chloroprene	0.929	0.812	12.6	90	0.00 8.12
28 M	di-isopropyl ether	2.273	2.020	11.1	93	0.00 8.15
29 M	methacrylonitrile	0.402	0.348	13.4	91	0.00 8.28
	Amount	Calc.	%Drift			
30 M	2-butanone	50.000	32.790	34.4#	72	0.01 8.17
	AvgRF	CCRF	%Dev			
31 M	Hexane	0.943	0.758	19.6	85	0.00 8.14
32 P	1,1-dichloroethane	0.975	0.864	11.4	93	0.00 7.75
	Amount	Calc.	%Drift			
33 M	tert-butyl ethyl ether	50.000	39.041	21.9#	87	0.00 8.55
	AvgRF	CCRF	%Dev			
34 M	isobutyl alcohol	0.389	0.317	18.5	85	0.00 8.15
	Amount	Calc.	%Drift			
35 M	2,2-dichloropropane	50.000	39.920	20.2#	87	0.00 8.61
	AvgRF	CCRF	%Dev			
36 M	cis-1,2-dichloroethene	0.510	0.451	11.6	94	0.00 8.33
37 M	ethyl acetate	1.945	1.583	18.6	85	0.00 8.15
38 M	bromochloromethane	0.225	0.202	10.2	90	0.00 8.49
39 c	chloroform	0.895	0.781	12.7	91	0.00 8.53
40 S	dibromofluoromethane (s)	0.512	0.468	8.6	97	0.00 8.65
41 M	Tetrahydrofuran	0.185	0.161	13.0	92	0.00 8.86
	Amount	Calc.	%Drift			
42 M	1,1,1-trichloroethane	50.000	42.540	14.9	93	0.00 9.28
	AvgRF	CCRF	%Dev			
43 I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00 9.87
44 M	Cyclohexane	0.665	0.567	14.7	88	0.00 9.56
	Amount	Calc.	%Drift			
45 M	carbon tetrachloride	50.000	42.969	14.1	91	0.00 9.65
	AvgRF	CCRF	%Dev			
46 M	1,1-dichloropropene	0.408	0.376	7.8	95	0.00 9.46
47 M	benzene	1.238	1.120	9.5	94	0.00 9.68
48 M	1,2-dichloroethane	0.476	0.427	10.3	90	0.00 9.18
	Amount	Calc.	%Drift			
49 M	tert-amyl methyl ether	50.000	38.856	22.3#	85	0.00 9.79
	AvgRF	CCRF	%Dev			
50 M	heptane	0.427	0.332	22.2#	82	0.00 10.15
51 M	trichloroethene	0.334	0.301	9.9	96	0.00 10.30
52 c	1,2-dichloropropane	0.379	0.341	10.0	94	0.00 10.27
53 M	dibromomethane	0.195	0.178	8.7	93	0.00 10.24
54 M	bromodichloromethane	0.426	0.395	7.3	92	0.00 10.35
55 M	Methylcyclohexane	0.530	0.433	18.3	85	0.00 10.81
56 M	2-chloroethyl vinyl ether	0.381	0.341	10.5	94	0.00 10.27

6.7.4

6

# Continuing Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSN2929-CC2927  
**Lab FileID:** N78026.D

57 M	methyl methacrylate	0.195	0.183	6.2	95	0.00	10.44
58 M	1,4-dioxane	0.003	0.003	0.0	98	0.00	10.45
		----- Amount	Calc.	%Drift	-----		
59 M	cis-1,3-dichloropropene	50.000	41.885	16.2	92	0.00	10.97
		----- AvgRF	CCRF	%Dev	-----		
60 S	toluene-d8 (s)	1.178	1.196	-1.5	104	0.00	11.67
61 M	4-methyl-2-pentanone	0.391	0.352	10.0	92	0.00	11.06
62 c	toluene	0.756	0.689	8.9	95	0.00	11.75
		----- Amount	Calc.	%Drift	-----		
63 M	trans-1,3-dichloropropene	50.000	41.359	17.3	91	0.00	11.38
		----- AvgRF	CCRF	%Dev	-----		
64 M	1,1,2-trichloroethane	0.236	0.225	4.7	94	0.00	11.56
65 M	ethyl methacrylate	0.373	0.354	5.1	97	0.00	11.75
66 I	chlorobenzene-d5	1.000	1.000	0.0	109	0.00	13.13
67 M	tetrachloroethene	0.598	0.533	10.9	96	0.00	12.48
68 M	1,3-dichloropropane	0.893	0.826	7.5	95	0.00	11.79
		----- Amount	Calc.	%Drift	-----		
69 M	dibromochloromethane	50.000	41.143	17.7	93	0.00	12.08
		----- AvgRF	CCRF	%Dev	-----		
70 M	1,2-dibromoethane	0.540	0.485	10.2	96	-0.01	12.33
71 M	2-hexanone	0.604	0.442	26.8#	79	0.00	11.92
72 P	chlorobenzene	1.563	1.385	11.4	95	0.00	13.16
		----- Amount	Calc.	%Drift	-----		
73 M	1,1,1,2-tetrachloroethane	50.000	42.807	14.4	96	0.00	13.08
		----- AvgRF	CCRF	%Dev	-----		
74 c	ethylbenzene	2.955	2.576	12.8	94	0.00	13.34
75 M	m,p-xylene	1.042	0.928	10.9	96	0.00	13.52
76 M	o-xylene	0.960	0.888	7.5	97	0.00	13.94
77 M	styrene	1.762	1.542	12.5	95	0.00	13.86
		----- Amount	Calc.	%Drift	-----		
78 P	bromoform	50.000	41.474	17.1	95	0.00	13.69
79 M	trans-1,4-dichloro-2-bute	50.000	40.203	19.6	94	0.00	14.08
		----- AvgRF	CCRF	%Dev	-----		
80 I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	15.69
81 M	isopropylbenzene	3.017	2.658	11.9	95	0.00	14.29
82 S	bromofluorobenzene (s)	1.071	1.005	6.2	100	0.00	14.35
83 M	bromobenzene	0.804	0.725	9.8	97	0.00	14.58
84 P	1,1,2,2-tetrachloroethane	0.815	0.761	6.6	96	0.00	13.94
85 M	1,2,3-trichloropropane	0.837	0.736	12.1	96	0.00	14.09
86 M	n-propylbenzene	3.705	3.252	12.2	95	0.00	14.74
87 M	2-chlorotoluene	2.296	1.999	12.9	96	0.00	14.86
88 M	4-chlorotoluene	2.292	2.053	10.4	96	0.00	14.93
89 M	1,3,5-trimethylbenzene	2.902	2.556	11.9	96	0.00	15.01
90 M	tert-butylbenzene	1.643	1.426	13.2	94	0.00	15.32
91 M	1,2,4-trimethylbenzene	2.861	2.536	11.4	96	0.00	15.43
92 M	sec-butylbenzene	3.390	3.034	10.5	96	0.00	15.54
93 M	1,3-dichlorobenzene	1.456	1.301	10.6	98	0.00	15.65
94 M	p-isopropyltoluene	2.726	2.463	9.6	96	0.00	15.72

6.7.4  
6

# Continuing Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSN2929-CC2927  
**Lab FileID:** N78026.D

95 M	1,4-dichlorobenzene	1.527	1.380	9.6	97	0.00	15.72
96 M	1,2-dichlorobenzene	1.349	1.250	7.3	98	0.00	16.09
97 M	n-butylbenzene	2.874	2.589	9.9	96	0.00	16.13
98 M	1,2-dibromo-3-chloropropa	0.153	0.135	11.8	96	0.00	16.56
99 M	1,2,4-trichlorobenzene	0.996	0.927	6.9	99	0.00	17.95
100 M	1,3,5-trichlorobenzene	1.166	1.052	9.8	96	0.00	17.38
101 M	hexachlorobutadiene	0.625	0.539	13.8	94	0.00	18.25
		----- Amount	Calc.	%Drift	-----		
102 M	naphthalene	50.000	44.466	11.1	98	0.00	18.24
		----- AvgRF	CCRF	%Dev	-----		
103 M	1,2,3-trichlorobenzene	0.938	0.895	4.6	99	0.00	18.46
		----- Amount	Calc.	%Drift	-----		
104 M	2-methylnaphthalene	25.000	22.555	9.8	112	0.00	19.75
105	1-methylnaphthalene	25.000	24.138	3.4	109	0.00	20.03
-----							

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 N77988.D    n130707w.m              Tue Jul 09 08:36:30 2013

6.7.4

6



# Initial Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSV776-ICC776  
**Lab FileID:** V19978.D

Response Factor Report MSV

Method : C:\msdchem\1\METHODS\v130624w.m (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Calibration Files

10 =v19976.D 0.5 =v19972.D 1 =v19973.D 2 =v19974.D  
 5 =v19975.D 25 =v19977.D 50 =v19978.D 100 =v19979.D  
 200 =v19980.D 400 =v19981.D = =

Compound	10	0.5	1	2	5	25	50	100	200	400	Avg	%RSD
1) tert butyl alcohol-d9 -----ISTD-----												
2) tertiary butyl alcohol	1.163		0.917	1.103	1.147	1.230	1.241	1.240	1.272	1.164		9.89
3) Ethanol	0.109		0.129	0.104	0.091	0.098	0.093	0.087	0.085	0.099		14.40
4) I pentafluorobenzene -----ISTD-----												
5) dichlorodifluoromethane	0.514	0.193	0.414	0.538	0.525	0.572	0.514	0.487	0.472	0.470		24.02
---- Linear regression ---- Coefficient = 0.9990												
Response Ratio = 0.03008 + 0.47218 *A												
6) chloromethane	0.570	0.498	0.513	0.568	0.574	0.564	0.558	0.553	0.569	0.552		4.94
7) vinyl chloride	0.586	0.430	0.507	0.582	0.600	0.592	0.580	0.568	0.581	0.558		9.90
8) bromomethane	0.318	0.275	0.295	0.321	0.318	0.318	0.307	0.301	0.303	0.306		4.91
9) chloroethane	0.249	0.219	0.228	0.245	0.246	0.244	0.236	0.231	0.235	0.237		4.24
10) ethyl ether	0.351	0.319	0.340	0.426	0.342	0.359	0.346	0.410	0.338	0.359		9.84
11) acetonitrile	0.806	0.655	0.677	0.771	0.841	0.889	0.873	0.874	0.862	0.805		10.87
12) trichlorofluoromethane	0.736	0.344	0.568	0.738	0.763	0.764	0.738	0.697	0.697	0.672		20.33
---- Linear regression ---- Coefficient = 0.9997												
Response Ratio = 0.02232 + 0.69577 *A												
13) freon-113	0.502		0.482	0.516	0.525	0.503	0.477	0.468	0.496			4.25
14) acrolein	0.058	0.038	0.048	0.054	0.058	0.062	0.061	0.059	0.059	0.055		13.79
15) 1,1-dichloroethene	0.453	0.295	0.349	0.444	0.448	0.458	0.436	0.425	0.421	0.414		13.41
16) acetone	0.081		0.076	0.082	0.073	0.074	0.053	0.073				14.16
17) Methyl Acetate	0.577	0.517	0.567	0.579	0.572	0.602	0.578	0.563	0.542	0.566		4.31
18) methylene chloride	0.584	0.595	0.572	0.586	0.560	0.567	0.546	0.541	0.538	0.566		3.67
19) methyl tert butyl ether	1.283	1.120	1.217	1.293	1.274	1.338	1.324	1.330	1.343	1.280		5.64
20) acrylonitrile												

6.7.5  
6

# Initial Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSV776-ICC776  
**Lab FileID:** V19978.D

	0.840	0.568	0.666	0.812	0.859	0.875	0.834	0.816	0.794	0.785	12.90
21)	allyl chloride										
	0.806	0.655	0.677	0.771	0.841	0.889	0.873	0.874	0.862	0.805	10.87
22)	trans-1,2-dichloroethene										
	0.543	0.435	0.469	0.534	0.531	0.540	0.512	0.508	0.495	0.508	7.15
23)	iodomethane										
	0.999	0.875	0.916	0.997	0.974	1.004	0.963	0.962	0.960	0.961	4.39
24)	carbon disulfide										
	0.447	0.328	0.411	0.567	0.772	0.981	1.196	1.364	0.758	51.03	
	---- Linear regression ---- Coefficient = 0.9937										
	Response Ratio = -0.35784 + 1.37140 *A										
25)	propionitrile										
	0.078	0.066	0.082	0.090	0.090	0.089	0.087	0.083	10.66		
26)	vinyl acetate										
	1.907	1.762	1.881	1.955	2.054	2.067	2.021	2.014	1.958	5.29	
27)	chloroprene										
	0.840	0.568	0.666	0.812	0.859	0.875	0.834	0.816	0.794	0.785	12.90
28)	di-isopropyl ether										
	2.082	1.772	1.932	2.060	2.006	2.053	1.981	1.931	1.857	1.964	5.20
29)	methacrylonitrile										
	0.428	0.258	0.389	0.429	0.421	0.441	0.429	0.418	0.406	0.402	13.93
30)	2-butanone										
	0.060	0.051	0.062	0.068	0.064	0.064	0.056	0.061	9.20		
31)	Hexane										
	0.533	0.381	0.524	0.531	0.537	0.506	0.474	0.461	0.493	10.85	
32)	1,1-dichloroethane										
	0.998	0.861	0.905	0.966	0.979	1.004	0.964	0.958	0.952	0.954	4.75
33)	tert-butyl ethyl ether										
	1.513	1.258	1.386	1.501	1.492	1.567	1.559	1.587	1.636	1.500	7.67
34)	isobutyl alcohol										
	0.095	0.095	0.095	0.096	0.091	0.085	0.083	0.091	5.98		
35)	2,2-dichloropropane										
	0.438	0.412	0.473	0.518	0.527	0.554	0.580	0.500	12.33		
36)	cis-1,2-dichloroethene										
	0.615	0.522	0.575	0.609	0.593	0.604	0.580	0.575	0.570	0.583	4.82
37)	ethyl acetate										
	0.430	0.410	0.430	0.437	0.465	0.466	0.471	0.480	0.449	5.55	
38)	bromochloromethane										
	0.309	0.191	0.273	0.297	0.305	0.312	0.306	0.300	0.298	0.288	13.17
39)	chloroform										
	0.965	0.834	0.902	0.964	0.954	0.983	0.943	0.942	0.950	0.938	4.77
40)	dibromofluoromethane (s)										
	0.484	0.468	0.469	0.466	0.481	0.498	0.506	0.505	0.510	0.515	3.81
41)	Tetrahydrofuran										
	0.165	0.136	0.164	0.167	0.178	0.171	0.165	0.158	0.163	7.57	
42)	1,1,1-trichloroethane										
	0.668	0.421	0.492	0.636	0.710	0.764	0.752	0.776	0.800	0.669	19.76
	---- Linear regression ---- Coefficient = 0.9997										
	Response Ratio = -0.03578 + 0.79909 *A										
43)	I 1,4-difluorobenzene	-----ISTD-----									
44)	Cyclohexane										
	0.697	0.750	0.674	0.667	0.633	0.597	0.579	0.657	8.98		
45)	carbon tetrachloride										
	0.316	0.134	0.222	0.302	0.361	0.395	0.412	0.427	0.435	0.334	30.59
	---- Linear regression ---- Coefficient = 0.9998										
	Response Ratio = -0.02544 + 0.43639 *A										

# Initial Calibration Summary

**Job Number:** MC22232  
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**Sample:** MSV776-ICC776  
**Lab FileID:** V19978.D

46)	1,1-dichloropropene	0.461	0.329	0.367	0.452	0.454	0.460	0.438	0.427	0.409	0.422	10.90	
47)	benzene	1.408	1.073	1.294	1.348	1.414	1.338	1.346	1.295	1.276	1.237	7.53	
48)	1,2-dichloroethane	0.532	0.471	0.493	0.535	0.510	0.521	0.513	0.504	0.491	0.508	4.06	
49)	tert-amyl methyl ether	0.716	0.615	0.678	0.709	0.714	0.761	0.769	0.786	0.795	0.727	7.92	
50)	heptane	0.441			0.437	0.434	0.440	0.421	0.391	0.375	0.420	6.35	
51)	trichloroethene	0.384	0.222	0.339	0.336	0.385	0.374	0.379	0.364	0.366	0.353	13.79	
52)	1,2-dichloropropane	0.413	0.362	0.370	0.400	0.396	0.407	0.398	0.394	0.380	0.391	4.35	
53)	dibromomethane	0.244	0.195	0.224	0.239	0.237	0.248	0.245	0.241	0.233	0.234	6.93	
54)	bromodichloromethane	0.330			0.300	0.362	0.409	0.435	0.457	0.463	0.394	16.26	
		---- Linear regression ---- Coefficient = 0.9998											
		Response Ratio = -0.04268 + 0.46758 *A											
55)	Methylcyclohexane	0.534		0.373	0.530	0.531	0.539	0.520	0.494	0.480	0.500	11.09	
56)	2-chloroethyl vinyl ether	0.018			0.014	0.019	0.021	0.021	0.022	0.022	0.020	14.71	
57)	methyl methacrylate	0.207	0.149	0.168	0.200	0.212	0.228	0.229	0.227	0.219	0.204	13.84	
58)	1,4-dioxane	0.002			0.002	0.003	0.003	0.004	0.004	0.003	0.003	25.48	
		---- Linear regression ---- Coefficient = 0.9968											
		Response Ratio = 0.00021 + 0.00332 *A											
59)	cis-1,3-dichloropropene	0.416	0.180	0.259	0.319	0.367	0.458	0.514	0.541	0.563	0.563	0.418	32.14
		---- Linear regression ---- Coefficient = 0.9998											
		Response Ratio = -0.02570 + 0.56576 *A											
60)	toluene-d8 (s)	1.149	1.153	1.160	1.157	1.165	1.160	1.165	1.166	1.172	1.182	1.163	0.82
61)	4-methyl-2-pentanone	0.353	0.258	0.319	0.346	0.360	0.385	0.384	0.376	0.362	0.349	11.40	
62)	toluene	0.906	0.747	0.856	0.870	0.898	0.866	0.872	0.844	0.832	0.788	0.848	5.74
63)	trans-1,3-dichloropropene	0.293	0.110	0.185	0.213	0.249	0.341	0.402	0.438	0.468	0.476	0.318	40.25
		---- Linear regression ---- Coefficient = 0.9994											
		Response Ratio = -0.03603 + 0.47804 *A											
64)	1,1,2-trichloroethane	0.297	0.179	0.233	0.274	0.283	0.288	0.295	0.295	0.287	0.278	0.271	13.73
65)	ethyl methacrylate	0.390			0.305	0.364	0.416	0.453	0.458	0.456	0.437	0.410	13.23
66)	I chlorobenzene-d5	-----ISTD-----											
67)	tetrachloroethene	0.769	0.554	0.619	0.647	0.762	0.745	0.755	0.726	0.711	0.675	0.696	10.24
68)	1,3-dichloropropane	1.076	0.940	1.028	1.068	1.030	1.051	1.017	0.996	0.942	1.016	4.84	
69)	dibromochloromethane	0.391	0.169	0.252	0.292	0.350	0.468	0.571	0.648	0.700	0.715	0.456	42.87

# Initial Calibration Summary

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**Sample:** MSV776-ICC776  
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---- Linear regression ---- Coefficient = 0.9991  
 Response Ratio = -0.06516 + 0.71862 \*A

70)	1,2-dibromoethane	0.643	0.461	0.571	0.601	0.639	0.671	0.665	0.659	0.633	0.616	10.77	
71)	2-hexanone	0.532	0.352	0.443	0.485	0.529	0.566	0.540	0.530	0.466	0.494	13.37	
72)	chlorobenzene	1.938	1.775	1.864	1.918	1.824	1.836	1.772	1.695	1.505	1.792	7.32	
73)	1,1,1,2-tetrachloroethane	0.508	0.292	0.376	0.449	0.548	0.609	0.627	0.635	0.583	0.514	23.32	
		---- Linear regression ---- Coefficient = 0.9980											
		Response Ratio = 0.01199 + 0.59278 *A											
74)	ethylbenzene	3.357	2.435	3.031	3.060	3.320	3.213	3.233	3.080	2.959	2.607	3.030	9.88
75)	m,p-xylene	1.258	0.900	1.107	1.151	1.252	1.207	1.212	1.158	1.108	0.973	1.133	10.34
76)	o-xylene	1.188	0.795	1.073	1.099	1.195	1.158	1.158	1.123	1.091	0.999	1.088	10.90
77)	styrene	2.166	1.766	1.927	2.109	2.097	2.156	2.075	2.010	1.811	2.013	7.31	
78)	bromoform	0.202			0.170	0.243	0.319	0.385	0.441	0.476	0.320	37.41	
		---- Linear regression ---- Coefficient = 0.9978											
		Response Ratio = -0.11476 + 0.48395 *A											
79)	trans-1,4-dichloro-2-butene	0.214		0.210	0.204	0.249	0.260	0.266	0.264	0.238		11.64	
80) I	1,4-dichlorobenzene-d	-----ISTD-----											
81)	isopropylbenzene	2.940	2.364	2.494	2.805	2.859	2.910	2.803	2.734	2.586	2.722	7.27	
82)	bromofluorobenzene (s)	0.948	0.935	0.934	0.936	0.933	0.944	0.956	0.946	0.952	0.965	0.945	1.14
83)	bromobenzene	0.897	0.793	0.852	0.859	0.840	0.883	0.865	0.843	0.795	0.848	4.20	
84)	1,1,1,2-tetrachloroethane	0.816	0.560	0.655	0.743	0.777	0.808	0.856	0.843	0.806	0.747	0.761	12.04
85)	1,2,3-trichloropropane	0.857	0.653	0.818	0.857	0.938	0.948	0.959	0.951	0.873		11.88	
86)	n-propylbenzene	3.494	2.913	2.957	3.401	3.364	3.463	3.318	3.233	3.028	3.241	6.84	
87)	2-chlorotoluene	2.188	2.021	2.061	2.145	2.058	2.119	2.042	1.983	1.895	2.057	4.27	
88)	4-chlorotoluene	2.566	2.290	2.356	2.477	2.403	2.487	2.364	2.306	2.164	2.379	5.08	
89)	1,3,5-trimethylbenzene	2.732	2.370	2.352	2.656	2.631	2.729	2.626	2.534	2.358	2.554	6.14	
90)	tert-butylbenzene	1.405	1.089	1.180	1.361	1.351	1.395	1.357	1.317	1.256	1.301	8.18	
91)	1,2,4-trimethylbenzene	2.848	2.477	2.499	2.719	2.684	2.762	2.678	2.604	2.438	2.634	5.30	
92)	sec-butylbenzene	3.015	2.325	2.461	2.876	2.903	3.015	2.901	2.779	2.618	2.766	8.88	
93)	1,3-dichlorobenzene	1.521	1.406	1.443	1.459	1.437	1.483	1.446	1.417	1.345	1.440	3.43	
94)	p-isopropyltoluene	2.546	1.982	2.078	2.436	2.458	2.531	2.445	2.374	2.220	2.341	8.62	
95)	1,4-dichlorobenzene												

# Initial Calibration Summary

**Job Number:** MC22232  
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**Sample:** MSV776-ICC776  
**Lab FileID:** V19978.D

---

	1.692	1.594	1.638	1.670	1.593	1.625	1.582	1.538	1.452	1.598	4.52
96)	1,2-dichlorobenzene										
	1.480	1.302	1.418	1.473	1.400	1.449	1.409	1.360	1.256	1.394	5.45
97)	n-butylbenzene										
	2.522	1.864	1.998	2.442	2.407	2.509	2.415	2.273	2.057	2.276	10.69
98)	1,2-dibromo-3-chloropropane										
	0.070			0.060	0.085	0.103	0.116	0.128	0.135	0.100	29.17
	---- Linear regression ---- Coefficient = 0.9989										
	Response Ratio = -0.02471 + 0.13716 *A										
99)	1,3,5-trichlorobenzene										
	1.169	0.999	1.112	1.149	1.106	1.167	1.164	1.140	1.068	1.119	5.04
100)	1,2,4-trichlorobenzene										
	1.098	1.002	1.006	1.074	1.058	1.117	1.118	1.120	1.018	1.068	4.62
101)	hexachlorobutadiene										
	0.380	0.263	0.305	0.365	0.363	0.391	0.396	0.380	0.353	0.355	12.32
102)	naphthalene										
	2.398	1.831	2.093	2.326	2.387	2.538	2.556	2.536	2.351	2.335	10.15
103)	1,2,3-trichlorobenzene										
	0.999	0.854	0.956	0.988	0.954	1.011	1.008	0.997	0.904	0.963	5.53
104)	2-Methylnaphthalene										
	0.979			0.854	1.030	1.179	1.232	1.237	1.114	1.089	13.10
105)	1-Methylnaphthalene										
	0.836			0.749	0.857	0.952	0.978	0.982	0.879	0.890	9.64

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

v130624w.m

Tue Jun 25 09:48:54 2013

## Initial Calibration Verification

Job Number: MC22232  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSV776-ICV776  
 Lab FileID: V19986.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V130624\v19986.D Vial: 17  
 Acq On : 25 Jun 2013 12:55 am Operator: amym  
 Sample : icv776-50 Inst : MSV  
 Misc : MS29071,MSV776,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v130624w.m (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Tue Jun 25 09:47:02 2013  
 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	tert butyl alcohol-d9	1.000	1.000	0.0	94	0.00	3.53
2	tertiary butyl alcohol	1.164	1.262	-8.4	97	0.00	3.63
3 T	Ethanol	0.099	0.086	13.1	83	0.00	2.51
4 I	pentafluorobenzene	1.000	1.000	0.0	100	0.00	6.57
----- Amount Calc. %Drift -----							
5 M	dichlorodifluoromethane	50.000	61.173	-22.3#	106	0.00	1.51
----- AvgRF CCRF %Dev -----							
6 P	chloromethane	0.552	0.707	-28.1#	125	-0.02	1.64
7 c	vinyl chloride	0.558	0.582	-4.3	98	-0.01	1.76
8 M	bromomethane	0.306	0.355	-16.0	112	-0.02	2.03
9 M	chloroethane	0.237	0.282	-19.0	115	-0.01	2.12
10 M	ethyl ether	0.359	0.349	2.8	97	0.00	2.61
11 M	acetonitrile	0.805	0.877	-8.9	99	0.00	3.31
----- Amount Calc. %Drift -----							
12 M	trichlorofluoromethane	50.000	54.377	-8.8	102	-0.01	2.36
----- AvgRF CCRF %Dev -----							
13 M	freon-113	0.496	0.541	-9.1	103	0.00	2.92
14 M	acrolein	0.055	0.104	-89.1#	169	0.00	2.77
15 c	1,1-dichloroethene	0.414	0.495	-19.6	108	0.00	2.88
16 M	acetone	0.073	0.084	-15.1	102	0.00	2.92
17 M	Methyl Acetate	0.566	0.613	-8.3	102	0.00	3.29
18 M	methylene chloride	0.566	0.576	-1.8	101	0.00	3.48
19 M	methyl tert butyl ether	1.280	1.274	0.5	95	-0.01	3.85
20 M	acrylonitrile	0.785	0.938	-19.5	107	0.00	4.64
21 M	allyl chloride	0.805	0.876	-8.8	99	0.00	3.31
22 M	trans-1,2-dichloroethene	0.508	0.542	-6.7	100	0.00	3.85
23 M	iodomethane	0.961	1.003	-4.4	100	0.00	3.05
----- Amount Calc. %Drift -----							
24 M	carbon disulfide	50.000	56.830	-13.7	155	0.00	3.14
----- AvgRF CCRF %Dev -----							
25 M	propionitrile	0.083	0.082	1.2	91	0.00	5.66
26 M	vinyl acetate	1.958	1.729	11.7	84	0.00	4.59
27 M	chloroprene	0.785	0.938	-19.5	107	0.00	4.64
28 M	di-isopropyl ether	1.964	1.979	-0.8	96	-0.01	4.62
29 M	methacrylonitrile	0.402	0.402	0.0	91	0.00	5.93

# Initial Calibration Verification

**Job Number:** MC22232  
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**Sample:** MSV776-ICV776  
**Lab FileID:** V19986.D

30 M	2-butanone	0.061	0.069	-13.1	100	0.00	5.54
31 M	Hexane	0.493	0.520	-5.5	97	0.00	4.26
32 P	1,1-dichloroethane	0.954	1.044	-9.4	104	0.00	4.52
33 M	tert-butyl ethyl ether	1.500	1.566	-4.4	100	-0.01	5.29
34 M	isobutyl alcohol	0.091	0.093	-2.2	98	0.00	4.26
35 M	2,2-dichloropropane	0.500	0.478	4.4	92	0.00	5.57
36 M	cis-1,2-dichloroethene	0.583	0.603	-3.4	100	0.00	5.55
37	ethyl acetate	0.449	0.451	-0.4	97	0.00	7.31
38 M	bromochloromethane	0.288	0.317	-10.1	101	0.00	5.97
39 c	chloroform	0.938	0.988	-5.3	100	0.00	6.18
40 S	dibromofluoromethane (s)	0.490	0.506	-3.3	100	0.00	6.45
41 M	Tetrahydrofuran	0.163	0.160	1.8	90	0.00	5.97
		----- Amount	Calc.	%Drift	-----		
42 M	1,1,1-trichloroethane	50.000	51.755	-3.5	104	0.00	6.43
		----- AvgRF	CCRF	%Dev	-----		
43 I	1,4-difluorobenzene	1.000	1.000	0.0	99	0.00	7.75
44 M	Cyclohexane	0.657	0.635	3.3	95	0.00	6.53
		----- Amount	Calc.	%Drift	-----		
45 M	carbon tetrachloride	50.000	51.887	-3.8	108	0.00	6.68
		----- AvgRF	CCRF	%Dev	-----		
46 M	1,1-dichloropropene	0.422	0.480	-13.7	104	0.00	6.70
47 M	benzene	1.303	1.371	-5.2	101	0.00	7.01
48 M	1,2-dichloroethane	0.508	0.523	-3.0	100	0.00	7.14
49 M	tert-amyl methyl ether	0.727	0.737	-1.4	96	0.00	7.30
50 M	heptane	0.420	0.402	4.3	91	0.00	7.57
51 M	trichloroethene	0.350	0.385	-10.0	101	0.00	8.04
52 c	1,2-dichloropropane	0.391	0.408	-4.3	100	0.00	8.39
53 M	dibromomethane	0.234	0.250	-6.8	100	0.00	8.49
		----- Amount	Calc.	%Drift	-----		
54 M	bromodichloromethane	50.000	51.253	-2.5	106	0.00	8.74
		----- AvgRF	CCRF	%Dev	-----		
55 M	Methylcyclohexane	0.500	0.535	-7.0	99	0.00	8.35
56 M	2-chloroethyl vinyl ether	0.020	0.015	25.0#	73	0.00	9.12
57 M	methyl methacrylate	0.204	0.215	-5.4	94	0.00	8.52
		----- Amount	Calc.	%Drift	-----		
58 M	1,4-dioxane	250.000	220.836	11.7	90	-0.02	8.50
59 M	cis-1,3-dichloropropene	50.000	46.208	7.6	96	0.00	9.27
		----- AvgRF	CCRF	%Dev	-----		
60 S	toluene-d8 (s)	1.163	1.159	0.3	99	0.00	9.56
61 M	4-methyl-2-pentanone	0.349	0.363	-4.0	94	0.00	9.45
62 c	toluene	0.848	0.893	-5.3	102	0.00	9.63
		----- Amount	Calc.	%Drift	-----		
63 M	trans-1,3-dichloropropene	50.000	47.382	5.2	103	0.00	9.92
		----- AvgRF	CCRF	%Dev	-----		
64 M	1,1,2-trichloroethane	0.271	0.294	-8.5	99	0.00	10.13
65 M	ethyl methacrylate	0.410	0.428	-4.4	94	0.00	10.00
66 I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	11.08
67 M	tetrachloroethene	0.696	0.774	-11.2	102	0.00	10.19

6.7.6  
6

# Initial Calibration Verification

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSV776-ICV776  
**Lab FileID:** V19986.D

68	M	1,3-dichloropropane	1.016	1.035	-1.9	98	0.00	10.29
			----- Amount	Calc.	%Drift	-----		
69	M	dibromochloromethane	50.000	47.782	4.4	109	0.00	10.51
			----- AvgRF	CCRF	%Dev	-----		
70	M	1,2-dibromoethane	0.616	0.669	-8.6	99	0.00	10.62
71	M	2-hexanone	0.494	0.565	-14.4	100	0.00	10.36
72	P	chlorobenzene	1.792	1.990	-11.0	108	0.00	11.11
			----- Amount	Calc.	%Drift	-----		
73	M	1,1,1,2-tetrachloroethane	50.000	52.327	-4.7	103	0.00	11.21
			----- AvgRF	CCRF	%Dev	-----		
74	c	ethylbenzene	3.030	3.296	-8.8	102	0.00	11.22
75	M	m,p-xylene	1.133	1.266	-11.7	104	0.00	11.35
76	M	o-xylene	1.088	1.267	-16.5	109	0.00	11.72
77	M	styrene	2.013	2.142	-6.4	99	0.00	11.74
			----- Amount	Calc.	%Drift	-----		
78	P	bromoform	50.000	47.216	5.6	107	0.00	11.91
			----- AvgRF	CCRF	%Dev	-----		
79	M	trans-1,4-dichloro-2-bute	0.238	0.222	6.7	89	0.00	12.13
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	13.30
81	M	isopropylbenzene	2.722	3.231	-18.7	110	0.00	12.07
82	S	bromofluorobenzene (s)	0.945	0.951	-0.6	98	0.00	12.23
83	M	bromobenzene	0.848	0.902	-6.4	101	0.00	12.36
84	P	1,1,2,2-tetrachloroethane	0.761	0.838	-10.1	97	0.00	12.36
85	M	1,2,3-trichloropropane	0.873	0.911	-4.4	96	0.00	12.40
86	M	n-propylbenzene	3.241	3.753	-15.8	107	0.00	12.46
87	M	2-chlorotoluene	2.057	2.287	-11.2	107	0.00	12.54
88	M	4-chlorotoluene	2.379	2.705	-13.7	108	0.00	12.65
89	M	1,3,5-trimethylbenzene	2.554	2.712	-6.2	98	0.00	12.63
90	M	tert-butylbenzene	1.301	1.520	-16.8	108	0.00	12.91
91	M	1,2,4-trimethylbenzene	2.634	2.751	-4.4	99	0.00	12.97
92	M	sec-butylbenzene	2.766	3.275	-18.4	108	0.00	13.12
93	M	1,3-dichlorobenzene	1.440	1.606	-11.5	107	0.00	13.22
94	M	p-isopropyltoluene	2.341	2.691	-15.0	105	0.00	13.26
95	M	1,4-dichlorobenzene	1.598	1.650	-3.3	101	0.00	13.32
96	M	1,2-dichlorobenzene	1.394	1.574	-12.9	108	0.00	13.64
97	M	n-butylbenzene	2.276	2.510	-10.3	99	0.00	13.62
			----- Amount	Calc.	%Drift	-----		
98	M	1,2-dibromo-3-chloropropa	50.000	47.892	4.2	102	0.00	14.34
			----- AvgRF	CCRF	%Dev	-----		
99	M	1,3,5-trichlorobenzene	1.119	1.152	-2.9	98	0.00	14.50
100	M	1,2,4-trichlorobenzene	1.068	1.138	-6.6	101	0.00	15.06
101	M	hexachlorobutadiene	0.355	0.405	-14.1	103	0.00	15.18
102	M	naphthalene	2.335	2.582	-10.6	101	0.00	15.29
103	M	1,2,3-trichlorobenzene	0.963	1.040	-8.0	102	0.00	15.48
104		2-Methylnaphthalene	1.089	1.258	-15.5	106	0.00	16.29
105		1-Methylnaphthalene	0.890	1.098	-23.4#	114	0.00	16.46

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

v19978.D v130624w.m

Tue Jun 25 09:48:51 2013



## Continuing Calibration Summary

Job Number: MC22232  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSV802-CC776  
 Lab FileID: V20623.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V130709\v20623.D Vial: 3  
 Acq On : 9 Jul 2013 9:11 am Operator: amym  
 Sample : cc776-50 Inst : MSV  
 Misc : MS29358,MSV802,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v130624w.m (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Tue Jun 25 09:47:02 2013  
 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	tert butyl alcohol-d9	1.000	1.000	0.0	91	-0.03	3.50
2	tertiary butyl alcohol	1.164	1.206	-3.6	89	-0.03	3.61
3 T	Ethanol	0.099	0.082	17.2	75	-0.02	2.50
4 I	pentafluorobenzene	1.000	1.000	0.0	97	-0.02	6.56
	----- Amount	Calc.	%Drift	-----			
5 M	dichlorodifluoromethane	50.000	62.377	-24.8#	105	-0.02	1.50
	----- AvgRF	CCRF	%Dev	-----			
6 P	chloromethane	0.552	0.561	-1.6	96	-0.03	1.64
7 c	vinyl chloride	0.558	0.455	18.5	74	-0.04	1.73
8 M	bromomethane	0.306	0.355	-16.0	108	-0.03	2.02
9 M	chloroethane	0.237	0.243	-2.5	96	-0.02	2.11
10 M	ethyl ether	0.359	0.324	9.7	87	-0.02	2.60
11 M	acetonitrile	0.805	0.695	13.7	76	-0.02	3.29
	----- Amount	Calc.	%Drift	-----			
12 M	trichlorofluoromethane	50.000	55.389	-10.8	100	-0.02	2.34
	----- AvgRF	CCRF	%Dev	-----			
13 M	freon-113	0.496	0.488	1.6	90	-0.02	2.91
14 M	acrolein	0.055	0.063	-14.5	99	-0.02	2.75
15 c	1,1-dichloroethene	0.414	0.430	-3.9	91	-0.02	2.87
16 M	acetone	0.073	0.040	45.2#	47#	-0.02	2.90
17 M	Methyl Acetate	0.566	0.335	40.8#	54	-0.02	3.28
18 M	methylene chloride	0.566	0.477	15.7	81	-0.02	3.47
19 M	methyl tert butyl ether	1.280	1.144	10.6	83	-0.03	3.83
20 M	acrylonitrile	0.785	0.820	-4.5	91	-0.03	4.62
21 M	allyl chloride	0.805	0.695	13.7	76	-0.02	3.29
22 M	trans-1,2-dichloroethene	0.508	0.471	7.3	84	-0.02	3.83
23 M	iodomethane	0.961	0.913	5.0	88	-0.02	3.04
	----- Amount	Calc.	%Drift	-----			
24 M	carbon disulfide	50.000	62.203	-24.4#	169	-0.02	3.12
	----- AvgRF	CCRF	%Dev	-----			
25 M	propionitrile	0.083	0.059	28.9#	64	-0.02	5.65
26 M	vinyl acetate	1.958	1.370	30.0#	64	-0.02	4.57
27 M	chloroprene	0.785	0.820	-4.5	91	-0.03	4.62
28 M	di-isopropyl ether	1.964	1.483	24.5#	70	-0.03	4.60
29 M	methacrylonitrile	0.402	0.284	29.4#	62	-0.02	5.92

# Continuing Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSV802-CC776  
**Lab FileID:** V20623.D

30	M	2-butanone	0.061	0.044	27.9#	62	-0.02	5.53
31	M	Hexane	0.493	0.442	10.3	79	-0.02	4.25
32	P	1,1-dichloroethane	0.954	0.891	6.6	86	-0.03	4.51
33	M	tert-butyl ethyl ether	1.500	1.374	8.4	85	-0.03	5.27
34	M	isobutyl alcohol	0.091	0.074	18.7	75	-0.02	4.25
35	M	2,2-dichloropropane	0.500	0.650	-30.0#	121	-0.03	5.54
36	M	cis-1,2-dichloroethene	0.583	0.510	12.5	82	-0.03	5.53
37		ethyl acetate	0.449	0.385	14.3	80	-0.03	7.29
38	M	bromochloromethane	0.288	0.278	3.5	86	-0.02	5.95
39	c	chloroform	0.938	0.929	1.0	91	-0.02	6.17
40	S	dibromofluoromethane (s)	0.490	0.496	-1.2	95	-0.02	6.44
41	M	Tetrahydrofuran	0.163	0.107	34.4#	58	-0.02	5.96
			-----	Amount	Calc.	%Drift	-----	
42	M	1,1,1-trichloroethane	50.000	54.147	-8.3	105	-0.03	6.41
			-----	AvgRF	CCRF	%Dev	-----	
43	I	1,4-difluorobenzene	1.000	1.000	0.0	89	-0.01	7.74
44	M	Cyclohexane	0.657	0.534	18.7	72	-0.03	6.52
			-----	Amount	Calc.	%Drift	-----	
45	M	carbon tetrachloride	50.000	62.051	-24.1#	117	-0.02	6.66
			-----	AvgRF	CCRF	%Dev	-----	
46	M	1,1-dichloropropene	0.422	0.465	-10.2	90	-0.02	6.68
47	M	benzene	1.303	1.231	5.5	82	-0.02	7.00
48	M	1,2-dichloroethane	0.508	0.529	-4.1	90	-0.02	7.13
49	M	tert-amyl methyl ether	0.727	0.736	-1.2	86	-0.02	7.29
50	M	heptane	0.420	0.357	15.0	72	-0.01	7.56
51	M	trichloroethene	0.350	0.376	-7.4	89	-0.01	8.03
52	c	1,2-dichloropropane	0.391	0.363	7.2	80	-0.01	8.38
53	M	dibromomethane	0.234	0.233	0.4	84	-0.01	8.49
			-----	Amount	Calc.	%Drift	-----	
54	M	bromodichloromethane	50.000	55.632	-11.3	104	-0.01	8.74
			-----	AvgRF	CCRF	%Dev	-----	
55	M	Methylcyclohexane	0.500	0.486	2.8	81	-0.02	8.33
56	M	2-chloroethyl vinyl ether	0.020	0.068	-240.0#	289#	0.00	9.11
57	M	methyl methacrylate	0.204	0.185	9.3	72	-0.01	8.52
			-----	Amount	Calc.	%Drift	-----	
58	M	1,4-dioxane	250.000	167.278	33.1#	61	-0.03	8.49
59	M	cis-1,3-dichloropropene	50.000	48.593	2.8	91	0.00	9.27
			-----	AvgRF	CCRF	%Dev	-----	
60	S	toluene-d8 (s)	1.163	1.180	-1.5	90	0.00	9.55
61	M	4-methyl-2-pentanone	0.349	0.289	17.2	67	0.00	9.45
62	c	toluene	0.848	0.868	-2.4	89	0.00	9.63
			-----	Amount	Calc.	%Drift	-----	
63	M	trans-1,3-dichloropropene	50.000	53.857	-7.7	106	0.00	9.92
			-----	AvgRF	CCRF	%Dev	-----	
64	M	1,1,2-trichloroethane	0.271	0.269	0.7	81	0.00	10.12
65	M	ethyl methacrylate	0.410	0.389	5.1	77	0.00	10.00
66	I	chlorobenzene-d5	1.000	1.000	0.0	90	0.00	11.08
67	M	tetrachloroethene	0.696	0.849	-22.0#	101	0.00	10.18

# Continuing Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSV802-CC776  
**Lab FileID:** V20623.D

68	M	1,3-dichloropropane	1.016	0.960	5.5	82	0.00	10.28
			----- Amount	Calc.	%Drift	-----		
69	M	dibromochloromethane	50.000	55.520	-11.0	115	0.00	10.50
			----- AvgRF	CCRF	%Dev	-----		
70	M	1,2-dibromoethane	0.616	0.649	-5.4	87	0.00	10.61
71	M	2-hexanone	0.494	0.416	15.8	66	0.00	10.35
72	P	chlorobenzene	1.792	1.983	-10.7	97	0.00	11.11
			----- Amount	Calc.	%Drift	-----		
73	M	1,1,1,2-tetrachloroethane	50.000	60.098	-20.2#	107	0.00	11.21
			----- AvgRF	CCRF	%Dev	-----		
74	c	ethylbenzene	3.030	3.332	-10.0	93	0.00	11.21
75	M	m,p-xylene	1.133	1.266	-11.7	94	0.00	11.34
76	M	o-xylene	1.088	1.257	-15.5	98	0.00	11.71
77	M	styrene	2.013	2.079	-3.3	87	0.00	11.73
			----- Amount	Calc.	%Drift	-----		
78	P	bromoform	50.000	55.021	-10.0	118	0.00	11.90
			----- AvgRF	CCRF	%Dev	-----		
79	M	trans-1,4-dichloro-2-bute	0.238	0.184	22.7#	67	0.00	12.12
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	93	0.00	13.29
81	M	isopropylbenzene	2.722	3.199	-17.5	102	0.00	12.06
82	S	bromofluorobenzene (s)	0.945	0.936	1.0	91	0.00	12.23
83	M	bromobenzene	0.848	0.918	-8.3	97	0.00	12.35
84	P	1,1,2,2-tetrachloroethane	0.761	0.741	2.6	80	0.00	12.36
85	M	1,2,3-trichloropropane	0.873	0.839	3.9	83	0.00	12.40
86	M	n-propylbenzene	3.241	3.680	-13.5	99	0.00	12.45
87	M	2-chlorotoluene	2.057	2.281	-10.9	100	0.00	12.53
88	M	4-chlorotoluene	2.379	2.689	-13.0	101	0.00	12.64
89	M	1,3,5-trimethylbenzene	2.554	2.757	-7.9	94	0.00	12.62
90	M	tert-butylbenzene	1.301	1.582	-21.6#	105	0.00	12.91
91	M	1,2,4-trimethylbenzene	2.634	2.797	-6.2	94	0.00	12.96
92	M	sec-butylbenzene	2.766	3.269	-18.2	101	0.00	13.11
93	M	1,3-dichlorobenzene	1.440	1.648	-14.4	103	0.00	13.22
94	M	p-isopropyltoluene	2.341	2.787	-19.1	102	0.00	13.25
95	M	1,4-dichlorobenzene	1.598	1.682	-5.3	96	0.00	13.31
96	M	1,2-dichlorobenzene	1.394	1.566	-12.3	100	0.00	13.63
97	M	n-butylbenzene	2.276	2.518	-10.6	93	0.00	13.61
			----- Amount	Calc.	%Drift	-----		
98	M	1,2-dibromo-3-chloropropa	50.000	48.845	2.3	98	0.00	14.33
			----- AvgRF	CCRF	%Dev	-----		
99	M	1,3,5-trichlorobenzene	1.119	1.263	-12.9	101	0.00	14.49
100	M	1,2,4-trichlorobenzene	1.068	1.203	-12.6	100	0.00	15.05
101	M	hexachlorobutadiene	0.355	0.502	-41.4#	120	0.00	15.17
102	M	naphthalene	2.335	2.312	1.0	85	0.00	15.28
103	M	1,2,3-trichlorobenzene	0.963	1.057	-9.8	97	0.00	15.47
104		2-Methylnaphthalene	1.089	1.036	4.9	82	0.00	16.28
105		1-Methylnaphthalene	0.890	0.910	-2.2	89	0.00	16.45

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

v19978.D v130624w.m

Tue Jul 09 13:34:10 2013

## Continuing Calibration Summary

Job Number: MC22232  
 Account: EAENYS EA Engineering  
 Project: NFARS, Niagara Falls, NY

Sample: MSV803-CC776  
 Lab FileID: V20652.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V130709\v20652.D Vial: 32  
 Acq On : 9 Jul 2013 9:58 pm Operator: amym  
 Sample : cc776-50 Inst : MSV  
 Misc : MS29358,MSV803,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v130624w.m (RTE Integrator)  
 Title : SW-846 Method 8260  
 Last Update : Tue Jun 25 09:47:02 2013  
 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	tert butyl alcohol-d9	1.000	1.000	0.0	70	-0.03	3.51
2	tertiary butyl alcohol	1.164	1.262	-8.4	72	-0.02	3.62
3 T	Ethanol	0.099	0.091	8.1	65	-0.01	2.50
4 I	pentafluorobenzene	1.000	1.000	0.0	84	0.00	6.57
	----- Amount	Calc.	%Drift	-----			
5 M	dichlorodifluoromethane	50.000	66.623	-33.2#	97	-0.01	1.50
	----- AvgRF	CCRF	%Dev	-----			
6 P	chloromethane	0.552	0.594	-7.6	88	-0.02	1.64
7 c	vinyl chloride	0.558	0.477	14.5	68	-0.03	1.74
8 M	bromomethane	0.306	0.377	-23.2#	99	-0.02	2.03
9 M	chloroethane	0.237	0.261	-10.1	89	-0.01	2.12
10 M	ethyl ether	0.359	0.332	7.5	77	0.00	2.61
11 M	acetonitrile	0.805	0.711	11.7	67	-0.01	3.30
	----- Amount	Calc.	%Drift	-----			
12 M	trichlorofluoromethane	50.000	65.047	-30.1#	102	-0.01	2.35
	----- AvgRF	CCRF	%Dev	-----			
13 M	freon-113	0.496	0.535	-7.9	85	-0.01	2.92
14 M	acrolein	0.055	0.061	-10.9	83	-0.01	2.77
15 c	1,1-dichloroethene	0.414	0.443	-7.0	81	-0.01	2.88
16 M	acetone	0.073	0.049	32.9#	50	-0.01	2.91
17 M	Methyl Acetate	0.566	0.319	43.6#	44#	0.00	3.29
18 M	methylene chloride	0.566	0.494	12.7	73	-0.01	3.48
19 M	methyl tert butyl ether	1.280	1.141	10.9	71	-0.02	3.85
20 M	acrylonitrile	0.785	0.895	-14.0	86	-0.01	4.63
21 M	allyl chloride	0.805	0.711	11.7	67	-0.01	3.30
22 M	trans-1,2-dichloroethene	0.508	0.476	6.3	74	-0.01	3.85
23 M	iodomethane	0.961	0.925	3.7	77	-0.01	3.05
	----- Amount	Calc.	%Drift	-----			
24 M	carbon disulfide	50.000	64.681	-29.4#	153	-0.01	3.13
	----- AvgRF	CCRF	%Dev	-----			
25 M	propionitrile	0.083	0.057	31.3#	53	-0.01	5.66
26 M	vinyl acetate	1.958	1.343	31.4#	55	0.00	4.58
27 M	chloroprene	0.785	0.895	-14.0	86	-0.01	4.63
28 M	di-isopropyl ether	1.964	1.542	21.5#	63	-0.02	4.61
29 M	methacrylonitrile	0.402	0.280	30.3#	53	0.00	5.93

# Continuing Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSV803-CC776  
**Lab FileID:** V20652.D

30 M	2-butanone	0.061	0.046	24.6#	56	0.00	5.54
31 M	Hexane	0.493	0.488	1.0	76	0.00	4.26
32 P	1,1-dichloroethane	0.954	0.929	2.6	77	-0.01	4.52
33 M	tert-butyl ethyl ether	1.500	1.408	6.1	75	-0.02	5.28
34 M	isobutyl alcohol	0.091	0.079	13.2	70	0.00	4.26
35 M	2,2-dichloropropane	0.500	0.645	-29.0#	104	-0.02	5.55
36 M	cis-1,2-dichloroethene	0.583	0.521	10.6	72	-0.01	5.54
37	ethyl acetate	0.449	0.401	10.7	72	-0.02	7.29
38 M	bromochloromethane	0.288	0.277	3.8	74	-0.01	5.96
39 c	chloroform	0.938	0.996	-6.2	85	-0.01	6.18
40 S	dibromofluoromethane (s)	0.490	0.508	-3.7	84	-0.01	6.45
41 M	Tetrahydrofuran	0.163	0.101	38.0#	47#	-0.01	5.97
----- Amount		Calc.	%Drift	-----			
42 M	1,1,1-trichloroethane	50.000	60.024	-20.0#	101	-0.02	6.42
----- AvgRF		CCRF	%Dev	-----			
43 I	1,4-difluorobenzene	1.000	1.000	0.0	77	0.00	7.75
44 M	Cyclohexane	0.657	0.587	10.7	68	-0.02	6.53
----- Amount		Calc.	%Drift	-----			
45 M	carbon tetrachloride	50.000	70.305	-40.6#	114	-0.02	6.67
----- AvgRF		CCRF	%Dev	-----			
46 M	1,1-dichloropropene	0.422	0.494	-17.1	83	-0.01	6.69
47 M	benzene	1.303	1.252	3.9	72	-0.01	7.01
48 M	1,2-dichloroethane	0.508	0.576	-13.4	85	0.00	7.14
49 M	tert-amyl methyl ether	0.727	0.738	-1.5	75	-0.02	7.29
50 M	heptane	0.420	0.385	8.3	67	0.00	7.56
51 M	trichloroethene	0.350	0.399	-14.0	81	0.00	8.04
52 c	1,2-dichloropropane	0.391	0.372	4.9	70	0.00	8.39
53 M	dibromomethane	0.234	0.241	-3.0	75	0.00	8.49
----- Amount		Calc.	%Drift	-----			
54 M	bromodichloromethane	50.000	59.262	-18.5	96	0.00	8.74
----- AvgRF		CCRF	%Dev	-----			
55 M	Methylcyclohexane	0.500	0.523	-4.6	75	-0.01	8.34
56 M	2-chloroethyl vinyl ether	0.020	0.056	-180.0#	204#	0.00	9.12
57 M	methyl methacrylate	0.204	0.175	14.2	59	0.00	8.52
----- Amount		Calc.	%Drift	-----			
58 M	1,4-dioxane	250.000	160.749	35.7#	51	-0.02	8.50
59 M	cis-1,3-dichloropropene	50.000	49.666	0.7	80	0.00	9.27
----- AvgRF		CCRF	%Dev	-----			
60 S	toluene-d8 (s)	1.163	1.193	-2.6	79	0.00	9.56
61 M	4-methyl-2-pentanone	0.349	0.282	19.2	56	0.00	9.45
62 c	toluene	0.848	0.894	-5.4	79	0.00	9.63
----- Amount		Calc.	%Drift	-----			
63 M	trans-1,3-dichloropropene	50.000	55.188	-10.4	94	0.00	9.92
----- AvgRF		CCRF	%Dev	-----			
64 M	1,1,2-trichloroethane	0.271	0.270	0.4	70	0.00	10.12
65 M	ethyl methacrylate	0.410	0.382	6.8	65	0.00	10.00
66 I	chlorobenzene-d5	1.000	1.000	0.0	80	0.00	11.08
67 M	tetrachloroethene	0.696	0.862	-23.9#	92	0.00	10.18

6.7.8  
6

# Continuing Calibration Summary

**Job Number:** MC22232  
**Account:** EAENYS EA Engineering  
**Project:** NFARS, Niagara Falls, NY

**Sample:** MSV803-CC776  
**Lab FileID:** V20652.D

68	M	1,3-dichloropropane	1.016	0.950	6.5	72	0.00	10.29
			----- Amount	Calc.	%Drift	-----		
69	M	dibromochloromethane	50.000	56.580	-13.2	105	0.00	10.50
			----- AvgRF	CCRF	%Dev	-----		
70	M	1,2-dibromoethane	0.616	0.636	-3.2	76	0.00	10.61
71	M	2-hexanone	0.494	0.418	15.4	59	0.00	10.36
72	P	chlorobenzene	1.792	2.009	-12.1	88	0.00	11.11
			----- Amount	Calc.	%Drift	-----		
73	M	1,1,1,2-tetrachloroethane	50.000	61.988	-24.0#	98	0.00	11.21
			----- AvgRF	CCRF	%Dev	-----		
74	c	ethylbenzene	3.030	3.381	-11.6	84	0.00	11.21
75	M	m,p-xylene	1.133	1.271	-12.2	84	0.00	11.34
76	M	o-xylene	1.088	1.257	-15.5	87	0.00	11.71
77	M	styrene	2.013	2.083	-3.5	77	0.00	11.73
			----- Amount	Calc.	%Drift	-----		
78	P	bromoform	50.000	54.408	-8.8	104	0.00	11.91
			----- AvgRF	CCRF	%Dev	-----		
79	M	trans-1,4-dichloro-2-bute	0.238	0.119	50.0#	38#	0.00	12.12
80	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	82	0.00	13.29
81	M	isopropylbenzene	2.722	3.306	-21.5#	93	0.00	12.06
82	S	bromofluorobenzene (s)	0.945	0.947	-0.2	81	0.00	12.23
83	M	bromobenzene	0.848	0.941	-11.0	87	0.00	12.35
84	P	1,1,2,2-tetrachloroethane	0.761	0.701	7.9	67	0.00	12.36
85	M	1,2,3-trichloropropane	0.873	0.782	10.4	68	0.00	12.40
86	M	n-propylbenzene	3.241	3.801	-17.3	90	0.00	12.45
87	M	2-chlorotoluene	2.057	2.366	-15.0	92	0.00	12.53
88	M	4-chlorotoluene	2.379	2.798	-17.6	92	0.00	12.64
89	M	1,3,5-trimethylbenzene	2.554	2.854	-11.7	86	0.00	12.62
90	M	tert-butylbenzene	1.301	1.682	-29.3#	99	0.00	12.91
91	M	1,2,4-trimethylbenzene	2.634	2.908	-10.4	86	0.00	12.96
92	M	sec-butylbenzene	2.766	3.409	-23.2#	93	0.00	13.11
93	M	1,3-dichlorobenzene	1.440	1.685	-17.0	93	0.00	13.22
94	M	p-isopropyltoluene	2.341	2.901	-23.9#	94	0.00	13.25
95	M	1,4-dichlorobenzene	1.598	1.726	-8.0	87	0.00	13.31
96	M	1,2-dichlorobenzene	1.394	1.611	-15.6	91	0.00	13.63
97	M	n-butylbenzene	2.276	2.622	-15.2	86	0.00	13.62
			----- Amount	Calc.	%Drift	-----		
98	M	1,2-dibromo-3-chloropropa	50.000	47.404	5.2	84	0.00	14.33
			----- AvgRF	CCRF	%Dev	-----		
99	M	1,3,5-trichlorobenzene	1.119	1.309	-17.0	92	0.00	14.50
100	M	1,2,4-trichlorobenzene	1.068	1.228	-15.0	90	0.00	15.05
101	M	hexachlorobutadiene	0.355	0.538	-51.5#	113	0.00	15.17
102	M	naphthalene	2.335	2.250	3.6	73	0.00	15.28
103	M	1,2,3-trichlorobenzene	0.963	1.072	-11.3	87	0.00	15.47
104		2-Methylnaphthalene	1.089	1.048	3.8	73	0.00	16.28
105		1-Methylnaphthalene	0.890	0.907	-1.9	78	0.00	16.45

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

v19978.D v130624w.m

Wed Jul 10 10:46:14 2013

GC/MS Volatiles

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Raw Data

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7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78006.D  
Acq On : 8 Jul 2013 12:30 pm  
Operator : jaclynb  
Sample : mc22232-1  
Misc : MS29348,MSN2928,,,,,5,1  
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jul 08 13:52:22 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	68391	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	206590	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	314055	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	156285	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	128214	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	93942	44.37	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.74%	
60) toluene-d8 (s)	11.674	98	366263	49.48	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.96%	
82) bromofluorobenzene (s)	14.355	95	137914	50.20	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.40%	
Target Compounds							
7) vinyl chloride	4.755	62	40443	14.92	ug/L		Qvalue 93
36) cis-1,2-dichloroethene	8.326	96	10337	4.91	ug/L		97

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

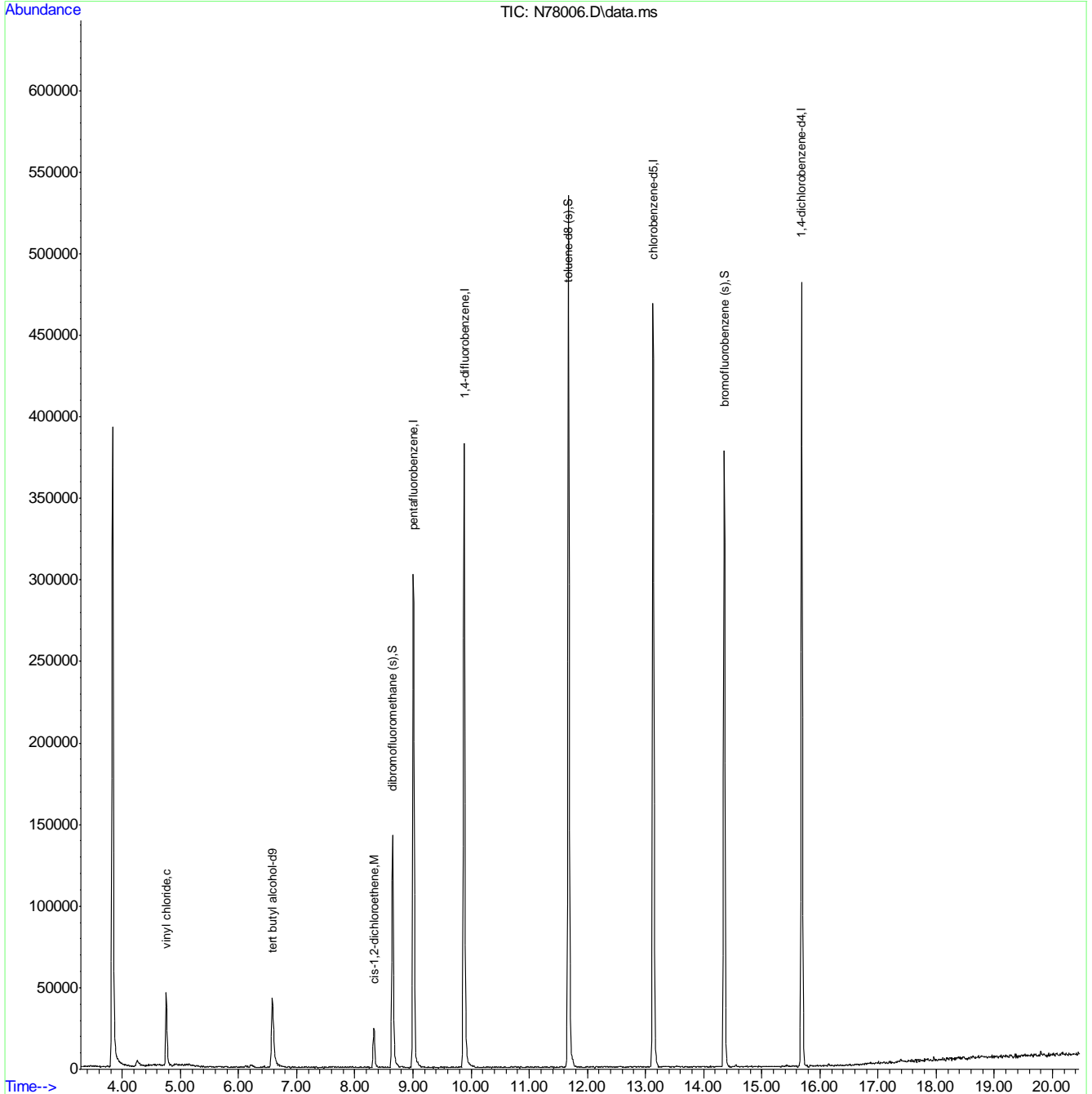
7.1.1  
7

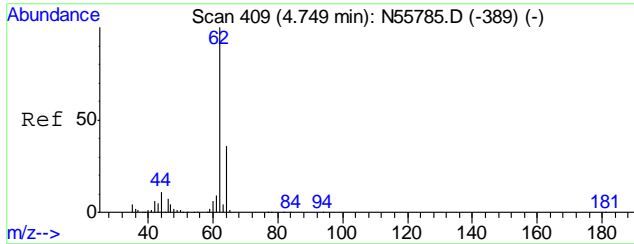


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78006.D  
Acq On : 8 Jul 2013 12:30 pm  
Operator : jaclynb  
Sample : mc22232-1  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 23 Sample Multiplier: 1

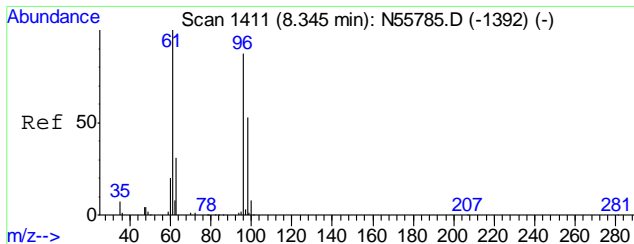
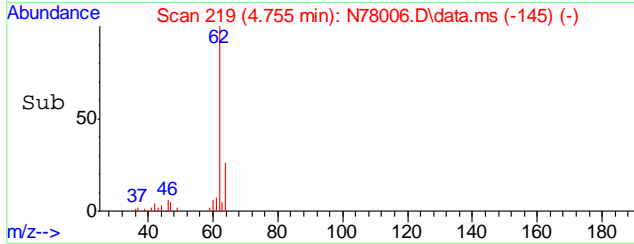
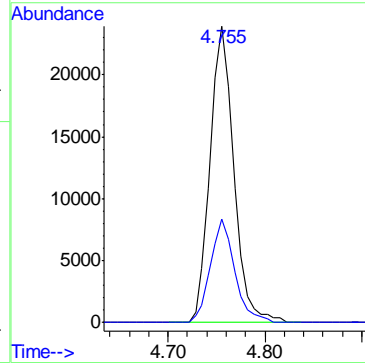
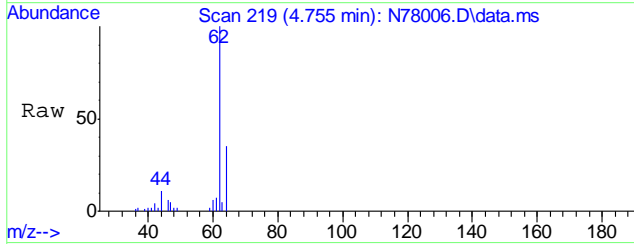
Quant Time: Jul 08 13:52:22 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration





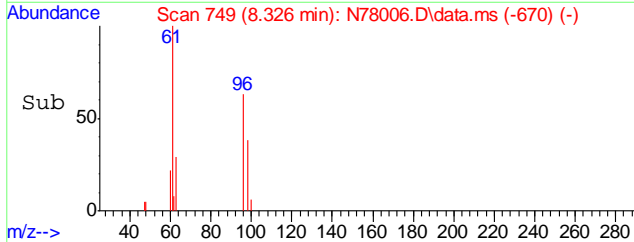
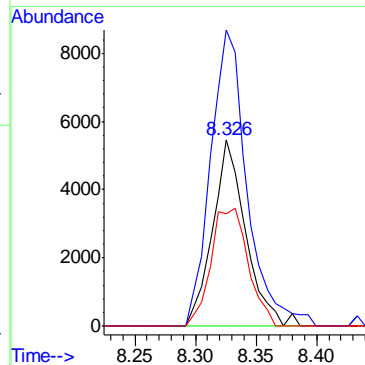
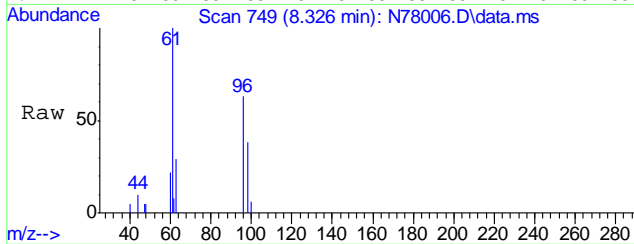
#7  
 vinyl chloride  
 Concen: 14.92 ug/L  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78006.D  
 Acq: 8 Jul 2013 12:30 pm

Tgt Ion	Resp	Lower	Upper
62	40443	100	
64	35.1	1.1	61.1



#36  
 cis-1,2-dichloroethene  
 Concen: 4.91 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78006.D  
 Acq: 8 Jul 2013 12:30 pm

Tgt Ion	Resp	Lower	Upper
96	10337	100	
61	159.4	131.2	191.2
98	60.3	36.1	96.1



7.1.1  
 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78007.D  
Acq On : 8 Jul 2013 12:58 pm  
Operator : jaclynb  
Sample : mc22232-2  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 08 13:52:50 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.588	65	66524	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	199952	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.875	114	312784	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	153615	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	126936	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	92659	45.21	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.42%	
60) toluene-d8 (s)	11.673	98	361740	49.07	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.14%	
82) bromofluorobenzene (s)	14.355	95	135062	49.66	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.32%	
Target Compounds							
7) vinyl chloride	4.755	62	31046	11.83	ug/L		Qvalue 99
36) cis-1,2-dichloroethene	8.325	96	9476	4.65	ug/L		93

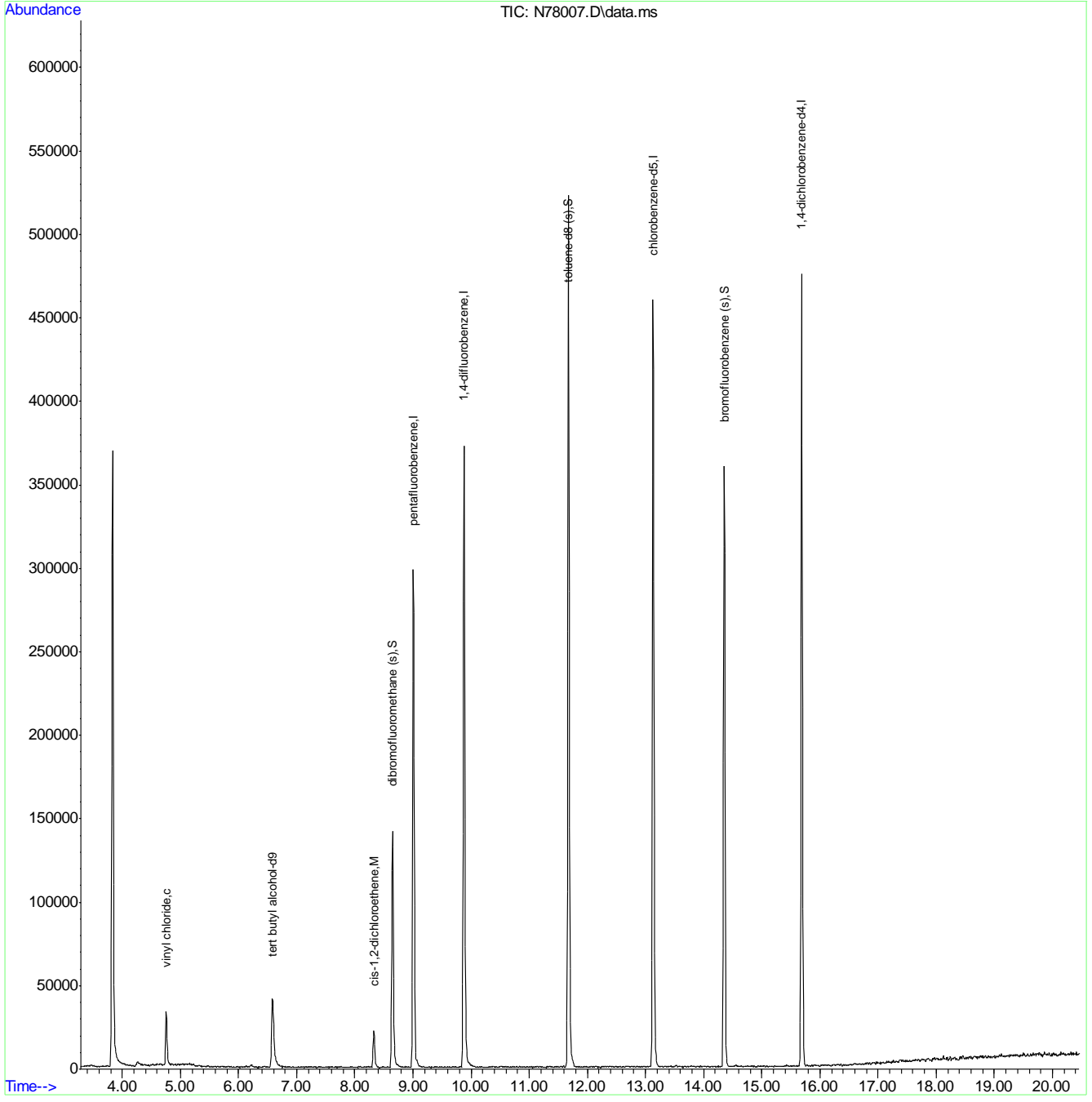
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.12  
7

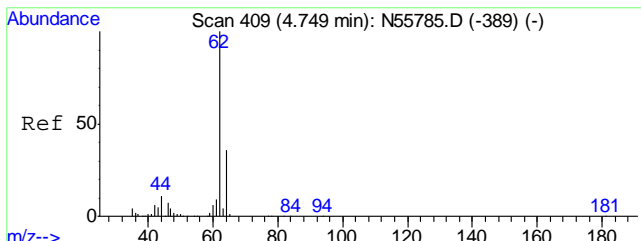
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78007.D  
Acq On : 8 Jul 2013 12:58 pm  
Operator : jaclynb  
Sample : mc22232-2  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jul 08 13:52:50 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

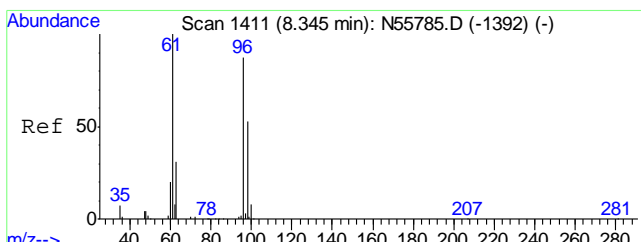
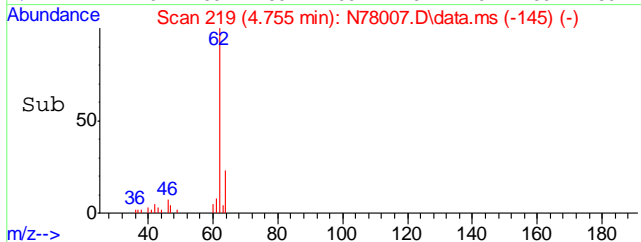
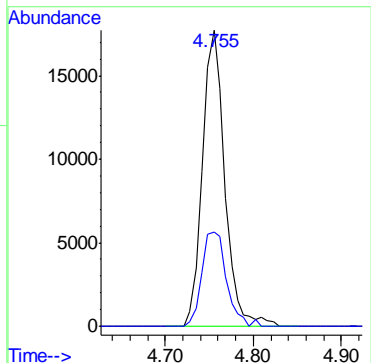
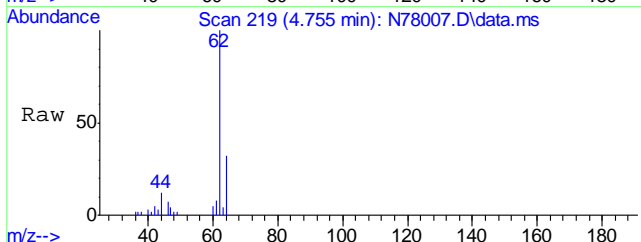


7.1.2  
7



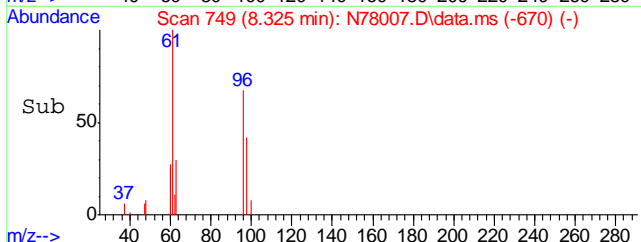
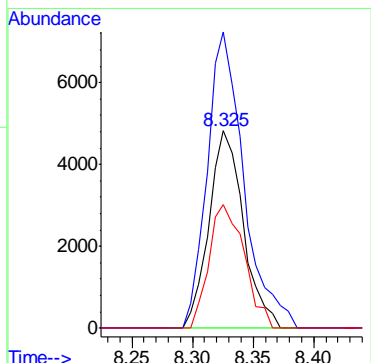
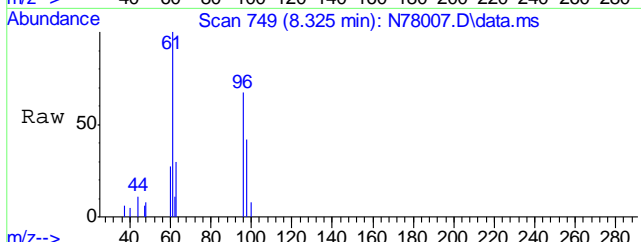
#7  
 vinyl chloride  
 Concen: 11.83 ug/L  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78007.D  
 Acq: 8 Jul 2013 12:58 pm

Tgt Ion	Resp	Lower	Upper
62	31046	100	
64	31.8	1.1	61.1



#36  
 cis-1,2-dichloroethene  
 Concen: 4.65 ug/L  
 RT: 8.325 min Scan# 749  
 Delta R.T. -0.001 min  
 Lab File: N78007.D  
 Acq: 8 Jul 2013 12:58 pm

Tgt Ion	Resp	Lower	Upper
96	9476	100	
61	150.3	131.2	191.2
98	62.6	36.1	96.1



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78008.D  
 Acq On : 8 Jul 2013 1:26 pm  
 Operator : jaclynb  
 Sample : mc22232-3  
 Misc : MS29348,MSN2928,,,,,5,1  
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 08 13:53:12 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

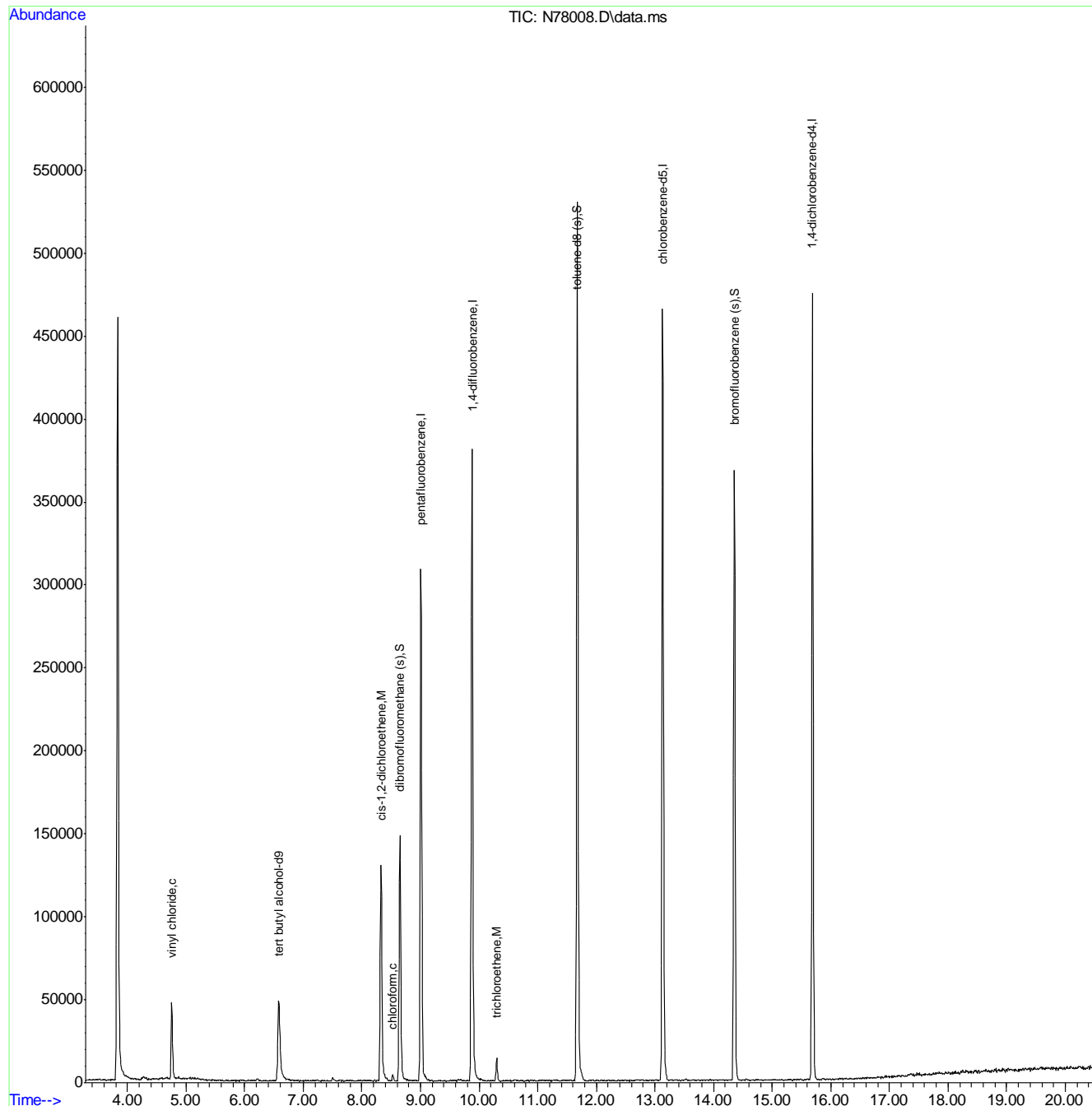
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	79058	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	202815	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	314487	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	157853	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	125963	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	95344	45.87	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	91.74%	
60) toluene-d8 (s)	11.674	98	369009	49.78	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.56%	
82) bromofluorobenzene (s)	14.355	95	135863	50.34	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.68%	
Target Compounds							
7) vinyl chloride	4.755	62	43086	16.19	ug/L		Qvalue 91
36) cis-1,2-dichloroethene	8.326	96	57360	27.74	ug/L		94
39) chloroform	8.528	83	3262	0.90	ug/L		93
51) trichloroethene	10.306	95	5005	2.38	ug/L		95

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

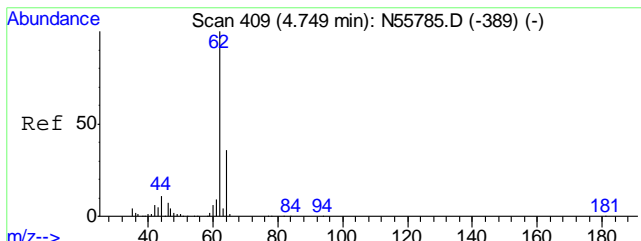
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78008.D  
 Acq On : 8 Jul 2013 1:26 pm  
 Operator : jaclynb  
 Sample : mc22232-3  
 Misc : MS29348,MSN2928,,,,5,1  
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 08 13:53:12 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

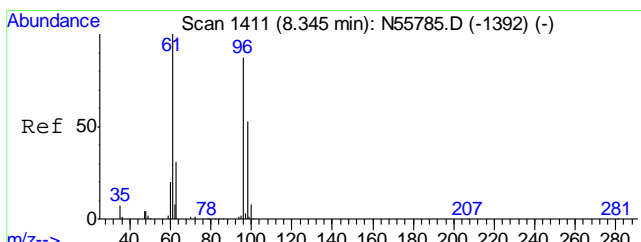
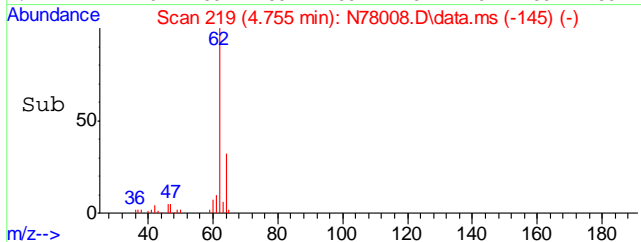
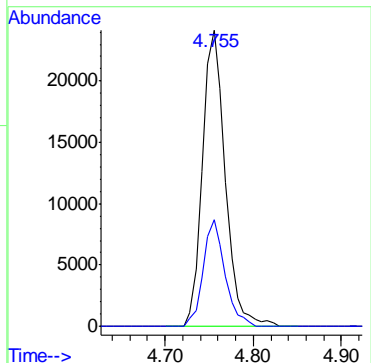
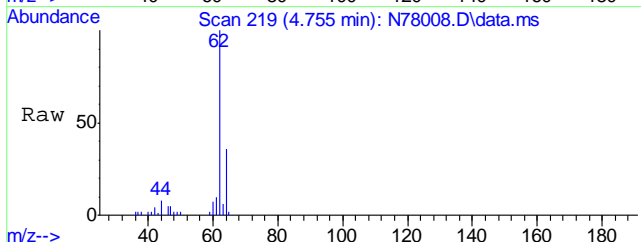


7.13  
 7



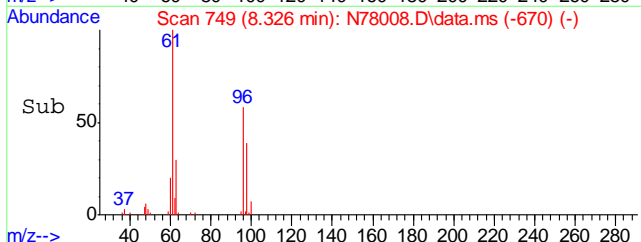
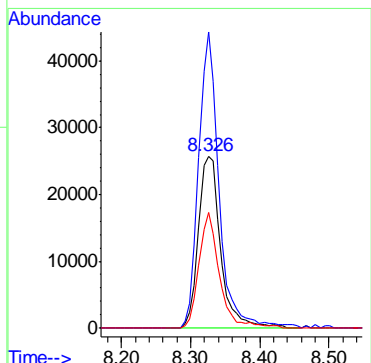
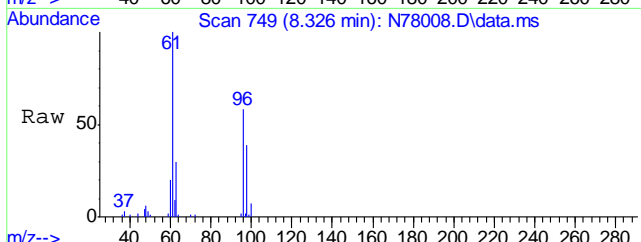
#7  
 vinyl chloride  
 Concen: 16.19 ug/L  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78008.D  
 Acq: 8 Jul 2013 1:26 pm

Tgt Ion	Resp	Lower	Upper
62	43086	100	
64	35.9	1.1	61.1

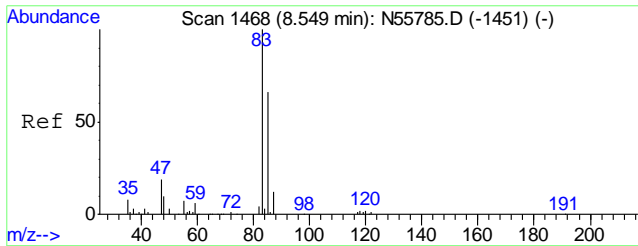


#36  
 cis-1,2-dichloroethene  
 Concen: 27.74 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78008.D  
 Acq: 8 Jul 2013 1:26 pm

Tgt Ion	Resp	Lower	Upper
96	57360	100	
61	172.0	131.2	191.2
98	67.5	36.1	96.1

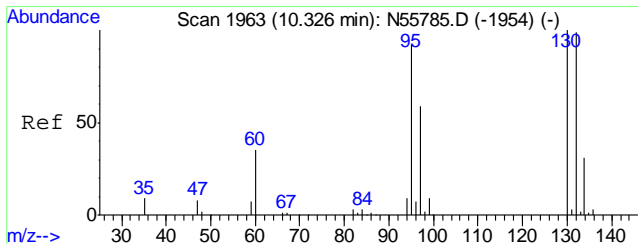
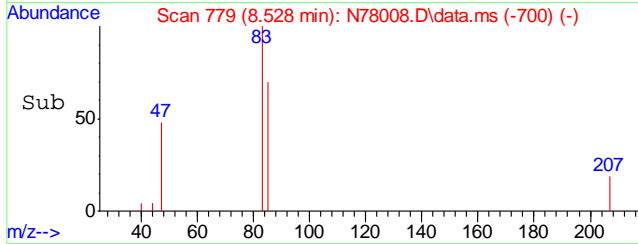
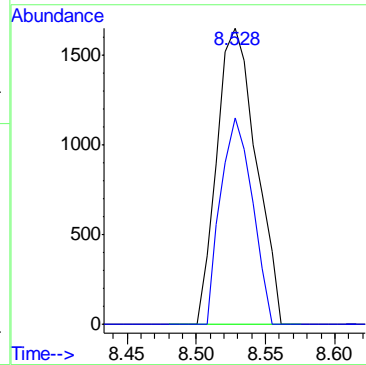
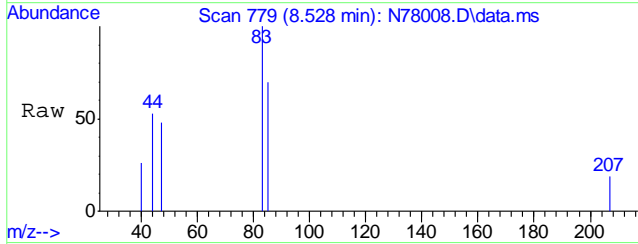






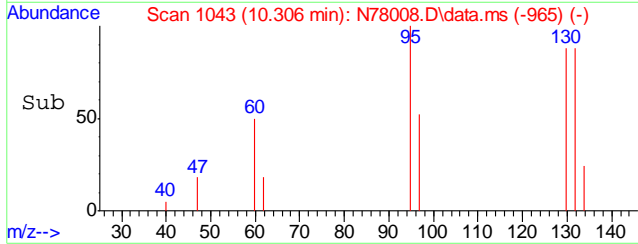
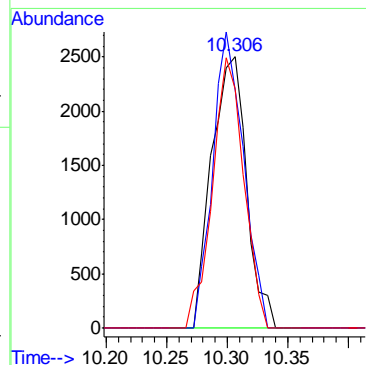
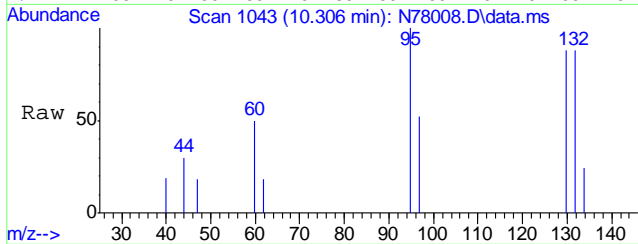
#39  
 chloroform  
 Concen: 0.90 ug/L  
 RT: 8.528 min Scan# 779  
 Delta R.T. -0.000 min  
 Lab File: N78008.D  
 Acq: 8 Jul 2013 1:26 pm

Tgt Ion: 83 Resp: 3262  
 Ion Ratio Lower Upper  
 83 100  
 85 69.7 34.2 94.2



#51  
 trichloroethene  
 Concen: 2.38 ug/L  
 RT: 10.306 min Scan# 1043  
 Delta R.T. 0.007 min  
 Lab File: N78008.D  
 Acq: 8 Jul 2013 1:26 pm

Tgt Ion: 95 Resp: 5005  
 Ion Ratio Lower Upper  
 95 100  
 130 87.7 63.5 123.5  
 132 87.9 61.6 121.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78009.D  
Acq On : 8 Jul 2013 1:54 pm  
Operator : jaclynb  
Sample : mc22232-4  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 08 14:24:28 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.574	65	65184	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	203439	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.875	114	307202	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	154573	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.689	152	125823	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	91652	43.96	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	87.92%	
60) toluene-d8 (s)	11.674	98	361787	49.97	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.94%	
82) bromofluorobenzene (s)	14.355	95	134550	49.91	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.82%	
Target Compounds							
7) vinyl chloride	4.755	62	10622	3.98	ug/L		Qvalue 91
36) cis-1,2-dichloroethene	8.326	96	4514	2.18	ug/L		87

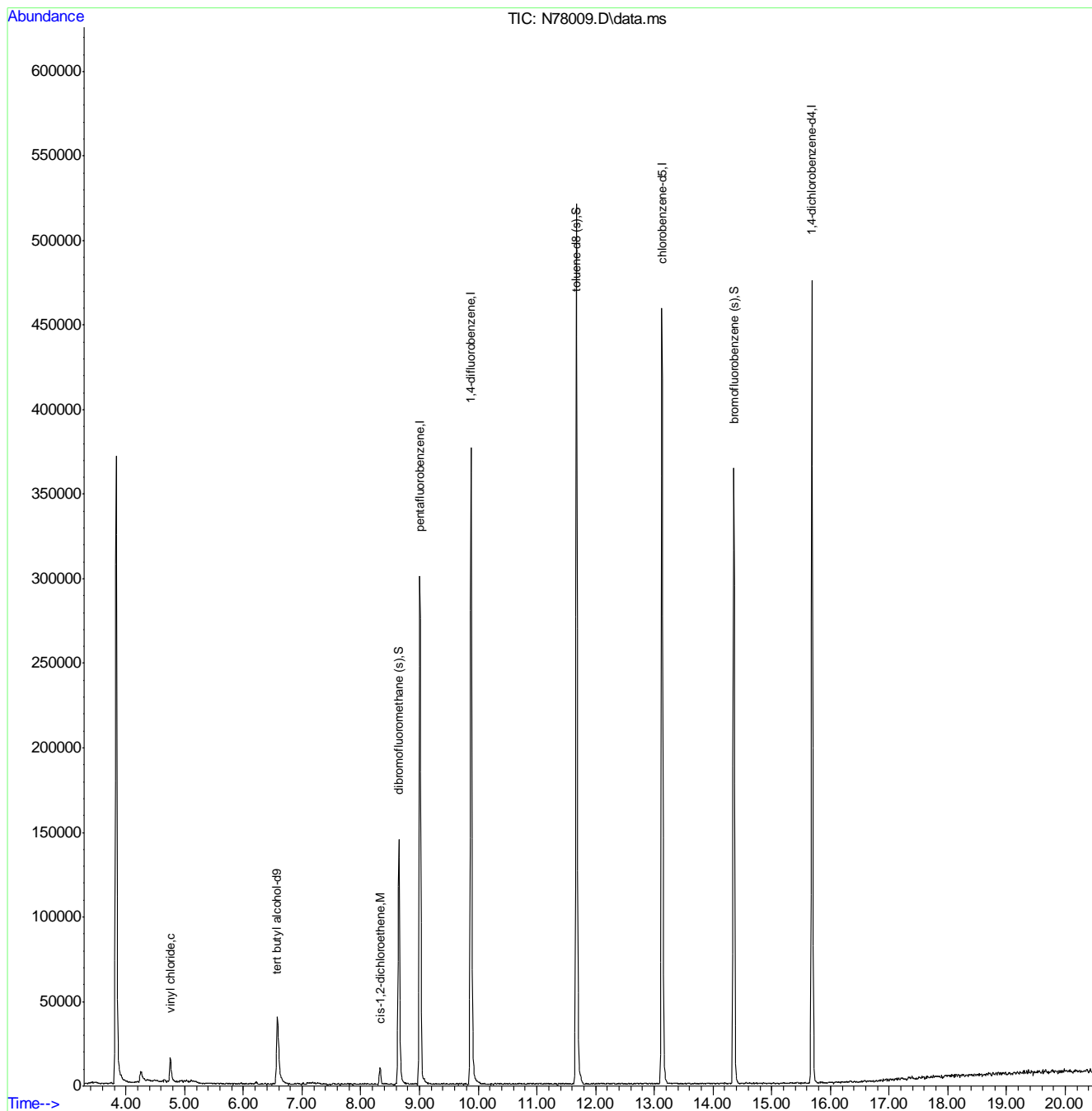
(#) = qualifier out of range (m) = manual integration (+) = signals summed

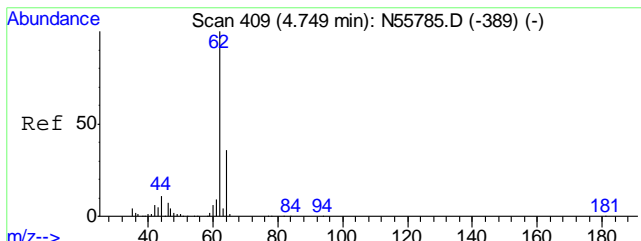
7.14  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78009.D  
Acq On : 8 Jul 2013 1:54 pm  
Operator : jaclynb  
Sample : mc22232-4  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 26 Sample Multiplier: 1

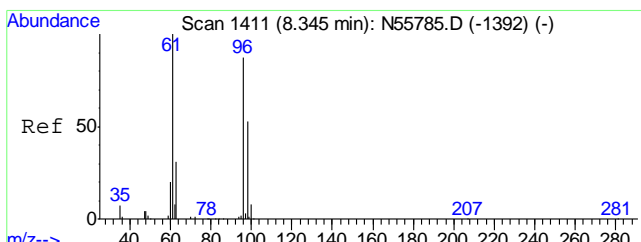
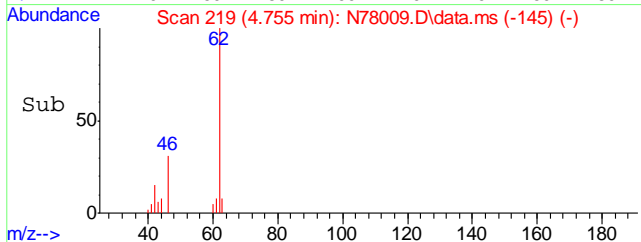
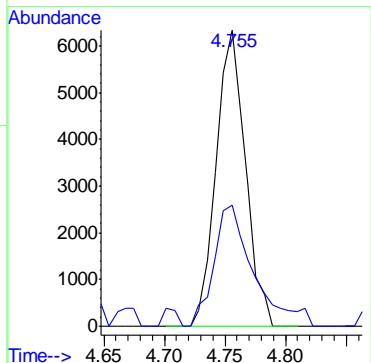
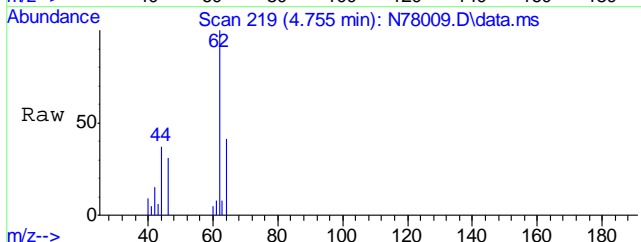
Quant Time: Jul 08 14:24:28 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration





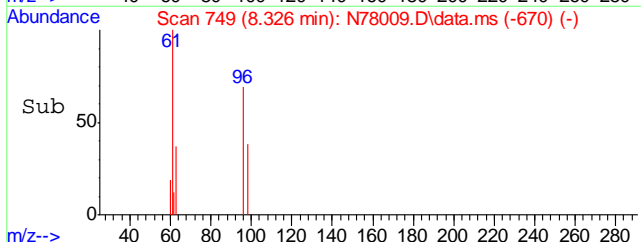
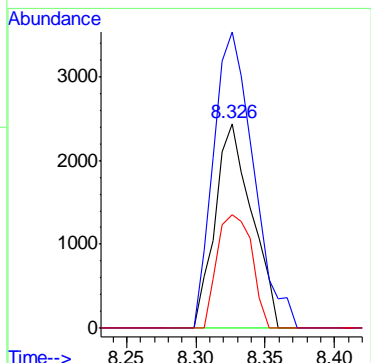
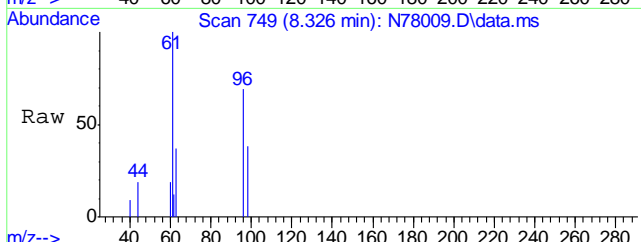
#7  
 vinyl chloride  
 Concen: 3.98 ug/L  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78009.D  
 Acq: 8 Jul 2013 1:54 pm

Tgt Ion	Resp	Lower	Upper
62	10622	100	
64	35.9	1.1	61.1



#36  
 cis-1,2-dichloroethene  
 Concen: 2.18 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78009.D  
 Acq: 8 Jul 2013 1:54 pm

Tgt Ion	Resp	Lower	Upper
96	4514	100	
61	144.6	131.2	191.2
98	55.4	36.1	96.1



7.1.4  
 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78011.D  
Acq On : 8 Jul 2013 2:51 pm  
Operator : jaclynb  
Sample : mc22232-5  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 08 15:18:50 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	60262	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	194835	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	303208	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	149737	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	123133	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	90412	45.28	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.56%	
60) toluene-d8 (s)	11.674	98	353160	49.42	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.84%	
82) bromofluorobenzene (s)	14.355	95	130936	49.63	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.26%	
Target Compounds							
7) vinyl chloride	4.755	62	19718	7.71	ug/L	89	Qvalue
36) cis-1,2-dichloroethene	8.326	96	6767	3.41	ug/L	89	

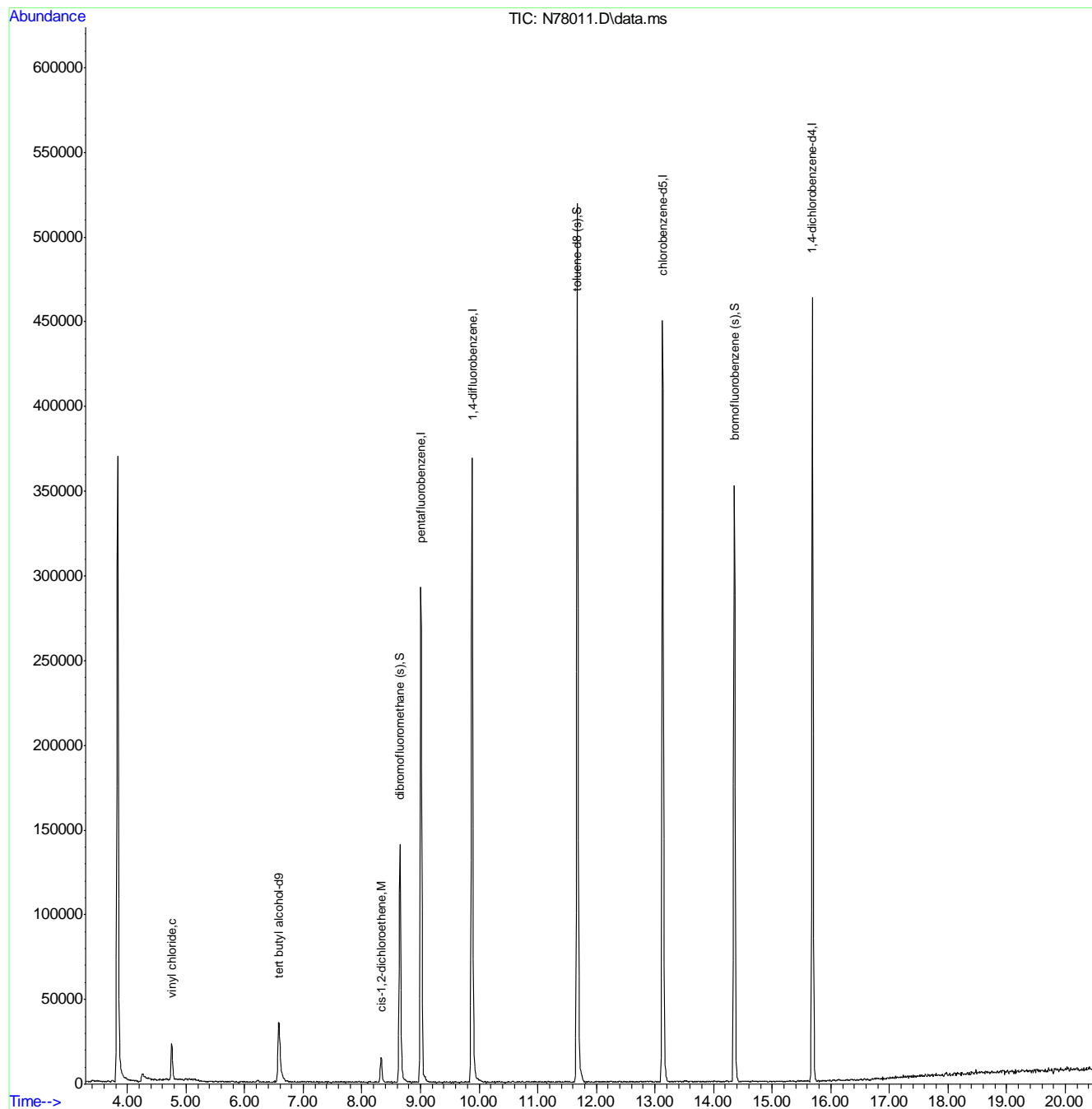
(#) = qualifier out of range (m) = manual integration (+) = signals summed

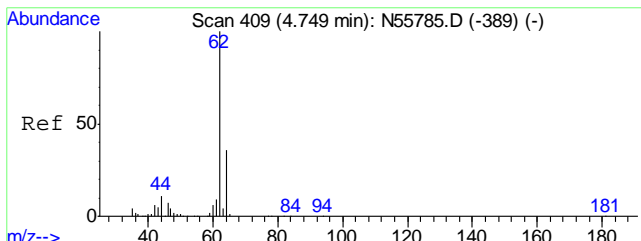
7.15  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78011.D  
Acq On : 8 Jul 2013 2:51 pm  
Operator : jaclynb  
Sample : mc22232-5  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 28 Sample Multiplier: 1

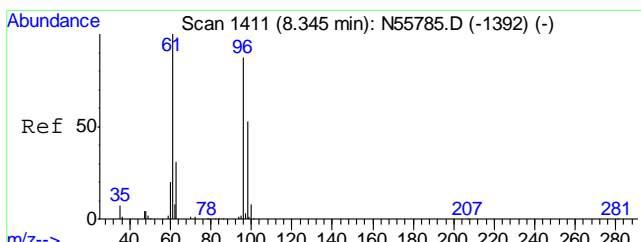
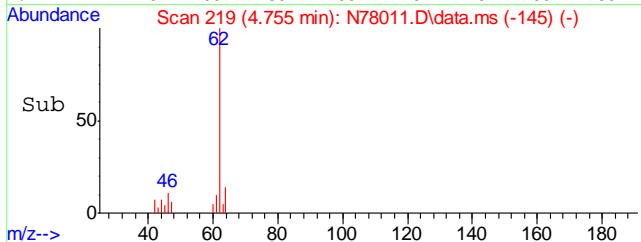
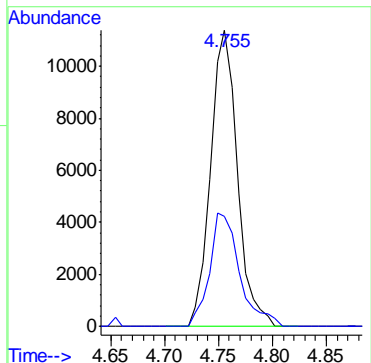
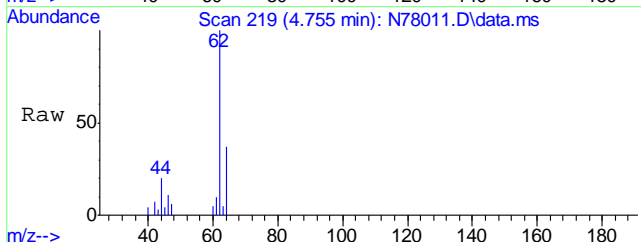
Quant Time: Jul 08 15:18:50 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration





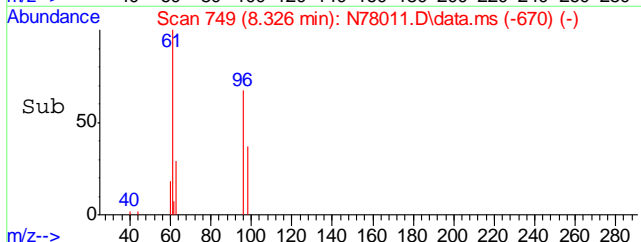
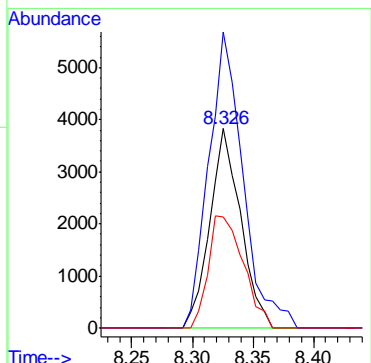
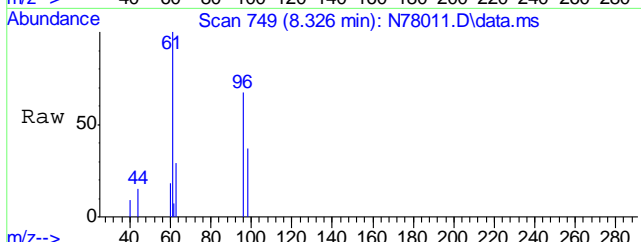
#7  
 vinyl chloride  
 Concen: 7.71 ug/L  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78011.D  
 Acq: 8 Jul 2013 2:51 pm

Tgt Ion	Resp	Lower	Upper
62	19718	100	
64	37.2	1.1	61.1



#36  
 cis-1,2-dichloroethene  
 Concen: 3.41 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78011.D  
 Acq: 8 Jul 2013 2:51 pm

Tgt Ion	Resp	Lower	Upper
96	6767	100	
61	148.4	131.2	191.2
98	55.4	36.1	96.1



7.15  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78012.D  
 Acq On : 8 Jul 2013 3:19 pm  
 Operator : jaclynb  
 Sample : mc22232-6  
 Misc : MS29348,MSN2928,,,,5,1  
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jul 08 16:14:21 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	66400	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	201695	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	307057	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	153918	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	124565	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	90782	43.92	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	87.84%	
60) toluene-d8 (s)	11.674	98	358177	49.49	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.98%	
82) bromofluorobenzene (s)	14.355	95	133559	50.04	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.08%	
Target Compounds							
7) vinyl chloride	4.755	62	5489	2.07	ug/L		Qvalue 92

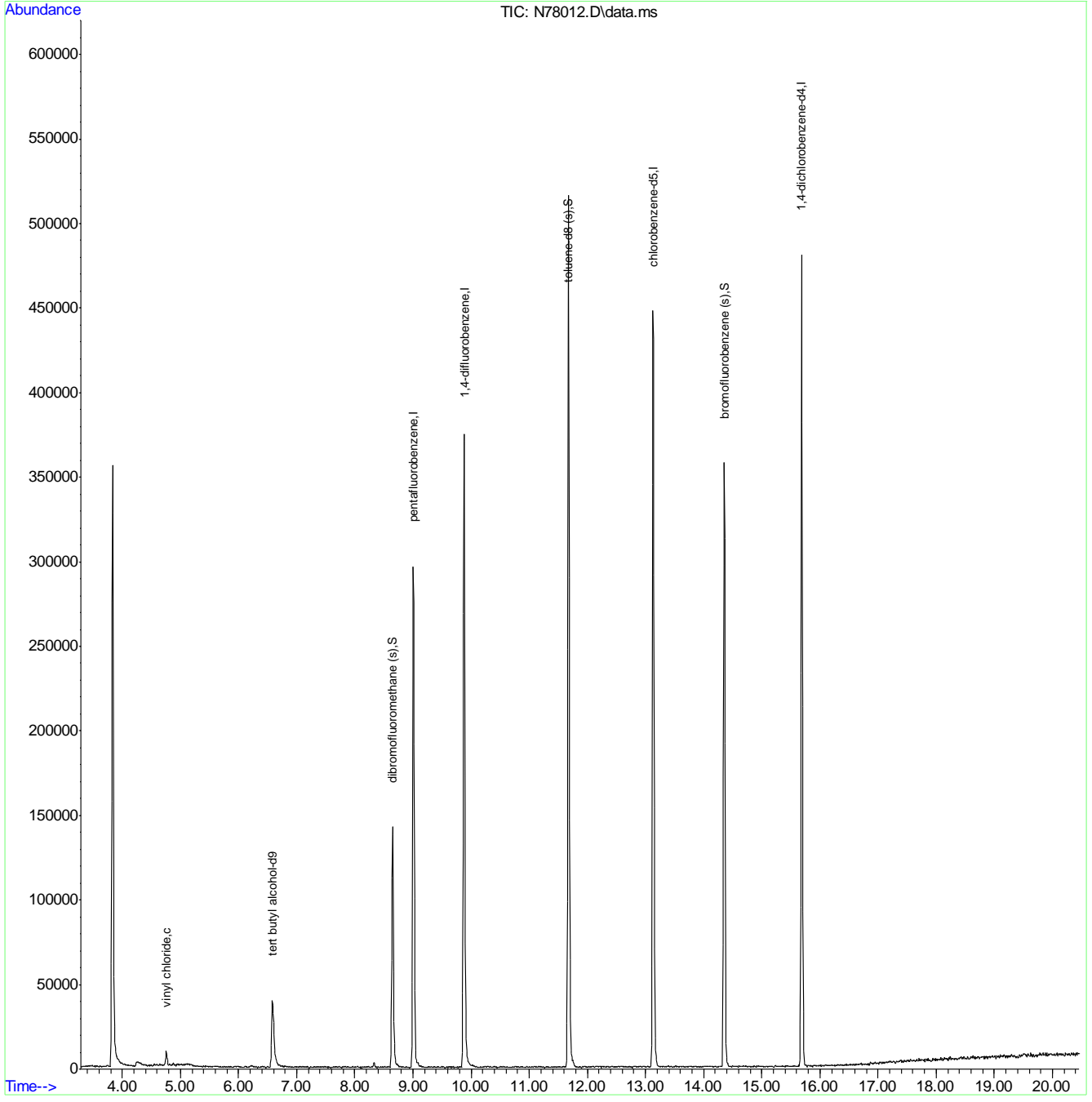
(#) = qualifier out of range (m) = manual integration (+) = signals summed



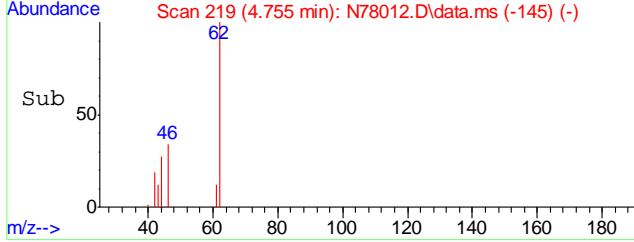
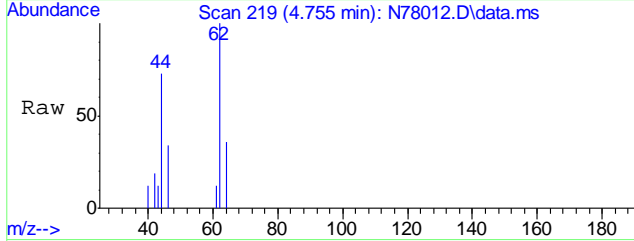
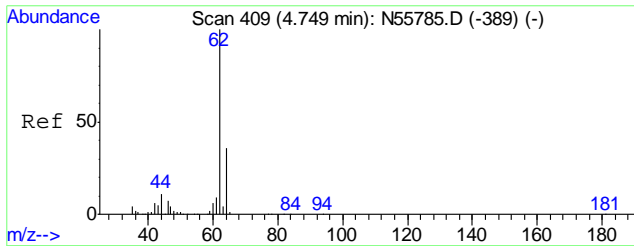
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78012.D  
Acq On : 8 Jul 2013 3:19 pm  
Operator : jaclynb  
Sample : mc22232-6  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jul 08 16:14:21 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

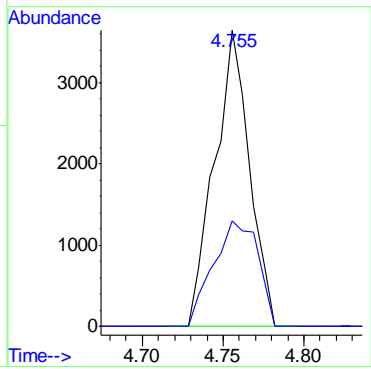


7.1.6  
7



#7  
vinyl chloride  
Concen: 2.07 ug/L  
RT: 4.755 min Scan# 219  
Delta R.T. 0.000 min  
Lab File: N78012.D  
Acq: 8 Jul 2013 3:19 pm

Tgt Ion	Resp	Lower	Upper
62	5489	100	
64	35.8	1.1	61.1



7.1.6  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78013.D  
Acq On : 8 Jul 2013 3:47 pm  
Operator : jaclynb  
Sample : mc22232-7  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jul 08 16:46:33 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.581	65	62605	500.00	ug/L	0.00
4) pentafluorobenzene	9.013	168	200241	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.882	114	310004	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	152539	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.689	152	127222	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	90869	44.28	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.56%
60) toluene-d8 (s)	11.674	98	360168	49.29	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.58%
82) bromofluorobenzene (s)	14.355	95	133549	48.99	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.98%

Target Compounds Qvalue

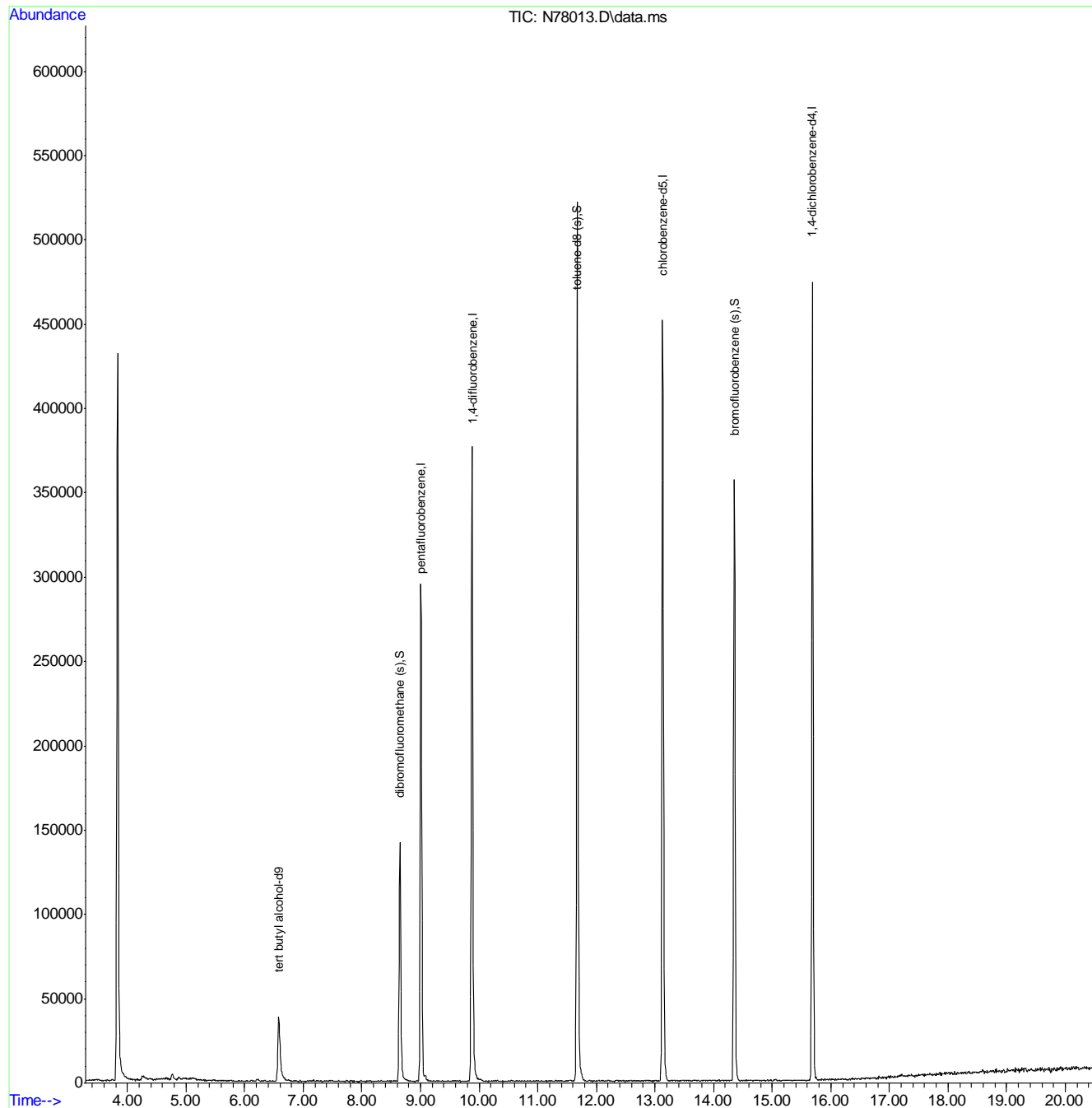
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.17  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78013.D  
Acq On : 8 Jul 2013 3:47 pm  
Operator : jaclynb  
Sample : mc22232-7  
Misc : MS29348,MSN2928,,,,,5,1  
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jul 08 16:46:33 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78014.D  
 Acq On : 8 Jul 2013 4:15 pm  
 Operator : jaclynb  
 Sample : mc22232-8  
 Misc : MS29348,MSN2928,,,,,5,1  
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jul 08 16:47:31 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

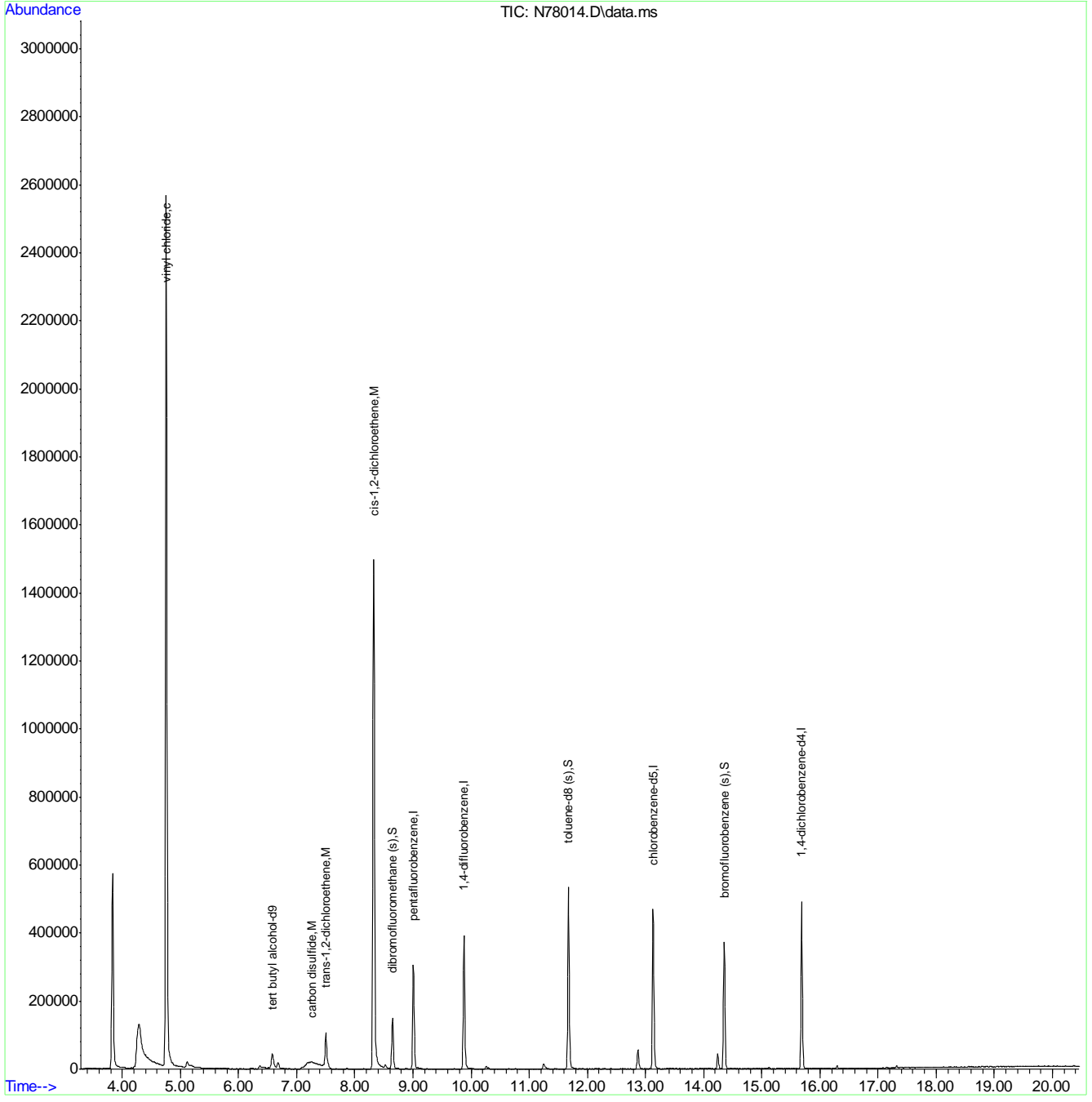
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	66828	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	203212	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.875	114	310152	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	154028	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.689	152	129613	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	93891	45.08	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.16%	
60) toluene-d8 (s)	11.674	98	363483	49.72	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.44%	
82) bromofluorobenzene (s)	14.355	95	137605	49.55	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.10%	
Target Compounds							
7) vinyl chloride	4.755	62	2687109m	1007.46	ug/L		Qvalue
22) trans-1,2-dichloroethene	7.504	96	35753	19.60	ug/L		98
24) carbon disulfide	7.255	76	272745	44.40	ug/L		97
36) cis-1,2-dichloroethene	8.326	96	624587	301.50	ug/L		98

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

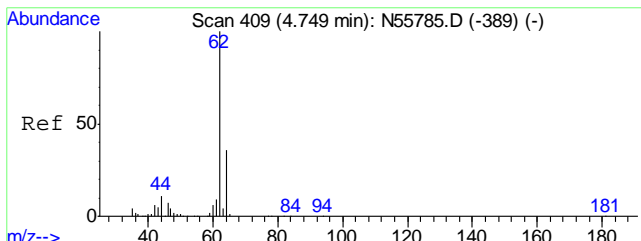
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78014.D  
Acq On : 8 Jul 2013 4:15 pm  
Operator : jaclynb  
Sample : mc22232-8  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jul 08 16:47:31 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration



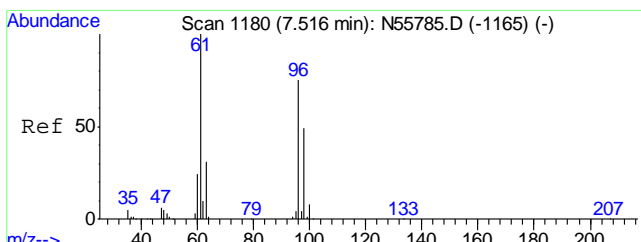
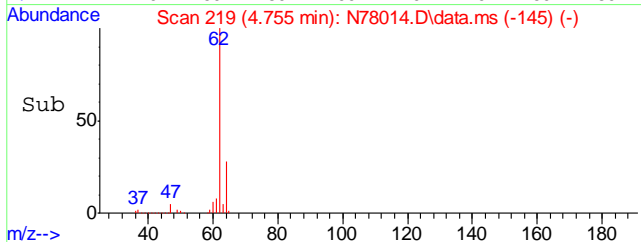
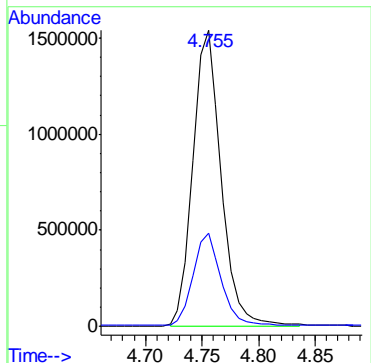
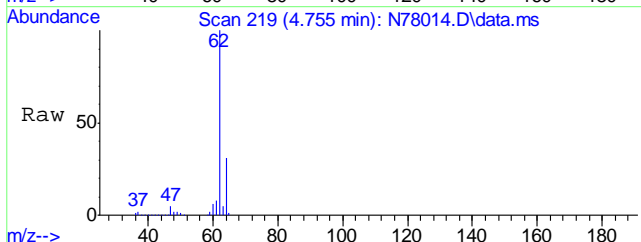
7.18  
7



#7  
 vinyl chloride  
 Concen: 1007.46 ug/L m  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78014.D  
 Acq: 8 Jul 2013 4:15 pm

Tgt Ion: 62 Resp: 2687109

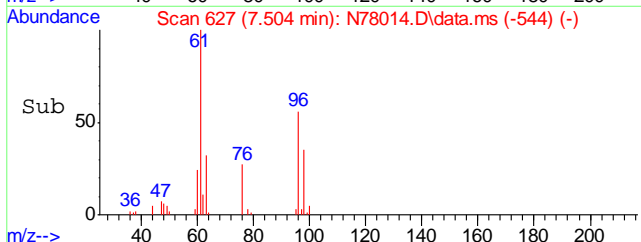
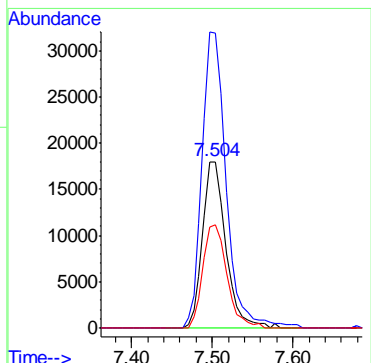
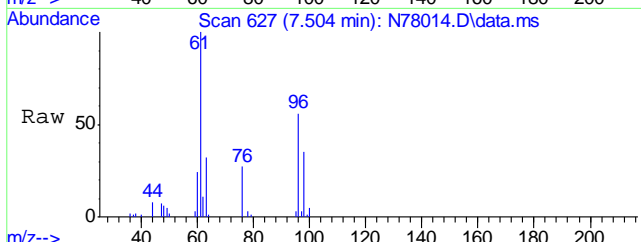
Ion	Ratio	Lower	Upper
62	100		
64	31.4	1.1	61.1



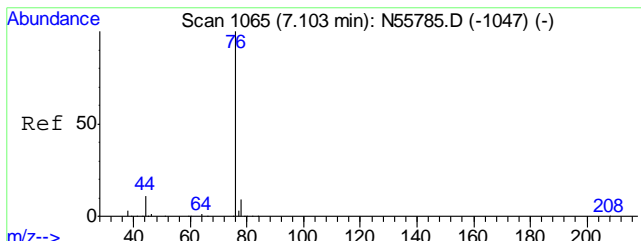
#22  
 trans-1,2-dichloroethene  
 Concen: 19.60 ug/L  
 RT: 7.504 min Scan# 627  
 Delta R.T. 0.007 min  
 Lab File: N78014.D  
 Acq: 8 Jul 2013 4:15 pm

Tgt Ion: 96 Resp: 35753

Ion	Ratio	Lower	Upper
96	100		
61	177.1	150.7	210.7
98	61.9	33.3	93.3

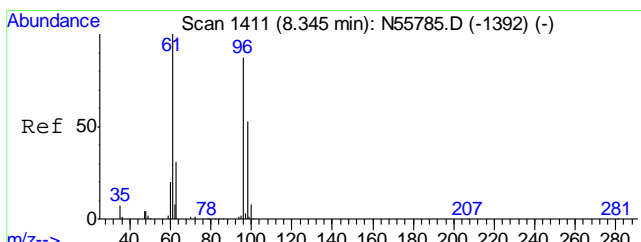
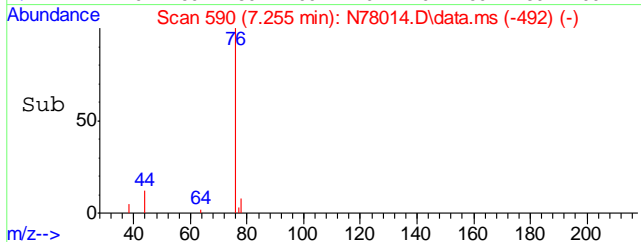
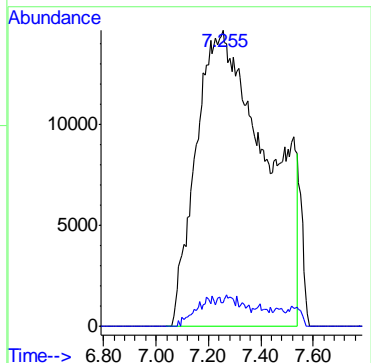
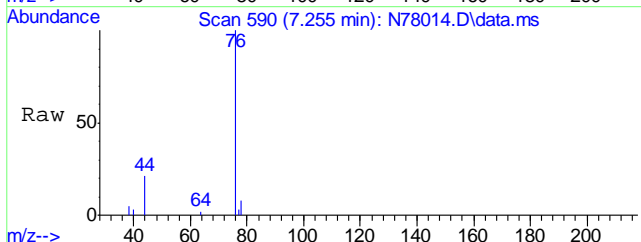


7.1.8



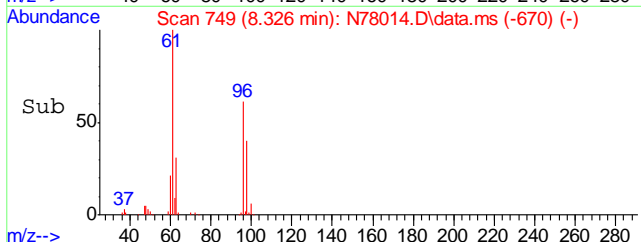
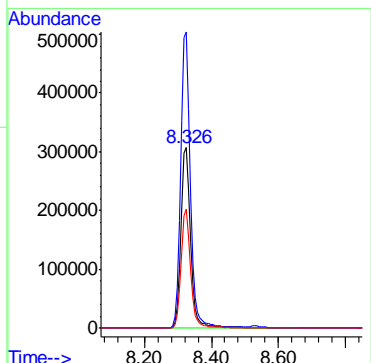
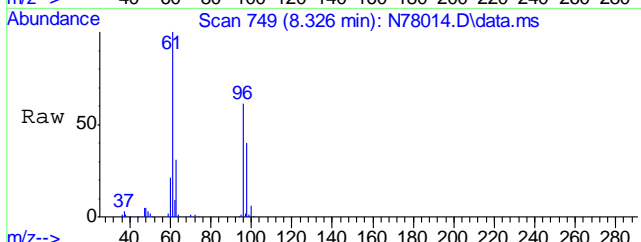
#24  
 carbon disulfide  
 Concen: 44.40 ug/L  
 RT: 7.255 min Scan# 590  
 Delta R.T. 0.162 min  
 Lab File: N78014.D  
 Acq: 8 Jul 2013 4:15 pm

Tgt Ion	Resp	Lower	Upper
76	272745		
76	100		
78	8.2	0.0	39.1



#36  
 cis-1,2-dichloroethene  
 Concen: 301.50 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78014.D  
 Acq: 8 Jul 2013 4:15 pm

Tgt Ion	Resp	Lower	Upper
96	624587		
96	100		
61	164.2	131.2	191.2
98	65.8	36.1	96.1





## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20641.D  
 Acq On : 9 Jul 2013 5:08 pm  
 Operator : amym  
 Sample : mc22232-8  
 Misc : MS29348,MSV802,,,,5,50  
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 10 09:14:50 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

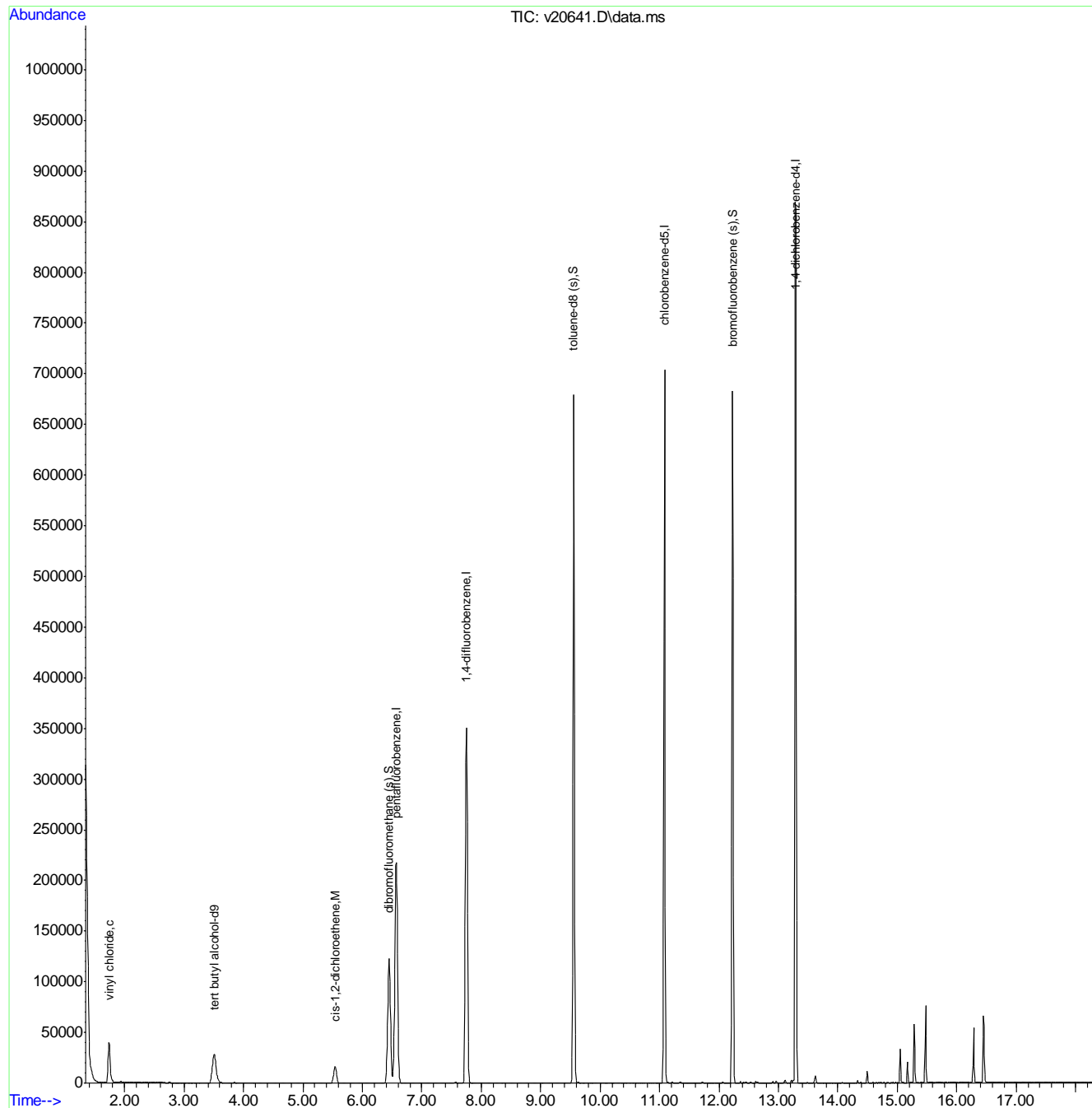
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.511	65	59742	500.00	ug/L	-0.02	
4) pentafluorobenzene	6.570	168	250205	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	7.751	114	369281	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.081	82	195949	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.291	152	201382	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.450	113	125754	51.25	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.50%	
60) toluene-d8 (s)	9.556	98	432039	50.30	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.60%	
82) bromofluorobenzene (s)	12.229	95	187602	49.29	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.58%	
Target Compounds							
7) vinyl chloride	1.740	62	56966	20.39	ug/L		Qvalue 96
36) cis-1,2-dichloroethene	5.541	96	13715	4.70	ug/L		88

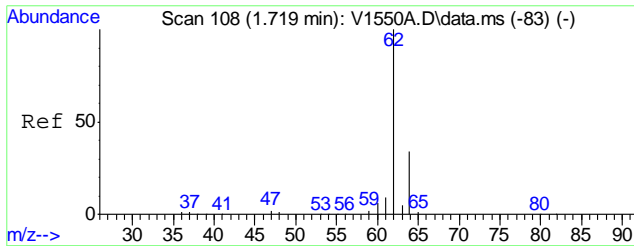
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
Data File : v20641.D  
Acq On : 9 Jul 2013 5:08 pm  
Operator : amym  
Sample : mc22232-8  
Misc : MS29348,MSV802,,,,,5,50  
ALS Vial : 21 Sample Multiplier: 1

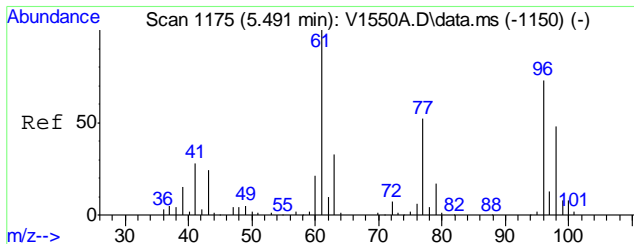
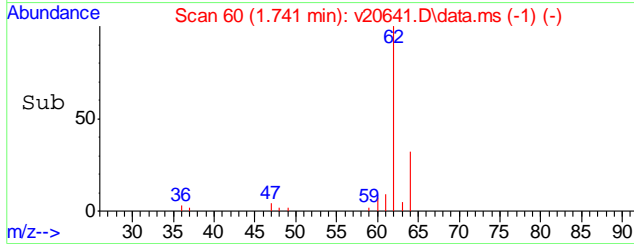
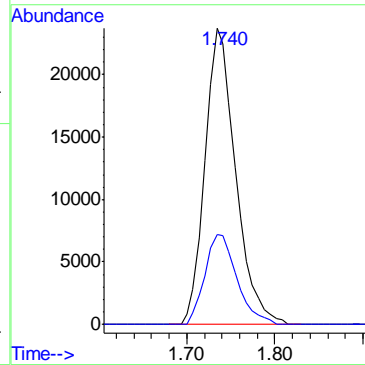
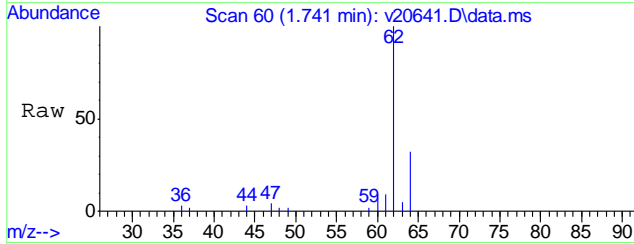
Quant Time: Jul 10 09:14:50 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 09:47:02 2013  
Response via : Initial Calibration





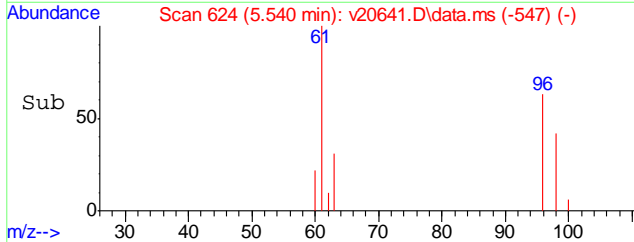
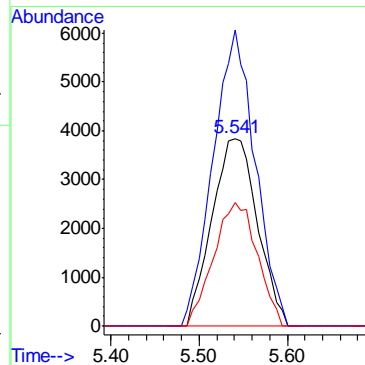
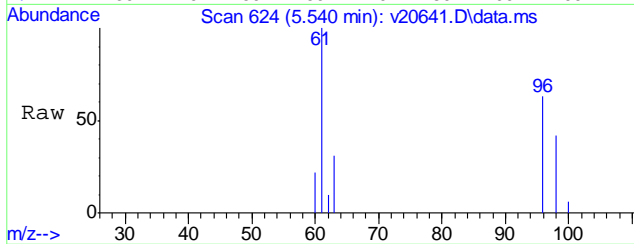
#7  
 vinyl chloride  
 Concen: 20.39 ug/L  
 RT: 1.740 min Scan# 60  
 Delta R.T. -0.035 min  
 Lab File: v20641.D  
 Acq: 9 Jul 2013 5:08 pm

Tgt Ion	Resp	Lower	Upper
62	56966		
64	31.8	4.2	64.2



#36  
 cis-1,2-dichloroethene  
 Concen: 4.70 ug/L  
 RT: 5.541 min Scan# 624  
 Delta R.T. -0.013 min  
 Lab File: v20641.D  
 Acq: 9 Jul 2013 5:08 pm

Tgt Ion	Resp	Lower	Upper
96	13715		
61	157.7	106.6	166.6
98	65.6	35.4	95.4



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20648.D  
 Acq On : 9 Jul 2013 8:13 pm  
 Operator : amym  
 Sample : mc22232-9  
 Misc : MS29348,MSV802,,,,5,1  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 10 09:22:13 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

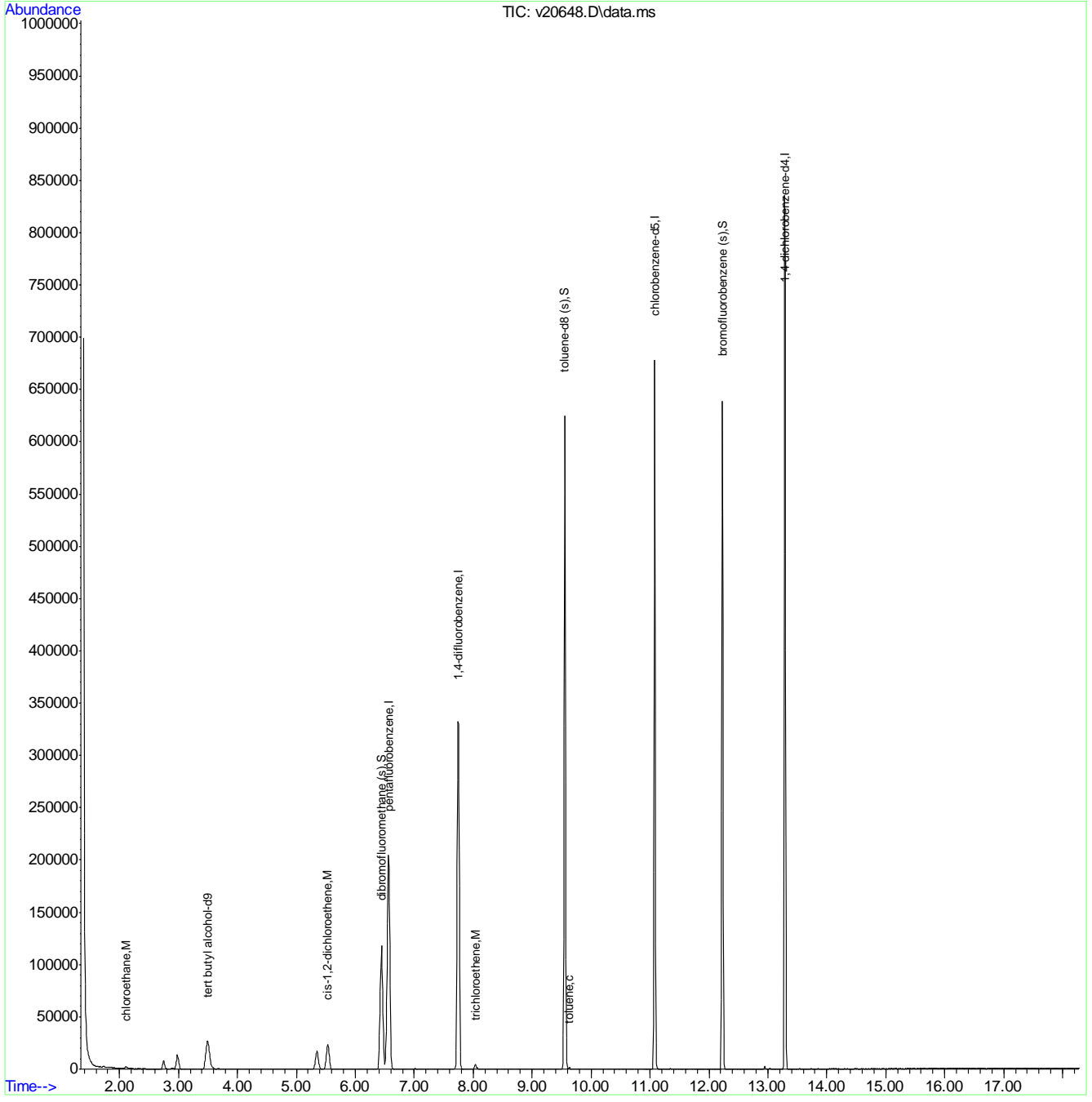
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.500	65	53800	500.00	ug/L	-0.04	
4) pentafluorobenzene	6.564	168	227680	50.00	ug/L	-0.01	
43) 1,4-difluorobenzene	7.747	114	331183	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.080	82	179789	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.291	152	185716	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.443	113	117076	52.43	ug/L	-0.02	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.86%	
60) toluene-d8 (s)	9.555	98	392043	50.90	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.80%	
82) bromofluorobenzene (s)	12.228	95	173277	49.36	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.72%	
Target Compounds							
							Qvalue
9) chloroethane	2.111	64	2213	2.05	ug/L		95
36) cis-1,2-dichloroethene	5.534	96	18756	7.07	ug/L		93
51) trichloroethene	8.039	95	2159	0.93	ug/L		91
62) toluene	9.627	92	818	0.15	ug/L		97

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

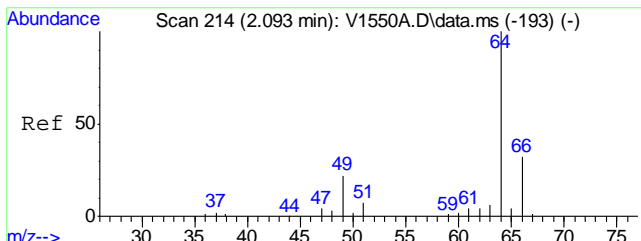
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
Data File : v20648.D  
Acq On : 9 Jul 2013 8:13 pm  
Operator : amym  
Sample : mc22232-9  
Misc : MS29348,MSV802,,,,,5,1  
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 10 09:22:13 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 09:47:02 2013  
Response via : Initial Calibration

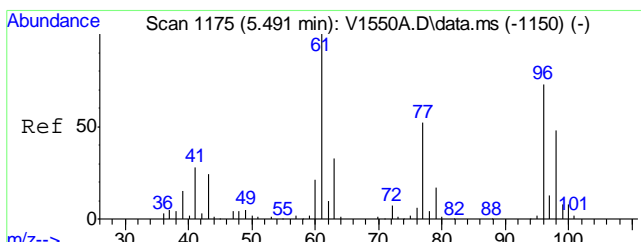
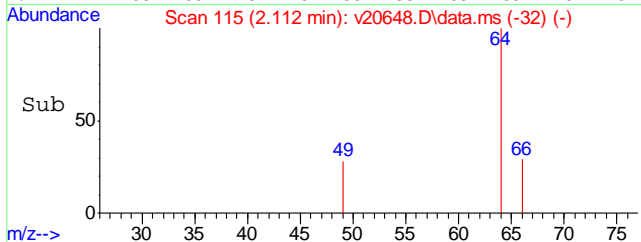
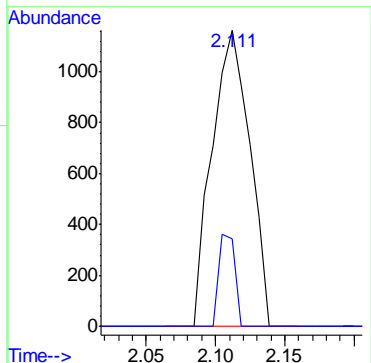
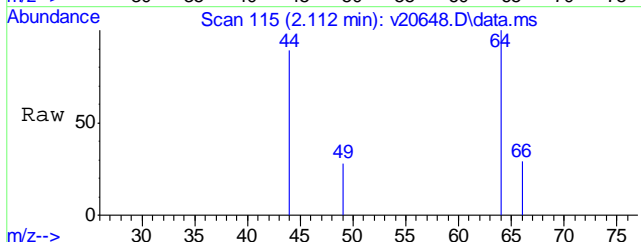


7.1.10  
7



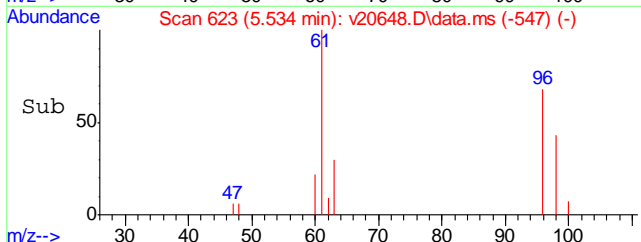
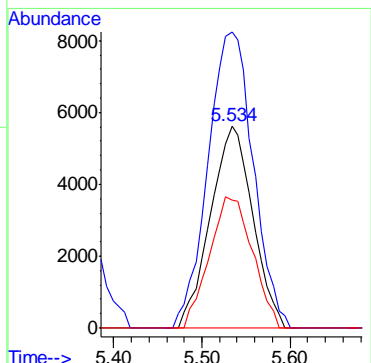
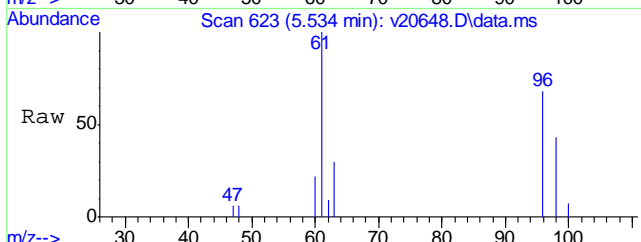
#9  
 chloroethane  
 Concen: 2.05 ug/L  
 RT: 2.111 min Scan# 115  
 Delta R.T. -0.023 min  
 Lab File: v20648.D  
 Acq: 9 Jul 2013 8:13 pm

Tgt Ion	Resp	Lower	Upper
64	2213	100	
66	29.4	2.3	62.3

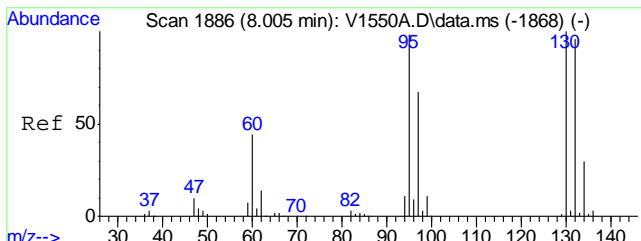


#36  
 cis-1,2-dichloroethene  
 Concen: 7.07 ug/L  
 RT: 5.534 min Scan# 623  
 Delta R.T. -0.020 min  
 Lab File: v20648.D  
 Acq: 9 Jul 2013 8:13 pm

Tgt Ion	Resp	Lower	Upper
96	18756	100	
61	146.5	106.6	166.6
98	63.2	35.4	95.4

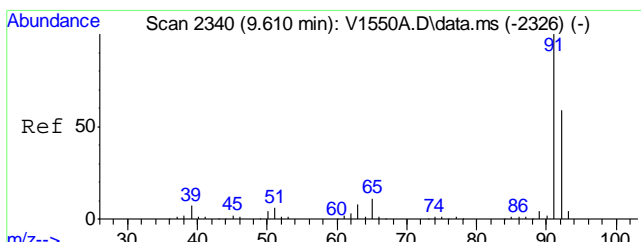
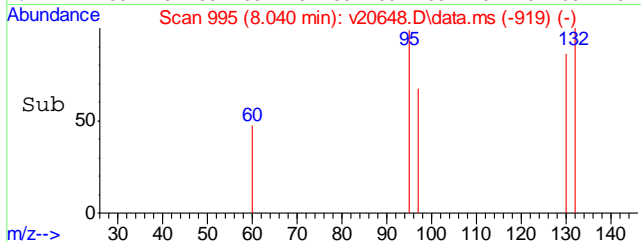
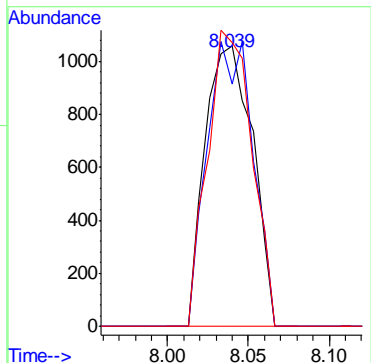
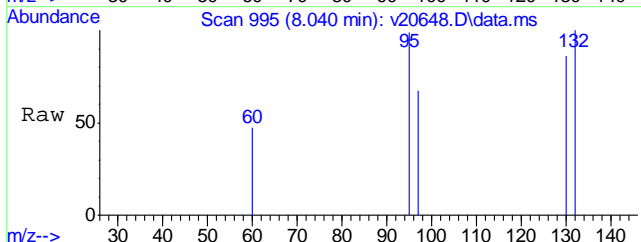


7.1.10  
7



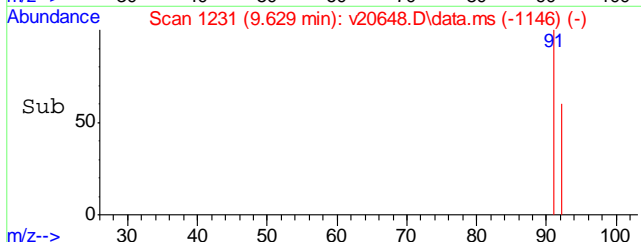
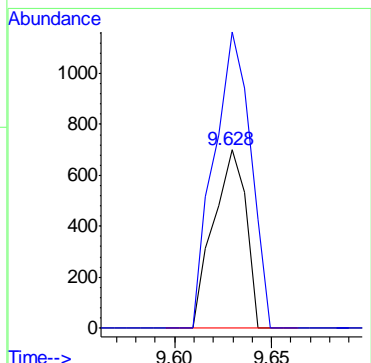
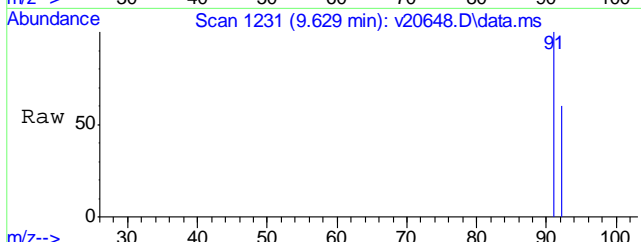
#51  
 trichloroethene  
 Concen: 0.93 ug/L  
 RT: 8.039 min Scan# 995  
 Delta R.T. -0.008 min  
 Lab File: v20648.D  
 Acq: 9 Jul 2013 8:13 pm

Tgt Ion	Resp	Lower	Upper
95	2159	100	
130	86.3	71.8	131.8
132	100.9	67.7	127.7



#62  
 toluene  
 Concen: 0.15 ug/L  
 RT: 9.627 min Scan# 1231  
 Delta R.T. -0.011 min  
 Lab File: v20648.D  
 Acq: 9 Jul 2013 8:13 pm

Tgt Ion	Resp	Lower	Upper
92	818	100	
91	166.1	140.8	200.8



7.1.10  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78016.D  
 Acq On : 8 Jul 2013 5:11 pm  
 Operator : jaclynb  
 Sample : mc22232-10  
 Misc : MS29348,MSN2928,,,,5,1  
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 09 08:19:48 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	58858	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	222689	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.875	114	331605	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	156159	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.689	152	128283	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	106077	46.48	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	92.96%	
60) toluene-d8 (s)	11.674	98	372906	47.71	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	95.42%	
82) bromofluorobenzene (s)	14.355	95	133211	48.46	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.92%	
Target Compounds							
7) vinyl chloride	4.755	62	502751	172.01	ug/L		Qvalue 99
15) 1,1-dichloroethene	6.662	96	19286	10.19	ug/L		96
22) trans-1,2-dichloroethene	7.511	96	354053	177.14	ug/L		98
36) cis-1,2-dichloroethene	8.326	96	12141039	5348.19	ug/L		93
51) trichloroethene	10.299	95	1735436	783.38	ug/L		99

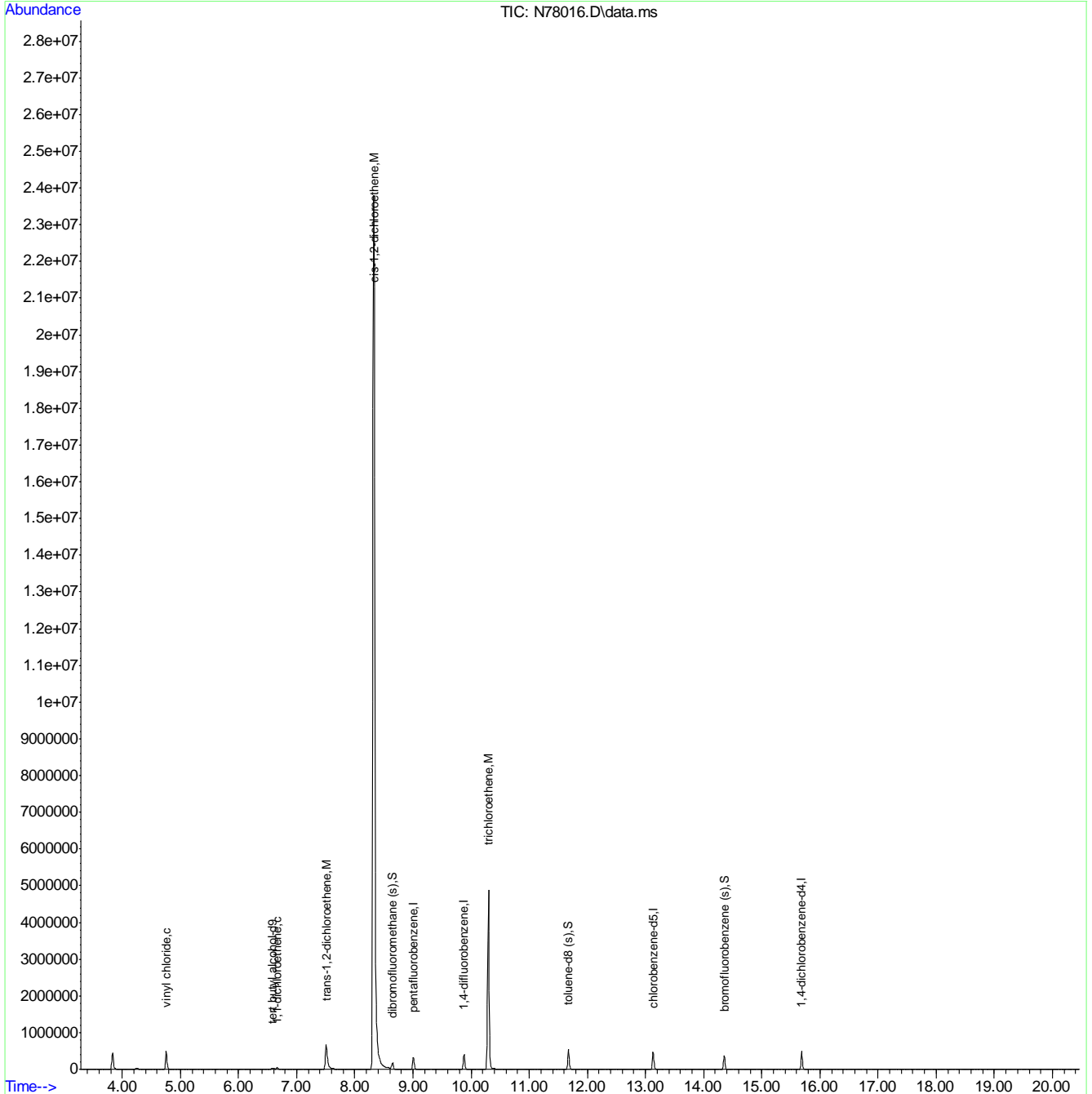
(#) = qualifier out of range (m) = manual integration (+) = signals summed



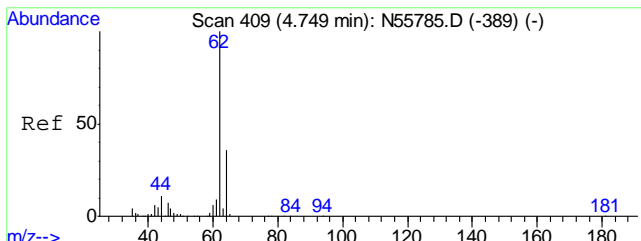
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78016.D  
Acq On : 8 Jul 2013 5:11 pm  
Operator : jaclynb  
Sample : mc22232-10  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 09 08:19:48 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

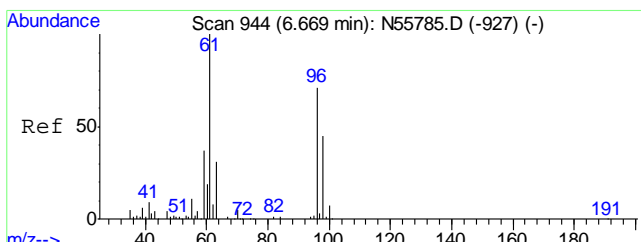
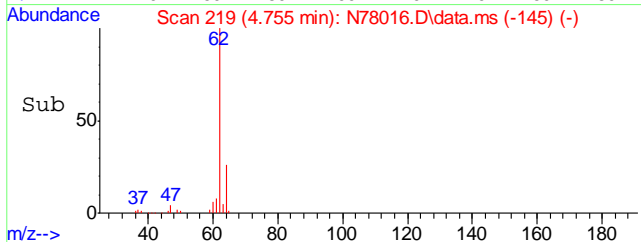
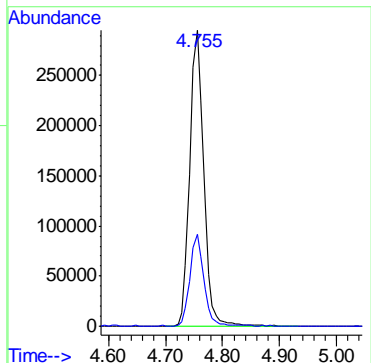
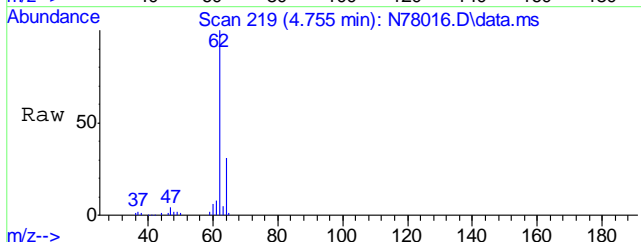


7  
7  
7  
7  
7



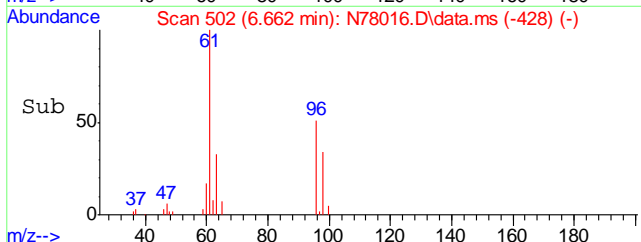
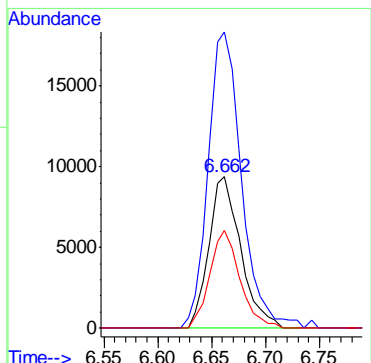
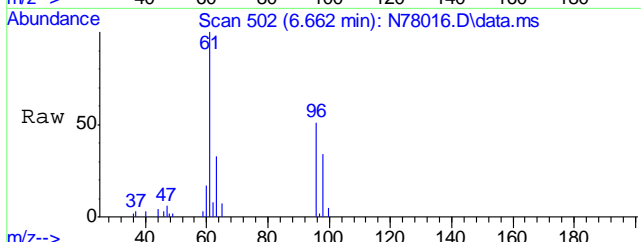
#7  
 vinyl chloride  
 Concen: 172.01 ug/L  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78016.D  
 Acq: 8 Jul 2013 5:11 pm

Tgt Ion	Ratio	Lower	Upper
62	100		
64	30.8	1.1	61.1

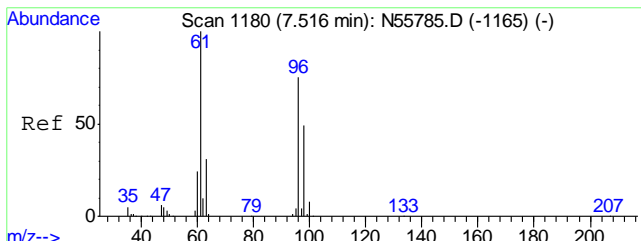


#15  
 1,1-dichloroethene  
 Concen: 10.19 ug/L  
 RT: 6.662 min Scan# 502  
 Delta R.T. -0.000 min  
 Lab File: N78016.D  
 Acq: 8 Jul 2013 5:11 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	195.8	172.5	232.5
63	64.5	32.6	92.6

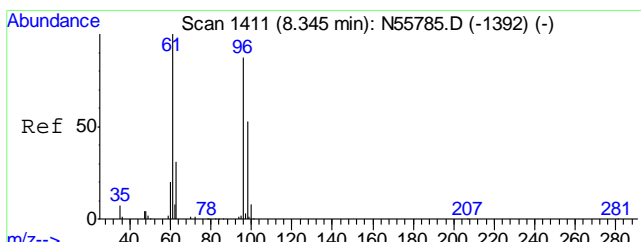
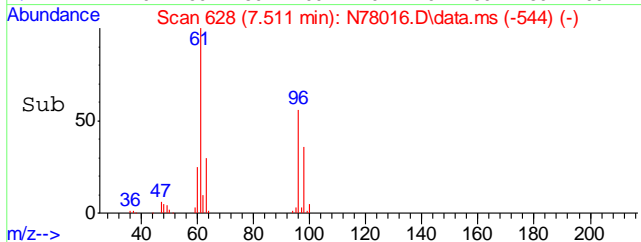
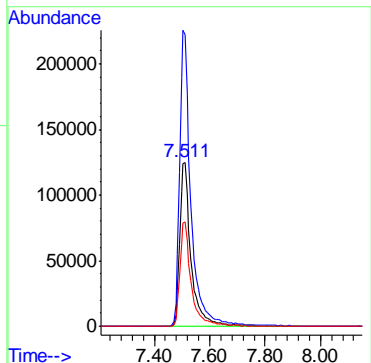
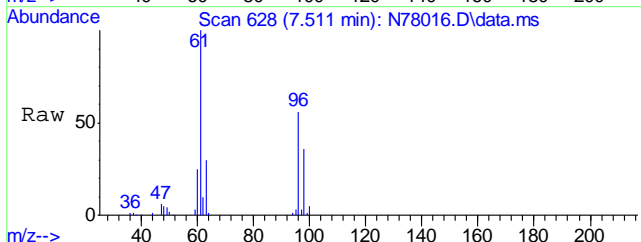


7.1.11 7



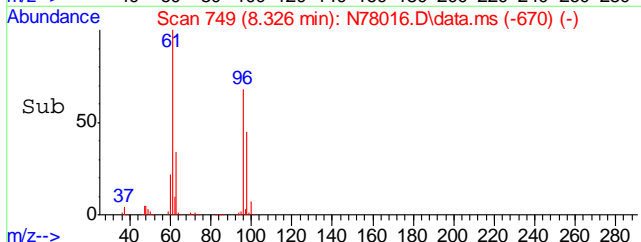
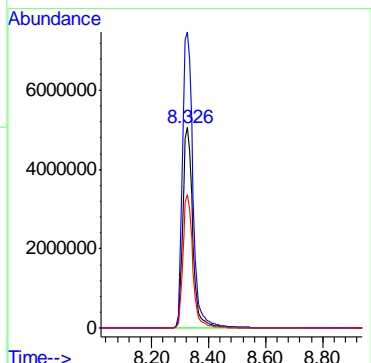
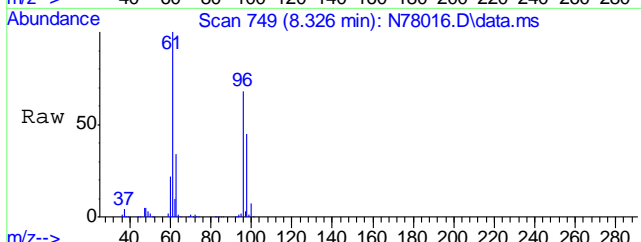
#22  
 trans-1,2-dichloroethene  
 Concen: 177.14 ug/L  
 RT: 7.511 min Scan# 628  
 Delta R.T. 0.014 min  
 Lab File: N78016.D  
 Acq: 8 Jul 2013 5:11 pm

Tgt Ion	Resp	Lower	Upper
96	354053		
96	100		
61	177.2	150.7	210.7
98	63.3	33.3	93.3

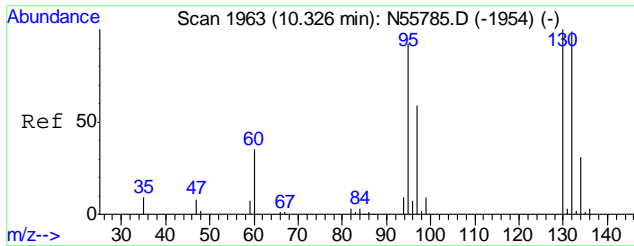


#36  
 cis-1,2-dichloroethene  
 Concen: 5348.19 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78016.D  
 Acq: 8 Jul 2013 5:11 pm

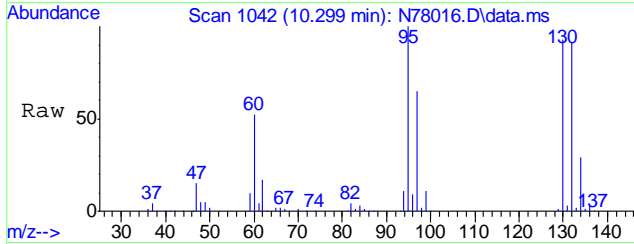
Tgt Ion	Resp	Lower	Upper
96	12141039		
96	100		
61	147.5	131.2	191.2
98	66.4	36.1	96.1



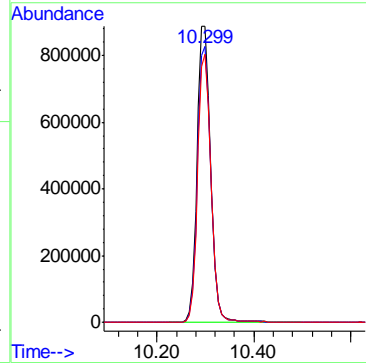
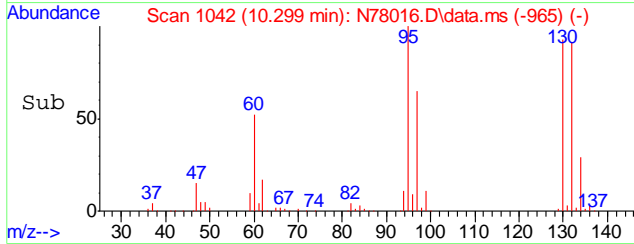
7.1.11  
 7



#51  
 trichloroethene  
 Concen: 783.38 ug/L  
 RT: 10.299 min Scan# 1042  
 Delta R.T. 0.000 min  
 Lab File: N78016.D  
 Acq: 8 Jul 2013 5:11 pm



Tgt Ion	Resp	Lower	Upper
95	100		
130	93.2	63.5	123.5
132	90.6	61.6	121.6



7.1.11  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20642.D  
 Acq On : 9 Jul 2013 5:34 pm  
 Operator : amym  
 Sample : mc22232-10  
 Misc : MS29348,MSV802,,,,5,100  
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jul 10 09:15:28 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

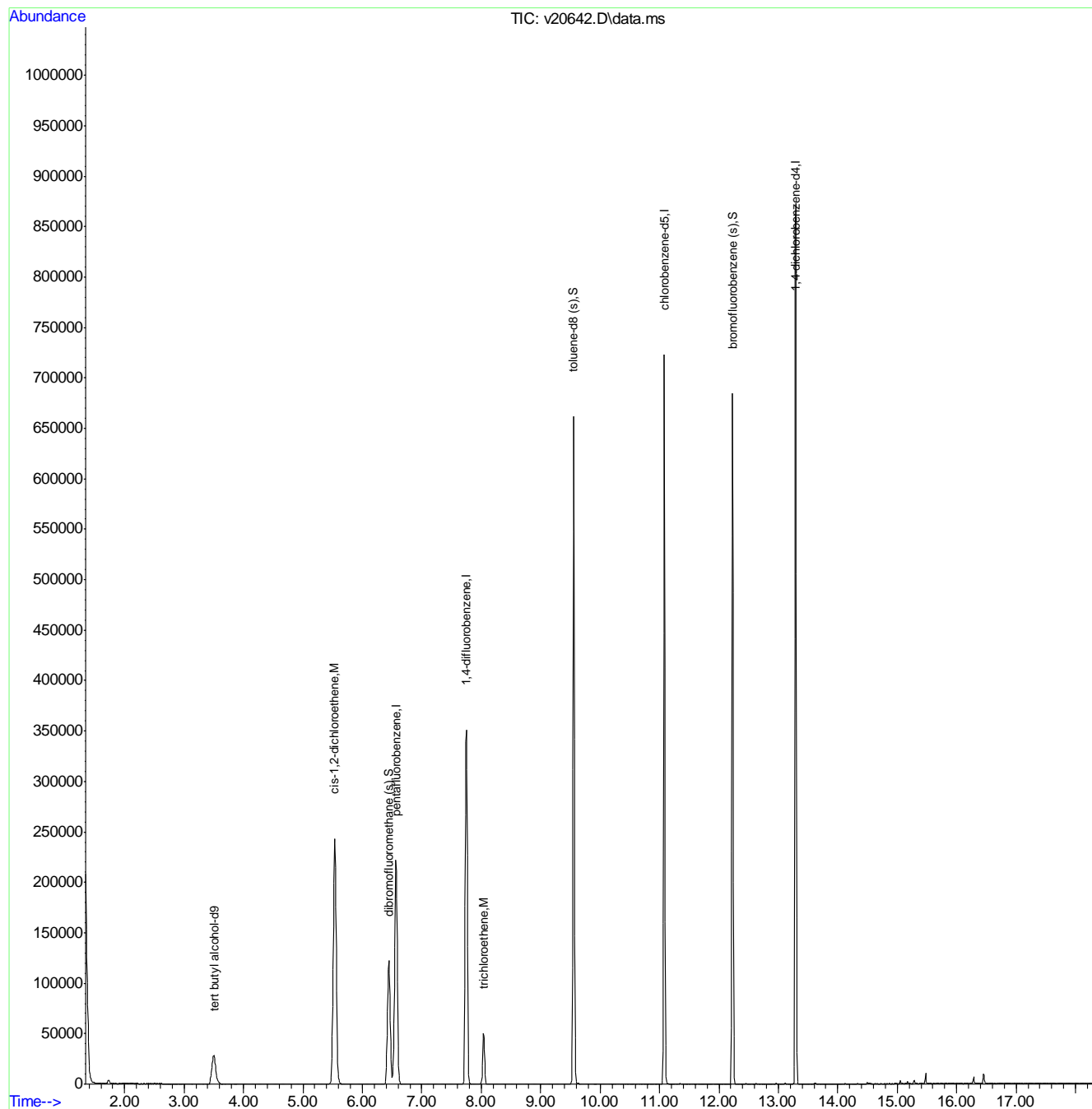
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) tert butyl alcohol-d9	3.504	65	60080	500.00	ug/L	-0.03	
4) pentafluorobenzene	6.566	168	249984	50.00	ug/L	-0.01	
43) 1,4-difluorobenzene	7.749	114	362668	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.081	82	194792	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.292	152	197926	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.446	113	124586	50.81	ug/L	-0.01	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.62%	
60) toluene-d8 (s)	9.556	98	427351	50.66	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.32%	
82) bromofluorobenzene (s)	12.229	95	185171	49.50	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.00%	
Target Compounds							
36) cis-1,2-dichloroethene	5.536	96	185598	63.72	ug/L		92
51) trichloroethene	8.041	95	20907	8.23	ug/L		99

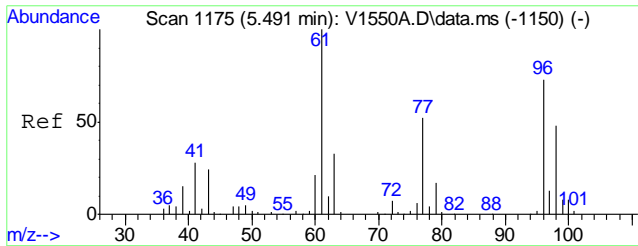
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
Data File : v20642.D  
Acq On : 9 Jul 2013 5:34 pm  
Operator : amym  
Sample : mc22232-10  
Misc : MS29348,MSV802,,,,5,100  
ALS Vial : 22 Sample Multiplier: 1

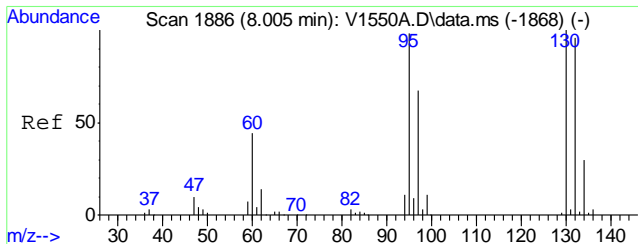
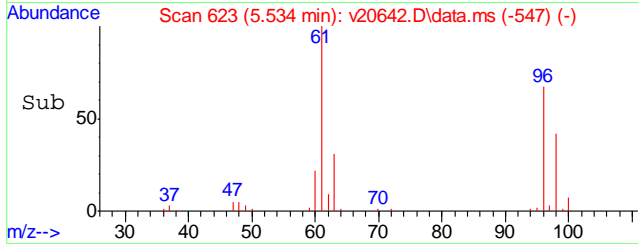
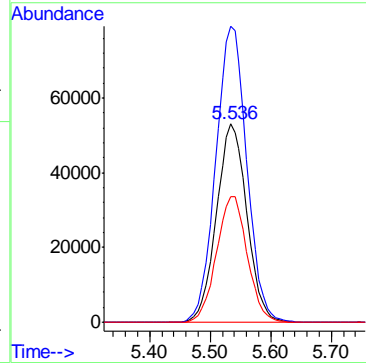
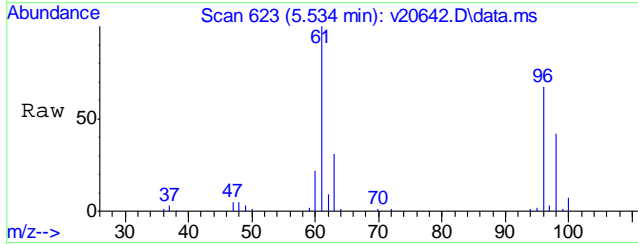
Quant Time: Jul 10 09:15:28 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 09:47:02 2013  
Response via : Initial Calibration





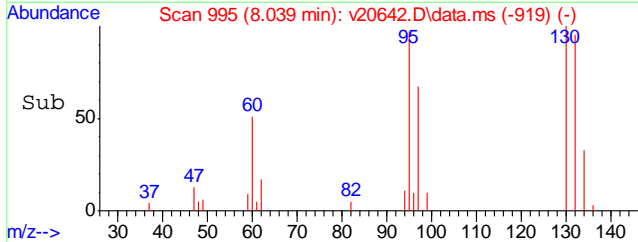
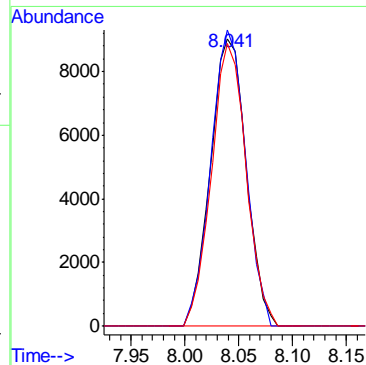
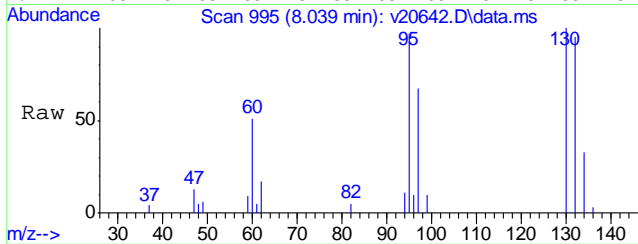
#36  
 cis-1,2-dichloroethene  
 Concen: 63.72 ug/L  
 RT: 5.536 min Scan# 623  
 Delta R.T. -0.018 min  
 Lab File: v20642.D  
 Acq: 9 Jul 2013 5:34 pm

Tgt Ion	Resp	Lower	Upper
96	185598		
96	100		
61	149.3	106.6	166.6
98	63.3	35.4	95.4



#51  
 trichloroethene  
 Concen: 8.23 ug/L  
 RT: 8.041 min Scan# 995  
 Delta R.T. -0.006 min  
 Lab File: v20642.D  
 Acq: 9 Jul 2013 5:34 pm

Tgt Ion	Resp	Lower	Upper
95	20907		
95	100		
130	103.3	71.8	131.8
132	98.6	67.7	127.7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20645.D  
 Acq On : 9 Jul 2013 6:54 pm  
 Operator : amym  
 Sample : mc22232-11  
 Misc : MS29348,MSV802,,,,5,1  
 ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jul 10 09:20:40 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.508	65	54950	500.00	ug/L	-0.03	
4) pentafluorobenzene	6.569	168	238877	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	7.751	114	343847	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.081	82	185946	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.292	152	189670	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.448	113	120436	51.41	ug/L	-0.01	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.82%	
60) toluene-d8 (s)	9.557	98	405445	50.70	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.40%	
82) bromofluorobenzene (s)	12.229	95	176970	49.37	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.74%	
Target Compounds							
7) vinyl chloride	1.738	62	47146	17.68	ug/L	96	
22) trans-1,2-dichloroethene	3.843	96	1017	0.42	ug/L	#	72
36) cis-1,2-dichloroethene	5.539	96	330059	118.59	ug/L		91
51) trichloroethene	8.042	95	5448	2.26	ug/L		96

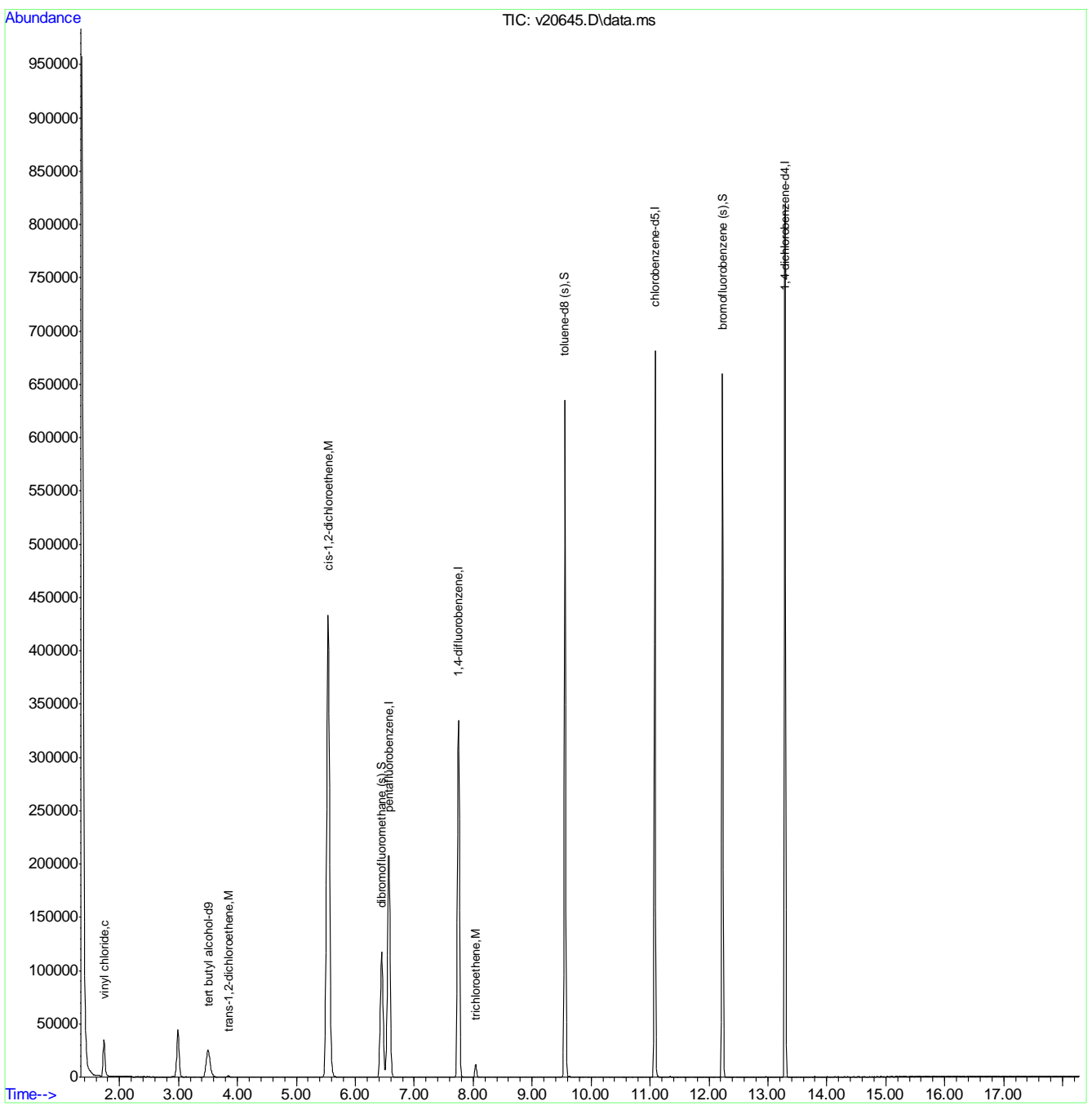
(#) = qualifier out of range (m) = manual integration (+) = signals summed

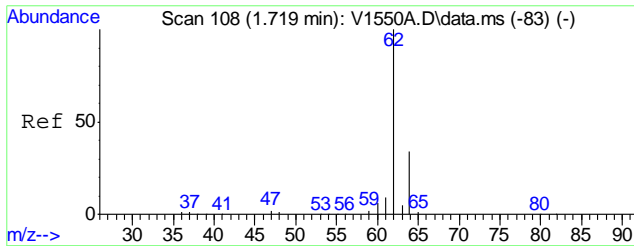


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
Data File : v20645.D  
Acq On : 9 Jul 2013 6:54 pm  
Operator : amym  
Sample : mc22232-11  
Misc : MS29348,MSV802,,,,5,1  
ALS Vial : 25 Sample Multiplier: 1

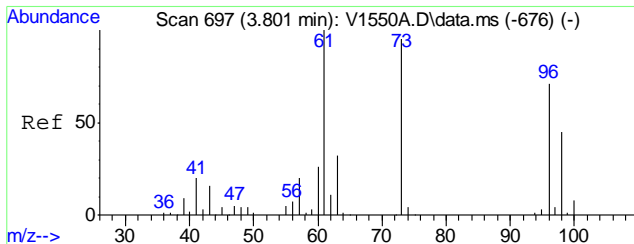
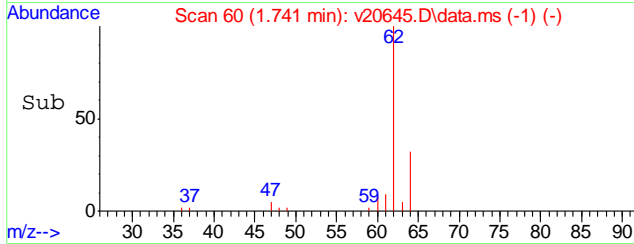
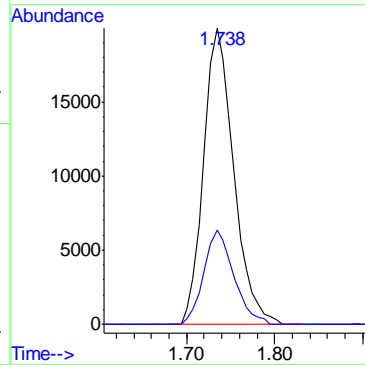
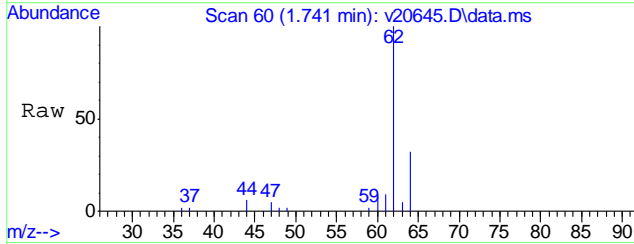
Quant Time: Jul 10 09:20:40 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 09:47:02 2013  
Response via : Initial Calibration





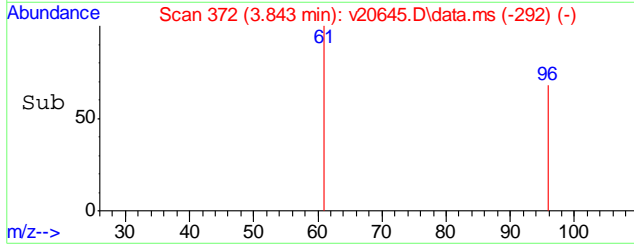
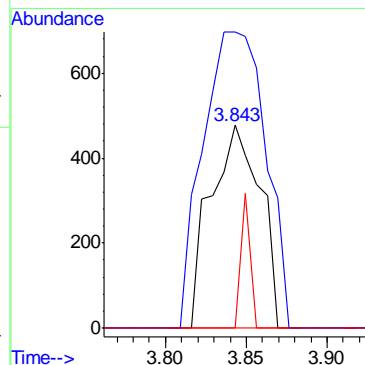
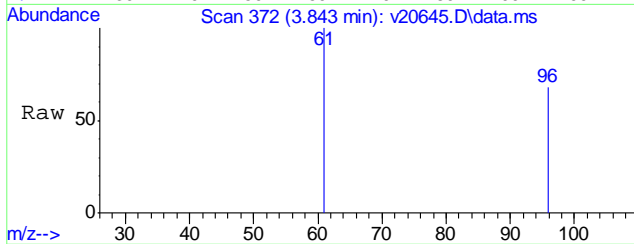
#7  
 vinyl chloride  
 Concen: 17.68 ug/L  
 RT: 1.738 min Scan# 60  
 Delta R.T. -0.037 min  
 Lab File: v20645.D  
 Acq: 9 Jul 2013 6:54 pm

Tgt Ion	Resp	Lower	Upper
62	47146	100	
64	31.8	4.2	64.2

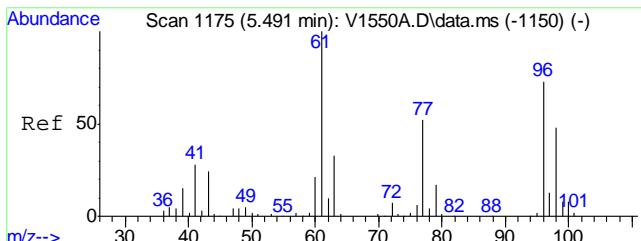


#22  
 trans-1,2-dichloroethene  
 Concen: 0.42 ug/L  
 RT: 3.843 min Scan# 372  
 Delta R.T. -0.013 min  
 Lab File: v20645.D  
 Acq: 9 Jul 2013 6:54 pm

Tgt Ion	Resp	Lower	Upper
96	1017	100	
61	146.1	111.0	171.0
98	0.0	33.4	93.4#

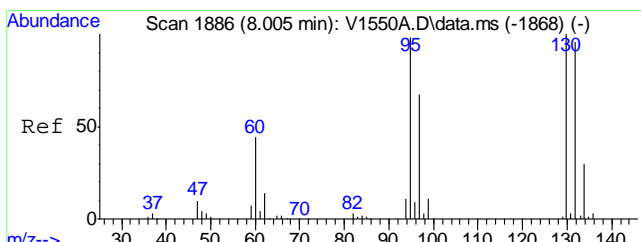
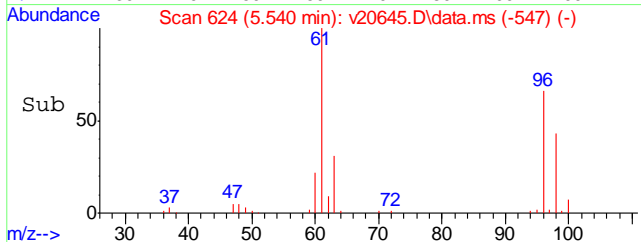
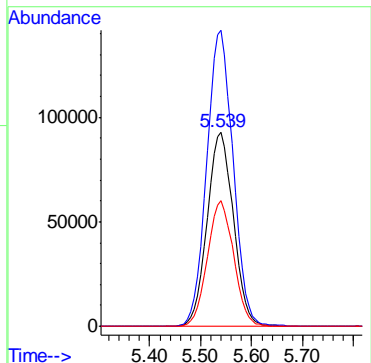
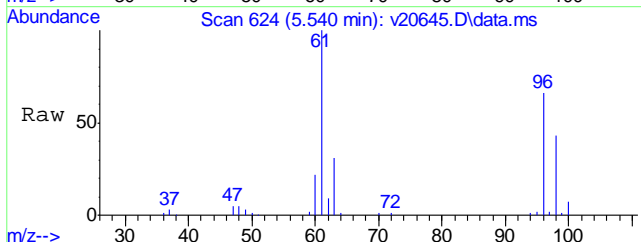


7.1.13  
7



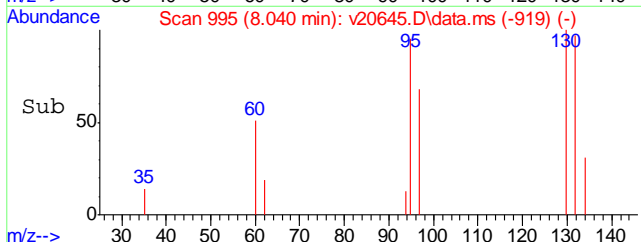
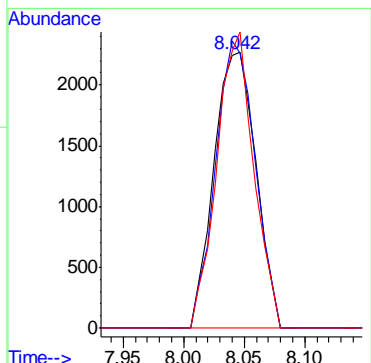
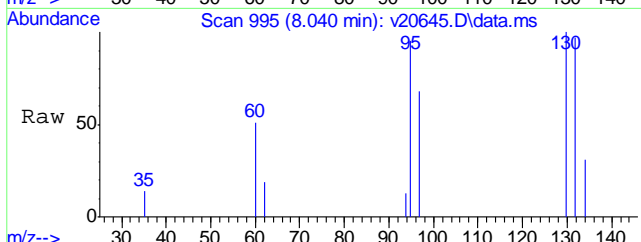
#36  
 cis-1,2-dichloroethene  
 Concen: 118.59 ug/L  
 RT: 5.539 min Scan# 624  
 Delta R.T. -0.015 min  
 Lab File: v20645.D  
 Acq: 9 Jul 2013 6:54 pm

Tgt Ion	Resp	Lower	Upper
96	330059		
96	100		
61	152.3	106.6	166.6
98	64.9	35.4	95.4



#51  
 trichloroethene  
 Concen: 2.26 ug/L  
 RT: 8.042 min Scan# 995  
 Delta R.T. -0.005 min  
 Lab File: v20645.D  
 Acq: 9 Jul 2013 6:54 pm

Tgt Ion	Resp	Lower	Upper
95	5448		
95	100		
130	105.1	71.8	131.8
132	101.6	67.7	127.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78018.D  
Acq On : 8 Jul 2013 6:08 pm  
Operator : jaclynb  
Sample : mc22232-12  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 09 08:21:12 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	68983	500.00	ug/L	0.00	
4) pentafluorobenzene	9.013	168	196355	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	296790	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	151090	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	127593	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	90019	44.73	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	89.46%	
60) toluene-d8 (s)	11.674	98	351156	50.20	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.40%	
82) bromofluorobenzene (s)	14.355	95	131604	48.14	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.28%	
Target Compounds							
							Qvalue
7) vinyl chloride	4.755	62	634656	246.26	ug/L		98
36) cis-1,2-dichloroethene	8.326	96	684919	342.17	ug/L		99

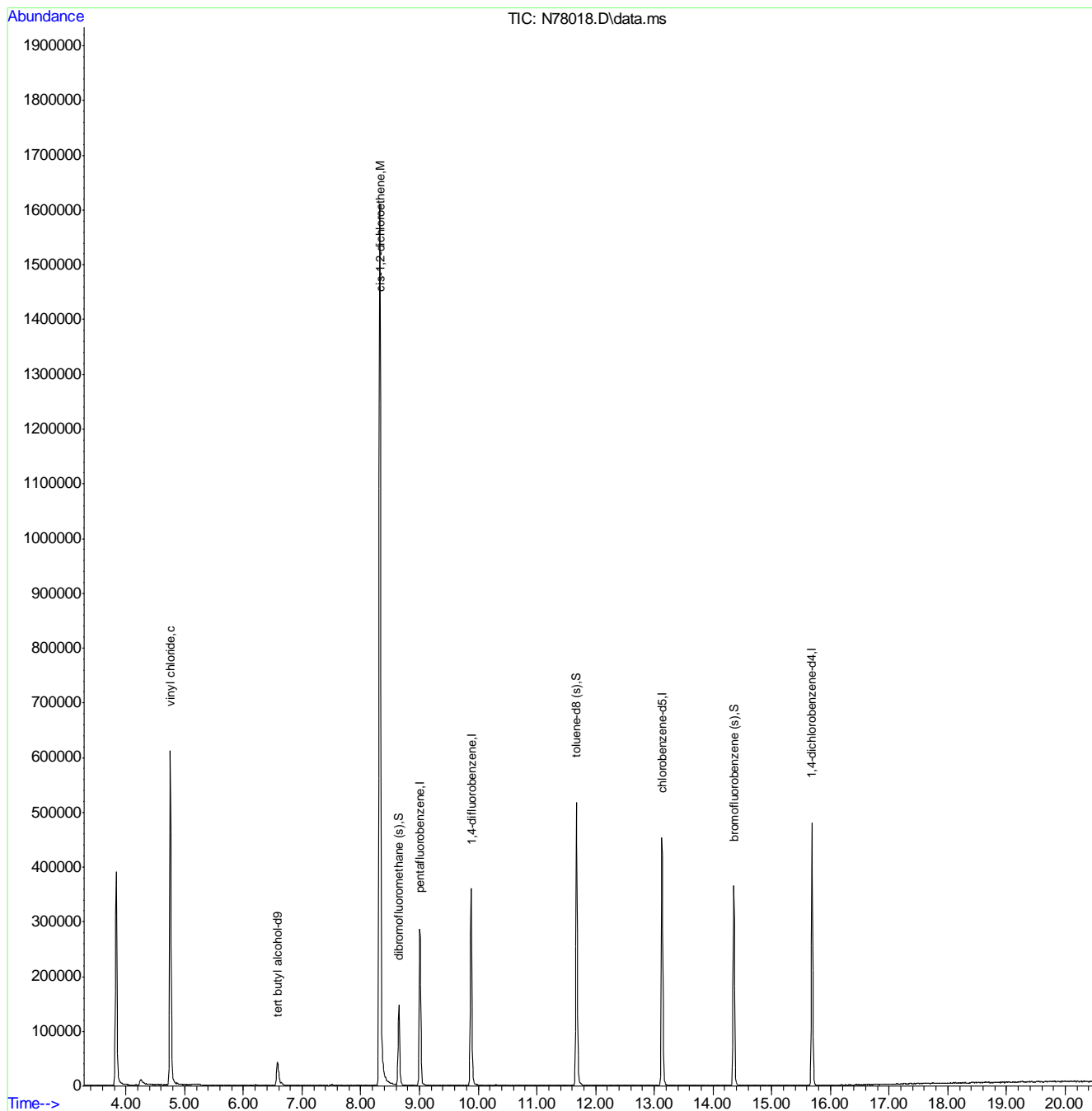
(#) = qualifier out of range (m) = manual integration (+) = signals summed

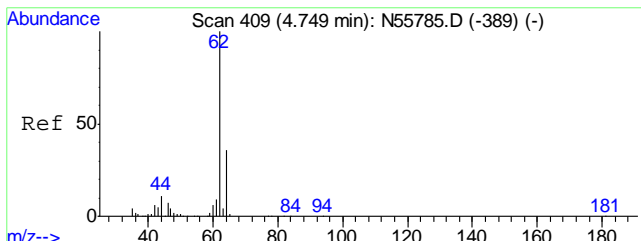
7.1.14  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78018.D  
Acq On : 8 Jul 2013 6:08 pm  
Operator : jaclynb  
Sample : mc22232-12  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 35 Sample Multiplier: 1

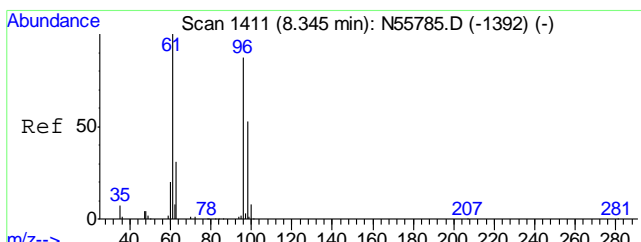
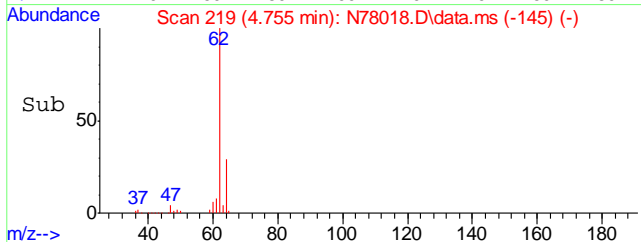
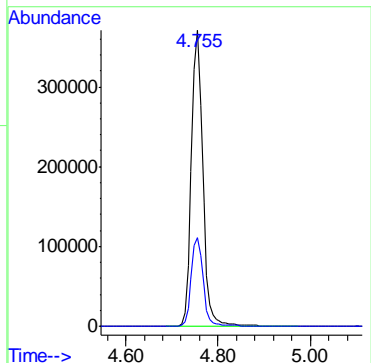
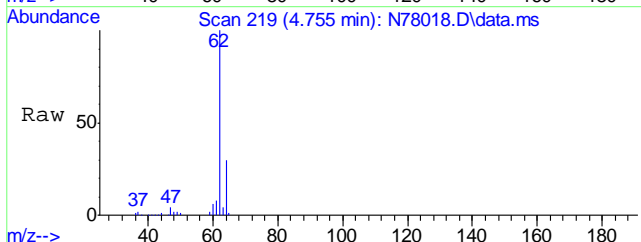
Quant Time: Jul 09 08:21:12 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration





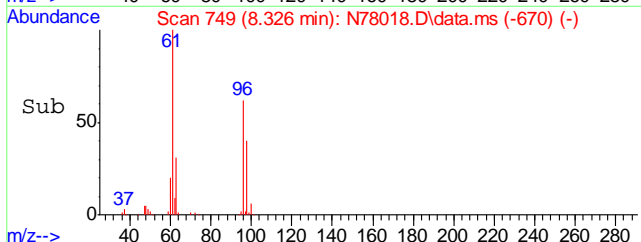
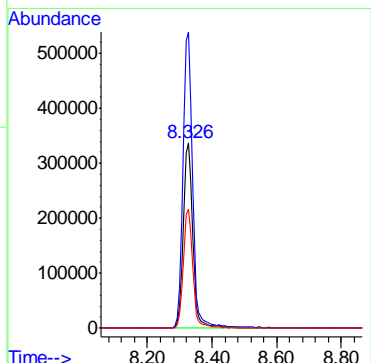
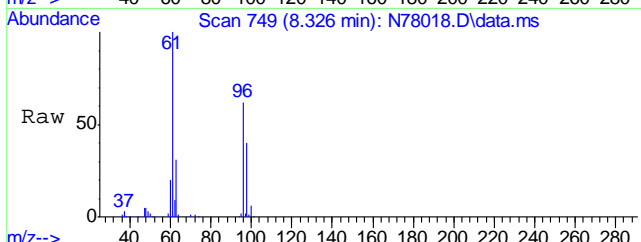
#7  
 vinyl chloride  
 Concen: 246.26 ug/L  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78018.D  
 Acq: 8 Jul 2013 6:08 pm

Tgt Ion	Resp	Lower	Upper
62	100		
64	30.0	1.1	61.1



#36  
 cis-1,2-dichloroethene  
 Concen: 342.17 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78018.D  
 Acq: 8 Jul 2013 6:08 pm

Tgt Ion	Resp	Lower	Upper
96	100		
61	160.3	131.2	191.2
98	64.3	36.1	96.1



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78019.D  
 Acq On : 8 Jul 2013 6:36 pm  
 Operator : jaclynb  
 Sample : mc22232-13  
 Misc : MS29348,MSN2928,,,,5,1  
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 09 08:21:45 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

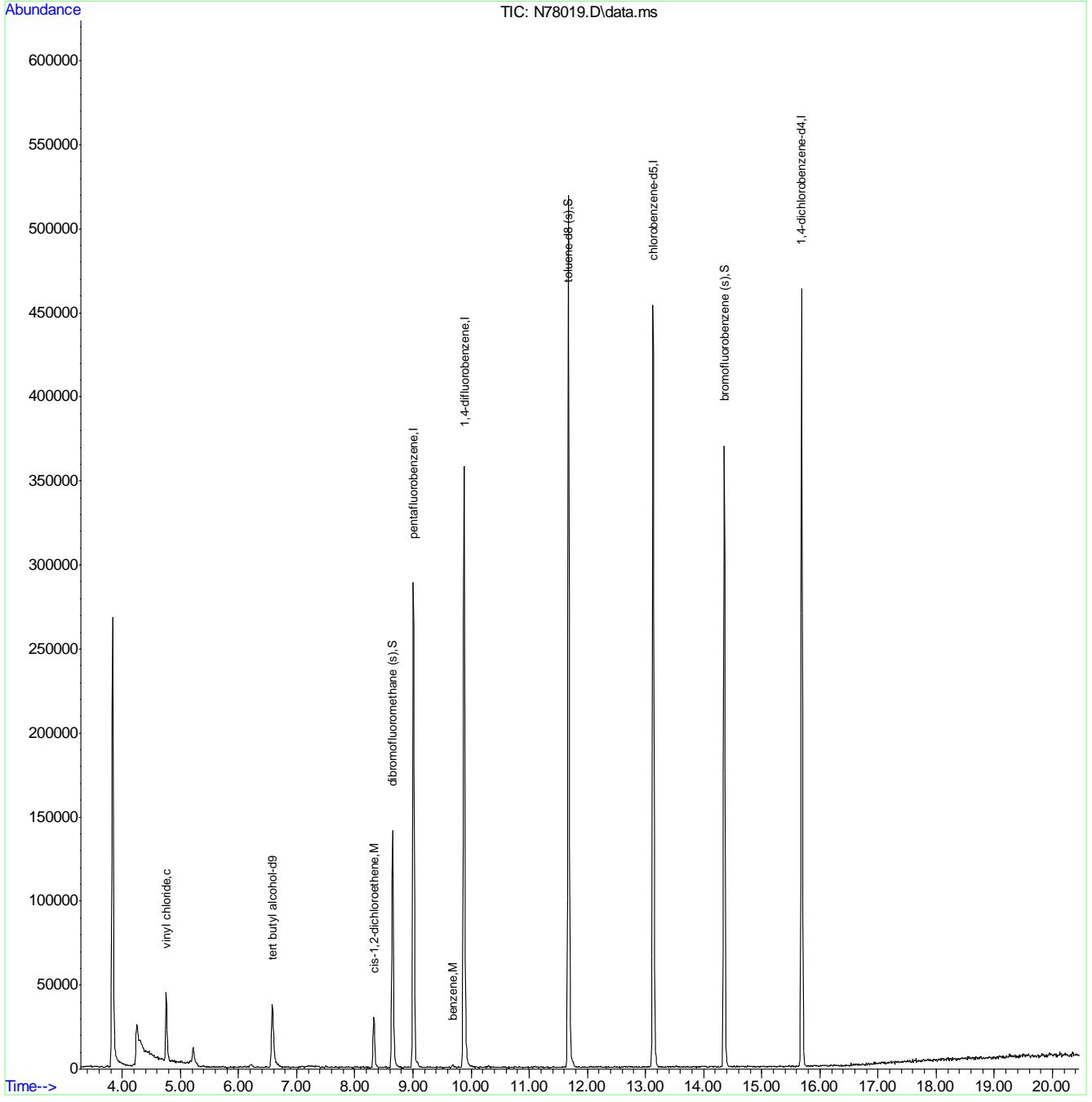
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	58755	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	193661	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	295376	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	149749	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.689	152	127296	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	88391	44.53	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	89.06%	
60) toluene-d8 (s)	11.674	98	352481	50.63	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.26%	
82) bromofluorobenzene (s)	14.355	95	131388	48.17	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.34%	
Target Compounds							
7) vinyl chloride	4.755	62	36452	14.34	ug/L		93
36) cis-1,2-dichloroethene	8.326	96	13177	6.67	ug/L		93
47) benzene	9.686	78	1630	0.22	ug/L		80

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

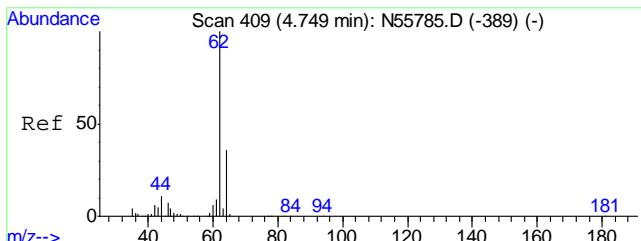
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78019.D  
Acq On : 8 Jul 2013 6:36 pm  
Operator : jaclynb  
Sample : mc22232-13  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 09 08:21:45 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

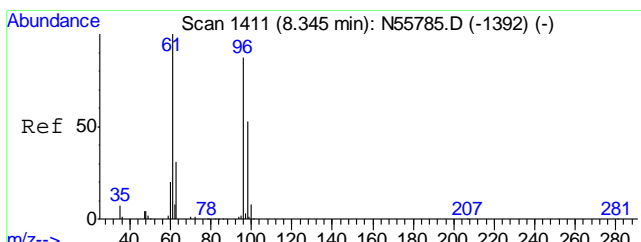
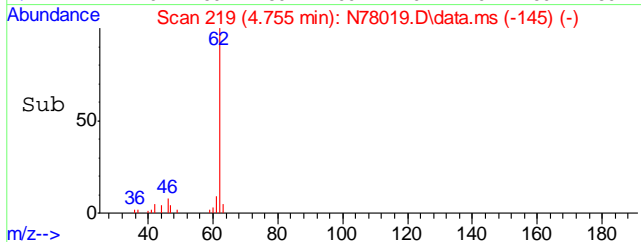
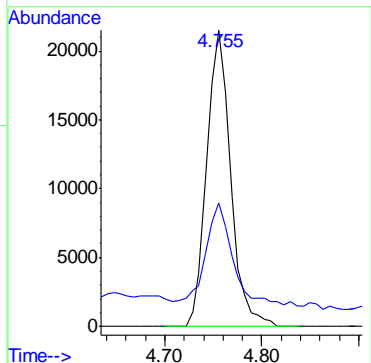
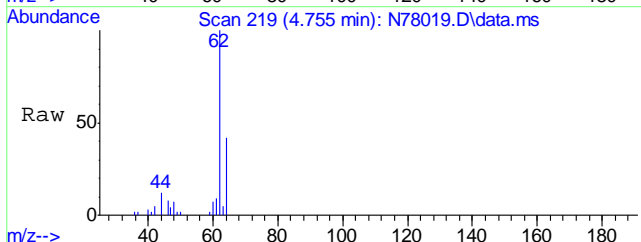






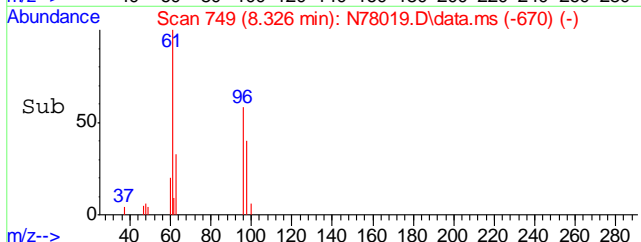
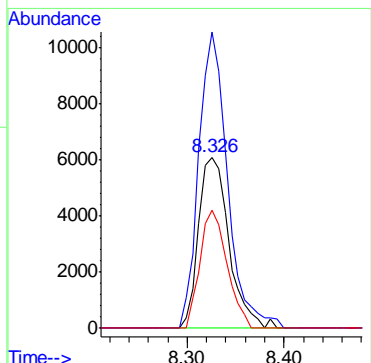
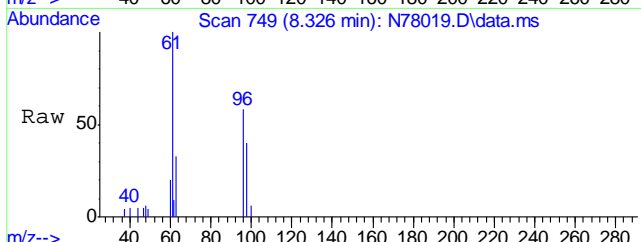
#7  
 vinyl chloride  
 Concen: 14.34 ug/L  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78019.D  
 Acq: 8 Jul 2013 6:36 pm

Tgt Ion	Resp	Lower	Upper
62	36452	100	
64	34.8	1.1	61.1

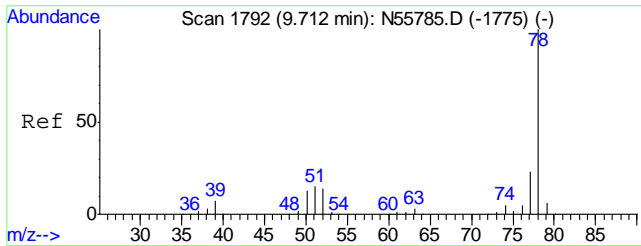


#36  
 cis-1,2-dichloroethene  
 Concen: 6.67 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78019.D  
 Acq: 8 Jul 2013 6:36 pm

Tgt Ion	Resp	Lower	Upper
96	13177	100	
61	173.1	131.2	191.2
98	69.0	36.1	96.1

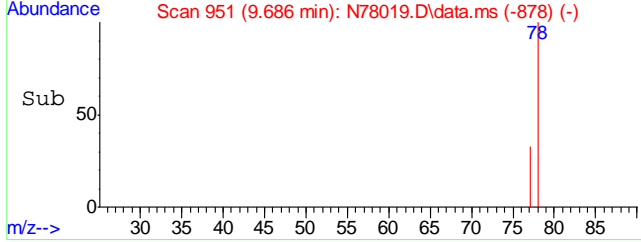
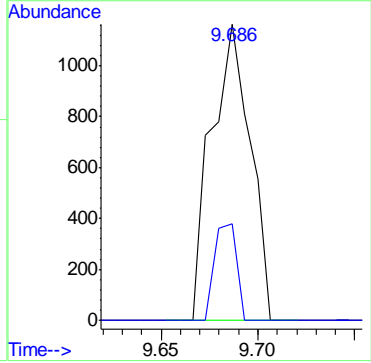
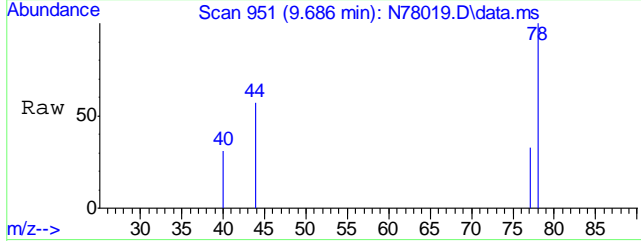


7.1.15  
7



#47  
 benzene  
 Concen: 0.22 ug/L  
 RT: 9.686 min Scan# 951  
 Delta R.T. 0.000 min  
 Lab File: N78019.D  
 Acq: 8 Jul 2013 6:36 pm

Tgt Ion	Resp	Lower	Upper
78	1630		
77	32.6	0.0	52.9



7.1.15  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\
Data File : N78004.D
Acq On : 8 Jul 2013 11:34 am
Operator : jaclynb
Sample : mc22232-14
Misc : MS29348,MSN2928,,,,5,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jul 08 12:12:26 2013
Quant Method : C:\msdchem\1\methods\n130707w.m
Quant Title : SW-846 Method 8260
QLast Update : Mon Jul 08 09:34:55 2013
Response via : Initial Calibration

Table with 7 columns: Compound, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include Internal Standards (tert butyl alcohol-d9, pentafluorobenzene, 1,4-difluorobenzene, chlorobenzene-d5, 1,4-dichlorobenzene-d4), System Monitoring Compounds (dibromofluoromethane, toluene-d8, bromofluorobenzene), and Target Compounds (vinyl chloride, trans-1,2-dichloroethene, cis-1,2-dichloroethene).

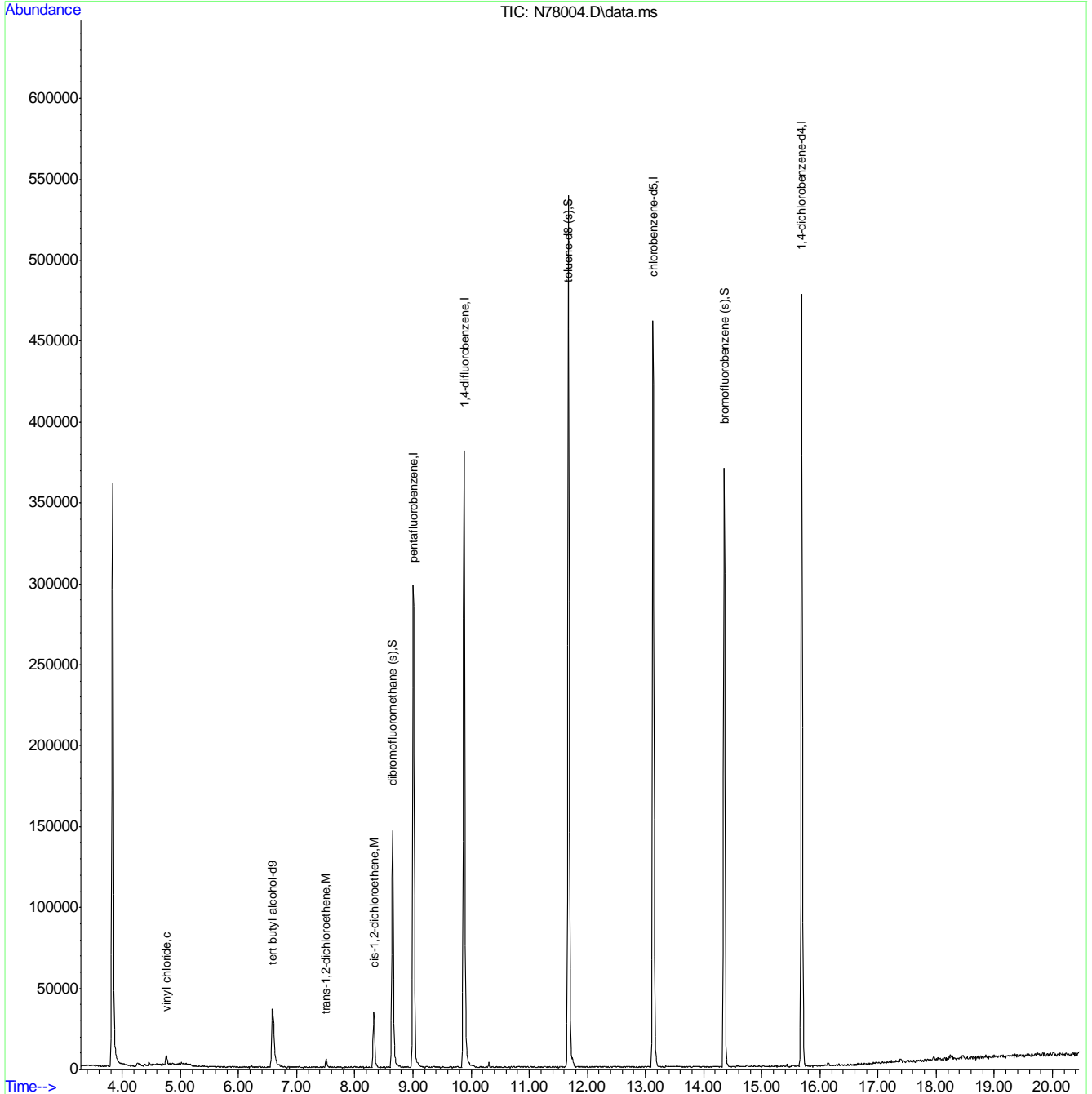
(#) = qualifier out of range (m) = manual integration (+) = signals summed

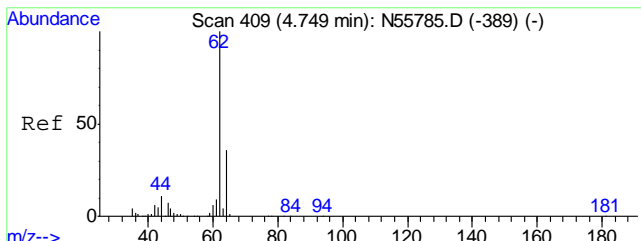
7.1.16
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78004.D  
Acq On : 8 Jul 2013 11:34 am  
Operator : jaclynb  
Sample : mc22232-14  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 21 Sample Multiplier: 1

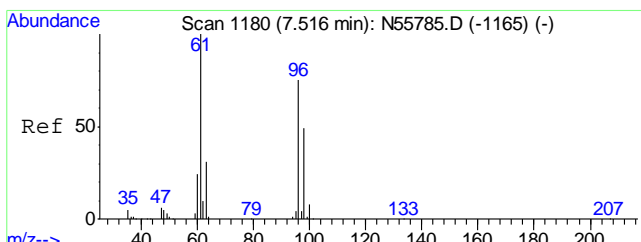
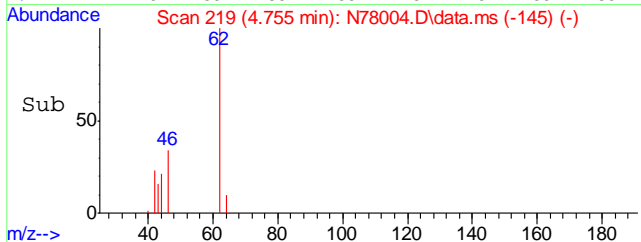
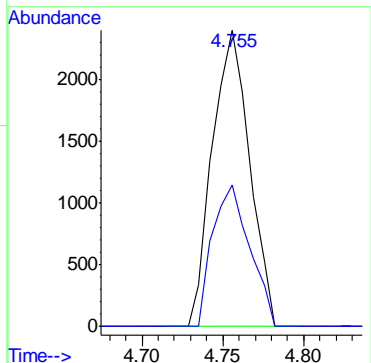
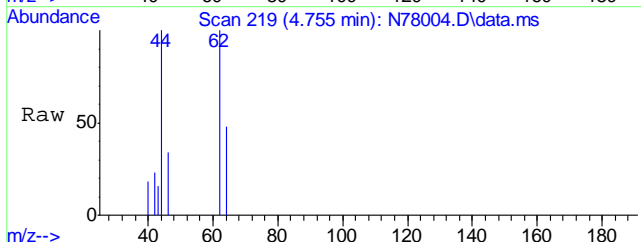
Quant Time: Jul 08 12:12:26 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration





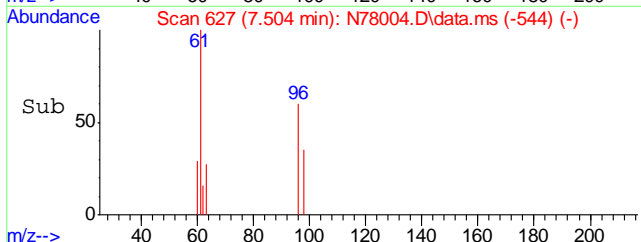
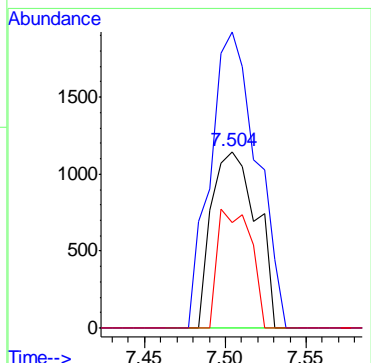
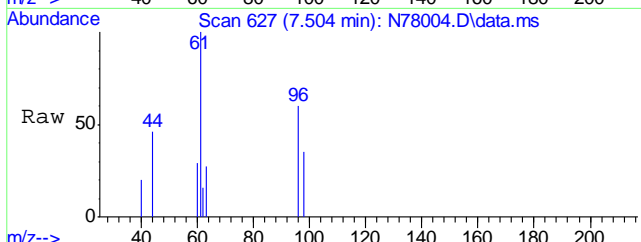
#7  
 vinyl chloride  
 Concen: 1.43 ug/L  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78004.D  
 Acq: 8 Jul 2013 11:34 am

Tgt Ion	Resp	Lower	Upper
62	3836	100	
64	47.9	1.1	61.1

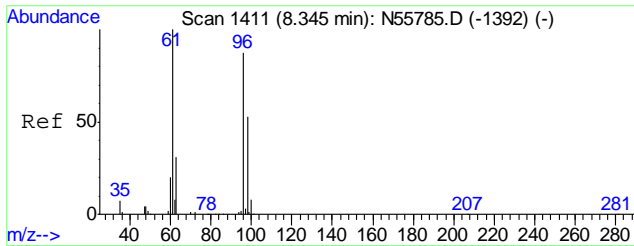


#22  
 trans-1,2-dichloroethene  
 Concen: 1.21 ug/L  
 RT: 7.504 min Scan# 627  
 Delta R.T. 0.007 min  
 Lab File: N78004.D  
 Acq: 8 Jul 2013 11:34 am

Tgt Ion	Resp	Lower	Upper
96	2211	100	
61	168.0	150.7	210.7
98	59.6	33.3	93.3

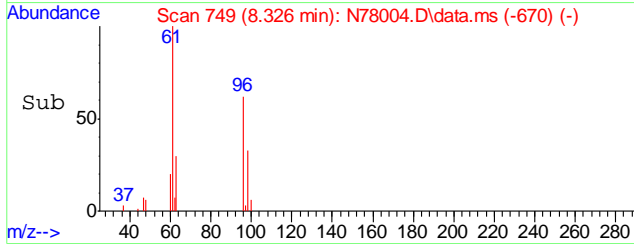
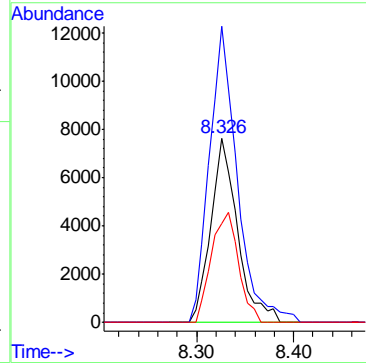
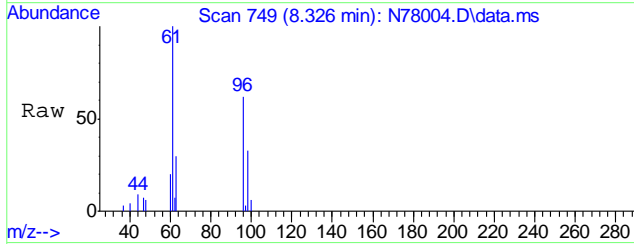


7.1.16  
7



#36  
 cis-1,2-dichloroethene  
 Concen: 7.01 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78004.D  
 Acq: 8 Jul 2013 11:34 am

Tgt Ion	Resp	Lower	Upper
96	14562		
96	100		
61	160.6	131.2	191.2
98	53.3	36.1	96.1



7.1.16  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78020.D  
Acq On : 8 Jul 2013 7:04 pm  
Operator : jaclynb  
Sample : mc22232-15  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jul 09 08:22:11 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.574	65	67544	500.00	ug/L	0.00
4) pentafluorobenzene	9.006	168	197465	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.882	114	301377	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	150237	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	125246	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	90090	44.51	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	89.02%
60) toluene-d8 (s)	11.674	98	356628	50.21	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.42%
82) bromofluorobenzene (s)	14.355	95	130359	48.58	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.16%

Target Compounds Qvalue

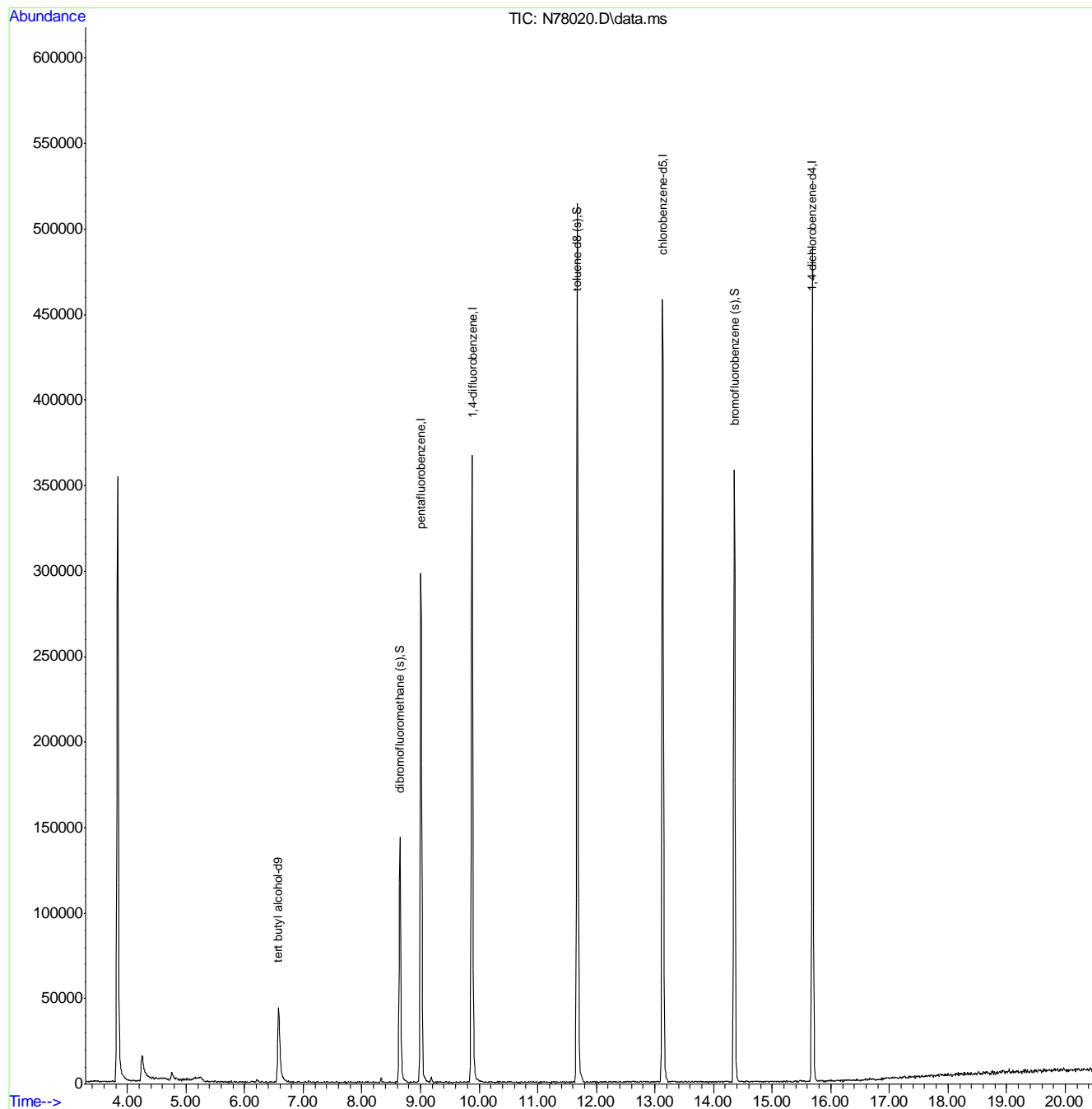
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.17  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78020.D  
Acq On : 8 Jul 2013 7:04 pm  
Operator : jaclynb  
Sample : mc22232-15  
Misc : MS29348,MSN2928,,,,,5,1  
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jul 09 08:22:11 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78021.D  
Acq On : 8 Jul 2013 7:32 pm  
Operator : jaclynb  
Sample : mc22232-16  
Misc : MS29348,MSN2928,,,,5,1  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jul 09 08:22:35 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	64357	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	194505	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	299806	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	150272	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.689	152	123985	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	89521	44.91	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	89.82%	
60) toluene-d8 (s)	11.674	98	351434	49.73	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.46%	
82) bromofluorobenzene (s)	14.355	95	130879	49.27	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.54%	
Target Compounds							
36) cis-1,2-dichloroethene	8.326	96	55393	27.94	ug/L		Qvalue 98
51) trichloroethene	10.299	95	38880	19.41	ug/L		97

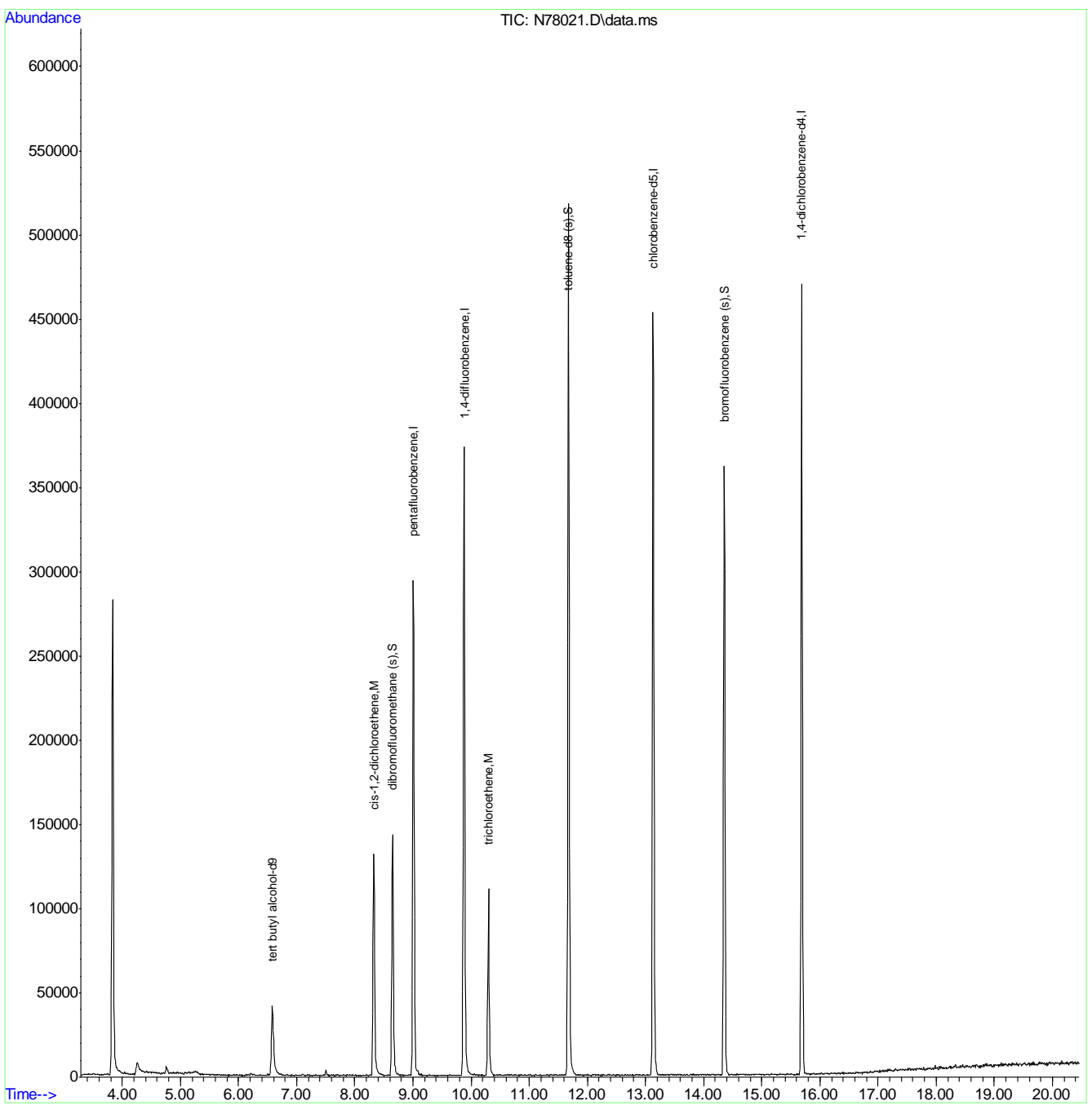
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.18  
7

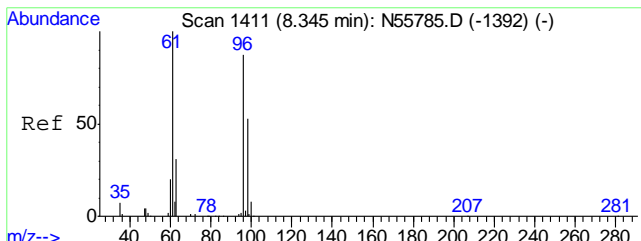
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78021.D  
Acq On : 8 Jul 2013 7:32 pm  
Operator : jaclynb  
Sample : mc22232-16  
Misc : MS29348,MSN2928,,,,,5,1  
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jul 09 08:22:35 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

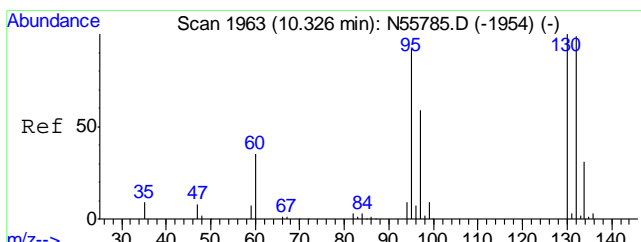
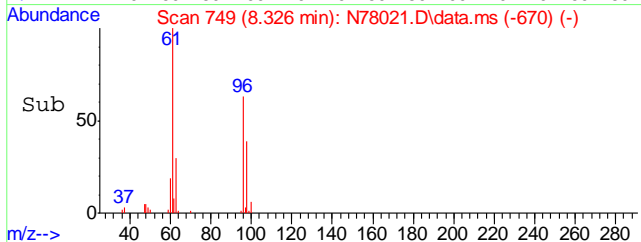
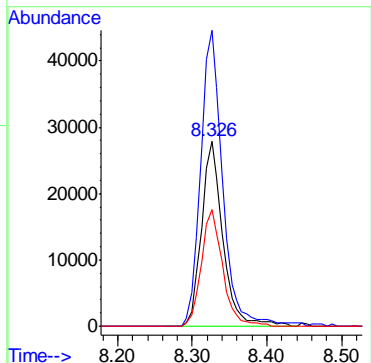
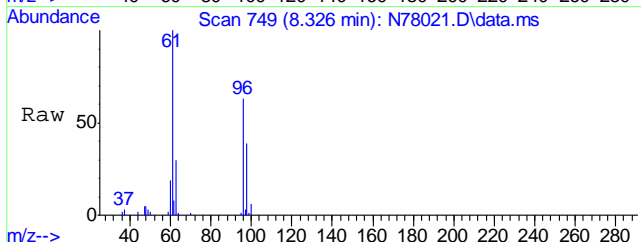


7.1.18  
7



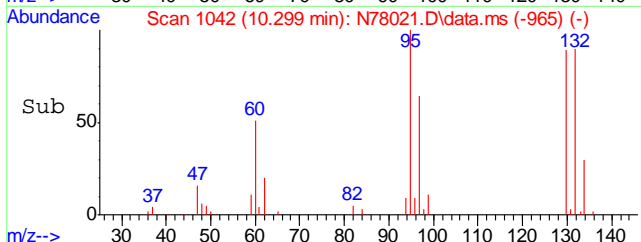
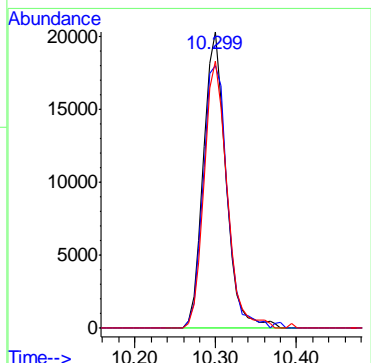
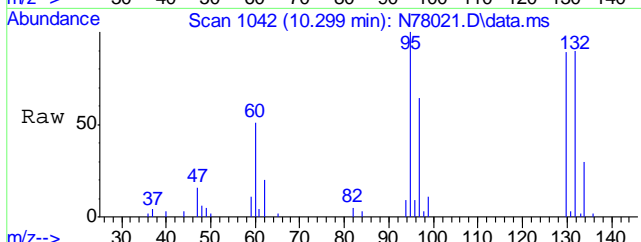
#36  
 cis-1,2-dichloroethene  
 Concen: 27.94 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78021.D  
 Acq: 8 Jul 2013 7:32 pm

Tgt Ion	Resp	Lower	Upper
96	55393		
96	100		
61	159.7	131.2	191.2
98	62.7	36.1	96.1



#51  
 trichloroethene  
 Concen: 19.41 ug/L  
 RT: 10.299 min Scan# 1042  
 Delta R.T. 0.000 min  
 Lab File: N78021.D  
 Acq: 8 Jul 2013 7:32 pm

Tgt Ion	Resp	Lower	Upper
95	38880		
95	100		
130	88.7	63.5	123.5
132	90.4	61.6	121.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20635.D  
 Acq On : 9 Jul 2013 2:28 pm  
 Operator : amym  
 Sample : mc22232-17  
 Misc : MS29368,MSV802,,,,5,1  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 09 15:02:33 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.504	65	58847	500.00	ug/L	-0.03	
4) pentafluorobenzene	6.565	168	255987	50.00	ug/L	-0.01	
43) 1,4-difluorobenzene	7.748	114	369489	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.079	82	198881	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.291	152	201928	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.444	113	128051	51.00	ug/L	-0.01	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.00%	
60) toluene-d8 (s)	9.555	98	438790	51.06	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.12%	
82) bromofluorobenzene (s)	12.228	95	190582	49.94	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.88%	
Target Compounds							
							Qvalue
7) vinyl chloride	1.730	62	5339	1.87	ug/L		100
36) cis-1,2-dichloroethene	5.534	96	226172	75.83	ug/L		92
41) Tetrahydrofuran	5.967	42	4559	5.47	ug/L		76
51) trichloroethene	8.039	95	47753	18.45	ug/L		96

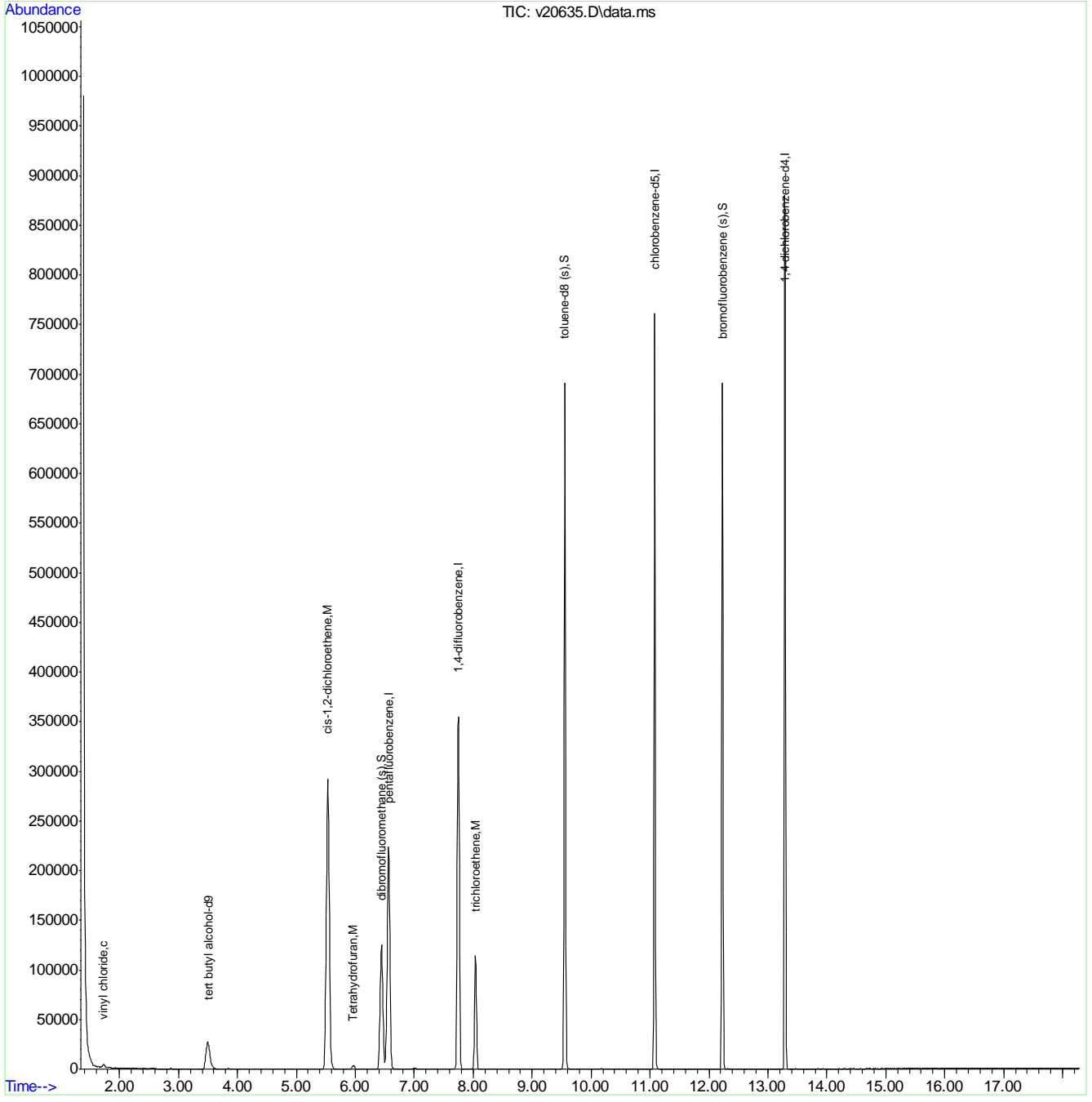
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.19  
7

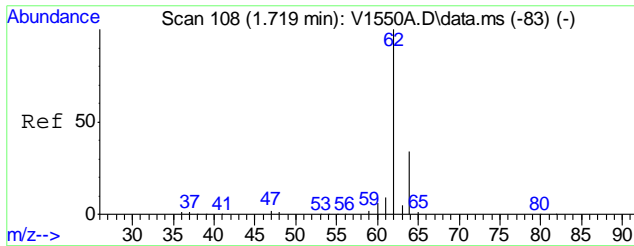
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
Data File : v20635.D  
Acq On : 9 Jul 2013 2:28 pm  
Operator : amym  
Sample : mc22232-17  
Misc : MS29368,MSV802,,,,5,1  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 09 15:02:33 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 09:47:02 2013  
Response via : Initial Calibration

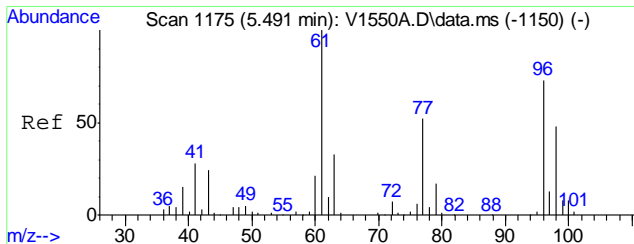
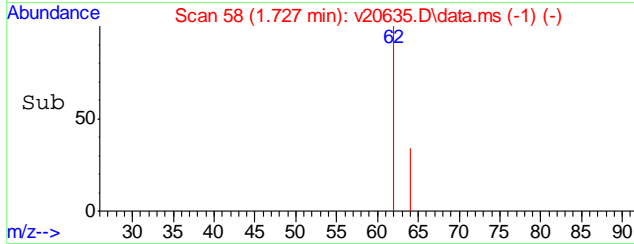
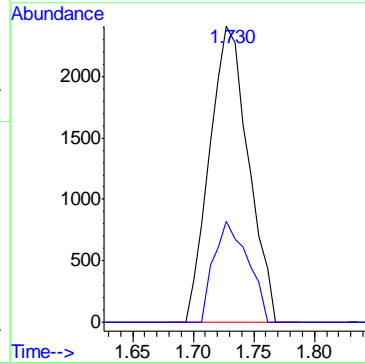
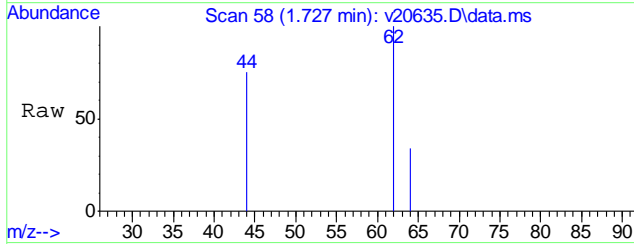


7.1.19  
7



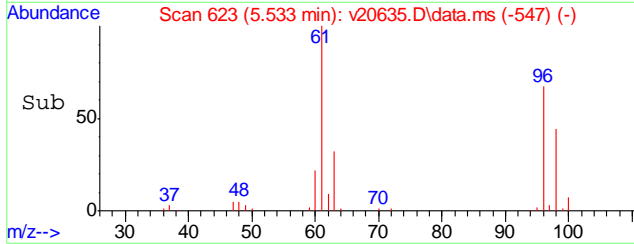
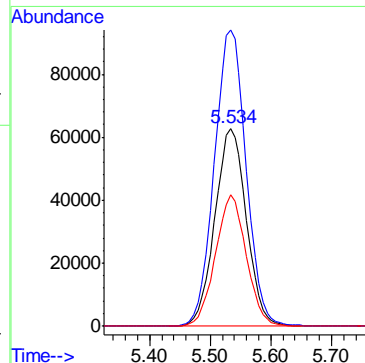
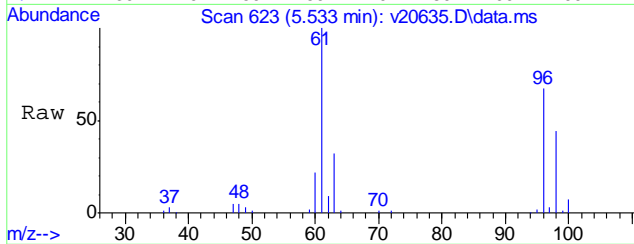
#7  
 vinyl chloride  
 Concen: 1.87 ug/L  
 RT: 1.730 min Scan# 58  
 Delta R.T. -0.045 min  
 Lab File: v20635.D  
 Acq: 9 Jul 2013 2:28 pm

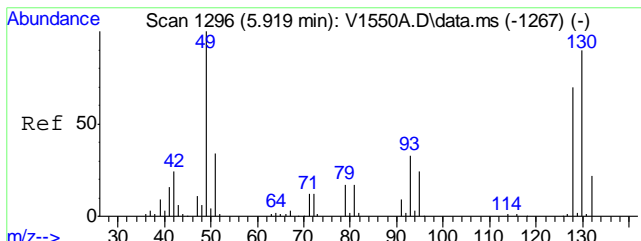
Tgt Ion	Resp	Lower	Upper
62	5339	100	
64	34.0	4.2	64.2



#36  
 cis-1,2-dichloroethene  
 Concen: 75.83 ug/L  
 RT: 5.534 min Scan# 623  
 Delta R.T. -0.020 min  
 Lab File: v20635.D  
 Acq: 9 Jul 2013 2:28 pm

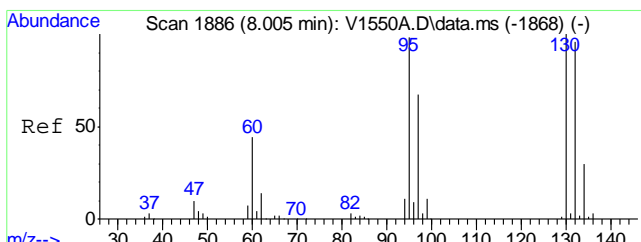
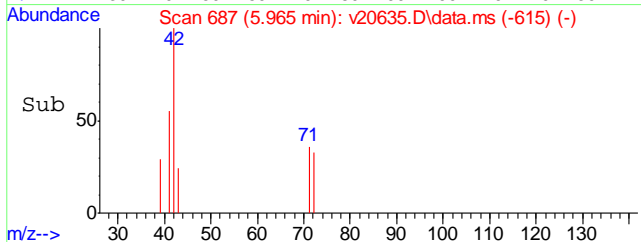
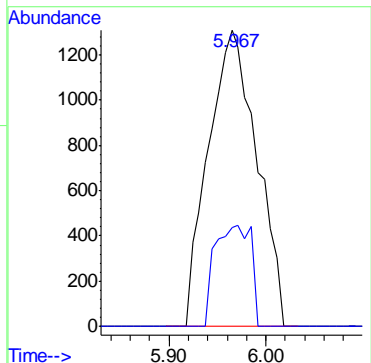
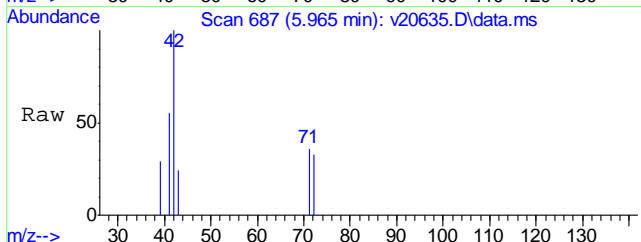
Tgt Ion	Resp	Lower	Upper
96	226172	100	
61	149.5	106.6	166.6
98	66.2	35.4	95.4





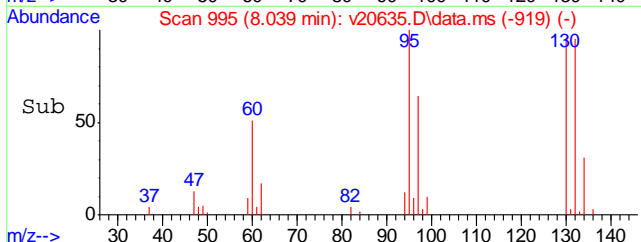
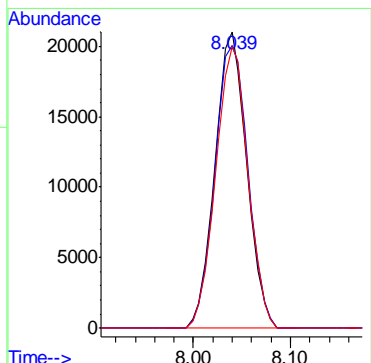
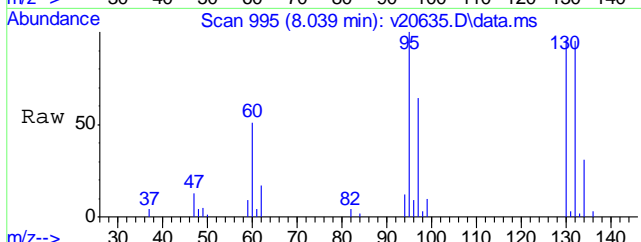
#41  
 Tetrahydrofuran  
 Concen: 5.47 ug/L  
 RT: 5.967 min Scan# 687  
 Delta R.T. -0.010 min  
 Lab File: v20635.D  
 Acq: 9 Jul 2013 2:28 pm

Tgt Ion	Resp	Lower	Upper
42	4559	100	
72	33.5	20.4	80.4



#51  
 trichloroethene  
 Concen: 18.45 ug/L  
 RT: 8.039 min Scan# 995  
 Delta R.T. -0.008 min  
 Lab File: v20635.D  
 Acq: 9 Jul 2013 2:28 pm

Tgt Ion	Resp	Lower	Upper
95	47753	100	
130	95.6	71.8	131.8
132	95.0	67.7	127.7



7.1.19  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20636.D  
 Acq On : 9 Jul 2013 2:55 pm  
 Operator : amym  
 Sample : mc22232-18  
 Misc : MS29368,MSV802,,,,5,1  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 09 15:17:37 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.508	65	60170	500.00	ug/L	-0.03	
4) pentafluorobenzene	6.568	168	249656	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	7.750	114	363605	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.080	82	194846	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.291	152	200260	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.448	113	127781	52.19	ug/L	-0.01	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.38%	
60) toluene-d8 (s)	9.556	98	430272	50.88	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.76%	
82) bromofluorobenzene (s)	12.228	95	187800	49.62	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.24%	
Target Compounds							
							Qvalue
7) vinyl chloride	1.743	62	221318	79.41	ug/L		97
15) 1,1-dichloroethene	2.876	96	5307	2.57	ug/L #		71
22) trans-1,2-dichloroethene	3.845	96	60145	23.73	ug/L #		81
36) cis-1,2-dichloroethene	5.540	96	3979839	1368.24	ug/L		95
39) chloroform	6.177	83	43308	9.25	ug/L		99
45) carbon tetrachloride	6.672	117	25244m	10.87	ug/L		
47) benzene	7.011	78	36085	3.81	ug/L		97
51) trichloroethene	8.041	95	118685	46.60	ug/L		98
74) ethylbenzene	11.214	91	6355	0.54	ug/L		96

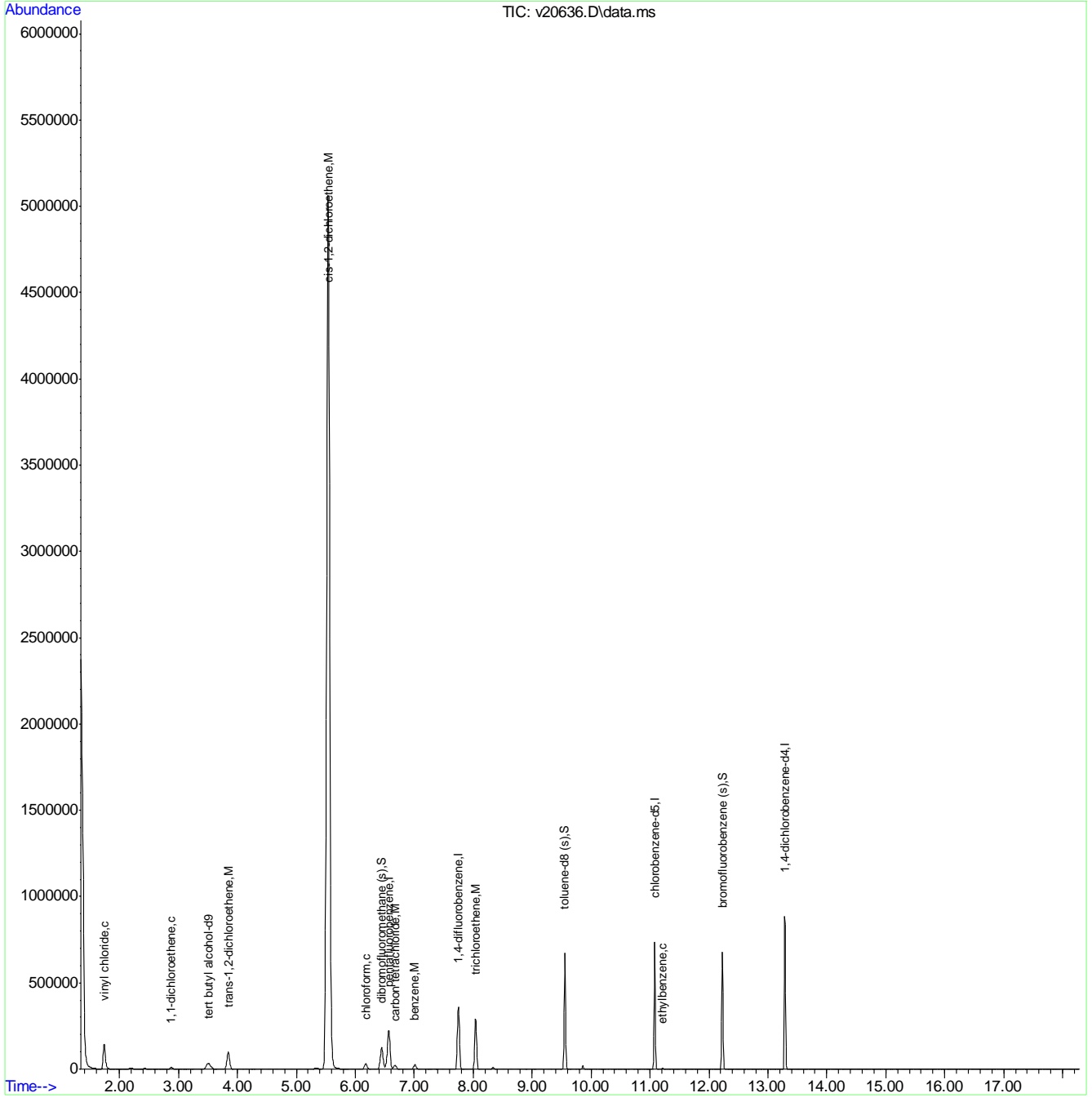
(#) = qualifier out of range (m) = manual integration (+) = signals summed



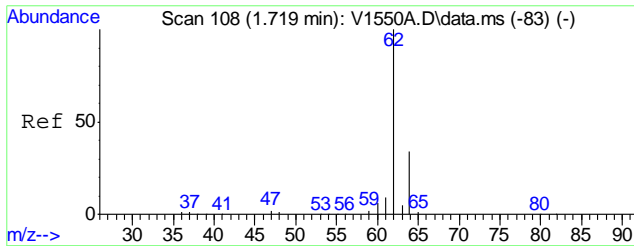
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
Data File : v20636.D  
Acq On : 9 Jul 2013 2:55 pm  
Operator : amym  
Sample : mc22232-18  
Misc : MS29368,MSV802,,,,,5,1  
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 09 15:17:37 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 09:47:02 2013  
Response via : Initial Calibration

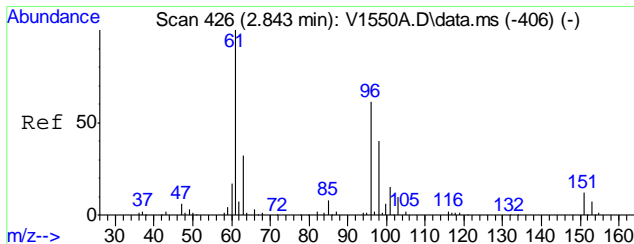
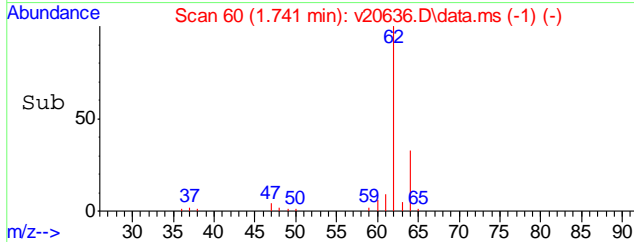
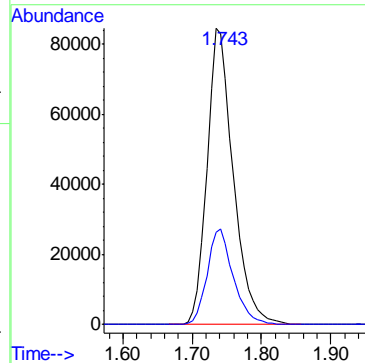
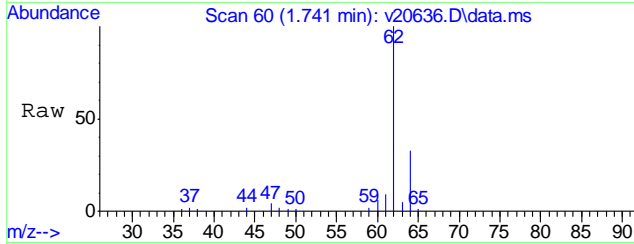


7.1.20  
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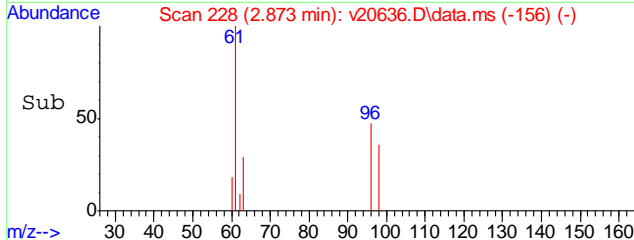
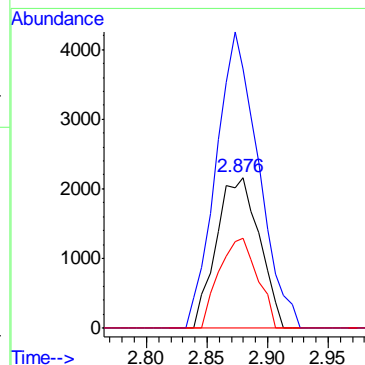
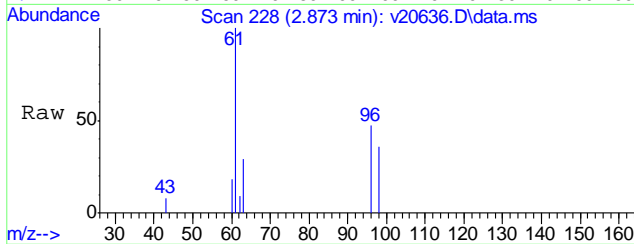
#7  
 vinyl chloride  
 Concen: 79.41 ug/L  
 RT: 1.743 min Scan# 60  
 Delta R.T. -0.032 min  
 Lab File: v20636.D  
 Acq: 9 Jul 2013 2:55 pm

Tgt Ion	Resp	Lower	Upper
62	221318		
64	32.7	4.2	64.2

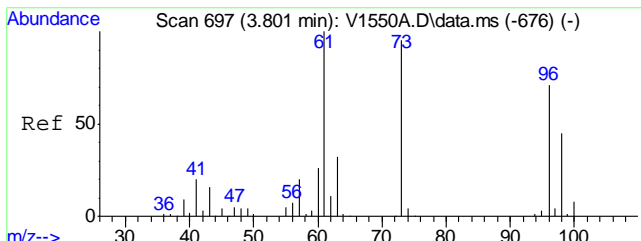


#15  
 1,1-dichloroethene  
 Concen: 2.57 ug/L  
 RT: 2.876 min Scan# 228  
 Delta R.T. -0.012 min  
 Lab File: v20636.D  
 Acq: 9 Jul 2013 2:55 pm

Tgt Ion	Resp	Lower	Upper
96	5307		
96	100		
61	211.2	135.0	195.0#
63	61.4	23.3	83.3

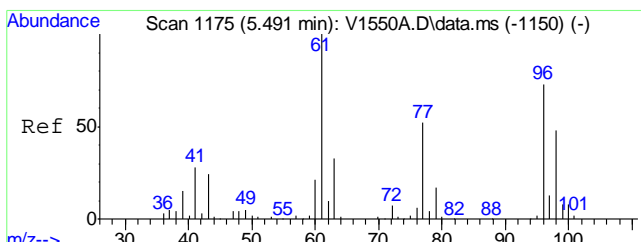
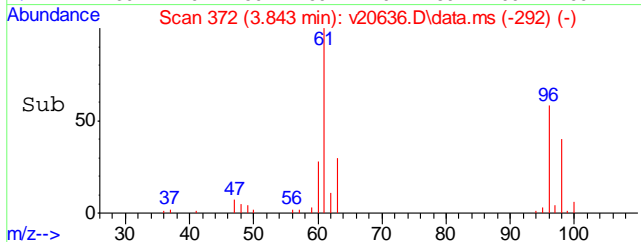
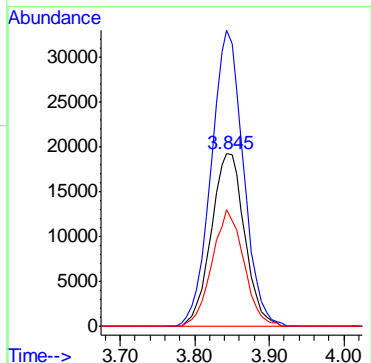
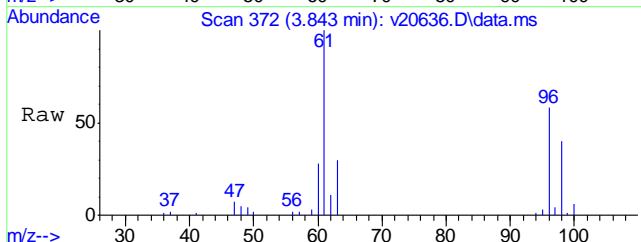


7.1.20  
 7



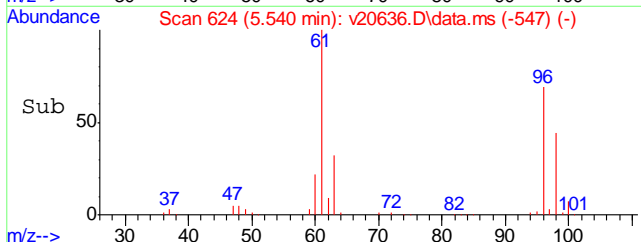
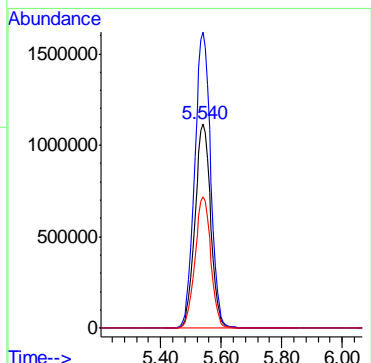
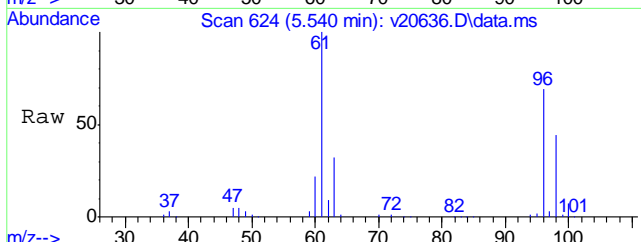
#22  
 trans-1,2-dichloroethene  
 Concen: 23.73 ug/L  
 RT: 3.845 min Scan# 372  
 Delta R.T. -0.011 min  
 Lab File: v20636.D  
 Acq: 9 Jul 2013 2:55 pm

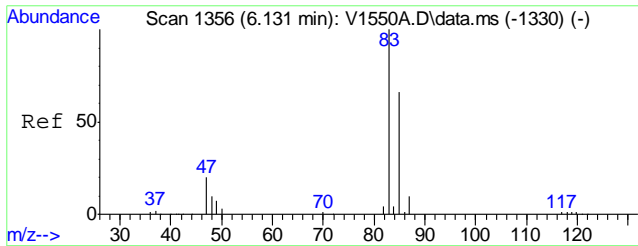
Tgt Ion	Resp	Lower	Upper
96	60145		
96	100		
61	171.5	111.0	171.0#
98	67.8	33.4	93.4



#36  
 cis-1,2-dichloroethene  
 Concen: 1368.24 ug/L  
 RT: 5.540 min Scan# 624  
 Delta R.T. -0.014 min  
 Lab File: v20636.D  
 Acq: 9 Jul 2013 2:55 pm

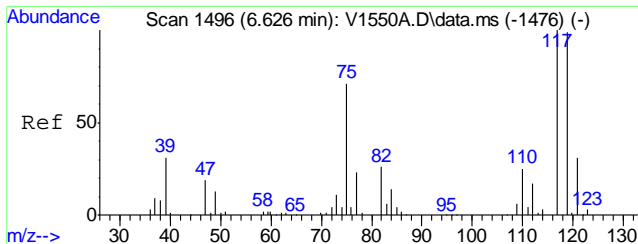
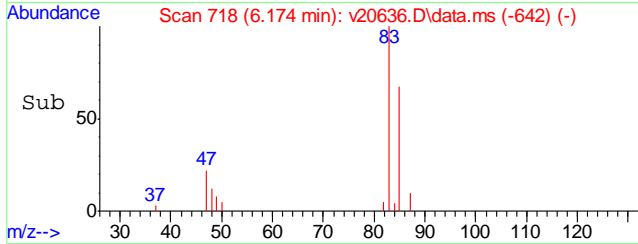
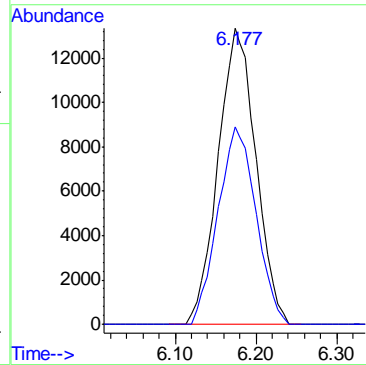
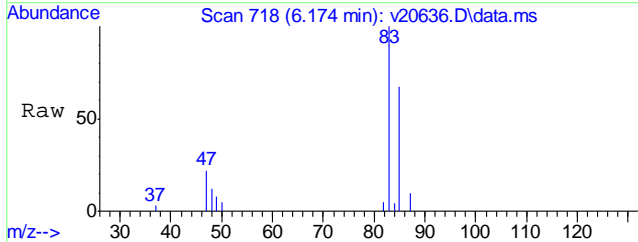
Tgt Ion	Resp	Lower	Upper
96	3979839		
96	100		
61	145.3	106.6	166.6
98	64.6	35.4	95.4





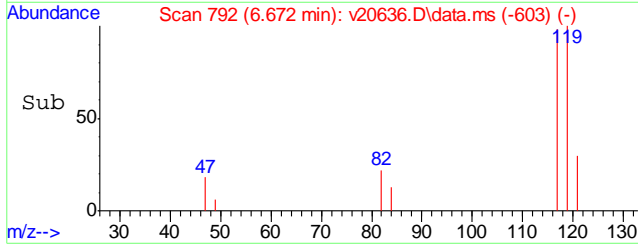
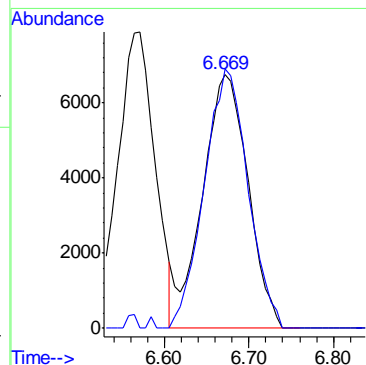
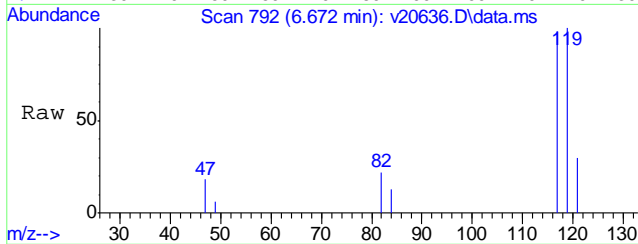
#39  
 chloroform  
 Concen: 9.25 ug/L  
 RT: 6.177 min Scan# 718  
 Delta R.T. -0.012 min  
 Lab File: v20636.D  
 Acq: 9 Jul 2013 2:55 pm

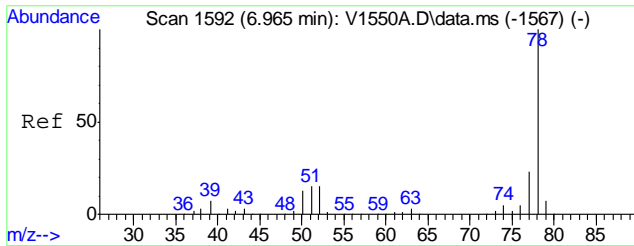
Tgt Ion:	83	Resp:	43308
Ion Ratio	100	Lower	Upper
83	100		
85	66.8	36.0	96.0



#45  
 carbon tetrachloride  
 Concen: 10.87 ug/L m  
 RT: 6.672 min Scan# 792  
 Delta R.T. -0.016 min  
 Lab File: v20636.D  
 Acq: 9 Jul 2013 2:55 pm

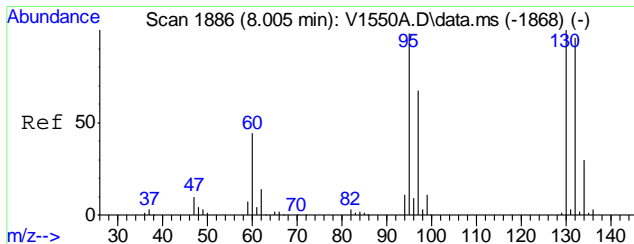
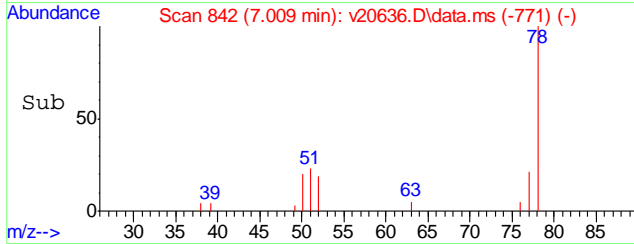
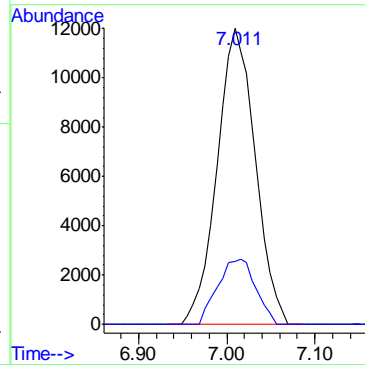
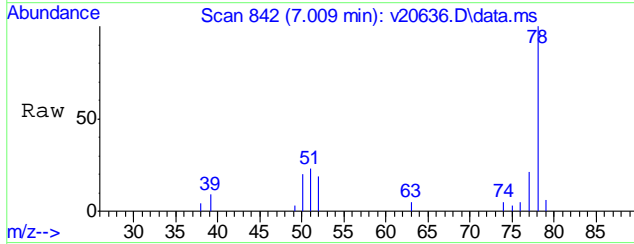
Tgt Ion:	117	Resp:	25244
Ion Ratio	100	Lower	Upper
117	100		
119	102.4	66.0	126.0





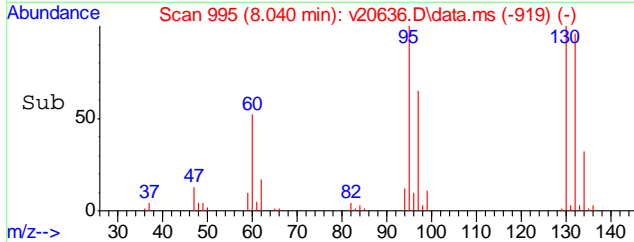
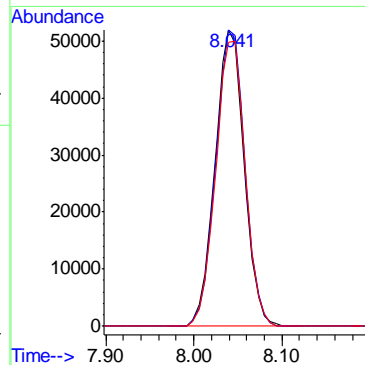
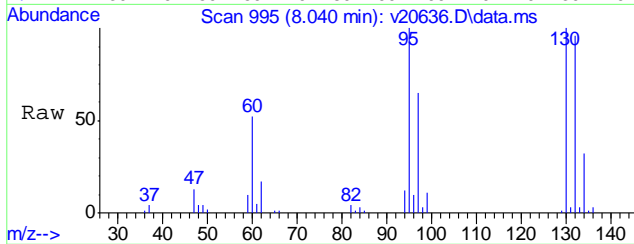
#47  
benzene  
Concen: 3.81 ug/L  
RT: 7.011 min Scan# 842  
Delta R.T. -0.010 min  
Lab File: v20636.D  
Acq: 9 Jul 2013 2:55 pm

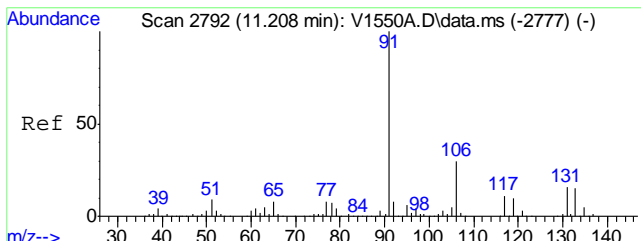
Tgt Ion	Resp	Lower	Upper
78	36085	100	
77	21.2	0.0	52.8



#51  
trichloroethene  
Concen: 46.60 ug/L  
RT: 8.041 min Scan# 995  
Delta R.T. -0.006 min  
Lab File: v20636.D  
Acq: 9 Jul 2013 2:55 pm

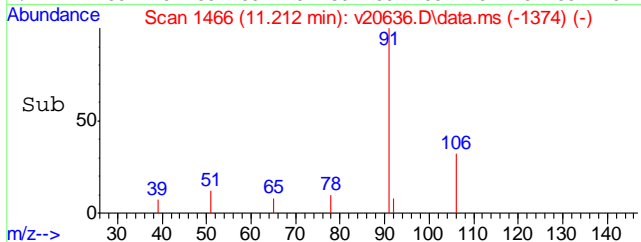
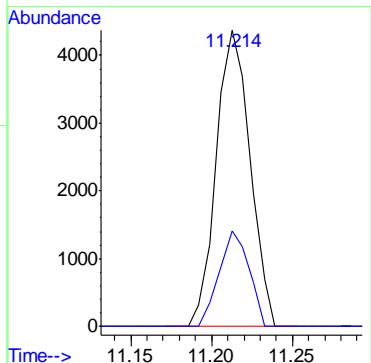
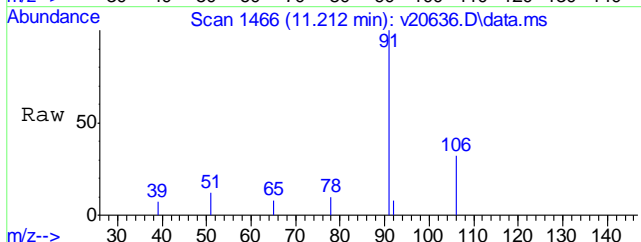
Tgt Ion	Resp	Lower	Upper
95	118685	100	
130	99.9	71.8	131.8
132	95.8	67.7	127.7





#74  
 ethylbenzene  
 Concen: 0.54 ug/L  
 RT: 11.214 min Scan# 1466  
 Delta R.T. -0.008 min  
 Lab File: v20636.D  
 Acq: 9 Jul 2013 2:55 pm

Tgt Ion	Resp	Lower	Upper
91	6355		
106	32.1	0.0	59.7



7.1.20  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20656.D  
 Acq On : 9 Jul 2013 11:44 pm  
 Operator : amym  
 Sample : mc22232-18  
 Misc : MS29368,MSV803,,,,5,100  
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 10 10:26:35 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

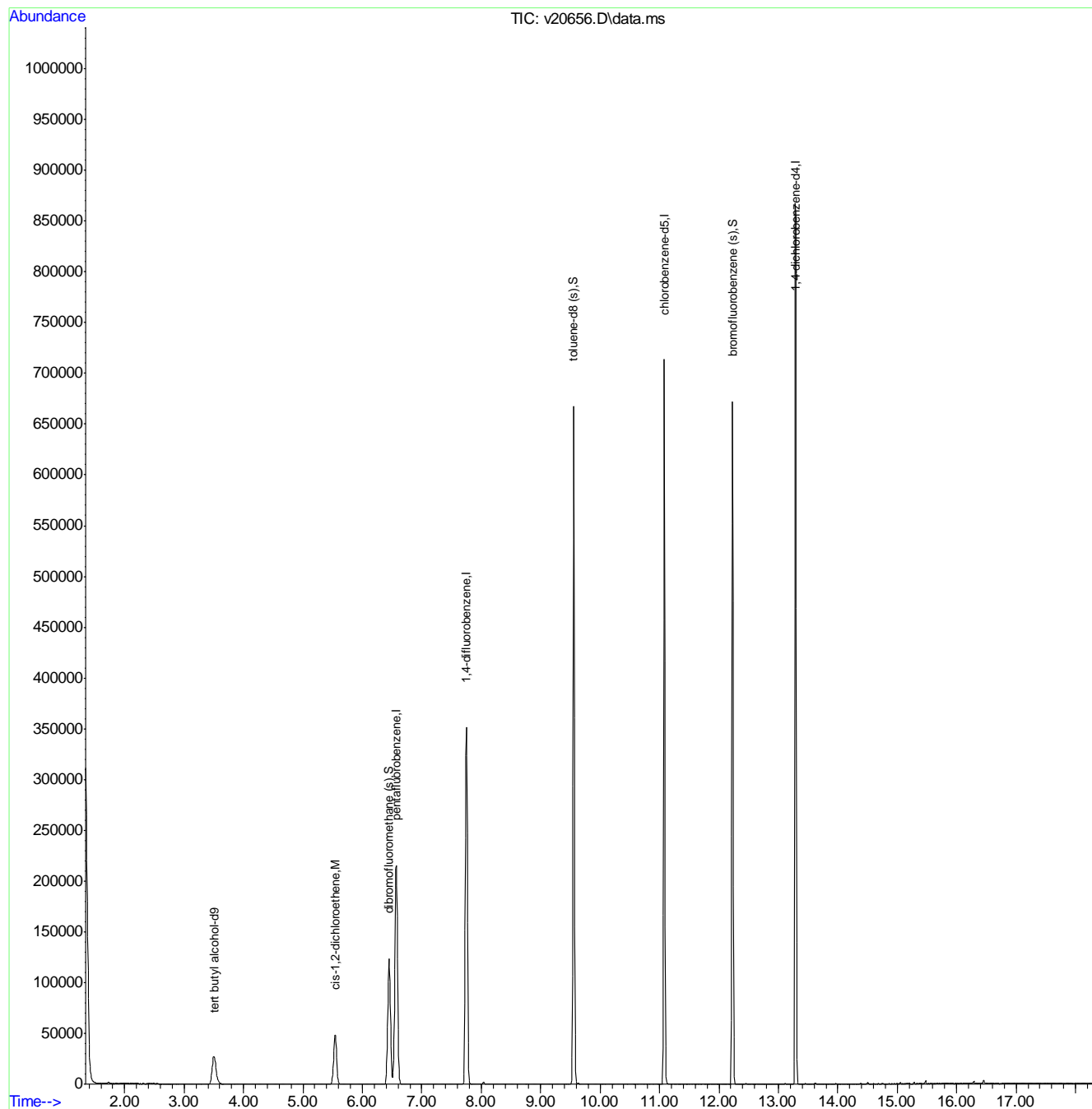
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.511	65	55961	500.00	ug/L	-0.02	
4) pentafluorobenzene	6.570	168	246913	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	7.751	114	362417	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.080	82	195897	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.291	152	197901	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.450	113	124778	51.53	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.06%	
60) toluene-d8 (s)	9.556	98	426751	50.63	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.26%	
82) bromofluorobenzene (s)	12.228	95	185379	49.56	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.12%	
Target Compounds							
36) cis-1,2-dichloroethene	5.542	96	38516	13.39	ug/L		Qvalue 88

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

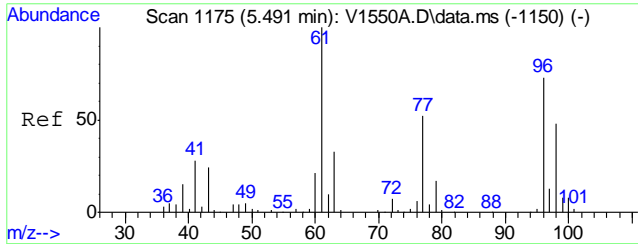
## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
Data File : v20656.D  
Acq On : 9 Jul 2013 11:44 pm  
Operator : amym  
Sample : mc22232-18  
Misc : MS29368,MSV803,,,,,5,100  
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 10 10:26:35 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 09:47:02 2013  
Response via : Initial Calibration

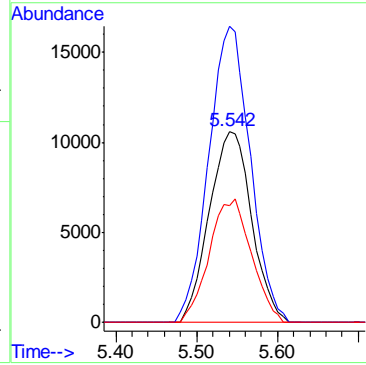
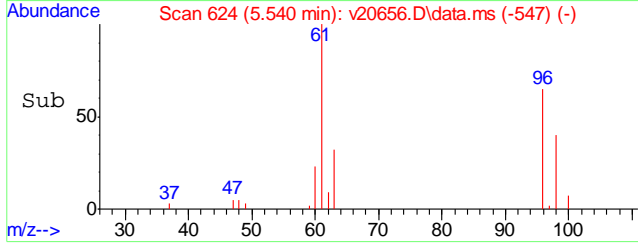
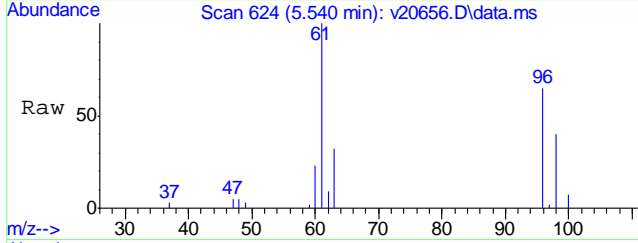






#36  
 cis-1,2-dichloroethene  
 Concen: 13.39 ug/L  
 RT: 5.542 min Scan# 624  
 Delta R.T. -0.012 min  
 Lab File: v20656.D  
 Acq: 9 Jul 2013 11:44 pm

Tgt Ion	Resp	Lower	Upper
96	38516		
96	100		
61	155.0	106.6	166.6
98	61.4	35.4	95.4



7.1.21

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20647.D  
 Acq On : 9 Jul 2013 7:47 pm  
 Operator : amym  
 Sample : mc22232-19  
 Misc : MS29368,MSV802,,,,5,1  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 10 09:21:38 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.510	65	53151	500.00	ug/L	-0.03
4) pentafluorobenzene	6.570	168	226528	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.751	114	332509	50.00	ug/L	0.00
66) chlorobenzene-d5	11.081	82	181066	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.292	152	184818	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.450	113	117056	52.69	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	105.38%
60) toluene-d8 (s)	9.557	98	395162	51.10	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.20%
82) bromofluorobenzene (s)	12.229	95	173589	49.69	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.38%

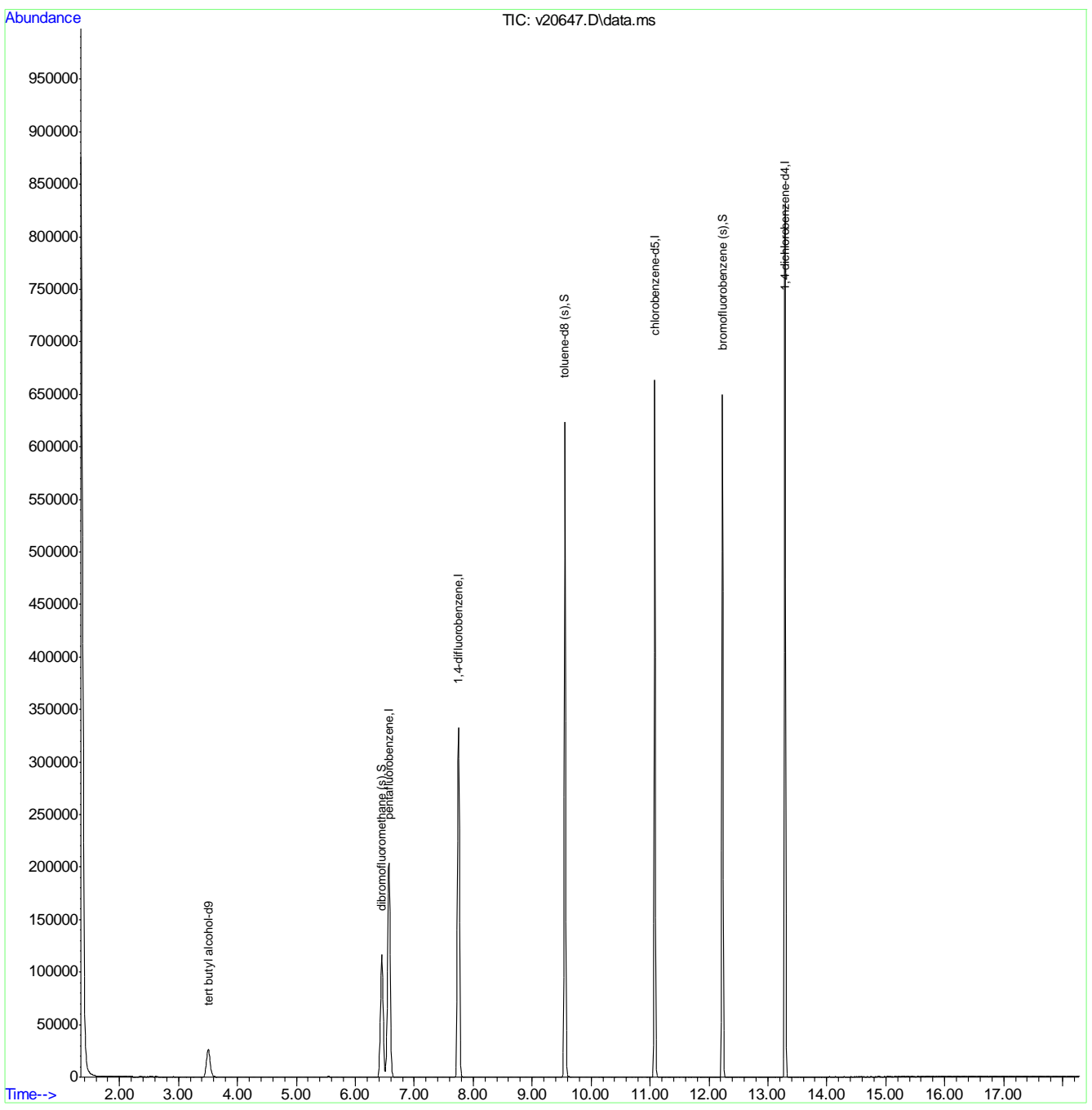
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
Data File : v20647.D  
Acq On : 9 Jul 2013 7:47 pm  
Operator : amym  
Sample : mc22232-19  
Misc : MS29368,MSV802,,,,5,1  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 10 09:21:38 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 09:47:02 2013  
Response via : Initial Calibration



7.1.22  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78033.D  
Acq On : 9 Jul 2013 1:10 am  
Operator : jaclynb  
Sample : mc22232-20  
Misc : MS29349,MSN2929,,,,,5,1  
ALS Vial : 50 Sample Multiplier: 1

Quant Time: Jul 09 08:39:01 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.574	65	71703	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	197035	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	305114	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	153992	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.689	152	130564	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	91698	45.41	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.82%	
60) toluene-d8 (s)	11.674	98	362731	50.44	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.88%	
82) bromofluorobenzene (s)	14.355	95	136390	48.75	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.50%	
Target Compounds							
7) vinyl chloride	4.755	62	38714	14.97	ug/L		Qvalue 93
36) cis-1,2-dichloroethene	8.326	96	36420	18.13	ug/L		95
47) benzene	9.686	78	3162	0.42	ug/L		89

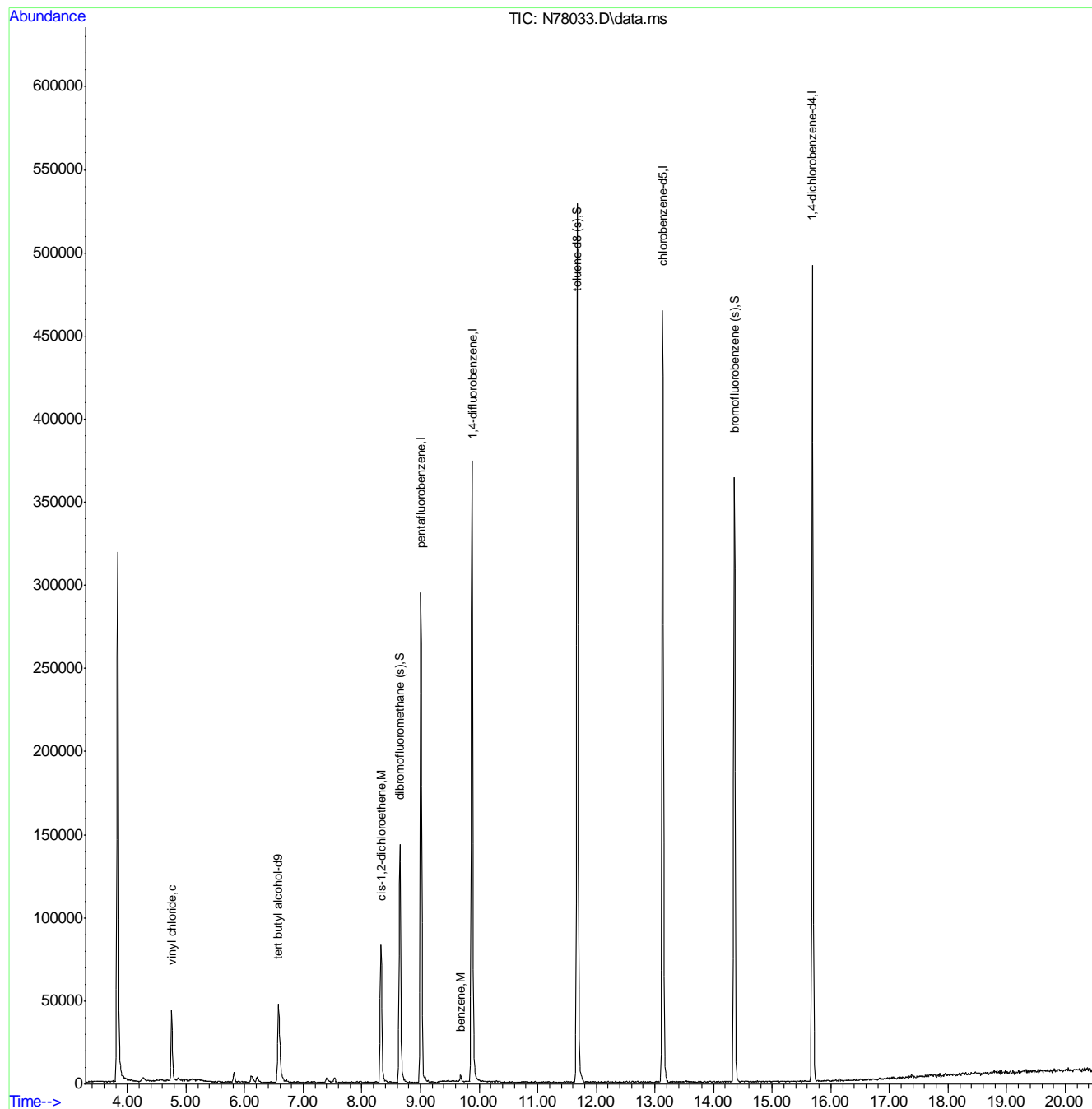
(#) = qualifier out of range (m) = manual integration (+) = signals summed

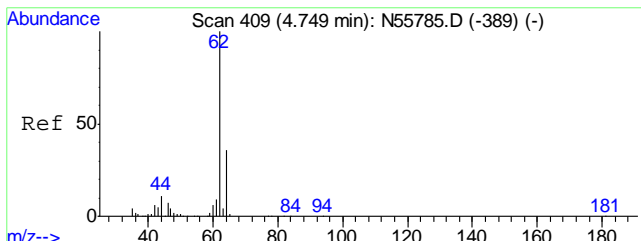
7.1.23  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78033.D  
Acq On : 9 Jul 2013 1:10 am  
Operator : jaclynb  
Sample : mc22232-20  
Misc : MS29349,MSN2929,,,,,5,1  
ALS Vial : 50 Sample Multiplier: 1

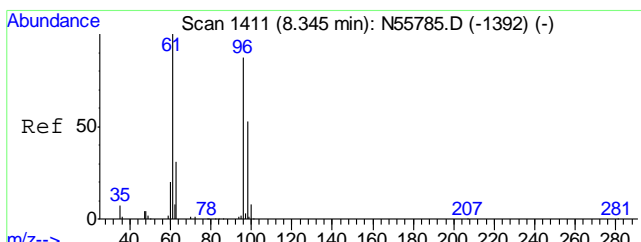
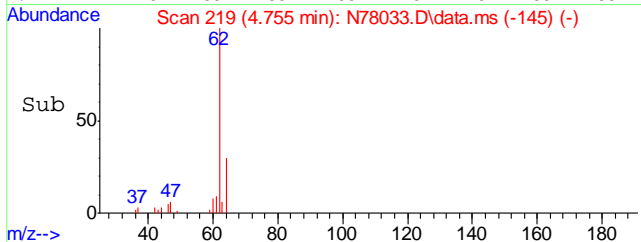
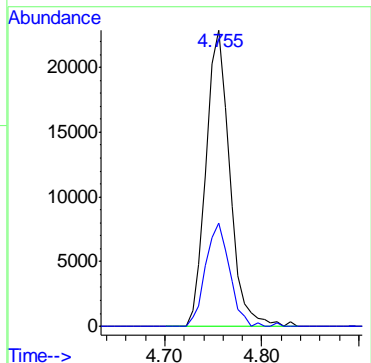
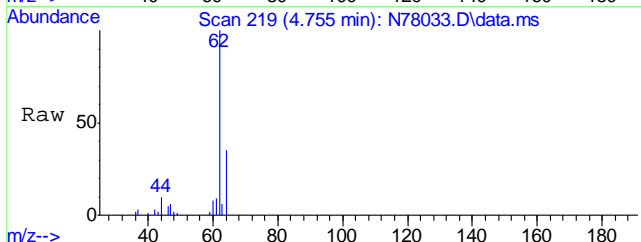
Quant Time: Jul 09 08:39:01 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration





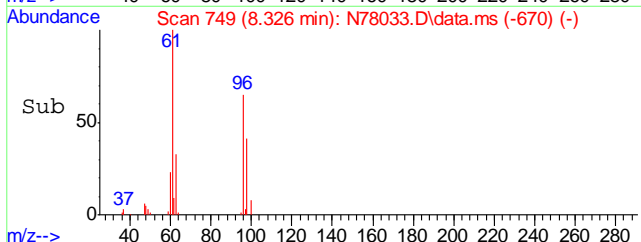
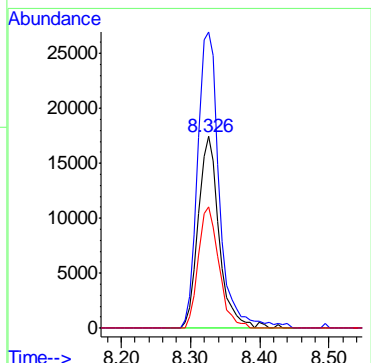
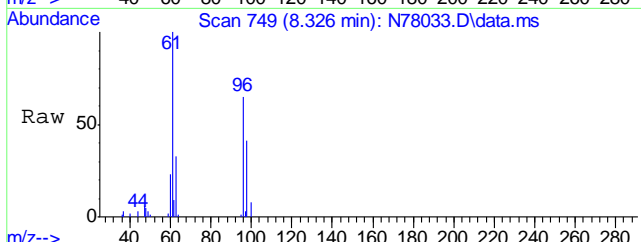
#7  
 vinyl chloride  
 Concen: 14.97 ug/L  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78033.D  
 Acq: 9 Jul 2013 1:10 am

Tgt Ion	Resp	Lower	Upper
62	38714	100	
64	34.9	1.1	61.1

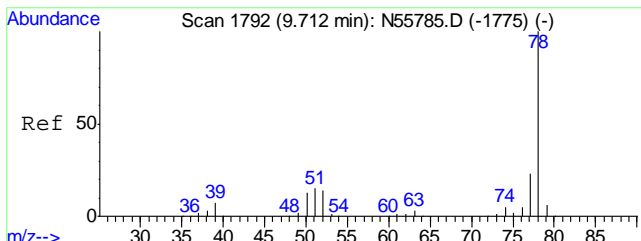


#36  
 cis-1,2-dichloroethene  
 Concen: 18.13 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78033.D  
 Acq: 9 Jul 2013 1:10 am

Tgt Ion	Resp	Lower	Upper
96	36420	100	
61	154.6	131.2	191.2
98	63.1	36.1	96.1

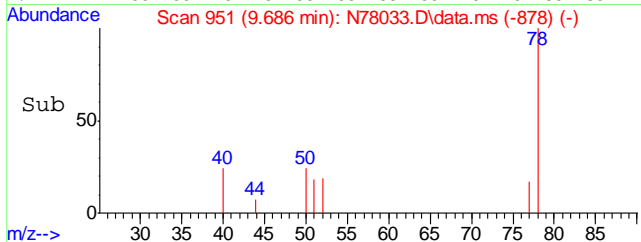
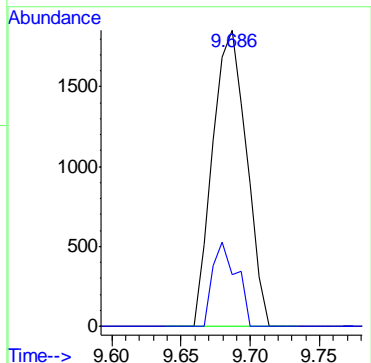
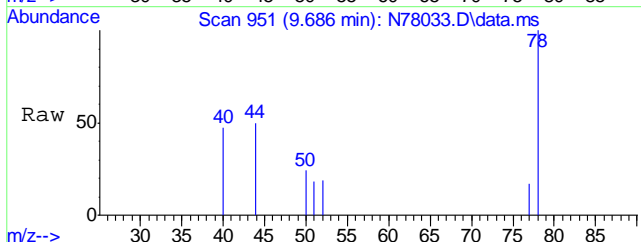


7.1.23  
 7



#47  
benzene  
Concen: 0.42 ug/L  
RT: 9.686 min Scan# 951  
Delta R.T. 0.000 min  
Lab File: N78033.D  
Acq: 9 Jul 2013 1:10 am

Tgt Ion	Resp	Lower	Upper
78	3162	100	
77	17.5	0.0	52.9



7.1.23  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78034.D  
Acq On : 9 Jul 2013 1:39 am  
Operator : jaclynb  
Sample : mc22232-21  
Misc : MS29349,MSN2929,,,,5,1  
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Jul 09 08:39:17 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.574	65	72546	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	192228	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	295409	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	147510	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	126860	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	87984	44.66	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	89.32%	
60) toluene-d8 (s)	11.674	98	349385	50.18	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.36%	
82) bromofluorobenzene (s)	14.355	95	133550	49.13	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.26%	
Target Compounds							
36) cis-1,2-dichloroethene	8.326	96	41002	20.92	ug/L		Qvalue 94
51) trichloroethene	10.299	95	2922	1.48	ug/L		92

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

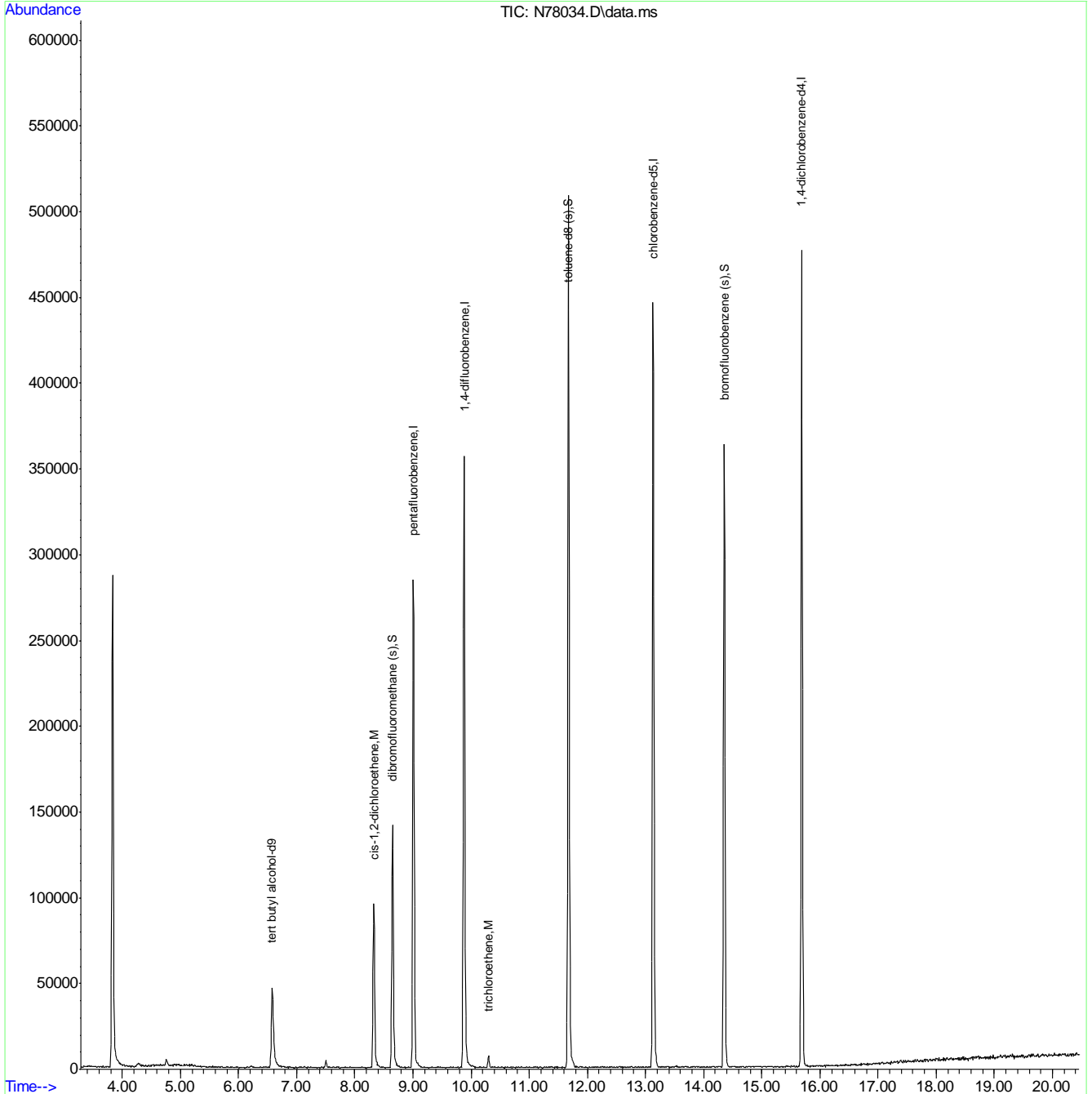
7.1.24  
7



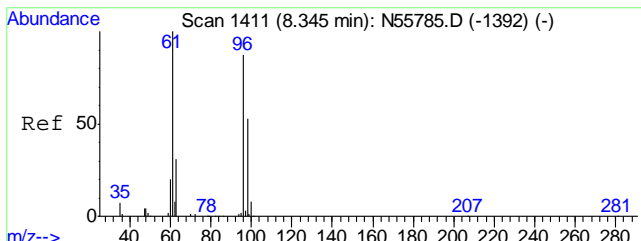
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78034.D  
Acq On : 9 Jul 2013 1:39 am  
Operator : jaclynb  
Sample : mc22232-21  
Misc : MS29349,MSN2929,,,,,5,1  
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Jul 09 08:39:17 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

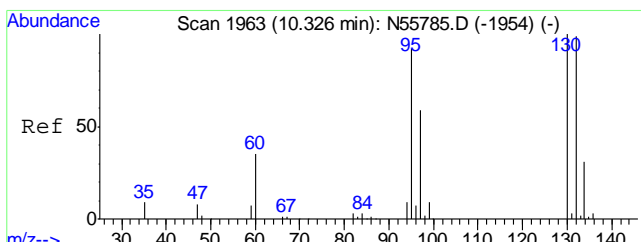
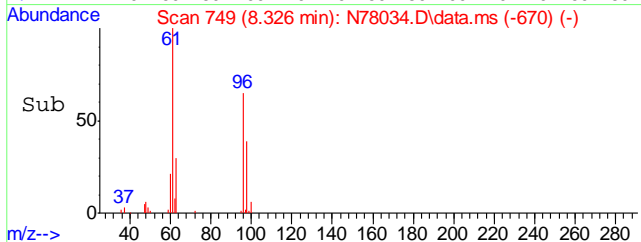
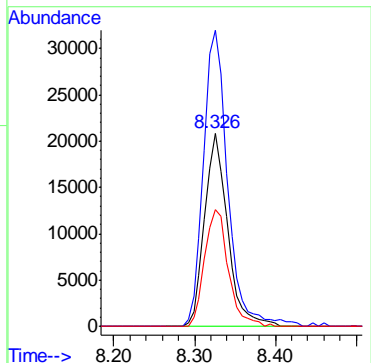
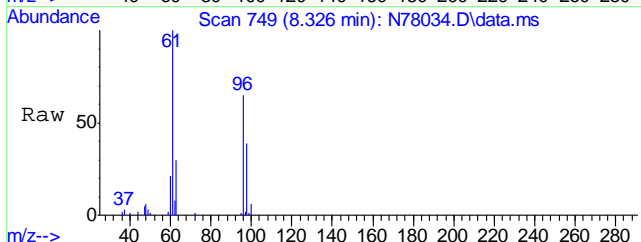


7.1.24  
7



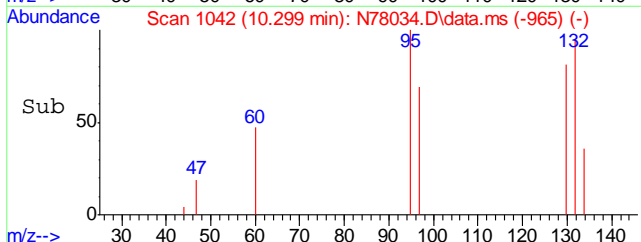
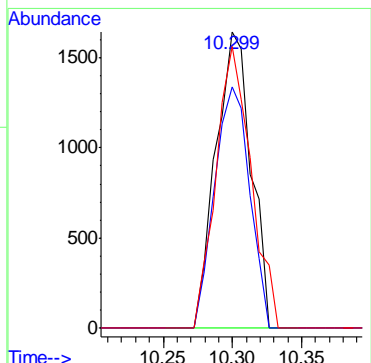
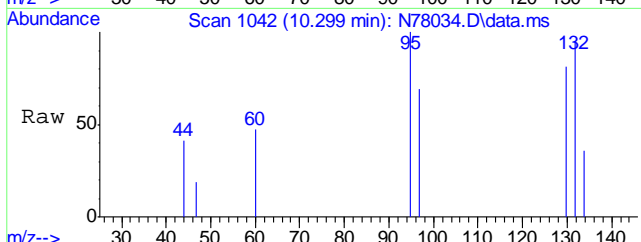
#36  
 cis-1,2-dichloroethene  
 Concen: 20.92 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78034.D  
 Acq: 9 Jul 2013 1:39 am

Tgt Ion	Resp	Lower	Upper
96	41002		
96	100		
61	153.2	131.2	191.2
98	60.2	36.1	96.1



#51  
 trichloroethene  
 Concen: 1.48 ug/L  
 RT: 10.299 min Scan# 1042  
 Delta R.T. 0.000 min  
 Lab File: N78034.D  
 Acq: 9 Jul 2013 1:39 am

Tgt Ion	Resp	Lower	Upper
95	2922		
95	100		
130	81.4	63.5	123.5
132	95.3	61.6	121.6



7.1.24  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78035.D  
 Acq On : 9 Jul 2013 2:07 am  
 Operator : jaclynb  
 Sample : mc22232-22  
 Misc : MS29349,MSN2929,,,,,5,1  
 ALS Vial : 52 Sample Multiplier: 1

Quant Time: Jul 09 08:27:42 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

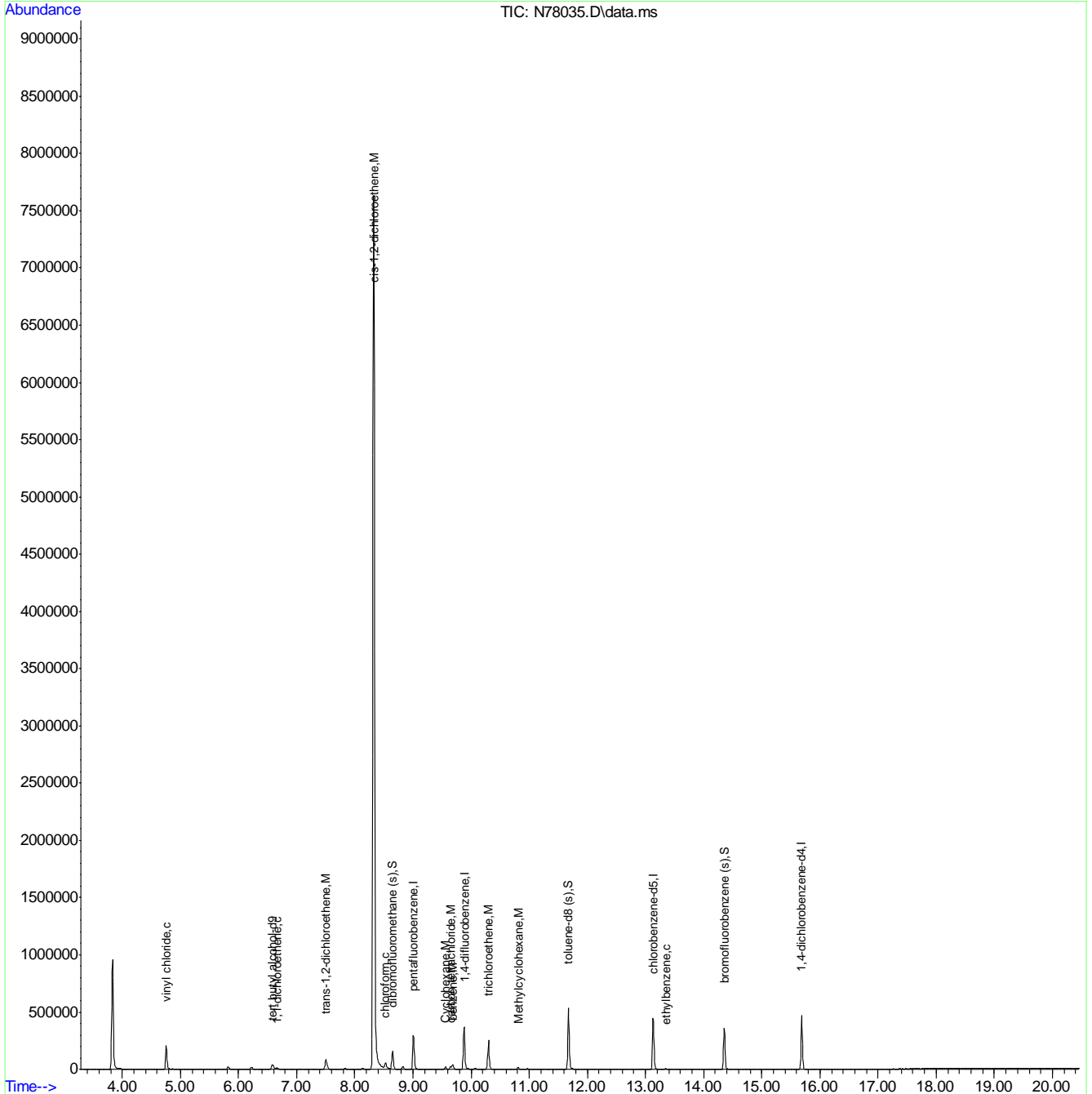
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	64273	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	198256	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	302928	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	149207	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	129310	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	97791	48.13	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.26%	
60) toluene-d8 (s)	11.674	98	352225	49.33	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.66%	
82) bromofluorobenzene (s)	14.355	95	132223	47.72	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	95.44%	
Target Compounds							
							Qvalue
7) vinyl chloride	4.755	62	208630	80.18	ug/L		99
15) 1,1-dichloroethene	6.662	96	4522	2.68	ug/L		83
22) trans-1,2-dichloroethene	7.504	96	31331	17.61	ug/L		93
36) cis-1,2-dichloroethene	8.326	96	3191414	1579.09	ug/L		99
39) chloroform	8.528	83	34650	9.76	ug/L		98
44) Cyclohexane	9.558	56	11134	2.76	ug/L		98
45) carbon tetrachloride	9.646	117	13778	6.58	ug/L		87
47) benzene	9.686	78	34084	4.54	ug/L		100
51) trichloroethene	10.299	95	90000	44.47	ug/L		98
55) Methylcyclohexane	10.811	83	6462	2.01	ug/L		89
74) ethylbenzene	13.344	91	5543	0.63	ug/L		93

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

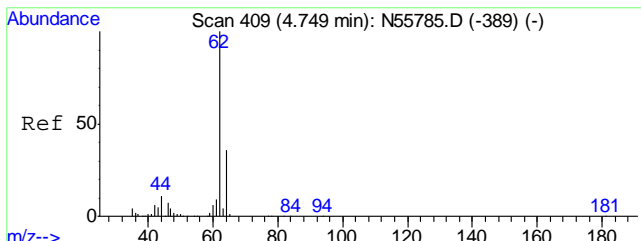
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78035.D  
Acq On : 9 Jul 2013 2:07 am  
Operator : jaclynb  
Sample : mc22232-22  
Misc : MS29349,MSN2929,,,,5,1  
ALS Vial : 52 Sample Multiplier: 1

Quant Time: Jul 09 08:27:42 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

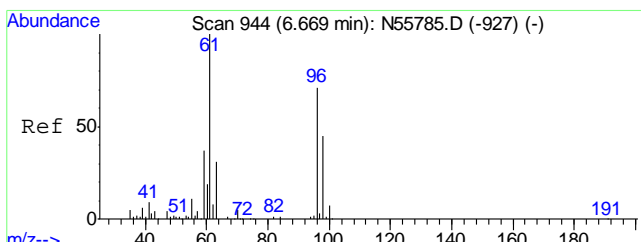
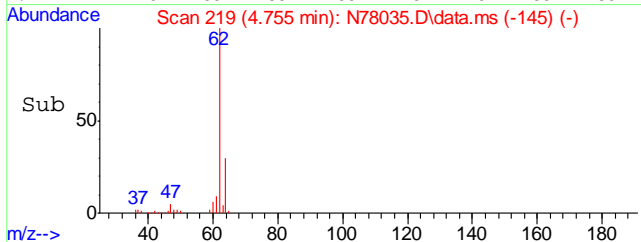
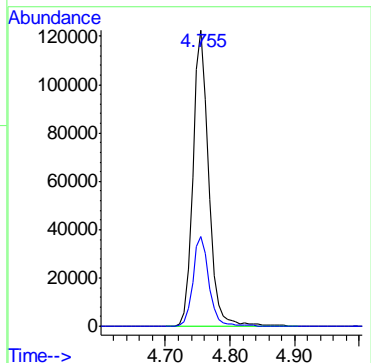
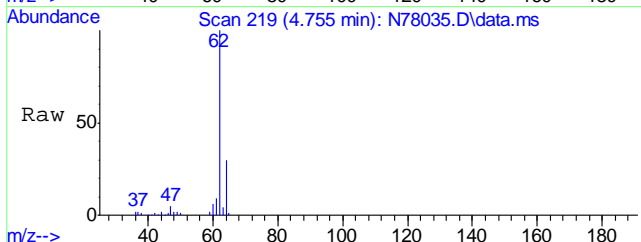


7.1.25  
7



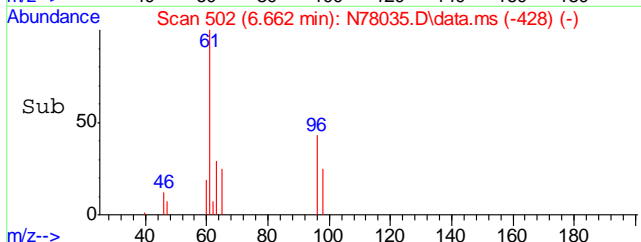
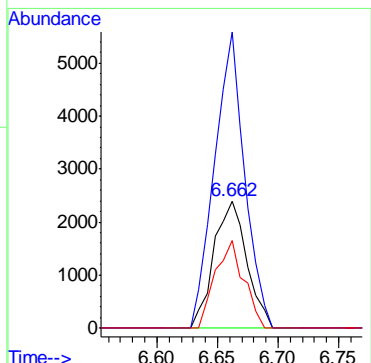
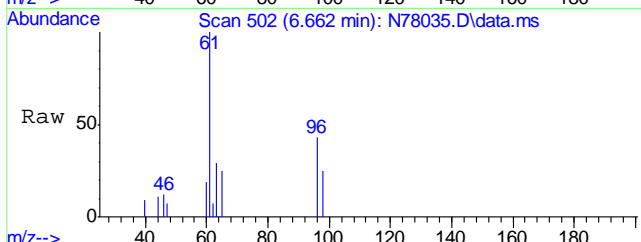
#7  
 vinyl chloride  
 Concen: 80.18 ug/L  
 RT: 4.755 min Scan# 219  
 Delta R.T. 0.000 min  
 Lab File: N78035.D  
 Acq: 9 Jul 2013 2:07 am

Tgt Ion	Resp	Lower	Upper
62	208630	100	
64	30.3	1.1	61.1

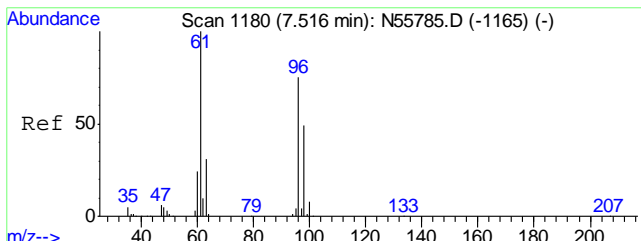


#15  
 1,1-dichloroethene  
 Concen: 2.68 ug/L  
 RT: 6.662 min Scan# 502  
 Delta R.T. -0.000 min  
 Lab File: N78035.D  
 Acq: 9 Jul 2013 2:07 am

Tgt Ion	Resp	Lower	Upper
96	4522	100	
61	232.5	172.5	232.5
63	68.5	32.6	92.6

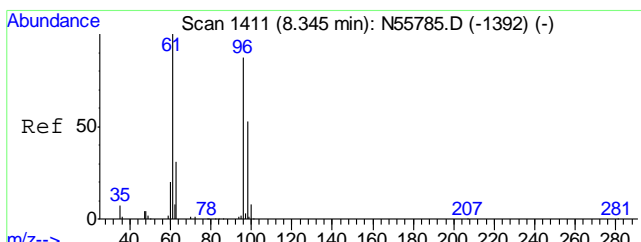
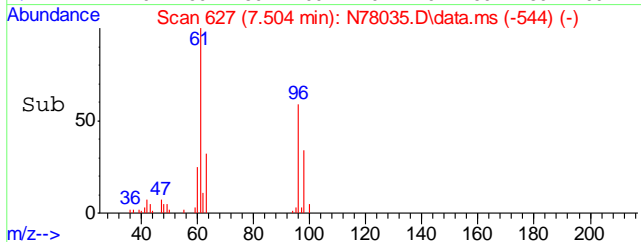
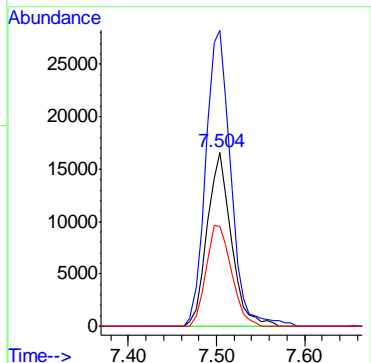
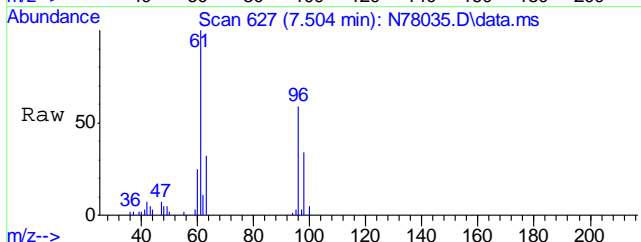


7.1.25  
7



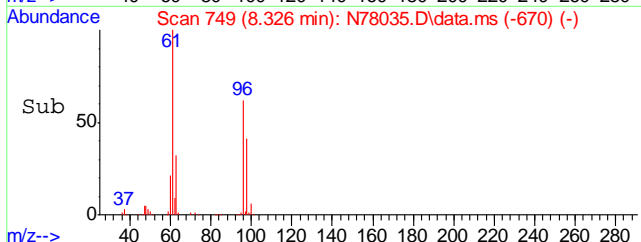
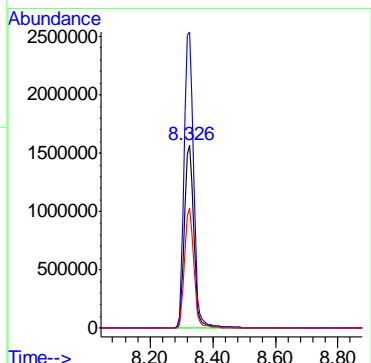
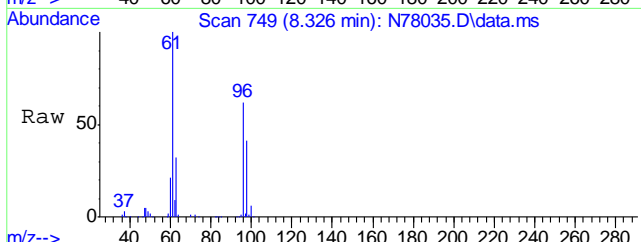
#22  
 trans-1,2-dichloroethene  
 Concen: 17.61 ug/L  
 RT: 7.504 min Scan# 627  
 Delta R.T. 0.007 min  
 Lab File: N78035.D  
 Acq: 9 Jul 2013 2:07 am

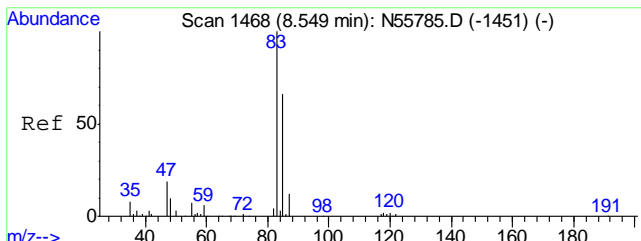
Tgt Ion	Resp	Lower	Upper
96	31331		
96	100		
61	170.2	150.7	210.7
98	57.6	33.3	93.3



#36  
 cis-1,2-dichloroethene  
 Concen: 1579.09 ug/L  
 RT: 8.326 min Scan# 749  
 Delta R.T. -0.000 min  
 Lab File: N78035.D  
 Acq: 9 Jul 2013 2:07 am

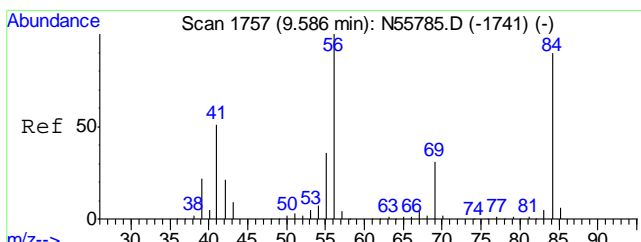
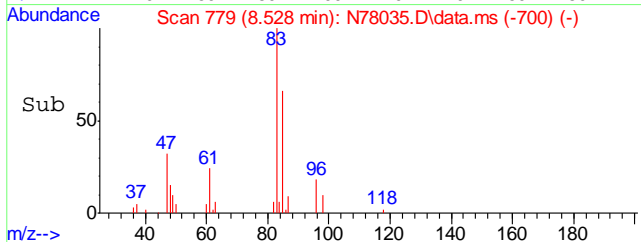
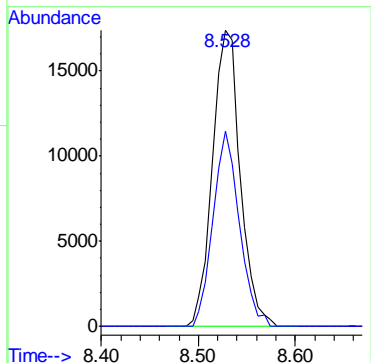
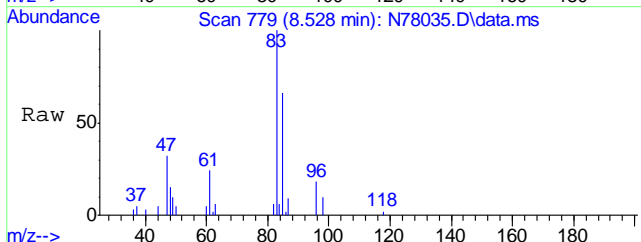
Tgt Ion	Resp	Lower	Upper
96	3191414		
96	100		
61	161.9	131.2	191.2
98	65.7	36.1	96.1





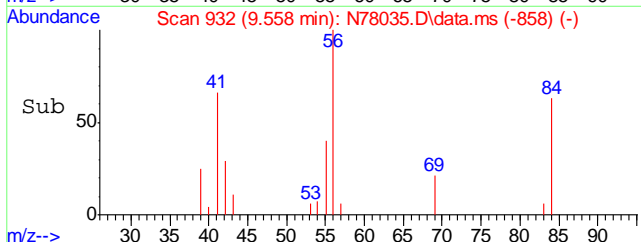
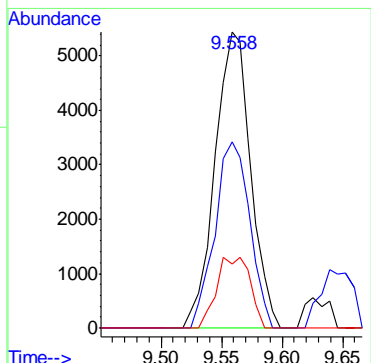
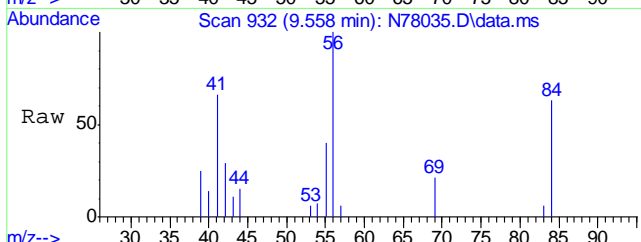
#39  
 chloroform  
 Concen: 9.76 ug/L  
 RT: 8.528 min Scan# 779  
 Delta R.T. -0.000 min  
 Lab File: N78035.D  
 Acq: 9 Jul 2013 2:07 am

Tgt Ion	Resp	Lower	Upper
83	34650	100	
85	65.8	34.2	94.2

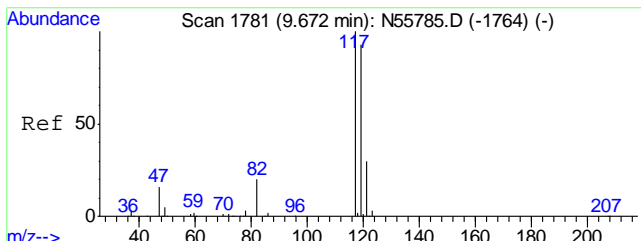


#44  
 Cyclohexane  
 Concen: 2.76 ug/L  
 RT: 9.558 min Scan# 932  
 Delta R.T. 0.000 min  
 Lab File: N78035.D  
 Acq: 9 Jul 2013 2:07 am

Tgt Ion	Resp	Lower	Upper
56	11134	100	
84	63.0	50.1	75.1
69	21.5	18.9	28.3

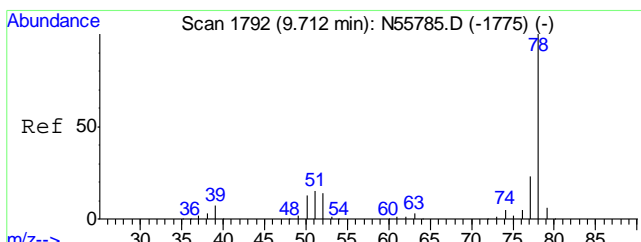
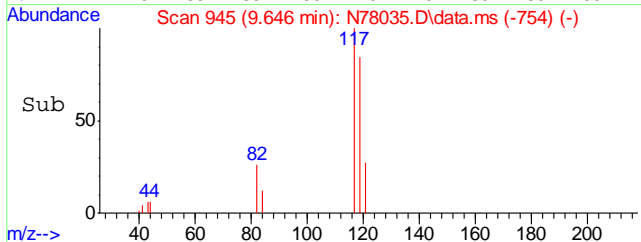
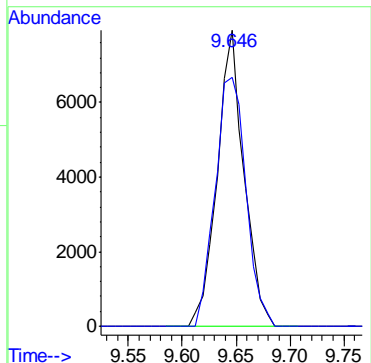
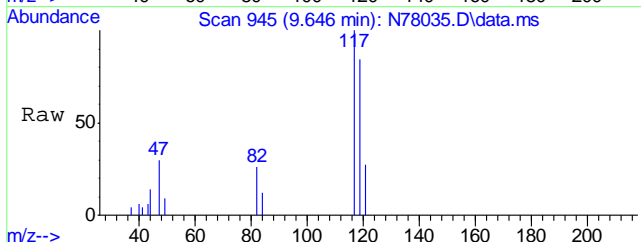


7.1.25  
 7



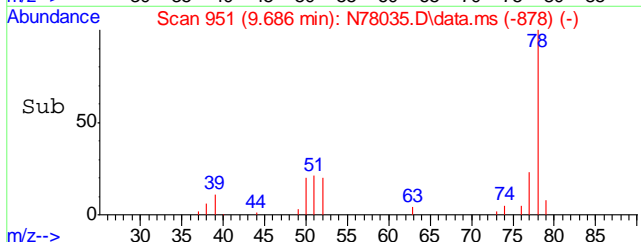
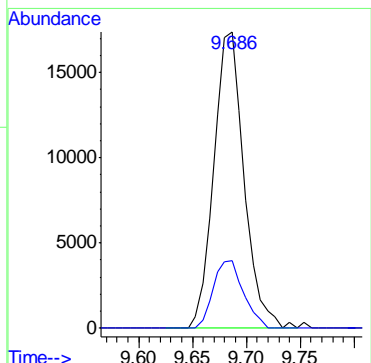
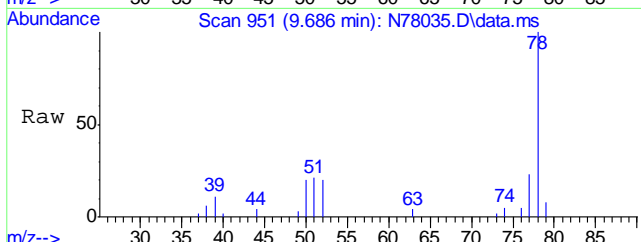
#45  
 carbon tetrachloride  
 Concen: 6.58 ug/L  
 RT: 9.646 min Scan# 945  
 Delta R.T. -0.000 min  
 Lab File: N78035.D  
 Acq: 9 Jul 2013 2:07 am

Tgt Ion	Resp	Lower	Upper
117	13778		
119	84.1	67.0	127.0



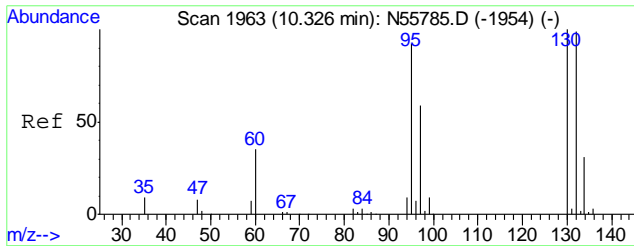
#47  
 benzene  
 Concen: 4.54 ug/L  
 RT: 9.686 min Scan# 951  
 Delta R.T. 0.000 min  
 Lab File: N78035.D  
 Acq: 9 Jul 2013 2:07 am

Tgt Ion	Resp	Lower	Upper
78	34084		
77	22.9	0.0	52.9



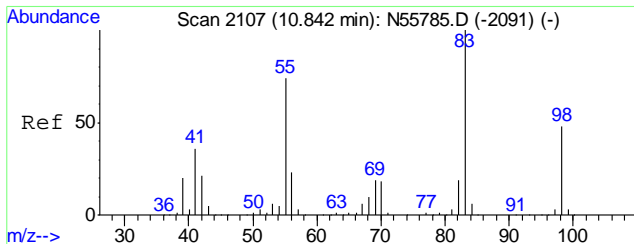
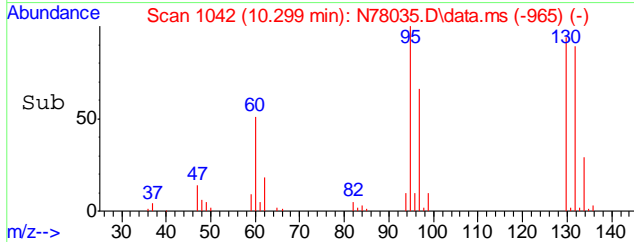
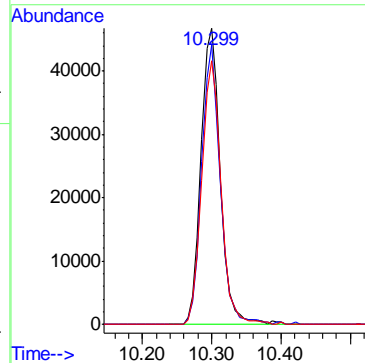
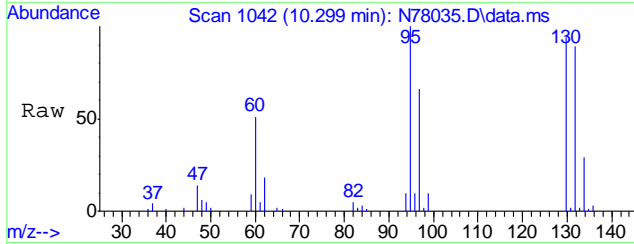
7.1.25  
 7





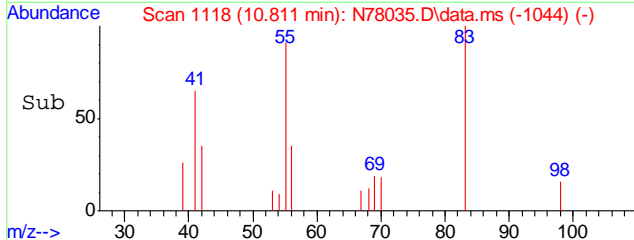
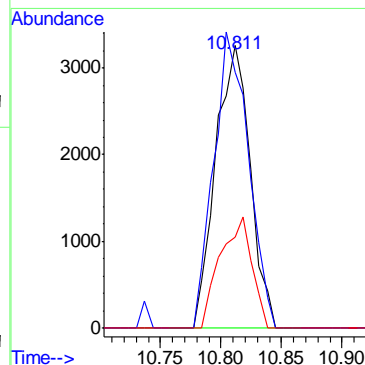
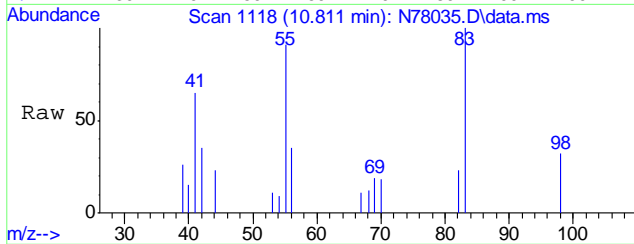
#51  
 trichloroethene  
 Concen: 44.47 ug/L  
 RT: 10.299 min Scan# 1042  
 Delta R.T. 0.000 min  
 Lab File: N78035.D  
 Acq: 9 Jul 2013 2:07 am

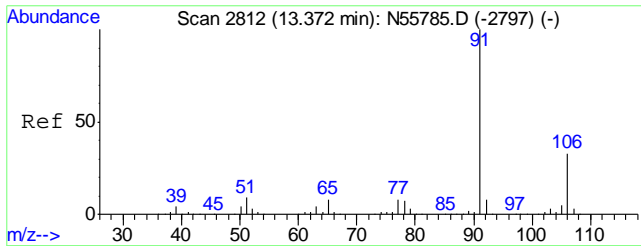
Tgt Ion	Resp	Lower	Upper
95	90000	100	
130	94.4	63.5	123.5
132	89.1	61.6	121.6



#55  
 Methylcyclohexane  
 Concen: 2.01 ug/L  
 RT: 10.811 min Scan# 1118  
 Delta R.T. 0.000 min  
 Lab File: N78035.D  
 Acq: 9 Jul 2013 2:07 am

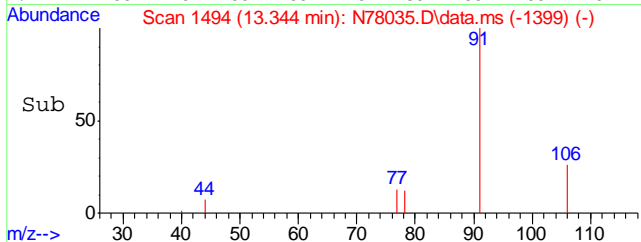
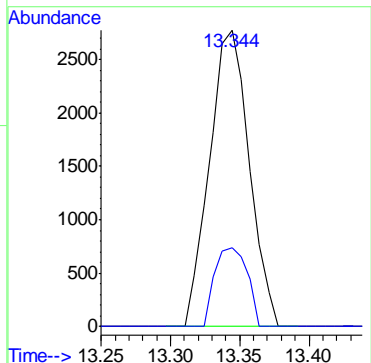
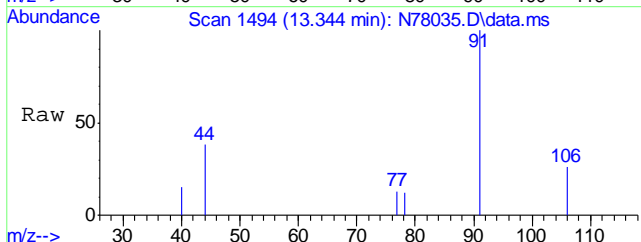
Tgt Ion	Resp	Lower	Upper
83	6462	100	
55	90.5	81.2	121.8
98	32.2	32.1	48.1





#74  
 ethylbenzene  
 Concen: 0.63 ug/L  
 RT: 13.344 min Scan# 1494  
 Delta R.T. 0.007 min  
 Lab File: N78035.D  
 Acq: 9 Jul 2013 2:07 am

Tgt Ion	Resp	Lower	Upper
91	5543	100	
106	26.4	0.1	60.1



7.1.25  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20657.D  
 Acq On : 10 Jul 2013 12:11 am  
 Operator : amym  
 Sample : mc22232-22  
 Misc : MS29348,MSV803,,,,5,100  
 ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jul 10 10:28:28 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

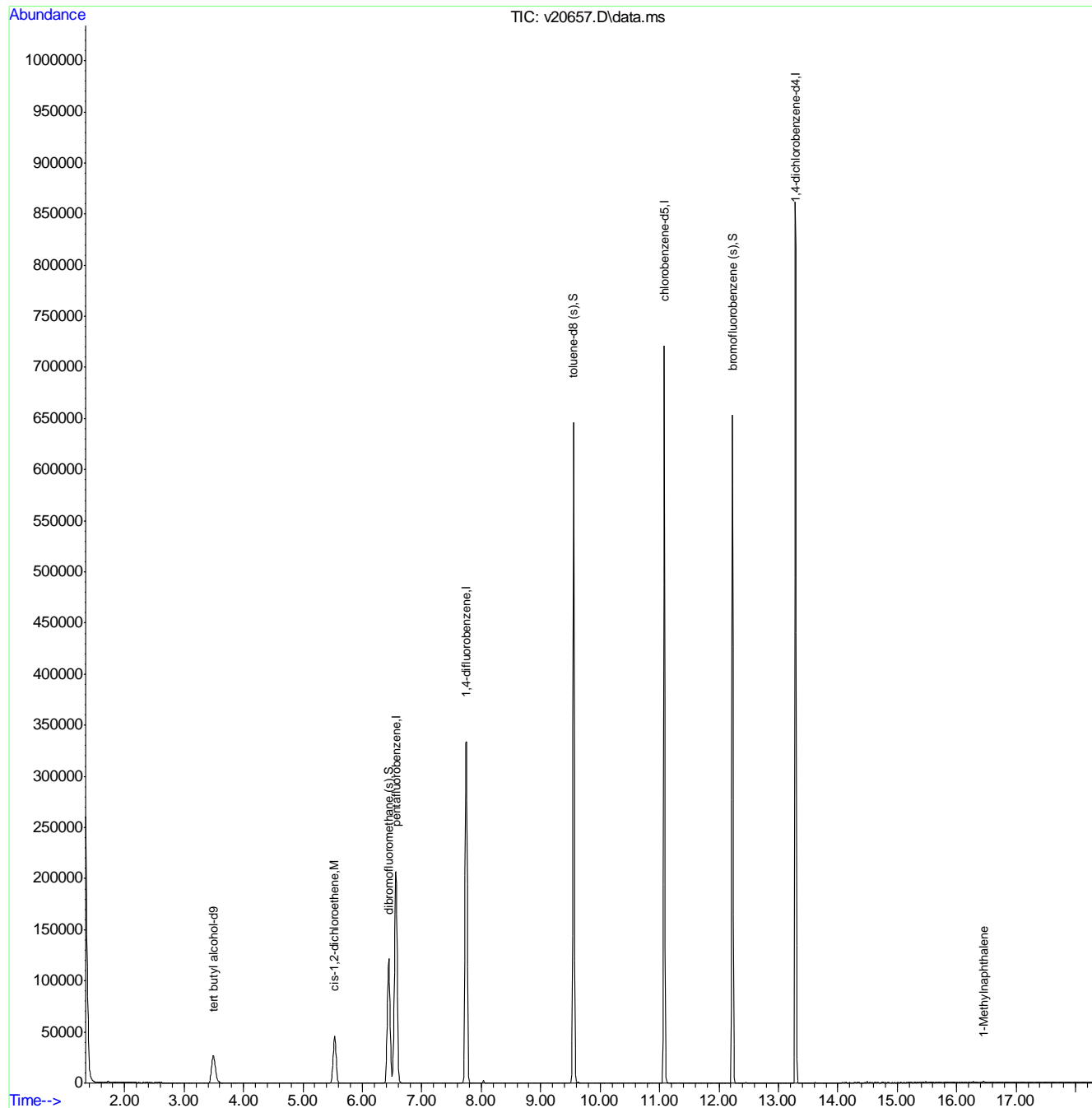
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.501	65	54277	500.00	ug/L	-0.03	
4) pentafluorobenzene	6.563	168	242116	50.00	ug/L	-0.01	
43) 1,4-difluorobenzene	7.747	114	355386	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.080	82	192652	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.291	152	193539	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.443	113	122632	51.64	ug/L	-0.02	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.28%	
60) toluene-d8 (s)	9.555	98	419656	50.77	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.54%	
82) bromofluorobenzene (s)	12.228	95	182463	49.88	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.76%	
Target Compounds							
36) cis-1,2-dichloroethene	5.534	96	36549	12.96	ug/L		Qvalue 91
105) 1-Methylnaphthalene	16.451	142	849	0.25	ug/L		86

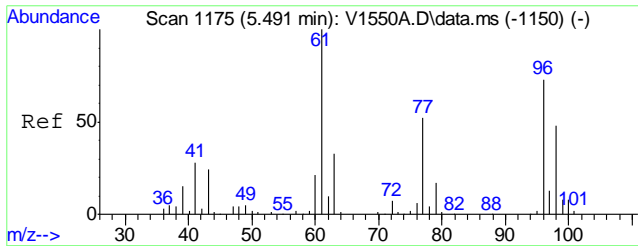
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
Data File : v20657.D  
Acq On : 10 Jul 2013 12:11 am  
Operator : amym  
Sample : mc22232-22  
Misc : MS29348,MSV803,,,,,5,100  
ALS Vial : 37 Sample Multiplier: 1

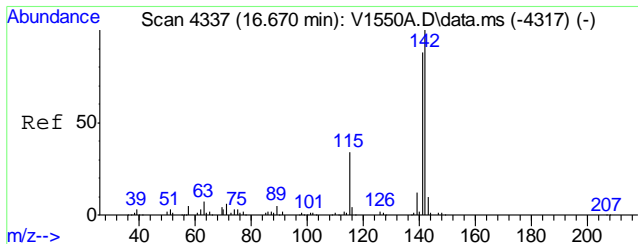
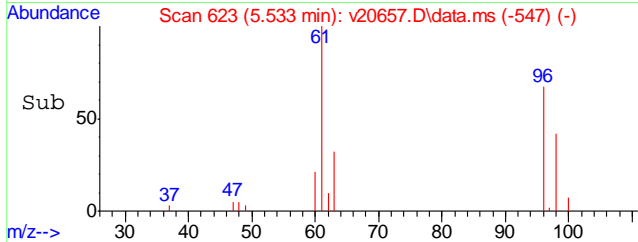
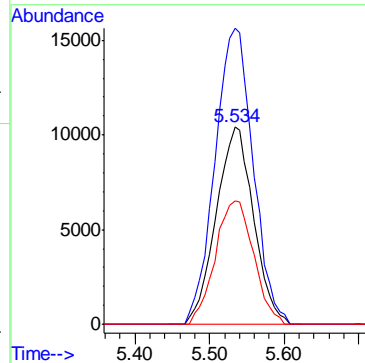
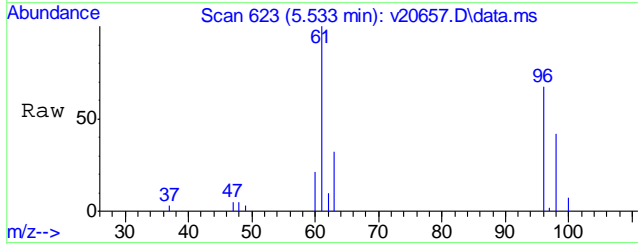
Quant Time: Jul 10 10:28:28 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 09:47:02 2013  
Response via : Initial Calibration





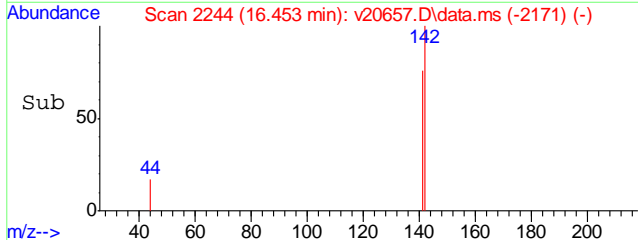
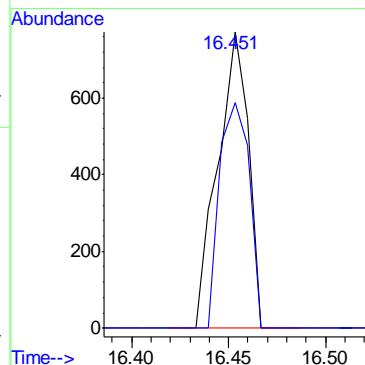
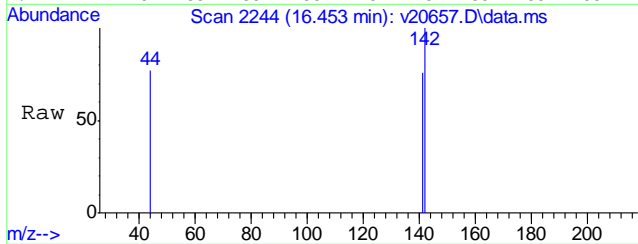
#36  
 cis-1,2-dichloroethene  
 Concen: 12.96 ug/L  
 RT: 5.534 min Scan# 623  
 Delta R.T. -0.020 min  
 Lab File: v20657.D  
 Acq: 10 Jul 2013 12:11 am

Tgt Ion	Resp	Lower	Upper
96	36549		
96	100		
61	150.2	106.6	166.6
98	62.7	35.4	95.4



#105  
 1-Methylnaphthalene  
 Concen: 0.25 ug/L  
 RT: 16.451 min Scan# 2244  
 Delta R.T. -0.008 min  
 Lab File: v20657.D  
 Acq: 10 Jul 2013 12:11 am

Tgt Ion	Resp	Lower	Upper
142	849		
142	100		
141	74.0	67.1	107.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
Data File : v20646.D  
Acq On : 9 Jul 2013 7:20 pm  
Operator : amym  
Sample : mc22232-23  
Misc : MS29348,MSV802,,,5,1  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 10 09:21:05 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 09:47:02 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.511	65	54394	500.00	ug/L	-0.02	
4) pentafluorobenzene	6.570	168	232175	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	7.751	114	339469	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.081	82	186007	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.292	152	186261	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.450	113	119335	52.41	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.82%	
60) toluene-d8 (s)	9.557	98	402525	50.98	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.96%	
82) bromofluorobenzene (s)	12.229	95	176253	50.07	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.14%	
Target Compounds							Qvalue
7) vinyl chloride	1.740	62	44239	17.07	ug/L		97
36) cis-1,2-dichloroethene	5.542	96	12300	4.55	ug/L		87

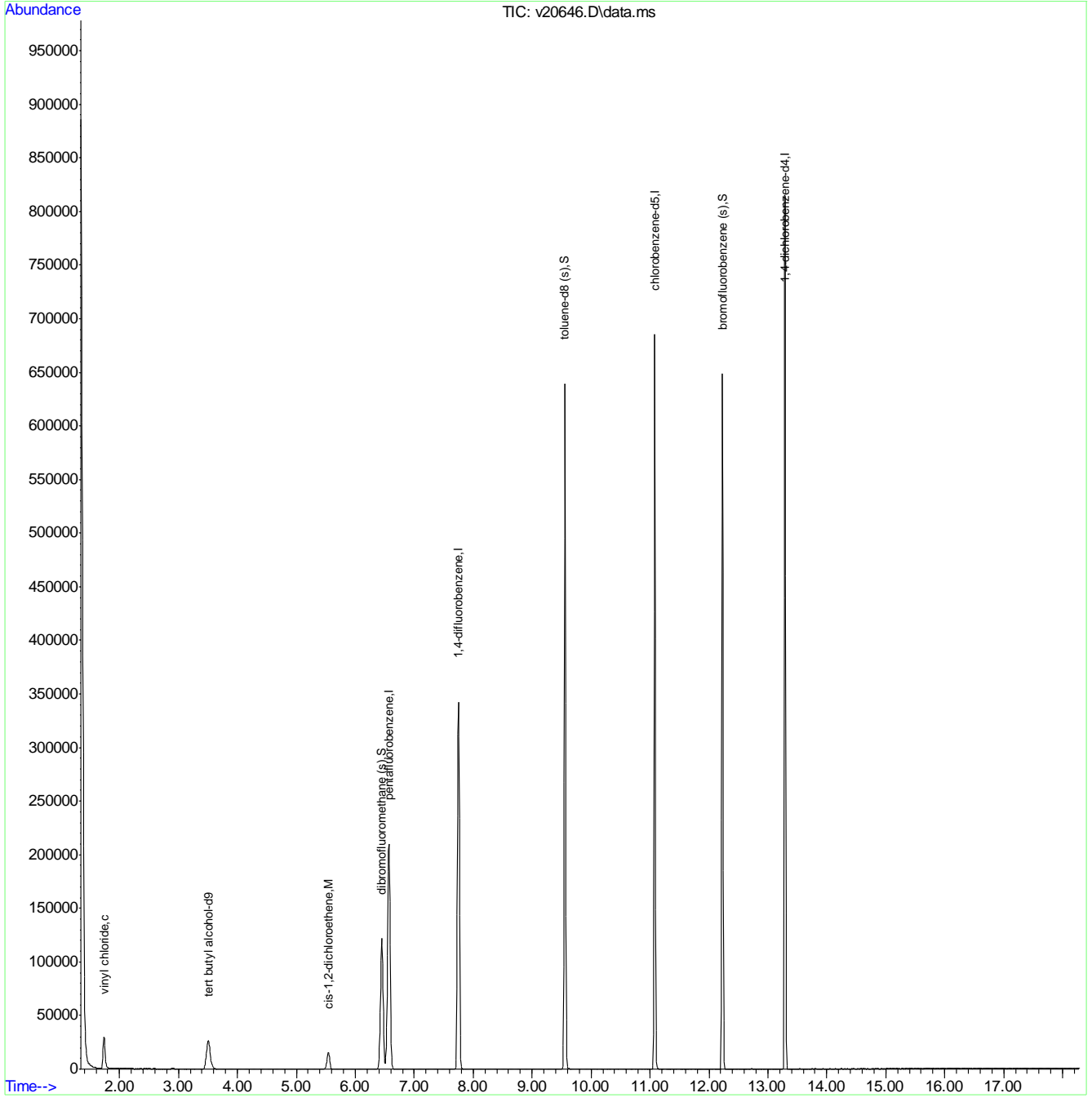
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.27  
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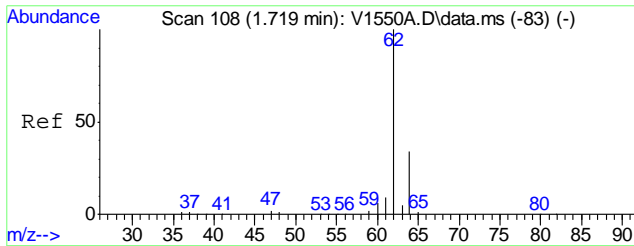
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
Data File : v20646.D  
Acq On : 9 Jul 2013 7:20 pm  
Operator : amym  
Sample : mc22232-23  
Misc : MS29348,MSV802,,,,5,1  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 10 09:21:05 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 09:47:02 2013  
Response via : Initial Calibration

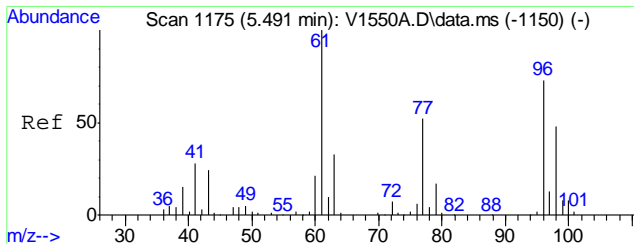
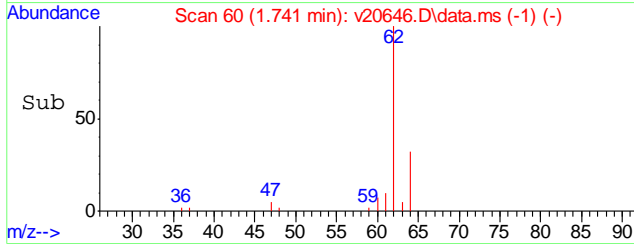
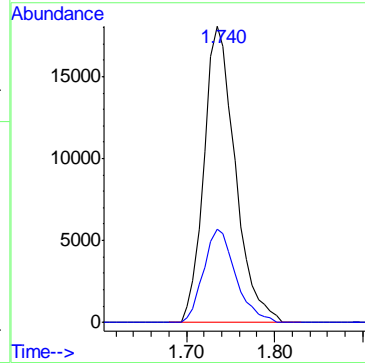
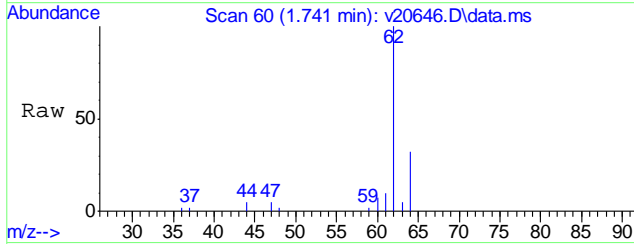


7.1.27  
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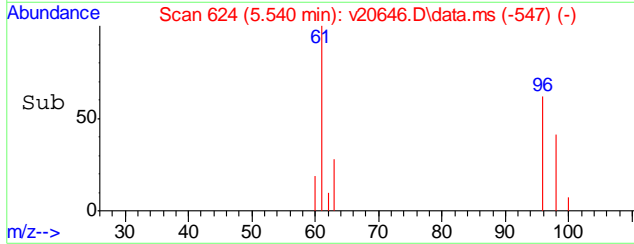
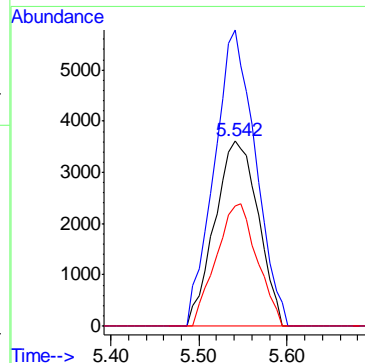
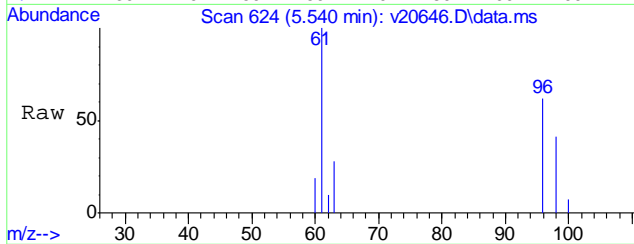
#7  
 vinyl chloride  
 Concen: 17.07 ug/L  
 RT: 1.740 min Scan# 60  
 Delta R.T. -0.035 min  
 Lab File: v20646.D  
 Acq: 9 Jul 2013 7:20 pm

Tgt Ion	Resp	Lower	Upper
62	44239		
64	32.3	4.2	64.2



#36  
 cis-1,2-dichloroethene  
 Concen: 4.55 ug/L  
 RT: 5.542 min Scan# 624  
 Delta R.T. -0.012 min  
 Lab File: v20646.D  
 Acq: 9 Jul 2013 7:20 pm

Tgt Ion	Resp	Lower	Upper
96	12300		
61	160.2	106.6	166.6
98	65.3	35.4	95.4



7.1.27  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78030.D  
Acq On : 8 Jul 2013 11:46 pm  
Operator : jaclynb  
Sample : mc22232-24  
Misc : MS29349,MSN2929,,,,5,1  
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jul 09 08:38:01 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.581	65	67751	500.00	ug/L	0.00
4) pentafluorobenzene	9.006	168	201305	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.875	114	305529	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	154417	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	130359	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	90998	44.11	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.22%
60) toluene-d8 (s)	11.674	98	365931	50.82	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.64%
82) bromofluorobenzene (s)	14.355	95	132928	47.59	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	95.18%

Target Compounds Qvalue

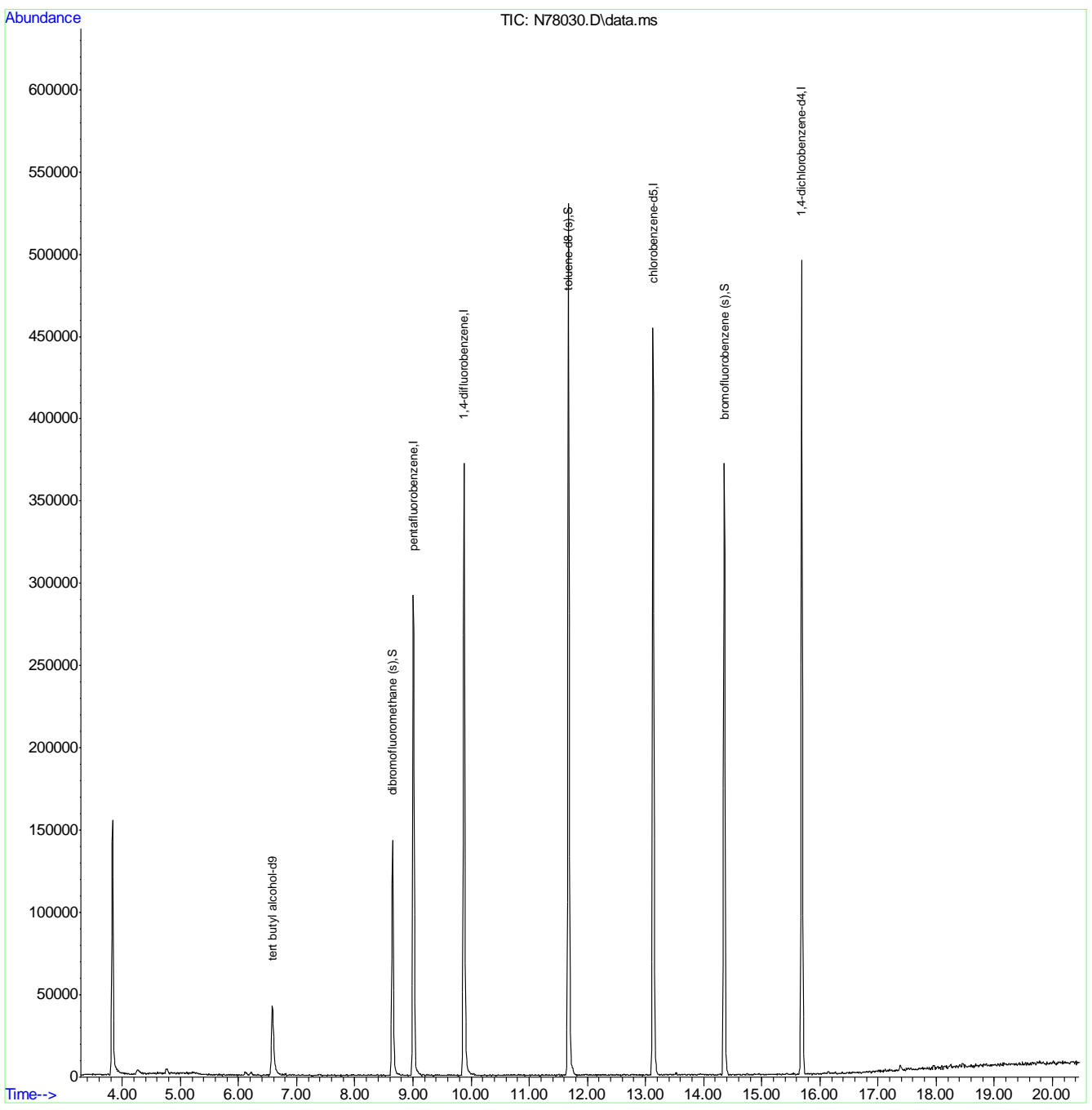
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.28  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78030.D  
Acq On : 8 Jul 2013 11:46 pm  
Operator : jaclynb  
Sample : mc22232-24  
Misc : MS29349,MSN2929,,,,5,1  
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Jul 09 08:38:01 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration



7.1.28  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78003.D  
 Acq On : 8 Jul 2013 11:05 am  
 Operator : jaclynb  
 Sample : mb  
 Misc : MS29311,MSN2928,,,,5,1  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 08 12:10:54 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.588	65	72324	500.00	ug/L	0.00
4) pentafluorobenzene	9.013	168	204615	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.882	114	315908	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	155915	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	129034	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	92725	44.22	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.44%
60) toluene-d8 (s)	11.674	98	364803	48.99	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.98%
82) bromofluorobenzene (s)	14.355	95	135376	48.96	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.92%

Target Compounds Qvalue

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

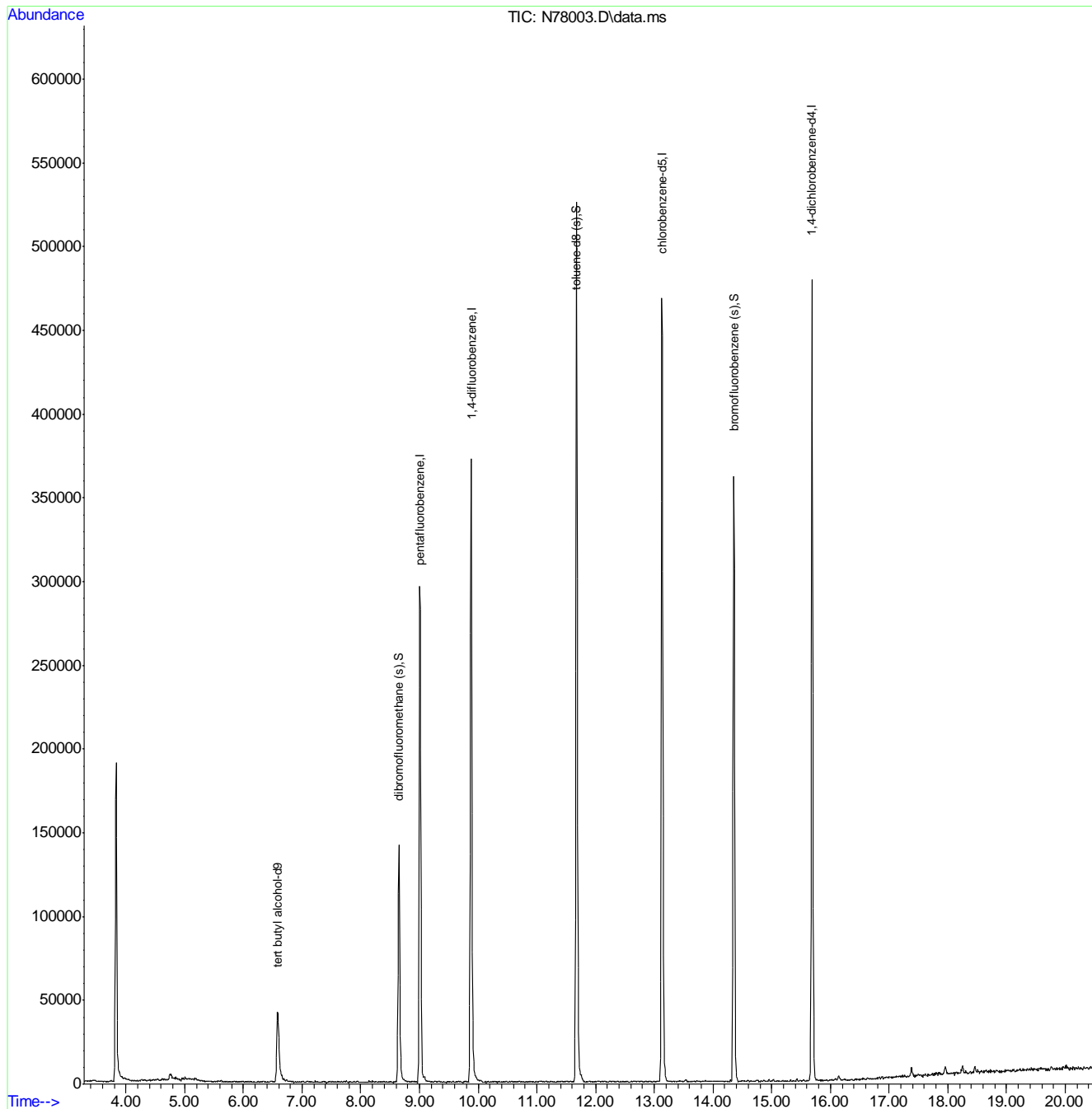
7.2.1

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78003.D  
Acq On : 8 Jul 2013 11:05 am  
Operator : jaclynb  
Sample : mb  
Misc : MS29311,MSN2928,,,,,5,1  
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 08 12:10:54 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78029.D  
 Acq On : 8 Jul 2013 11:18 pm  
 Operator : jaclynb  
 Sample : mb  
 Misc : MS29348,MSN2929,,,,5,1  
 ALS Vial : 46 Sample Multiplier: 1

Quant Time: Jul 09 08:37:29 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.581	65	77163	500.00	ug/L	0.00
4) pentafluorobenzene	9.006	168	202654	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.882	114	312449	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	157561	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	133113	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	91950	44.27	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.54%
60) toluene-d8 (s)	11.674	98	369313	50.15	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.30%
82) bromofluorobenzene (s)	14.355	95	136174	47.74	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	95.48%

Target Compounds Qvalue

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

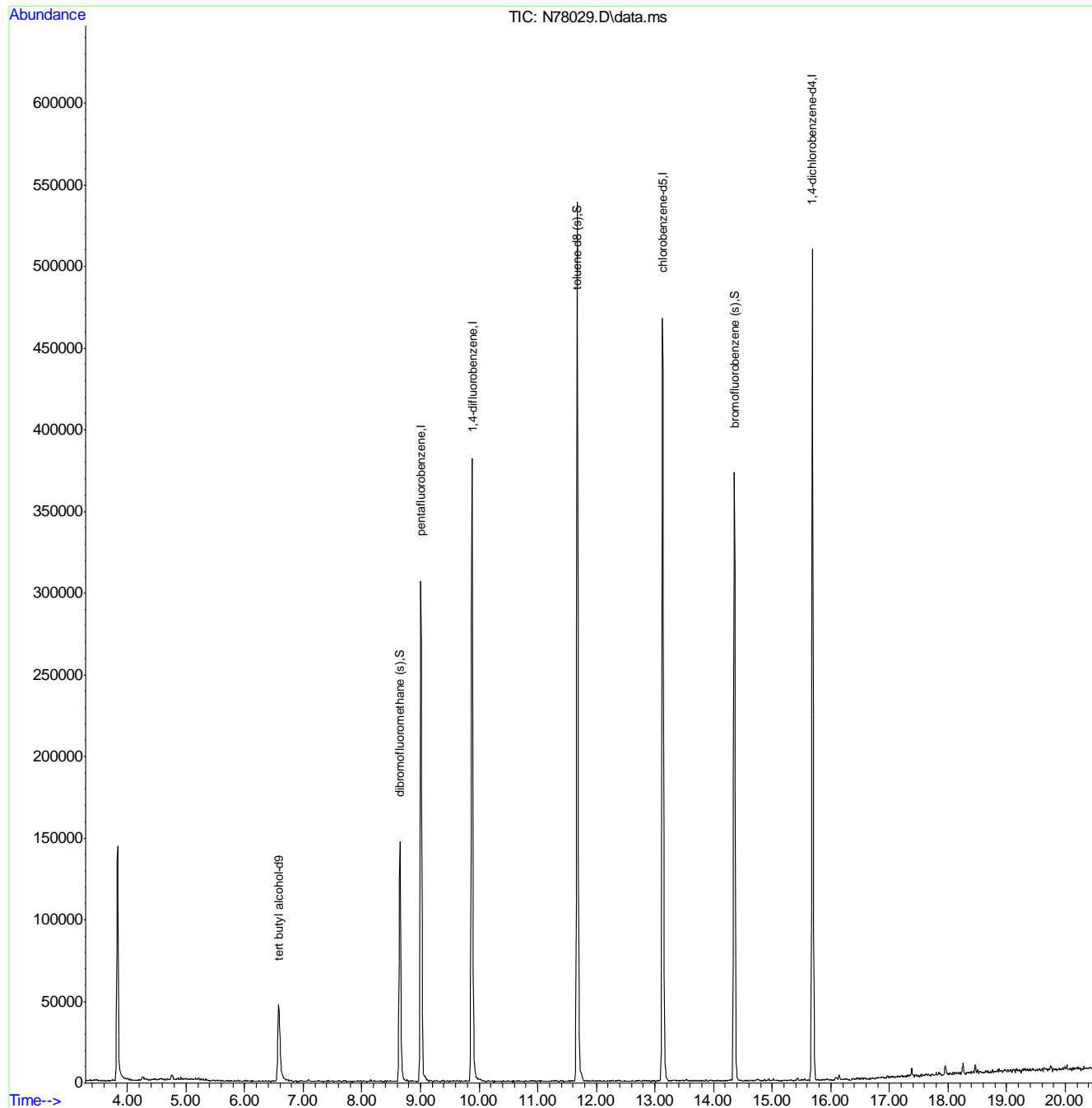
7.22

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78029.D  
Acq On : 8 Jul 2013 11:18 pm  
Operator : jaclynb  
Sample : mb  
Misc : MS29348,MSN2929,,,,5,1  
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Jul 09 08:37:29 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20626.D  
 Acq On : 9 Jul 2013 10:30 am  
 Operator : amym  
 Sample : mb  
 Misc : MS29358,MSV802,,,,5,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 09 13:36:08 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.510	65	70091	500.00	ug/L	-0.02
4) pentafluorobenzene	6.566	168	287057	50.00	ug/L	-0.01
43) 1,4-difluorobenzene	7.748	114	420797	50.00	ug/L	0.00
66) chlorobenzene-d5	11.079	82	220614	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.289	152	226860	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.446	113	139386	49.51	ug/L	-0.01
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.02%
60) toluene-d8 (s)	9.554	98	498209	50.90	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.80%
82) bromofluorobenzene (s)	12.227	95	211388	49.30	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.60%

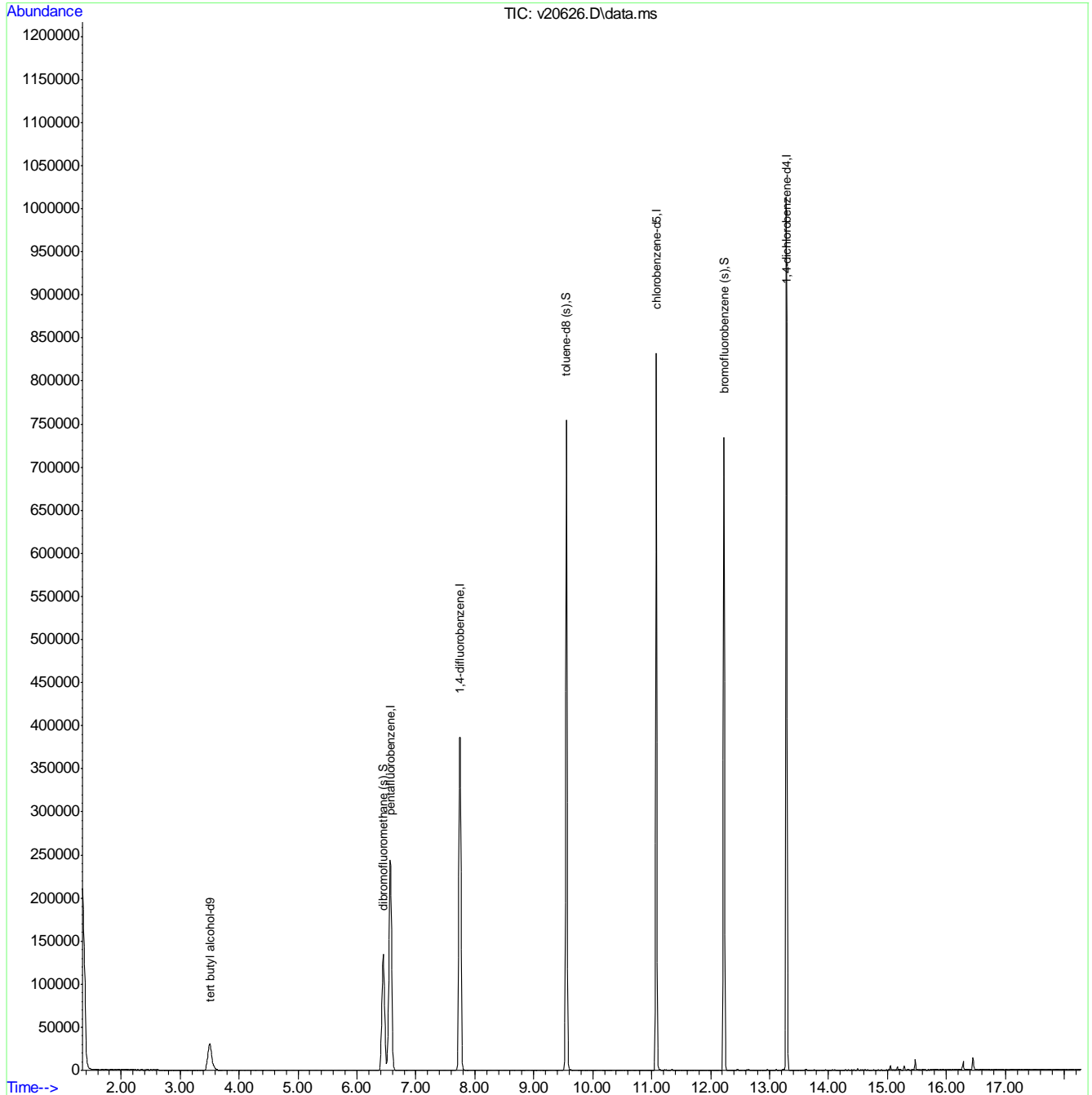
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20626.D  
 Acq On : 9 Jul 2013 10:30 am  
 Operator : amym  
 Sample : mb  
 Misc : MS29358,MSV802,,,,5,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 09 13:36:08 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration



7.2.3  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20655.D  
 Acq On : 9 Jul 2013 11:17 pm  
 Operator : amym  
 Sample : mb  
 Misc : MS29358,MSV803,,,,5,1  
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 10 10:25:01 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.511	65	60039	500.00	ug/L	-0.02
4) pentafluorobenzene	6.569	168	254512	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.750	114	372575	50.00	ug/L	0.00
66) chlorobenzene-d5	11.080	82	200017	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.291	152	203586	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.450	113	126405	50.64	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.28%
60) toluene-d8 (s)	9.556	98	440075	50.78	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.56%
82) bromofluorobenzene (s)	12.228	95	188591	49.01	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.02%

Target Compounds Qvalue

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

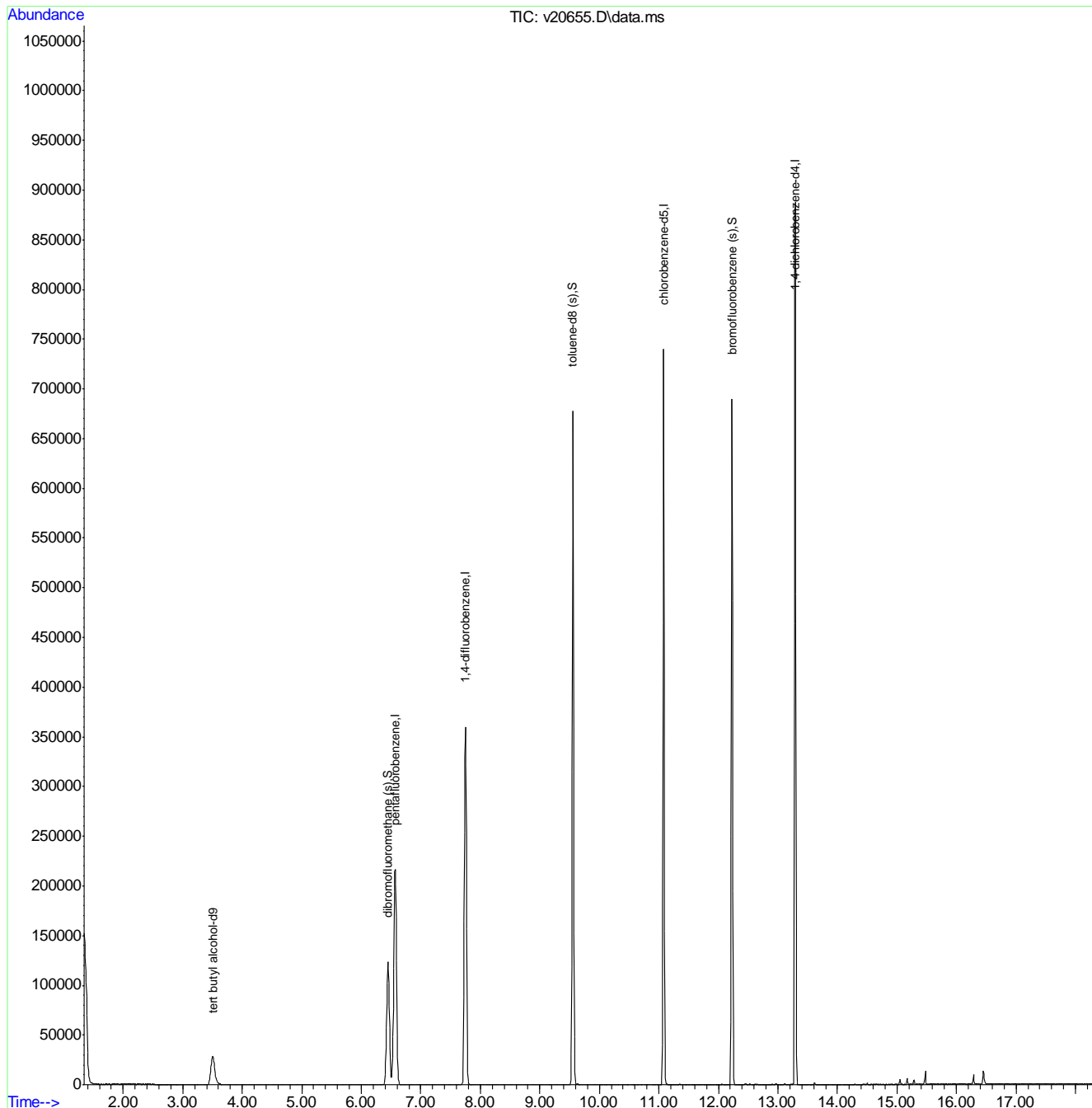
7.24

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20655.D  
 Acq On : 9 Jul 2013 11:17 pm  
 Operator : amym  
 Sample : mb  
 Misc : MS29358,MSV803,,,,5,1  
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 10 10:25:01 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration



7.2.4  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78001.D  
 Acq On : 8 Jul 2013 10:09 am  
 Operator : jaclynb  
 Sample : bs  
 Misc : MS29311,MSN2928,,,,5,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 08 11:33:32 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) tert butyl alcohol-d9	6.567	65	80152	500.00	ug/L	-0.01
4) pentafluorobenzene	9.006	168	207282	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.875	114	323123	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	171862	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	144381	50.00	ug/L	0.00
<b>System Monitoring Compounds</b>						
40) dibromofluoromethane (s)	8.649	113	96382	45.37	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.74%
60) toluene-d8 (s)	11.674	98	379087	49.78	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.56%
82) bromofluorobenzene (s)	14.355	95	145780	47.12	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	94.24%
<b>Target Compounds</b>						
						Qvalue
2) tertiary butyl alcohol	6.655	59	113787	529.52	ug/L	86
3) Ethanol	5.429	45	178950	4542.32	ug/L	99
5) dichlorodifluoromethane	4.250	85	123401	47.95	ug/L	97
6) chloromethane	4.506	50	156039	55.34	ug/L	98
7) vinyl chloride	4.755	62	112450	41.33	ug/L	100
8) bromomethane	5.254	96	53143	50.62	ug/L	98
9) chloroethane	5.422	64	72696	53.41	ug/L	98
10) ethyl ether	6.311	59	96795	50.69	ug/L	95
12) trichlorofluoromethane	6.076	101	164280	49.51	ug/L	99
13) freon-113	6.850	101	94699	53.32	ug/L	99
14) acrolein	6.062	56	98767	425.85	ug/L	99
15) 1,1-dichloroethene	6.662	96	94253	53.49	ug/L	98
16) acetone	6.197	58	21192	62.56	ug/L	96
17) Methyl Acetate	6.837	43	118597	38.86	ug/L	98
18) methylene chloride	6.810	84	106689	51.30	ug/L	95
19) methyl tert butyl ether	7.591	73	255007	49.41	ug/L	99
20) acrylonitrile	6.709	53	47803	52.37	ug/L	98
21) allyl chloride	6.904	41	198093	51.64	ug/L	100
22) trans-1,2-dichloroethene	7.497	96	101411	54.51	ug/L	98
23) iodomethane	6.722	142	93838	55.48	ug/L	95
24) carbon disulfide	7.086	76	334615	53.41	ug/L	97
25) propionitrile	6.635	54	1744	53.98	ug/L	100
26) vinyl acetate	6.837	43	118597	38.86	ug/L	94
27) chloroprene	8.123	53	216584	56.23	ug/L	99
28) di-isopropyl ether	8.150	45	468544	49.72	ug/L	97
29) methacrylonitrile	8.278	41	82466	49.45	ug/L	98
30) 2-butanone	8.171	72	15503	55.37	ug/L	# 1
31) Hexane	8.137	41	180444	46.13	ug/L	99
32) 1,1-dichloroethane	7.753	63	221347	54.78	ug/L	98
33) tert-butyl ethyl ether	8.548	59	270287	46.56	ug/L	99
34) isobutyl alcohol	8.150	43	393253	243.81	ug/L	93
35) 2,2-dichloropropane	8.615	77	84149	38.25	ug/L	98
36) cis-1,2-dichloroethene	8.326	96	111278	52.66	ug/L	98
37) ethyl acetate	8.150	43	393253	48.76	ug/L	94

7.3.1  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78001.D  
 Acq On : 8 Jul 2013 10:09 am  
 Operator : jaclynb  
 Sample : bs  
 Misc : MS29311,MSN2928,,,,,5,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 08 11:33:32 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.494	128	49603	53.24	ug/L	97
39) chloroform	8.528	83	197505	53.22	ug/L	99
41) Tetrahydrofuran	8.858	42	37015	48.27	ug/L	93
42) 1,1,1-trichloroethane	9.282	97	163498	52.07	ug/L	99
44) Cyclohexane	9.558	56	219322	51.04	ug/L	98
45) carbon tetrachloride	9.646	117	132289	52.06	ug/L	98
46) 1,1-dichloropropene	9.451	75	147400	55.90	ug/L	100
47) benzene	9.680	78	441553	55.20	ug/L	100
48) 1,2-dichloroethane	9.181	62	167813	54.52	ug/L	98
49) tert-amyl methyl ether	9.794	73	190952	47.52	ug/L	100
50) heptane	10.151	43	110222	39.92	ug/L	99
51) trichloroethene	10.299	95	128481	59.52	ug/L	98
52) 1,2-dichloropropane	10.266	63	131436	53.60	ug/L	100
53) dibromomethane	10.239	93	67518	53.56	ug/L	99
54) bromodichloromethane	10.346	83	155499	56.51	ug/L	100
55) Methylcyclohexane	10.811	83	182735	53.40	ug/L	96
56) 2-chloroethyl vinyl ether	10.266	63	131436	53.42	ug/L #	99
57) methyl methacrylate	10.441	69	65505	51.88	ug/L	96
58) 1,4-dioxane	10.448	88	5217	246.22	ug/L	85
59) cis-1,3-dichloropropene	10.966	75	156490	46.31	ug/L	98
61) 4-methyl-2-pentanone	11.061	43	131378	51.99	ug/L	100
62) toluene	11.748	92	266041	54.42	ug/L	96
63) trans-1,3-dichloropropene	11.384	75	140272	49.23	ug/L	98
64) 1,1,2-trichloroethane	11.559	83	83714	54.97	ug/L	99
65) ethyl methacrylate	11.761	69	128755	53.43	ug/L	99
67) tetrachloroethene	12.482	166	107916	52.47	ug/L	98
68) 1,3-dichloropropane	11.795	76	163400	53.24	ug/L	99
69) dibromochloromethane	12.084	129	109562	48.70	ug/L	99
70) 1,2-dibromoethane	12.334	107	97200	52.36	ug/L	99
71) 2-hexanone	11.916	43	113158	54.49	ug/L	100
72) chlorobenzene	13.162	112	295689	55.03	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.081	131	103021	50.26	ug/L	95
74) ethylbenzene	13.337	91	519463	51.15	ug/L	100
75) m,p-xylene	13.519	106	383534	107.06	ug/L	98
76) o-xylene	13.937	106	190637	57.77	ug/L	99
77) styrene	13.863	104	298564	49.30	ug/L	96
78) bromoform	13.688	173	71829	46.46	ug/L	96
79) trans-1,4-dichloro-2-b...	14.078	53	23531	41.51	ug/L #	31
81) isopropylbenzene	14.294	105	500201	57.42	ug/L	100
83) bromobenzene	14.584	156	123802	53.32	ug/L	95
84) 1,1,2,2-tetrachloroethane	13.937	83	114252	48.53	ug/L	98
85) 1,2,3-trichloropropane	14.078	75	122056	50.53	ug/L	97
86) n-propylbenzene	14.739	91	607003	56.74	ug/L	100
87) 2-chlorotoluene	14.860	91	366481	55.28	ug/L	99
88) 4-chlorotoluene	14.934	91	385109	58.20	ug/L	98
89) 1,3,5-trimethylbenzene	15.015	105	431144	51.44	ug/L	99
90) tert-butylbenzene	15.325	91	265905	56.04	ug/L	99
91) 1,2,4-trimethylbenzene	15.426	105	428915	51.92	ug/L	99
92) sec-butylbenzene	15.540	105	561994	57.41	ug/L	100
93) 1,3-dichlorobenzene	15.648	146	239105	56.85	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78001.D  
 Acq On : 8 Jul 2013 10:09 am  
 Operator : jaclynb  
 Sample : bs  
 Misc : MS29311,MSN2928,,,,5,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 08 11:33:32 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

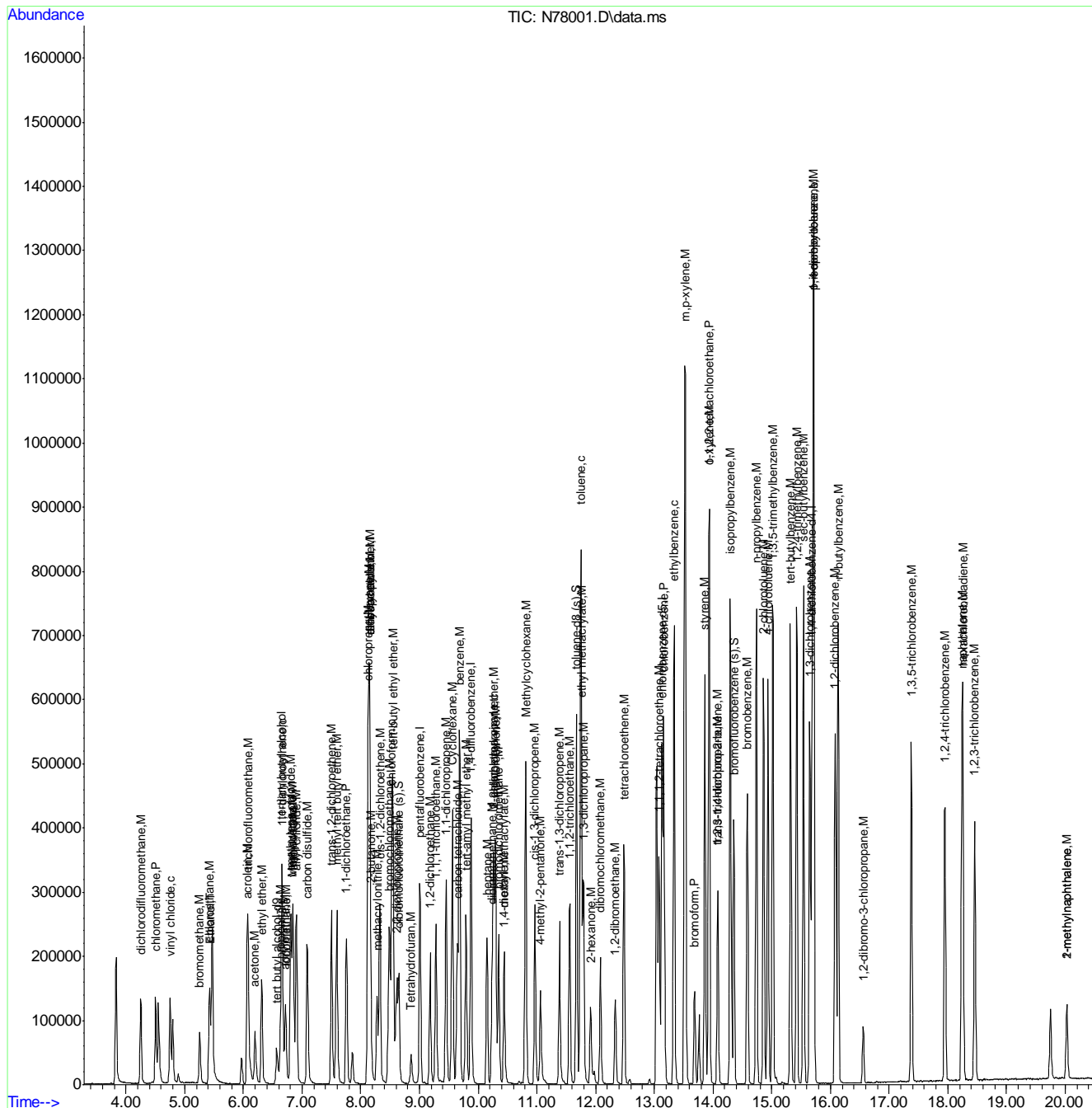
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.715	119	438619	55.73	ug/L	99
95) 1,4-dichlorobenzene	15.715	146	236287	53.59	ug/L	99
96) 1,2-dichlorobenzene	16.079	146	224256	57.57	ug/L	98
97) n-butylbenzene	16.133	91	440919	53.13	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.557	75	23581	53.20	ug/L	96
99) 1,2,4-trichlorobenzene	17.952	180	155593	54.08	ug/L	100
100) 1,3,5-trichlorobenzene	17.379	180	176058	52.31	ug/L	98
101) hexachlorobutadiene	18.255	225	94995	52.66	ug/L	97
102) naphthalene	18.241	128	323333	51.10	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	148968	55.00	ug/L	99
104) 2-methylnaphthalene	20.027	142	71393	25.17	ug/L	100
105) 1-methylnaphthalene	20.027	142	71400	26.41	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78001.D  
 Acq On : 8 Jul 2013 10:09 am  
 Operator : jaclynb  
 Sample : bs  
 Misc : MS29311,MSN2928,,,,5,1  
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jul 08 11:33:32 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration



7.3.1  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78027.D  
 Acq On : 8 Jul 2013 10:21 pm  
 Operator : jaclynb  
 Sample : bs  
 Misc : MS29348,MSN2929,,,,5,1  
 ALS Vial : 44 Sample Multiplier: 1

Quant Time: Jul 09 08:36:39 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.567	65	79616	500.00	ug/L	-0.01
4) pentafluorobenzene	9.006	168	208232	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.875	114	324247	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	171494	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	148762	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	96090	45.02	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.04%
60) toluene-d8 (s)	11.673	98	379923	49.71	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.42%
82) bromofluorobenzene (s)	14.355	95	149489	46.90	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.80%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	6.655	59	102586	480.60	ug/L	# 82
3) Ethanol	5.422	45	163843	4186.85	ug/L	96
5) dichlorodifluoromethane	4.250	85	115886	44.83	ug/L	98
6) chloromethane	4.506	50	130387	46.03	ug/L	95
7) vinyl chloride	4.755	62	102941	37.66	ug/L	98
8) bromomethane	5.254	96	47225	45.36	ug/L	99
9) chloroethane	5.422	64	68799	50.31	ug/L	98
10) ethyl ether	6.311	59	93914	48.95	ug/L	98
12) trichlorofluoromethane	6.076	101	152333	45.70	ug/L	98
13) freon-113	6.850	101	87586	49.09	ug/L	98
14) acrolein	6.062	56	90509	388.46	ug/L	99
15) 1,1-dichloroethene	6.662	96	87987	49.70	ug/L	97
16) acetone	6.197	58	17678	51.95	ug/L	93
17) Methyl Acetate	6.837	43	109970	35.87	ug/L	98
18) methylene chloride	6.810	84	104798	50.16	ug/L	100
19) methyl tert butyl ether	7.591	73	237424	45.93	ug/L	98
20) acrylonitrile	6.716	53	44956	49.03	ug/L	95
21) allyl chloride	6.904	41	189567	49.19	ug/L	96
22) trans-1,2-dichloroethene	7.504	96	96550	51.66	ug/L	99
23) iodomethane	6.722	142	80395	47.47	ug/L	98
24) carbon disulfide	7.086	76	313728	49.84	ug/L	99
25) propionitrile	6.635	54	1749	53.86	ug/L	100
26) vinyl acetate	6.837	43	109970	35.87	ug/L	97
27) chloroprene	8.117	53	205809	53.18	ug/L	98
28) di-isopropyl ether	8.150	45	455043	48.06	ug/L	96
29) methacrylonitrile	8.278	41	80017	47.76	ug/L	98
30) 2-butanone	8.171	72	13650	48.10	ug/L	# 1
31) Hexane	8.137	41	162579	41.38	ug/L	96
32) 1,1-dichloroethane	7.753	63	213025	52.48	ug/L	99
33) tert-butyl ethyl ether	8.548	59	254798	44.14	ug/L	99
34) isobutyl alcohol	8.150	43	366406	226.13	ug/L	94
35) 2,2-dichloropropane	8.615	77	70569	33.29	ug/L	99
36) cis-1,2-dichloroethene	8.325	96	106283	50.07	ug/L	99
37) ethyl acetate	8.150	43	366406	45.23	ug/L	91

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78027.D  
 Acq On : 8 Jul 2013 10:21 pm  
 Operator : jaclynb  
 Sample : bs  
 Misc : MS29348,MSN2929,,,,,5,1  
 ALS Vial : 44 Sample Multiplier: 1

Quant Time: Jul 09 08:36:39 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.494	128	49505	52.89	ug/L	99
39) chloroform	8.528	83	189068	50.72	ug/L	98
41) Tetrahydrofuran	8.858	42	34257	44.47	ug/L	97
42) 1,1,1-trichloroethane	9.282	97	154731	49.12	ug/L	99
44) Cyclohexane	9.558	56	206731	47.95	ug/L	97
45) carbon tetrachloride	9.646	117	126439	49.63	ug/L	97
46) 1,1-dichloropropene	9.457	75	141772	53.57	ug/L	99
47) benzene	9.680	78	416870	51.93	ug/L	100
48) 1,2-dichloroethane	9.181	62	161051	52.15	ug/L	98
49) tert-amyl methyl ether	9.794	73	171253	43.20	ug/L	98
50) heptane	10.144	43	88216	31.84	ug/L	98
51) trichloroethene	10.299	95	130018	60.02	ug/L	96
52) 1,2-dichloropropane	10.266	63	126526	51.42	ug/L	99
53) dibromomethane	10.239	93	68067	53.80	ug/L	97
54) bromodichloromethane	10.346	83	149677	54.21	ug/L	99
55) Methylcyclohexane	10.811	83	166488	48.48	ug/L	100
56) 2-chloroethyl vinyl ether	10.266	63	126526	51.25	ug/L #	99
57) methyl methacrylate	10.441	69	60876	48.05	ug/L	100
58) 1,4-dioxane	10.447	88	4535	213.29	ug/L	100
59) cis-1,3-dichloropropene	10.966	75	150295	44.41	ug/L	99
61) 4-methyl-2-pentanone	11.060	43	121159	47.78	ug/L	99
62) toluene	11.748	92	259370	52.88	ug/L	95
63) trans-1,3-dichloropropene	11.384	75	130812	45.98	ug/L	99
64) 1,1,2-trichloroethane	11.559	83	81678	53.45	ug/L	99
65) ethyl methacrylate	11.754	69	123037	50.88	ug/L	94
67) tetrachloroethene	12.482	166	103325	50.35	ug/L	99
68) 1,3-dichloropropane	11.795	76	161520	52.74	ug/L	99
69) dibromochloromethane	12.084	129	107363	47.87	ug/L	99
70) 1,2-dibromoethane	12.334	107	94861	51.21	ug/L	96
71) 2-hexanone	11.916	43	103093	49.75	ug/L	100
72) chlorobenzene	13.162	112	293709	54.78	ug/L	98
73) 1,1,1,2-tetrachloroethane	13.081	131	100959	49.38	ug/L	100
74) ethylbenzene	13.337	91	504207	49.75	ug/L	99
75) m,p-xylene	13.526	106	377117	105.50	ug/L	100
76) o-xylene	13.937	106	190058	57.72	ug/L	97
77) styrene	13.863	104	298593	49.41	ug/L	98
78) bromoform	13.688	173	70110	45.56	ug/L	99
79) trans-1,4-dichloro-2-b...	14.078	53	21623	39.17	ug/L #	25
81) isopropylbenzene	14.294	105	484007	53.92	ug/L	98
83) bromobenzene	14.584	156	123620	51.67	ug/L	99
84) 1,1,2,2-tetrachloroethane	13.937	83	100747	41.53	ug/L	98
85) 1,2,3-trichloropropane	14.085	75	118438	47.58	ug/L	99
86) n-propylbenzene	14.739	91	584177	52.99	ug/L	99
87) 2-chlorotoluene	14.860	91	358039	52.42	ug/L	100
88) 4-chlorotoluene	14.934	91	371641	54.51	ug/L	99
89) 1,3,5-trimethylbenzene	15.021	105	421414	48.80	ug/L	98
90) tert-butylbenzene	15.318	91	257015	52.58	ug/L	97
91) 1,2,4-trimethylbenzene	15.426	105	419613	49.30	ug/L	100
92) sec-butylbenzene	15.540	105	547937	54.33	ug/L	98
93) 1,3-dichlorobenzene	15.648	146	234619	54.14	ug/L	99



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78027.D  
 Acq On : 8 Jul 2013 10:21 pm  
 Operator : jaclynb  
 Sample : bs  
 Misc : MS29348,MSN2929,,,,,5,1  
 ALS Vial : 44 Sample Multiplier: 1

Quant Time: Jul 09 08:36:39 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

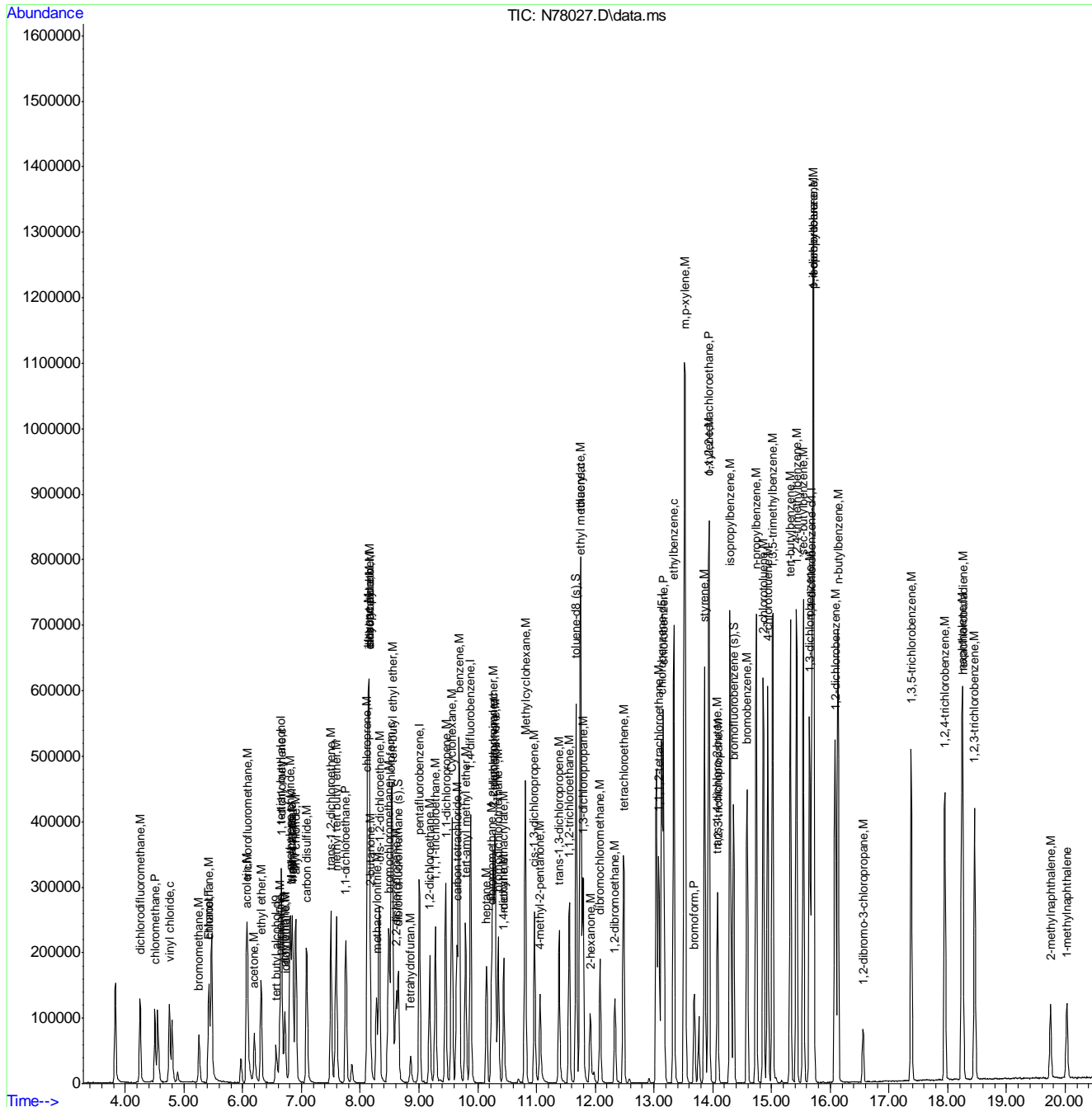
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.715	119	423830	52.27	ug/L	98
95) 1,4-dichlorobenzene	15.715	146	230696	50.78	ug/L	99
96) 1,2-dichlorobenzene	16.086	146	223929	55.79	ug/L	99
97) n-butylbenzene	16.133	91	419031	49.01	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.557	75	22732	49.78	ug/L	94
99) 1,2,4-trichlorobenzene	17.952	180	159384	53.76	ug/L	99
100) 1,3,5-trichlorobenzene	17.379	180	175195	50.52	ug/L	99
101) hexachlorobutadiene	18.255	225	90382	48.62	ug/L	99
102) naphthalene	18.241	128	328820	50.49	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	150358	53.88	ug/L	99
104) 2-methylnaphthalene	19.750	142	70110	24.13	ug/L #	93
105) 1-methylnaphthalene	20.027	142	72737	26.12	ug/L #	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78027.D  
 Acq On : 8 Jul 2013 10:21 pm  
 Operator : jaclynb  
 Sample : bs  
 Misc : MS29348,MSN2929,,,,,5,1  
 ALS Vial : 44 Sample Multiplier: 1

Quant Time: Jul 09 08:36:39 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration



7.32  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20624.D  
 Acq On : 9 Jul 2013 9:38 am  
 Operator : amym  
 Sample : bs  
 Misc : MS29358,MSV802,,,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 09 13:35:03 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.504	65	75522	500.00	ug/L	-0.03
4) pentafluorobenzene	6.564	168	299810	50.00	ug/L	-0.01
43) 1,4-difluorobenzene	7.747	114	435714	50.00	ug/L	0.00
66) chlorobenzene-d5	11.079	82	228436	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.290	152	234883	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.443	113	149565	50.86	ug/L	-0.02
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.72%
60) toluene-d8 (s)	9.554	98	514918	50.81	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.62%
82) bromofluorobenzene (s)	12.227	95	222285	50.07	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.14%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	3.616	59	90434	514.31	ug/L	93
3) Ethanol	2.503	45	64088	4264.60	ug/L #	26
5) dichlorodifluoromethane	1.501	85	174407	58.41	ug/L	98
6) chloromethane	1.638	50	150337	45.42	ug/L	97
7) vinyl chloride	1.741	62	130437	38.97	ug/L	96
8) bromomethane	2.027	96	103129	56.19	ug/L	97
9) chloroethane	2.120	64	71019	49.98	ug/L	99
10) ethyl ether	2.609	59	109962	51.07	ug/L	86
11) acetonitrile	3.298	41	203476	42.14	ug/L	95
12) trichlorofluoromethane	2.350	101	227726	52.98	ug/L	98
13) freon-113	2.915	101	142183	47.81	ug/L	94
14) acrolein	2.762	56	92060	277.68	ug/L	100
15) 1,1-dichloroethene	2.873	96	125532	50.54	ug/L	89
16) acetone	2.909	58	20659	47.14	ug/L #	1
17) Methyl Acetate	3.284	43	96006	28.27	ug/L #	87
18) methylene chloride	3.473	84	142020	41.88	ug/L #	80
19) methyl tert butyl ether	3.840	73	334526	43.57	ug/L	95
20) acrylonitrile	4.625	53	238581	50.69	ug/L	100
21) allyl chloride	3.298	41	203476	42.14	ug/L	83
22) trans-1,2-dichloroethene	3.840	96	139937	45.98	ug/L	92
23) iodomethane	3.042	142	268038	46.51	ug/L	98
24) carbon disulfide	3.125	76	396186	61.23	ug/L	100
25) propionitrile	5.651	54	16747	33.64	ug/L	100
26) vinyl acetate	4.576	43	401049	34.16	ug/L	82
27) chloroprene	4.625	53	238581	50.69	ug/L	78
28) di-isopropyl ether	4.608	45	439920	37.36	ug/L	93
29) methacrylonitrile	5.924	41	81813	33.93	ug/L	90
30) 2-butanone	5.538	72	17430	47.70	ug/L #	1
31) Hexane	4.255	41	128247	43.38	ug/L #	87
32) 1,1-dichloroethane	4.514	63	259816	45.43	ug/L	96
33) tert-butyl ethyl ether	5.278	59	405646	45.10	ug/L	92
34) isobutyl alcohol	4.254	43	106889	195.33	ug/L	92
35) 2,2-dichloropropane	5.550	77	187465	62.48	ug/L	100
36) cis-1,2-dichloroethene	5.535	96	151545	43.38	ug/L	88

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20624.D  
 Acq On : 9 Jul 2013 9:38 am  
 Operator : amym  
 Sample : bs  
 Misc : MS29358,MSV802,,,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 09 13:35:03 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.292	43	112831m	41.95	ug/L	
38) bromochloromethane	5.956	128	82190	47.62	ug/L	90
39) chloroform	6.172	83	275499	49.00	ug/L	98
41) Tetrahydrofuran	5.962	42	29963	30.67	ug/L	87
42) 1,1,1-trichloroethane	6.415	97	244637	53.30	ug/L	98
44) Cyclohexane	6.522	56	228474	39.92	ug/L	87
45) carbon tetrachloride	6.669	117	218326	60.33	ug/L	99
46) 1,1-dichloropropene	6.688	75	196887	53.56	ug/L	96
47) benzene	7.007	78	525324	46.27	ug/L	100
48) 1,2-dichloroethane	7.132	62	224022	50.62	ug/L	94
49) tert-amyl methyl ether	7.293	73	314946	49.71	ug/L	90
50) heptane	7.562	43	151007	41.27	ug/L	88
51) trichloroethene	8.038	95	160708	52.65	ug/L	99
52) 1,2-dichloropropane	8.386	63	155753	45.71	ug/L	98
53) dibromomethane	8.490	93	99030	48.57	ug/L	98
54) bromodichloromethane	8.740	83	204894	54.85	ug/L	99
55) Methylcyclohexane	8.337	83	207689	47.66	ug/L	# 85
56) 2-chloroethyl vinyl ether	9.115	63	26405	154.17	ug/L	96
57) methyl methacrylate	8.518	69	77021	43.25	ug/L	# 76
58) 1,4-dioxane	8.496	88	5265	178.93	ug/L	87
59) cis-1,3-dichloropropene	9.267	75	226585	48.23	ug/L	95
61) 4-methyl-2-pentanone	9.448	43	120733	39.67	ug/L	91
62) toluene	9.630	92	367937	49.79	ug/L	98
63) trans-1,3-dichloropropene	9.917	75	203931	52.72	ug/L	99
64) 1,1,2-trichloroethane	10.123	83	114583	48.55	ug/L	98
65) ethyl methacrylate	9.996	69	162588	45.52	ug/L	80
67) tetrachloroethene	10.181	166	188267	59.19	ug/L	95
68) 1,3-dichloropropane	10.284	76	215076	46.32	ug/L	99
69) dibromochloromethane	10.504	129	162574	54.05	ug/L	99
70) 1,2-dibromoethane	10.613	107	144928	51.52	ug/L	98
71) 2-hexanone	10.354	43	120949	53.63	ug/L	92
72) chlorobenzene	11.108	112	449475	54.90	ug/L	97
73) 1,1,1,2-tetrachloroethane	11.208	131	163097	59.21	ug/L	98
74) ethylbenzene	11.213	91	742118	53.62	ug/L	96
75) m,p-xylene	11.344	106	570534	110.27	ug/L	98
76) o-xylene	11.710	106	281415	56.62	ug/L	100
77) styrene	11.731	104	471607	51.28	ug/L	99
78) bromoform	11.905	173	92494	53.69	ug/L	97
79) trans-1,4-dichloro-2-b...	12.122	53	41172	37.83	ug/L	79
81) isopropylbenzene	12.062	105	738841	57.79	ug/L	96
83) bromobenzene	12.352	156	213883	53.72	ug/L	95
84) 1,1,2,2-tetrachloroethane	12.357	83	167543	46.87	ug/L	99
85) 1,2,3-trichloropropane	12.398	75	192591	46.98	ug/L	69
86) n-propylbenzene	12.450	91	850739	55.87	ug/L	96
87) 2-chlorotoluene	12.529	91	529531	54.80	ug/L	94
88) 4-chlorotoluene	12.641	91	624570	55.88	ug/L	96
89) 1,3,5-trimethylbenzene	12.620	105	637637	53.14	ug/L	99
90) tert-butylbenzene	12.906	91	363940	59.54	ug/L	100
91) 1,2,4-trimethylbenzene	12.960	105	650159	52.54	ug/L	98
92) sec-butylbenzene	13.109	105	753539	57.99	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20624.D  
 Acq On : 9 Jul 2013 9:38 am  
 Operator : amym  
 Sample : bs  
 Misc : MS29358,MSV802,,,,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 09 13:35:03 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.217	146	381397	56.40	ug/L	99
94) p-isopropyltoluene	13.250	119	639050	58.11	ug/L	98
95) 1,4-dichlorobenzene	13.312	146	391322	52.13	ug/L	99
96) 1,2-dichlorobenzene	13.629	146	364145	55.61	ug/L	100
97) n-butylbenzene	13.614	91	582081	54.43	ug/L	94
98) 1,2-dibromo-3-chloropr...	14.331	75	23613	45.66	ug/L	96
99) 1,3,5-trichlorobenzene	14.495	180	296382	56.37	ug/L	96
100) 1,2,4-trichlorobenzene	15.050	180	275952	55.01	ug/L	97
101) hexachlorobutadiene	15.172	225	114362	68.54	ug/L	93
102) naphthalene	15.284	128	525770	47.93	ug/L	100
103) 1,2,3-trichlorobenzene	15.473	180	241707	53.41	ug/L	95
104) 2-Methylnaphthalene	16.283	142	119685	23.39	ug/L	99
105) 1-Methylnaphthalene	16.453	142	104822	25.06	ug/L	97

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



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20653.D  
 Acq On : 9 Jul 2013 10:24 pm  
 Operator : amym  
 Sample : bs  
 Misc : MS29358,MSV803,,,5,1  
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 10 10:22:16 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.503	65	61567	500.00	ug/L	-0.03
4) pentafluorobenzene	6.564	168	257356	50.00	ug/L	-0.01
43) 1,4-difluorobenzene	7.746	114	372409	50.00	ug/L	0.00
66) chlorobenzene-d5	11.079	82	199972	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.291	152	207735	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.444	113	129674	51.37	ug/L	-0.02
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.74%
60) toluene-d8 (s)	9.555	98	442826	51.12	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.24%
82) bromofluorobenzene (s)	12.227	95	195664	49.83	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.66%
Target Compounds						
2) tertiary butyl alcohol	3.614	59	76518	533.80	ug/L	94
3) Ethanol	2.503	45	57785	4716.74	ug/L #	26
5) dichlorodifluoromethane	1.501	85	164264	64.40	ug/L	97
6) chloromethane	1.637	50	145091	51.06	ug/L	97
7) vinyl chloride	1.740	62	118441	41.22	ug/L	96
8) bromomethane	2.027	96	93838	59.56	ug/L	97
9) chloroethane	2.120	64	64488	52.87	ug/L	97
10) ethyl ether	2.609	59	95377	51.60	ug/L	86
11) acetonitrile	3.298	41	179205	43.24	ug/L	93
12) trichlorofluoromethane	2.350	101	227132	61.82	ug/L	98
13) freon-113	2.915	101	132063	51.73	ug/L	94
14) acrolein	2.761	56	79033	277.71	ug/L	100
15) 1,1-dichloroethene	2.873	96	110012	51.59	ug/L	83
16) acetone	2.908	58	16497	43.85	ug/L #	1
17) Methyl Acetate	3.283	43	81444	27.94	ug/L #	89
18) methylene chloride	3.473	84	125921	43.25	ug/L #	75
19) methyl tert butyl ether	3.840	73	292187	44.34	ug/L	94
20) acrylonitrile	4.626	53	221912	54.93	ug/L	97
21) allyl chloride	3.298	41	179205	43.23	ug/L	79
22) trans-1,2-dichloroethene	3.840	96	120140	45.99	ug/L	87
23) iodomethane	3.042	142	233369	47.17	ug/L	91
24) carbon disulfide	3.126	76	351114	62.79	ug/L	100
25) propionitrile	5.651	54	14460	33.84	ug/L	100
26) vinyl acetate	4.579	43	336257	33.37	ug/L	81
27) chloroprene	4.626	53	221912	54.93	ug/L	77
28) di-isopropyl ether	4.608	45	392821	38.87	ug/L	92
29) methacrylonitrile	5.924	41	72570	35.06	ug/L	91
30) 2-butanone	5.538	72	13419	42.78	ug/L #	1
31) Hexane	4.256	41	119830	47.21	ug/L #	84
32) 1,1-dichloroethane	4.515	63	230522	46.95	ug/L	99
33) tert-butyl ethyl ether	5.278	59	360184	46.66	ug/L	93
34) isobutyl alcohol	4.256	43	98144	208.93	ug/L	96
35) 2,2-dichloropropane	5.550	77	158156	61.41	ug/L	98
36) cis-1,2-dichloroethene	5.535	96	131108	43.73	ug/L	84

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20653.D  
 Acq On : 9 Jul 2013 10:24 pm  
 Operator : amym  
 Sample : bs  
 Misc : MS29358,MSV803,,,5,1  
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 10 10:22:16 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.292	43	102622m	44.45	ug/L	
38) bromochloromethane	5.956	128	71171	48.04	ug/L #	87
39) chloroform	6.173	83	249190	51.64	ug/L	100
41) Tetrahydrofuran	5.962	42	25930	30.92	ug/L	81
42) 1,1,1-trichloroethane	6.416	97	229649	58.07	ug/L	97
44) Cyclohexane	6.522	56	209284	42.79	ug/L	85
45) carbon tetrachloride	6.669	117	209822	67.47	ug/L	97
46) 1,1-dichloropropene	6.688	75	176302	56.11	ug/L	98
47) benzene	7.007	78	453545	46.74	ug/L	99
48) 1,2-dichloroethane	7.133	62	207848	54.95	ug/L	93
49) tert-amyl methyl ether	7.292	73	274453	50.68	ug/L	89
50) heptane	7.562	43	136942	43.79	ug/L	86
51) trichloroethene	8.038	95	143531	55.02	ug/L	99
52) 1,2-dichloropropane	8.386	63	134399	46.15	ug/L	99
53) dibromomethane	8.490	93	87993	50.49	ug/L	98
54) bromodichloromethane	8.740	83	186155	58.02	ug/L	99
55) Methylcyclohexane	8.337	83	187615	50.37	ug/L #	82
56) 2-chloroethyl vinyl ether	9.115	63	20933	143.00	ug/L	98
57) methyl methacrylate	8.518	69	64753	42.54	ug/L #	68
58) 1,4-dioxane	8.494	88	3920	155.46	ug/L	84
59) cis-1,3-dichloropropene	9.267	75	195341	48.63	ug/L	99
61) 4-methyl-2-pentanone	9.448	43	105890	40.70	ug/L	90
62) toluene	9.630	92	319010	50.51	ug/L	98
63) trans-1,3-dichloropropene	9.917	75	177163	53.53	ug/L	99
64) 1,1,2-trichloroethane	10.123	83	100241	49.69	ug/L	100
65) ethyl methacrylate	9.997	69	140887	46.15	ug/L	78
67) tetrachloroethene	10.182	166	168318	60.45	ug/L	96
68) 1,3-dichloropropane	10.284	76	188703	46.42	ug/L	100
69) dibromochloromethane	10.504	129	146643	55.56	ug/L	99
70) 1,2-dibromoethane	10.613	107	127239	51.67	ug/L	98
71) 2-hexanone	10.354	43	98664	49.97	ug/L	89
72) chlorobenzene	11.109	112	391356	54.61	ug/L	99
73) 1,1,1,2-tetrachloroethane	11.209	131	148737	61.73	ug/L	99
74) ethylbenzene	11.214	91	665542	54.93	ug/L	98
75) m,p-xylene	11.344	106	497058	109.74	ug/L	99
76) o-xylene	11.711	106	247895	56.97	ug/L	98
77) styrene	11.732	104	412278	51.21	ug/L	98
78) bromoform	11.906	173	81342	53.88	ug/L	96
79) trans-1,4-dichloro-2-b...	12.123	53	25528	26.80	ug/L	74
81) isopropylbenzene	12.063	105	665951	58.89	ug/L	97
83) bromobenzene	12.353	156	191117	54.28	ug/L	95
84) 1,1,2,2-tetrachloroethane	12.358	83	144115	45.58	ug/L	99
85) 1,2,3-trichloropropane	12.399	75	162280	44.76	ug/L	70
86) n-propylbenzene	12.451	91	760490	56.47	ug/L	96
87) 2-chlorotoluene	12.530	91	476116	55.72	ug/L	96
88) 4-chlorotoluene	12.642	91	561452	56.80	ug/L	98
89) 1,3,5-trimethylbenzene	12.621	105	571185	53.82	ug/L	100
90) tert-butylbenzene	12.907	91	334845	61.94	ug/L	98
91) 1,2,4-trimethylbenzene	12.961	105	580299	53.02	ug/L	99
92) sec-butylbenzene	13.110	105	683423	59.47	ug/L	99



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20653.D  
 Acq On : 9 Jul 2013 10:24 pm  
 Operator : amym  
 Sample : bs  
 Misc : MS29358,MSV803,,,,5,1  
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 10 10:22:16 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.217	146	339780	56.81	ug/L	100
94) p-isopropyltoluene	13.251	119	579841	59.62	ug/L	99
95) 1,4-dichlorobenzene	13.313	146	346025	52.11	ug/L	98
96) 1,2-dichlorobenzene	13.630	146	324658	56.06	ug/L	100
97) n-butylbenzene	13.615	91	521607	55.15	ug/L	94
98) 1,2-dibromo-3-chloropr...	14.331	75	20619	45.19	ug/L	98
99) 1,3,5-trichlorobenzene	14.495	180	262313	56.41	ug/L	96
100) 1,2,4-trichlorobenzene	15.050	180	245912	55.43	ug/L	96
101) hexachlorobutadiene	15.173	225	108098	73.25	ug/L	95
102) naphthalene	15.285	128	463486	47.77	ug/L	100
103) 1,2,3-trichlorobenzene	15.474	180	217964	54.46	ug/L	95
104) 2-Methylnaphthalene	16.284	142	105875	23.40	ug/L	98
105) 1-Methylnaphthalene	16.453	142	95486	25.81	ug/L	98

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



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78024.D  
 Acq On : 8 Jul 2013 8:57 pm  
 Operator : jaclynb  
 Sample : mc22232-14ms  
 Misc : MS29348,MSN2928,,,,5,1  
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 09 08:23:08 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.567	65	62646	500.00	ug/L	-0.01
4) pentafluorobenzene	9.006	168	198032	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.882	114	309191	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	165401	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	143998	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	95682	47.14	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	94.28%
60) toluene-d8 (s)	11.674	98	370261	50.81	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.62%
82) bromofluorobenzene (s)	14.355	95	145515	47.16	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	94.32%
Target Compounds						
2) tertiary butyl alcohol	6.655	59	95952	571.30	ug/L	# 81
3) Ethanol	5.429	45	153889	4997.75	ug/L	99
5) dichlorodifluoromethane	4.250	85	118141	48.05	ug/L	97
6) chloromethane	4.506	50	120769	44.83	ug/L	97
7) vinyl chloride	4.755	62	104467	40.19	ug/L	100
8) bromomethane	5.254	96	40350	41.27	ug/L	97
9) chloroethane	5.422	64	67317	51.77	ug/L	99
10) ethyl ether	6.311	59	87485	47.95	ug/L	99
12) trichlorofluoromethane	6.076	101	154922	48.87	ug/L	98
13) freon-113	6.850	101	90074	53.08	ug/L	99
14) acrolein	6.069	56	73966	333.81	ug/L	94
15) 1,1-dichloroethene	6.662	96	88261	52.43	ug/L	97
16) acetone	6.204	58	9765	30.17	ug/L	92
17) Methyl Acetate	6.837	43	98619	33.82	ug/L	98
18) methylene chloride	6.810	84	99941	50.30	ug/L	98
19) methyl tert butyl ether	7.591	73	215578	43.94	ug/L	98
20) acrylonitrile	6.716	53	41621	47.73	ug/L	92
21) allyl chloride	6.904	41	197057	53.77	ug/L	100
22) trans-1,2-dichloroethene	7.504	96	97000	54.57	ug/L	97
23) iodomethane	6.722	142	76733	47.63	ug/L	96
24) carbon disulfide	7.086	76	313653	52.40	ug/L	100
25) propionitrile	6.628	54	1654	53.44	ug/L	100
26) vinyl acetate	6.837	43	98619	33.82	ug/L	96
27) chloroprene	8.117	53	204211	55.49	ug/L	98
28) di-isopropyl ether	8.150	45	439102	48.77	ug/L	95
29) methacrylonitrile	8.278	41	70405	44.19	ug/L	96
30) 2-butanone	8.164	72	9300	33.46	ug/L	# 78
31) Hexane	8.137	41	181689	48.62	ug/L	99
32) 1,1-dichloroethane	7.753	63	207367	53.72	ug/L	96
33) tert-butyl ethyl ether	8.548	59	230292	42.31	ug/L	99
34) isobutyl alcohol	8.150	43	356630	231.43	ug/L	90
35) 2,2-dichloropropane	8.615	77	105602	47.66	ug/L	98
36) cis-1,2-dichloroethene	8.326	96	118138	58.52	ug/L	98
37) ethyl acetate	8.150	43	356630	46.29	ug/L	91

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78024.D  
 Acq On : 8 Jul 2013 8:57 pm  
 Operator : jaclynb  
 Sample : mc22232-14ms  
 Misc : MS29348,MSN2928,,,,5,1  
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 09 08:23:08 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.487	128	45915	51.58	ug/L	86
39) chloroform	8.528	83	182572	51.50	ug/L	99
41) Tetrahydrofuran	8.858	42	32009	43.69	ug/L	100
42) 1,1,1-trichloroethane	9.282	97	155528	51.85	ug/L	98
44) Cyclohexane	9.558	56	207026	50.35	ug/L	98
45) carbon tetrachloride	9.646	117	128393	52.79	ug/L	96
46) 1,1-dichloropropene	9.451	75	142694	56.55	ug/L	97
47) benzene	9.680	78	411406	53.75	ug/L	98
48) 1,2-dichloroethane	9.181	62	154837	52.58	ug/L	100
49) tert-amyl methyl ether	9.794	73	147930	39.78	ug/L	98
50) heptane	10.151	43	125817	47.62	ug/L	99
51) trichloroethene	10.299	95	109940	53.22	ug/L	98
52) 1,2-dichloropropane	10.266	63	120575	51.39	ug/L	99
53) dibromomethane	10.239	93	62426	51.75	ug/L	97
54) bromodichloromethane	10.353	83	145086	55.11	ug/L	98
55) Methylcyclohexane	10.811	83	170391	52.04	ug/L	100
56) 2-chloroethyl vinyl ether	10.266	63	120575	51.21	ug/L #	98
57) methyl methacrylate	10.441	69	60949	50.45	ug/L	98
58) 1,4-dioxane	10.448	88	4546	224.22	ug/L	96
59) cis-1,3-dichloropropene	10.966	75	149964	46.37	ug/L	98
61) 4-methyl-2-pentanone	11.061	43	113906	47.11	ug/L	99
62) toluene	11.748	92	255722	54.67	ug/L	98
63) trans-1,3-dichloropropene	11.384	75	129253	47.53	ug/L	99
64) 1,1,2-trichloroethane	11.559	83	78005	53.53	ug/L	97
65) ethyl methacrylate	11.761	69	115730	50.19	ug/L	95
67) tetrachloroethene	12.482	166	106438	53.77	ug/L	98
68) 1,3-dichloropropane	11.795	76	149681	50.67	ug/L	98
69) dibromochloromethane	12.084	129	100457	46.52	ug/L	99
70) 1,2-dibromoethane	12.334	107	89776	50.25	ug/L	99
71) 2-hexanone	11.916	43	76358	38.21	ug/L	99
72) chlorobenzene	13.162	112	282925	54.71	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.081	131	97612	49.50	ug/L	99
74) ethylbenzene	13.337	91	496073	50.75	ug/L	99
75) m,p-xylene	13.526	106	372445	108.03	ug/L	98
76) o-xylene	13.937	106	181783	57.24	ug/L	99
77) styrene	13.863	104	283458	48.63	ug/L	97
78) bromoform	13.688	173	64588	43.75	ug/L	99
79) trans-1,4-dichloro-2-b...	14.078	53	21520	40.04	ug/L #	45
81) isopropylbenzene	14.294	105	483600	55.66	ug/L	97
83) bromobenzene	14.584	156	121412	52.43	ug/L	96
84) 1,1,2,2-tetrachloroethane	13.937	83	117384	49.99	ug/L	98
85) 1,2,3-trichloropropane	14.085	75	111996	46.48	ug/L	100
86) n-propylbenzene	14.739	91	588977	55.20	ug/L	99
87) 2-chlorotoluene	14.860	91	350178	52.96	ug/L	99
88) 4-chlorotoluene	14.934	91	372487	56.44	ug/L	100
89) 1,3,5-trimethylbenzene	15.015	105	417440	49.94	ug/L	99
90) tert-butylbenzene	15.318	91	261791	55.32	ug/L	100
91) 1,2,4-trimethylbenzene	15.426	105	413682	50.21	ug/L	100
92) sec-butylbenzene	15.540	105	558048	57.16	ug/L	99
93) 1,3-dichlorobenzene	15.648	146	230157	54.87	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78024.D  
 Acq On : 8 Jul 2013 8:57 pm  
 Operator : jaclynb  
 Sample : mc22232-14ms  
 Misc : MS29348,MSN2928,,,,5,1  
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 09 08:23:08 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

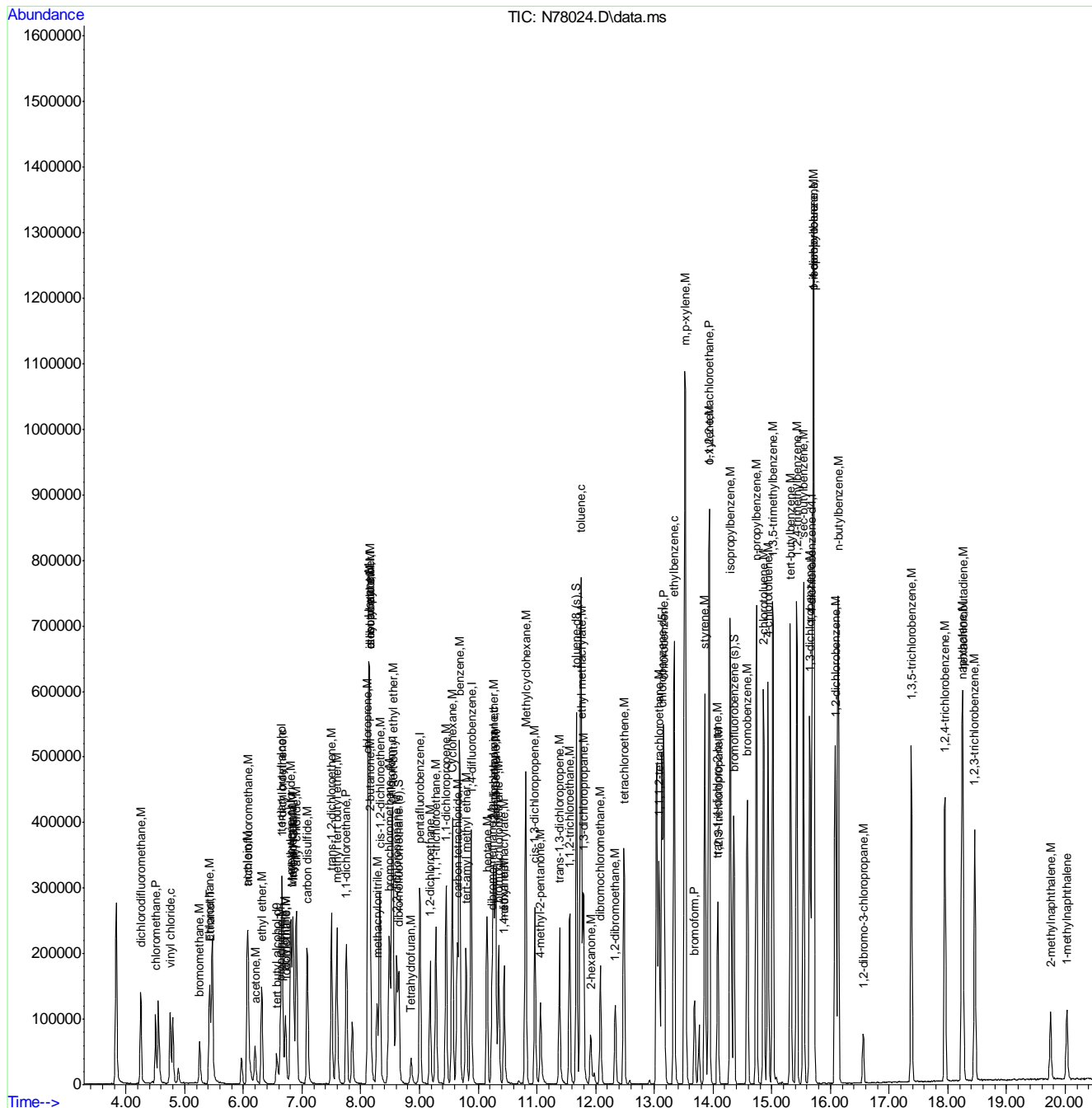
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.715	119	436897	55.66	ug/L	99
95) 1,4-dichlorobenzene	15.715	146	229882	52.28	ug/L	99
96) 1,2-dichlorobenzene	16.086	146	217694	56.03	ug/L	99
97) n-butylbenzene	16.133	91	450180	54.39	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.557	75	21244	48.06	ug/L	95
99) 1,2,4-trichlorobenzene	17.952	180	153420	53.47	ug/L	97
100) 1,3,5-trichlorobenzene	17.379	180	176040	52.44	ug/L	99
101) hexachlorobutadiene	18.255	225	96268	53.50	ug/L	96
102) naphthalene	18.242	128	309551	49.22	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	142996	52.94	ug/L	97
104) 2-methylnaphthalene	19.750	142	62681	22.52	ug/L #	93
105) 1-methylnaphthalene	20.027	142	65126	24.26	ug/L #	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78024.D  
 Acq On : 8 Jul 2013 8:57 pm  
 Operator : jaclynb  
 Sample : mc22232-14ms  
 Misc : MS29348,MSN2928,,,,5,1  
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 09 08:23:08 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration



7.4.1  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78025.D  
 Acq On : 8 Jul 2013 9:25 pm  
 Operator : jaclynb  
 Sample : mc22232-14msd  
 Misc : MS29348,MSN2928,,,,5,1  
 ALS Vial : 42 Sample Multiplier: 1

Quant Time: Jul 09 08:23:18 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.567	65	74239	500.00	ug/L	-0.01
4) pentafluorobenzene	9.006	168	203882	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.875	114	316961	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	170160	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.689	152	148762	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	94765	45.35	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.70%
60) toluene-d8 (s)	11.674	98	380038	50.87	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.74%
82) bromofluorobenzene (s)	14.355	95	148347	46.54	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.08%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	6.655	59	102842	516.70	ug/L	# 83
3) Ethanol	5.429	45	159437	4369.35	ug/L	99
5) dichlorodifluoromethane	4.250	85	119147	47.07	ug/L	94
6) chloromethane	4.506	50	133653	48.19	ug/L	98
7) vinyl chloride	4.755	62	106440	39.78	ug/L	97
8) bromomethane	5.254	96	47235	46.23	ug/L	98
9) chloroethane	5.422	64	67593	50.49	ug/L	97
10) ethyl ether	6.311	59	91622	48.78	ug/L	98
12) trichlorofluoromethane	6.076	101	155642	47.69	ug/L	96
13) freon-113	6.850	101	89466	51.21	ug/L	96
14) acrolein	6.062	56	78976	346.20	ug/L	100
15) 1,1-dichloroethene	6.655	96	88812	51.24	ug/L	99
16) acetone	6.204	58	10105	30.33	ug/L	99
17) Methyl Acetate	6.837	43	102995	34.31	ug/L	# 97
18) methylene chloride	6.810	84	100516	49.14	ug/L	97
19) methyl tert butyl ether	7.591	73	232142	45.87	ug/L	96
20) acrylonitrile	6.709	53	44730	49.82	ug/L	99
21) allyl chloride	6.904	41	192787	51.10	ug/L	100
22) trans-1,2-dichloroethene	7.504	96	96377	52.67	ug/L	94
23) iodomethane	6.722	142	81104	48.88	ug/L	98
24) carbon disulfide	7.086	76	313728	50.91	ug/L	99
25) propionitrile	6.635	54	1822	58.61	ug/L	100
26) vinyl acetate	6.837	43	102995	34.31	ug/L	94
27) chloroprene	8.117	53	205389	54.21	ug/L	99
28) di-isopropyl ether	8.151	45	442954	47.79	ug/L	94
29) methacrylonitrile	8.278	41	76032	46.35	ug/L	96
30) 2-butanone	8.171	72	10669	37.69	ug/L	# 1
31) Hexane	8.137	41	181459	47.17	ug/L	98
32) 1,1-dichloroethane	7.753	63	205990	51.83	ug/L	99
33) tert-butyl ethyl ether	8.548	59	241515	42.96	ug/L	99
34) isobutyl alcohol	8.151	43	358883	226.21	ug/L	90
35) 2,2-dichloropropane	8.615	77	101180	44.93	ug/L	98
36) cis-1,2-dichloroethene	8.326	96	115114	55.39	ug/L	98
37) ethyl acetate	8.151	43	358883	45.24	ug/L	88

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78025.D  
 Acq On : 8 Jul 2013 9:25 pm  
 Operator : jaclynb  
 Sample : mc22232-14msd  
 Misc : MS29348,MSN2928,,,,5,1  
 ALS Vial : 42 Sample Multiplier: 1

Quant Time: Jul 09 08:23:18 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.494	128	48062	52.44	ug/L	94
39) chloroform	8.528	83	183445	50.26	ug/L	100
41) Tetrahydrofuran	8.858	42	34064	45.16	ug/L	99
42) 1,1,1-trichloroethane	9.282	97	154290	50.00	ug/L	99
44) Cyclohexane	9.558	56	205562	48.77	ug/L	98
45) carbon tetrachloride	9.646	117	126104	50.62	ug/L	97
46) 1,1-dichloropropene	9.457	75	140272	54.23	ug/L	98
47) benzene	9.680	78	407450	51.93	ug/L	99
48) 1,2-dichloroethane	9.181	62	156823	51.94	ug/L	98
49) tert-amyl methyl ether	9.794	73	162770	42.20	ug/L	99
50) heptane	10.151	43	121099	44.71	ug/L	97
51) trichloroethene	10.299	95	110423	52.15	ug/L	96
52) 1,2-dichloropropane	10.266	63	120206	49.97	ug/L	100
53) dibromomethane	10.239	93	64721	52.33	ug/L	99
54) bromodichloromethane	10.347	83	142470	52.79	ug/L	99
55) Methylcyclohexane	10.811	83	170978	50.94	ug/L	98
56) 2-chloroethyl vinyl ether	10.266	63	120206	49.81	ug/L #	98
57) methyl methacrylate	10.441	69	62357	50.35	ug/L	97
58) 1,4-dioxane	10.448	88	5117	246.20	ug/L	97
59) cis-1,3-dichloropropene	10.966	75	150097	45.33	ug/L	98
61) 4-methyl-2-pentanone	11.061	43	119838	48.35	ug/L	100
62) toluene	11.748	92	255169	53.22	ug/L	100
63) trans-1,3-dichloropropene	11.384	75	134076	48.05	ug/L	100
64) 1,1,2-trichloroethane	11.559	83	78717	52.70	ug/L	99
65) ethyl methacrylate	11.754	69	121881	51.56	ug/L	94
67) tetrachloroethene	12.482	166	104658	51.39	ug/L	99
68) 1,3-dichloropropane	11.795	76	155789	51.27	ug/L	97
69) dibromochloromethane	12.085	129	102069	45.97	ug/L	97
70) 1,2-dibromoethane	12.334	107	93147	50.68	ug/L	99
71) 2-hexanone	11.916	43	83670	40.70	ug/L	98
72) chlorobenzene	13.162	112	284976	53.57	ug/L	97
73) 1,1,1,2-tetrachloroethane	13.082	131	97241	47.97	ug/L	96
74) ethylbenzene	13.338	91	500313	49.75	ug/L	99
75) m,p-xylene	13.526	106	371433	104.72	ug/L	99
76) o-xylene	13.937	106	181793	55.64	ug/L	96
77) styrene	13.863	104	283015	47.20	ug/L	97
78) bromoform	13.688	173	67123	44.14	ug/L	100
79) trans-1,4-dichloro-2-b...	14.079	53	23923	42.30	ug/L #	49
81) isopropylbenzene	14.294	105	484659	53.99	ug/L	99
83) bromobenzene	14.584	156	122277	51.11	ug/L	94
84) 1,1,2,2-tetrachloroethane	13.937	83	124031	51.13	ug/L	98
85) 1,2,3-trichloropropane	14.085	75	118630	47.66	ug/L	98
86) n-propylbenzene	14.739	91	590221	53.54	ug/L	99
87) 2-chlorotoluene	14.860	91	355775	52.08	ug/L	98
88) 4-chlorotoluene	14.934	91	369837	54.25	ug/L	99
89) 1,3,5-trimethylbenzene	15.022	105	420043	48.64	ug/L	99
90) tert-butylbenzene	15.325	91	262635	53.73	ug/L	99
91) 1,2,4-trimethylbenzene	15.426	105	415587	48.83	ug/L	98
92) sec-butylbenzene	15.540	105	556434	55.17	ug/L	98
93) 1,3-dichlorobenzene	15.648	146	229917	53.06	ug/L	98



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78025.D  
 Acq On : 8 Jul 2013 9:25 pm  
 Operator : jaclynb  
 Sample : mc22232-14msd  
 Misc : MS29348,MSN2928,,,,5,1  
 ALS Vial : 42 Sample Multiplier: 1

Quant Time: Jul 09 08:23:18 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

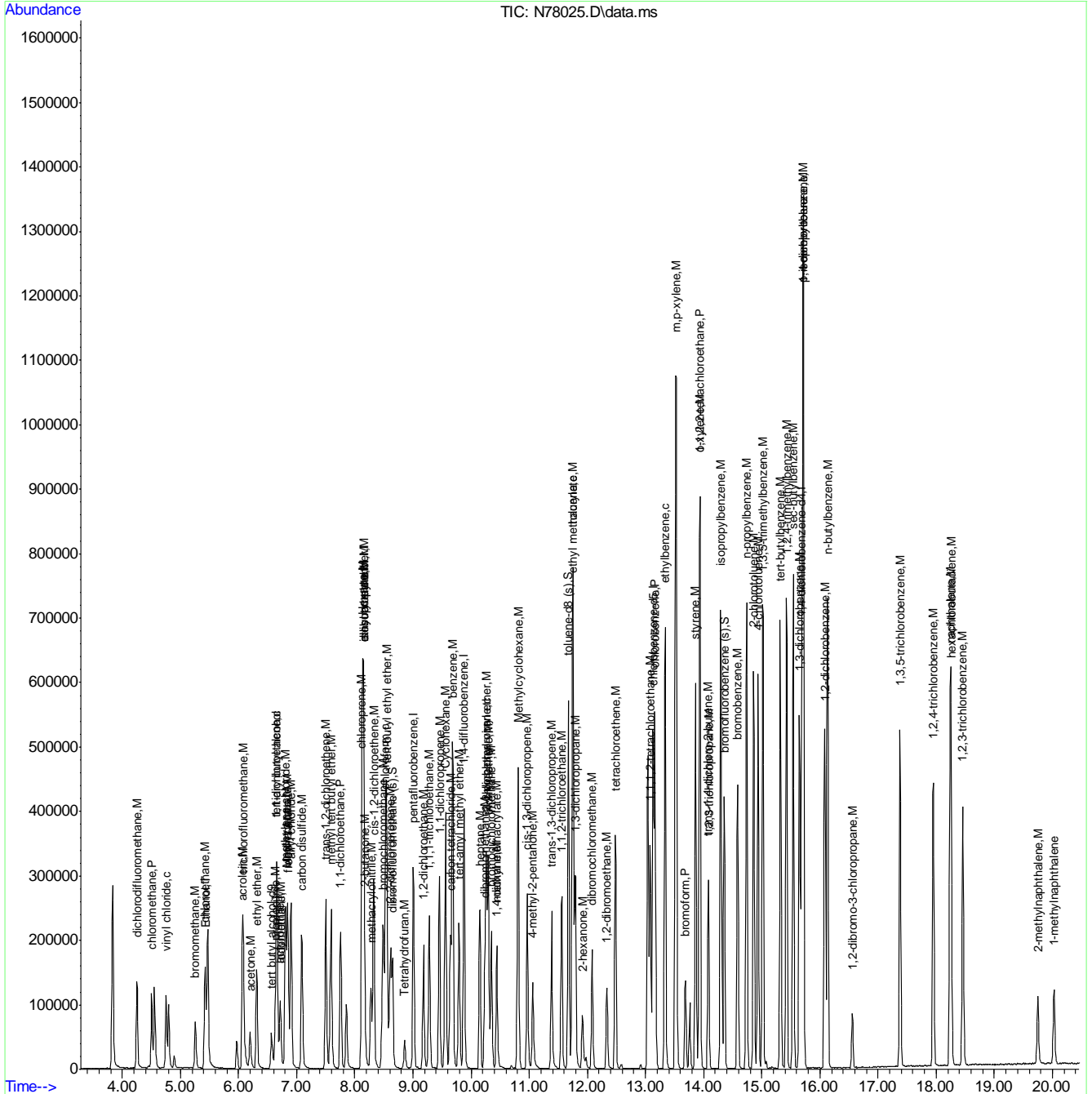
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.715	119	440078	54.27	ug/L	99
95) 1,4-dichlorobenzene	15.715	146	234973	51.72	ug/L	98
96) 1,2-dichlorobenzene	16.086	146	222489	55.43	ug/L	98
97) n-butylbenzene	16.133	91	445692	52.12	ug/L	100
98) 1,2-dibromo-3-chloropr...	16.558	75	22579	49.44	ug/L	97
99) 1,2,4-trichlorobenzene	17.952	180	157841	53.24	ug/L	98
100) 1,3,5-trichlorobenzene	17.379	180	180921	52.17	ug/L	98
101) hexachlorobutadiene	18.255	225	95258	51.25	ug/L	95
102) naphthalene	18.242	128	331401	50.85	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	148534	53.23	ug/L	98
104) 2-methylnaphthalene	19.751	142	64560	22.46	ug/L #	93
105) 1-methylnaphthalene	20.027	142	71535	25.71	ug/L #	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78025.D  
Acq On : 8 Jul 2013 9:25 pm  
Operator : jaclynb  
Sample : mc22232-14msd  
Misc : MS29348,MSN2928,,,,,5,1  
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Jul 09 08:23:18 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78050.D  
 Acq On : 9 Jul 2013 9:09 am  
 Operator : jaclynb  
 Sample : mc22232-20ms  
 Misc : MS29349,MSN2929,,,,5,1  
 ALS Vial : 67 Sample Multiplier: 1

Quant Time: Jul 09 09:35:22 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.567	65	88703	500.00	ug/L	-0.01
4) pentafluorobenzene	9.006	168	195340	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.875	114	303802	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	162396	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	144194	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	91501	45.70	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	91.40%
60) toluene-d8 (s)	11.674	98	361142	50.44	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.88%
82) bromofluorobenzene (s)	14.355	95	143773	46.53	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.06%
Target Compounds						
2) tertiary butyl alcohol	6.655	59	118803	499.56	ug/L	88
3) Ethanol	5.429	45	177040	4060.63	ug/L	99
5) dichlorodifluoromethane	4.250	85	115352	47.57	ug/L	97
6) chloromethane	4.506	50	148303	55.81	ug/L	100
7) vinyl chloride	4.755	62	129801	50.63	ug/L	98
8) bromomethane	5.254	96	41437	42.76	ug/L	97
9) chloroethane	5.422	64	65272	50.89	ug/L	98
10) ethyl ether	6.311	59	92090	51.17	ug/L	99
12) trichlorofluoromethane	6.076	101	152696	48.83	ug/L	97
13) freon-113	6.850	101	85541	51.11	ug/L	96
14) acrolein	6.062	56	76456	349.81	ug/L	98
15) 1,1-dichloroethene	6.655	96	87028	52.41	ug/L	98
16) acetone	6.197	58	11615	36.38	ug/L	99
17) Methyl Acetate	6.837	43	99538	34.61	ug/L	97
18) methylene chloride	6.810	84	100100	51.08	ug/L	98
19) methyl tert butyl ether	7.591	73	239730	49.29	ug/L	99
20) acrylonitrile	6.709	53	47913	55.70	ug/L	95
21) allyl chloride	6.904	41	190705	52.75	ug/L	97
22) trans-1,2-dichloroethene	7.497	96	92760	52.91	ug/L	98
23) iodomethane	6.716	142	64085	40.49	ug/L	97
24) carbon disulfide	7.086	76	309701	52.45	ug/L	98
25) propionitrile	6.628	54	1661	54.77	ug/L	100
26) vinyl acetate	6.837	43	99538	34.61	ug/L	94
27) chloroprene	8.117	53	200613	55.26	ug/L	96
28) di-isopropyl ether	8.150	45	443430	49.93	ug/L	94
29) methacrylonitrile	8.278	41	79858	50.82	ug/L	98
30) 2-butanone	8.164	72	11088	41.18	ug/L	# 76
31) Hexane	8.137	41	167286	45.39	ug/L	98
32) 1,1-dichloroethane	7.753	63	200105	52.55	ug/L	99
33) tert-butyl ethyl ether	8.548	59	248729	45.64	ug/L	98
34) isobutyl alcohol	8.150	43	347429	228.57	ug/L	94
35) 2,2-dichloropropane	8.608	77	82483	39.45	ug/L	98
36) cis-1,2-dichloroethene	8.326	96	136016	68.30	ug/L	98
37) ethyl acetate	8.150	43	347429	45.71	ug/L	88

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78050.D  
 Acq On : 9 Jul 2013 9:09 am  
 Operator : jaclynb  
 Sample : mc22232-20ms  
 Misc : MS29349,MSN2929,,,,5,1  
 ALS Vial : 67 Sample Multiplier: 1

Quant Time: Jul 09 09:35:22 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.487	128	47129	53.67	ug/L #	86
39) chloroform	8.528	83	181075	51.78	ug/L	99
41) Tetrahydrofuran	8.858	42	38230	52.90	ug/L	99
42) 1,1,1-trichloroethane	9.282	97	155667	52.60	ug/L	99
44) Cyclohexane	9.558	56	201791	49.95	ug/L	97
45) carbon tetrachloride	9.639	117	125591	52.56	ug/L	95
46) 1,1-dichloropropene	9.451	75	138696	55.94	ug/L	99
47) benzene	9.680	78	401268	53.35	ug/L	98
48) 1,2-dichloroethane	9.181	62	155899	53.87	ug/L	99
49) tert-amyl methyl ether	9.794	73	173915	46.25	ug/L	98
50) heptane	10.144	43	102764	39.58	ug/L	98
51) trichloroethene	10.299	95	205194	101.10	ug/L	99
52) 1,2-dichloropropane	10.259	63	120800	52.40	ug/L	99
53) dibromomethane	10.239	93	64757	54.63	ug/L	97
54) bromodichloromethane	10.346	83	144157	55.72	ug/L	97
55) Methylcyclohexane	10.811	83	162654	50.56	ug/L	96
56) 2-chloroethyl vinyl ether	10.259	63	120800	52.22	ug/L #	98
57) methyl methacrylate	10.441	69	66782	56.25	ug/L	98
58) 1,4-dioxane	10.441	88	5718	287.03	ug/L #	70
59) cis-1,3-dichloropropene	10.966	75	147356	46.37	ug/L	99
61) 4-methyl-2-pentanone	11.061	43	133516	56.20	ug/L	99
62) toluene	11.748	92	246369	53.61	ug/L	98
63) trans-1,3-dichloropropene	11.384	75	128072	47.90	ug/L	100
64) 1,1,2-trichloroethane	11.559	83	78999	55.17	ug/L	96
65) ethyl methacrylate	11.754	69	124579	54.99	ug/L	95
67) tetrachloroethene	12.482	166	179887	92.56	ug/L	97
68) 1,3-dichloropropane	11.788	76	157988	54.48	ug/L	100
69) dibromochloromethane	12.084	129	103958	48.90	ug/L	98
70) 1,2-dibromoethane	12.334	107	92919	52.97	ug/L	100
71) 2-hexanone	11.916	43	92024	46.90	ug/L	99
72) chlorobenzene	13.162	112	281470	55.44	ug/L	97
73) 1,1,1,2-tetrachloroethane	13.081	131	97896	50.54	ug/L	95
74) ethylbenzene	13.337	91	493859	51.46	ug/L	99
75) m,p-xylene	13.526	106	371146	109.64	ug/L	99
76) o-xylene	13.937	106	183700	58.91	ug/L	99
77) styrene	13.863	104	278478	48.66	ug/L	100
78) bromoform	13.688	173	71979	48.96	ug/L	97
79) trans-1,4-dichloro-2-b...	14.078	53	24998	45.17	ug/L #	29
81) isopropylbenzene	14.294	105	482144	55.42	ug/L	100
83) bromobenzene	14.584	156	121205	52.27	ug/L	94
84) 1,1,2,2-tetrachloroethane	13.937	83	132524	56.36	ug/L	98
85) 1,2,3-trichloropropane	14.078	75	128089	53.09	ug/L	98
86) n-propylbenzene	14.739	91	580894	54.37	ug/L	99
87) 2-chlorotoluene	14.860	91	348943	52.70	ug/L	97
88) 4-chlorotoluene	14.934	91	363320	54.98	ug/L	100
89) 1,3,5-trimethylbenzene	15.015	105	409710	48.95	ug/L	99
90) tert-butylbenzene	15.318	91	259475	54.76	ug/L	98
91) 1,2,4-trimethylbenzene	15.426	105	410417	49.75	ug/L	98
92) sec-butylbenzene	15.540	105	548735	56.13	ug/L	98
93) 1,3-dichlorobenzene	15.648	146	231364	55.08	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78050.D  
 Acq On : 9 Jul 2013 9:09 am  
 Operator : jaclynb  
 Sample : mc22232-20ms  
 Misc : MS29349,MSN2929,,,,5,1  
 ALS Vial : 67 Sample Multiplier: 1

Quant Time: Jul 09 09:35:22 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

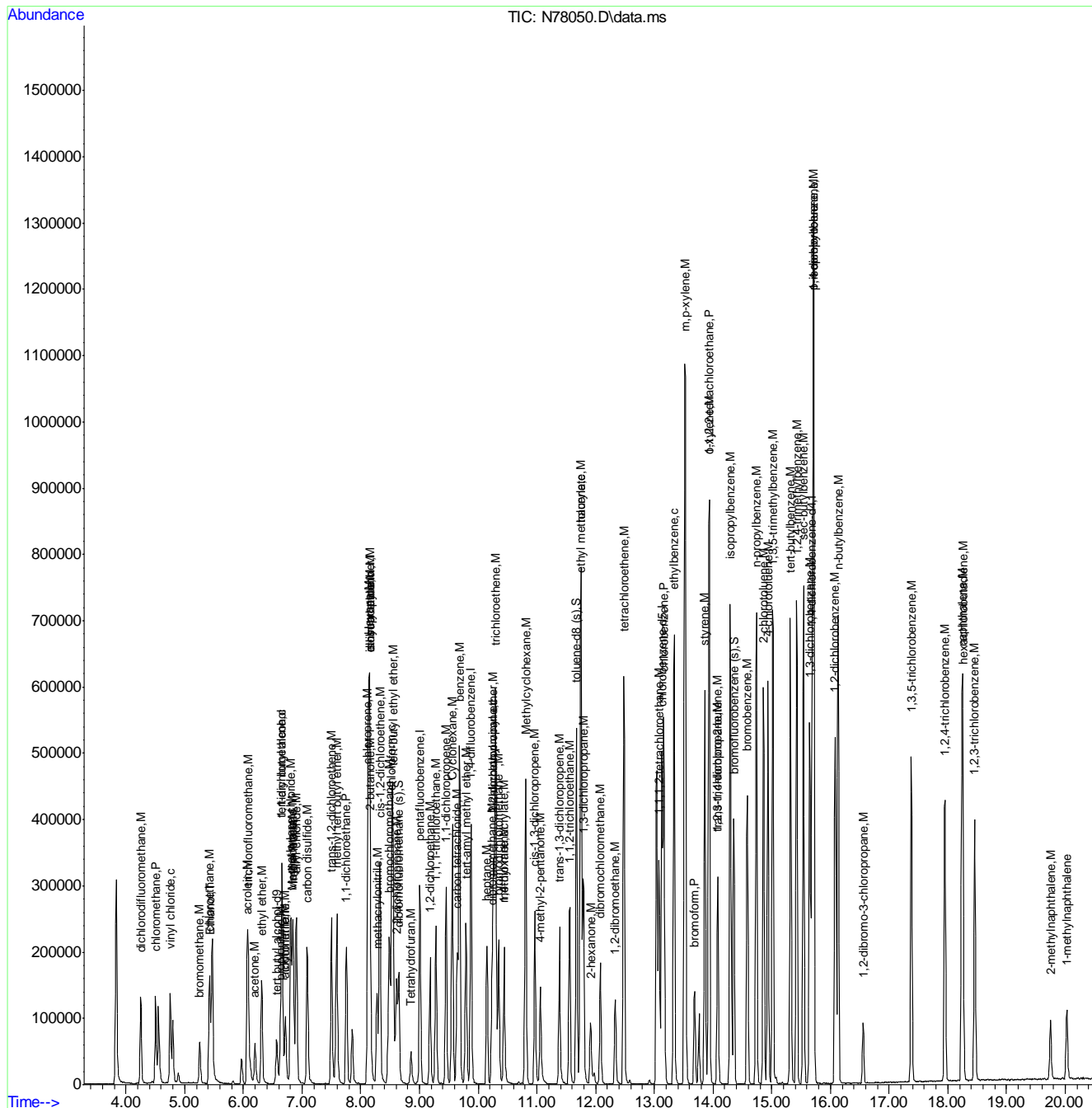
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.715	119	435468	55.40	ug/L	97
95) 1,4-dichlorobenzene	15.715	146	229317	52.08	ug/L	97
96) 1,2-dichlorobenzene	16.079	146	218758	56.23	ug/L	95
97) n-butylbenzene	16.133	91	430759	51.97	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.557	75	23619	53.36	ug/L	99
99) 1,2,4-trichlorobenzene	17.952	180	153586	53.45	ug/L	95
100) 1,3,5-trichlorobenzene	17.379	180	173232	51.54	ug/L	99
101) hexachlorobutadiene	18.255	225	93842	52.09	ug/L	98
102) naphthalene	18.241	128	332348	52.47	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	148130	54.76	ug/L	94
104) 2-methylnaphthalene	19.750	142	55553	20.29	ug/L #	93
105) 1-methylnaphthalene	20.027	142	64138	23.88	ug/L #	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78050.D  
 Acq On : 9 Jul 2013 9:09 am  
 Operator : jaclynb  
 Sample : mc22232-20ms  
 Misc : MS29349,MSN2929,,,,5,1  
 ALS Vial : 67 Sample Multiplier: 1

Quant Time: Jul 09 09:35:22 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration



7.4.3  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78051.D  
 Acq On : 9 Jul 2013 9:38 am  
 Operator : jaclynb  
 Sample : mc22232-20msd  
 Misc : MS29349,MSN2929,,,,5,1  
 ALS Vial : 68 Sample Multiplier: 1

Quant Time: Jul 09 10:07:39 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.567	65	73990	500.00	ug/L	-0.01	
4) pentafluorobenzene	9.006	168	201634	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.875	114	312330	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	165409	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	146333	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	93815	45.40	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	90.80%	
60) toluene-d8 (s)	11.673	98	368943	50.12	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.24%	
82) bromofluorobenzene (s)	14.355	95	146091	46.59	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.18%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	6.655	59	103460	521.55	ug/L		84
3) Ethanol	5.429	45	163852	4505.46	ug/L		98
5) dichlorodifluoromethane	4.250	85	115895	46.30	ug/L		96
6) chloromethane	4.506	50	141706	51.67	ug/L		100
7) vinyl chloride	4.755	62	131454	49.67	ug/L		95
8) bromomethane	5.254	96	50071	49.19	ug/L		98
9) chloroethane	5.422	64	69759	52.69	ug/L		96
10) ethyl ether	6.311	59	90559	48.75	ug/L		95
12) trichlorofluoromethane	6.076	101	153960	47.70	ug/L		96
13) freon-113	6.850	101	86698	50.18	ug/L		98
14) acrolein	6.062	56	72823	322.78	ug/L		100
15) 1,1-dichloroethene	6.662	96	88631	51.71	ug/L		99
16) acetone	6.197	58	10716	32.52	ug/L		96
17) Methyl Acetate	6.837	43	88988	29.97	ug/L		96
18) methylene chloride	6.810	84	100065	49.46	ug/L		95
19) methyl tert butyl ether	7.591	73	228407	45.64	ug/L		97
20) acrylonitrile	6.716	53	44250	49.83	ug/L		94
21) allyl chloride	6.904	41	189964	50.91	ug/L		98
22) trans-1,2-dichloroethene	7.497	96	96134	53.12	ug/L		96
23) iodomethane	6.716	142	78358	47.77	ug/L		96
24) carbon disulfide	7.086	76	309033	50.70	ug/L		100
25) propionitrile	6.635	54	1869	61.56	ug/L		100
26) vinyl acetate	6.837	43	88988	29.97	ug/L		98
27) chloroprene	8.117	53	203534	54.32	ug/L		100
28) di-isopropyl ether	8.150	45	446881	48.75	ug/L		94
29) methacrylonitrile	8.272	41	76184	46.96	ug/L		98
30) 2-butanone	8.164	72	10478	37.40	ug/L	#	55
31) Hexane	8.137	41	169376	44.52	ug/L		94
32) 1,1-dichloroethane	7.753	63	207067	52.68	ug/L		99
33) tert-butyl ethyl ether	8.548	59	242374	43.49	ug/L		99
34) isobutyl alcohol	8.150	43	349095	222.49	ug/L		92
35) 2,2-dichloropropane	8.615	77	80789	37.85	ug/L		99
36) cis-1,2-dichloroethene	8.319	96	134832	65.60	ug/L		96
37) ethyl acetate	8.150	43	349095	44.50	ug/L		89

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78051.D  
 Acq On : 9 Jul 2013 9:38 am  
 Operator : jaclynb  
 Sample : mc22232-20msd  
 Misc : MS29349,MSN2929,,,,5,1  
 ALS Vial : 68 Sample Multiplier: 1

Quant Time: Jul 09 10:07:39 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.487	128	47415	52.31	ug/L	94
39) chloroform	8.528	83	183836	50.93	ug/L	96
41) Tetrahydrofuran	8.858	42	33508	44.92	ug/L	100
42) 1,1,1-trichloroethane	9.282	97	154865	50.73	ug/L	99
44) Cyclohexane	9.558	56	207121	49.87	ug/L	99
45) carbon tetrachloride	9.646	117	125840	51.25	ug/L	98
46) 1,1-dichloropropene	9.450	75	137742	54.04	ug/L	99
47) benzene	9.680	78	414467	53.60	ug/L	99
48) 1,2-dichloroethane	9.181	62	156623	52.65	ug/L	97
49) tert-amyl methyl ether	9.794	73	161171	42.37	ug/L	95
50) heptane	10.144	43	105220	39.42	ug/L	98
51) trichloroethene	10.293	95	146018	69.98	ug/L	97
52) 1,2-dichloropropane	10.266	63	122262	51.58	ug/L	99
53) dibromomethane	10.239	93	63954	52.48	ug/L	98
54) bromodichloromethane	10.346	83	145670	54.77	ug/L	96
55) Methylcyclohexane	10.811	83	166650	50.38	ug/L	97
56) 2-chloroethyl vinyl ether	10.266	63	122262	51.41	ug/L #	98
57) methyl methacrylate	10.441	69	60389	49.48	ug/L	91
58) 1,4-dioxane	10.447	88	4847	236.66	ug/L	96
59) cis-1,3-dichloropropene	10.966	75	146642	44.96	ug/L	100
61) 4-methyl-2-pentanone	11.060	43	120690	49.41	ug/L	99
62) toluene	11.748	92	254933	53.95	ug/L	100
63) trans-1,3-dichloropropene	11.384	75	129061	47.01	ug/L	98
64) 1,1,2-trichloroethane	11.559	83	78494	53.32	ug/L	98
65) ethyl methacrylate	11.754	69	120056	51.54	ug/L	98
67) tetrachloroethene	12.482	166	133493	67.44	ug/L	96
68) 1,3-dichloropropane	11.795	76	154463	52.29	ug/L	99
69) dibromochloromethane	12.084	129	103110	47.68	ug/L	98
70) 1,2-dibromoethane	12.334	107	91272	51.08	ug/L	99
71) 2-hexanone	11.916	43	81609	40.83	ug/L	100
72) chlorobenzene	13.162	112	287006	55.50	ug/L	97
73) 1,1,1,2-tetrachloroethane	13.081	131	95861	48.63	ug/L	97
74) ethylbenzene	13.337	91	501270	51.28	ug/L	100
75) m,p-xylene	13.519	106	371106	107.63	ug/L	95
76) o-xylene	13.937	106	184422	58.07	ug/L	99
77) styrene	13.863	104	282525	48.47	ug/L	97
78) bromoform	13.688	173	67209	45.31	ug/L	99
79) trans-1,4-dichloro-2-b...	14.078	53	23042	42.02	ug/L #	42
81) isopropylbenzene	14.294	105	486044	55.05	ug/L	99
83) bromobenzene	14.584	156	120493	51.20	ug/L	95
84) 1,1,2,2-tetrachloroethane	13.937	83	124798	52.30	ug/L	99
85) 1,2,3-trichloropropane	14.078	75	117379	47.94	ug/L	99
86) n-propylbenzene	14.739	91	589371	54.35	ug/L	100
87) 2-chlorotoluene	14.860	91	353408	52.60	ug/L	98
88) 4-chlorotoluene	14.934	91	368495	54.95	ug/L	98
89) 1,3,5-trimethylbenzene	15.015	105	419095	49.34	ug/L	98
90) tert-butylbenzene	15.318	91	260510	54.18	ug/L	97
91) 1,2,4-trimethylbenzene	15.426	105	417676	49.89	ug/L	99
92) sec-butylbenzene	15.540	105	554951	55.94	ug/L	98
93) 1,3-dichlorobenzene	15.648	146	232074	54.44	ug/L	98



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78051.D  
 Acq On : 9 Jul 2013 9:38 am  
 Operator : jaclynb  
 Sample : mc22232-20msd  
 Misc : MS29349,MSN2929,,,,5,1  
 ALS Vial : 68 Sample Multiplier: 1

Quant Time: Jul 09 10:07:39 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

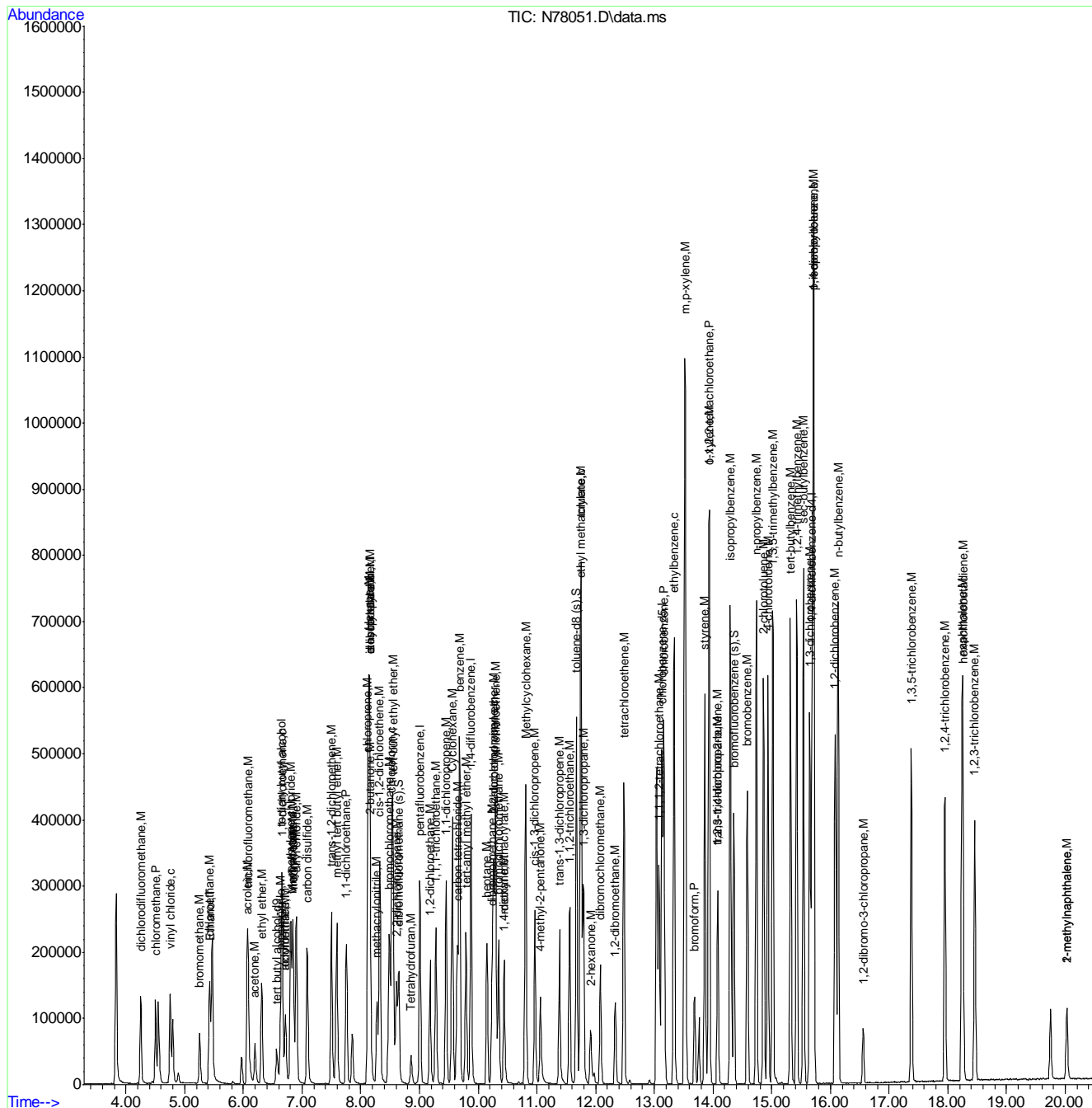
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.715	119	435404	54.58	ug/L	99
95) 1,4-dichlorobenzene	15.715	146	229799	51.42	ug/L	98
96) 1,2-dichlorobenzene	16.079	146	223783	56.68	ug/L	100
97) n-butylbenzene	16.133	91	438705	52.16	ug/L	98
98) 1,2-dibromo-3-chloropr...	16.557	75	21889	48.73	ug/L	95
99) 1,2,4-trichlorobenzene	17.952	180	155143	53.20	ug/L	99
100) 1,3,5-trichlorobenzene	17.379	180	176761	51.82	ug/L	100
101) hexachlorobutadiene	18.255	225	93935	51.37	ug/L	96
102) naphthalene	18.241	128	330093	51.44	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	148962	54.27	ug/L	100
104) 2-methylnaphthalene	20.027	142	68846	24.09	ug/L	100
105) 1-methylnaphthalene	20.027	142	68845	25.18	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
Data File : N78051.D  
Acq On : 9 Jul 2013 9:38 am  
Operator : jaclynb  
Sample : mc22232-20msd  
Misc : MS29349,MSN2929,,,,,5,1  
ALS Vial : 68 Sample Multiplier: 1

Quant Time: Jul 09 10:07:39 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 09:34:55 2013  
Response via : Initial Calibration



7.4.4  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20639.D  
 Acq On : 9 Jul 2013 4:14 pm  
 Operator : amym  
 Sample : mc22424-2ms  
 Misc : MS29354,MSV802,,,,5,5  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 10 09:10:31 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.505	65	59529	500.00	ug/L	-0.03	
4) pentafluorobenzene	6.563	168	242563	50.00	ug/L	-0.01	
43) 1,4-difluorobenzene	7.746	114	351152	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.079	82	189243	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.290	152	198207	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.442	113	125776	52.87	ug/L	-0.02	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	105.74%	
60) toluene-d8 (s)	9.555	98	418163	51.20	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.40%	
82) bromofluorobenzene (s)	12.227	95	186015	49.65	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.30%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	3.615	59	69398	500.71	ug/L		97
3) Ethanol	2.502	45	52283	4413.74	ug/L		89
5) dichlorodifluoromethane	1.500	85	159177	66.30	ug/L		98
6) chloromethane	1.636	50	130350	48.67	ug/L		100
7) vinyl chloride	1.738	62	107746	39.79	ug/L		96
8) bromomethane	2.026	96	86570	58.30	ug/L		95
9) chloroethane	2.119	64	59938	52.14	ug/L		98
10) ethyl ether	2.607	59	71340	40.95	ug/L		91
11) acetonitrile	3.297	41	164461	42.10	ug/L		88
12) trichlorofluoromethane	2.349	101	214707	62.01	ug/L		100
13) freon-113	2.914	101	121538	50.51	ug/L		91
14) acrolein	2.759	56	61753	230.23	ug/L		100
15) 1,1-dichloroethene	2.872	96	100798	50.16	ug/L	#	79
16) acetone	2.903	58	7907	22.30	ug/L	#	1
17) Methyl Acetate	3.282	43	74299	27.04	ug/L	#	86
18) methylene chloride	3.471	84	109729	39.99	ug/L	#	73
19) methyl tert butyl ether	3.839	73	255830	41.19	ug/L		94
20) acrylonitrile	4.624	53	203350	53.40	ug/L		98
21) allyl chloride	3.297	41	164461	42.10	ug/L		81
22) trans-1,2-dichloroethene	3.839	96	110568	44.90	ug/L		85
23) iodomethane	3.040	142	211715	45.41	ug/L		90
24) carbon disulfide	3.124	76	311800	59.91	ug/L		100
25) propionitrile	5.649	54	12869	31.95	ug/L		100
26) vinyl acetate	4.576	43	319325	33.62	ug/L		81
27) chloroprene	4.624	53	203350	53.40	ug/L		74
28) di-isopropyl ether	4.607	45	352672	37.02	ug/L		90
29) methacrylonitrile	5.923	41	64995	33.32	ug/L		82
30) 2-butanone	5.536	72	8968	30.33	ug/L	#	1
31) Hexane	4.254	41	111296	46.53	ug/L	#	83
32) 1,1-dichloroethane	4.513	63	212789	45.99	ug/L		98
33) tert-butyl ethyl ether	5.277	59	314017	43.16	ug/L		93
34) isobutyl alcohol	4.254	43	90265	203.88	ug/L		90
35) 2,2-dichloropropane	5.549	77	149076	61.41	ug/L		98
36) cis-1,2-dichloroethene	5.533	96	117010	41.40	ug/L	#	77

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20639.D  
 Acq On : 9 Jul 2013 4:14 pm  
 Operator : amym  
 Sample : mc22424-2ms  
 Misc : MS29354,MSV802,,,,5,5  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 10 09:10:31 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.292	43	90389m	41.54	ug/L	
38) bromochloromethane	5.954	128	63906	45.77	ug/L #	82
39) chloroform	6.171	83	229247	50.40	ug/L	99
41) Tetrahydrofuran	5.961	42	23100	29.23	ug/L	83
42) 1,1,1-trichloroethane	6.415	97	208189	55.94	ug/L	97
44) Cyclohexane	6.522	56	189110	41.00	ug/L	85
45) carbon tetrachloride	6.669	117	192146	65.61	ug/L	100
46) 1,1-dichloropropene	6.687	75	161277	54.43	ug/L	97
47) benzene	7.006	78	408122	44.60	ug/L	99
48) 1,2-dichloroethane	7.132	62	193898	54.36	ug/L	93
49) tert-amyl methyl ether	7.292	73	237810	46.57	ug/L	86
50) heptane	7.562	43	126999	43.07	ug/L	83
51) trichloroethene	8.038	95	129999	52.85	ug/L	97
52) 1,2-dichloropropane	8.385	63	120820	44.00	ug/L	97
53) dibromomethane	8.490	93	79679	48.49	ug/L	98
54) bromodichloromethane	8.740	83	167621	55.61	ug/L	100
55) Methylcyclohexane	8.337	83	168382	47.94	ug/L #	82
57) methyl methacrylate	8.518	69	57902	40.34	ug/L #	69
58) 1,4-dioxane	8.497	88	3578	150.39	ug/L	67
59) cis-1,3-dichloropropene	9.267	75	171705	45.48	ug/L	100
61) 4-methyl-2-pentanone	9.449	43	94252	38.42	ug/L	90
62) toluene	9.630	92	291358	48.92	ug/L	99
63) trans-1,3-dichloropropene	9.917	75	160297	51.51	ug/L	98
64) 1,1,2-trichloroethane	10.123	83	88715	46.64	ug/L	98
65) ethyl methacrylate	9.997	69	123299	42.83	ug/L	78
67) tetrachloroethene	10.182	166	153019	58.07	ug/L	94
68) 1,3-dichloropropane	10.284	76	169174	43.98	ug/L	100
69) dibromochloromethane	10.504	129	129882	52.29	ug/L	98
70) 1,2-dibromoethane	10.613	107	112263	48.17	ug/L	97
71) 2-hexanone	10.354	43	67525	36.14	ug/L	88
72) chlorobenzene	11.109	112	356457	52.56	ug/L	99
73) 1,1,1,2-tetrachloroethane	11.208	131	132805	58.18	ug/L	99
74) ethylbenzene	11.214	91	605429	52.80	ug/L	98
75) m,p-xylene	11.344	106	453936	105.90	ug/L	99
76) o-xylene	11.711	106	225154	54.68	ug/L	96
77) styrene	11.732	104	367011	48.17	ug/L	95
78) bromoform	11.906	173	71749	51.03	ug/L	96
79) trans-1,4-dichloro-2-b...	12.122	53	34224m	37.96	ug/L	
81) isopropylbenzene	12.063	105	602814	55.87	ug/L	96
83) bromobenzene	12.353	156	172477	51.34	ug/L	97
84) 1,1,2,2-tetrachloroethane	12.358	83	131011	43.43	ug/L	99
85) 1,2,3-trichloropropane	12.398	75	153557	44.39	ug/L	70
86) n-propylbenzene	12.451	91	699851	54.47	ug/L	97
87) 2-chlorotoluene	12.530	91	432114	53.00	ug/L	94
88) 4-chlorotoluene	12.641	91	513889	54.49	ug/L	98
89) 1,3,5-trimethylbenzene	12.620	105	520219	51.38	ug/L	99
90) tert-butylbenzene	12.907	91	307816	59.68	ug/L	97
91) 1,2,4-trimethylbenzene	12.960	105	534151	51.15	ug/L	97
92) sec-butylbenzene	13.109	105	619535	56.50	ug/L	99
93) 1,3-dichlorobenzene	13.217	146	308135	53.99	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20639.D  
 Acq On : 9 Jul 2013 4:14 pm  
 Operator : amym  
 Sample : mc22424-2ms  
 Misc : MS29354,MSV802,,,,5,5  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 10 09:10:31 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

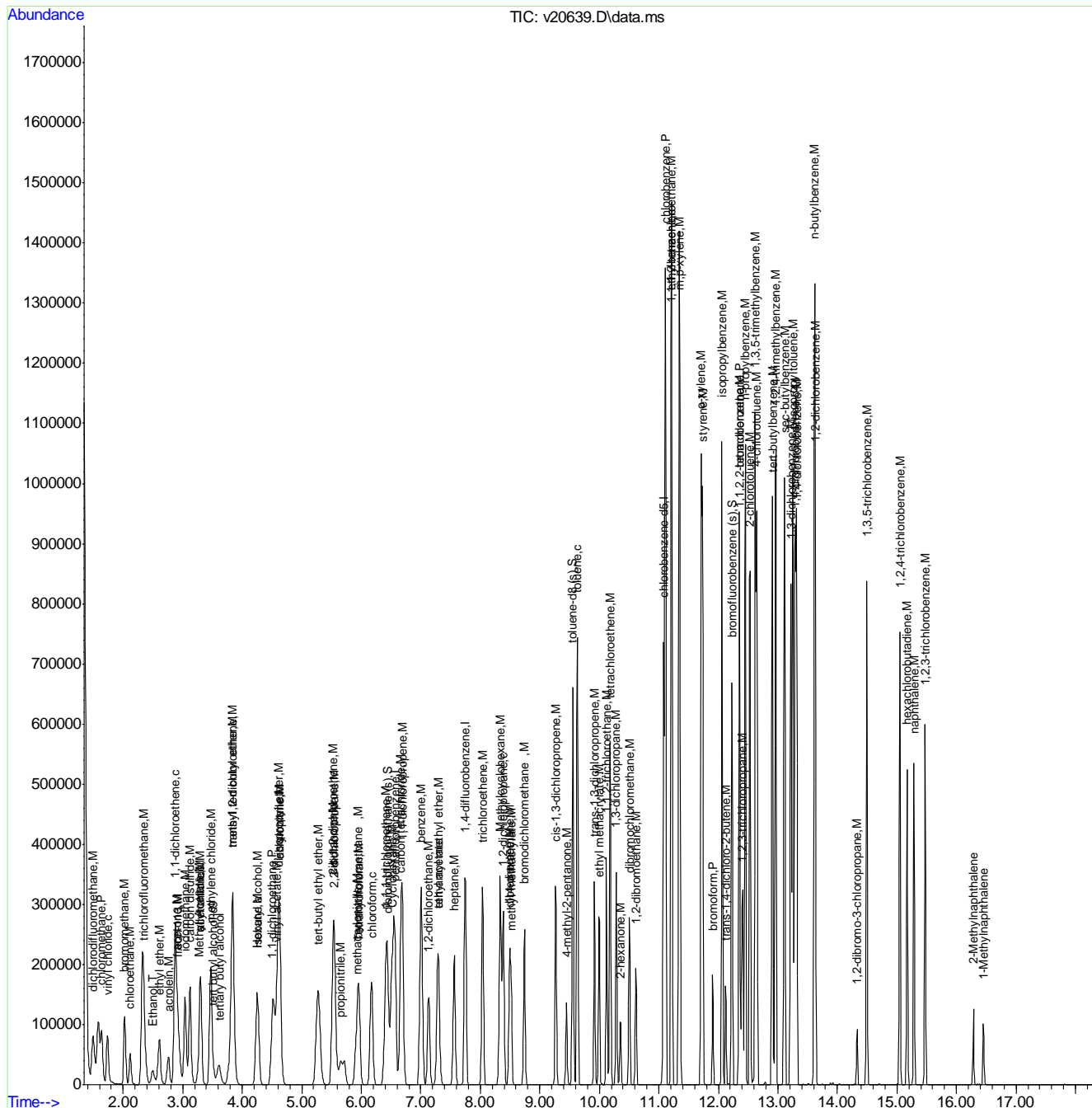
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	13.250	119	531559	57.28	ug/L	98
95) 1,4-dichlorobenzene	13.312	146	316746	50.00	ug/L	99
96) 1,2-dichlorobenzene	13.629	146	294365	53.27	ug/L	99
97) n-butylbenzene	13.614	91	483400	53.57	ug/L	95
98) 1,2-dibromo-3-chloropr...	14.331	75	18643	43.30	ug/L	96
99) 1,3,5-trichlorobenzene	14.495	180	235319	53.03	ug/L	97
100) 1,2,4-trichlorobenzene	15.050	180	212278	50.14	ug/L	97
101) hexachlorobutadiene	15.172	225	94251	66.94	ug/L	92
102) naphthalene	15.285	128	366535	39.60	ug/L	100
103) 1,2,3-trichlorobenzene	15.474	180	172179	45.09	ug/L	98
104) 2-Methylnaphthalene	16.284	142	53168	12.31	ug/L	97
105) 1-Methylnaphthalene	16.454	142	44009	12.47	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20639.D  
 Acq On : 9 Jul 2013 4:14 pm  
 Operator : amym  
 Sample : mc22424-2ms  
 Misc : MS29354,MSV802,,,,5,5  
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jul 10 09:10:31 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20640.D  
 Acq On : 9 Jul 2013 4:41 pm  
 Operator : amym  
 Sample : mc22424-2msd  
 Misc : MS29354,MSV802,,,,5,5  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 10 09:13:46 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.502	65	62526	500.00	ug/L	-0.03	
4) pentafluorobenzene	6.562	168	249789	50.00	ug/L	-0.01	
43) 1,4-difluorobenzene	7.746	114	365307	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.080	82	197877	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.291	152	201667	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.441	113	128491	52.45	ug/L	-0.02	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.90%	
60) toluene-d8 (s)	9.555	98	433859	51.06	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.12%	
82) bromofluorobenzene (s)	12.228	95	193291	50.71	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.42%	
Target Compounds							
2) tertiary butyl alcohol	3.613	59	73318	503.63	ug/L		Qvalue 94
3) Ethanol	2.501	45	54315	4365.50	ug/L		91
5) dichlorodifluoromethane	1.498	85	156263	63.06	ug/L		99
6) chloromethane	1.636	50	137277	49.77	ug/L		99
7) vinyl chloride	1.736	62	106041	38.03	ug/L		96
8) bromomethane	2.023	96	86149	56.33	ug/L		96
9) chloroethane	2.116	64	59419	50.19	ug/L		96
10) ethyl ether	2.606	59	81830	45.61	ug/L		85
11) acetonitrile	3.295	41	166080	41.28	ug/L		92
12) trichlorofluoromethane	2.346	101	205975	57.65	ug/L		100
13) freon-113	2.911	101	118011	47.62	ug/L		97
14) acrolein	2.758	56	63054	228.28	ug/L		100
15) 1,1-dichloroethene	2.869	96	100521	48.57	ug/L		82
16) acetone	2.899	58	8562	23.45	ug/L	#	1
17) Methyl Acetate	3.280	43	75628	26.73	ug/L	#	85
18) methylene chloride	3.469	84	111567	39.48	ug/L	#	74
19) methyl tert butyl ether	3.837	73	264962	41.42	ug/L		95
20) acrylonitrile	4.622	53	202297	51.59	ug/L		98
21) allyl chloride	3.295	41	166080	41.28	ug/L		79
22) trans-1,2-dichloroethene	3.837	96	110566	43.60	ug/L		86
23) iodomethane	3.038	142	213650	44.50	ug/L		93
24) carbon disulfide	3.122	76	312736	58.69	ug/L		100
25) propionitrile	5.648	54	13471	32.48	ug/L		100
26) vinyl acetate	4.574	43	321714	32.89	ug/L		80
27) chloroprene	4.622	53	202297	51.59	ug/L		76
28) di-isopropyl ether	4.605	45	356760	36.37	ug/L		90
29) methacrylonitrile	5.922	41	66916	33.31	ug/L		86
30) 2-butanone	5.535	72	9164	30.10	ug/L	#	1
31) Hexane	4.251	41	109362	44.39	ug/L	#	82
32) 1,1-dichloroethane	4.511	63	211736	44.43	ug/L		97
33) tert-butyl ethyl ether	5.276	59	324139	43.26	ug/L		92
34) isobutyl alcohol	4.251	43	89932	197.25	ug/L		90
35) 2,2-dichloropropane	5.548	77	148933	59.58	ug/L		98
36) cis-1,2-dichloroethene	5.532	96	119793	41.16	ug/L	#	82

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20640.D  
 Acq On : 9 Jul 2013 4:41 pm  
 Operator : amym  
 Sample : mc22424-2msd  
 Misc : MS29354,MSV802,,,,5,5  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 10 09:13:46 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.292	43	92563m	41.31	ug/L	
38) bromochloromethane	5.954	128	64535	44.88	ug/L #	82
39) chloroform	6.170	83	228795	48.85	ug/L	99
41) Tetrahydrofuran	5.960	42	24009	29.50	ug/L	88
42) 1,1,1-trichloroethane	6.414	97	206210	53.89	ug/L	96
44) Cyclohexane	6.521	56	185974	38.76	ug/L	84
45) carbon tetrachloride	6.668	117	188299	61.97	ug/L	97
46) 1,1-dichloropropene	6.687	75	160264	52.00	ug/L	97
47) benzene	7.006	78	414027	43.50	ug/L	99
48) 1,2-dichloroethane	7.132	62	192397	51.85	ug/L	93
49) tert-amyl methyl ether	7.292	73	246048	46.32	ug/L	86
50) heptane	7.562	43	124991	40.75	ug/L	85
51) trichloroethene	8.038	95	129156	50.47	ug/L	100
52) 1,2-dichloropropane	8.386	63	122600	42.91	ug/L	98
53) dibromomethane	8.490	93	80976	47.37	ug/L	99
54) bromodichloromethane	8.740	83	167712	53.66	ug/L	100
55) Methylcyclohexane	8.337	83	166453	45.56	ug/L #	83
57) methyl methacrylate	8.518	69	59490	39.84	ug/L #	71
58) 1,4-dioxane	8.497	88	4111	166.42	ug/L	75
59) cis-1,3-dichloropropene	9.267	75	173425	44.23	ug/L	99
61) 4-methyl-2-pentanone	9.449	43	95973	37.61	ug/L	90
62) toluene	9.630	92	294355	47.51	ug/L	98
63) trans-1,3-dichloropropene	9.918	75	161322	49.96	ug/L	100
64) 1,1,2-trichloroethane	10.123	83	90504	45.74	ug/L	98
65) ethyl methacrylate	9.997	69	127959	42.73	ug/L	78
67) tetrachloroethene	10.182	166	152424	55.32	ug/L	97
68) 1,3-dichloropropane	10.284	76	172321	42.84	ug/L	100
69) dibromochloromethane	10.505	129	132648	51.18	ug/L	99
70) 1,2-dibromoethane	10.613	107	114565	47.01	ug/L	100
71) 2-hexanone	10.355	43	69228	35.43	ug/L	89
72) chlorobenzene	11.109	112	359776	50.73	ug/L	99
73) 1,1,1,2-tetrachloroethane	11.209	131	133703	55.98	ug/L	98
74) ethylbenzene	11.214	91	604682	50.43	ug/L	98
75) m,p-xylene	11.345	106	454107	101.32	ug/L	99
76) o-xylene	11.711	106	228540	53.08	ug/L	100
77) styrene	11.732	104	373259	46.85	ug/L	97
78) bromoform	11.906	173	73440	50.20	ug/L	96
79) trans-1,4-dichloro-2-b...	12.122	53	35156m	37.29	ug/L	
81) isopropylbenzene	12.063	105	602865	54.92	ug/L	97
83) bromobenzene	12.354	156	174614	51.08	ug/L	97
84) 1,1,2,2-tetrachloroethane	12.358	83	134865	43.94	ug/L	99
85) 1,2,3-trichloropropane	12.399	75	157563	44.77	ug/L	68
86) n-propylbenzene	12.451	91	699929	53.54	ug/L	96
87) 2-chlorotoluene	12.530	91	436698	52.64	ug/L	96
88) 4-chlorotoluene	12.642	91	515317	53.70	ug/L	97
89) 1,3,5-trimethylbenzene	12.621	105	522714	50.74	ug/L	100
90) tert-butylbenzene	12.907	91	306910	58.48	ug/L	97
91) 1,2,4-trimethylbenzene	12.961	105	534445	50.30	ug/L	98
92) sec-butylbenzene	13.110	105	620983	55.66	ug/L	98
93) 1,3-dichlorobenzene	13.218	146	310884	53.54	ug/L	98



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20640.D  
 Acq On : 9 Jul 2013 4:41 pm  
 Operator : amym  
 Sample : mc22424-2msd  
 Misc : MS29354,MSV802,,,,5,5  
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 10 09:13:46 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

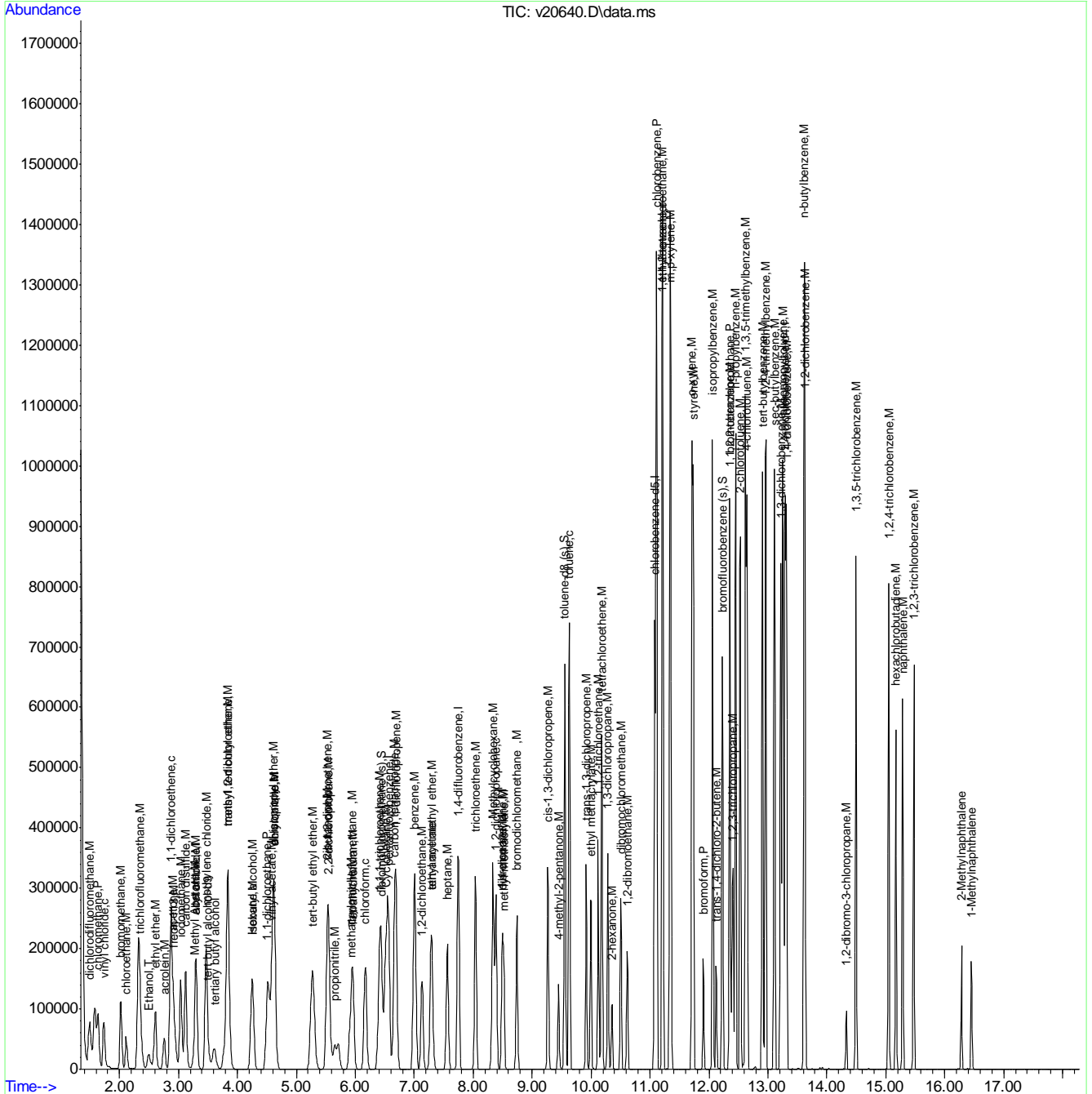
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	13.251	119	530773	56.21	ug/L	98
95) 1,4-dichlorobenzene	13.313	146	318452	49.41	ug/L	98
96) 1,2-dichlorobenzene	13.630	146	299596	53.29	ug/L	100
97) n-butylbenzene	13.615	91	477637	52.02	ug/L	95
98) 1,2-dibromo-3-chloropr...	14.331	75	19663	44.55	ug/L	94
99) 1,3,5-trichlorobenzene	14.496	180	238514	52.83	ug/L	98
100) 1,2,4-trichlorobenzene	15.051	180	223634	51.92	ug/L	97
101) hexachlorobutadiene	15.172	225	97634	68.15	ug/L	95
102) naphthalene	15.285	128	419574	44.55	ug/L	100
103) 1,2,3-trichlorobenzene	15.474	180	194901	50.16	ug/L	95
104) 2-Methylnaphthalene	16.284	142	86646	19.72	ug/L	98
105) 1-Methylnaphthalene	16.454	142	77013	21.44	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\
Data File : v20640.D
Acq On : 9 Jul 2013 4:41 pm
Operator : amym
Sample : mc22424-2msd
Misc : MS29354,MSV802,,,,5,5
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jul 10 09:13:46 2013
Quant Method : C:\msdchem\1\METHODS\v130624w.m
Quant Title : SW-846 Method 8260
QLast Update : Tue Jun 25 09:47:02 2013
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20660.D  
 Acq On : 10 Jul 2013 1:30 am  
 Operator : amym  
 Sample : mc22412-1ms  
 Misc : MS29376,MSV803,,,,5,5  
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Jul 10 10:31:24 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.506	65	60365	500.00	ug/L	-0.03
4) pentafluorobenzene	6.566	168	237554	50.00	ug/L	-0.01
43) 1,4-difluorobenzene	7.750	114	340699	50.00	ug/L	0.00
66) chlorobenzene-d5	11.081	82	185385	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.292	152	191533	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.447	113	121960	52.35	ug/L	-0.01
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.70%
60) toluene-d8 (s)	9.557	98	397882	50.21	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.42%
82) bromofluorobenzene (s)	12.229	95	181971	50.27	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.54%
Target Compounds						
2) tertiary butyl alcohol	3.617	59	75394	536.43	ug/L	94
3) Ethanol	2.503	45	52454	4366.85	ug/L #	26
5) dichlorodifluoromethane	1.500	85	149546	63.48	ug/L	99
6) chloromethane	1.637	50	126152	48.10	ug/L	97
7) vinyl chloride	1.739	62	107783	40.64	ug/L	96
8) bromomethane	2.026	96	86419	59.42	ug/L	95
9) chloroethane	2.120	64	59291	52.67	ug/L	96
10) ethyl ether	2.611	59	87376	51.21	ug/L	85
11) acetonitrile	3.300	41	167258	43.72	ug/L	91
12) trichlorofluoromethane	2.350	101	212348	62.63	ug/L	99
13) freon-113	2.915	101	120163	50.99	ug/L	99
14) acrolein	2.762	56	61820	235.34	ug/L	100
15) 1,1-dichloroethene	2.874	96	104508	53.10	ug/L #	77
16) acetone	2.907	58	7994	23.02	ug/L #	1
17) Methyl Acetate	3.286	43	76842	28.56	ug/L #	87
18) methylene chloride	3.474	84	116575	43.38	ug/L #	72
19) methyl tert butyl ether	3.842	73	271376	44.61	ug/L	94
20) acrylonitrile	4.629	53	211298	56.66	ug/L	98
21) allyl chloride	3.300	41	167255	43.71	ug/L	79
22) trans-1,2-dichloroethene	3.843	96	117508	48.73	ug/L	85
23) iodomethane	3.043	142	216494	47.41	ug/L	92
24) carbon disulfide	3.126	76	323281	62.66	ug/L	100
25) propionitrile	5.654	54	13890	35.22	ug/L	100
26) vinyl acetate	4.580	43	331294	35.62	ug/L	83
27) chloroprene	4.629	53	211298	56.66	ug/L	72
28) di-isopropyl ether	4.611	45	363531	38.97	ug/L	91
29) methacrylonitrile	5.927	41	69072	36.15	ug/L	83
30) 2-butanone	5.540	72	17535	60.56	ug/L #	1
31) Hexane	4.257	41	105540	45.05	ug/L #	83
32) 1,1-dichloroethane	4.518	63	218736	48.27	ug/L	98
33) tert-butyl ethyl ether	5.282	59	330634	46.40	ug/L	90
34) isobutyl alcohol	4.257	43	84964	195.95	ug/L	91
35) 2,2-dichloropropane	5.553	77	136725	57.51	ug/L	56
36) cis-1,2-dichloroethene	5.539	96	912998	329.87	ug/L	89

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20660.D  
 Acq On : 10 Jul 2013 1:30 am  
 Operator : amym  
 Sample : mc22412-1ms  
 Misc : MS29376,MSV803,,,,5,5  
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Jul 10 10:31:24 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.298	43	94938m	44.55	ug/L	
38) bromochloromethane	5.959	128	66468	48.61	ug/L	# 84
39) chloroform	6.176	83	237802	53.38	ug/L	98
41) Tetrahydrofuran	5.965	42	24789	32.02	ug/L	82
42) 1,1,1-trichloroethane	6.419	97	216430	59.25	ug/L	96
44) Cyclohexane	6.525	56	189237	42.29	ug/L	85
45) carbon tetrachloride	6.672	117	200551	70.36	ug/L	100
46) 1,1-dichloropropene	6.691	75	164117	57.09	ug/L	97
47) benzene	7.010	78	418018	47.09	ug/L	100
48) 1,2-dichloroethane	7.135	62	202267	58.45	ug/L	93
49) tert-amyl methyl ether	7.296	73	249010	50.26	ug/L	87
50) heptane	7.565	43	118108	41.28	ug/L	85
51) trichloroethene	8.043	95	7084347	2968.45	ug/L	100
52) 1,2-dichloropropane	8.388	63	122712	46.06	ug/L	99
53) dibromomethane	8.493	93	82924	52.01	ug/L	96
54) bromodichloromethane	8.742	83	176684	60.02	ug/L	99
55) Methylcyclohexane	8.340	83	160486	47.10	ug/L	# 83
57) methyl methacrylate	8.521	69	60685	43.58	ug/L	# 69
58) 1,4-dioxane	8.498	88	3998	173.67	ug/L	60
59) cis-1,3-dichloropropene	9.269	75	176901	48.16	ug/L	99
61) 4-methyl-2-pentanone	9.451	43	97662	41.03	ug/L	89
62) toluene	9.632	92	292287	50.59	ug/L	97
63) trans-1,3-dichloropropene	9.919	75	166285	54.82	ug/L	95
64) 1,1,2-trichloroethane	10.125	83	92656	50.21	ug/L	97
65) ethyl methacrylate	9.999	69	128901	46.15	ug/L	77
67) tetrachloroethene	10.184	166	153241	59.36	ug/L	94
68) 1,3-dichloropropane	10.286	76	176954	46.96	ug/L	99
69) dibromochloromethane	10.506	129	140487	57.26	ug/L	98
70) 1,2-dibromoethane	10.615	107	118861	52.06	ug/L	99
71) 2-hexanone	10.356	43	69160	37.78	ug/L	89
72) chlorobenzene	11.111	112	363284	54.68	ug/L	100
73) 1,1,1,2-tetrachloroethane	11.210	131	138846	62.16	ug/L	97
74) ethylbenzene	11.215	91	613042	54.58	ug/L	99
75) m,p-xylene	11.346	106	459681	109.47	ug/L	99
76) o-xylene	11.713	106	229413	56.88	ug/L	98
77) styrene	11.734	104	379195	50.80	ug/L	94
78) bromoform	11.907	173	79670	56.26	ug/L	99
79) trans-1,4-dichloro-2-b...	12.392	53	31297	35.44	ug/L	98
81) isopropylbenzene	12.065	105	614815	58.97	ug/L	97
83) bromobenzene	12.355	156	176434	54.35	ug/L	91
84) 1,1,2,2-tetrachloroethane	12.359	83	137449	47.15	ug/L	99
85) 1,2,3-trichloropropane	12.400	75	157035	46.98	ug/L	69
86) n-propylbenzene	12.453	91	699643	56.35	ug/L	96
87) 2-chlorotoluene	12.531	91	442756	56.20	ug/L	96
88) 4-chlorotoluene	12.643	91	523609	57.45	ug/L	99
89) 1,3,5-trimethylbenzene	12.622	105	527919	53.95	ug/L	99
90) tert-butylbenzene	12.908	91	311882	62.57	ug/L	99
91) 1,2,4-trimethylbenzene	12.962	105	542034	53.71	ug/L	98
92) sec-butylbenzene	13.111	105	630881	59.54	ug/L	100
93) 1,3-dichlorobenzene	13.219	146	314317	57.00	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20660.D  
 Acq On : 10 Jul 2013 1:30 am  
 Operator : amym  
 Sample : mc22412-1ms  
 Misc : MS29376,MSV803,,,,5,5  
 ALS Vial : 40 Sample Multiplier: 1

Quant Time: Jul 10 10:31:24 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	13.252	119	530011	59.10	ug/L	98
95) 1,4-dichlorobenzene	13.314	146	320069	52.28	ug/L	98
96) 1,2-dichlorobenzene	13.631	146	301193	56.40	ug/L	98
97) n-butylbenzene	13.616	91	482018	55.28	ug/L	96
98) 1,2-dibromo-3-chloropr...	14.332	75	20559	48.14	ug/L	87
99) 1,3,5-trichlorobenzene	14.496	180	236745	55.21	ug/L	97
100) 1,2,4-trichlorobenzene	15.052	180	217395	53.14	ug/L	97
101) hexachlorobutadiene	15.173	225	94178	69.22	ug/L	96
102) naphthalene	15.286	128	385175	43.06	ug/L	100
103) 1,2,3-trichlorobenzene	15.475	180	180249	48.84	ug/L	95
104) 2-Methylnaphthalene	16.285	142	59148	14.18	ug/L	98
105) 1-Methylnaphthalene	16.454	142	49811	14.60	ug/L	98

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

7.4.7

7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20661.D  
 Acq On : 10 Jul 2013 1:57 am  
 Operator : amym  
 Sample : mc22412-1msd  
 Misc : MS29376,MSV803,,,,5,5  
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 10 10:32:21 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.514	65	66615	500.00	ug/L	-0.02
4) pentafluorobenzene	6.571	168	242799	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.752	114	349652	50.00	ug/L	0.00
66) chlorobenzene-d5	11.082	82	190191	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.292	152	196241	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.452	113	124865	52.44	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	104.88%
60) toluene-d8 (s)	9.558	98	413544	50.85	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.70%
82) bromofluorobenzene (s)	12.229	95	185475	50.01	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.02%
Target Compounds						
2) tertiary butyl alcohol	3.626	59	82641	532.83	ug/L	94
3) Ethanol	2.513	45	56931	4294.88	ug/L #	26
5) dichlorodifluoromethane	1.510	85	155226	64.51	ug/L	99
6) chloromethane	1.646	50	126602	47.23	ug/L	99
7) vinyl chloride	1.749	62	108199	39.92	ug/L	95
8) bromomethane	2.035	96	87932	59.15	ug/L	93
9) chloroethane	2.129	64	59153	51.41	ug/L	99
10) ethyl ether	2.619	59	92246	52.90	ug/L	85
11) acetonitrile	3.308	41	167854	42.92	ug/L	93
12) trichlorofluoromethane	2.360	101	207708	59.87	ug/L	99
13) freon-113	2.924	101	119132	49.46	ug/L	93
14) acrolein	2.771	56	65658	244.55	ug/L	100
15) 1,1-dichloroethene	2.882	96	105721	52.55	ug/L #	79
16) acetone	2.915	58	8665	24.41	ug/L #	1
17) Methyl Acetate	3.293	43	81730	29.72	ug/L #	87
18) methylene chloride	3.482	84	120079	43.72	ug/L #	77
19) methyl tert butyl ether	3.850	73	285145	45.86	ug/L	95
20) acrylonitrile	4.636	53	208985	54.83	ug/L	98
21) allyl chloride	3.308	41	167866	42.93	ug/L	80
22) trans-1,2-dichloroethene	3.851	96	119246	48.38	ug/L	87
23) iodomethane	3.051	142	218082	46.73	ug/L	89
24) carbon disulfide	3.135	76	322075	61.41	ug/L	100
25) propionitrile	5.661	54	14343	35.58	ug/L	100
26) vinyl acetate	4.587	43	340296	35.80	ug/L	82
27) chloroprene	4.636	53	208985	54.83	ug/L	74
28) di-isopropyl ether	4.618	45	370531	38.86	ug/L	90
29) methacrylonitrile	5.933	41	72639	37.20	ug/L	90
30) 2-butanone	5.547	72	17823	60.22	ug/L #	1
31) Hexane	4.264	41	102369	42.75	ug/L #	84
32) 1,1-dichloroethane	4.526	63	219328	47.35	ug/L	99
33) tert-butyl ethyl ether	5.289	59	340710	46.78	ug/L	93
34) isobutyl alcohol	4.264	43	82956	187.19	ug/L	94
35) 2,2-dichloropropane	5.560	77	135690	55.85	ug/L	52
36) cis-1,2-dichloroethene	5.545	96	921361	325.70	ug/L	91

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20661.D  
 Acq On : 10 Jul 2013 1:57 am  
 Operator : amym  
 Sample : mc22412-1msd  
 Misc : MS29376,MSV803,,,,5,5  
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 10 10:32:21 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.298	43	98496m	45.22	ug/L	
38) bromochloromethane	5.965	128	67662	48.41	ug/L #	85
39) chloroform	6.181	83	237504	52.17	ug/L	100
41) Tetrahydrofuran	5.971	42	26368	33.33	ug/L	84
42) 1,1,1-trichloroethane	6.423	97	214069	57.41	ug/L	96
44) Cyclohexane	6.530	56	188339	41.01	ug/L	84
45) carbon tetrachloride	6.677	117	196244	67.22	ug/L	100
46) 1,1-dichloropropene	6.695	75	163432	55.40	ug/L	99
47) benzene	7.014	78	423778	46.51	ug/L	100
48) 1,2-dichloroethane	7.139	62	203684	57.35	ug/L	92
49) tert-amyl methyl ether	7.300	73	261094	51.35	ug/L	87
50) heptane	7.568	43	114609	39.04	ug/L	86
51) trichloroethene	8.046	95	7006074	2860.49	ug/L	100
52) 1,2-dichloropropane	8.391	63	123542	45.18	ug/L	98
53) dibromomethane	8.495	93	84215	51.47	ug/L	99
54) bromodichloromethane	8.744	83	178208	59.07	ug/L	99
55) Methylcyclohexane	8.342	83	159858	45.71	ug/L #	83
57) methyl methacrylate	8.523	69	63552	44.47	ug/L #	71
58) 1,4-dioxane	8.501	88	4454	188.80	ug/L	73
59) cis-1,3-dichloropropene	9.271	75	180776	47.96	ug/L	100
61) 4-methyl-2-pentanone	9.452	43	102704	42.05	ug/L	90
62) toluene	9.633	92	298430	50.33	ug/L	100
63) trans-1,3-dichloropropene	9.920	75	169789	54.56	ug/L	95
64) 1,1,2-trichloroethane	10.126	83	95266	50.30	ug/L	98
65) ethyl methacrylate	10.000	69	134730	47.01	ug/L	76
67) tetrachloroethene	10.185	166	152099	57.43	ug/L	97
68) 1,3-dichloropropane	10.287	76	180535	46.70	ug/L	100
69) dibromochloromethane	10.507	129	143097	56.88	ug/L	98
70) 1,2-dibromoethane	10.616	107	123457	52.71	ug/L	99
71) 2-hexanone	10.357	43	74535	39.69	ug/L	89
72) chlorobenzene	11.111	112	367430	53.91	ug/L	99
73) 1,1,1,2-tetrachloroethane	11.211	131	139119	60.69	ug/L	97
74) ethylbenzene	11.216	91	614315	53.31	ug/L	98
75) m,p-xylene	11.346	106	460243	106.84	ug/L	100
76) o-xylene	11.713	106	231147	55.86	ug/L	98
77) styrene	11.734	104	382643	49.97	ug/L	95
78) bromoform	11.907	173	81282	56.01	ug/L	98
79) trans-1,4-dichloro-2-b...	12.392	53	32516	35.89	ug/L	97
81) isopropylbenzene	12.065	105	619643	58.01	ug/L	97
83) bromobenzene	12.354	156	177624	53.40	ug/L	90
84) 1,1,2,2-tetrachloroethane	12.359	83	144281	48.31	ug/L	99
85) 1,2,3-trichloropropane	12.400	75	164710	48.09	ug/L	68
86) n-propylbenzene	12.452	91	704357	55.37	ug/L	96
87) 2-chlorotoluene	12.531	91	442844	54.86	ug/L	96
88) 4-chlorotoluene	12.643	91	526302	56.36	ug/L	99
89) 1,3,5-trimethylbenzene	12.622	105	525702	52.44	ug/L	100
90) tert-butylbenzene	12.908	91	313219	61.33	ug/L	98
91) 1,2,4-trimethylbenzene	12.962	105	541747	52.40	ug/L	98
92) sec-butylbenzene	13.111	105	630756	58.10	ug/L	99
93) 1,3-dichlorobenzene	13.219	146	319229	56.50	ug/L	99



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20661.D  
 Acq On : 10 Jul 2013 1:57 am  
 Operator : amym  
 Sample : mc22412-1msd  
 Misc : MS29376,MSV803,,,,5,5  
 ALS Vial : 41 Sample Multiplier: 1

Quant Time: Jul 10 10:32:21 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	13.252	119	532119	57.92	ug/L	98
95) 1,4-dichlorobenzene	13.314	146	327041	52.14	ug/L	97
96) 1,2-dichlorobenzene	13.631	146	307366	56.18	ug/L	99
97) n-butylbenzene	13.616	91	478910	53.61	ug/L	95
98) 1,2-dibromo-3-chloropr...	14.332	75	22489	50.78	ug/L	91
99) 1,3,5-trichlorobenzene	14.496	180	242573	55.22	ug/L	98
100) 1,2,4-trichlorobenzene	15.052	180	233096	55.61	ug/L	96
101) hexachlorobutadiene	15.173	225	97049	69.62	ug/L	94
102) naphthalene	15.286	128	462980	50.52	ug/L	100
103) 1,2,3-trichlorobenzene	15.475	180	210913	55.78	ug/L	97
104) 2-Methylnaphthalene	16.285	142	100633	23.54	ug/L	98
105) 1-Methylnaphthalene	16.455	142	89393	25.58	ug/L	98

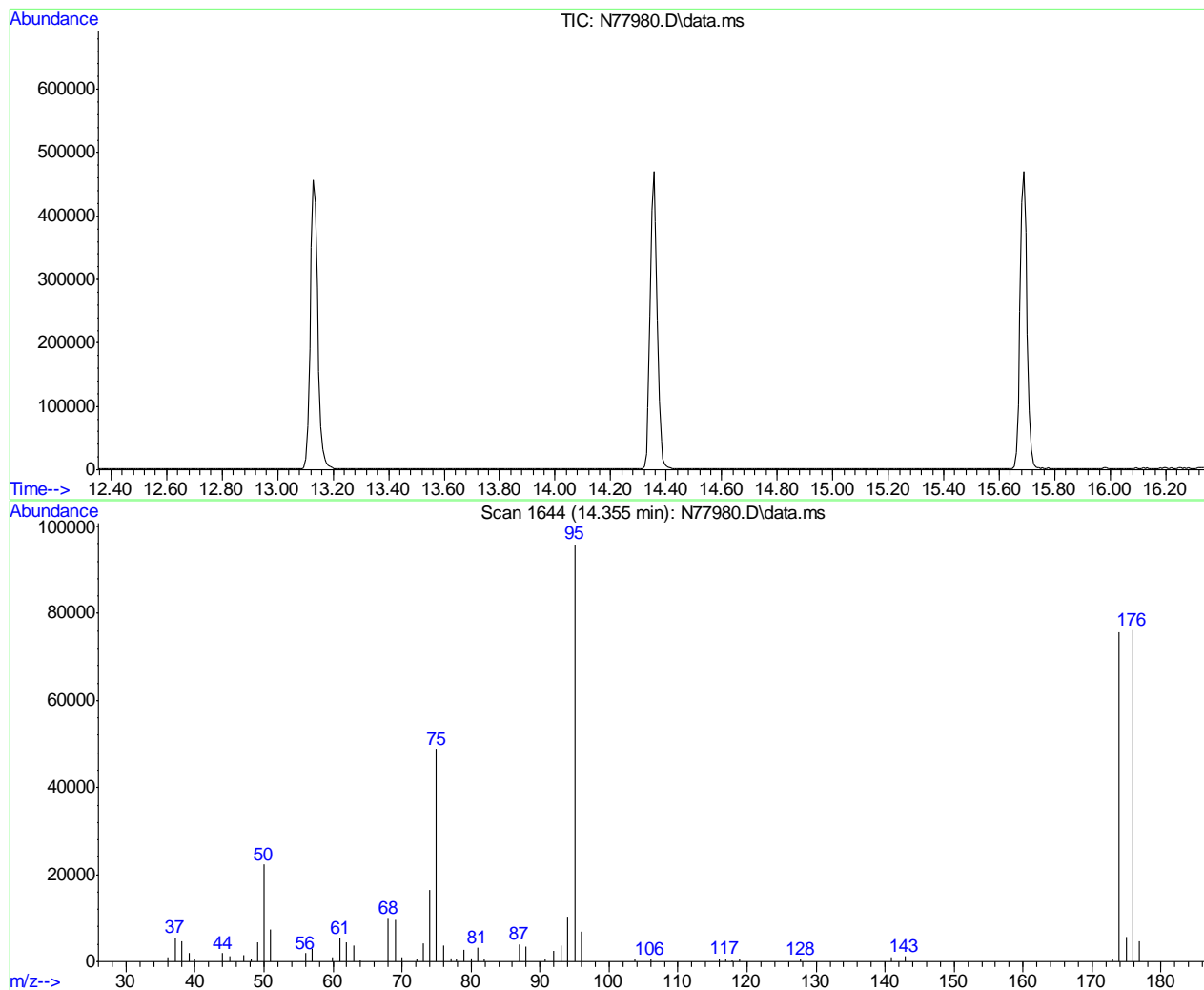
(#) = qualifier out of range (m) = manual integration (+) = signals summed



SW-846 Method 8260

Data File : C:\msdchem\1\data\N130707\N77980.D Vial: 25  
 Acq On : 7 Jul 2013 1:58 pm Operator: amym  
 Sample : bfb Inst : MSN  
 Misc : MS29311,MSN2927,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n130707w.m (RTE Integrator)  
 Title : SW-846 Method 8260



Spectrum Information: Scan 1644

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.2	22272	PASS
75	95	30	60	50.9	48888	PASS
95	95	100	100	100.0	95960	PASS
96	95	5	9	7.1	6789	PASS
173	174	0.00	2	0.8	613	PASS
174	95	50	150	78.8	75648	PASS
175	174	5	9	7.6	5733	PASS
176	174	95	101	100.6	76080	PASS
177	176	5	9	6.1	4676	PASS

N77980.D n130707w.m Mon Jul 08 08:18:01 2013

Scan 1644 (14.355 min): N77980.D\data.ms  
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	988	51.00	7479	72.10	490	87.00	3946
37.10	5462	56.00	1856	73.00	4207	88.00	3485
38.00	4696	57.00	2924	74.00	16520	90.80	414
39.10	2031	59.90	910	75.00	48888	92.00	2381
40.00	443	61.00	5353	76.00	3696	93.00	3671
44.00	1855	62.00	4453	77.10	649	94.00	10345
45.00	1144	63.00	3573	77.90	399	95.00	95960
47.00	1525	64.00	300	78.90	2682	96.00	6789
48.10	573	68.00	9903	80.00	845	103.80	386
49.00	4510	69.00	9570	80.90	3117	106.00	387
50.00	22272	70.00	952	81.90	605	115.90	400

Scan 1644 (14.355 min): N77980.D\data.ms  
bfb

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
116.90	592						
117.80	346						
118.90	502						
127.80	462						
140.90	1083						
142.90	1158						
172.90	613						
173.90	75648						
174.90	5733						
175.90	76080						
176.90	4676						

SW-846 Method 8260

Data File : C:\msdchem\1\data\N130708\N78000.D

Vial: 17

Acq On : 8 Jul 2013 9:41 am

Operator: jaclynb

Sample : bfb

Inst : MSN

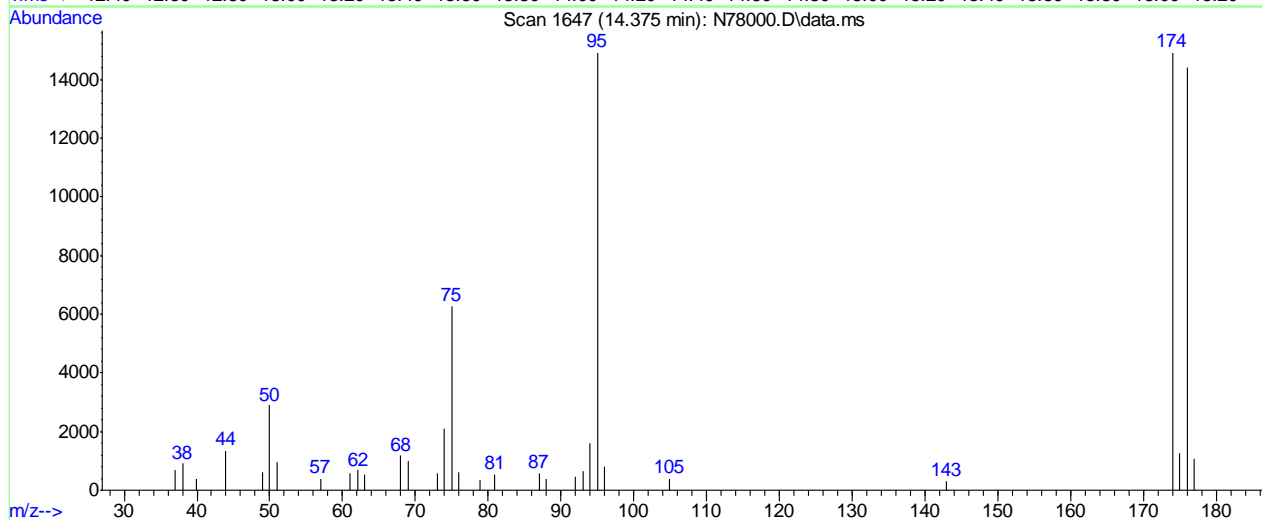
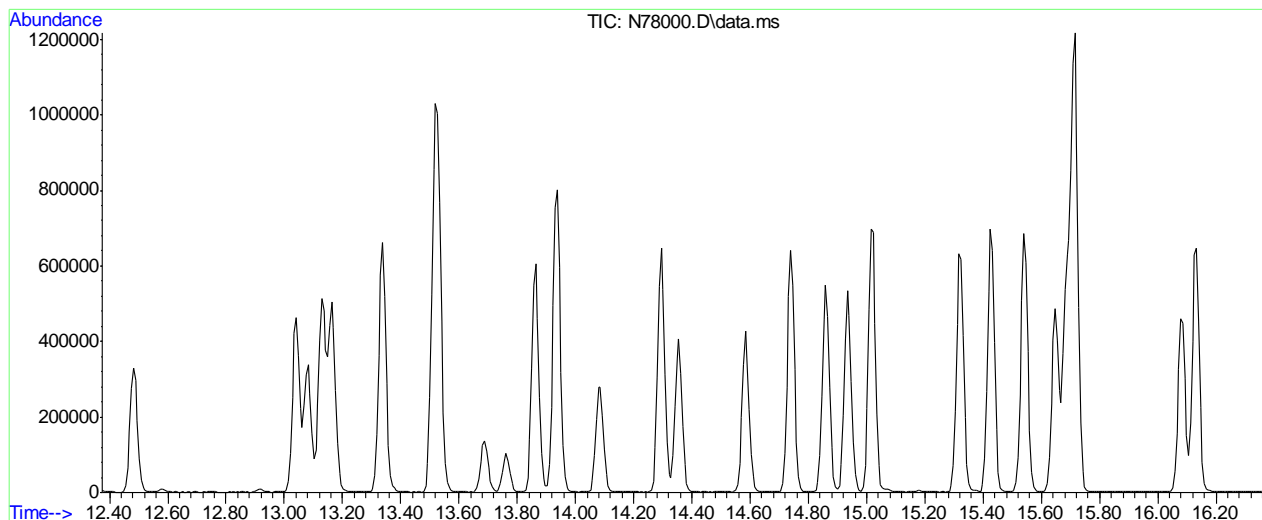
Misc : MS29311,MSN2928,,,,,5,1

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n130707w.m (RTE Integrator)

Title : SW-846 Method 8260



Spectrum Information: Scan 1647

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.4	2895	PASS
75	95	30	60	42.1	6276	PASS
95	95	100	100	100.0	14920	PASS
96	95	5	9	5.4	806	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	100.0	14926	PASS
175	174	5	9	8.4	1257	PASS
176	174	95	101	96.4	14393	PASS
177	176	5	9	7.3	1053	PASS

N78000.D n130707w.m

Mon Jul 08 10:11:15 2013

Scan 1647 (14.375 min): N78000.D\data.ms  
cc2927-50

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
37.00	694	68.00	1174	93.00	651		
38.00	910	69.00	1006	94.00	1617		
39.90	389	73.00	571	95.00	14920		
44.00	1338	74.00	2120	96.00	806		
49.00	625	75.00	6276	104.90	400		
50.00	2895	75.90	618	142.90	309		
51.00	969	78.80	343	173.90	14926		
57.00	395	80.90	536	174.90	1257		
61.00	581	87.00	585	175.90	14393		
62.10	681	87.90	390	176.90	1053		
63.00	528	91.90	449				

SW-846 Method 8260

Data File : C:\msdchem\1\data\N130708\N78026.D

Vial: 43

Acq On : 8 Jul 2013 9:53 pm

Operator: jaclynb

Sample : bfb

Inst : MSN

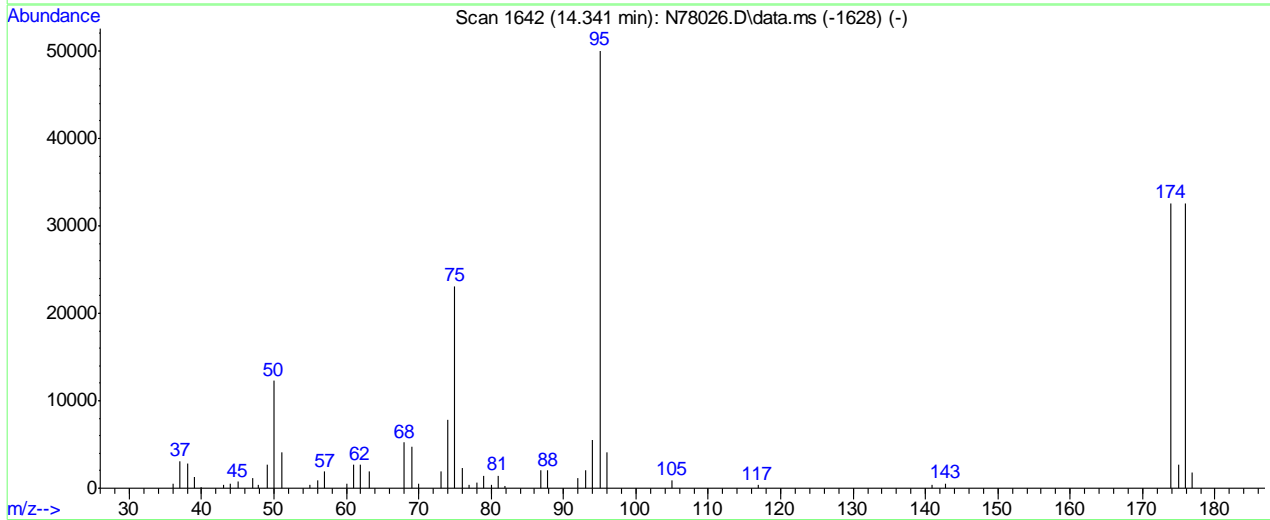
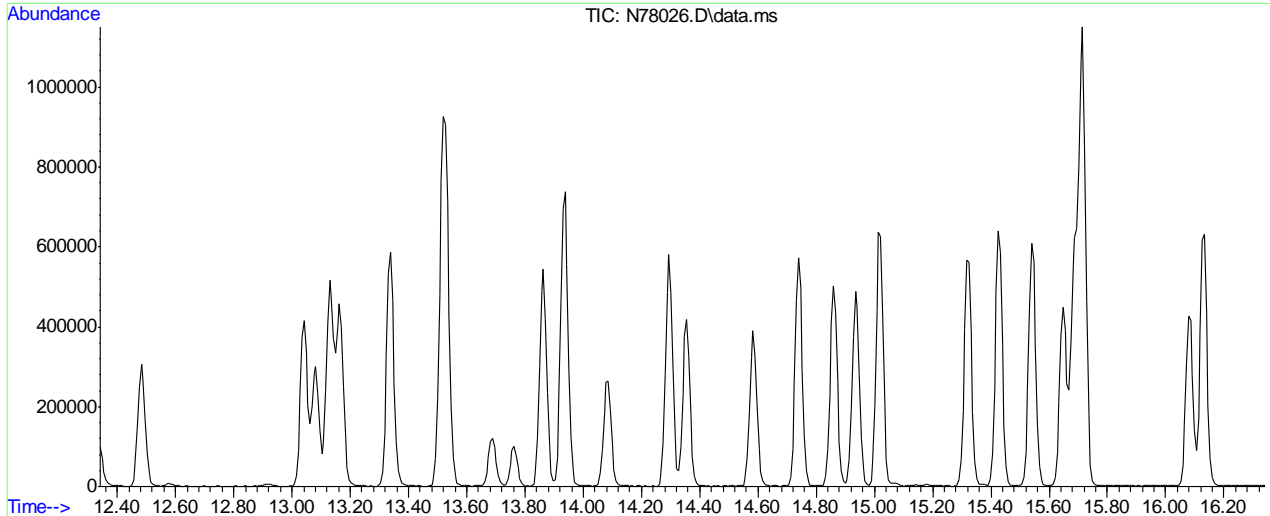
Misc : MS29348,MSN2929,,,,5,1

Multiplr: 1.00

MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\n130707w.m (RTE Integrator)

Title : SW-846 Method 8260



Spectrum Information: Scan 1642

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.5	12252	PASS
75	95	30	60	46.1	23104	PASS
95	95	100	100	100.0	50064	PASS
96	95	5	9	8.1	4058	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	65.1	32608	PASS
175	174	5	9	8.4	2739	PASS
176	174	95	101	99.8	32536	PASS
177	176	5	9	5.7	1855	PASS

N78026.D n130707w.m

Tue Jul 09 08:36:14 2013

Scan 1642 (14.341 min): N78026.D\data.ms (-1628)  
cc2927-50

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	554	50.00	12252	69.90	457	86.90	1997
37.00	3084	51.10	4123	73.00	1928	87.80	2038
38.00	2825	55.00	448	74.00	7772	92.00	1105
39.00	1260	56.00	953	75.00	23104	93.00	2026
39.95	169	57.00	1923	76.00	2315	94.00	5556
43.00	415	60.00	469	77.00	388	95.00	50064
44.00	519	61.00	2635	78.00	617	96.00	4058
45.00	768	61.90	2689	78.90	1455	105.00	915
47.00	1202	63.10	1908	80.00	438	116.90	347
47.90	352	68.00	5212	80.90	1476	140.90	453
49.00	2640	69.00	4784	81.90	323	142.80	514

Scan 1642 (14.341 min): N78026.D\data.ms (-1628)  
cc2927-50

Modified:subtracted

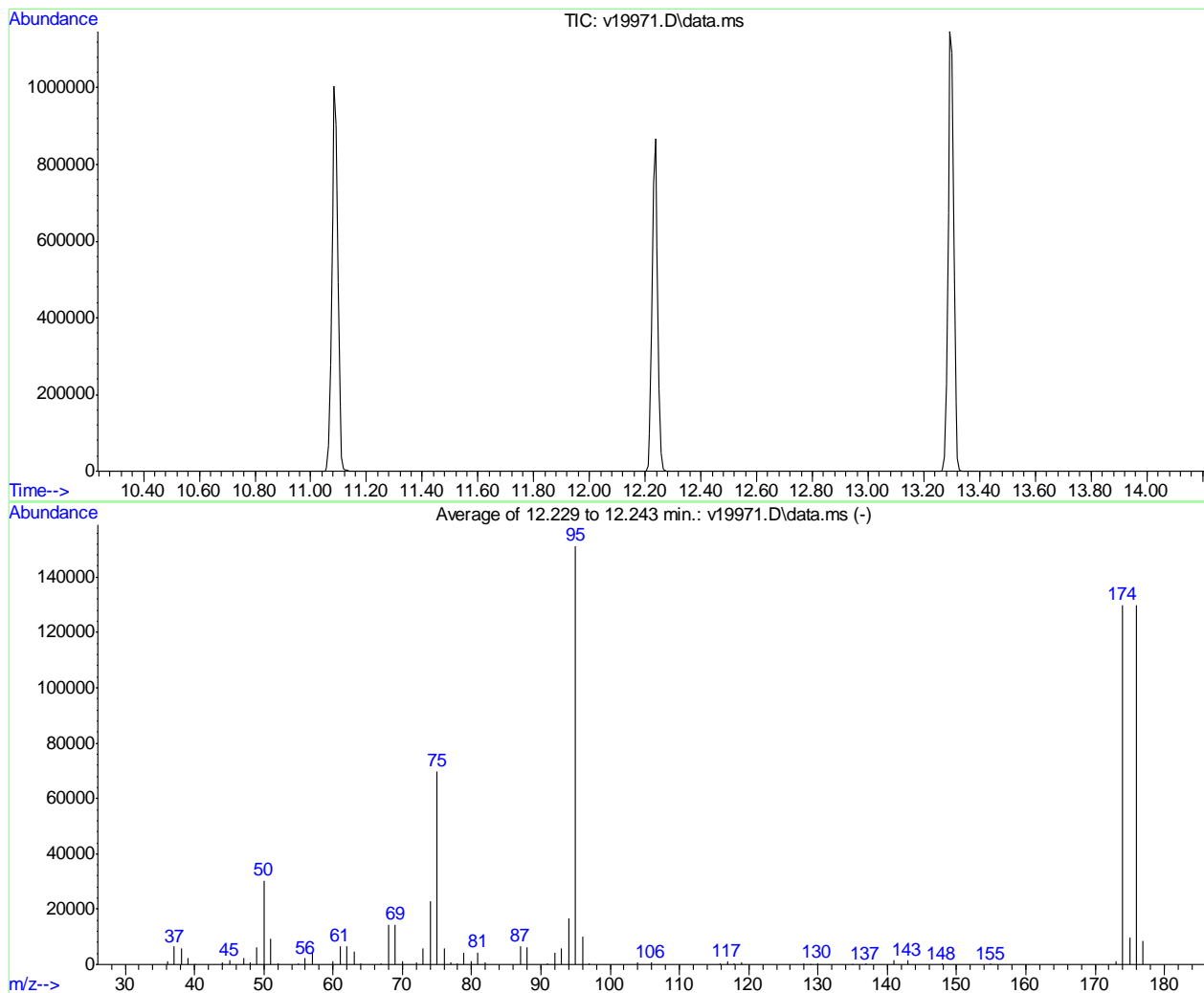
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
173.90	32608						
174.90	2739						
175.90	32536						
176.90	1855						



SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V130624\v19971.D Vial: 2  
 Acq On : 24 Jun 2013 6:20 pm Operator: amym  
 Sample : bfb Inst : MSV  
 Misc : MS29071,MSV776,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v130624w.m (RTE Integrator)  
 Title : SW-846 Method 8260



Spectrum Information: Average of 12.229 to 12.243 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	30379	PASS
75	95	30	60	46.2	69843	PASS
95	95	100	100	100.0	151339	PASS
96	95	5	9	6.8	10272	PASS
173	174	0.00	2	0.8	984	PASS
174	95	50	100	85.9	129925	PASS
175	174	5	9	7.4	9674	PASS
176	174	95	101	99.9	129763	PASS
177	176	5	9	6.6	8539	PASS

v19971.D v130624w.m Tue Jun 25 09:32:45 2013

Average of 12.229 to 12.243 min.: v19971.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1146	51.05	9200	68.00	14451	79.90	1185
37.10	6526	52.10	309	69.00	14512	80.90	4329
38.10	5828	55.00	420	70.00	1184	81.95	828
39.10	2260	56.00	2227	72.00	684	87.00	6636
40.00	106	57.00	4193	73.00	5888	88.00	6285
44.00	882	60.00	1257	74.00	22949	90.95	535
45.05	1393	61.00	6743	75.00	69843	92.00	4120
47.05	2227	62.00	6556	76.00	5846	93.00	5983
48.00	846	63.00	4849	77.00	866	94.00	16851
49.00	6182	64.00	420	77.95	555	95.00	151339
50.00	30379	67.00	264	78.90	4408	96.00	10272

Average of 12.229 to 12.243 min.: v19971.D\data.ms

bfb

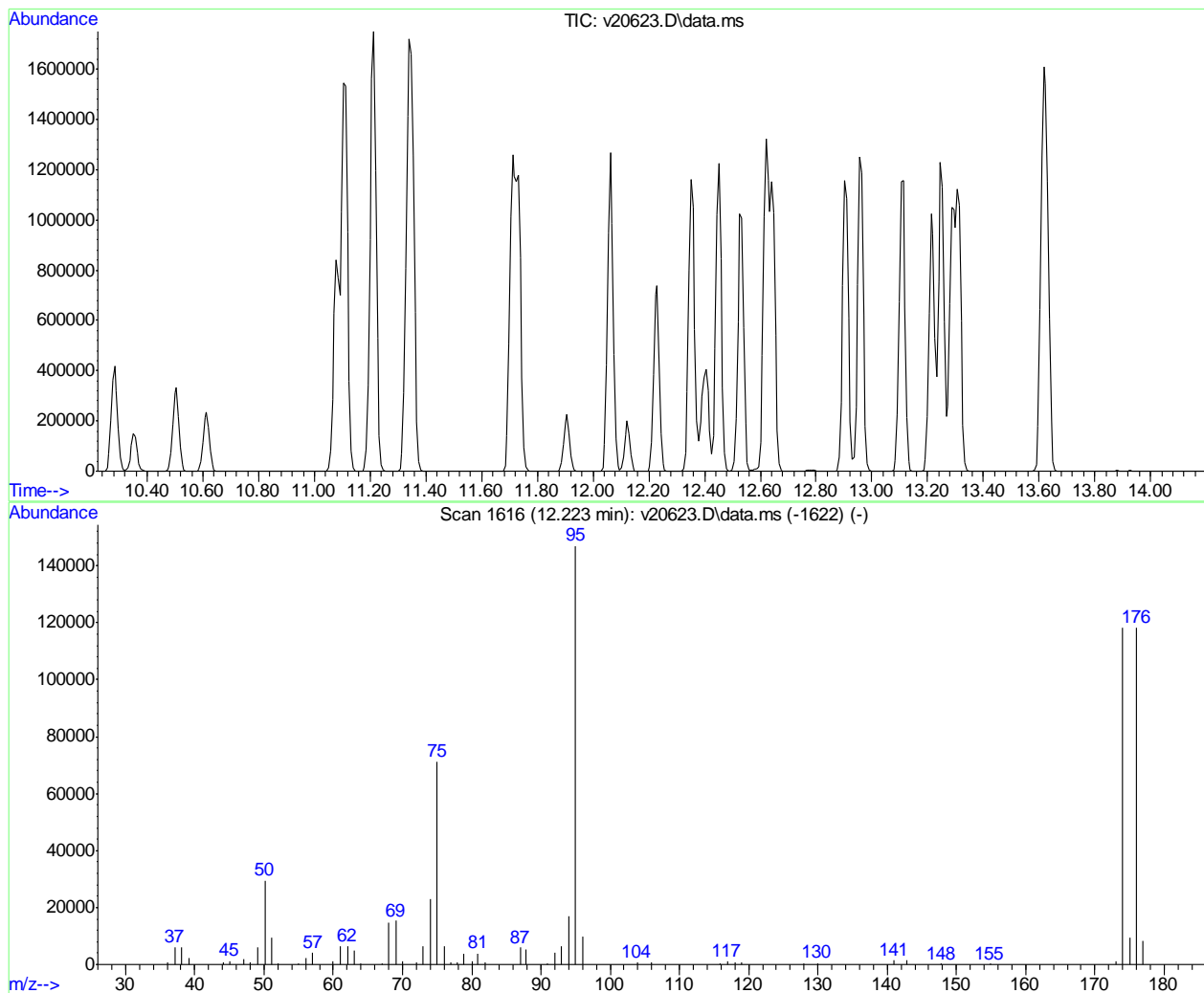
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
97.00	278	136.90	219				
103.95	697	140.95	1451				
105.90	708	142.90	1550				
115.90	555	147.90	346				
116.90	1028	154.95	352				
117.90	585	173.00	984				
118.90	856	174.00	129925				
127.95	532	175.00	9674				
128.90	101	176.00	129763				
129.90	559	176.95	8539				
134.90	115						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V130709\v20623.D Vial: 3  
 Acq On : 9 Jul 2013 9:11 am Operator: amym  
 Sample : bfb Inst : MSV  
 Misc : MS29358,MSV802,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v130624w.m (RTE Integrator)  
 Title : SW-846 Method 8260



Spectrum Information: Scan 1616

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.1	29496	PASS
75	95	30	60	48.5	71344	PASS
95	95	100	100	100.0	147008	PASS
96	95	5	9	6.7	9879	PASS
173	174	0.00	2	0.9	1028	PASS
174	95	50	100	80.4	118192	PASS
175	174	5	9	8.0	9496	PASS
176	174	95	101	100.2	118376	PASS
177	176	5	9	6.9	8155	PASS

v20623.D v130624w.m Tue Jul 09 13:32:50 2013

Scan 1616 (12.223 min): v20623.D\data.ms (-1622)

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	917	52.00	456	69.00	15316	80.90	3893
37.10	6112	55.00	388	70.00	1293	81.90	810
38.10	5898	56.00	2157	72.00	691	87.00	5936
39.10	2241	57.00	4055	73.00	6254	87.90	5341
44.05	665	60.00	1310	74.00	22976	90.90	424
45.00	1322	61.00	6560	75.00	71344	92.00	4005
47.00	2047	62.10	6563	76.00	6257	93.00	6331
48.00	828	63.10	4762	77.00	725	94.00	17056
49.10	5919	64.00	504	77.90	701	95.00	147008
50.10	29496	67.00	342	78.90	3857	96.00	9879
51.10	9531	68.00	14572	80.00	1106	103.90	596

Scan 1616 (12.223 min): v20623.D\data.ms (-1622)

bfb

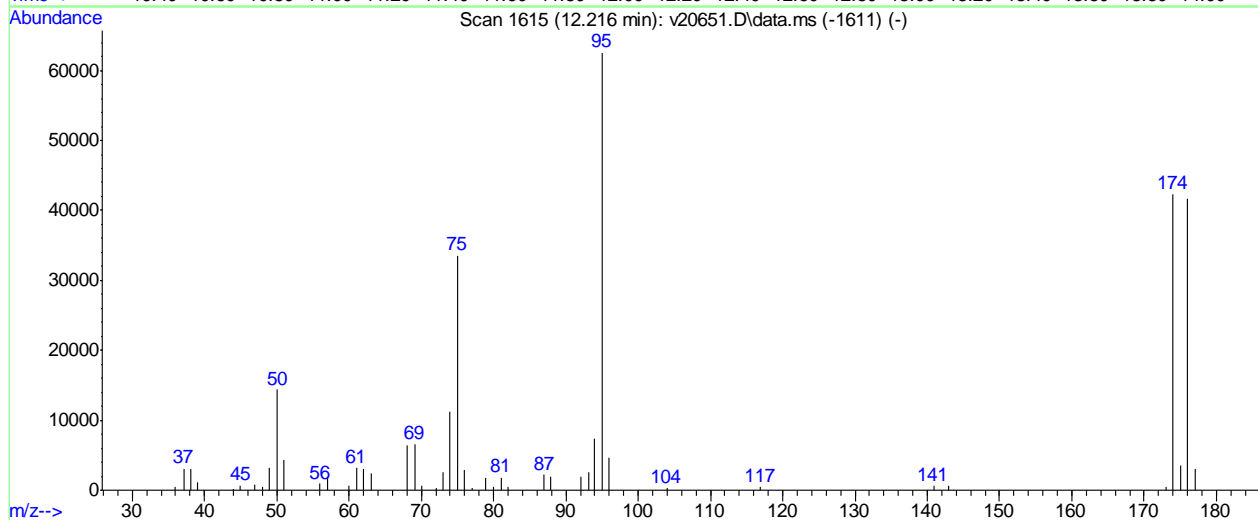
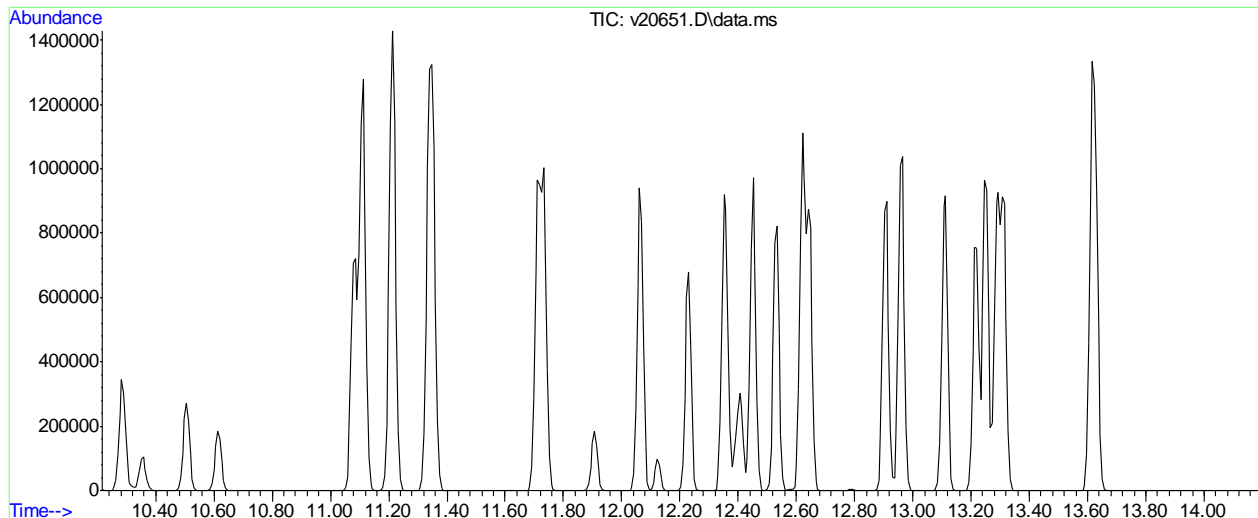
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
105.90	592	173.00	1028				
115.90	521	174.00	118192				
116.90	983	175.00	9496				
118.00	626	176.00	118376				
118.90	762	177.00	8155				
127.90	510						
129.90	515						
141.00	1474						
142.90	1407						
147.80	330						
154.90	352						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V130709\v20651.D Vial: 31  
 Acq On : 9 Jul 2013 9:32 pm Operator: amym  
 Sample : bfb Inst : MSV  
 Misc : MS29358,MSV803,,,,,5,1 Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\v130624w.m (RTE Integrator)  
 Title : SW-846 Method 8260



Spectrum Information: Scan 1615

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.0	14367	PASS
75	95	30	60	53.6	33552	PASS
95	95	100	100	100.0	62584	PASS
96	95	5	9	7.4	4657	PASS
173	174	0.00	2	1.0	420	PASS
174	95	50	100	67.7	42368	PASS
175	174	5	9	8.2	3493	PASS
176	174	95	101	98.5	41736	PASS
177	176	5	9	7.3	3056	PASS

v20651.D v130624w.m Wed Jul 10 10:18:26 2013

Scan 1615 (12.216 min): v20651.D\data.ms (-1611)

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.85	409	56.00	929	74.00	11193	93.10	2571
37.10	3130	57.00	1919	75.00	33552	94.00	7418
38.10	2996	60.00	656	76.00	2852	95.00	62584
39.10	1185	61.00	3166	77.00	357	96.00	4657
44.05	177	62.00	3112	78.90	1714	104.00	300
45.00	652	63.00	2447	79.90	549	116.90	452
47.00	838	68.00	6413	81.00	1819	140.90	636
48.00	434	69.10	6581	82.00	480	143.00	582
49.00	3227	70.00	607	87.00	2172	173.00	420
50.10	14367	72.00	367	87.90	2003	174.00	42368
51.00	4275	73.00	2595	92.00	1862	175.00	3493

Scan 1615 (12.216 min): v20651.D\data.ms (-1611)

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
176.00	41736						
177.00	3056						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77982.D  
 Acq On : 7 Jul 2013 2:55 pm  
 Operator : amym  
 Sample : ic2927-0.5  
 Misc : MS29311,MSN2927,,,,,5,1  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 08 08:53:08 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) tert butyl alcohol-d9	6.581	65	69240	500.00	ug/L	0.01	
4) pentafluorobenzene	9.006	168	190153	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	293647	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	145623	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	118228	50.00	ug/L	0.00	
<b>System Monitoring Compounds</b>							
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)	11.680	98	3156	0.47	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.94%#	
82) bromofluorobenzene (s)	0.000	95	0	0.00	ug/L		
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#	
<b>Target Compounds</b>							
							Qvalue
47) benzene	9.686	78	3235	0.45	ug/L		83
51) trichloroethene	10.306	95	521m	0.27	ug/L		
59) cis-1,3-dichloropropene	10.973	75	662m	0.21	ug/L		
63) trans-1,3-dichloropropene	11.397	75	397m	0.14	ug/L		
67) tetrachloroethene	12.482	166	304m	0.18	ug/L		
73) 1,1,1,2-tetrachloroethane	13.088	131	469m	0.28	ug/L		
75) m,p-xylene	13.533	106	2863	0.97	ug/L		83
76) o-xylene	13.937	106	1075m	0.38	ug/L		
84) 1,1,2,2-tetrachloroethane	13.937	83	799m	0.40	ug/L		

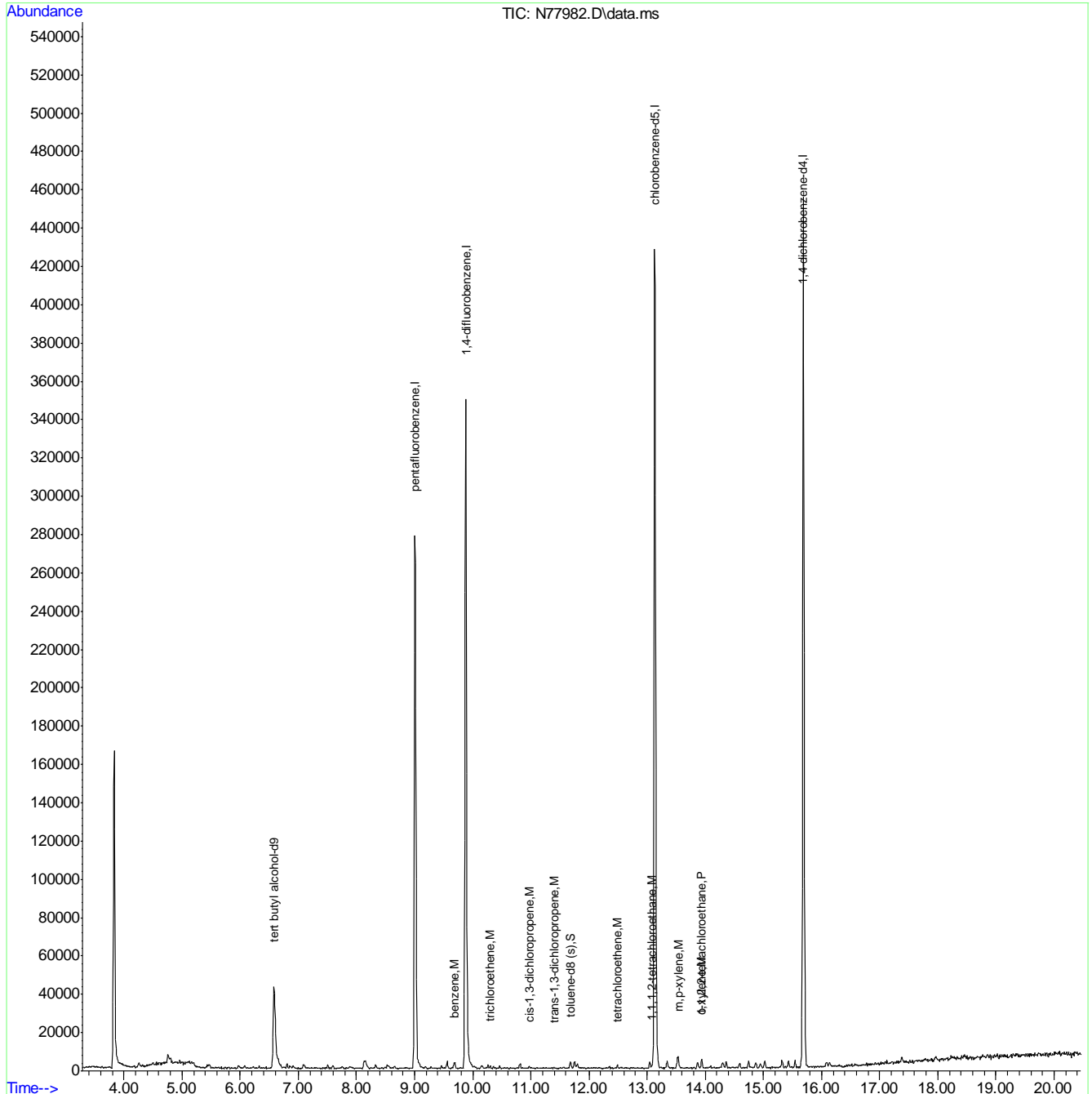
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.1  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77982.D  
 Acq On : 7 Jul 2013 2:55 pm  
 Operator : amym  
 Sample : ic2927-0.5  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 08 08:53:08 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration



7.6.1  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77983.D  
 Acq On : 7 Jul 2013 3:23 pm  
 Operator : amym  
 Sample : ic2927-1  
 Misc : MS29311,MSN2927,,,,,5,1  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 08 08:48:35 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	66727	500.00	ug/L	0.01	
4) pentafluorobenzene	9.006	168	186140	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	287720	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	146274	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	117217	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)	11.680	98	3339	0.51	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	1.02%#	
82) bromofluorobenzene (s)	0.000	95	0	0.00	ug/L		
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#	
Target Compounds							
							Qvalue
7) vinyl chloride	4.755	62	2321	1.09	ug/L	#	42
12) trichlorofluoromethane	6.076	101	2880	1.04	ug/L		85
15) 1,1-dichloroethene	6.655	96	1711m	1.26	ug/L		
19) methyl tert butyl ether	7.598	73	2741	0.57	ug/L		97
22) trans-1,2-dichloroethene	7.504	96	1302m	0.76	ug/L		
32) 1,1-dichloroethane	7.760	63	3198	0.88	ug/L		87
36) cis-1,2-dichloroethene	8.332	96	1780m	0.93	ug/L		
39) chloroform	8.534	83	3111	0.93	ug/L		98
42) 1,1,1-trichloroethane	9.282	97	1492m	0.52	ug/L		
44) Cyclohexane	9.565	56	3662	1.00	ug/L		93
45) carbon tetrachloride	9.653	117	1473m	0.64	ug/L		
47) benzene	9.686	78	6897	0.98	ug/L		97
48) 1,2-dichloroethane	9.181	62	2193	0.77	ug/L		81
51) trichloroethene	10.299	95	1730m	0.91	ug/L		
54) bromodichloromethane	10.353	83	1772m	0.66	ug/L		
59) cis-1,3-dichloropropene	10.966	75	1467m	0.47	ug/L		
62) toluene	11.748	92	4067	0.96	ug/L		89
63) trans-1,3-dichloropropene	11.391	75	1060m	0.39	ug/L		
64) 1,1,2-trichloroethane	11.559	83	909m	0.62	ug/L		
67) tetrachloroethene	12.489	166	1571m	0.93	ug/L		
68) 1,3-dichloropropane	11.795	76	2053	0.76	ug/L		95
69) dibromochloromethane	12.085	129	972m	0.50	ug/L		
72) chlorobenzene	13.169	112	4377	0.98	ug/L		88
73) 1,1,1,2-tetrachloroethane	13.081	131	1418m	0.83	ug/L		
74) ethylbenzene	13.344	91	8157	0.98	ug/L		93
75) m,p-xylene	13.526	106	5719	1.94	ug/L		98
76) o-xylene	13.937	106	2477	0.86	ug/L		94
78) bromoform	13.688	173	533m	0.38	ug/L		
84) 1,1,2,2-tetrachloroethane	13.937	83	1832m	0.93	ug/L		
93) 1,3-dichlorobenzene	15.662	146	3735	1.15	ug/L		75
95) 1,4-dichlorobenzene	15.715	146	3368	0.98	ug/L		95
96) 1,2-dichlorobenzene	16.093	146	2783	0.87	ug/L		84

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
Data File : N77983.D  
Acq On : 7 Jul 2013 3:23 pm  
Operator : amym  
Sample : ic2927-1  
Misc : MS29311,MSN2927,,,,5,1  
ALS Vial : 28 Sample Multiplier: 1

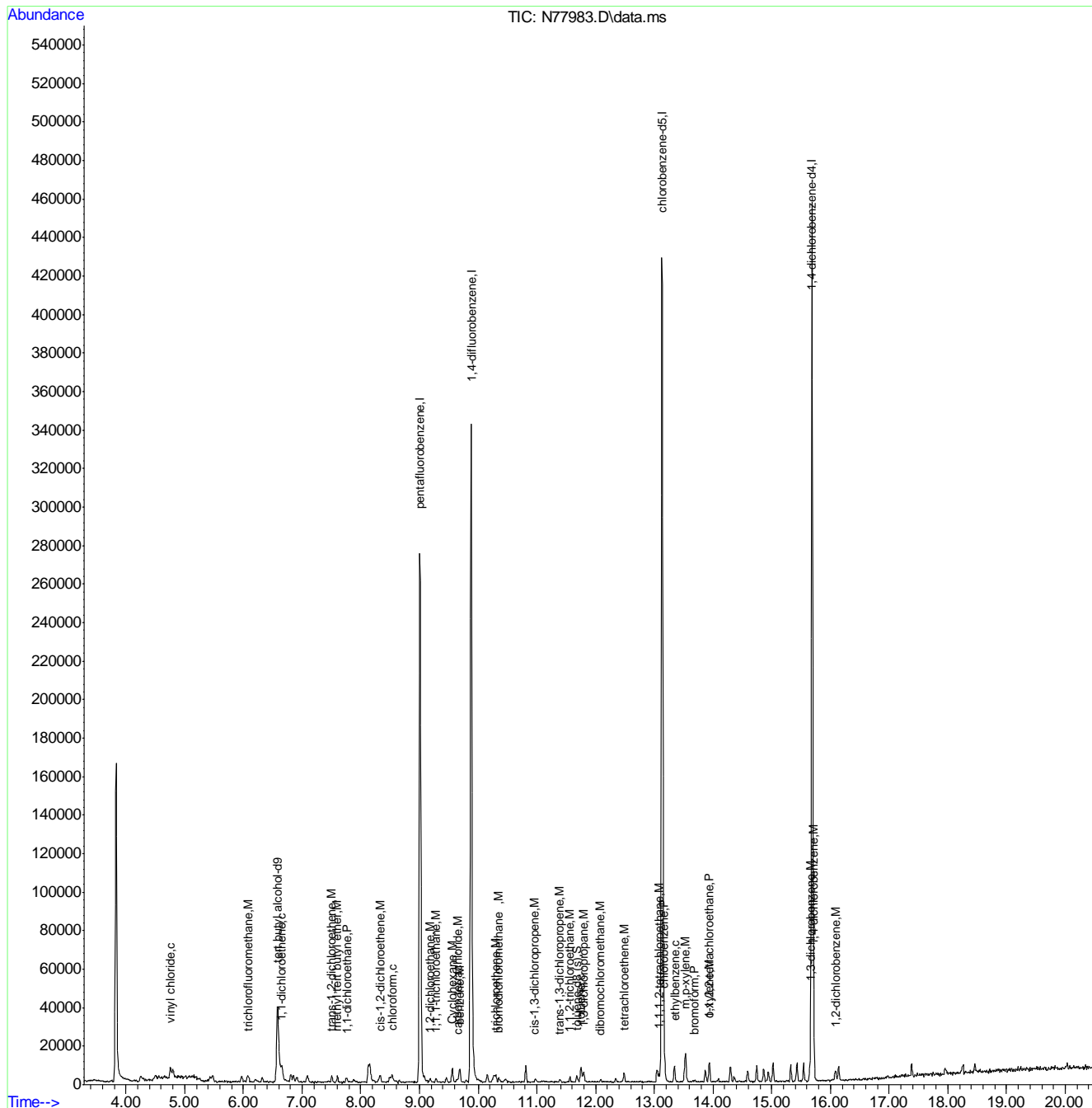
Quant Time: Jul 08 08:48:35 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 07:47:30 2013  
Response via : Initial Calibration

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\N130707\  
 Data File : N77983.D  
 Acq On : 7 Jul 2013 3:23 pm  
 Operator : amym  
 Sample : ic2927-1  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 08 08:48:35 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration



7.6.2  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77984.D  
 Acq On : 7 Jul 2013 3:51 pm  
 Operator : amym  
 Sample : ic2927-2  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jul 08 08:50:37 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.581	65	69766	500.00	ug/L	0.01	
4) pentafluorobenzene	9.006	168	185096	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	291632	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	147660	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	122289	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)	11.674	98	2718	0.41	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.82%#	
82) bromofluorobenzene (s)	0.000	95	0	0.00	ug/L		
Spiked Amount	50.000	Range	70 - 130	Recovery	=	0.00%#	
Target Compounds							
							Qvalue
5) dichlorodifluoromethane	4.250	85	4997	2.37	ug/L		96
6) chloromethane	4.499	50	5084	1.94	ug/L		90
7) vinyl chloride	4.755	62	5587	2.63	ug/L		63
8) bromomethane	5.260	96	936m	0.92	ug/L		
9) chloroethane	5.422	64	2603	2.43	ug/L		94
12) trichlorofluoromethane	6.076	101	6180	2.25	ug/L		98
15) 1,1-dichloroethene	6.662	96	3536	2.62	ug/L		94
18) methylene chloride	6.810	84	3718	2.05	ug/L		96
19) methyl tert butyl ether	7.598	73	5773	1.21	ug/L		96
22) trans-1,2-dichloroethene	7.510	96	3380	1.99	ug/L		90
24) carbon disulfide	7.093	76	11432	2.09	ug/L		93
28) di-isopropyl ether	8.157	45	16595	2.08	ug/L		92
29) methacrylonitrile	8.299	41	2925	1.96	ug/L		80
31) Hexane	8.150	41	7694	2.44	ug/L	#	57
32) 1,1-dichloroethane	7.760	63	7294	2.03	ug/L		84
33) tert-butyl ethyl ether	8.548	59	2903	0.48	ug/L		76
36) cis-1,2-dichloroethene	8.326	96	3854	2.02	ug/L		98
39) chloroform	8.528	83	6317	1.90	ug/L		95
42) 1,1,1-trichloroethane	9.282	97	4574	1.60	ug/L		92
45) carbon tetrachloride	9.646	117	3260	1.40	ug/L		77
46) 1,1-dichloropropene	9.457	75	4489	1.86	ug/L		90
47) benzene	9.686	78	14866	2.08	ug/L		99
48) 1,2-dichloroethane	9.181	62	5398m	1.87	ug/L		
49) tert-amyl methyl ether	9.801	73	2977	0.71	ug/L		63
51) trichloroethene	10.299	95	3974	2.06	ug/L		86
52) 1,2-dichloropropane	10.266	63	4322	1.94	ug/L		93
53) dibromomethane	10.232	93	1837m	1.54	ug/L		
54) bromodichloromethane	10.353	83	4527	1.65	ug/L		91
59) cis-1,3-dichloropropene	10.973	75	3967	1.24	ug/L		99
62) toluene	11.748	92	8595	1.99	ug/L		99
63) trans-1,3-dichloropropene	11.397	75	2935	1.07	ug/L		82
64) 1,1,2-trichloroethane	11.566	83	2672	1.81	ug/L		92
67) tetrachloroethene	12.489	166	3809	2.23	ug/L		87
68) 1,3-dichloropropane	11.795	76	4960	1.82	ug/L		94

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77984.D  
 Acq On : 7 Jul 2013 3:51 pm  
 Operator : amym  
 Sample : ic2927-2  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jul 08 08:50:37 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

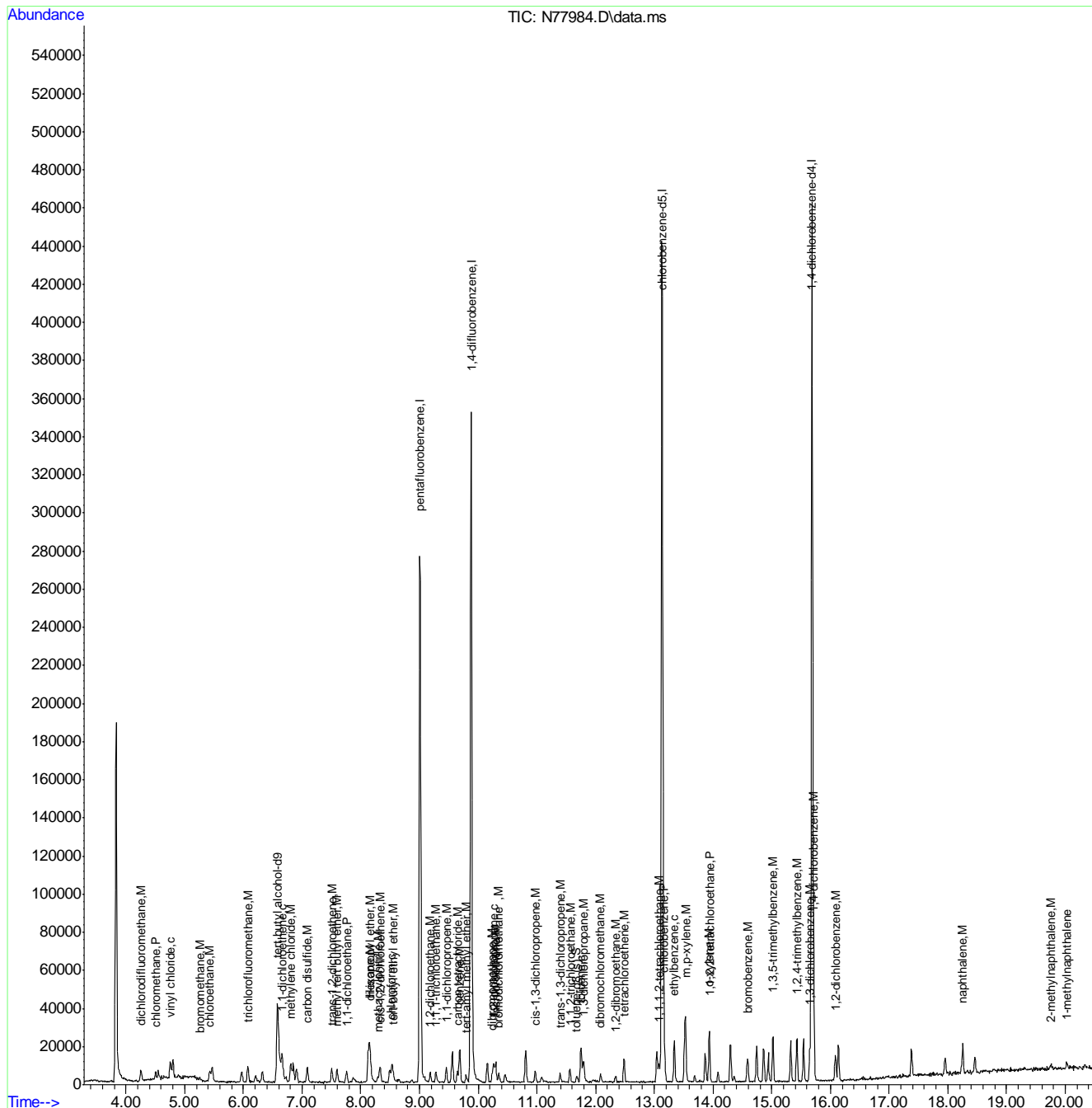
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
69) dibromochloromethane	12.084	129	3022	1.55	ug/L	88
70) 1,2-dibromoethane	12.347	107	2654	1.58	ug/L	99
72) chlorobenzene	13.169	112	9129	2.02	ug/L	95
73) 1,1,1,2-tetrachloroethane	13.088	131	2940	1.70	ug/L	94
74) ethylbenzene	13.337	91	17820	2.12	ug/L	95
75) m,p-xylene	13.533	106	12182	4.09	ug/L	95
76) o-xylene	13.937	106	6064	2.09	ug/L	91
83) bromobenzene	14.590	156	3671	1.87	ug/L	96
84) 1,1,2,2-tetrachloroethane	13.944	83	3891	1.89	ug/L	87
89) 1,3,5-trimethylbenzene	15.021	105	14722m	2.21	ug/L	
91) 1,2,4-trimethylbenzene	15.432	105	14155m	2.11	ug/L	
93) 1,3-dichlorobenzene	15.648	146	7449	2.20	ug/L	86
95) 1,4-dichlorobenzene	15.715	146	7884	2.19	ug/L	92
96) 1,2-dichlorobenzene	16.086	146	6283	1.88	ug/L	98
102) naphthalene	18.248	128	6715m	1.16	ug/L	
104) 2-methylnaphthalene	19.750	142	1450m	0.54	ug/L	
105) 1-methylnaphthalene	20.027	142	1849m	0.78	ug/L	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77984.D  
 Acq On : 7 Jul 2013 3:51 pm  
 Operator : amym  
 Sample : ic2927-2  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jul 08 08:50:37 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration



7.6.3

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77985.D  
 Acq On : 7 Jul 2013 4:19 pm  
 Operator : amym  
 Sample : ic2927-5  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jul 08 08:32:19 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.581	65	70054	500.00	ug/L	0.01
4) pentafluorobenzene	9.006	168	187655	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.882	114	290513	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	149571	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.689	152	123648	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	9338	4.90	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	9.80%#
60) toluene-d8 (s)	11.674	98	34081	5.17	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	10.34%#
82) bromofluorobenzene (s)	14.355	95	13489	5.31	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	10.62%#
Target Compounds						
2) tertiary butyl alcohol	6.662	59	10167	56.53	ug/L	# 61
3) Ethanol	5.436	45	19943	699.98	ug/L	88
5) dichlorodifluoromethane	4.250	85	11558	5.41	ug/L	88
6) chloromethane	4.506	50	12919	4.86	ug/L	98
7) vinyl chloride	4.755	62	12661	5.88	ug/L	86
8) bromomethane	5.254	96	2694	2.61	ug/L	97
9) chloroethane	5.429	64	6559	6.04	ug/L	92
10) ethyl ether	6.318	59	9011	5.32	ug/L	98
11) acetonitrile	5.975	41	9733	91.43	ug/L	97
12) trichlorofluoromethane	6.069	101	15242	5.47	ug/L	97
13) freon-113	6.850	101	8157	5.36	ug/L	94
14) acrolein	6.076	56	4756	21.95	ug/L	94
15) 1,1-dichloroethene	6.662	96	8673	6.35	ug/L	# 81
16) acetone	6.210	58	1409m	5.82	ug/L	
17) Methyl Acetate	6.850	43	14653	5.59	ug/L	# 95
18) methylene chloride	6.810	84	9576	5.20	ug/L	97
19) methyl tert butyl ether	7.591	73	17885	3.70	ug/L	98
20) acrylonitrile	6.722	53	3775	4.32	ug/L	83
21) allyl chloride	6.911	41	16189	5.34	ug/L	94
22) trans-1,2-dichloroethene	7.511	96	8934	5.19	ug/L	84
23) iodomethane	6.716	142	3279	2.16	ug/L	95
24) carbon disulfide	7.093	76	28520	5.15	ug/L	99
26) vinyl acetate	6.850	43	14653	5.59	ug/L	74
27) chloroprene	8.117	53	16924	4.95	ug/L	99
28) di-isopropyl ether	8.151	45	42814	5.28	ug/L	91
29) methacrylonitrile	8.285	41	7489	4.96	ug/L	97
30) 2-butanone	8.177	72	517m	2.21	ug/L	
31) Hexane	8.137	41	18398	5.75	ug/L	# 91
32) 1,1-dichloroethane	7.760	63	18751	5.14	ug/L	94
33) tert-butyl ethyl ether	8.555	59	11168	1.81	ug/L	96
34) isobutyl alcohol	8.151	43	39151	29.78	ug/L	81
35) 2,2-dichloropropane	8.615	77	2958	1.18	ug/L	57
36) cis-1,2-dichloroethene	8.326	96	9202	4.75	ug/L	98
37) ethyl acetate	8.151	43	39151	5.96	ug/L	84

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77985.D  
 Acq On : 7 Jul 2013 4:19 pm  
 Operator : amym  
 Sample : ic2927-5  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jul 08 08:32:19 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.487	128	4004	4.98	ug/L #	84
39) chloroform	8.528	83	16848	4.99	ug/L	97
41) Tetrahydrofuran	8.871	42	3197	4.44	ug/L	90
42) 1,1,1-trichloroethane	9.282	97	12453	4.30	ug/L	94
44) Cyclohexane	9.558	56	20496	5.55	ug/L	99
45) carbon tetrachloride	9.639	117	9585	4.13	ug/L	87
46) 1,1-dichloropropene	9.457	75	11559	4.80	ug/L	95
47) benzene	9.680	78	37546	5.28	ug/L	97
48) 1,2-dichloroethane	9.181	62	13790	4.79	ug/L	98
49) tert-amyl methyl ether	9.794	73	8843	2.11	ug/L	96
50) heptane	10.151	43	13200	5.59	ug/L	96
51) trichloroethene	10.299	95	10006	5.22	ug/L	93
52) 1,2-dichloropropane	10.259	63	11267	5.07	ug/L	93
53) dibromomethane	10.239	93	5695	4.78	ug/L	95
54) bromodichloromethane	10.353	83	12601	4.62	ug/L	92
55) Methylcyclohexane	10.811	83	15933	5.37	ug/L	95
56) 2-chloroethyl vinyl ether	10.259	63	11267	5.07	ug/L #	99
57) methyl methacrylate	10.454	69	4811	3.81	ug/L	94
59) cis-1,3-dichloropropene	10.966	75	12017	3.77	ug/L	92
61) 4-methyl-2-pentanone	11.074	43	11209	4.73	ug/L #	87
62) toluene	11.748	92	23115	5.38	ug/L	91
63) trans-1,3-dichloropropene	11.391	75	9166	3.35	ug/L	99
64) 1,1,2-trichloroethane	11.559	83	6894	4.68	ug/L	95
65) ethyl methacrylate	11.768	69	9394	4.02	ug/L	76
67) tetrachloroethene	12.482	166	9378	5.43	ug/L	96
68) 1,3-dichloropropane	11.795	76	13294	4.83	ug/L	96
69) dibromochloromethane	12.085	129	8472	4.28	ug/L	97
70) 1,2-dibromoethane	12.341	107	7881	4.63	ug/L	87
71) 2-hexanone	11.943	43	8696	5.10	ug/L #	61
72) chlorobenzene	13.162	112	24289	5.32	ug/L	96
73) 1,1,1,2-tetrachloroethane	13.082	131	8398	4.80	ug/L	89
74) ethylbenzene	13.338	91	45196	5.31	ug/L	100
75) m,p-xylene	13.526	106	33314	11.04	ug/L	82
76) o-xylene	13.937	106	14559	4.95	ug/L	90
77) styrene	13.870	104	25251	4.71	ug/L	98
78) bromoform	13.688	173	5506	3.80	ug/L	94
79) trans-1,4-dichloro-2-b...	14.085	53	1174m	1.79	ug/L	
81) isopropylbenzene	14.294	105	39489	5.50	ug/L	95
83) bromobenzene	14.584	156	10837	5.46	ug/L	97
84) 1,1,2,2-tetrachloroethane	13.937	83	11117	5.33	ug/L	97
85) 1,2,3-trichloropropane	14.085	75	9562	4.13	ug/L	86
86) n-propylbenzene	14.745	91	48424	5.55	ug/L	97
87) 2-chlorotoluene	14.860	91	30943	5.71	ug/L	97
88) 4-chlorotoluene	14.941	91	29849	5.47	ug/L	97
89) 1,3,5-trimethylbenzene	15.022	105	37877	5.62	ug/L	99
90) tert-butylbenzene	15.325	91	22303	5.90	ug/L	87
91) 1,2,4-trimethylbenzene	15.426	105	36375	5.36	ug/L	99
92) sec-butylbenzene	15.547	105	44389	5.64	ug/L	99
93) 1,3-dichlorobenzene	15.648	146	18295	5.34	ug/L	95
94) p-isopropyltoluene	15.715	119	35118	5.52	ug/L	99



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77985.D  
 Acq On : 7 Jul 2013 4:19 pm  
 Operator : amym  
 Sample : ic2927-5  
 Misc : MS29311,MSN2927,,,,,5,1  
 ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jul 08 08:32:19 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) 1,4-dichlorobenzene	15.715	146	19793	5.44	ug/L	97
96) 1,2-dichlorobenzene	16.086	146	17506	5.19	ug/L	98
97) n-butylbenzene	16.133	91	33773	4.80	ug/L	100
98) 1,2-dibromo-3-chloropr...	16.558	75	1598m	3.83	ug/L	
99) 1,2,4-trichlorobenzene	17.952	180	11684	4.51	ug/L	95
100) 1,3,5-trichlorobenzene	17.379	180	15285	5.51	ug/L	95
101) hexachlorobutadiene	18.248	225	8561	5.88	ug/L	95
102) naphthalene	18.242	128	19751	3.37	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	10415	4.19	ug/L	97
104) 2-methylnaphthalene	19.751	142	4481	1.64	ug/L #	93
105) 1-methylnaphthalene	20.034	142	4327	1.81	ug/L #	93

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



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77986.D  
 Acq On : 7 Jul 2013 4:47 pm  
 Operator : amym  
 Sample : ic2927-10  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jul 08 08:32:55 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.574	65	72891	500.00	ug/L	0.00
4) pentafluorobenzene	9.006	168	190607	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.875	114	300629	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	152818	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	128414	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	19756	10.21	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	20.42%#
60) toluene-d8 (s)	11.674	98	75203	11.03	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	22.06%#
82) bromofluorobenzene (s)	14.355	95	28919	10.97	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	21.94%#
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	6.655	59	19685	105.19	ug/L	# 58
3) Ethanol	5.429	45	39198	1322.25	ug/L	95
5) dichlorodifluoromethane	4.250	85	23373	10.76	ug/L	100
6) chloromethane	4.506	50	26839	9.95	ug/L	99
7) vinyl chloride	4.755	62	26172	11.97	ug/L	95
8) bromomethane	5.254	96	6187	5.90	ug/L	95
9) chloroethane	5.422	64	13468	12.21	ug/L	99
10) ethyl ether	6.318	59	18086	10.51	ug/L	99
11) acetonitrile	5.968	41	15479	143.16	ug/L	95
12) trichlorofluoromethane	6.076	101	30623	10.82	ug/L	98
13) freon-113	6.850	101	16098	10.42	ug/L	88
14) acrolein	6.076	56	10537	47.87	ug/L	94
15) 1,1-dichloroethene	6.655	96	17584	12.68	ug/L	99
16) acetone	6.210	58	3703	15.05	ug/L	88
17) Methyl Acetate	6.844	43	29768	11.18	ug/L	# 95
18) methylene chloride	6.810	84	20483	10.96	ug/L	98
19) methyl tert butyl ether	7.591	73	39289	8.00	ug/L	96
20) acrylonitrile	6.716	53	7821	8.80	ug/L	86
21) allyl chloride	6.904	41	36223	11.75	ug/L	97
22) trans-1,2-dichloroethene	7.504	96	17260	9.86	ug/L	98
23) iodomethane	6.722	142	8490	5.49	ug/L	99
24) carbon disulfide	7.086	76	57920	10.29	ug/L	99
25) propionitrile	6.628	54	605m	34.55	ug/L	
26) vinyl acetate	6.844	43	29768	11.18	ug/L	85
27) chloroprene	8.124	53	34718	10.00	ug/L	98
28) di-isopropyl ether	8.157	45	90183	10.95	ug/L	86
29) methacrylonitrile	8.285	41	16170	10.54	ug/L	92
30) 2-butanone	8.184	72	1712m	7.20	ug/L	
31) Hexane	8.144	41	36194	11.14	ug/L	# 80
32) 1,1-dichloroethane	7.753	63	38813	10.48	ug/L	97
33) tert-butyl ethyl ether	8.548	59	28632	4.57	ug/L	95
34) isobutyl alcohol	8.150	43	78926	59.11	ug/L	78
35) 2,2-dichloropropane	8.615	77	10151	4.00	ug/L	97
36) cis-1,2-dichloroethene	8.326	96	20186	10.27	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77986.D  
 Acq On : 7 Jul 2013 4:47 pm  
 Operator : amym  
 Sample : ic2927-10  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jul 08 08:32:55 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.150	43	78926	11.83	ug/L	84
38) bromochloromethane	8.487	128	8831	10.81	ug/L	94
39) chloroform	8.528	83	35431	10.33	ug/L	98
41) Tetrahydrofuran	8.865	42	7314	10.00	ug/L	92
42) 1,1,1-trichloroethane	9.275	97	24735	8.40	ug/L	98
44) Cyclohexane	9.558	56	39118	10.23	ug/L	97
45) carbon tetrachloride	9.646	117	20259	8.43	ug/L	98
46) 1,1-dichloropropene	9.457	75	24321	9.76	ug/L	97
47) benzene	9.680	78	77891	10.59	ug/L	100
48) 1,2-dichloroethane	9.181	62	30954	10.39	ug/L	97
49) tert-amyl methyl ether	9.794	73	20700	4.78	ug/L	95
50) heptane	10.151	43	26599	10.88	ug/L	95
51) trichloroethene	10.293	95	21142	10.66	ug/L	90
52) 1,2-dichloropropane	10.266	63	23376	10.16	ug/L	97
53) dibromomethane	10.239	93	12614	10.24	ug/L	93
54) bromodichloromethane	10.353	83	25993	9.20	ug/L	97
55) Methylcyclohexane	10.811	83	31388	10.23	ug/L	96
56) 2-chloroethyl vinyl ether	10.266	63	23376	10.16	ug/L #	100
57) methyl methacrylate	10.448	69	10911	8.34	ug/L	99
59) cis-1,3-dichloropropene	10.966	75	25672	7.79	ug/L	95
61) 4-methyl-2-pentanone	11.067	43	22801	9.29	ug/L #	93
62) toluene	11.748	92	48066	10.80	ug/L	100
63) trans-1,3-dichloropropene	11.384	75	20082	7.10	ug/L	97
64) 1,1,2-trichloroethane	11.559	83	14994	9.83	ug/L	95
65) ethyl methacrylate	11.761	69	21751	8.99	ug/L	98
67) tetrachloroethene	12.482	166	18289	10.36	ug/L	96
68) 1,3-dichloropropane	11.795	76	27838	9.89	ug/L	93
69) dibromochloromethane	12.085	129	18055	8.93	ug/L	94
70) 1,2-dibromoethane	12.334	107	17109	9.83	ug/L	90
71) 2-hexanone	11.930	43	19475	11.19	ug/L	96
72) chlorobenzene	13.169	112	49102	10.52	ug/L	100
73) 1,1,1,2-tetrachloroethane	13.082	131	18121	10.14	ug/L	95
74) ethylbenzene	13.338	91	93209	10.72	ug/L	96
75) m,p-xylene	13.526	106	66156	21.46	ug/L	94
76) o-xylene	13.937	106	31641	10.54	ug/L	98
77) styrene	13.863	104	53074	9.68	ug/L	98
78) bromoform	13.688	173	11674	7.89	ug/L	95
79) trans-1,4-dichloro-2-b...	14.085	53	3150	4.70	ug/L #	7
81) isopropylbenzene	14.294	105	80806	10.83	ug/L	99
83) bromobenzene	14.590	156	21303	10.33	ug/L	87
84) 1,1,2,2-tetrachloroethane	13.937	83	21961	10.14	ug/L	99
85) 1,2,3-trichloropropane	14.085	75	20372	8.48	ug/L	92
86) n-propylbenzene	14.739	91	99666	10.99	ug/L	99
87) 2-chlorotoluene	14.860	91	62169	11.04	ug/L	99
88) 4-chlorotoluene	14.934	91	62113	10.96	ug/L	98
89) 1,3,5-trimethylbenzene	15.015	105	79025	11.29	ug/L	95
90) tert-butylbenzene	15.325	91	44690	11.38	ug/L	95
91) 1,2,4-trimethylbenzene	15.426	105	77153	10.94	ug/L	98
92) sec-butylbenzene	15.540	105	91545	11.20	ug/L	99
93) 1,3-dichlorobenzene	15.648	146	38220	10.73	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77986.D  
 Acq On : 7 Jul 2013 4:47 pm  
 Operator : amym  
 Sample : ic2927-10  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jul 08 08:32:55 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.715	119	72661	11.00	ug/L	99
95) 1,4-dichlorobenzene	15.715	146	41455	10.96	ug/L	97
96) 1,2-dichlorobenzene	16.086	146	37299	10.65	ug/L	98
97) n-butylbenzene	16.133	91	75388	10.31	ug/L	100
98) 1,2-dibromo-3-chloropr...	16.557	75	4160	9.61	ug/L	89
99) 1,2,4-trichlorobenzene	17.952	180	24477	9.09	ug/L	90
100) 1,3,5-trichlorobenzene	17.379	180	31495	10.94	ug/L	99
101) hexachlorobutadiene	18.255	225	16691	11.05	ug/L	98
102) naphthalene	18.242	128	44162	7.24	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	22794	8.82	ug/L	95
104) 2-methylnaphthalene	19.751	142	8737	3.08	ug/L #	93
105) 1-methylnaphthalene	20.027	142	8372	3.37	ug/L #	93

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



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77987.D  
 Acq On : 7 Jul 2013 5:15 pm  
 Operator : amym  
 Sample : ic2927-25  
 Misc : MS29311,MSN2927,,,,,5,1  
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jul 08 08:33:29 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.574	65	72537	500.00	ug/L	0.00
4) pentafluorobenzene	9.006	168	189805	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.882	114	299113	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	158099	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	130217	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	48815	25.33	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	50.66%#
60) toluene-d8 (s)	11.674	98	185681	27.37	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	54.74%#
82) bromofluorobenzene (s)	14.355	95	71329	26.68	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	53.36%#
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	6.655	59	43816	235.27	ug/L	# 72
3) Ethanol	5.429	45	82556	2798.43	ug/L	97
5) dichlorodifluoromethane	4.250	85	59466	27.50	ug/L	98
6) chloromethane	4.506	50	63955	23.81	ug/L	98
7) vinyl chloride	4.755	62	62818	28.85	ug/L	99
8) bromomethane	5.254	96	16570	15.86	ug/L	98
9) chloroethane	5.422	64	29762	27.09	ug/L	99
10) ethyl ether	6.311	59	39068	22.80	ug/L	96
11) acetonitrile	5.968	41	23690	220.02	ug/L	93
12) trichlorofluoromethane	6.076	101	77736	27.57	ug/L	95
13) freon-113	6.850	101	41723	27.12	ug/L	98
14) acrolein	6.062	56	24571	112.11	ug/L	94
15) 1,1-dichloroethene	6.655	96	38015	27.52	ug/L	98
16) acetone	6.197	58	7810	31.88	ug/L	91
17) Methyl Acetate	6.844	43	62866	23.71	ug/L	# 96
18) methylene chloride	6.810	84	43655	23.45	ug/L	98
19) methyl tert butyl ether	7.591	73	97126	19.85	ug/L	100
20) acrylonitrile	6.716	53	18717	21.15	ug/L	100
21) allyl chloride	6.904	41	85531	27.87	ug/L	98
22) trans-1,2-dichloroethene	7.504	96	41849	24.01	ug/L	99
23) iodomethane	6.722	142	26632	17.31	ug/L	95
24) carbon disulfide	7.086	76	138212	24.65	ug/L	100
25) propionitrile	6.635	54	858m	49.21	ug/L	
26) vinyl acetate	6.844	43	62866	23.71	ug/L	84
27) chloroprene	8.123	53	85974	24.86	ug/L	100
28) di-isopropyl ether	8.150	45	205220	25.03	ug/L	94
29) methacrylonitrile	8.278	41	35954	23.53	ug/L	92
30) 2-butanone	8.164	72	5663	23.91	ug/L	# 61
31) Hexane	8.137	41	87143	26.95	ug/L	99
32) 1,1-dichloroethane	7.753	63	88346	23.95	ug/L	96
33) tert-butyl ethyl ether	8.548	59	90767	14.55	ug/L	97
34) isobutyl alcohol	8.150	43	177749	133.69	ug/L	83
35) 2,2-dichloropropane	8.615	77	37921	14.99	ug/L	95
36) cis-1,2-dichloroethene	8.326	96	45305	23.14	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77987.D  
 Acq On : 7 Jul 2013 5:15 pm  
 Operator : amym  
 Sample : ic2927-25  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jul 08 08:33:29 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.150	43	177749	26.75	ug/L	90
38) bromochloromethane	8.487	128	19923	24.50	ug/L	98
39) chloroform	8.528	83	82039	24.01	ug/L	95
41) Tetrahydrofuran	8.858	42	15789	21.68	ug/L	91
42) 1,1,1-trichloroethane	9.282	97	65189	22.23	ug/L	95
44) Cyclohexane	9.558	56	101870	26.78	ug/L	99
45) carbon tetrachloride	9.646	117	54858	22.95	ug/L	95
46) 1,1-dichloropropene	9.457	75	60091	24.24	ug/L	95
47) benzene	9.680	78	178131	24.34	ug/L	97
48) 1,2-dichloroethane	9.181	62	67702	22.83	ug/L	98
49) tert-amyl methyl ether	9.794	73	64174	14.88	ug/L	98
50) heptane	10.151	43	63364	26.05	ug/L	98
51) trichloroethene	10.299	95	48957	24.80	ug/L	98
52) 1,2-dichloropropane	10.266	63	51906	22.67	ug/L	98
53) dibromomethane	10.239	93	26606	21.71	ug/L	94
54) bromodichloromethane	10.353	83	61072	21.73	ug/L	95
55) Methylcyclohexane	10.811	83	79689	26.09	ug/L	98
56) 2-chloroethyl vinyl ether	10.266	63	51906	22.67	ug/L #	99
57) methyl methacrylate	10.441	69	25824	19.85	ug/L	92
59) cis-1,3-dichloropropene	10.966	75	64585	19.70	ug/L	98
61) 4-methyl-2-pentanone	11.060	43	52124	21.35	ug/L	95
62) toluene	11.748	92	108232	24.45	ug/L	94
63) trans-1,3-dichloropropene	11.384	75	51380	18.25	ug/L	99
64) 1,1,2-trichloroethane	11.559	83	34035	22.43	ug/L	96
65) ethyl methacrylate	11.761	69	50288	20.89	ug/L	97
67) tetrachloroethene	12.482	166	44484	24.35	ug/L	94
68) 1,3-dichloropropane	11.795	76	66556	22.86	ug/L	98
69) dibromochloromethane	12.084	129	41443	19.81	ug/L	98
70) 1,2-dibromoethane	12.334	107	37927	21.07	ug/L	99
71) 2-hexanone	11.923	43	42979	23.86	ug/L	98
72) chlorobenzene	13.162	112	112579	23.31	ug/L	98
73) 1,1,1,2-tetrachloroethane	13.081	131	41541	22.47	ug/L	99
74) ethylbenzene	13.337	91	215574	23.97	ug/L	100
75) m,p-xylene	13.519	106	154976	48.59	ug/L	97
76) o-xylene	13.937	106	71161	22.91	ug/L	99
77) styrene	13.863	104	124279	21.91	ug/L	98
78) bromoform	13.688	173	27587	18.02	ug/L	95
79) trans-1,4-dichloro-2-b...	14.085	53	9109	13.13	ug/L #	23
81) isopropylbenzene	14.294	105	191954	25.37	ug/L	99
83) bromobenzene	14.584	156	48755	23.31	ug/L	96
84) 1,1,2,2-tetrachloroethane	13.930	83	50111	22.81	ug/L	97
85) 1,2,3-trichloropropane	14.085	75	48556	19.93	ug/L	96
86) n-propylbenzene	14.739	91	235992	25.66	ug/L	99
87) 2-chlorotoluene	14.860	91	145051	25.41	ug/L	98
88) 4-chlorotoluene	14.934	91	141278	24.59	ug/L	98
89) 1,3,5-trimethylbenzene	15.021	105	180484	25.43	ug/L	100
90) tert-butylbenzene	15.325	91	103292	25.93	ug/L	94
91) 1,2,4-trimethylbenzene	15.426	105	178358	24.94	ug/L	98
92) sec-butylbenzene	15.540	105	215388	25.99	ug/L	99
93) 1,3-dichlorobenzene	15.648	146	86810	24.04	ug/L	96



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77987.D  
 Acq On : 7 Jul 2013 5:15 pm  
 Operator : amym  
 Sample : ic2927-25  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jul 08 08:33:29 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

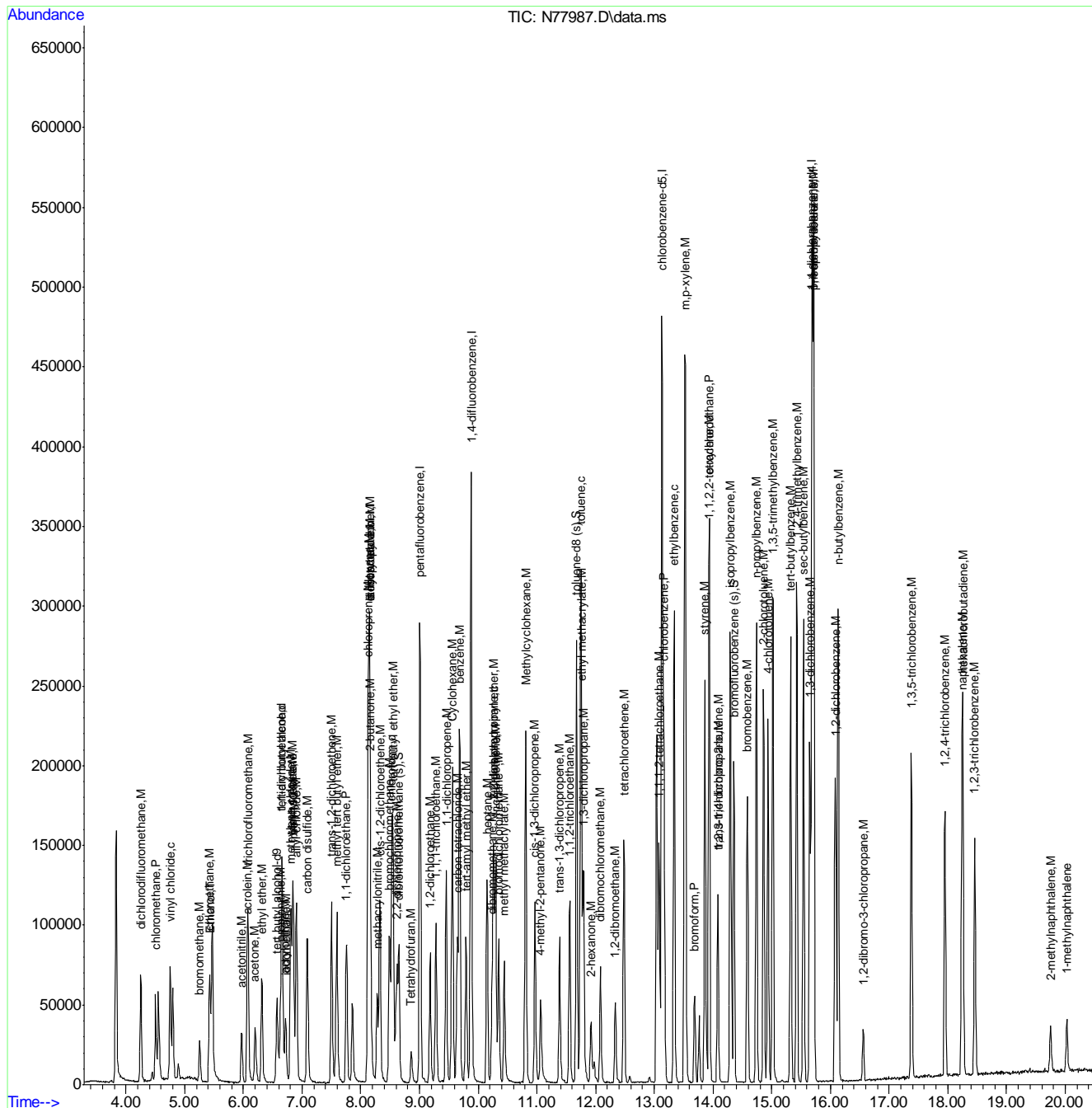
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.715	119	171389	25.59	ug/L	97
95) 1,4-dichlorobenzene	15.715	146	92576	24.14	ug/L	97
96) 1,2-dichlorobenzene	16.086	146	81936	23.07	ug/L	99
97) n-butylbenzene	16.133	91	178877	24.12	ug/L	97
98) 1,2-dibromo-3-chloropr...	16.557	75	9008	20.53	ug/L	99
99) 1,2,4-trichlorobenzene	17.952	180	58126	21.29	ug/L	99
100) 1,3,5-trichlorobenzene	17.379	180	69280	23.72	ug/L	100
101) hexachlorobutadiene	18.255	225	38687	25.25	ug/L	98
102) naphthalene	18.241	128	111927	18.11	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	53514	20.42	ug/L	94
104) 2-methylnaphthalene	19.750	142	20055	6.97	ug/L #	93
105) 1-methylnaphthalene	20.027	142	20560	8.17	ug/L #	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77987.D  
 Acq On : 7 Jul 2013 5:15 pm  
 Operator : amym  
 Sample : ic2927-25  
 Misc : MS29311,MSN2927,,,,,5,1  
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jul 08 08:33:29 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77988.D  
 Acq On : 7 Jul 2013 5:44 pm  
 Operator : amym  
 Sample : icc2927-50  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 08 08:36:23 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.567	65	69766	500.00	ug/L	0.00
4) pentafluorobenzene	9.006	168	191306	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.875	114	302839	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	155256m	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	136102	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	98786	50.87	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.74%
60) toluene-d8 (s)	11.674	98	367925	53.56	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	107.12%
82) bromofluorobenzene (s)	14.355	95	146868	52.56	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	105.12%
Target Compounds						
2) tertiary butyl alcohol	6.655	59	95344	532.29	ug/L	# 80
3) Ethanol	5.422	45	180593	6364.76	ug/L	98
5) dichlorodifluoromethane	4.250	85	120933	55.48	ug/L	98
6) chloromethane	4.506	50	130342	48.14	ug/L	100
7) vinyl chloride	4.755	62	125123	57.00	ug/L	99
8) bromomethane	5.254	96	40191	38.17	ug/L	98
9) chloroethane	5.422	64	63692	57.51	ug/L	97
10) ethyl ether	6.311	59	90324	52.29	ug/L	98
11) acetonitrile	5.968	41	29350	270.45	ug/L	94
12) trichlorofluoromethane	6.076	101	157154	55.30	ug/L	97
13) freon-113	6.850	101	83580	53.91	ug/L	98
14) acrolein	6.062	56	56606	256.24	ug/L	97
15) 1,1-dichloroethene	6.655	96	77434	55.62	ug/L	97
16) acetone	6.197	58	15902	64.40	ug/L	98
17) Methyl Acetate	6.837	43	144783	54.19	ug/L	100
18) methylene chloride	6.810	84	97349	51.89	ug/L	97
19) methyl tert butyl ether	7.591	73	232161	47.09	ug/L	99
20) acrylonitrile	6.709	53	45532	51.05	ug/L	94
21) allyl chloride	6.904	41	186057	60.16	ug/L	99
22) trans-1,2-dichloroethene	7.504	96	88055	50.13	ug/L	96
23) iodomethane	6.716	142	73851	47.62	ug/L	99
24) carbon disulfide	7.086	76	289292	51.20	ug/L	100
25) propionitrile	6.628	54	1562m	88.88	ug/L	
26) vinyl acetate	6.837	43	144783	54.19	ug/L	89
27) chloroprene	8.123	53	183115	52.53	ug/L	99
28) di-isopropyl ether	8.150	45	445166	53.87	ug/L	96
29) methacrylonitrile	8.278	41	78046	50.67	ug/L	96
30) 2-butanone	8.171	72	13100	54.87	ug/L	# 1
31) Hexane	8.137	41	182584	56.02	ug/L	99
32) 1,1-dichloroethane	7.753	63	189830	51.05	ug/L	98
33) tert-butyl ethyl ether	8.548	59	247524	39.36	ug/L	99
34) isobutyl alcohol	8.150	43	378744	282.63	ug/L	91
35) 2,2-dichloropropane	8.615	77	100114	39.26	ug/L	99
36) cis-1,2-dichloroethene	8.326	96	97392	49.36	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77988.D  
 Acq On : 7 Jul 2013 5:44 pm  
 Operator : amym  
 Sample : icc2927-50  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 08 08:36:23 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.150	43	378744	56.55	ug/L	94
38) bromochloromethane	8.487	128	45585	55.61	ug/L	93
39) chloroform	8.528	83	174900	50.79	ug/L	100
41) Tetrahydrofuran	8.858	42	35836	48.81	ug/L	100
42) 1,1,1-trichloroethane	9.282	97	140477	47.53	ug/L	98
44) Cyclohexane	9.558	56	206890	53.71	ug/L	100
45) carbon tetrachloride	9.646	117	118439	48.95	ug/L	99
46) 1,1-dichloropropene	9.457	75	127042	50.61	ug/L	99
47) benzene	9.680	78	379518	51.22	ug/L	100
48) 1,2-dichloroethane	9.181	62	151230	50.37	ug/L	99
49) tert-amyl methyl ether	9.794	73	174528	39.97	ug/L	99
50) heptane	10.151	43	130070	52.81	ug/L	99
51) trichloroethene	10.299	95	100453	50.26	ug/L	97
52) 1,2-dichloropropane	10.266	63	115541	49.83	ug/L	100
53) dibromomethane	10.239	93	61001	49.16	ug/L	94
54) bromodichloromethane	10.347	83	137749	48.40	ug/L	98
55) Methylcyclohexane	10.811	83	163431	52.86	ug/L	99
56) 2-chloroethyl vinyl ether	10.266	63	115541	49.83	ug/L #	99
57) methyl methacrylate	10.441	69	61288	46.52	ug/L	92
58) 1,4-dioxane	10.448	88	4702	229.06	ug/L	96
59) cis-1,3-dichloropropene	10.966	75	151944	45.78	ug/L	100
61) 4-methyl-2-pentanone	11.061	43	122253	49.46	ug/L	98
62) toluene	11.748	92	231711	51.71	ug/L	97
63) trans-1,3-dichloropropene	11.384	75	125731	44.11	ug/L	99
64) 1,1,2-trichloroethane	11.559	83	76714	49.93	ug/L	99
65) ethyl methacrylate	11.754	69	117187	48.08	ug/L	93
67) tetrachloroethene	12.482	166	93810	52.29	ug/L	97
68) 1,3-dichloropropane	11.795	76	146835	51.35	ug/L	99
69) dibromochloromethane	12.084	129	97088	47.26	ug/L	97
70) 1,2-dibromoethane	12.334	107	85811	48.55	ug/L	97
71) 2-hexanone	11.916	43	94150	53.23	ug/L	99
72) chlorobenzene	13.162	112	245695	51.81	ug/L	98
73) 1,1,1,2-tetrachloroethane	13.081	131	89470	49.27	ug/L	98
74) ethylbenzene	13.337	91	462415	52.36	ug/L	99
75) m,p-xylene	13.519	106	326633	104.29	ug/L	95
76) o-xylene	13.937	106	155106	50.85	ug/L	100
77) styrene	13.863	104	273897	49.18	ug/L	100
78) bromoform	13.688	173	65717	43.72	ug/L	95
79) trans-1,4-dichloro-2-b...	14.078	53	23432	34.40	ug/L #	61
81) isopropylbenzene	14.294	105	408992	51.72	ug/L	100
83) bromobenzene	14.584	156	109580	50.12	ug/L	98
84) 1,1,2,2-tetrachloroethane	13.930	83	115646	50.38	ug/L	99
85) 1,2,3-trichloropropane	14.085	75	111763	43.90	ug/L	98
86) n-propylbenzene	14.739	91	503335	52.37	ug/L	100
87) 2-chlorotoluene	14.860	91	304418	51.02	ug/L	98
88) 4-chlorotoluene	14.934	91	311682	51.90	ug/L	99
89) 1,3,5-trimethylbenzene	15.022	105	391418	52.77	ug/L	99
90) tert-butylbenzene	15.318	91	221192	53.13	ug/L	100
91) 1,2,4-trimethylbenzene	15.426	105	388207	51.94	ug/L	99
92) sec-butylbenzene	15.540	105	464768	53.66	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77988.D  
 Acq On : 7 Jul 2013 5:44 pm  
 Operator : amym  
 Sample : icc2927-50  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 08 08:36:23 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.648	146	194115	51.44	ug/L	99
94) p-isopropyltoluene	15.715	119	375613	53.66	ug/L	99
95) 1,4-dichlorobenzene	15.715	146	207622	51.80	ug/L	98
96) 1,2-dichlorobenzene	16.079	146	186934	50.35	ug/L	97
97) n-butylbenzene	16.133	91	395901	51.07	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.557	75	20618	44.95	ug/L	93
99) 1,2,4-trichlorobenzene	17.952	180	137660	48.25	ug/L	96
100) 1,3,5-trichlorobenzene	17.379	180	160460	52.57	ug/L	99
101) hexachlorobutadiene	18.255	225	84082	52.51	ug/L	97
102) naphthalene	18.242	128	286265	44.31	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	132486	48.37	ug/L	99
104) 2-methylnaphthalene	19.750	142	57226	19.03	ug/L #	93
105) 1-methylnaphthalene	20.027	142	60307	22.92	ug/L #	93

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

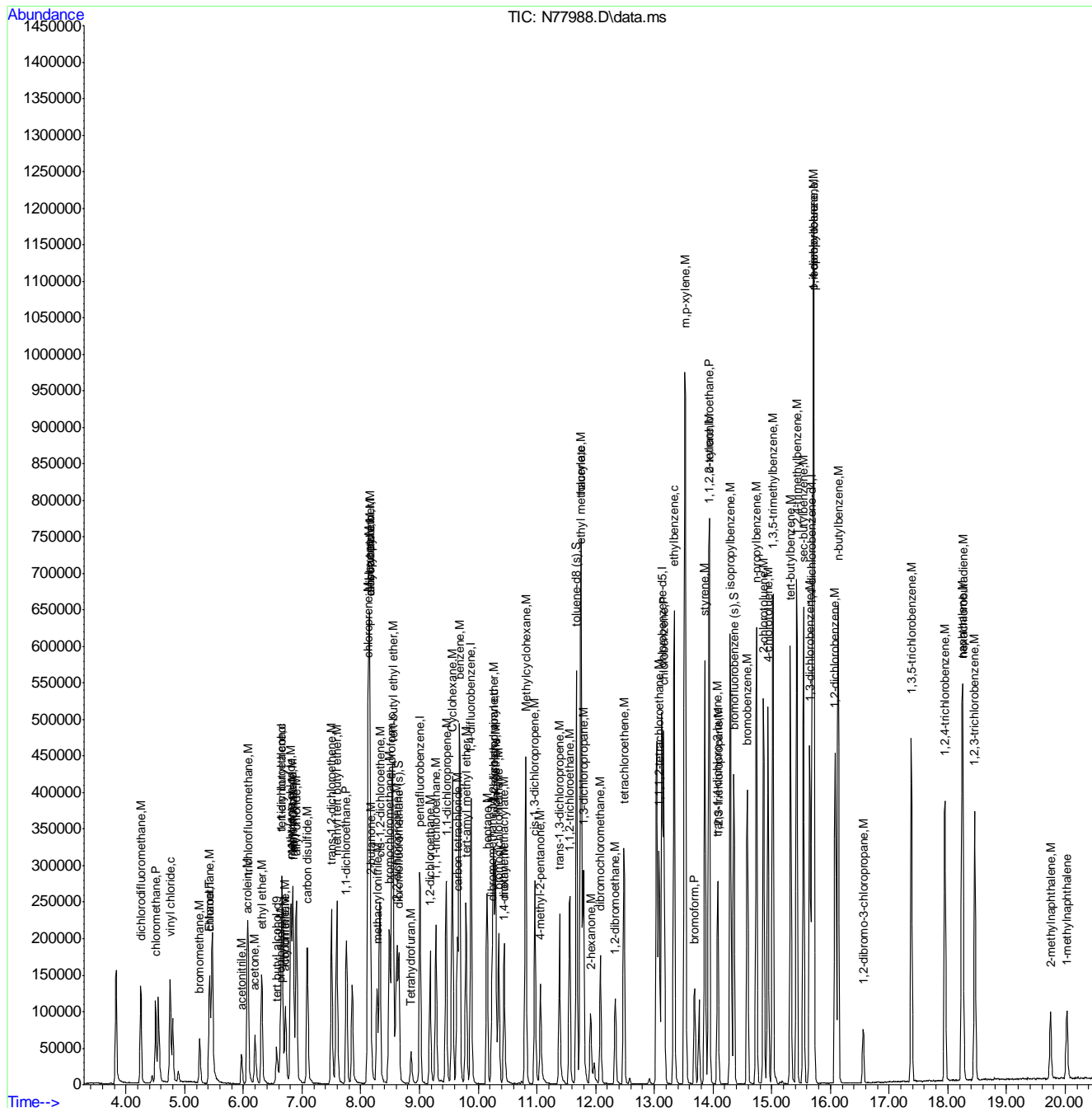
7.6.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
Data File : N77988.D  
Acq On : 7 Jul 2013 5:44 pm  
Operator : amym  
Sample : icc2927-50  
Misc : MS29311,MSN2927,,,,5,1  
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Jul 08 08:36:23 2013  
Quant Method : C:\msdchem\1\methods\n130707w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Mon Jul 08 07:47:30 2013  
Response via : Initial Calibration



7.6.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77989.D  
 Acq On : 7 Jul 2013 6:12 pm  
 Operator : amym  
 Sample : ic2927-100  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jul 08 08:36:00 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.567	65	73709	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	192575	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.882	114	311872	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	156074m	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	143208	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	200903	102.77	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	205.54%#	
60) toluene-d8 (s)	11.674	98	741557	104.82	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	209.64%#	
82) bromofluorobenzene (s)	14.355	95	300660	102.25	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	204.50%#	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	6.655	59	204177	1078.91	ug/L		91
3) Ethanol	5.429	45	360978	12041.63	ug/L		98
5) dichlorodifluoromethane	4.250	85	249300	113.62	ug/L		99
6) chloromethane	4.506	50	250787	92.02	ug/L		98
7) vinyl chloride	4.749	62	255859	115.80	ug/L		98
8) bromomethane	5.254	96	100194	94.53	ug/L		98
9) chloroethane	5.422	64	126857	113.80	ug/L		97
10) ethyl ether	6.311	59	182826	105.15	ug/L		97
11) acetonitrile	5.968	41	36153	330.94	ug/L		97
12) trichlorofluoromethane	6.076	101	323733	113.17	ug/L		97
13) freon-113	6.850	101	173094	110.91	ug/L		96
14) acrolein	6.062	56	113821	511.85	ug/L		99
15) 1,1-dichloroethene	6.662	96	158140	112.84	ug/L		98
16) acetone	6.197	58	34914	140.46	ug/L	#	83
17) Methyl Acetate	6.837	43	289970	107.81	ug/L		98
18) methylene chloride	6.810	84	197969	104.83	ug/L		98
19) methyl tert butyl ether	7.591	73	500783	100.90	ug/L		100
20) acrylonitrile	6.709	53	91713	102.16	ug/L		98
21) allyl chloride	6.904	41	394314	126.65	ug/L		99
22) trans-1,2-dichloroethene	7.497	96	185020	104.64	ug/L		98
23) iodomethane	6.716	142	172689	110.63	ug/L		98
24) carbon disulfide	7.086	76	603058	106.03	ug/L		100
25) propionitrile	6.635	54	2771	156.63	ug/L		100
26) vinyl acetate	6.837	43	289970	107.81	ug/L		87
27) chloroprene	8.117	53	380292	108.38	ug/L		99
28) di-isopropyl ether	8.150	45	917010	110.24	ug/L		100
29) methacrylonitrile	8.272	41	158225	102.06	ug/L		99
30) 2-butanone	8.164	72	28208	117.37	ug/L	#	38
31) Hexane	8.137	41	371270	113.15	ug/L		99
32) 1,1-dichloroethane	7.753	63	394020	105.27	ug/L		100
33) tert-butyl ethyl ether	8.548	59	572068	90.37	ug/L		99
34) isobutyl alcohol	8.150	43	766884	568.50	ug/L		96
35) 2,2-dichloropropane	8.615	77	240310	93.63	ug/L		100
36) cis-1,2-dichloroethene	8.326	96	208874	105.17	ug/L		99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77989.D  
 Acq On : 7 Jul 2013 6:12 pm  
 Operator : amym  
 Sample : ic2927-100  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jul 08 08:36:00 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.150	43	766884	113.76	ug/L	100
38) bromochloromethane	8.494	128	92387	111.97	ug/L	99
39) chloroform	8.528	83	361180	104.20	ug/L	100
41) Tetrahydrofuran	8.858	42	76599	103.64	ug/L	96
42) 1,1,1-trichloroethane	9.282	97	307359	103.32	ug/L	99
44) Cyclohexane	9.558	56	428668	108.07	ug/L	98
45) carbon tetrachloride	9.646	117	253840	101.86	ug/L	98
46) 1,1-dichloropropene	9.451	75	266469	103.08	ug/L	98
47) benzene	9.680	78	802154	105.12	ug/L	99
48) 1,2-dichloroethane	9.181	62	315150	101.93	ug/L	100
49) tert-amyl methyl ether	9.794	73	404814	90.03	ug/L	98
50) heptane	10.151	43	268058	105.69	ug/L	99
51) trichloroethene	10.299	95	215089	104.51	ug/L	96
52) 1,2-dichloropropane	10.266	63	242059	101.38	ug/L	100
53) dibromomethane	10.239	93	128553	100.59	ug/L	96
54) bromodichloromethane	10.347	83	292899	99.94	ug/L	99
55) Methylcyclohexane	10.811	83	343234	107.80	ug/L	99
56) 2-chloroethyl vinyl ether	10.266	63	242059	101.38	ug/L #	99
57) methyl methacrylate	10.441	69	133008	98.04	ug/L	95
58) 1,4-dioxane	10.448	88	10047	475.28	ug/L	91
59) cis-1,3-dichloropropene	10.966	75	332202	97.19	ug/L	99
61) 4-methyl-2-pentanone	11.054	43	256050	100.59	ug/L	98
62) toluene	11.748	92	487744	105.69	ug/L	98
63) trans-1,3-dichloropropene	11.384	75	275480	93.84	ug/L	98
64) 1,1,2-trichloroethane	11.559	83	160992	101.75	ug/L	99
65) ethyl methacrylate	11.754	69	252218	100.47	ug/L	94
67) tetrachloroethene	12.482	166	193918	107.52	ug/L	99
68) 1,3-dichloropropane	11.795	76	312888	108.84	ug/L	99
69) dibromochloromethane	12.085	129	208473	100.96	ug/L	100
70) 1,2-dibromoethane	12.334	107	181761	102.30	ug/L	99
71) 2-hexanone	11.909	43	206816	116.31	ug/L	98
72) chlorobenzene	13.162	112	508569	106.68	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.081	131	192188	105.29	ug/L	97
74) ethylbenzene	13.337	91	962784	108.45	ug/L	99
75) m,p-xylene	13.519	106	691199	219.53	ug/L	99
76) o-xylene	13.937	106	328195	107.03	ug/L	100
77) styrene	13.863	104	585273	104.53	ug/L	99
78) bromoform	13.688	173	146143	96.71	ug/L	99
79) trans-1,4-dichloro-2-b...	14.078	53	59722	87.22	ug/L #	78
81) isopropylbenzene	14.294	105	860645	103.43	ug/L	100
83) bromobenzene	14.584	156	233152	101.35	ug/L	99
84) 1,1,2,2-tetrachloroethane	13.937	83	243095	100.64	ug/L	98
85) 1,2,3-trichloropropane	14.085	75	254580	95.03	ug/L	98
86) n-propylbenzene	14.739	91	1056237	104.44	ug/L	100
87) 2-chlorotoluene	14.860	91	656434	104.56	ug/L	99
88) 4-chlorotoluene	14.934	91	657669	104.08	ug/L	98
89) 1,3,5-trimethylbenzene	15.015	105	830569	106.42	ug/L	97
90) tert-butylbenzene	15.318	91	467506	106.72	ug/L	94
91) 1,2,4-trimethylbenzene	15.426	105	827778	105.25	ug/L	100
92) sec-butylbenzene	15.540	105	977299	107.23	ug/L	100



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77989.D  
 Acq On : 7 Jul 2013 6:12 pm  
 Operator : amym  
 Sample : ic2927-100  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jul 08 08:36:00 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.648	146	412315	103.84	ug/L	99
94) p-isopropyltoluene	15.715	119	796003	108.07	ug/L	100
95) 1,4-dichlorobenzene	15.715	146	444785	105.46	ug/L	99
96) 1,2-dichlorobenzene	16.079	146	404219	103.48	ug/L	97
97) n-butylbenzene	16.133	91	860460	105.49	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.557	75	46684	96.73	ug/L	97
99) 1,2,4-trichlorobenzene	17.952	180	300718	100.17	ug/L	98
100) 1,3,5-trichlorobenzene	17.379	180	335359	104.42	ug/L	100
101) hexachlorobutadiene	18.255	225	177589	105.40	ug/L	99
102) naphthalene	18.242	128	639913	94.13	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	289501	100.46	ug/L	98
104) 2-methylnaphthalene	19.750	142	145825	46.09	ug/L	100
105) 1-methylnaphthalene	20.027	142	141863	51.24	ug/L	100

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

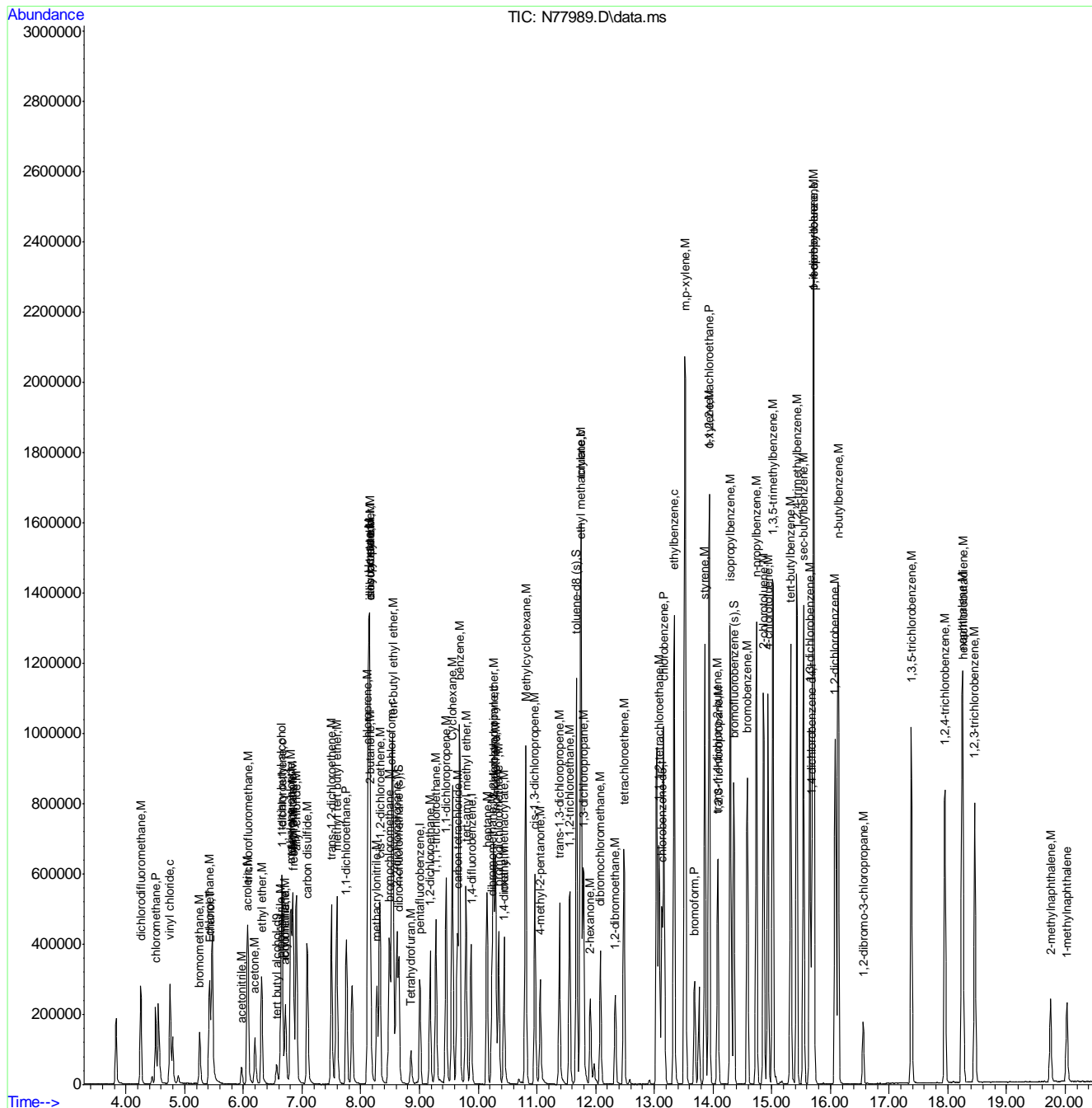
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7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\
Data File : N77989.D
Acq On : 7 Jul 2013 6:12 pm
Operator : amym
Sample : ic2927-100
Misc : MS29311,MSN2927,,,,5,1
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Jul 08 08:36:00 2013
Quant Method : C:\msdchem\1\methods\n130707w.m
Quant Title : SW-846 Method 8260
QLast Update : Mon Jul 08 07:47:30 2013
Response via : Initial Calibration



897

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77990.D  
 Acq On : 7 Jul 2013 6:40 pm  
 Operator : amym  
 Sample : ic2927-200  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 08 08:45:08 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.567	65	74919	500.00	ug/L	0.00
4) pentafluorobenzene	9.006	168	199495	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.875	114	319119	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	165417m	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	149126	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	408044	201.49	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	402.98%#
60) toluene-d8 (s)	11.673	98	1473815m	203.60	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	407.20%#
82) bromofluorobenzene (s)	14.355	95	615241	200.93	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	401.86%#
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	6.648	59	401265	2086.11	ug/L	93
3) Ethanol	5.422	45	695048	22811.19	ug/L	99
5) dichlorodifluoromethane	4.250	85	467839	205.82	ug/L	96
6) chloromethane	4.506	50	516901	183.08	ug/L	99
7) vinyl chloride	4.748	62	489221	213.74	ug/L	98
8) bromomethane	5.254	96	230825	210.22	ug/L	99
9) chloroethane	5.422	64	244901	212.07	ug/L	99
10) ethyl ether	6.311	59	367040	203.77	ug/L	100
11) acetonitrile	5.968	41	48032	424.43	ug/L	98
12) trichlorofluoromethane	6.076	101	603125	203.52	ug/L	97
13) freon-113	6.850	101	327805	202.75	ug/L	97
14) acrolein	6.062	56	230805	1001.92	ug/L	99
15) 1,1-dichloroethene	6.662	96	304316	209.60	ug/L	99
16) acetone	6.197	58	62794	243.87	ug/L	91
17) Methyl Acetate	6.837	43	575388	206.51	ug/L	99
18) methylene chloride	6.810	84	391207	199.97	ug/L	99
19) methyl tert butyl ether	7.591	73	1018251	198.04	ug/L	99
20) acrylonitrile	6.709	53	182367	196.09	ug/L	96
21) allyl chloride	6.904	41	764725	237.11	ug/L	99
22) trans-1,2-dichloroethene	7.497	96	369659	201.82	ug/L	98
23) iodomethane	6.722	142	355130	219.61	ug/L	98
24) carbon disulfide	7.086	76	1194227	202.68	ug/L	100
25) propionitrile	6.635	54	4460	243.36	ug/L	100
26) vinyl acetate	6.837	43	575388	206.51	ug/L	87
27) chloroprene	8.117	53	742321	204.22	ug/L	100
28) di-isopropyl ether	8.150	45	1809726	210.00	ug/L	98
29) methacrylonitrile	8.272	41	318816	198.50	ug/L	99
30) 2-butanone	8.164	72	55649	223.51	ug/L	# 39
31) Hexane	8.137	41	710353	208.99	ug/L	99
32) 1,1-dichloroethane	7.753	63	791833	204.22	ug/L	98
33) tert-butyl ethyl ether	8.548	59	1240676	189.18	ug/L	100
34) isobutyl alcohol	8.150	43	1488901	1065.46	ug/L	100
35) 2,2-dichloropropane	8.615	77	505107	189.96	ug/L	100
36) cis-1,2-dichloroethene	8.325	96	418416	203.36	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77990.D  
 Acq On : 7 Jul 2013 6:40 pm  
 Operator : amym  
 Sample : ic2927-200  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 08 08:45:08 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.150	43	1488901	213.19	ug/L	97
38) bromochloromethane	8.487	128	180252	210.87	ug/L	92
39) chloroform	8.528	83	736973	205.23	ug/L	100
41) Tetrahydrofuran	8.851	42	150216	196.20	ug/L	98
42) 1,1,1-trichloroethane	9.282	97	605031	196.32	ug/L	99
44) Cyclohexane	9.558	56	815782	200.99	ug/L	99
45) carbon tetrachloride	9.646	117	504073	197.68	ug/L	99
46) 1,1-dichloropropene	9.450	75	528790	199.91	ug/L	99
47) benzene	9.680	78	1611174	206.35	ug/L	99
48) 1,2-dichloroethane	9.181	62	638152	201.71	ug/L	99
49) tert-amyl methyl ether	9.794	73	877895	190.81	ug/L	98
50) heptane	10.151	43	516899	199.18	ug/L	98
51) trichloroethene	10.293	95	427692	203.09	ug/L	94
52) 1,2-dichloropropane	10.266	63	496469	203.20	ug/L	100
53) dibromomethane	10.239	93	264281	202.10	ug/L	100
54) bromodichloromethane	10.346	83	596223	198.81	ug/L	100
55) Methylcyclohexane	10.811	83	641869	197.01	ug/L	99
56) 2-chloroethyl vinyl ether	10.266	63	496469	203.20	ug/L #	100
57) methyl methacrylate	10.441	69	274195	197.52	ug/L	98
58) 1,4-dioxane	10.441	88	21692	1002.85	ug/L	89
59) cis-1,3-dichloropropene	10.966	75	688858	196.96	ug/L	99
61) 4-methyl-2-pentanone	11.054	43	511968	196.57	ug/L	100
62) toluene	11.748	92	968019	204.99	ug/L	99
63) trans-1,3-dichloropropene	11.384	75	584535	194.60	ug/L	100
64) 1,1,2-trichloroethane	11.559	83	324804	200.62	ug/L	100
65) ethyl methacrylate	11.754	69	516717	201.17	ug/L	97
67) tetrachloroethene	12.482	166	387670	202.80	ug/L	99
68) 1,3-dichloropropane	11.788	76	623648	204.69	ug/L	99
69) dibromochloromethane	12.084	129	437534	199.92	ug/L	100
70) 1,2-dibromoethane	12.334	107	380429	202.03	ug/L	99
71) 2-hexanone	11.909	43	402918	213.79	ug/L	99
72) chlorobenzene	13.162	112	1035061	204.85	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.081	131	393100	203.19	ug/L	98
74) ethylbenzene	13.337	91	1954298	207.71	ug/L	100
75) m,p-xylene	13.519	106	1377674	412.85	ug/L	98
76) o-xylene	13.937	106	663696	204.21	ug/L	99
77) styrene	13.863	104	1205742	203.18	ug/L	99
78) bromoform	13.688	173	312381	195.05	ug/L	100
79) trans-1,4-dichloro-2-b...	14.078	53	136072	187.50	ug/L	91
81) isopropylbenzene	14.294	105	1738977	200.70	ug/L	100
83) bromobenzene	14.584	156	480365	200.53	ug/L	99
84) 1,1,2,2-tetrachloroethane	13.937	83	497829	197.91	ug/L	100
85) 1,2,3-trichloropropane	14.078	75	535852	192.08	ug/L	100
86) n-propylbenzene	14.739	91	2145401	203.71	ug/L	99
87) 2-chlorotoluene	14.860	91	1311937	200.67	ug/L	99
88) 4-chlorotoluene	14.934	91	1340741	203.75	ug/L	100
89) 1,3,5-trimethylbenzene	15.015	105	1668082	205.24	ug/L	98
90) tert-butylbenzene	15.318	91	944966	207.15	ug/L	97
91) 1,2,4-trimethylbenzene	15.426	105	1682270	205.41	ug/L	100
92) sec-butylbenzene	15.540	105	1943558	204.79	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77990.D  
 Acq On : 7 Jul 2013 6:40 pm  
 Operator : amym  
 Sample : ic2927-200  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 08 08:45:08 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

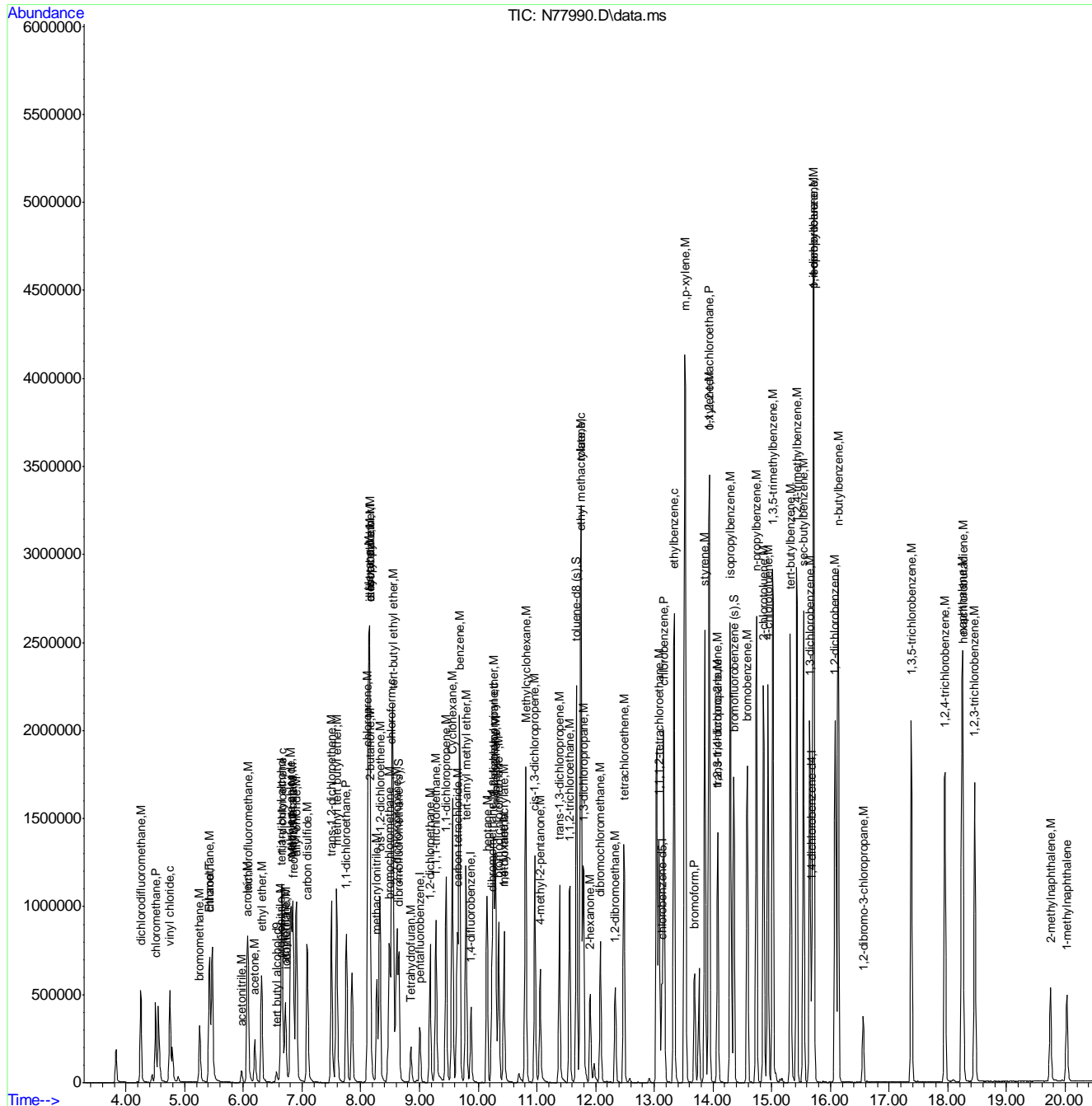
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.648	146	849511	205.46	ug/L	100
94) p-isopropyltoluene	15.715	119	1590725	207.40	ug/L	100
95) 1,4-dichlorobenzene	15.715	146	898389	204.56	ug/L	100
96) 1,2-dichlorobenzene	16.079	146	831843	204.50	ug/L	98
97) n-butylbenzene	16.133	91	1755383	206.67	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.557	75	96570	192.16	ug/L	96
99) 1,2,4-trichlorobenzene	17.952	180	640873	205.01	ug/L	100
100) 1,3,5-trichlorobenzene	17.379	180	693040	207.23	ug/L	100
101) hexachlorobutadiene	18.255	225	364283	207.63	ug/L	95
102) naphthalene	18.241	128	1375048	194.25	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	610416	203.41	ug/L	99
104) 2-methylnaphthalene	19.750	142	325932	98.93	ug/L	100
105) 1-methylnaphthalene	20.027	142	299541	103.90	ug/L	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77990.D  
 Acq On : 7 Jul 2013 6:40 pm  
 Operator : amym  
 Sample : ic2927-200  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 08 08:45:08 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration



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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77991.D  
 Acq On : 7 Jul 2013 7:08 pm  
 Operator : amym  
 Sample : ic2927-400  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 08 08:44:23 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.567	65	86330	500.00	ug/L	0.00	
4) pentafluorobenzene	9.006	168	216545	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.875	114	350043	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.129	82	175709m	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	163199	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	879392	400.04	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	800.08%#	
60) toluene-d8 (s)	11.673	98	3162217m	398.25	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	796.50%#	
82) bromofluorobenzene (s)	14.355	95	1340341	400.00	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	800.00%#	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	6.648	59	886231	3998.38	ug/L		100
3) Ethanol	5.429	45	1405265	40024.10	ug/L		100
5) dichlorodifluoromethane	4.250	85	986889	399.98	ug/L		100
6) chloromethane	4.499	50	1226112	400.07	ug/L		100
7) vinyl chloride	4.742	62	993903	400.04	ug/L		100
8) bromomethane	5.254	96	476727	399.99	ug/L		100
9) chloroethane	5.422	64	501397	399.99	ug/L		100
10) ethyl ether	6.305	59	782033	399.98	ug/L		100
11) acetonitrile	5.968	41	48860	397.75	ug/L		100
12) trichlorofluoromethane	6.076	101	1286711	400.01	ug/L		100
13) freon-113	6.843	101	701949	399.98	ug/L		100
14) acrolein	6.062	56	500083	1999.92	ug/L		100
15) 1,1-dichloroethene	6.662	96	636891	404.13	ug/L		100
16) acetone	6.197	58	112614	402.91	ug/L		100
17) Methyl Acetate	6.830	43	1209726	399.98	ug/L		100
18) methylene chloride	6.803	84	849381	399.98	ug/L		100
19) methyl tert butyl ether	7.585	73	2232378	399.98	ug/L		100
20) acrylonitrile	6.709	53	403783	399.98	ug/L		100
21) allyl chloride	6.904	41	1400286	399.98	ug/L		100
22) trans-1,2-dichloroethene	7.497	96	795082	399.91	ug/L		100
23) iodomethane	6.716	142	702104	399.98	ug/L		100
24) carbon disulfide	7.086	76	2558195	399.98	ug/L		100
25) propionitrile	6.628	54	7957	399.98	ug/L		100
26) vinyl acetate	6.830	43	1209726	399.98	ug/L		100
27) chloroprene	8.117	53	1578125	399.98	ug/L		100
28) di-isopropyl ether	8.150	45	3740529	399.88	ug/L		100
29) methacrylonitrile	8.272	41	697313	399.98	ug/L		100
30) 2-butanone	8.157	72	108099	399.98	ug/L		100
31) Hexane	8.137	41	1475757	399.98	ug/L		100
32) 1,1-dichloroethane	7.753	63	1683430	399.98	ug/L		100
33) tert-butyl ethyl ether	8.548	59	2847278	399.98	ug/L		100
34) isobutyl alcohol	8.150	43	3033596	1999.92	ug/L		100
35) 2,2-dichloropropane	8.615	77	1154434	399.98	ug/L		100
36) cis-1,2-dichloroethene	8.325	96	893305	399.98	ug/L		100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77991.D  
 Acq On : 7 Jul 2013 7:08 pm  
 Operator : amym  
 Sample : ic2927-400  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 08 08:44:23 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	8.150	43	3033596	400.18	ug/L	100
38) bromochloromethane	8.494	128	371258	400.13	ug/L	100
39) chloroform	8.528	83	1559610	400.13	ug/L	100
41) Tetrahydrofuran	8.851	42	332412	399.98	ug/L	100
42) 1,1,1-trichloroethane	9.282	97	1338156	400.02	ug/L	100
44) Cyclohexane	9.558	56	1780839	400.00	ug/L	100
45) carbon tetrachloride	9.646	117	1118798	400.00	ug/L	100
46) 1,1-dichloropropene	9.450	75	1160787	400.07	ug/L	100
47) benzene	9.680	78	3425769	400.00	ug/L	100
48) 1,2-dichloroethane	9.181	62	1388084	400.00	ug/L	100
49) tert-amyl methyl ether	9.794	73	2018662	400.00	ug/L	100
50) heptane	10.144	43	1138215	399.85	ug/L	100
51) trichloroethene	10.299	95	924017	400.00	ug/L	100
52) 1,2-dichloropropane	10.266	63	1071987	400.00	ug/L	100
53) dibromomethane	10.239	93	573752	400.00	ug/L	100
54) bromodichloromethane	10.346	83	1315877	400.02	ug/L	100
55) Methylcyclohexane	10.811	83	1429534	400.00	ug/L	100
56) 2-chloroethyl vinyl ether	10.266	63	1071987	400.00	ug/L #	100
57) methyl methacrylate	10.441	69	609069	400.00	ug/L	100
58) 1,4-dioxane	10.441	88	47453	2000.00	ug/L	100
59) cis-1,3-dichloropropene	10.966	75	1534525	400.00	ug/L	100
61) 4-methyl-2-pentanone	11.054	43	1143075	400.11	ug/L	100
62) toluene	11.748	92	2071956	400.00	ug/L	100
63) trans-1,3-dichloropropene	11.384	75	1317948	400.00	ug/L	100
64) 1,1,2-trichloroethane	11.559	83	710372	400.00	ug/L	100
65) ethyl methacrylate	11.754	69	1099793	390.34	ug/L	100
67) tetrachloroethene	12.482	166	848851	418.05	ug/L	100
68) 1,3-dichloropropane	11.795	76	1352994	418.05	ug/L	100
69) dibromochloromethane	12.084	129	971869	418.05	ug/L	100
70) 1,2-dibromoethane	12.334	107	836171	418.04	ug/L	100
71) 2-hexanone	11.909	43	827632	413.43	ug/L	100
72) chlorobenzene	13.162	112	2244054	418.10	ug/L	100
73) 1,1,1,2-tetrachloroethane	13.081	131	859110	418.05	ug/L	100
74) ethylbenzene	13.337	91	4178353	418.07	ug/L	100
75) m,p-xylene	13.526	106	2963711	836.11	ug/L	100
76) o-xylene	13.937	106	1443252	418.05	ug/L	100
77) styrene	13.863	104	2635225	418.05	ug/L	100
78) bromoform	13.688	173	711189	418.05	ug/L	100
79) trans-1,4-dichloro-2-b...	14.078	53	322265	418.05	ug/L	100
81) isopropylbenzene	14.294	105	3792940	400.00	ug/L	100
83) bromobenzene	14.584	156	1048640	400.00	ug/L	100
84) 1,1,2,2-tetrachloroethane	13.937	83	1101099	400.00	ug/L	100
85) 1,2,3-trichloropropane	14.085	75	1221224	400.00	ug/L	100
86) n-propylbenzene	14.739	91	4610175	400.00	ug/L	100
87) 2-chlorotoluene	14.860	91	2861869	400.00	ug/L	100
88) 4-chlorotoluene	14.934	91	2877789	399.63	ug/L	100
89) 1,3,5-trimethylbenzene	15.021	105	3557766	400.00	ug/L	100
90) tert-butylbenzene	15.325	91	1996857	400.00	ug/L	100
91) 1,2,4-trimethylbenzene	15.426	105	3583645	399.84	ug/L	100
92) sec-butylbenzene	15.540	105	4153240	399.87	ug/L	100



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77991.D  
 Acq On : 7 Jul 2013 7:08 pm  
 Operator : amym  
 Sample : ic2927-400  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 36 Sample Multiplier: 1

Quant Time: Jul 08 08:44:23 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 07:47:30 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	15.648	146	1829181	404.24	ug/L	100
94) p-isopropyltoluene	15.715	119	3357379	400.00	ug/L	100
95) 1,4-dichlorobenzene	15.715	146	1922481	400.00	ug/L	100
96) 1,2-dichlorobenzene	16.086	146	1780601	400.00	ug/L	100
97) n-butylbenzene	16.133	91	3718109	400.00	ug/L	100
98) 1,2-dibromo-3-chloropr...	16.557	75	219991	400.00	ug/L	100
99) 1,2,4-trichlorobenzene	17.952	180	1368434	400.00	ug/L	100
100) 1,3,5-trichlorobenzene	17.379	180	1463207	399.80	ug/L	100
101) hexachlorobutadiene	18.262	225	768026	400.00	ug/L	100
102) naphthalene	18.241	128	3098712	400.00	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	1313776	400.04	ug/L	100
104) 2-methylnaphthalene	19.750	142	721235	200.04	ug/L	100
105) 1-methylnaphthalene	20.027	142	632372	200.43	ug/L	100

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



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77994.D  
 Acq On : 7 Jul 2013 8:33 pm  
 Operator : amym  
 Sample : icv2927-50  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jul 08 09:35:14 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	6.567	65	78418	500.00	ug/L	-0.01	
4) pentafluorobenzene	9.006	168	203559	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	9.881	114	320565	50.00	ug/L	0.00	
66) chlorobenzene-d5	13.128	82	171240	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	15.688	152	144250	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	8.649	113	96744	46.37	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	92.74%	
60) toluene-d8 (s)	11.673	98	371532	49.17	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.34%	
82) bromofluorobenzene (s)	14.354	95	146261	47.32	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	94.64%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	6.655	59	102125	485.75	ug/L		87
3) Ethanol	5.422	45	161067	4178.80	ug/L		98
5) dichlorodifluoromethane	4.250	85	127386	50.41	ug/L		98
6) chloromethane	4.506	50	142729	51.55	ug/L		99
7) vinyl chloride	4.748	62	107417	40.20	ug/L		99
8) bromomethane	5.254	96	44605	44.00	ug/L		94
9) chloroethane	5.422	64	70099	52.44	ug/L		98
10) ethyl ether	6.311	59	88715	47.31	ug/L		98
12) trichlorofluoromethane	6.075	101	159927	49.08	ug/L		94
13) freon-113	6.850	101	91045	52.20	ug/L		99
14) acrolein	6.062	56	89505	392.97	ug/L		99
15) 1,1-dichloroethene	6.655	96	90234	52.14	ug/L		100
16) acetone	6.197	58	20445	61.46	ug/L		96
17) Methyl Acetate	6.837	43	114845	38.32	ug/L		98
18) methylene chloride	6.810	84	101929	49.91	ug/L		96
19) methyl tert butyl ether	7.591	73	231605	45.84	ug/L		98
20) acrylonitrile	6.715	53	44293	49.41	ug/L		95
21) allyl chloride	6.904	41	194694	51.68	ug/L		98
22) trans-1,2-dichloroethene	7.504	96	95005	52.00	ug/L		99
23) iodomethane	6.715	142	81325	49.08	ug/L		100
24) carbon disulfide	7.086	76	322733	52.45	ug/L		100
25) propionitrile	6.635	54	1401m	40.65	ug/L		
26) vinyl acetate	6.837	43	114845	38.32	ug/L		92
27) chloroprene	8.117	53	210034	55.52	ug/L		96
28) di-isopropyl ether	8.150	45	437462	47.27	ug/L		97
29) methacrylonitrile	8.278	41	75584	46.15	ug/L		99
30) 2-butanone	8.164	72	14761	53.58	ug/L	#	24
31) Hexane	8.137	41	185141	48.20	ug/L	#	98
32) 1,1-dichloroethane	7.753	63	209168	52.71	ug/L		99
33) tert-butyl ethyl ether	8.548	59	253728	44.83	ug/L		98
34) isobutyl alcohol	8.150	43	378842	239.17	ug/L		90
35) 2,2-dichloropropane	8.615	77	106575	46.94	ug/L		98
36) cis-1,2-dichloroethene	8.325	96	103107	49.69	ug/L		99
37) ethyl acetate	8.150	43	378842	47.83	ug/L		94

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77994.D  
 Acq On : 7 Jul 2013 8:33 pm  
 Operator : amym  
 Sample : icv2927-50  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jul 08 09:35:14 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.487	128	46133	50.42	ug/L	87
39) chloroform	8.527	83	184260	50.56	ug/L	97
41) Tetrahydrofuran	8.858	42	34686	46.06	ug/L	95
42) 1,1,1-trichloroethane	9.282	97	155263	50.39	ug/L	99
44) Cyclohexane	9.558	56	214587	50.34	ug/L	97
45) carbon tetrachloride	9.639	117	127492	50.60	ug/L	98
46) 1,1-dichloropropene	9.450	75	144031	55.05	ug/L	97
47) benzene	9.679	78	407081	51.29	ug/L	99
48) 1,2-dichloroethane	9.181	62	156513	51.26	ug/L	97
49) tert-amyl methyl ether	9.794	73	177039	44.86	ug/L	99
50) heptane	10.151	43	128412	46.87	ug/L	98
51) trichloroethene	10.299	95	110782	51.73	ug/L	98
52) 1,2-dichloropropane	10.265	63	120983	49.73	ug/L	100
53) dibromomethane	10.239	93	63438	50.72	ug/L	97
54) bromodichloromethane	10.353	83	144088	52.79	ug/L	99
55) Methylcyclohexane	10.811	83	175677	51.75	ug/L	98
56) 2-chloroethyl vinyl ether	10.265	63	120983	49.56	ug/L #	100
57) methyl methacrylate	10.441	69	60778	48.52	ug/L	92
58) 1,4-dioxane	10.441	88	4578	217.79	ug/L	85
59) cis-1,3-dichloropropene	10.966	75	153160	45.71	ug/L	99
61) 4-methyl-2-pentanone	11.060	43	120322	48.00	ug/L	100
62) toluene	11.747	92	250198	51.59	ug/L	98
63) trans-1,3-dichloropropene	11.384	75	133951	47.51	ug/L	99
64) 1,1,2-trichloroethane	11.559	83	76506	50.64	ug/L	98
65) ethyl methacrylate	11.754	69	116360	48.67	ug/L	98
67) tetrachloroethene	12.482	166	105150	51.31	ug/L	96
68) 1,3-dichloropropane	11.795	76	152428	49.84	ug/L	98
69) dibromochloromethane	12.084	129	101512	45.46	ug/L	98
70) 1,2-dibromoethane	12.334	107	90746	49.06	ug/L	97
71) 2-hexanone	11.916	43	109885	53.11	ug/L	99
72) chlorobenzene	13.162	112	274287	51.23	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.081	131	95082	46.64	ug/L	99
74) ethylbenzene	13.337	91	493839	48.80	ug/L	99
75) m,p-xylene	13.519	106	363876	101.94	ug/L	97
76) o-xylene	13.937	106	179112	54.47	ug/L	99
77) styrene	13.863	104	282987	46.90	ug/L	97
78) bromoform	13.688	173	66573	43.58	ug/L	95
79) trans-1,4-dichloro-2-b...	14.085	53	23309	41.33	ug/L #	52
81) isopropylbenzene	14.294	105	473113	54.36	ug/L	100
83) bromobenzene	14.583	156	116060	50.03	ug/L	97
84) 1,1,2,2-tetrachloroethane	13.937	83	112626	47.88	ug/L	99
85) 1,2,3-trichloropropane	14.078	75	114541	47.46	ug/L	97
86) n-propylbenzene	14.738	91	580136	54.27	ug/L	100
87) 2-chlorotoluene	14.860	91	342656	51.73	ug/L	100
88) 4-chlorotoluene	14.934	91	359930	54.44	ug/L	99
89) 1,3,5-trimethylbenzene	15.021	105	407535	48.67	ug/L	98
90) tert-butylbenzene	15.318	91	255091	53.81	ug/L	97
91) 1,2,4-trimethylbenzene	15.426	105	402715	48.79	ug/L	99
92) sec-butylbenzene	15.540	105	530444	54.24	ug/L	100
93) 1,3-dichlorobenzene	15.648	146	216369	51.49	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77994.D  
 Acq On : 7 Jul 2013 8:33 pm  
 Operator : amym  
 Sample : icv2927-50  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jul 08 09:35:14 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

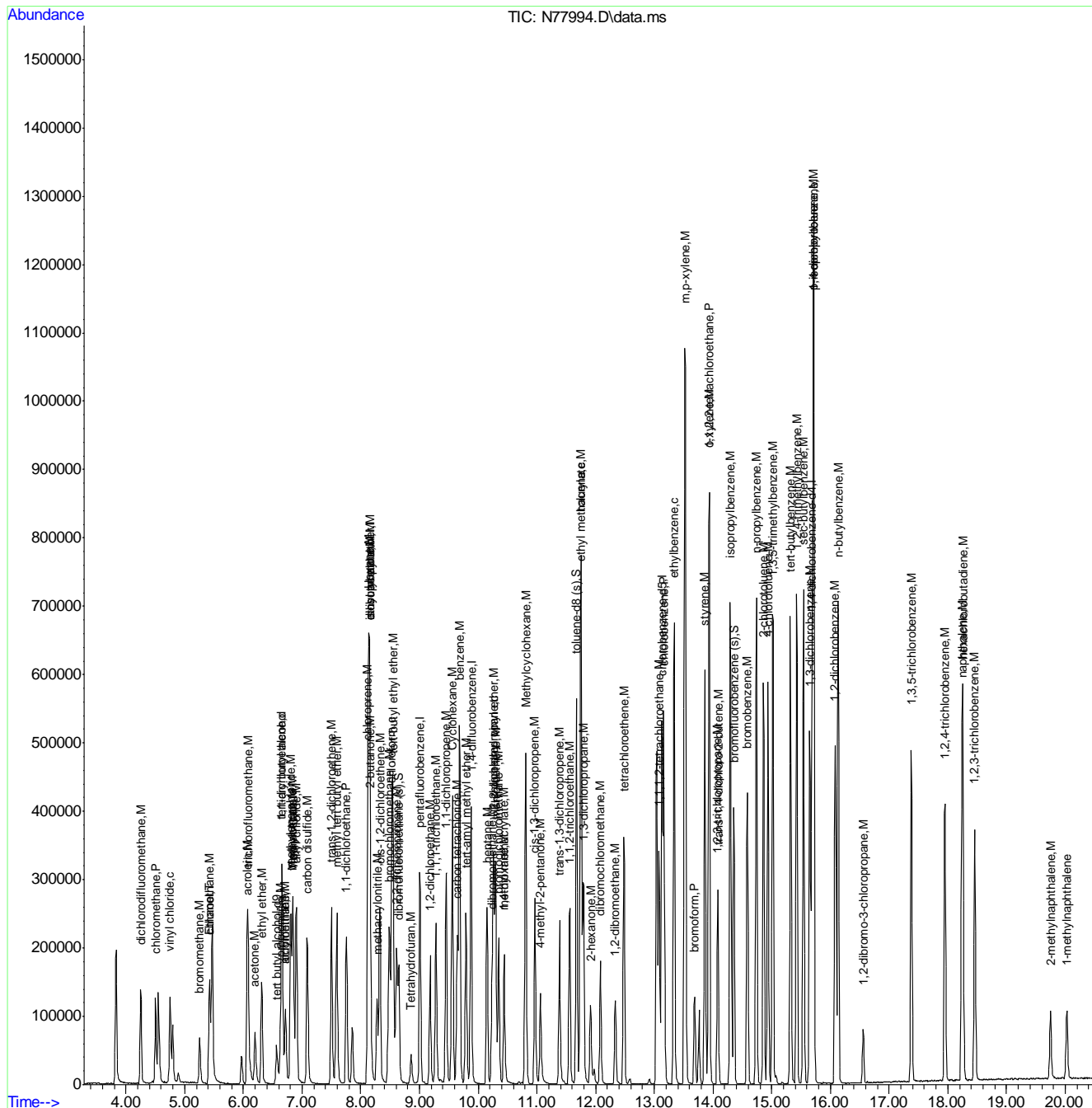
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.715	119	417577	53.10	ug/L	99
95) 1,4-dichlorobenzene	15.715	146	214926	48.79	ug/L	98
96) 1,2-dichlorobenzene	16.079	146	208196	53.49	ug/L	99
97) n-butylbenzene	16.133	91	429355	51.78	ug/L	99
98) 1,2-dibromo-3-chloropr...	16.557	75	20998	47.42	ug/L	99
99) 1,2,4-trichlorobenzene	17.952	180	146825	51.08	ug/L	96
100) 1,3,5-trichlorobenzene	17.379	180	167729	49.88	ug/L	99
101) hexachlorobutadiene	18.255	225	93374	51.81	ug/L	97
102) naphthalene	18.241	128	293018	46.74	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	137081	50.66	ug/L	97
104) 2-methylnaphthalene	19.750	142	62968	22.58	ug/L #	93
105) 1-methylnaphthalene	20.026	142	64351	23.94	ug/L #	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130707\  
 Data File : N77994.D  
 Acq On : 7 Jul 2013 8:33 pm  
 Operator : amym  
 Sample : icv2927-50  
 Misc : MS29311,MSN2927,,,,5,1  
 ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jul 08 09:35:14 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration



7.6.11  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78000.D  
 Acq On : 8 Jul 2013 9:41 am  
 Operator : jaclynb  
 Sample : cc2927-50  
 Misc : MS29311,MSN2928,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 08 10:09:10 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.567	65	76950	500.00	ug/L	-0.01
4) pentafluorobenzene	9.006	168	206436	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.875	114	324114	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	169720	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	144723	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	94110	44.48	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	88.96%
60) toluene-d8 (s)	11.673	98	372508	48.76	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.52%
82) bromofluorobenzene (s)	14.355	95	143483	46.27	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	92.54%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	6.655	59	103276	500.60	ug/L	# 82
3) Ethanol	5.429	45	191692	5068.22	ug/L	99
5) dichlorodifluoromethane	4.250	85	123293	48.11	ug/L	98
6) chloromethane	4.506	50	129680	46.18	ug/L	100
7) vinyl chloride	4.755	62	132466	48.89	ug/L	99
8) bromomethane	5.254	96	42036	41.25	ug/L	97
9) chloroethane	5.422	64	66648	49.17	ug/L	98
10) ethyl ether	6.311	59	94619	49.75	ug/L	99
12) trichlorofluoromethane	6.076	101	163954	49.61	ug/L	99
13) freon-113	6.850	101	85586	48.39	ug/L	99
14) acrolein	6.069	56	47225	204.45	ug/L	99
15) 1,1-dichloroethene	6.662	96	82897	47.24	ug/L	97
16) acetone	6.197	58	17919	53.11	ug/L	99
17) Methyl Acetate	6.837	43	142532	46.89	ug/L	98
18) methylene chloride	6.810	84	100926	48.73	ug/L	93
19) methyl tert butyl ether	7.591	73	236856	46.21	ug/L	99
20) acrylonitrile	6.715	53	45238	49.76	ug/L	90
21) allyl chloride	6.904	41	184021	48.17	ug/L	98
22) trans-1,2-dichloroethene	7.497	96	93911	50.68	ug/L	98
23) iodomethane	6.722	142	77804	46.36	ug/L	99
24) carbon disulfide	7.086	76	308281	49.40	ug/L	98
25) propionitrile	6.635	54	1805	56.90	ug/L	100
26) vinyl acetate	6.837	43	142532	46.89	ug/L	92
27) chloroprene	8.117	53	189321	49.35	ug/L	97
28) di-isopropyl ether	8.150	45	454862	48.46	ug/L	94
29) methacrylonitrile	8.278	41	82518	49.69	ug/L	98
30) 2-butanone	8.164	72	13391	47.56	ug/L	# 33
31) Hexane	8.137	41	163745	42.04	ug/L	99
32) 1,1-dichloroethane	7.753	63	200801	49.90	ug/L	99
33) tert-butyl ethyl ether	8.548	59	244260	42.92	ug/L	99
34) isobutyl alcohol	8.150	43	364665	227.01	ug/L	92
35) 2,2-dichloropropane	8.615	77	75599	35.31	ug/L	98
36) cis-1,2-dichloroethene	8.325	96	104281	49.55	ug/L	97
37) ethyl acetate	8.150	43	364665	45.40	ug/L	88

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78000.D  
 Acq On : 8 Jul 2013 9:41 am  
 Operator : jaclynb  
 Sample : cc2927-50  
 Misc : MS29311,MSN2928,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 08 10:09:10 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.494	128	46822	50.46	ug/L	94
39) chloroform	8.528	83	184098	49.81	ug/L	97
41) Tetrahydrofuran	8.858	42	34730	45.47	ug/L	97
42) 1,1,1-trichloroethane	9.282	97	150485	48.21	ug/L	99
44) Cyclohexane	9.558	56	216772	50.30	ug/L	98
45) carbon tetrachloride	9.646	117	122533	48.14	ug/L	97
46) 1,1-dichloropropene	9.457	75	135430	51.20	ug/L	98
47) benzene	9.680	78	406118	50.61	ug/L	100
48) 1,2-dichloroethane	9.181	62	154782	50.14	ug/L	98
49) tert-amyl methyl ether	9.794	73	171416	43.25	ug/L	98
50) heptane	10.151	43	103972	37.54	ug/L	97
51) trichloroethene	10.299	95	116559	53.83	ug/L	99
52) 1,2-dichloropropane	10.266	63	121544	49.42	ug/L	98
53) dibromomethane	10.239	93	63456	50.18	ug/L	96
54) bromodichloromethane	10.346	83	143627	52.04	ug/L	98
55) Methylcyclohexane	10.811	83	167935	48.93	ug/L	99
56) 2-chloroethyl vinyl ether	10.266	63	121544	49.25	ug/L #	99
57) methyl methacrylate	10.441	69	62411	49.28	ug/L	90
58) 1,4-dioxane	10.447	88	4978	234.22	ug/L	77
59) cis-1,3-dichloropropene	10.966	75	149396	44.18	ug/L	99
61) 4-methyl-2-pentanone	11.060	43	126339	49.85	ug/L	99
62) toluene	11.748	92	246302	50.23	ug/L	99
63) trans-1,3-dichloropropene	11.384	75	122423	43.25	ug/L	99
64) 1,1,2-trichloroethane	11.559	83	78574	51.44	ug/L	98
65) ethyl methacrylate	11.754	69	121267	50.17	ug/L	94
67) tetrachloroethene	12.482	166	98207	48.35	ug/L	98
68) 1,3-dichloropropane	11.795	76	152886	50.44	ug/L	99
69) dibromochloromethane	12.084	129	102313	46.19	ug/L	96
70) 1,2-dibromoethane	12.334	107	89375	48.75	ug/L	98
71) 2-hexanone	11.916	43	96447	47.03	ug/L	99
72) chlorobenzene	13.162	112	254874	48.03	ug/L	98
73) 1,1,1,2-tetrachloroethane	13.081	131	96888	47.92	ug/L	97
74) ethylbenzene	13.337	91	484429	48.30	ug/L	99
75) m,p-xylene	13.519	106	345297	97.60	ug/L	98
76) o-xylene	13.937	106	162614	49.90	ug/L	96
77) styrene	13.863	104	287854	48.13	ug/L	98
78) bromoform	13.688	173	68509	45.05	ug/L	98
79) trans-1,4-dichloro-2-b...	14.078	53	22067	40.02	ug/L #	45
81) isopropylbenzene	14.294	105	431031	49.36	ug/L	99
83) bromobenzene	14.584	156	113055	48.57	ug/L	98
84) 1,1,2,2-tetrachloroethane	13.937	83	106780	45.25	ug/L	98
85) 1,2,3-trichloropropane	14.078	75	114707	47.37	ug/L	94
86) n-propylbenzene	14.739	91	525710	49.02	ug/L	97
87) 2-chlorotoluene	14.860	91	318391	47.91	ug/L	99
88) 4-chlorotoluene	14.934	91	324168	48.87	ug/L	99
89) 1,3,5-trimethylbenzene	15.021	105	408613	48.64	ug/L	99
90) tert-butylbenzene	15.318	91	235583	49.54	ug/L	95
91) 1,2,4-trimethylbenzene	15.426	105	403520	48.73	ug/L	99
92) sec-butylbenzene	15.540	105	483271	49.25	ug/L	98
93) 1,3-dichlorobenzene	15.648	146	199612	47.35	ug/L	99



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78000.D  
 Acq On : 8 Jul 2013 9:41 am  
 Operator : jaclynb  
 Sample : cc2927-50  
 Misc : MS29311,MSN2928,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 08 10:09:10 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

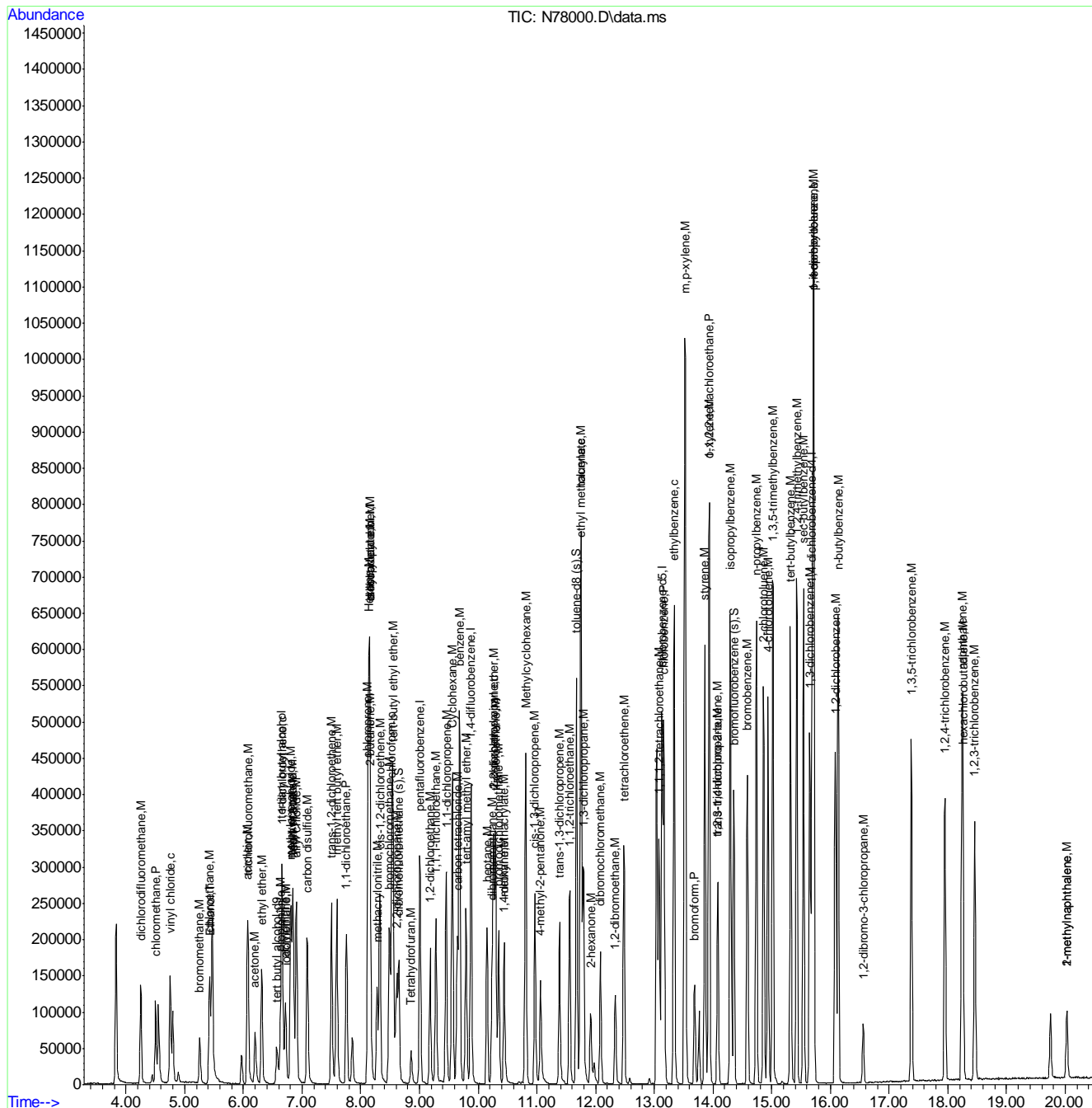
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.715	119	388270	49.22	ug/L	99
95) 1,4-dichlorobenzene	15.715	146	211693	47.90	ug/L	97
96) 1,2-dichlorobenzene	16.086	146	195995	50.19	ug/L	99
97) n-butylbenzene	16.133	91	392769	47.22	ug/L	98
98) 1,2-dibromo-3-chloropr...	16.557	75	21607	48.63	ug/L	97
99) 1,2,4-trichlorobenzene	17.952	180	138926	48.17	ug/L	99
100) 1,3,5-trichlorobenzene	17.379	180	161519	47.88	ug/L	99
101) hexachlorobutadiene	18.262	225	85833	47.47	ug/L	98
102) naphthalene	18.241	128	282375	45.06	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	132766	48.90	ug/L	99
104) 2-methylnaphthalene	20.027	142	58377	21.10	ug/L	99
105) 1-methylnaphthalene	20.027	142	58373	21.77	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78000.D  
 Acq On : 8 Jul 2013 9:41 am  
 Operator : jaclynb  
 Sample : cc2927-50  
 Misc : MS29311,MSN2928,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 08 10:09:10 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration



7.6.12  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78026.D  
 Acq On : 8 Jul 2013 9:53 pm  
 Operator : jaclynb  
 Sample : cc2927-50  
 Misc : MS29348,MSN2929,,,,5,1  
 ALS Vial : 43 Sample Multiplier: 1

Quant Time: Jul 09 08:23:29 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.567	65	76986	500.00	ug/L	-0.01
4) pentafluorobenzene	9.006	168	203961	50.00	ug/L	0.00
43) 1,4-difluorobenzene	9.875	114	319439	50.00	ug/L	0.00
66) chlorobenzene-d5	13.129	82	169018	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	15.688	152	146384	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	8.649	113	95383	45.63	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	91.26%
60) toluene-d8 (s)	11.674	98	382001	50.74	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.48%
82) bromofluorobenzene (s)	14.355	95	147116	46.90	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.80%
Target Compounds						
2) tertiary butyl alcohol	6.655	59	90990	440.84	ug/L	# 83
3) Ethanol	5.422	45	166272	4394.08	ug/L	99
5) dichlorodifluoromethane	4.250	85	104876	41.42	ug/L	97
6) chloromethane	4.506	50	99275	35.78	ug/L	100
7) vinyl chloride	4.755	62	111393	41.61	ug/L	96
8) bromomethane	5.260	96	36162	36.57	ug/L	99
9) chloroethane	5.422	64	57291	42.78	ug/L	96
10) ethyl ether	6.311	59	83536	44.46	ug/L	100
12) trichlorofluoromethane	6.076	101	137664	42.16	ug/L	93
13) freon-113	6.850	101	73041	41.80	ug/L	95
14) acrolein	6.062	56	52140	228.47	ug/L	99
15) 1,1-dichloroethene	6.662	96	72803	41.99	ug/L	97
16) acetone	6.197	58	9593	28.78	ug/L	92
17) Methyl Acetate	6.837	43	130156	43.34	ug/L	99
18) methylene chloride	6.803	84	87575	42.80	ug/L	99
19) methyl tert butyl ether	7.591	73	210044	41.67	ug/L	99
20) acrylonitrile	6.716	53	40357	44.93	ug/L	99
21) allyl chloride	6.904	41	170531	45.18	ug/L	100
22) trans-1,2-dichloroethene	7.504	96	83093	45.39	ug/L	95
23) iodomethane	6.722	142	63096	38.24	ug/L	99
24) carbon disulfide	7.086	76	269378	43.69	ug/L	99
25) propionitrile	6.628	54	1681	52.47	ug/L	100
26) vinyl acetate	6.837	43	130156	43.34	ug/L	87
27) chloroprene	8.117	53	165642	43.70	ug/L	99
28) di-isopropyl ether	8.150	45	411981	44.43	ug/L	93
29) methacrylonitrile	8.278	41	71029	43.29	ug/L	99
30) 2-butanone	8.171	72	9405	32.79	ug/L	# 4
31) Hexane	8.137	41	154564	40.16	ug/L	99
32) 1,1-dichloroethane	7.753	63	176211	44.32	ug/L	99
33) tert-butyl ethyl ether	8.548	59	215094	39.04	ug/L	99
34) isobutyl alcohol	8.150	43	322816	203.40	ug/L	88
35) 2,2-dichloropropane	8.608	77	87416	39.92	ug/L	100
36) cis-1,2-dichloroethene	8.326	96	91956	44.23	ug/L	99
37) ethyl acetate	8.150	43	322816	40.68	ug/L	85

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78026.D  
 Acq On : 8 Jul 2013 9:53 pm  
 Operator : jaclynb  
 Sample : cc2927-50  
 Misc : MS29348,MSN2929,,,,5,1  
 ALS Vial : 43 Sample Multiplier: 1

Quant Time: Jul 09 08:23:29 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) bromochloromethane	8.487	128	41142	44.87	ug/L #	87
39) chloroform	8.528	83	159253	43.61	ug/L	100
41) Tetrahydrofuran	8.858	42	32882	43.57	ug/L	89
42) 1,1,1-trichloroethane	9.282	97	130807	42.54	ug/L	99
44) Cyclohexane	9.558	56	181262	42.67	ug/L	98
45) carbon tetrachloride	9.646	117	107535	42.97	ug/L	99
46) 1,1-dichloropropene	9.457	75	120268	46.13	ug/L	99
47) benzene	9.680	78	357863	45.25	ug/L	99
48) 1,2-dichloroethane	9.181	62	136508	44.86	ug/L	100
49) tert-amyl methyl ether	9.794	73	148518	38.86	ug/L	97
50) heptane	10.151	43	106052	38.85	ug/L	99
51) trichloroethene	10.299	95	96028	45.00	ug/L	98
52) 1,2-dichloropropane	10.266	63	108796	44.88	ug/L	99
53) dibromomethane	10.239	93	56775	45.55	ug/L	96
54) bromodichloromethane	10.353	83	126103	46.36	ug/L	100
55) Methylcyclohexane	10.811	83	138338	40.89	ug/L	99
56) 2-chloroethyl vinyl ether	10.266	63	108796	44.73	ug/L #	99
57) methyl methacrylate	10.441	69	58468	46.84	ug/L	97
58) 1,4-dioxane	10.447	88	4596	219.42	ug/L	98
59) cis-1,3-dichloropropene	10.966	75	139189	41.89	ug/L	97
61) 4-methyl-2-pentanone	11.060	43	112418	45.00	ug/L	100
62) toluene	11.748	92	220002	45.53	ug/L	97
63) trans-1,3-dichloropropene	11.384	75	114966	41.36	ug/L	99
64) 1,1,2-trichloroethane	11.559	83	71896	47.76	ug/L	97
65) ethyl methacrylate	11.754	69	113241	47.53	ug/L	93
67) tetrachloroethene	12.482	166	90121	44.56	ug/L	99
68) 1,3-dichloropropane	11.795	76	139624	46.26	ug/L	98
69) dibromochloromethane	12.084	129	90123	41.14	ug/L	98
70) 1,2-dibromoethane	12.334	107	81951	44.89	ug/L	99
71) 2-hexanone	11.916	43	74641	36.55	ug/L	100
72) chlorobenzene	13.162	112	234087	44.30	ug/L	99
73) 1,1,1,2-tetrachloroethane	13.081	131	85946	42.81	ug/L	98
74) ethylbenzene	13.337	91	435359	43.59	ug/L	99
75) m,p-xylene	13.519	106	313745	89.05	ug/L	100
76) o-xylene	13.937	106	150061	46.24	ug/L	98
77) styrene	13.863	104	260608	43.76	ug/L	96
78) bromoform	13.688	173	62106	41.47	ug/L	96
79) trans-1,4-dichloro-2-b...	14.078	53	22120	40.20	ug/L #	62
81) isopropylbenzene	14.294	105	389042	44.05	ug/L	98
83) bromobenzene	14.584	156	106183	45.10	ug/L	98
84) 1,1,2,2-tetrachloroethane	13.937	83	111434	46.69	ug/L	98
85) 1,2,3-trichloropropane	14.085	75	107763	44.00	ug/L	99
86) n-propylbenzene	14.739	91	475981	43.88	ug/L	98
87) 2-chlorotoluene	14.860	91	292687	43.54	ug/L	98
88) 4-chlorotoluene	14.934	91	300583	44.80	ug/L	98
89) 1,3,5-trimethylbenzene	15.015	105	374169	44.03	ug/L	98
90) tert-butylbenzene	15.318	91	208792	43.40	ug/L	99
91) 1,2,4-trimethylbenzene	15.426	105	371230	44.32	ug/L	99
92) sec-butylbenzene	15.540	105	444178	44.76	ug/L	99
93) 1,3-dichlorobenzene	15.648	146	190409	44.65	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78026.D  
 Acq On : 8 Jul 2013 9:53 pm  
 Operator : jaclynb  
 Sample : cc2927-50  
 Misc : MS29348,MSN2929,,,,5,1  
 ALS Vial : 43 Sample Multiplier: 1

Quant Time: Jul 09 08:23:29 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration

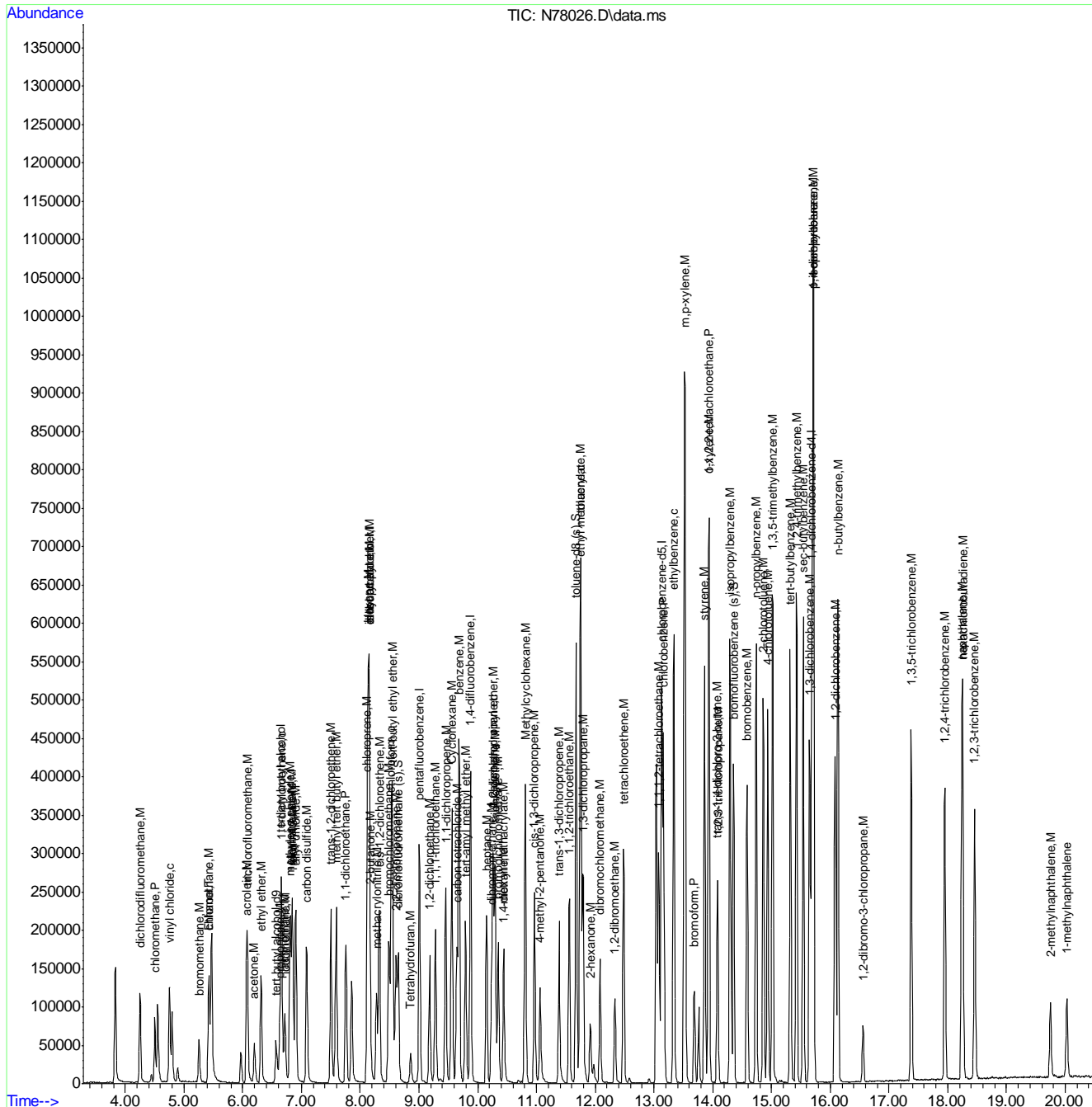
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) p-isopropyltoluene	15.715	119	360528	45.18	ug/L	98
95) 1,4-dichlorobenzene	15.715	146	202017	45.19	ug/L	99
96) 1,2-dichlorobenzene	16.086	146	182981	46.33	ug/L	99
97) n-butylbenzene	16.133	91	378979	45.04	ug/L	98
98) 1,2-dibromo-3-chloropr...	16.557	75	19719	43.88	ug/L	96
99) 1,2,4-trichlorobenzene	17.952	180	135725	46.53	ug/L	99
100) 1,3,5-trichlorobenzene	17.379	180	154004	45.13	ug/L	99
101) hexachlorobutadiene	18.255	225	78946	43.16	ug/L	98
102) naphthalene	18.241	128	281497	44.47	ug/L	100
103) 1,2,3-trichlorobenzene	18.457	180	130946	47.69	ug/L	97
104) 2-methylnaphthalene	19.750	142	63825	22.55	ug/L #	93
105) 1-methylnaphthalene	20.027	142	65860	24.14	ug/L #	93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\N130708\  
 Data File : N78026.D  
 Acq On : 8 Jul 2013 9:53 pm  
 Operator : jaclynb  
 Sample : cc2927-50  
 Misc : MS29348,MSN2929,,,,5,1  
 ALS Vial : 43 Sample Multiplier: 1

Quant Time: Jul 09 08:23:29 2013  
 Quant Method : C:\msdchem\1\methods\n130707w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Mon Jul 08 09:34:55 2013  
 Response via : Initial Calibration



7.6.13  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19972.D  
 Acq On : 24 Jun 2013 6:46 pm  
 Operator : amym  
 Sample : ic776-0.5  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 25 08:07:03 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

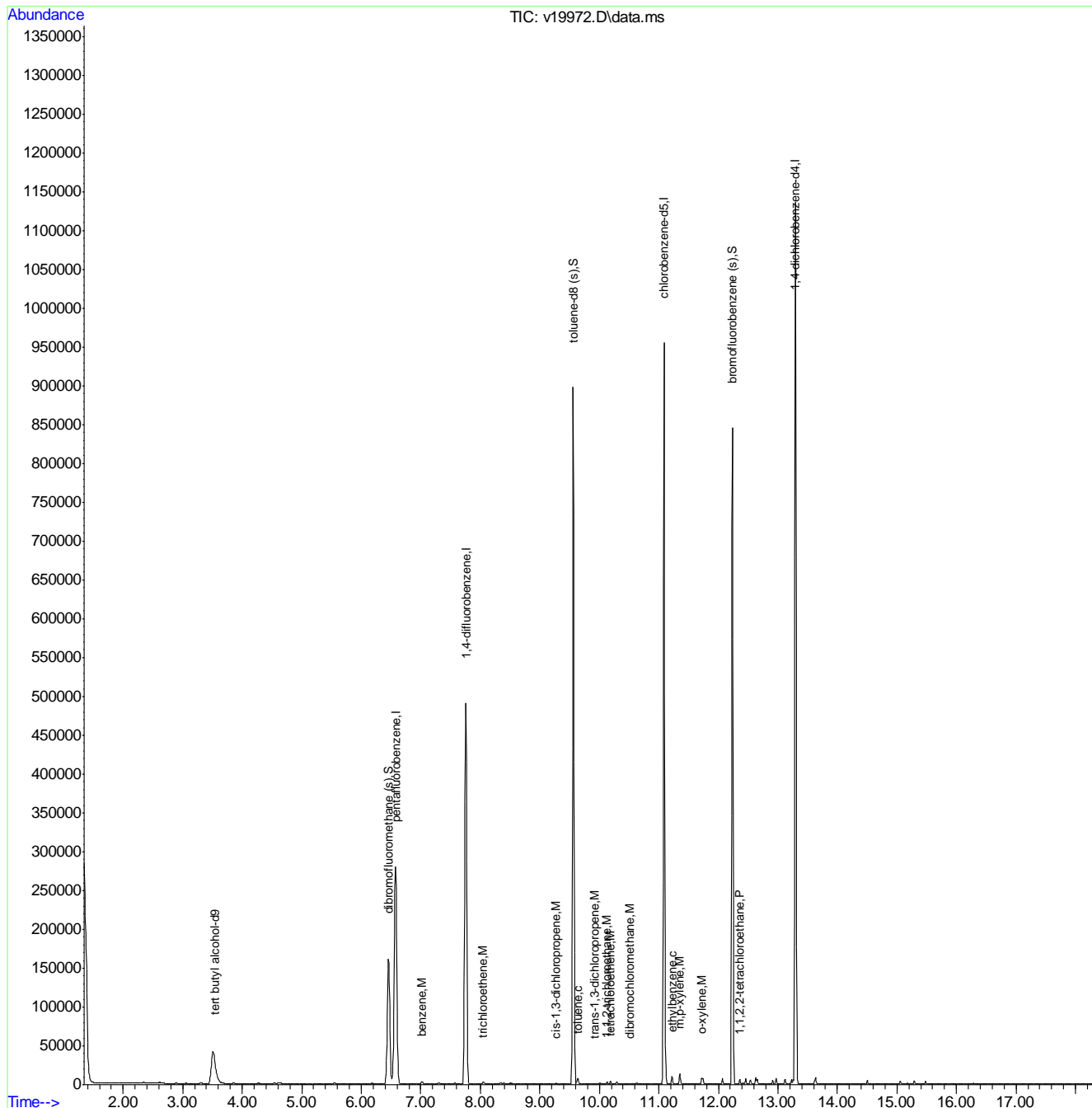
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.531	65	92732	500.00	ug/L	#	0.00
4) pentafluorobenzene	6.576	168	318726	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.755	114	490732	50.00	ug/L		0.00
66) chlorobenzene-d5	11.086	82	252730	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.297	152	255775	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.459	113	149269	45.45	ug/L		0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=		90.90%
60) toluene-d8 (s)	9.562	98	565898	48.78	ug/L		0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=		97.56%
82) bromofluorobenzene (s)	12.235	95	239139	48.42	ug/L		0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=		96.84%
Target Compounds							
						Qvalue	
47) benzene	7.018	78	5265	0.43	ug/L		98
51) trichloroethene	8.046	95	1088	0.31	ug/L		89
59) cis-1,3-dichloropropene	9.275	75	884	0.16	ug/L		53
62) toluene	9.637	92	3667	0.47	ug/L		96
63) trans-1,3-dichloropropene	9.925	75	541	0.12	ug/L		50
64) 1,1,2-trichloroethane	10.130	83	880	0.32	ug/L		98
67) tetrachloroethene	10.188	166	1399	0.41	ug/L		96
69) dibromochloromethane	10.512	129	426m	0.12	ug/L		
74) ethylbenzene	11.221	91	6155	0.47	ug/L		96
75) m,p-xylene	11.352	106	4549	0.92	ug/L		96
76) o-xylene	11.718	106	2010	0.40	ug/L		92
84) 1,1,2,2-tetrachloroethane	12.364	83	1432m	0.37	ug/L		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19972.D  
 Acq On : 24 Jun 2013 6:46 pm  
 Operator : amym  
 Sample : ic776-0.5  
 Misc : MS29071,MSV776,,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 25 08:07:03 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration



7.6.14  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19973.D  
 Acq On : 24 Jun 2013 7:13 pm  
 Operator : amym  
 Sample : ic776-1  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 25 07:53:59 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.527	65	85184	500.00	ug/L	# 0.00
4) pentafluorobenzene	6.573	168	316279	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.753	114	486215	50.00	ug/L	0.00
66) chlorobenzene-d5	11.086	82	251536	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.297	152	255053	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.455	113	148379	45.52	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	91.04%
60) toluene-d8 (s)	9.561	98	564081	49.07	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.14%
82) bromofluorobenzene (s)	12.234	95	238259	48.38	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.76%
Target Compounds						
						Qvalue
5) dichlorodifluoromethane	1.500	85	1221	0.41	ug/L	# 42
6) chloromethane	1.620	50	3152m	0.88	ug/L	
7) vinyl chloride	1.737	62	2717	0.74	ug/L	92
8) bromomethane	2.017	96	1737	0.91	ug/L	84
9) chloroethane	2.117	64	1384	0.93	ug/L	# 42
10) ethyl ether	2.613	59	2020	0.95	ug/L	87
11) acetonitrile	3.307	41	4141	0.76	ug/L	92
12) trichlorofluoromethane	2.354	101	2176	0.49	ug/L	81
13) freon-113	2.916	101	533	0.18	ug/L	# 69
14) acrolein	2.765	56	1210	3.22	ug/L	100
15) 1,1-dichloroethene	2.877	96	1864	0.70	ug/L	87
17) Methyl Acetate	3.289	43	3268	0.95	ug/L	# 54
18) methylene chloride	3.483	84	3762	1.10	ug/L	# 62
19) methyl tert butyl ether	3.851	73	7083	0.84	ug/L	80
20) acrylonitrile	4.637	53	3593	0.72	ug/L	93
21) allyl chloride	3.307	41	4142	0.76	ug/L	77
22) trans-1,2-dichloroethene	3.848	96	2753	0.88	ug/L	93
23) iodomethane	3.051	142	5532	0.91	ug/L	94
27) chloroprene	4.637	53	3593	0.72	ug/L	85
28) di-isopropyl ether	4.619	45	11211	0.95	ug/L	93
29) methacrylonitrile	5.924	41	1634	0.64	ug/L	78
31) Hexane	4.260	41	1440	0.49	ug/L	# 87
32) 1,1-dichloroethane	4.523	63	5444	0.90	ug/L	82
33) tert-butyl ethyl ether	5.289	59	7955	0.77	ug/L	88
34) isobutyl alcohol	4.263	43	1339	2.56	ug/L	98
35) 2,2-dichloropropane	5.557	77	1217	0.33	ug/L	53
36) cis-1,2-dichloroethene	5.547	96	3301	0.92	ug/L	94
38) bromochloromethane	5.968	128	1211	0.64	ug/L	92
39) chloroform	6.184	83	5276	0.88	ug/L	96
42) 1,1,1-trichloroethane	6.428	97	2666	0.53	ug/L	90
44) Cyclohexane	6.558	56	9051	1.61	ug/L	# 11
45) carbon tetrachloride	6.679	117	1299	0.31	ug/L	84
46) 1,1-dichloropropene	6.697	75	3203	0.81	ug/L	94
47) benzene	7.015	78	12587	1.05	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19973.D  
 Acq On : 24 Jun 2013 7:13 pm  
 Operator : amym  
 Sample : ic776-1  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 25 07:53:59 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) 1,2-dichloroethane	7.140	62	4585	0.96	ug/L	76
49) tert-amyl methyl ether	7.302	73	5983	0.77	ug/L	91
50) heptane	7.569	43	2469	0.68	ug/L	87
51) trichloroethene	8.045	95	3300	0.96	ug/L	87
52) 1,2-dichloropropane	8.393	63	3519	0.95	ug/L	88
53) dibromomethane	8.496	93	1899	0.84	ug/L	90
54) bromodichloromethane	8.746	83	2315	0.51	ug/L	93
55) Methylcyclohexane	8.346	83	2626	0.56	ug/L #	77
57) methyl methacrylate	8.522	69	1450	0.68	ug/L #	69
59) cis-1,3-dichloropropene	9.273	75	2516	0.46	ug/L	100
61) 4-methyl-2-pentanone	9.458	43	2513	0.71	ug/L #	70
62) toluene	9.636	92	8328	1.09	ug/L	95
63) trans-1,3-dichloropropene	9.925	75	1796	0.39	ug/L	100
64) 1,1,2-trichloroethane	10.128	83	2261	0.84	ug/L	97
65) ethyl methacrylate	10.005	69	2434	0.57	ug/L	82
67) tetrachloroethene	10.188	166	3114	0.92	ug/L	94
68) 1,3-dichloropropane	10.290	76	4731	1.00	ug/L	97
69) dibromochloromethane	10.511	129	1269	0.35	ug/L	100
70) 1,2-dibromoethane	10.620	107	2317	0.73	ug/L	89
71) 2-hexanone	10.364	43	1770	0.75	ug/L	66
72) chlorobenzene	11.116	112	8930	1.18	ug/L	98
73) 1,1,1,2-tetrachloroethane	11.216	131	1469	0.50	ug/L	92
74) ethylbenzene	11.220	91	15249	1.16	ug/L	96
75) m,p-xylene	11.351	106	11141	2.28	ug/L	86
76) o-xylene	11.718	106	5396	1.07	ug/L	98
77) styrene	11.739	104	8886	0.98	ug/L	99
79) trans-1,4-dichloro-2-b...	12.129	53	680	0.51	ug/L #	8
81) isopropylbenzene	12.069	105	12060	0.91	ug/L	99
83) bromobenzene	12.360	156	4043	1.00	ug/L	93
84) 1,1,2,2-tetrachloroethane	12.364	83	3340	0.88	ug/L	96
85) 1,2,3-trichloropropane	12.413	75	3010	0.62	ug/L	68
86) n-propylbenzene	12.458	91	14861	0.96	ug/L	94
87) 2-chlorotoluene	12.537	91	10309	1.07	ug/L	96
88) 4-chlorotoluene	12.649	91	11679	1.06	ug/L	97
89) 1,3,5-trimethylbenzene	12.627	105	12091	1.00	ug/L	96
90) tert-butylbenzene	12.913	91	5555	0.86	ug/L	100
91) 1,2,4-trimethylbenzene	12.968	105	12634	1.02	ug/L	97
92) sec-butylbenzene	13.116	105	11861	0.89	ug/L	99
93) 1,3-dichlorobenzene	13.224	146	7171	1.05	ug/L	96
94) p-isopropyltoluene	13.257	119	10110	0.89	ug/L	98
95) 1,4-dichlorobenzene	13.319	146	8132	1.10	ug/L	97
96) 1,2-dichlorobenzene	13.636	146	6641	1.04	ug/L	97
97) n-butylbenzene	13.622	91	9509	0.91	ug/L	91
99) 1,3,5-trichlorobenzene	14.502	180	5095	0.94	ug/L	98
100) 1,2,4-trichlorobenzene	15.057	180	5110	0.98	ug/L	89
101) hexachlorobutadiene	15.179	225	1341	0.74	ug/L	86
102) naphthalene	15.292	128	9341	0.78	ug/L	100
103) 1,2,3-trichlorobenzene	15.480	180	4358	0.95	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
Data File : v19973.D  
Acq On : 24 Jun 2013 7:13 pm  
Operator : amym  
Sample : ic776-1  
Misc : MS29071,MSV776,,,,5,1  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 25 07:53:59 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 07:45:18 2013  
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\V130624\  
 Data File : v19974.D  
 Acq On : 24 Jun 2013 7:39 pm  
 Operator : amym  
 Sample : ic776-2  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 25 07:54:41 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.530	65	87963	500.00	ug/L	#	0.00
4) pentafluorobenzene	6.576	168	318970	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.755	114	489963	50.00	ug/L		0.00
66) chlorobenzene-d5	11.086	82	251734	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.296	152	254641	50.00	ug/L		0.00
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.458	113	148739	45.25	ug/L		0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=		90.50%
60) toluene-d8 (s)	9.561	98	566695	48.92	ug/L		0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=		97.84%
82) bromofluorobenzene (s)	12.233	95	238349	48.48	ug/L		0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=		96.96%
Target Compounds							
						Qvalue	
2) tertiary butyl alcohol	3.629	59	3226	14.37	ug/L		84
3) Ethanol	2.527	45	4522	316.71	ug/L	#	26
5) dichlorodifluoromethane	1.515	85	5288	1.76	ug/L		94
6) chloromethane	1.630	50	6549	1.80	ug/L		99
7) vinyl chloride	1.748	62	6464	1.74	ug/L		96
8) bromomethane	2.027	96	3759	1.94	ug/L		95
9) chloroethane	2.127	64	2906	1.94	ug/L		93
10) ethyl ether	2.620	59	4338	2.01	ug/L		86
11) acetonitrile	3.313	41	8633	1.57	ug/L		94
12) trichlorofluoromethane	2.363	101	7245	1.63	ug/L		99
13) freon-113	2.927	101	4141	1.39	ug/L		92
14) acrolein	2.774	56	3058	8.07	ug/L		100
15) 1,1-dichloroethene	2.886	96	4448	1.66	ug/L		88
16) acetone	2.916	58	564	1.66	ug/L	#	1
17) Methyl Acetate	3.296	43	7233	2.09	ug/L	#	82
18) methylene chloride	3.489	84	7303	2.13	ug/L	#	71
19) methyl tert butyl ether	3.856	73	15529	1.82	ug/L		84
20) acrylonitrile	4.643	53	8499	1.68	ug/L		97
21) allyl chloride	3.313	41	8633	1.57	ug/L		78
22) trans-1,2-dichloroethene	3.856	96	5980	1.89	ug/L		93
23) iodomethane	3.059	142	11688	1.91	ug/L		95
24) carbon disulfide	3.141	76	4189	0.48	ug/L		75
26) vinyl acetate	4.590	43	22484	1.75	ug/L		73
27) chloroprene	4.643	53	8499	1.68	ug/L		78
28) di-isopropyl ether	4.624	45	24647	2.08	ug/L		91
29) methacrylonitrile	5.935	41	4960	1.92	ug/L		84
31) Hexane	4.268	41	4858	1.65	ug/L	#	85
32) 1,1-dichloroethane	4.531	63	11541	1.90	ug/L		99
33) tert-butyl ethyl ether	5.295	59	17688	1.69	ug/L		88
34) isobutyl alcohol	4.267	43	4365	8.28	ug/L		83
35) 2,2-dichloropropane	5.565	77	3804	1.03	ug/L		53
36) cis-1,2-dichloroethene	5.552	96	7341	2.02	ug/L		94
37) ethyl acetate	7.305	43	5230m	1.71	ug/L		
38) bromochloromethane	5.972	128	3478	1.83	ug/L	#	75

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19974.D  
 Acq On : 24 Jun 2013 7:39 pm  
 Operator : amym  
 Sample : ic776-2  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 25 07:54:41 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) chloroform	6.188	83	11507	1.90	ug/L	99
41) Tetrahydrofuran	5.978	42	1732	1.72	ug/L #	27
42) 1,1,1-trichloroethane	6.431	97	6283	1.23	ug/L	89
44) Cyclohexane	6.553	56	14736	2.60	ug/L #	61
45) carbon tetrachloride	6.682	117	4352	1.02	ug/L	91
46) 1,1-dichloropropene	6.700	75	7195	1.80	ug/L	95
47) benzene	7.018	78	26420	2.18	ug/L	98
48) 1,2-dichloroethane	7.143	62	9657	2.01	ug/L	99
49) tert-amyl methyl ether	7.305	73	13290	1.71	ug/L	83
50) heptane	7.571	43	6178	1.68	ug/L	80
51) trichloroethene	8.046	95	6591	1.90	ug/L	95
52) 1,2-dichloropropane	8.394	63	7242	1.94	ug/L	88
53) dibromomethane	8.498	93	4386	1.92	ug/L	95
54) bromodichloromethane	8.747	83	5427	1.20	ug/L	96
55) Methylcyclohexane	8.347	83	7312	1.56	ug/L	86
57) methyl methacrylate	8.525	69	3283	1.53	ug/L #	59
59) cis-1,3-dichloropropene	9.273	75	6256	1.13	ug/L	96
61) 4-methyl-2-pentanone	9.457	43	6250	1.76	ug/L #	77
62) toluene	9.636	92	17058	2.21	ug/L	99
63) trans-1,3-dichloropropene	9.923	75	4174	0.89	ug/L	99
64) 1,1,2-trichloroethane	10.128	83	5372	1.97	ug/L	98
65) ethyl methacrylate	10.004	69	5975	1.39	ug/L	75
67) tetrachloroethene	10.188	166	6518	1.92	ug/L	98
68) 1,3-dichloropropane	10.291	76	10351	2.18	ug/L	96
69) dibromochloromethane	10.509	129	2942	0.82	ug/L	99
70) 1,2-dibromoethane	10.620	107	5745	1.80	ug/L	98
71) 2-hexanone	10.364	43	4463	1.90	ug/L	79
72) chlorobenzene	11.115	112	18773	2.48	ug/L	95
73) 1,1,1,2-tetrachloroethane	11.215	131	3788	1.29	ug/L	93
74) ethylbenzene	11.220	91	30812	2.35	ug/L	97
75) m,p-xylene	11.350	106	23181	4.73	ug/L	93
76) o-xylene	11.717	106	11069	2.20	ug/L	96
77) styrene	11.738	104	19408	2.13	ug/L	96
78) bromoform	11.912	173	1484	0.62	ug/L	100
79) trans-1,4-dichloro-2-b...	12.129	53	1981	1.49	ug/L #	29
81) isopropylbenzene	12.069	105	25408	1.93	ug/L	98
83) bromobenzene	12.359	156	8676	2.14	ug/L	97
84) 1,1,2,2-tetrachloroethane	12.363	83	7565	1.99	ug/L	99
85) 1,2,3-trichloropropane	12.412	75	6654	1.37	ug/L	64
86) n-propylbenzene	12.457	91	30122	1.95	ug/L	96
87) 2-chlorotoluene	12.536	91	20990	2.18	ug/L	94
88) 4-chlorotoluene	12.648	91	23995	2.18	ug/L	95
89) 1,3,5-trimethylbenzene	12.626	105	23958	1.99	ug/L	94
90) tert-butylbenzene	12.912	91	12023	1.86	ug/L	97
91) 1,2,4-trimethylbenzene	12.967	105	25454	2.05	ug/L	98
92) sec-butylbenzene	13.115	105	25070	1.88	ug/L	96
93) 1,3-dichlorobenzene	13.223	146	14695	2.15	ug/L	97
94) p-isopropyltoluene	13.256	119	21161	1.87	ug/L	99
95) 1,4-dichlorobenzene	13.318	146	16680	2.26	ug/L	98
96) 1,2-dichlorobenzene	13.635	146	14439	2.26	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19974.D  
 Acq On : 24 Jun 2013 7:39 pm  
 Operator : amym  
 Sample : ic776-2  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 25 07:54:41 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) n-butylbenzene	13.621	91	20347	1.94	ug/L	95
98) 1,2-dibromo-3-chloropr...	14.499	75	1771	2.57	ug/L #	1
99) 1,3,5-trichlorobenzene	14.501	180	11324	2.08	ug/L	95
100) 1,2,4-trichlorobenzene	15.056	180	10247	1.98	ug/L	98
101) hexachlorobutadiene	15.177	225	3110	1.73	ug/L	96
102) naphthalene	15.290	128	21321	1.78	ug/L	100
103) 1,2,3-trichlorobenzene	15.478	180	9734	2.11	ug/L	94
104) 2-Methylnaphthalene	16.289	142	3682	0.65	ug/L	95
105) 1-Methylnaphthalene	16.459	142	3506	0.78	ug/L	97

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





## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19975.D  
 Acq On : 24 Jun 2013 8:06 pm  
 Operator : amym  
 Sample : ic776-5  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 25 07:56:48 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.532	65	86145	500.00	ug/L	# 0.00
4) pentafluorobenzene	6.575	168	308618	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.754	114	476782	50.00	ug/L	0.00
66) chlorobenzene-d5	11.086	82	248042	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.296	152	254184	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.457	113	148573	46.72	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.44%
60) toluene-d8 (s)	9.561	98	555591	49.29	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.58%
82) bromofluorobenzene (s)	12.233	95	237195	48.33	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.66%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	3.630	59	9498	43.21	ug/L	# 79
3) Ethanol	2.518	45	8939	639.28	ug/L	# 67
5) dichlorodifluoromethane	1.513	85	16592	5.70	ug/L	99
6) chloromethane	1.630	50	17530	4.99	ug/L	99
7) vinyl chloride	1.752	62	17953	5.00	ug/L	94
8) bromomethane	2.029	96	9917	5.30	ug/L	96
9) chloroethane	2.126	64	7572	5.23	ug/L	98
10) ethyl ether	2.622	59	13137	6.30	ug/L	88
11) acetonitrile	3.309	41	23782	4.47	ug/L	95
12) trichlorofluoromethane	2.361	101	22767	5.29	ug/L	98
13) freon-113	2.926	101	14880	5.16	ug/L	98
14) acrolein	2.773	56	8326	22.71	ug/L	100
15) 1,1-dichloroethene	2.886	96	13689	5.27	ug/L	95
16) acetone	2.920	58	2247	6.83	ug/L	# 1
17) Methyl Acetate	3.295	43	17883	5.34	ug/L	# 86
18) methylene chloride	3.488	84	18092	5.44	ug/L	# 64
19) methyl tert butyl ether	3.856	73	39914	4.84	ug/L	91
20) acrylonitrile	4.641	53	25049	5.11	ug/L	98
21) allyl chloride	3.309	41	23782	4.47	ug/L	79
22) trans-1,2-dichloroethene	3.854	96	16493	5.40	ug/L	90
23) iodomethane	3.057	142	30782	5.20	ug/L	100
24) carbon disulfide	3.140	76	12688	1.51	ug/L	97
25) propionitrile	5.655	54	2025	3.78	ug/L	100
26) vinyl acetate	4.588	43	58050	4.67	ug/L	73
27) chloroprene	4.641	53	25049	5.11	ug/L	85
28) di-isopropyl ether	4.624	45	63583	5.55	ug/L	94
29) methacrylonitrile	5.935	41	13243	5.29	ug/L	91
30) 2-butanone	5.550	72	1587	4.57	ug/L	# 1
31) Hexane	4.267	41	16171	5.69	ug/L	# 85
32) 1,1-dichloroethane	4.528	63	29803	5.07	ug/L	98
33) tert-butyl ethyl ether	5.295	59	46318	4.59	ug/L	89
34) isobutyl alcohol	4.267	43	14669	28.75	ug/L	100
35) 2,2-dichloropropane	5.568	77	12713	3.55	ug/L	87
36) cis-1,2-dichloroethene	5.551	96	18790	5.35	ug/L	90

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19975.D  
 Acq On : 24 Jun 2013 8:06 pm  
 Operator : amym  
 Sample : ic776-5  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 25 07:56:48 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.305	43	13265m	4.47	ug/L	
38) bromochloromethane	5.971	128	9173	4.99	ug/L #	77
39) chloroform	6.187	83	29766	5.07	ug/L	98
41) Tetrahydrofuran	5.976	42	5060	5.20	ug/L	84
42) 1,1,1-trichloroethane	6.430	97	19619	3.97	ug/L	94
44) Cyclohexane	6.542	56	35760	6.48	ug/L #	88
45) carbon tetrachloride	6.682	117	14414	3.48	ug/L	95
46) 1,1-dichloropropene	6.700	75	21546	5.53	ug/L	98
47) benzene	7.017	78	67403	5.72	ug/L	99
48) 1,2-dichloroethane	7.143	62	25505	5.45	ug/L	96
49) tert-amyl methyl ether	7.306	73	33805	4.46	ug/L	86
50) heptane	7.570	43	20855	5.84	ug/L	85
51) trichloroethene	8.046	95	18335	5.44	ug/L	97
52) 1,2-dichloropropane	8.394	63	19063	5.25	ug/L	88
53) dibromomethane	8.498	93	11381	5.13	ug/L	91
54) bromodichloromethane	8.747	83	14293	3.24	ug/L	99
55) Methylcyclohexane	8.348	83	25268	5.52	ug/L #	85
56) 2-chloroethyl vinyl ether	9.121	63	657	3.14	ug/L #	45
57) methyl methacrylate	8.525	69	9536	4.57	ug/L #	67
58) 1,4-dioxane	8.498	88	374m	12.03	ug/L	
59) cis-1,3-dichloropropene	9.273	75	17489	3.26	ug/L	100
61) 4-methyl-2-pentanone	9.457	43	16516	4.78	ug/L	85
62) toluene	9.637	92	42794	5.69	ug/L	97
63) trans-1,3-dichloropropene	9.923	75	11863	2.61	ug/L	98
64) 1,1,2-trichloroethane	10.128	83	13477	5.09	ug/L	95
65) ethyl methacrylate	10.005	69	17372	4.17	ug/L	77
67) tetrachloroethene	10.188	166	18900	5.65	ug/L	95
68) 1,3-dichloropropane	10.291	76	26481	5.67	ug/L	99
69) dibromochloromethane	10.510	129	8680	2.45	ug/L	98
70) 1,2-dibromoethane	10.620	107	14917	4.75	ug/L	99
71) 2-hexanone	10.364	43	12029	5.20	ug/L	86
72) chlorobenzene	11.115	112	47579	6.37	ug/L	97
73) 1,1,1,2-tetrachloroethane	11.215	131	11132	3.85	ug/L	97
74) ethylbenzene	11.220	91	82352	6.37	ug/L	96
75) m,p-xylene	11.350	106	62101	12.86	ug/L	93
76) o-xylene	11.717	106	29649	5.99	ug/L	97
77) styrene	11.738	104	52323	5.83	ug/L	96
78) bromoform	11.911	173	4219	1.79	ug/L	90
79) trans-1,4-dichloro-2-b...	12.129	53	5199m	3.96	ug/L	
81) isopropylbenzene	12.069	105	71289	5.42	ug/L	96
83) bromobenzene	12.359	156	21846	5.41	ug/L	98
84) 1,1,2,2-tetrachloroethane	12.362	83	19739	5.20	ug/L	98
85) 1,2,3-trichloropropane	12.406	75	20783	4.30	ug/L	64
86) n-propylbenzene	12.458	91	86450	5.61	ug/L	95
87) 2-chlorotoluene	12.536	91	54510	5.66	ug/L	97
88) 4-chlorotoluene	12.647	91	62952	5.72	ug/L	94
89) 1,3,5-trimethylbenzene	12.627	105	67517	5.63	ug/L	95
90) tert-butylbenzene	12.912	91	34597	5.37	ug/L	99
91) 1,2,4-trimethylbenzene	12.967	105	69123	5.58	ug/L	97
92) sec-butylbenzene	13.116	105	73100	5.49	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19975.D  
 Acq On : 24 Jun 2013 8:06 pm  
 Operator : amym  
 Sample : ic776-5  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 25 07:56:48 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.224	146	37088	5.42	ug/L	98
94) p-isopropyltoluene	13.256	119	61912	5.49	ug/L	99
95) 1,4-dichlorobenzene	13.318	146	42442	5.75	ug/L	99
96) 1,2-dichlorobenzene	13.635	146	37437	5.86	ug/L	99
97) n-butylbenzene	13.621	91	62065	5.93	ug/L	95
98) 1,2-dibromo-3-chloropr...	14.337	75	1520	2.21	ug/L	88
99) 1,3,5-trichlorobenzene	14.501	180	29202	5.38	ug/L	98
100) 1,2,4-trichlorobenzene	15.056	180	27287	5.27	ug/L	96
101) hexachlorobutadiene	15.178	225	9290	5.17	ug/L	94
102) naphthalene	15.291	128	59117	4.94	ug/L	100
103) 1,2,3-trichlorobenzene	15.479	180	25108	5.46	ug/L	95
104) 2-Methylnaphthalene	16.289	142	10850	1.92	ug/L	97
105) 1-Methylnaphthalene	16.459	142	9514	2.13	ug/L	100

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



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19976.D  
 Acq On : 24 Jun 2013 8:32 pm  
 Operator : amym  
 Sample : ic776-10  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 25 07:57:31 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.523	65	84609	500.00	ug/L	#-0.01	
4) pentafluorobenzene	6.569	168	315168	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	7.750	114	485506	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.083	82	250762	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.295	152	251765	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.451	113	152654	47.00	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	94.00%	
60) toluene-d8 (s)	9.558	98	557779	48.59	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.18%	
82) bromofluorobenzene (s)	12.232	95	238657	49.09	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.18%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	3.626	59	19688	91.20	ug/L	#	75
3) Ethanol	2.515	45	18490	1346.34	ug/L		89
5) dichlorodifluoromethane	1.502	85	32415	10.91	ug/L		97
6) chloromethane	1.625	50	35953	10.02	ug/L		98
7) vinyl chloride	1.748	62	36911	10.08	ug/L		92
8) bromomethane	2.022	96	20015	10.48	ug/L		98
9) chloroethane	2.116	64	15694	10.62	ug/L		95
10) ethyl ether	2.612	59	22128	10.39	ug/L		91
11) acetonitrile	3.302	41	50810	9.35	ug/L		97
12) trichlorofluoromethane	2.353	101	46401	10.56	ug/L		99
13) freon-113	2.917	101	31639	10.74	ug/L		97
14) acrolein	2.767	56	18419	49.20	ug/L		100
15) 1,1-dichloroethene	2.878	96	28560	10.76	ug/L		96
16) acetone	2.914	58	5082	15.12	ug/L	#	1
17) Methyl Acetate	3.289	43	36367	10.64	ug/L	#	84
18) methylene chloride	3.480	84	36834	10.85	ug/L	#	71
19) methyl tert butyl ether	3.848	73	80868	9.60	ug/L		87
20) acrylonitrile	4.632	53	52942	10.58	ug/L		98
21) allyl chloride	3.302	41	50812	9.35	ug/L		76
22) trans-1,2-dichloroethene	3.846	96	34253	10.98	ug/L		92
23) iodomethane	3.049	142	62981	10.41	ug/L		100
24) carbon disulfide	3.133	76	28152	3.27	ug/L		98
25) propionitrile	5.654	54	4920	8.99	ug/L		100
26) vinyl acetate	4.580	43	120215	9.47	ug/L		82
27) chloroprene	4.632	53	52942	10.58	ug/L		83
28) di-isopropyl ether	4.615	45	131225	11.21	ug/L		93
29) methacrylonitrile	5.929	41	26977	10.55	ug/L		91
30) 2-butanone	5.542	72	3803	10.72	ug/L	#	1
31) Hexane	4.258	41	33575	11.56	ug/L	#	89
32) 1,1-dichloroethane	4.521	63	62892	10.49	ug/L		98
33) tert-butyl ethyl ether	5.287	59	95355	9.25	ug/L		90
34) isobutyl alcohol	4.258	43	30012	57.61	ug/L		99
35) 2,2-dichloropropane	5.560	77	27608	7.55	ug/L		93
36) cis-1,2-dichloroethene	5.543	96	38792	10.81	ug/L		91

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19976.D  
 Acq On : 24 Jun 2013 8:32 pm  
 Operator : amym  
 Sample : ic776-10  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 25 07:57:31 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.299	43	27130m	8.96	ug/L	
38) bromochloromethane	5.964	128	19451	10.37	ug/L #	79
39) chloroform	6.180	83	60843	10.16	ug/L	100
41) Tetrahydrofuran	5.969	42	10375	10.43	ug/L	78
42) 1,1,1-trichloroethane	6.424	97	42077	8.35	ug/L	94
44) Cyclohexane	6.533	56	67694	12.05	ug/L	89
45) carbon tetrachloride	6.677	117	30680	7.27	ug/L	99
46) 1,1-dichloropropene	6.693	75	44748	11.27	ug/L	95
47) benzene	7.012	78	136683	11.38	ug/L	99
48) 1,2-dichloroethane	7.137	62	51670	10.85	ug/L	96
49) tert-amyl methyl ether	7.300	73	69544	9.01	ug/L	87
50) heptane	7.565	43	42826	11.77	ug/L	83
51) trichloroethene	8.042	95	37308	10.87	ug/L	99
52) 1,2-dichloropropane	8.390	63	40123	10.86	ug/L	97
53) dibromomethane	8.494	93	23645	10.46	ug/L	95
54) bromodichloromethane	8.744	83	32053	7.13	ug/L	99
55) Methylcyclohexane	8.343	83	51823	11.13	ug/L	85
56) 2-chloroethyl vinyl ether	9.116	63	1794	8.42	ug/L #	45
57) methyl methacrylate	8.522	69	20137	9.48	ug/L #	66
58) 1,4-dioxane	8.497	88	1107	34.97	ug/L	63
59) cis-1,3-dichloropropene	9.270	75	40387	7.39	ug/L	97
61) 4-methyl-2-pentanone	9.455	43	34252	9.74	ug/L	87
62) toluene	9.634	92	88022	11.50	ug/L	99
63) trans-1,3-dichloropropene	9.921	75	28415	6.15	ug/L	99
64) 1,1,2-trichloroethane	10.126	83	28874	10.71	ug/L	100
65) ethyl methacrylate	10.002	69	37871	8.92	ug/L	76
67) tetrachloroethene	10.186	166	38572	11.40	ug/L	98
68) 1,3-dichloropropane	10.288	76	53964	11.42	ug/L	98
69) dibromochloromethane	10.508	129	19616	5.47	ug/L	99
70) 1,2-dibromoethane	10.617	107	32228	10.14	ug/L	99
71) 2-hexanone	10.361	43	26705	11.43	ug/L	86
72) chlorobenzene	11.113	112	97186	12.87	ug/L	98
73) 1,1,1,2-tetrachloroethane	11.213	131	25470	8.71	ug/L	95
74) ethylbenzene	11.218	91	168345	12.87	ug/L	97
75) m,p-xylene	11.348	106	126182	25.86	ug/L	94
76) o-xylene	11.715	106	59563	11.89	ug/L	97
77) styrene	11.736	104	108631	11.96	ug/L	95
78) bromoform	11.910	173	10107	4.23	ug/L	98
79) trans-1,4-dichloro-2-b...	12.127	53	10748	8.11	ug/L #	47
81) isopropylbenzene	12.067	105	148028	11.37	ug/L	94
83) bromobenzene	12.358	156	45184	11.29	ug/L	97
84) 1,1,2,2-tetrachloroethane	12.362	83	41112	10.94	ug/L	99
85) 1,2,3-trichloropropane	12.404	75	43131	9.01	ug/L	68
86) n-propylbenzene	12.456	91	175949	11.53	ug/L	95
87) 2-chlorotoluene	12.534	91	110158	11.55	ug/L	96
88) 4-chlorotoluene	12.646	91	129202	11.86	ug/L	94
89) 1,3,5-trimethylbenzene	12.625	105	137575	11.58	ug/L	94
90) tert-butylbenzene	12.911	91	70760	11.08	ug/L	99
91) 1,2,4-trimethylbenzene	12.965	105	143381	11.68	ug/L	99
92) sec-butylbenzene	13.114	105	151792	11.52	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19976.D  
 Acq On : 24 Jun 2013 8:32 pm  
 Operator : amym  
 Sample : ic776-10  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 25 07:57:31 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

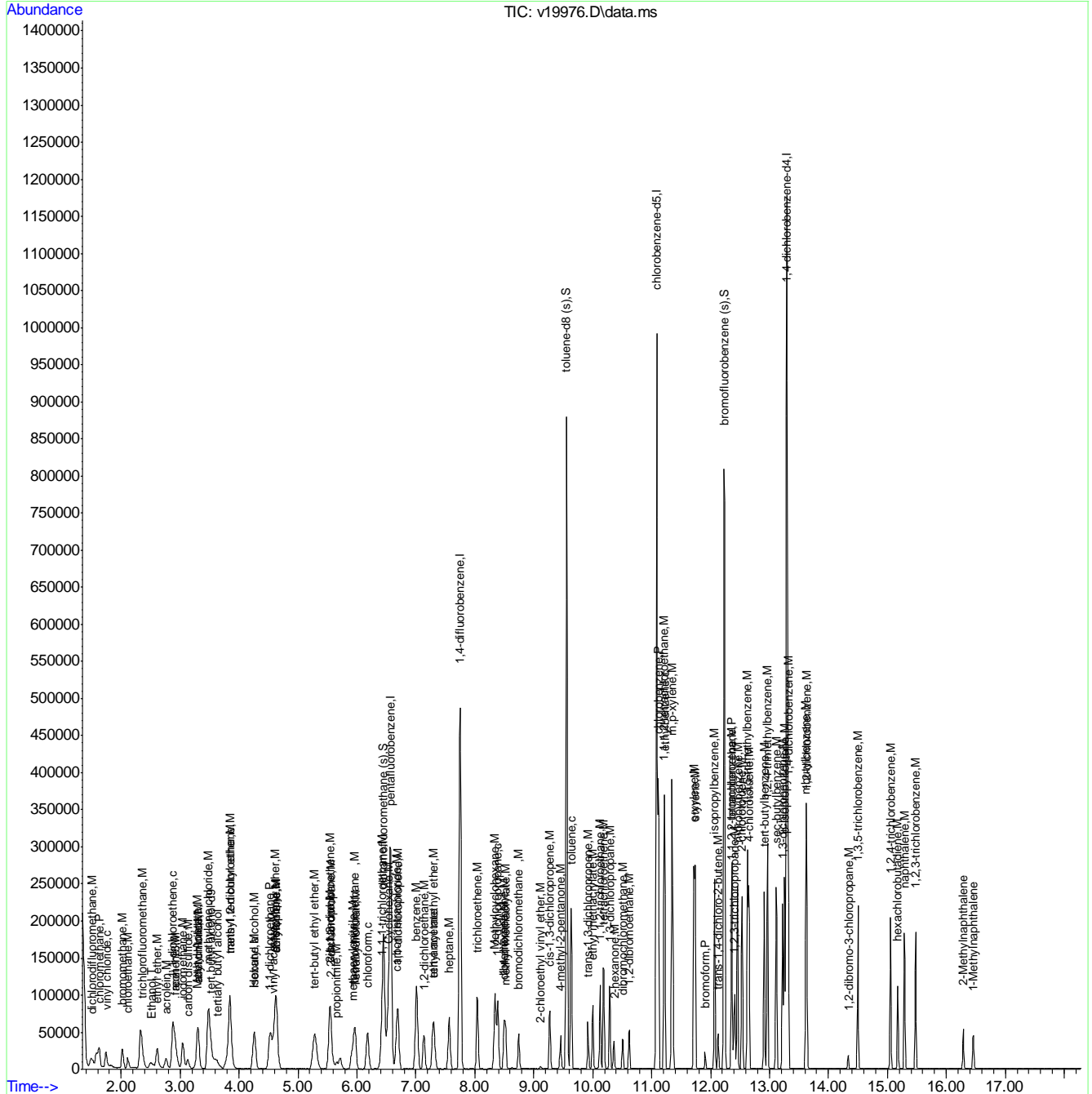
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.222	146	76565	11.31	ug/L	99
94) p-isopropyltoluene	13.255	119	128178	11.47	ug/L	99
95) 1,4-dichlorobenzene	13.317	146	85214	11.66	ug/L	98
96) 1,2-dichlorobenzene	13.634	146	74513	11.78	ug/L	98
97) n-butylbenzene	13.619	91	127014	12.26	ug/L	99
98) 1,2-dibromo-3-chloropr...	14.335	75	3531	5.18	ug/L	95
99) 1,3,5-trichlorobenzene	14.499	180	58887	10.95	ug/L	100
100) 1,2,4-trichlorobenzene	15.055	180	55296	10.79	ug/L	97
101) hexachlorobutadiene	15.176	225	19131	10.75	ug/L	95
102) naphthalene	15.289	128	120745	10.20	ug/L	100
103) 1,2,3-trichlorobenzene	15.478	180	50301	11.05	ug/L	94
104) 2-Methylnaphthalene	16.288	142	24641	4.39	ug/L	97
105) 1-Methylnaphthalene	16.458	142	21051	4.76	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
Data File : v19976.D  
Acq On : 24 Jun 2013 8:32 pm  
Operator : amym  
Sample : ic776-10  
Misc : MS29071,MSV776,,,,,5,1  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 25 07:57:31 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 07:45:18 2013  
Response via : Initial Calibration



7.6.18



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19977.D  
 Acq On : 24 Jun 2013 8:59 pm  
 Operator : amym  
 Sample : ic776-25  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 25 07:58:34 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.520	65	87391	500.00	ug/L	#-0.02
4) pentafluorobenzene	6.566	168	308346	50.00	ug/L	-0.01
43) 1,4-difluorobenzene	7.748	114	480626	50.00	ug/L	0.00
66) chlorobenzene-d5	11.082	82	248962	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.294	152	252749	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.448	113	153637	48.35	ug/L	-0.01
Spiked Amount	50.000	Range	70 - 130	Recovery	=	96.70%
60) toluene-d8 (s)	9.557	98	557570	49.07	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.14%
82) bromofluorobenzene (s)	12.231	95	238542	48.88	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	97.76%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	3.626	59	50136	224.84	ug/L	# 81
3) Ethanol	2.505	45	39737	2801.32	ug/L	# 26
5) dichlorodifluoromethane	1.502	85	80899	27.82	ug/L	97
6) chloromethane	1.633	50	88560	25.23	ug/L	98
7) vinyl chloride	1.754	62	92434	25.79	ug/L	96
8) bromomethane	2.025	96	49104	26.28	ug/L	98
9) chloroethane	2.118	64	37927	26.23	ug/L	97
10) ethyl ether	2.609	59	52735	25.31	ug/L	89
11) acetonitrile	3.300	41	129639	24.37	ug/L	98
12) trichlorofluoromethane	2.353	101	117601	27.36	ug/L	97
13) freon-113	2.918	101	79502	27.57	ug/L	98
14) acrolein	2.764	56	44955	122.74	ug/L	100
15) 1,1-dichloroethene	2.876	96	69146	26.64	ug/L	89
16) acetone	2.912	58	11718	35.64	ug/L	# 1
17) Methyl Acetate	3.285	43	88230	26.37	ug/L	# 86
18) methylene chloride	3.477	84	86329	26.00	ug/L	# 72
19) methyl tert butyl ether	3.846	73	196459	23.83	ug/L	89
20) acrylonitrile	4.629	53	132461	27.06	ug/L	100
21) allyl chloride	3.300	41	129639	24.37	ug/L	76
22) trans-1,2-dichloroethene	3.843	96	81897	26.83	ug/L	90
23) iodomethane	3.047	142	150211	25.38	ug/L	97
24) carbon disulfide	3.133	76	87357	10.38	ug/L	99
25) propionitrile	5.653	54	12662	23.65	ug/L	100
26) vinyl acetate	4.575	43	301485	24.28	ug/L	81
27) chloroprene	4.629	53	132461	27.06	ug/L	82
28) di-isopropyl ether	4.612	45	309195	27.00	ug/L	92
29) methacrylonitrile	5.925	41	64960	25.96	ug/L	88
30) 2-butanone	5.538	72	9629	27.75	ug/L	# 1
31) Hexane	4.255	41	81790	28.80	ug/L	# 89
32) 1,1-dichloroethane	4.519	63	150922	25.72	ug/L	99
33) tert-butyl ethyl ether	5.285	59	229994	22.80	ug/L	89
34) isobutyl alcohol	4.255	43	72942	143.10	ug/L	96
35) 2,2-dichloropropane	5.558	77	72913	20.37	ug/L	95
36) cis-1,2-dichloroethene	5.540	96	91444	26.04	ug/L	88

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19977.D  
 Acq On : 24 Jun 2013 8:59 pm  
 Operator : amym  
 Sample : ic776-25  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 25 07:58:34 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.298	43	67368m	22.74	ug/L	
38) bromochloromethane	5.961	128	47025	25.63	ug/L	# 76
39) chloroform	6.178	83	147151	25.11	ug/L	97
41) Tetrahydrofuran	5.965	42	25808	26.53	ug/L	76
42) 1,1,1-trichloroethane	6.422	97	109430	22.18	ug/L	94
44) Cyclohexane	6.530	56	161935	29.11	ug/L	85
45) carbon tetrachloride	6.676	117	86669	20.76	ug/L	97
46) 1,1-dichloropropene	6.690	75	109216	27.80	ug/L	97
47) benzene	7.009	78	321526	27.05	ug/L	100
48) 1,2-dichloroethane	7.134	62	122632	26.00	ug/L	96
49) tert-amyl methyl ether	7.299	73	171475	22.45	ug/L	87
50) heptane	7.564	43	104177	28.92	ug/L	84
51) trichloroethene	8.040	95	89856	26.45	ug/L	99
52) 1,2-dichloropropane	8.388	63	95204	26.03	ug/L	97
53) dibromomethane	8.492	93	56983	25.46	ug/L	96
54) bromodichloromethane	8.743	83	87037	19.55	ug/L	98
55) Methylcyclohexane	8.342	83	127660	27.69	ug/L	# 85
56) 2-chloroethyl vinyl ether	9.115	63	4637	21.99	ug/L	84
57) methyl methacrylate	8.520	69	51027	24.26	ug/L	# 71
58) 1,4-dioxane	8.495	88	3410	108.81	ug/L	81
59) cis-1,3-dichloropropene	9.269	75	110112	20.35	ug/L	98
61) 4-methyl-2-pentanone	9.453	43	86444	24.83	ug/L	88
62) toluene	9.632	92	208062	27.45	ug/L	99
63) trans-1,3-dichloropropene	9.920	75	82048	17.93	ug/L	99
64) 1,1,2-trichloroethane	10.125	83	69183	25.92	ug/L	100
65) ethyl methacrylate	9.999	69	99867	23.76	ug/L	78
67) tetrachloroethene	10.184	166	92722	27.61	ug/L	93
68) 1,3-dichloropropane	10.287	76	128179	27.32	ug/L	99
69) dibromochloromethane	10.507	129	58197	16.35	ug/L	99
70) 1,2-dibromoethane	10.616	107	79518	25.21	ug/L	98
71) 2-hexanone	10.359	43	65876	28.39	ug/L	88
72) chlorobenzene	11.112	112	227031	30.29	ug/L	99
73) 1,1,1,2-tetrachloroethane	11.212	131	68265	23.52	ug/L	98
74) ethylbenzene	11.217	91	399939	30.80	ug/L	96
75) m,p-xylene	11.347	106	300470	62.01	ug/L	94
76) o-xylene	11.714	106	144091	28.98	ug/L	93
77) styrene	11.735	104	261048	28.96	ug/L	95
78) bromoform	11.909	173	30309	12.78	ug/L	97
79) trans-1,4-dichloro-2-b...	12.394	53	25405	19.30	ug/L	82
81) isopropylbenzene	12.066	105	361276	27.64	ug/L	96
83) bromobenzene	12.356	156	106204	26.44	ug/L	98
84) 1,1,2,2-tetrachloroethane	12.361	83	102131	27.06	ug/L	99
85) 1,2,3-trichloropropane	12.403	75	108354	22.54	ug/L	70
86) n-propylbenzene	12.454	91	425084	27.75	ug/L	99
87) 2-chlorotoluene	12.533	91	260075	27.15	ug/L	94
88) 4-chlorotoluene	12.645	91	303739	27.76	ug/L	93
89) 1,3,5-trimethylbenzene	12.624	105	332439	27.87	ug/L	96
90) tert-butylbenzene	12.910	91	170698	26.63	ug/L	97
91) 1,2,4-trimethylbenzene	12.964	105	339218	27.53	ug/L	96
92) sec-butylbenzene	13.113	105	366849	27.72	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19977.D  
 Acq On : 24 Jun 2013 8:59 pm  
 Operator : amym  
 Sample : ic776-25  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 25 07:58:34 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

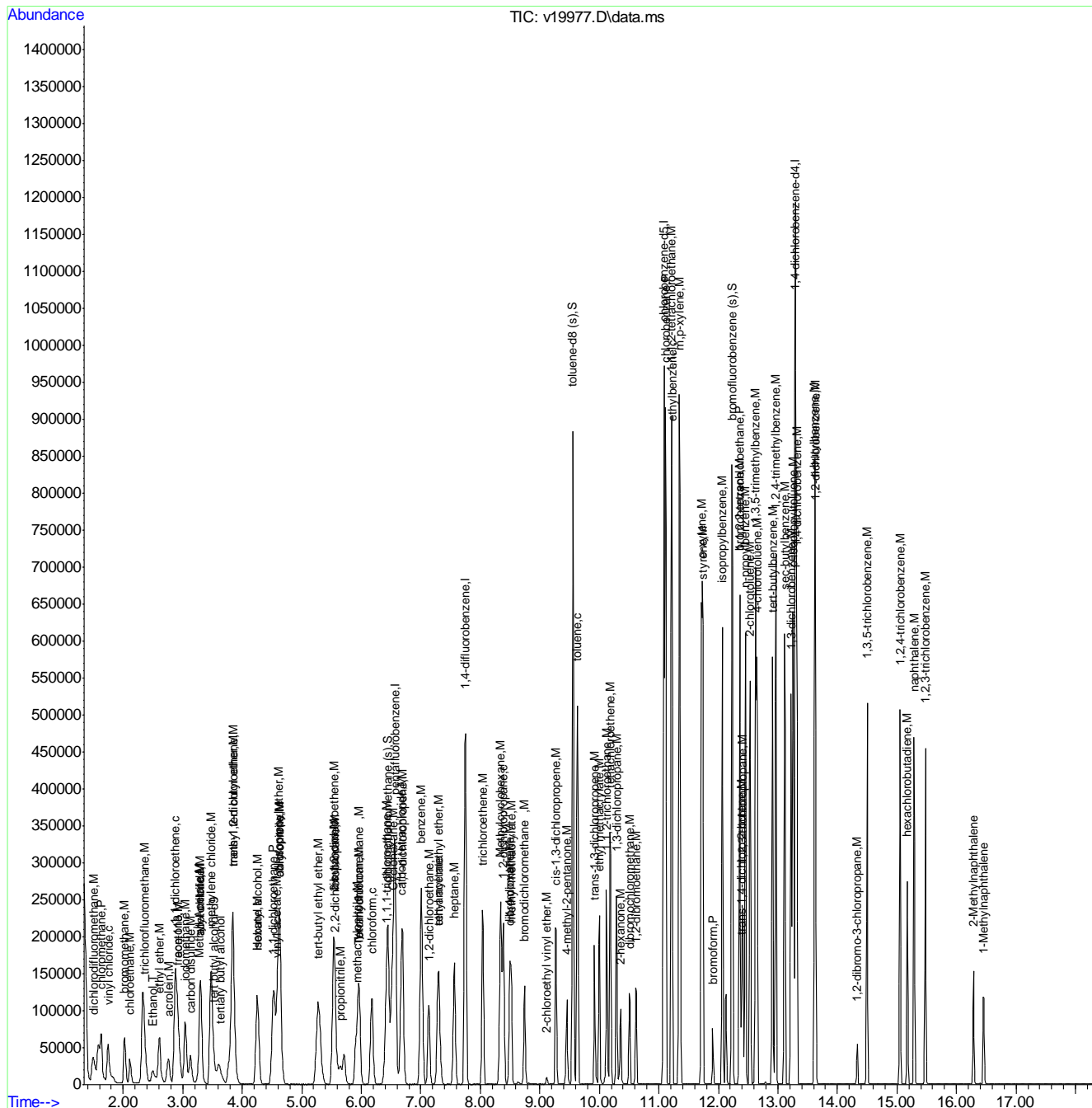
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.221	146	181602	26.71	ug/L	99
94) p-isopropyltoluene	13.254	119	310612	27.68	ug/L	100
95) 1,4-dichlorobenzene	13.316	146	201327	27.44	ug/L	98
96) 1,2-dichlorobenzene	13.633	146	176894	27.86	ug/L	98
97) n-butylbenzene	13.618	91	304157	29.25	ug/L	96
98) 1,2-dibromo-3-chloropr...	14.334	75	10687	15.62	ug/L	84
99) 1,3,5-trichlorobenzene	14.499	180	139731	25.88	ug/L	97
100) 1,2,4-trichlorobenzene	15.054	180	133711	25.99	ug/L	96
101) hexachlorobutadiene	15.176	225	45876	25.68	ug/L	93
102) naphthalene	15.288	128	301667	25.38	ug/L	100
103) 1,2,3-trichlorobenzene	15.477	180	120619	26.40	ug/L	96
104) 2-Methylnaphthalene	16.287	142	65057	11.55	ug/L	99
105) 1-Methylnaphthalene	16.457	142	54129	12.18	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19977.D  
 Acq On : 24 Jun 2013 8:59 pm  
 Operator : amym  
 Sample : ic776-25  
 Misc : MS29071,MSV776,,,,,5,1  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 25 07:58:34 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration



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 6:19

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19978.D  
 Acq On : 24 Jun 2013 9:25 pm  
 Operator : amym  
 Sample : icc776-50  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 25 07:59:39 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.522	65	86390	500.00	ug/L	#-0.01	
4) pentafluorobenzene	6.569	168	301013	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	7.750	114	470849	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.083	82	245574	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.294	152	245259	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.451	113	152347	49.11	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.22%	
60) toluene-d8 (s)	9.558	98	548632	49.29	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.58%	
82) bromofluorobenzene (s)	12.231	95	234564	49.53	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.06%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	3.631	59	106239	481.97	ug/L		85
3) Ethanol	2.513	45	85011	6062.43	ug/L	#	26
5) dichlorodifluoromethane	1.508	85	172077	60.61	ug/L		100
6) chloromethane	1.641	50	169747	49.54	ug/L		99
7) vinyl chloride	1.760	62	178115	50.90	ug/L		96
8) bromomethane	2.032	96	95606	52.40	ug/L		95
9) chloroethane	2.122	64	73511	52.07	ug/L		96
10) ethyl ether	2.613	59	108210	53.20	ug/L		88
11) acetonitrile	3.303	41	267675	51.55	ug/L		97
12) trichlorofluoromethane	2.356	101	229974	54.81	ug/L		98
13) freon-113	2.922	101	157974	56.12	ug/L		100
14) acrolein	2.768	56	92601	258.98	ug/L		100
15) 1,1-dichloroethene	2.879	96	137845	54.40	ug/L		94
16) acetone	2.917	58	24663	76.84	ug/L	#	1
17) Methyl Acetate	3.289	43	181151	55.47	ug/L	#	85
18) methylene chloride	3.480	84	170799	52.70	ug/L	#	73
19) methyl tert butyl ether	3.851	73	402802	50.04	ug/L		89
20) acrylonitrile	4.632	53	263388	55.11	ug/L		98
21) allyl chloride	3.303	41	267483	51.51	ug/L		80
22) trans-1,2-dichloroethene	3.846	96	162574	54.57	ug/L		92
23) iodomethane	3.050	142	302098	52.28	ug/L		99
24) carbon disulfide	3.137	76	232517	28.31	ug/L		99
25) propionitrile	5.657	54	27149	51.94	ug/L		100
26) vinyl acetate	4.578	43	618287	51.00	ug/L		83
27) chloroprene	4.632	53	263388	55.11	ug/L		82
28) di-isopropyl ether	4.617	45	617832	55.27	ug/L		93
29) methacrylonitrile	5.928	41	132720	54.33	ug/L		88
30) 2-butanone	5.542	72	20605	60.84	ug/L	#	1
31) Hexane	4.259	41	161591	58.28	ug/L	#	89
32) 1,1-dichloroethane	4.522	63	302128	52.74	ug/L		98
33) tert-butyl ethyl ether	5.290	59	471697	47.90	ug/L		91
34) isobutyl alcohol	4.259	43	143837	289.07	ug/L		99
35) 2,2-dichloropropane	5.562	77	155815	44.59	ug/L		95
36) cis-1,2-dichloroethene	5.543	96	181744	53.01	ug/L		89

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19978.D  
 Acq On : 24 Jun 2013 9:25 pm  
 Operator : amym  
 Sample : icc776-50  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 25 07:59:39 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.299	43	139873m	48.36	ug/L	
38) bromochloromethane	5.964	128	94012	52.48	ug/L #	79
39) chloroform	6.180	83	295817	51.70	ug/L	98
41) Tetrahydrofuran	5.968	42	53479	56.31	ug/L	78
42) 1,1,1-trichloroethane	6.425	97	229856	47.73	ug/L	95
44) Cyclohexane	6.532	56	313904	57.60	ug/L	84
45) carbon tetrachloride	6.679	117	185975	45.47	ug/L	98
46) 1,1-dichloropropene	6.693	75	216432	56.23	ug/L	97
47) benzene	7.012	78	633841	54.43	ug/L	99
48) 1,2-dichloroethane	7.137	62	245528	53.14	ug/L	97
49) tert-amyl methyl ether	7.302	73	358325	47.88	ug/L	87
50) heptane	7.566	43	207340	58.75	ug/L	84
51) trichloroethene	8.042	95	178347	53.59	ug/L	99
52) 1,2-dichloropropane	8.390	63	191545	53.46	ug/L	98
53) dibromomethane	8.494	93	116867	53.31	ug/L	95
54) bromodichloromethane	8.744	83	192774	44.19	ug/L	99
55) Methylcyclohexane	8.345	83	253917	56.21	ug/L #	84
56) 2-chloroethyl vinyl ether	9.117	63	9936	48.10	ug/L	93
57) methyl methacrylate	8.521	69	107430	52.13	ug/L #	74
58) 1,4-dioxane	8.502	88	7756	252.63	ug/L	77
59) cis-1,3-dichloropropene	9.271	75	242010	45.65	ug/L	97
61) 4-methyl-2-pentanone	9.453	43	181203	53.12	ug/L	89
62) toluene	9.634	92	410609	55.31	ug/L	99
63) trans-1,3-dichloropropene	9.921	75	189243	42.22	ug/L	98
64) 1,1,2-trichloroethane	10.127	83	138835	53.09	ug/L	99
65) ethyl methacrylate	10.000	69	213361	51.82	ug/L	76
67) tetrachloroethene	10.186	166	185479	55.99	ug/L	97
68) 1,3-dichloropropane	10.288	76	258067	55.77	ug/L	100
69) dibromochloromethane	10.508	129	140105	39.89	ug/L	97
70) 1,2-dibromoethane	10.617	107	164738	52.95	ug/L	98
71) 2-hexanone	10.359	43	138873	60.67	ug/L	89
72) chlorobenzene	11.113	112	450784	60.97	ug/L	99
73) 1,1,1,2-tetrachloroethane	11.213	131	149515	52.21	ug/L	97
74) ethylbenzene	11.218	91	793819	61.99	ug/L	95
75) m,p-xylene	11.348	106	595114	124.52	ug/L	94
76) o-xylene	11.715	106	284402	57.99	ug/L	95
77) styrene	11.736	104	529523	59.55	ug/L	95
78) bromoform	11.910	173	78268	33.46	ug/L	100
79) trans-1,4-dichloro-2-b...	12.127	53	61062	47.03	ug/L #	69
81) isopropylbenzene	12.067	105	713636	56.27	ug/L	95
83) bromobenzene	12.357	156	216638	55.59	ug/L	98
84) 1,1,2,2-tetrachloroethane	12.362	83	209918	57.32	ug/L	100
85) 1,2,3-trichloropropane	12.403	75	229944	49.29	ug/L	70
86) n-propylbenzene	12.455	91	849316	57.15	ug/L	98
87) 2-chlorotoluene	12.534	91	519657	55.91	ug/L	95
88) 4-chlorotoluene	12.645	91	610022	57.46	ug/L	94
89) 1,3,5-trimethylbenzene	12.625	105	669282	57.83	ug/L	96
90) tert-butylbenzene	12.910	91	342228	55.01	ug/L	96
91) 1,2,4-trimethylbenzene	12.964	105	677436	56.66	ug/L	95
92) sec-butylbenzene	13.113	105	739551	57.60	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19978.D  
 Acq On : 24 Jun 2013 9:25 pm  
 Operator : amym  
 Sample : icc776-50  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 25 07:59:39 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.221	146	363771	55.14	ug/L	100
94) p-isopropyltoluene	13.254	119	620704	57.00	ug/L	99
95) 1,4-dichlorobenzene	13.316	146	398442	55.96	ug/L	97
96) 1,2-dichlorobenzene	13.633	146	355388	57.68	ug/L	99
97) n-butylbenzene	13.619	91	615284	60.97	ug/L	97
98) 1,2-dibromo-3-chloropr...	14.335	75	25317	38.13	ug/L	88
99) 1,3,5-trichlorobenzene	14.499	180	286157	54.62	ug/L	96
100) 1,2,4-trichlorobenzene	15.054	180	274004	54.88	ug/L	96
101) hexachlorobutadiene	15.176	225	95833	55.29	ug/L	95
102) naphthalene	15.289	128	622397	53.95	ug/L	100
103) 1,2,3-trichlorobenzene	15.477	180	247864	55.90	ug/L	95
104) 2-Methylnaphthalene	16.286	142	144628	26.47	ug/L	99
105) 1-Methylnaphthalene	16.457	142	116746	27.07	ug/L	97

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

7.6.20

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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19979.D  
 Acq On : 24 Jun 2013 9:51 pm  
 Operator : amym  
 Sample : ic776-100  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 25 08:00:47 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.530	65	87872	500.00	ug/L	# 0.00
4) pentafluorobenzene	6.573	168	303125	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.753	114	469766	50.00	ug/L	0.00
66) chlorobenzene-d5	11.084	82	246417	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.295	152	246376	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.455	113	153092	49.01	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.02%
60) toluene-d8 (s)	9.559	98	547607	49.31	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.62%
82) bromofluorobenzene (s)	12.232	95	233111	49.00	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.00%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	3.637	59	218066	972.60	ug/L	93
3) Ethanol	2.516	45	163475	11461.35	ug/L	# 26
5) dichlorodifluoromethane	1.511	85	311901	109.10	ug/L	99
6) chloromethane	1.652	50	338067	97.98	ug/L	100
7) vinyl chloride	1.769	62	351407	99.73	ug/L	96
8) bromomethane	2.043	96	186007	101.25	ug/L	97
9) chloroethane	2.129	64	143112	100.66	ug/L	97
10) ethyl ether	2.620	59	209774	102.42	ug/L	86
11) acetonitrile	3.311	41	529198	101.21	ug/L	97
12) trichlorofluoromethane	2.364	101	447326	105.86	ug/L	97
13) freon-113	2.929	101	304960	107.59	ug/L	99
14) acrolein	2.775	56	184231	511.66	ug/L	100
15) 1,1-dichloroethene	2.886	96	264298	103.57	ug/L	94
16) acetone	2.924	58	44080	136.38	ug/L	# 1
17) Methyl Acetate	3.295	43	350655	106.63	ug/L	# 86
18) methylene chloride	3.488	84	331164	101.47	ug/L	# 74
19) methyl tert butyl ether	3.858	73	802878	99.05	ug/L	89
20) acrylonitrile	4.640	53	505841	105.10	ug/L	99
21) allyl chloride	3.311	41	529557	101.28	ug/L	79
22) trans-1,2-dichloroethene	3.854	96	310478	103.48	ug/L	90
23) iodomethane	3.057	142	583882	100.34	ug/L	99
24) carbon disulfide	3.143	76	594432	71.87	ug/L	100
25) propionitrile	5.663	54	54282	103.13	ug/L	100
26) vinyl acetate	4.584	43	1253117	102.65	ug/L	85
27) chloroprene	4.640	53	505841	105.10	ug/L	81
28) di-isopropyl ether	4.624	45	1200916	106.68	ug/L	93
29) methacrylonitrile	5.933	41	259998	105.69	ug/L	90
30) 2-butanone	5.547	72	38649	113.32	ug/L	# 1
31) Hexane	4.266	41	306565	109.79	ug/L	# 89
32) 1,1-dichloroethane	4.529	63	584475	101.32	ug/L	98
33) tert-butyl ethyl ether	5.297	59	945254	95.31	ug/L	90
34) isobutyl alcohol	4.266	43	276197	551.20	ug/L	97
35) 2,2-dichloropropane	5.569	77	319539	90.80	ug/L	97
36) cis-1,2-dichloroethene	5.550	96	351477	101.79	ug/L	91

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19979.D  
 Acq On : 24 Jun 2013 9:51 pm  
 Operator : amym  
 Sample : ic776-100  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 25 08:00:47 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.305	43	282539m	97.01	ug/L	
38) bromochloromethane	5.970	128	185287	102.72	ug/L #	78
39) chloroform	6.185	83	571613	99.21	ug/L	99
41) Tetrahydrofuran	5.972	42	103368	108.08	ug/L	81
42) 1,1,1-trichloroethane	6.430	97	455673	93.97	ug/L	96
44) Cyclohexane	6.537	56	594872	109.41	ug/L #	82
45) carbon tetrachloride	6.683	117	386707	94.76	ug/L	99
46) 1,1-dichloropropene	6.698	75	411532	107.16	ug/L	97
47) benzene	7.016	78	1217029	104.76	ug/L	99
48) 1,2-dichloroethane	7.141	62	482236	104.61	ug/L	97
49) tert-amyl methyl ether	7.306	73	722793	96.81	ug/L	88
50) heptane	7.568	43	395752	112.40	ug/L	84
51) trichloroethene	8.044	95	342456	103.15	ug/L	100
52) 1,2-dichloropropane	8.392	63	373480	104.48	ug/L	98
53) dibromomethane	8.496	93	230215	105.26	ug/L	98
54) bromodichloromethane	8.746	83	408717	93.91	ug/L	100
55) Methylcyclohexane	8.347	83	488798	108.45	ug/L #	85
56) 2-chloroethyl vinyl ether	9.118	63	20060	97.33	ug/L	93
57) methyl methacrylate	8.523	69	215610	104.87	ug/L #	73
58) 1,4-dioxane	8.507	88	16461	537.40	ug/L	68
59) cis-1,3-dichloropropene	9.272	75	508516	96.15	ug/L	97
61) 4-methyl-2-pentanone	9.453	43	360828	106.02	ug/L	90
62) toluene	9.635	92	792652	107.01	ug/L	99
63) trans-1,3-dichloropropene	9.922	75	411957	92.13	ug/L	99
64) 1,1,2-trichloroethane	10.128	83	276919	106.14	ug/L	99
65) ethyl methacrylate	10.001	69	430225	104.74	ug/L	77
67) tetrachloroethene	10.187	166	357630	107.58	ug/L	96
68) 1,3-dichloropropane	10.289	76	501046	107.90	ug/L	100
69) dibromochloromethane	10.509	129	319235	90.59	ug/L	98
70) 1,2-dibromoethane	10.618	107	327640	104.95	ug/L	98
71) 2-hexanone	10.359	43	266025	115.82	ug/L	89
72) chlorobenzene	11.114	112	873382	117.73	ug/L	99
73) 1,1,1,2-tetrachloroethane	11.214	131	309073	107.57	ug/L	98
74) ethylbenzene	11.219	91	1517911	118.12	ug/L	96
75) m,p-xylene	11.349	106	1141217	237.96	ug/L	93
76) o-xylene	11.716	106	553644	112.50	ug/L	94
77) styrene	11.737	104	1022846	114.63	ug/L	96
78) bromoform	11.911	173	189855	80.90	ug/L	98
79) trans-1,4-dichloro-2-b...	12.127	53	128307	98.49	ug/L	78
81) isopropylbenzene	12.068	105	1381409	108.42	ug/L	95
83) bromobenzene	12.358	156	426120	108.84	ug/L	97
84) 1,1,2,2-tetrachloroethane	12.362	83	415385	112.92	ug/L	100
85) 1,2,3-trichloropropane	12.403	75	467025	99.65	ug/L	70
86) n-propylbenzene	12.456	91	1635153	109.52	ug/L	95
87) 2-chlorotoluene	12.535	91	1006438	107.79	ug/L	96
88) 4-chlorotoluene	12.646	91	1164865	109.23	ug/L	94
89) 1,3,5-trimethylbenzene	12.626	105	1293868	111.28	ug/L	96
90) tert-butylbenzene	12.911	91	668441	106.96	ug/L	98
91) 1,2,4-trimethylbenzene	12.965	105	1319611	109.86	ug/L	95
92) sec-butylbenzene	13.114	105	1429717	110.84	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19979.D  
 Acq On : 24 Jun 2013 9:51 pm  
 Operator : amym  
 Sample : ic776-100  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 25 08:00:47 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.222	146	712680	107.54	ug/L	99
94) p-isopropyltoluene	13.255	119	1204982	110.15	ug/L	99
95) 1,4-dichlorobenzene	13.317	146	779689	109.01	ug/L	97
96) 1,2-dichlorobenzene	13.634	146	694389	112.19	ug/L	98
97) n-butylbenzene	13.619	91	1189975	117.39	ug/L	98
98) 1,2-dibromo-3-chloropr...	14.336	75	57297	85.89	ug/L	99
99) 1,3,5-trichlorobenzene	14.500	180	573632	108.99	ug/L	96
100) 1,2,4-trichlorobenzene	15.055	180	551047	109.86	ug/L	96
101) hexachlorobutadiene	15.177	225	194977	111.98	ug/L	92
102) naphthalene	15.289	128	1259232	108.67	ug/L	100
103) 1,2,3-trichlorobenzene	15.478	180	496563	111.49	ug/L	94
104) 2-Methylnaphthalene	16.288	142	303428	55.28	ug/L	99
105) 1-Methylnaphthalene	16.458	142	240983	55.63	ug/L	97

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

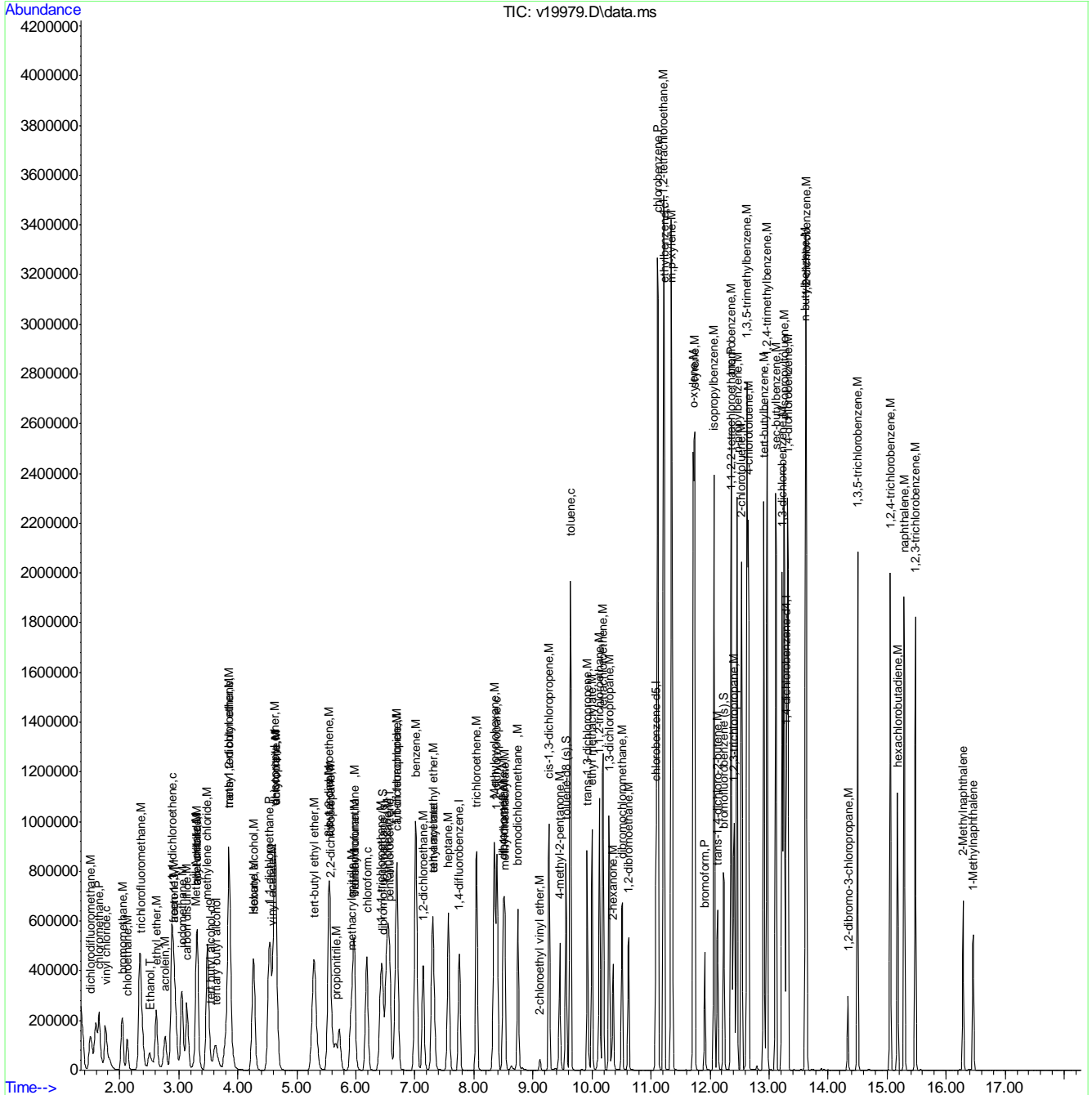
7.6.21

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
Data File : v19979.D  
Acq On : 24 Jun 2013 9:51 pm  
Operator : amym  
Sample : ic776-100  
Misc : MS29071,MSV776,,,,,5,1  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 25 08:00:47 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 07:45:18 2013  
Response via : Initial Calibration



7.6.21  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19980.D  
 Acq On : 24 Jun 2013 10:17 pm  
 Operator : amym  
 Sample : ic776-200  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 25 08:01:52 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) tert butyl alcohol-d9	3.533	65	89477	500.00	ug/L	0.00
4) pentafluorobenzene	6.574	168	297768	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.754	114	462043	50.00	ug/L	0.00
66) chlorobenzene-d5	11.085	82	243418	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.296	152	243670	50.00	ug/L	0.00
<b>System Monitoring Compounds</b>						
40) dibromofluoromethane (s)	6.456	113	151765	49.46	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.92%
60) toluene-d8 (s)	9.561	98	541523	49.57	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.14%
82) bromofluorobenzene (s)	12.233	95	232039	49.32	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	98.64%
<b>Target Compounds</b>						
						Qvalue
2) tertiary butyl alcohol	3.639	59	443873	1944.22	ug/L	99
3) Ethanol	2.518	45	311299	21433.90	ug/L #	26
5) dichlorodifluoromethane	1.512	85	579794	206.46	ug/L	99
6) chloromethane	1.657	50	659197	194.49	ug/L	100
7) vinyl chloride	1.771	62	676628	195.48	ug/L	94
8) bromomethane	2.047	96	358450	198.62	ug/L	97
9) chloroethane	2.131	64	275056	196.95	ug/L	97
10) ethyl ether	2.622	59	488748	242.92	ug/L	88
11) acetonitrile	3.311	41	1041095	202.69	ug/L	97
12) trichlorofluoromethane	2.365	101	830193	200.00	ug/L	97
13) freon-113	2.930	101	568070	204.02	ug/L	99
14) acrolein	2.775	56	351295	993.19	ug/L	100
15) 1,1-dichloroethene	2.886	96	506389	202.01	ug/L	92
16) acetone	2.925	58	88072	277.38	ug/L #	1
17) Methyl Acetate	3.295	43	670183	207.45	ug/L #	86
18) methylene chloride	3.488	84	644125	200.91	ug/L #	74
19) methyl tert butyl ether	3.860	73	1584615	199.01	ug/L	90
20) acrylonitrile	4.641	53	972347	205.66	ug/L	99
21) allyl chloride	3.311	41	1041095	202.69	ug/L	80
22) trans-1,2-dichloroethene	3.854	96	604997	205.28	ug/L	89
23) iodomethane	3.057	142	1145967	200.47	ug/L	98
24) carbon disulfide	3.142	76	1425071	175.40	ug/L	100
25) propionitrile	5.664	54	105719	204.48	ug/L	100
26) vinyl acetate	4.586	43	2407210	200.73	ug/L	86
27) chloroprene	4.641	53	972347	205.66	ug/L	81
28) di-isopropyl ether	4.627	45	2299982	207.98	ug/L	93
29) methacrylonitrile	5.935	41	498026	206.09	ug/L	88
30) 2-butanone	5.549	72	76165	227.34	ug/L #	1
31) Hexane	4.267	41	564294	205.73	ug/L #	88
32) 1,1-dichloroethane	4.530	63	1140608	201.28	ug/L	97
33) tert-butyl ethyl ether	5.299	59	1890533	194.06	ug/L	90
34) isobutyl alcohol	4.267	43	503684	1023.27	ug/L	98
35) 2,2-dichloropropane	5.571	77	660434	191.05	ug/L	96
36) cis-1,2-dichloroethene	5.551	96	685202	202.02	ug/L	91

7.6.22  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19980.D  
 Acq On : 24 Jun 2013 10:17 pm  
 Operator : amym  
 Sample : ic776-200  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 25 08:01:52 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.305	43	560438m	195.89	ug/L	
38) bromochloromethane	5.971	128	357308	201.64	ug/L #	81
39) chloroform	6.186	83	1122163	198.27	ug/L	99
41) Tetrahydrofuran	5.974	42	196996	209.69	ug/L	79
42) 1,1,1-trichloroethane	6.432	97	924676	194.11	ug/L	96
44) Cyclohexane	6.539	56	1104261	206.49	ug/L #	82
45) carbon tetrachloride	6.685	117	789573	196.71	ug/L	99
46) 1,1-dichloropropene	6.699	75	788662	208.79	ug/L	97
47) benzene	7.018	78	2357605	206.32	ug/L	100
48) 1,2-dichloroethane	7.142	62	931011	205.34	ug/L	97
49) tert-amyl methyl ether	7.308	73	1452956	197.86	ug/L	88
50) heptane	7.569	43	722382	208.60	ug/L	84
51) trichloroethene	8.045	95	675954	207.00	ug/L	98
52) 1,2-dichloropropane	8.393	63	727688	206.97	ug/L	97
53) dibromomethane	8.497	93	446108	207.38	ug/L	98
54) bromodichloromethane	8.746	83	843859	197.13	ug/L	99
55) Methylcyclohexane	8.348	83	912140	205.77	ug/L #	85
56) 2-chloroethyl vinyl ether	9.119	63	39986	197.24	ug/L	93
57) methyl methacrylate	8.524	69	418741	207.08	ug/L #	73
58) 1,4-dioxane	8.518	88	33216	1102.52	ug/L #	1
59) cis-1,3-dichloropropene	9.273	75	1041173	200.15	ug/L	97
61) 4-methyl-2-pentanone	9.454	43	695418	207.75	ug/L	90
62) toluene	9.636	92	1537064	210.98	ug/L	99
63) trans-1,3-dichloropropene	9.923	75	865096	196.70	ug/L	98
64) 1,1,2-trichloroethane	10.129	83	530720	206.82	ug/L	99
65) ethyl methacrylate	10.002	69	842547	208.55	ug/L	78
67) tetrachloroethene	10.188	166	692284	210.82	ug/L	95
68) 1,3-dichloropropane	10.290	76	969475	211.35	ug/L	100
69) dibromochloromethane	10.510	129	681850	195.87	ug/L	99
70) 1,2-dibromoethane	10.619	107	641327	207.97	ug/L	99
71) 2-hexanone	10.360	43	515993	227.41	ug/L	90
72) chlorobenzene	11.115	112	1650502	225.22	ug/L	98
73) 1,1,1,2-tetrachloroethane	11.215	131	618433	217.89	ug/L	97
74) ethylbenzene	11.220	91	2881460	227.00	ug/L	96
75) m,p-xylene	11.350	106	2156743	455.26	ug/L	96
76) o-xylene	11.717	106	1062604	218.59	ug/L	96
77) styrene	11.738	104	1956656	221.98	ug/L	98
78) bromoform	11.912	173	429710	185.36	ug/L	98
79) trans-1,4-dichloro-2-b...	12.128	53	259023	201.27	ug/L	85
81) isopropylbenzene	12.069	105	2664743	211.47	ug/L	95
83) bromobenzene	12.359	156	822113	212.32	ug/L	98
84) 1,1,2,2-tetrachloroethane	12.363	83	785766	215.97	ug/L	100
85) 1,2,3-trichloropropane	12.405	75	934983	201.72	ug/L	69
86) n-propylbenzene	12.457	91	3150755	213.38	ug/L	96
87) 2-chlorotoluene	12.536	91	1932947	209.33	ug/L	93
88) 4-chlorotoluene	12.647	91	2247132	213.05	ug/L	96
89) 1,3,5-trimethylbenzene	12.627	105	2470287	214.83	ug/L	97
90) tert-butylbenzene	12.912	91	1283411	207.65	ug/L	100
91) 1,2,4-trimethylbenzene	12.967	105	2538489	213.68	ug/L	96
92) sec-butylbenzene	13.115	105	2708835	212.34	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19980.D  
 Acq On : 24 Jun 2013 10:17 pm  
 Operator : amym  
 Sample : ic776-200  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 25 08:01:52 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

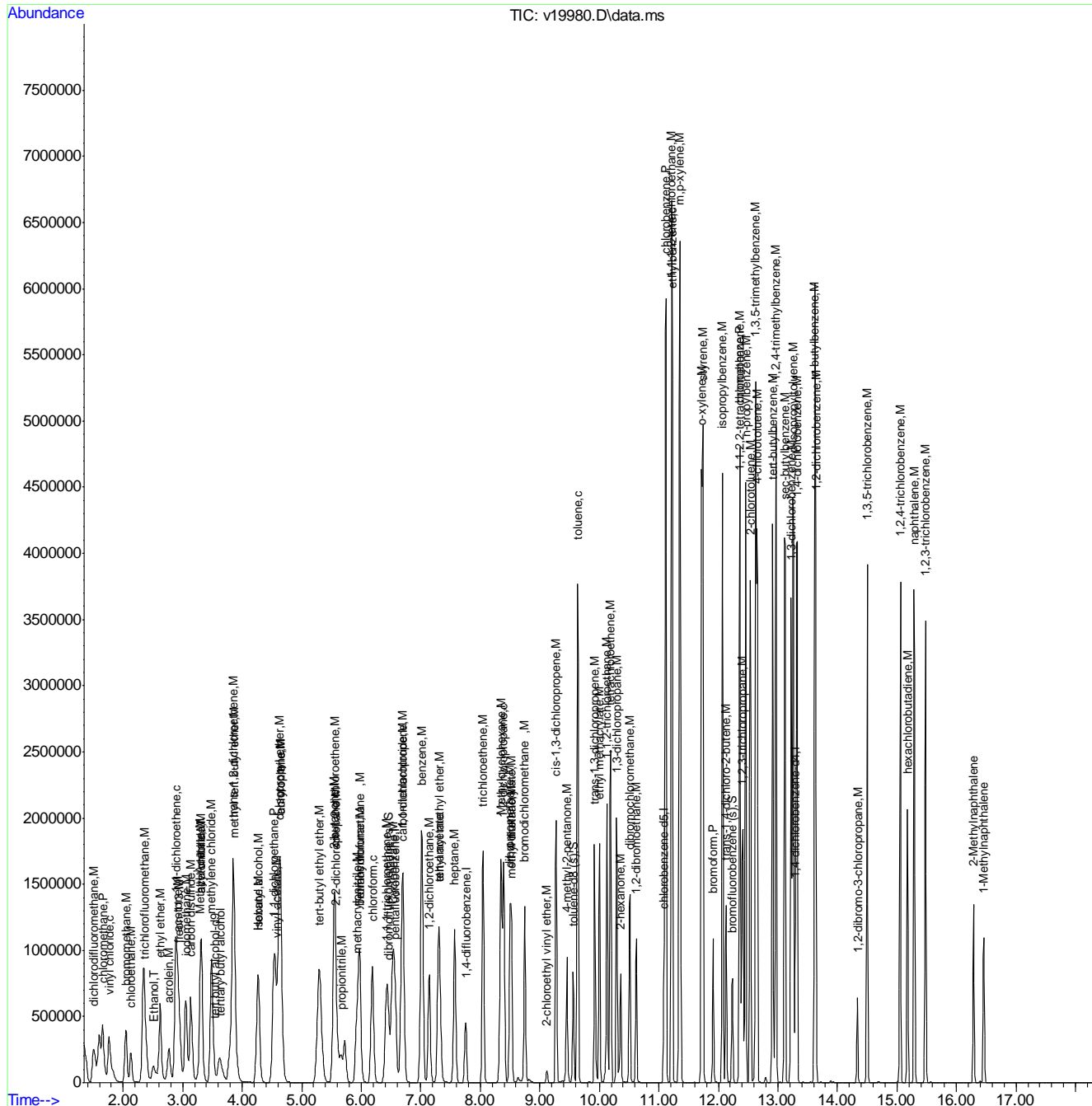
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.223	146	1381067	210.71	ug/L	98
94) p-isopropyltoluene	13.256	119	2313828	213.87	ug/L	99
95) 1,4-dichlorobenzene	13.318	146	1498650	211.86	ug/L	99
96) 1,2-dichlorobenzene	13.635	146	1325349	216.51	ug/L	99
97) n-butylbenzene	13.620	91	2215322	220.96	ug/L	98
98) 1,2-dibromo-3-chloropr...	14.336	75	125016	189.49	ug/L	98
99) 1,3,5-trichlorobenzene	14.500	180	1111372	213.51	ug/L	96
100) 1,2,4-trichlorobenzene	15.056	180	1091818	220.09	ug/L	96
101) hexachlorobutadiene	15.177	225	370621	215.23	ug/L	91
102) naphthalene	15.290	128	2471890	215.68	ug/L	100
103) 1,2,3-trichlorobenzene	15.479	180	971411	220.52	ug/L	95
104) 2-Methylnaphthalene	16.288	142	602976	111.08	ug/L	99
105) 1-Methylnaphthalene	16.459	142	478674	111.72	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19980.D  
 Acq On : 24 Jun 2013 10:17 pm  
 Operator : amym  
 Sample : ic776-200  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 25 08:01:52 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration



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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19981.D  
 Acq On : 24 Jun 2013 10:44 pm  
 Operator : amym  
 Sample : ic776-400  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 25 08:02:52 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.536	65	86455	500.00	ug/L	0.00
4) pentafluorobenzene	6.577	168	295598	50.00	ug/L	0.00
43) 1,4-difluorobenzene	7.756	114	467483	50.00	ug/L	0.00
66) chlorobenzene-d5	11.087	82	250123	50.00	ug/L	0.00
80) 1,4-dichlorobenzene-d4	13.297	152	244286	50.00	ug/L	0.00
System Monitoring Compounds						
40) dibromofluoromethane (s)	6.459	113	152310	50.00	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.00%
60) toluene-d8 (s)	9.562	98	552624	50.00	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.00%
82) bromofluorobenzene (s)	12.234	95	235837	50.00	ug/L	0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.00%
Target Compounds						
						Qvalue
2) tertiary butyl alcohol	3.641	59	879822	3988.43	ug/L	95
3) Ethanol	2.519	45	588269	41919.94	ug/L #	26
5) dichlorodifluoromethane	1.513	85	1115118	400.00	ug/L	99
6) chloromethane	1.664	50	1345848	400.00	ug/L	100
7) vinyl chloride	1.775	62	1374450	400.00	ug/L	94
8) bromomethane	2.053	96	716622	400.00	ug/L	96
9) chloroethane	2.134	64	554566	400.00	ug/L	97
10) ethyl ether	2.622	59	798938	400.00	ug/L	88
11) acetonitrile	3.313	41	2039605	400.00	ug/L	97
12) trichlorofluoromethane	2.368	101	1648256	400.00	ug/L	98
13) freon-113	2.933	101	1105636	400.00	ug/L	99
14) acrolein	2.777	56	702486	2000.67	ug/L	100
15) 1,1-dichloroethene	2.888	96	995372	400.00	ug/L	92
16) acetone	2.927	58	126078	400.00	ug/L #	1
17) Methyl Acetate	3.297	43	1282791	400.00	ug/L #	86
18) methylene chloride	3.490	84	1273100	400.00	ug/L #	76
19) methyl tert butyl ether	3.863	73	3175205	401.69	ug/L	90
20) acrylonitrile	4.644	53	1877369	400.00	ug/L	99
21) allyl chloride	3.313	41	2039605	400.00	ug/L	81
22) trans-1,2-dichloroethene	3.856	96	1170303	400.00	ug/L	90
23) iodomethane	3.059	142	2269892	400.01	ug/L	97
24) carbon disulfide	3.143	76	3226162	400.00	ug/L	100
25) propionitrile	5.667	54	205297	399.99	ug/L	100
26) vinyl acetate	4.588	43	4762030	400.00	ug/L	84
27) chloroprene	4.644	53	1877369	400.00	ug/L	82
28) di-isopropyl ether	4.632	45	4391193	400.00	ug/L	94
29) methacrylonitrile	5.938	41	959377	399.91	ug/L	90
30) 2-butanone	5.553	72	133035	400.00	ug/L #	1
31) Hexane	4.270	41	1089182	400.00	ug/L #	90
32) 1,1-dichloroethane	4.533	63	2250238	400.00	ug/L	98
33) tert-butyl ethyl ether	5.304	59	3868494	400.00	ug/L	90
34) isobutyl alcohol	4.270	43	977510	2000.47	ug/L	99
35) 2,2-dichloropropane	5.575	77	1372666	400.00	ug/L	96
36) cis-1,2-dichloroethene	5.554	96	1346794	399.99	ug/L	90

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19981.D  
 Acq On : 24 Jun 2013 10:44 pm  
 Operator : amym  
 Sample : ic776-400  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 25 08:02:52 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.312	43	1134767m	399.55	ug/L	
38) bromochloromethane	5.974	128	703632	400.00	ug/L #	81
39) chloroform	6.189	83	2247460	400.02	ug/L	99
41) Tetrahydrofuran	5.977	42	373968	400.98	ug/L	82
42) 1,1,1-trichloroethane	6.436	97	1891576	400.00	ug/L	97
44) Cyclohexane	6.543	56	2164440	400.03	ug/L	84
45) carbon tetrachloride	6.688	117	1626720	400.57	ug/L	100
46) 1,1-dichloropropene	6.702	75	1528409	399.92	ug/L	97
47) benzene	7.021	78	4624665	400.01	ug/L	100
48) 1,2-dichloroethane	7.145	62	1835033	400.01	ug/L	97
49) tert-amyl methyl ether	7.311	73	2972041	400.01	ug/L	89
50) heptane	7.572	43	1400641	399.75	ug/L	86
51) trichloroethene	8.047	95	1321493	399.98	ug/L	98
52) 1,2-dichloropropane	8.396	63	1422972	400.01	ug/L	98
53) dibromomethane	8.499	93	870631	400.01	ug/L	98
54) bromodichloromethane	8.748	83	1732500	400.01	ug/L	100
55) Methylcyclohexane	8.351	83	1793941	399.98	ug/L #	84
56) 2-chloroethyl vinyl ether	9.120	63	82047	400.01	ug/L	94
57) methyl methacrylate	8.526	69	818398	400.01	ug/L #	75
58) 1,4-dioxane	8.520	88	60794	1994.42	ug/L #	14
59) cis-1,3-dichloropropene	9.275	75	2105134	399.97	ug/L	97
61) 4-methyl-2-pentanone	9.456	43	1354730	400.01	ug/L	90
62) toluene	9.638	92	2948540	400.01	ug/L	99
63) trans-1,3-dichloropropene	9.924	75	1780017	400.01	ug/L	98
64) 1,1,2-trichloroethane	10.131	83	1038574	400.01	ug/L	100
65) ethyl methacrylate	10.003	69	1635091	400.01	ug/L	80
67) tetrachloroethene	10.190	166	1349679	400.00	ug/L	95
68) 1,3-dichloropropane	10.292	76	1885161	399.96	ug/L	100
69) dibromochloromethane	10.511	129	1430809	400.00	ug/L	98
70) 1,2-dibromoethane	10.620	107	1267478	400.00	ug/L	98
71) 2-hexanone	10.361	43	932582	400.00	ug/L	91
72) chlorobenzene	11.116	112	3012121	400.00	ug/L	99
73) 1,1,1,2-tetrachloroethane	11.217	131	1166609	400.00	ug/L	98
74) ethylbenzene	11.222	91	5217389	400.00	ug/L	97
75) m,p-xylene	11.352	106	3894292	800.00	ug/L	96
76) o-xylene	11.718	106	1998048	400.00	ug/L	97
77) styrene	11.740	104	3622886	400.00	ug/L	99
78) bromoform	11.912	173	952851	400.00	ug/L	97
79) trans-1,4-dichloro-2-b...	12.129	53	528946	400.00	ug/L	89
81) isopropylbenzene	12.070	105	5053216	400.00	ug/L	95
83) bromobenzene	12.360	156	1552730	400.00	ug/L	98
84) 1,1,2,2-tetrachloroethane	12.365	83	1458995	400.00	ug/L	100
85) 1,2,3-trichloropropane	12.406	75	1858713	400.00	ug/L	69
86) n-propylbenzene	12.459	91	5918324	399.81	ug/L	95
87) 2-chlorotoluene	12.538	91	3703009	400.00	ug/L	95
88) 4-chlorotoluene	12.649	91	4229578	400.00	ug/L	97
89) 1,3,5-trimethylbenzene	12.628	105	4608810	399.79	ug/L	99
90) tert-butylbenzene	12.914	91	2454147	396.07	ug/L	97
91) 1,2,4-trimethylbenzene	12.968	105	4763889	400.00	ug/L	96
92) sec-butylbenzene	13.117	105	5115808	400.00	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19981.D  
 Acq On : 24 Jun 2013 10:44 pm  
 Operator : amym  
 Sample : ic776-400  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 25 08:02:52 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 07:45:18 2013  
 Response via : Initial Calibration

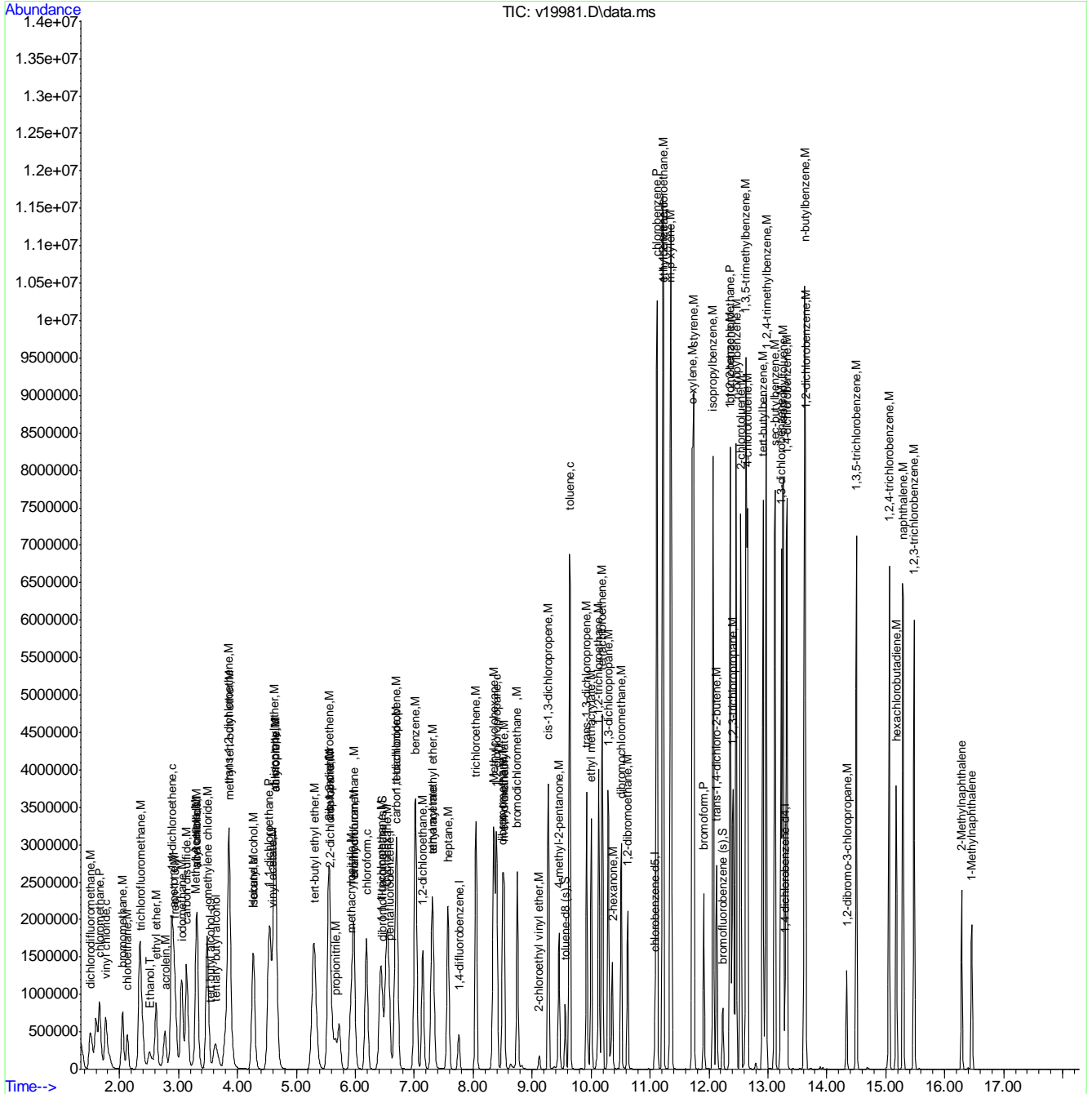
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.225	146	2628372	399.99	ug/L	99
94) p-isopropyltoluene	13.257	119	4338408	399.99	ug/L	99
95) 1,4-dichlorobenzene	13.320	146	2836704	400.00	ug/L	98
96) 1,2-dichlorobenzene	13.637	146	2454730	400.00	ug/L	99
97) n-butylbenzene	13.621	91	4020510	400.00	ug/L	94
98) 1,2-dibromo-3-chloropr...	14.336	75	264567	400.00	ug/L	98
99) 1,3,5-trichlorobenzene	14.502	180	2087390	400.00	ug/L	95
100) 1,2,4-trichlorobenzene	15.057	180	1989356	400.00	ug/L	96
101) hexachlorobutadiene	15.178	225	690509	399.98	ug/L	92
102) naphthalene	15.291	128	4595482	399.96	ug/L	100
103) 1,2,3-trichlorobenzene	15.480	180	1766725	400.06	ug/L	94
104) 2-Methylnaphthalene	16.289	142	1088361	199.98	ug/L	99
105) 1-Methylnaphthalene	16.459	142	859102	200.00	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
Data File : v19981.D  
Acq On : 24 Jun 2013 10:44 pm  
Operator : amym  
Sample : ic776-400  
Misc : MS29071,MSV776,,,,,5,1  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 25 08:02:52 2013  
Quant Method : C:\msdchem\1\METHODS\v130624w.m  
Quant Title : SW-846 Method 8260  
QLast Update : Tue Jun 25 07:45:18 2013  
Response via : Initial Calibration



7.6.23  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19986.D  
 Acq On : 25 Jun 2013 12:55 am  
 Operator : amym  
 Sample : icv776-50  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 25 09:48:06 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
<b>Internal Standards</b>							
1) tert butyl alcohol-d9	3.526	65	81517	500.00	ug/L	#	0.00
4) pentafluorobenzene	6.571	168	300666	50.00	ug/L		0.00
43) 1,4-difluorobenzene	7.751	114	468155	50.00	ug/L		0.00
66) chlorobenzene-d5	11.085	82	244650	50.00	ug/L		0.00
80) 1,4-dichlorobenzene-d4	13.296	152	243007	50.00	ug/L		0.00
<b>System Monitoring Compounds</b>							
40) dibromofluoromethane (s)	6.453	113	152041	51.56	ug/L		0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=		103.12%
60) toluene-d8 (s)	9.559	98	542437	49.82	ug/L		0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=		99.64%
82) bromofluorobenzene (s)	12.233	95	231030	50.30	ug/L		0.00
Spiked Amount	50.000	Range	70 - 130	Recovery	=		100.60%
<b>Target Compounds</b>							
						Qvalue	
2) tertiary butyl alcohol	3.635	59	102834	541.82	ug/L	#	84
3) Ethanol	2.508	45	70510	4346.88	ug/L	#	26
5) dichlorodifluoromethane	1.509	85	182738	61.17	ug/L		99
6) chloromethane	1.643	50	212502	64.01	ug/L		99
7) vinyl chloride	1.762	62	174841	52.09	ug/L		94
8) bromomethane	2.034	96	106775	58.01	ug/L		97
9) chloroethane	2.124	64	84693	59.44	ug/L		96
10) ethyl ether	2.614	59	104818	48.54	ug/L		85
11) acetonitrile	3.305	41	263746	54.47	ug/L		97
12) trichlorofluoromethane	2.358	101	234219	54.38	ug/L		100
13) freon-113	2.924	101	162769	54.57	ug/L		99
14) acrolein	2.769	56	156371	470.32	ug/L		100
15) 1,1-dichloroethene	2.881	96	148723	59.70	ug/L		91
16) acetone	2.918	58	25164	57.26	ug/L	#	1
17) Methyl Acetate	3.291	43	184285	54.11	ug/L	#	85
18) methylene chloride	3.482	84	173077	50.89	ug/L	#	71
19) methyl tert butyl ether	3.852	73	383122	49.76	ug/L		89
20) acrylonitrile	4.636	53	281937	59.73	ug/L		99
21) allyl chloride	3.305	41	263530	54.42	ug/L		79
22) trans-1,2-dichloroethene	3.849	96	162927	53.38	ug/L		87
23) iodomethane	3.051	142	301629	52.19	ug/L		98
24) carbon disulfide	3.137	76	361067	56.83	ug/L		100
25) propionitrile	5.660	54	24659	49.40	ug/L		100
26) vinyl acetate	4.585	43	519919	44.16	ug/L		81
27) chloroprene	4.636	53	281937	59.73	ug/L		80
28) di-isopropyl ether	4.620	45	595127	50.40	ug/L		93
29) methacrylonitrile	5.931	41	120978	50.03	ug/L		88
30) 2-butanone	5.544	72	20608	56.23	ug/L	#	1
31) Hexane	4.262	41	156454	52.76	ug/L	#	91
32) 1,1-dichloroethane	4.525	63	313803	54.71	ug/L		97
33) tert-butyl ethyl ether	5.292	59	470796	52.20	ug/L		89
34) isobutyl alcohol	4.262	43	140479	255.98	ug/L		96
35) 2,2-dichloropropane	5.565	77	143767	47.78	ug/L		95
36) cis-1,2-dichloroethene	5.546	96	181378	51.78	ug/L		90

7.6.24  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19986.D  
 Acq On : 25 Jun 2013 12:55 am  
 Operator : amym  
 Sample : icv776-50  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 25 09:48:06 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.305	43	135474m	50.23	ug/L	
38) bromochloromethane	5.967	128	95277	55.05	ug/L #	77
39) chloroform	6.183	83	297202	52.71	ug/L	99
41) Tetrahydrofuran	5.970	42	48131	49.13	ug/L	79
42) 1,1,1-trichloroethane	6.428	97	237933	51.76	ug/L	95
44) Cyclohexane	6.534	56	297401	48.37	ug/L #	84
45) carbon tetrachloride	6.681	117	200093	51.89	ug/L	99
46) 1,1-dichloropropene	6.695	75	224702	56.89	ug/L	98
47) benzene	7.014	78	642001	52.63	ug/L	100
48) 1,2-dichloroethane	7.139	62	244925	51.51	ug/L	97
49) tert-amyl methyl ether	7.303	73	344931	50.67	ug/L	87
50) heptane	7.567	43	188304	47.90	ug/L	84
51) trichloroethene	8.043	95	180080	54.91	ug/L	97
52) 1,2-dichloropropane	8.391	63	191112	52.20	ug/L	97
53) dibromomethane	8.495	93	116919	53.37	ug/L	97
54) bromodichloromethane	8.745	83	204404	51.25	ug/L	100
55) Methylcyclohexane	8.346	83	250438	53.48	ug/L #	83
56) 2-chloroethyl vinyl ether	9.119	63	7217	39.22	ug/L	94
57) methyl methacrylate	8.522	69	100599	52.57	ug/L #	70
58) 1,4-dioxane	8.501	88	6959	220.84	ug/L	79
59) cis-1,3-dichloropropene	9.272	75	232747	46.21	ug/L	96
61) 4-methyl-2-pentanone	9.454	43	169817	51.93	ug/L	89
62) toluene	9.635	92	418179	52.67	ug/L	99
63) trans-1,3-dichloropropene	9.922	75	195214	47.38	ug/L	99
64) 1,1,2-trichloroethane	10.128	83	137871	54.37	ug/L	99
65) ethyl methacrylate	10.002	69	200182	52.16	ug/L	76
67) tetrachloroethene	10.187	166	189429	55.61	ug/L	94
68) 1,3-dichloropropane	10.289	76	253118	50.90	ug/L	99
69) dibromochloromethane	10.510	129	152073	47.78	ug/L	100
70) 1,2-dibromoethane	10.618	107	163569	54.29	ug/L	99
71) 2-hexanone	10.360	43	138251	57.23	ug/L	88
72) chlorobenzene	11.114	112	486906	55.53	ug/L	99
73) 1,1,1,2-tetrachloroethane	11.214	131	154706	52.33	ug/L	97
74) ethylbenzene	11.219	91	806335	54.40	ug/L	96
75) m,p-xylene	11.350	106	619409	111.78	ug/L	96
76) o-xylene	11.717	106	310068	58.25	ug/L	94
77) styrene	11.738	104	523923	53.19	ug/L	97
78) bromoform	11.912	173	83730	47.22	ug/L	98
79) trans-1,4-dichloro-2-b...	12.128	53	54406	46.68	ug/L #	69
81) isopropylbenzene	12.069	105	785249	59.36	ug/L	95
83) bromobenzene	12.359	156	219188	53.21	ug/L	99
84) 1,1,2,2-tetrachloroethane	12.363	83	203656	55.06	ug/L	100
85) 1,2,3-trichloropropane	12.405	75	221326	52.19	ug/L	69
86) n-propylbenzene	12.457	91	911986	57.89	ug/L	96
87) 2-chlorotoluene	12.536	91	555776	55.60	ug/L	95
88) 4-chlorotoluene	12.647	91	657332	56.85	ug/L	96
89) 1,3,5-trimethylbenzene	12.626	105	658939	53.08	ug/L	97
90) tert-butylbenzene	12.912	91	369489	58.43	ug/L	100
91) 1,2,4-trimethylbenzene	12.966	105	668448	52.21	ug/L	96
92) sec-butylbenzene	13.115	105	795960	59.21	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19986.D  
 Acq On : 25 Jun 2013 12:55 am  
 Operator : amym  
 Sample : icv776-50  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 25 09:48:06 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

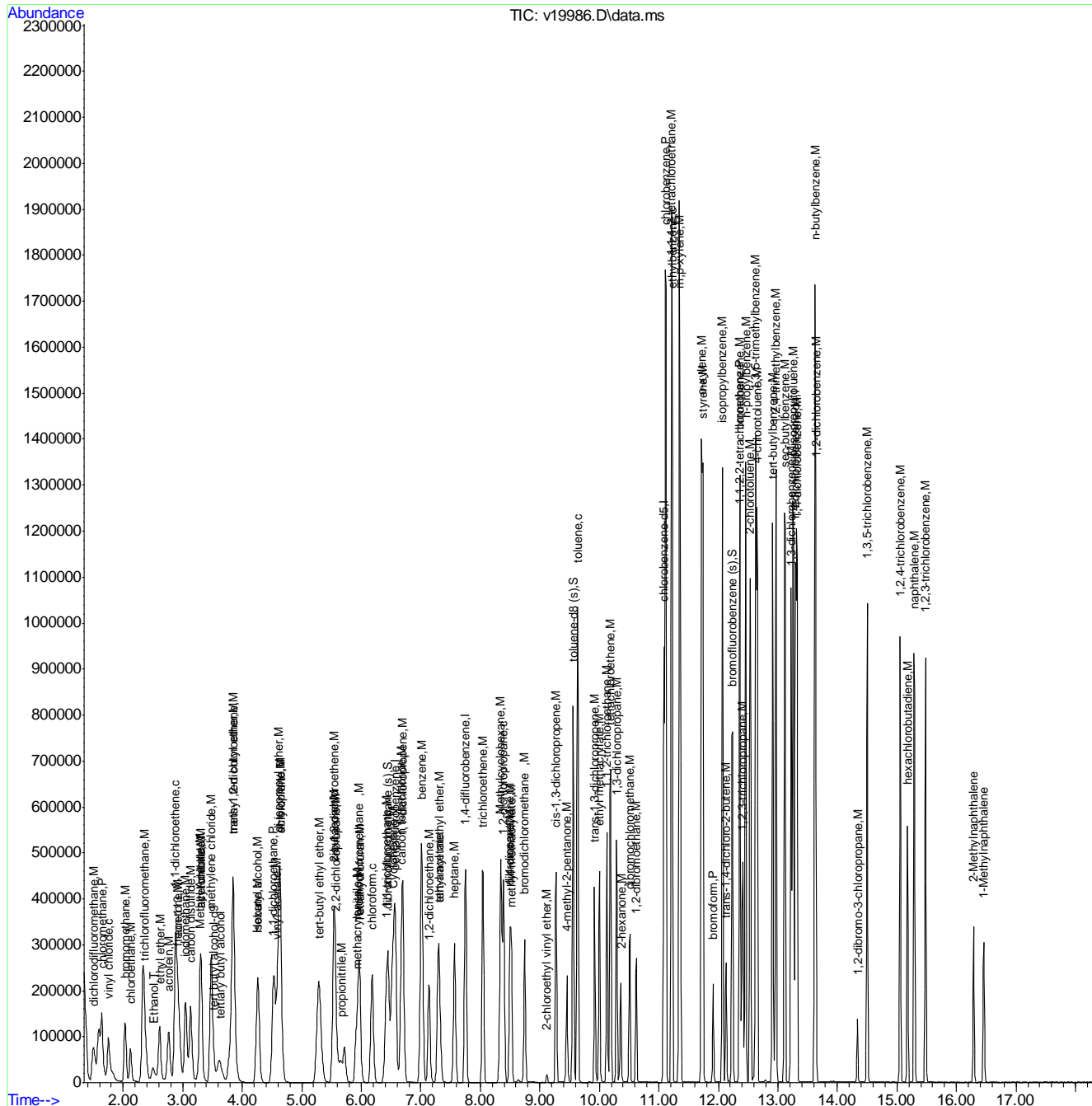
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.223	146	390211	55.77	ug/L	100
94) p-isopropyltoluene	13.256	119	653960	57.48	ug/L	99
95) 1,4-dichlorobenzene	13.319	146	400936	51.62	ug/L	99
96) 1,2-dichlorobenzene	13.635	146	382572	56.47	ug/L	99
97) n-butylbenzene	13.621	91	609892	55.13	ug/L	94
98) 1,2-dibromo-3-chloropr...	14.337	75	25921	47.89	ug/L	95
99) 1,3,5-trichlorobenzene	14.501	180	279894	51.45	ug/L	96
100) 1,2,4-trichlorobenzene	15.056	180	276548	53.28	ug/L	97
101) hexachlorobutadiene	15.178	225	98393	57.00	ug/L	91
102) naphthalene	15.291	128	627475	55.29	ug/L	100
103) 1,2,3-trichlorobenzene	15.480	180	252822	54.00	ug/L	95
104) 2-Methylnaphthalene	16.289	142	152852	28.88	ug/L	98
105) 1-Methylnaphthalene	16.460	142	133352	30.81	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130624\  
 Data File : v19986.D  
 Acq On : 25 Jun 2013 12:55 am  
 Operator : amym  
 Sample : icv776-50  
 Misc : MS29071,MSV776,,,,5,1  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 25 09:48:06 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration



7.6.24  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20623.D  
 Acq On : 9 Jul 2013 9:11 am  
 Operator : amym  
 Sample : cc776-50  
 Misc : MS29358,MSV802,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 09 13:33:31 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.501	65	78309	500.00	ug/L	-0.03	
4) pentafluorobenzene	6.559	168	290813	50.00	ug/L	-0.02	
43) 1,4-difluorobenzene	7.743	114	420323	50.00	ug/L	-0.01	
66) chlorobenzene-d5	11.078	82	220801	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.289	152	228065	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.438	113	144107	50.52	ug/L	-0.02	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.04%	
60) toluene-d8 (s)	9.553	98	496137	50.75	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	101.50%	
82) bromofluorobenzene (s)	12.226	95	213359	49.50	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	99.00%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	3.612	59	94455	518.06	ug/L		93
3) Ethanol	2.499	45	64043	4109.93	ug/L #		26
5) dichlorodifluoromethane	1.497	85	180056	62.38	ug/L		99
6) chloromethane	1.636	50	163161	50.81	ug/L		99
7) vinyl chloride	1.735	62	132264	40.74	ug/L		97
8) bromomethane	2.022	96	103098	57.91	ug/L		98
9) chloroethane	2.114	64	70691	51.29	ug/L		96
10) ethyl ether	2.603	59	94356	45.18	ug/L		94
11) acetonitrile	3.291	41	202205	43.17	ug/L		95
12) trichlorofluoromethane	2.344	101	230636	55.39	ug/L		98
13) freon-113	2.910	101	142007	49.22	ug/L		97
14) acrolein	2.754	56	91871	285.68	ug/L		100
15) 1,1-dichloroethene	2.866	96	125066	51.91	ug/L		91
16) acetone	2.902	58	11601	27.29	ug/L #		1
17) Methyl Acetate	3.277	43	97310	29.54	ug/L #		87
18) methylene chloride	3.465	84	138808	42.19	ug/L #		78
19) methyl tert butyl ether	3.834	73	332828	44.69	ug/L		96
20) acrylonitrile	4.619	53	238595	52.26	ug/L		98
21) allyl chloride	3.291	41	202205	43.17	ug/L		82
22) trans-1,2-dichloroethene	3.833	96	137062	46.43	ug/L		89
23) iodomethane	3.035	142	265379	47.47	ug/L		97
24) carbon disulfide	3.119	76	392089	62.20	ug/L		100
25) propionitrile	5.646	54	17279	35.79	ug/L		100
26) vinyl acetate	4.570	43	398512	35.00	ug/L		83
27) chloroprene	4.619	53	238595	52.26	ug/L		79
28) di-isopropyl ether	4.602	45	431412	37.77	ug/L		91
29) methacrylonitrile	5.919	41	82530	35.29	ug/L		88
30) 2-butanone	5.533	72	12753	35.98	ug/L #		1
31) Hexane	4.249	41	128427	44.78	ug/L #		87
32) 1,1-dichloroethane	4.507	63	259127	46.71	ug/L		98
33) tert-butyl ethyl ether	5.272	59	399500	45.80	ug/L		92
34) isobutyl alcohol	4.249	43	107373	202.28	ug/L		97
35) 2,2-dichloropropane	5.544	77	189034	64.96	ug/L		99
36) cis-1,2-dichloroethene	5.528	96	148364	43.79	ug/L		90

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20623.D  
 Acq On : 9 Jul 2013 9:11 am  
 Operator : amym  
 Sample : cc776-50  
 Misc : MS29358,MSV802,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 09 13:33:31 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.285	43	111999m	42.93	ug/L	
38) bromochloromethane	5.950	128	80735	48.23	ug/L	88
39) chloroform	6.167	83	270149	49.54	ug/L	99
41) Tetrahydrofuran	5.957	42	31201	32.93	ug/L	84
42) 1,1,1-trichloroethane	6.410	97	241251	54.15	ug/L	98
44) Cyclohexane	6.517	56	224645	40.69	ug/L	85
45) carbon tetrachloride	6.665	117	216938	62.05	ug/L	97
46) 1,1-dichloropropene	6.683	75	195294	55.07	ug/L	97
47) benzene	7.003	78	517441	47.25	ug/L	98
48) 1,2-dichloroethane	7.129	62	222173	52.04	ug/L	94
49) tert-amyl methyl ether	7.288	73	309492	50.64	ug/L	88
50) heptane	7.559	43	149890	42.47	ug/L	88
51) trichloroethene	8.035	95	158114	53.70	ug/L	99
52) 1,2-dichloropropane	8.383	63	152698	46.45	ug/L	98
53) dibromomethane	8.488	93	98000	49.82	ug/L	97
54) bromodichloromethane	8.738	83	200732	55.63	ug/L	98
55) Methylcyclohexane	8.334	83	204430	48.63	ug/L	# 86
56) 2-chloroethyl vinyl ether	9.113	63	28672	173.54	ug/L	97
57) methyl methacrylate	8.516	69	77686	45.22	ug/L	# 73
58) 1,4-dioxane	8.494	88	4754	167.28	ug/L	70
59) cis-1,3-dichloropropene	9.265	75	220311	48.59	ug/L	97
61) 4-methyl-2-pentanone	9.446	43	121596	41.41	ug/L	92
62) toluene	9.628	92	364728	51.17	ug/L	99
63) trans-1,3-dichloropropene	9.915	75	201290	53.86	ug/L	98
64) 1,1,2-trichloroethane	10.121	83	112893	49.59	ug/L	99
65) ethyl methacrylate	9.995	69	163297	47.39	ug/L	80
67) tetrachloroethene	10.180	166	187506	60.99	ug/L	95
68) 1,3-dichloropropane	10.282	76	211922	47.22	ug/L	99
69) dibromochloromethane	10.503	129	161803	55.52	ug/L	99
70) 1,2-dibromoethane	10.612	107	143402	52.74	ug/L	99
71) 2-hexanone	10.353	43	91810	42.11	ug/L	92
72) chlorobenzene	11.108	112	437897	55.34	ug/L	99
73) 1,1,1,2-tetrachloroethane	11.207	131	159967	60.10	ug/L	99
74) ethylbenzene	11.212	91	735752	55.00	ug/L	98
75) m,p-xylene	11.343	106	558917	111.76	ug/L	99
76) o-xylene	11.710	106	277614	57.79	ug/L	98
77) styrene	11.731	104	459114	51.64	ug/L	100
78) bromoform	11.905	173	92247	55.02	ug/L	97
79) trans-1,4-dichloro-2-b...	12.122	53	40651	38.65	ug/L	75
81) isopropylbenzene	12.062	105	729664	58.78	ug/L	96
83) bromobenzene	12.352	156	209446	54.18	ug/L	93
84) 1,1,2,2-tetrachloroethane	12.357	83	168909	48.66	ug/L	99
85) 1,2,3-trichloropropane	12.398	75	191370	48.08	ug/L	69
86) n-propylbenzene	12.450	91	839227	56.76	ug/L	95
87) 2-chlorotoluene	12.529	91	520144	55.44	ug/L	98
88) 4-chlorotoluene	12.641	91	613377	56.52	ug/L	96
89) 1,3,5-trimethylbenzene	12.620	105	628716	53.96	ug/L	99
90) tert-butylbenzene	12.906	91	360833	60.80	ug/L	99
91) 1,2,4-trimethylbenzene	12.960	105	637855	53.08	ug/L	98
92) sec-butylbenzene	13.109	105	745623	59.10	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20623.D  
 Acq On : 9 Jul 2013 9:11 am  
 Operator : amym  
 Sample : cc776-50  
 Misc : MS29358,MSV802,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 09 13:33:31 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

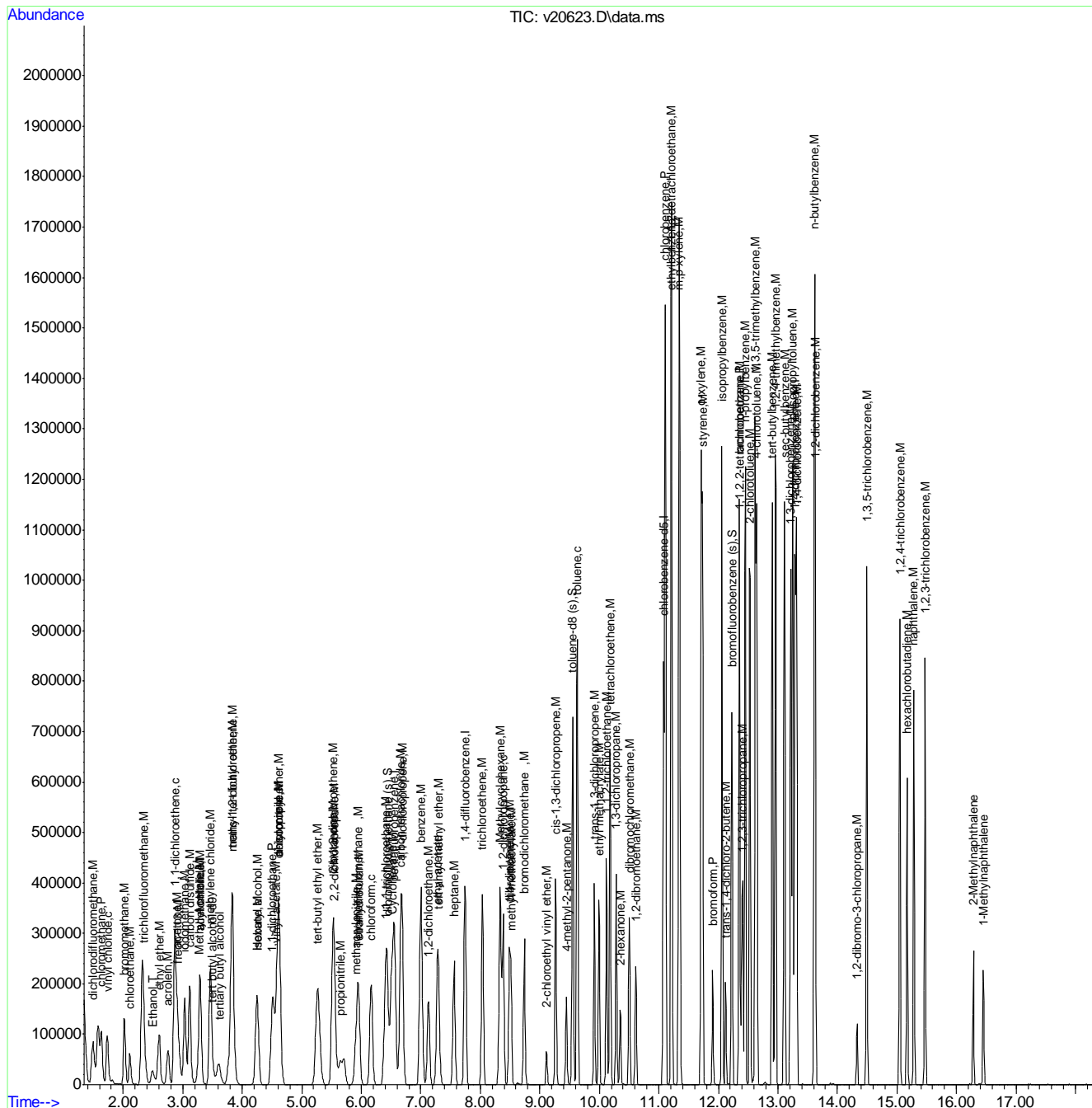
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.216	146	375905	57.25	ug/L	98
94) p-isopropyltoluene	13.250	119	635568	59.52	ug/L	98
95) 1,4-dichlorobenzene	13.312	146	383614	52.63	ug/L	99
96) 1,2-dichlorobenzene	13.629	146	357100	56.16	ug/L	100
97) n-butylbenzene	13.614	91	574378	55.32	ug/L	94
98) 1,2-dibromo-3-chloropr...	14.330	75	24923	48.84	ug/L	97
99) 1,3,5-trichlorobenzene	14.494	180	287958	56.40	ug/L	97
100) 1,2,4-trichlorobenzene	15.050	180	274253	56.30	ug/L	96
101) hexachlorobutadiene	15.171	225	114590	70.73	ug/L	92
102) naphthalene	15.284	128	527374	49.51	ug/L	100
103) 1,2,3-trichlorobenzene	15.473	180	241040	54.85	ug/L	93
104) 2-Methylnaphthalene	16.282	142	118096	23.77	ug/L	98
105) 1-Methylnaphthalene	16.452	142	103820	25.56	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20623.D  
 Acq On : 9 Jul 2013 9:11 am  
 Operator : amym  
 Sample : cc776-50  
 Misc : MS29358,MSV802,,,,,5,1  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 09 13:33:31 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration



7.6.25  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20652.D  
 Acq On : 9 Jul 2013 9:58 pm  
 Operator : amym  
 Sample : cc776-50  
 Misc : MS29358,MSV803,,,,5,1  
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jul 10 10:21:32 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) tert butyl alcohol-d9	3.508	65	60602	500.00	ug/L	-0.03	
4) pentafluorobenzene	6.567	168	251912	50.00	ug/L	0.00	
43) 1,4-difluorobenzene	7.749	114	362047	50.00	ug/L	0.00	
66) chlorobenzene-d5	11.080	82	196826	50.00	ug/L	0.00	
80) 1,4-dichlorobenzene-d4	13.291	152	201448	50.00	ug/L	0.00	
System Monitoring Compounds							
40) dibromofluoromethane (s)	6.447	113	127868	51.75	ug/L	-0.01	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	103.50%	
60) toluene-d8 (s)	9.556	98	431969	51.30	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	102.60%	
82) bromofluorobenzene (s)	12.228	95	190800	50.11	ug/L	0.00	
Spiked Amount	50.000	Range	70 - 130	Recovery	=	100.22%	
Target Compounds							
							Qvalue
2) tertiary butyl alcohol	3.620	59	76483	542.05	ug/L		93
3) Ethanol	2.505	45	55332	4588.43	ug/L		92
5) dichlorodifluoromethane	1.503	85	166072	66.62	ug/L		96
6) chloromethane	1.641	50	149537	53.76	ug/L		100
7) vinyl chloride	1.743	62	120261	42.76	ug/L		96
8) bromomethane	2.031	96	95039	61.62	ug/L		97
9) chloroethane	2.124	64	65782	55.10	ug/L		98
10) ethyl ether	2.615	59	83586	46.20	ug/L		90
11) acetonitrile	3.303	41	179215	44.17	ug/L		91
12) trichlorofluoromethane	2.354	101	233643	65.05	ug/L		100
13) freon-113	2.919	101	134803	53.94	ug/L		95
14) acrolein	2.766	56	77308	277.52	ug/L		100
15) 1,1-dichloroethene	2.878	96	111481	53.41	ug/L	#	81
16) acetone	2.913	58	12452	33.82	ug/L	#	1
17) Methyl Acetate	3.288	43	80362	28.16	ug/L	#	86
18) methylene chloride	3.477	84	124526	43.70	ug/L	#	78
19) methyl tert butyl ether	3.845	73	287427	44.56	ug/L		93
20) acrylonitrile	4.631	53	225506	57.02	ug/L		98
21) allyl chloride	3.303	41	179215	44.17	ug/L		82
22) trans-1,2-dichloroethene	3.845	96	119876	46.88	ug/L		84
23) iodomethane	3.046	142	233107	48.14	ug/L		93
24) carbon disulfide	3.130	76	356766	64.68	ug/L		99
25) propionitrile	5.656	54	14460	34.57	ug/L		100
26) vinyl acetate	4.584	43	338439	34.31	ug/L		82
27) chloroprene	4.631	53	225506	57.02	ug/L		76
28) di-isopropyl ether	4.613	45	388516	39.27	ug/L		91
29) methacrylonitrile	5.928	41	70494	34.79	ug/L		88
30) 2-butanone	5.543	72	11545	37.60	ug/L	#	1
31) Hexane	4.261	41	122814	49.44	ug/L	#	81
32) 1,1-dichloroethane	4.520	63	234135	48.72	ug/L		99
33) tert-butyl ethyl ether	5.283	59	354774	46.95	ug/L		91
34) isobutyl alcohol	4.261	43	99999	217.48	ug/L		93
35) 2,2-dichloropropane	5.555	77	162560	64.48	ug/L		98
36) cis-1,2-dichloroethene	5.540	96	131329	44.75	ug/L		84

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20652.D  
 Acq On : 9 Jul 2013 9:58 pm  
 Operator : amym  
 Sample : cc776-50  
 Misc : MS29358,MSV803,,,5,1  
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jul 10 10:21:32 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) ethyl acetate	7.292	43	101104m	44.74	ug/L	
38) bromochloromethane	5.960	128	69871	48.18	ug/L #	79
39) chloroform	6.176	83	250900	53.11	ug/L	100
41) Tetrahydrofuran	5.967	42	25330	30.86	ug/L	79
42) 1,1,1-trichloroethane	6.419	97	232643	60.02	ug/L	97
44) Cyclohexane	6.526	56	212376	44.66	ug/L #	83
45) carbon tetrachloride	6.673	117	212940	70.30	ug/L	99
46) 1,1-dichloropropene	6.692	75	178752	58.52	ug/L	98
47) benzene	7.011	78	453363	48.06	ug/L	99
48) 1,2-dichloroethane	7.136	62	208677	56.75	ug/L	93
49) tert-amyl methyl ether	7.295	73	267020	50.72	ug/L	87
50) heptane	7.564	43	139554	45.90	ug/L	86
51) trichloroethene	8.040	95	144538	56.99	ug/L	98
52) 1,2-dichloropropane	8.388	63	134750	47.59	ug/L	100
53) dibromomethane	8.492	93	87376	51.57	ug/L	98
54) bromodichloromethane	8.742	83	185190	59.26	ug/L	99
55) Methylcyclohexane	8.339	83	189348	52.29	ug/L #	82
56) 2-chloroethyl vinyl ether	9.116	63	20281	142.51	ug/L	97
57) methyl methacrylate	8.520	69	63285	42.76	ug/L #	72
58) 1,4-dioxane	8.499	88	3938	160.75	ug/L	70
59) cis-1,3-dichloropropene	9.268	75	194162	49.67	ug/L	99
61) 4-methyl-2-pentanone	9.450	43	102099	40.37	ug/L	90
62) toluene	9.631	92	323562	52.70	ug/L	99
63) trans-1,3-dichloropropene	9.918	75	177989	55.19	ug/L	97
64) 1,1,2-trichloroethane	10.124	83	97822	49.88	ug/L	100
65) ethyl methacrylate	9.998	69	138158	46.55	ug/L	79
67) tetrachloroethene	10.183	166	169725	61.93	ug/L	95
68) 1,3-dichloropropane	10.285	76	187042	46.75	ug/L	100
69) dibromochloromethane	10.505	129	147234	56.58	ug/L	99
70) 1,2-dibromoethane	10.614	107	125194	51.65	ug/L	100
71) 2-hexanone	10.355	43	82348	42.37	ug/L	89
72) chlorobenzene	11.110	112	395390	56.05	ug/L	99
73) 1,1,1,2-tetrachloroethane	11.209	131	147008	61.99	ug/L	97
74) ethylbenzene	11.214	91	665525	55.81	ug/L	98
75) m,p-xylene	11.345	106	500459	112.26	ug/L	99
76) o-xylene	11.712	106	247488	57.79	ug/L	98
77) styrene	11.732	104	409934	51.73	ug/L	96
78) bromoform	11.906	173	81063	54.41	ug/L	98
79) trans-1,4-dichloro-2-b...	12.122	53	23463m	25.02	ug/L	
81) isopropylbenzene	12.063	105	665905	60.73	ug/L	98
83) bromobenzene	12.353	156	189549	55.51	ug/L	98
84) 1,1,2,2-tetrachloroethane	12.358	83	141309	46.09	ug/L	99
85) 1,2,3-trichloropropane	12.399	75	157435	44.78	ug/L	67
86) n-propylbenzene	12.451	91	765762	58.64	ug/L	96
87) 2-chlorotoluene	12.530	91	476695	57.52	ug/L	95
88) 4-chlorotoluene	12.642	91	563748	58.81	ug/L	98
89) 1,3,5-trimethylbenzene	12.621	105	574852	55.86	ug/L	99
90) tert-butylbenzene	12.907	91	338742	64.61	ug/L	96
91) 1,2,4-trimethylbenzene	12.961	105	585850	55.20	ug/L	99
92) sec-butylbenzene	13.110	105	686699	61.62	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20652.D  
 Acq On : 9 Jul 2013 9:58 pm  
 Operator : amym  
 Sample : cc776-50  
 Misc : MS29358,MSV803,,,,5,1  
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jul 10 10:21:32 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration

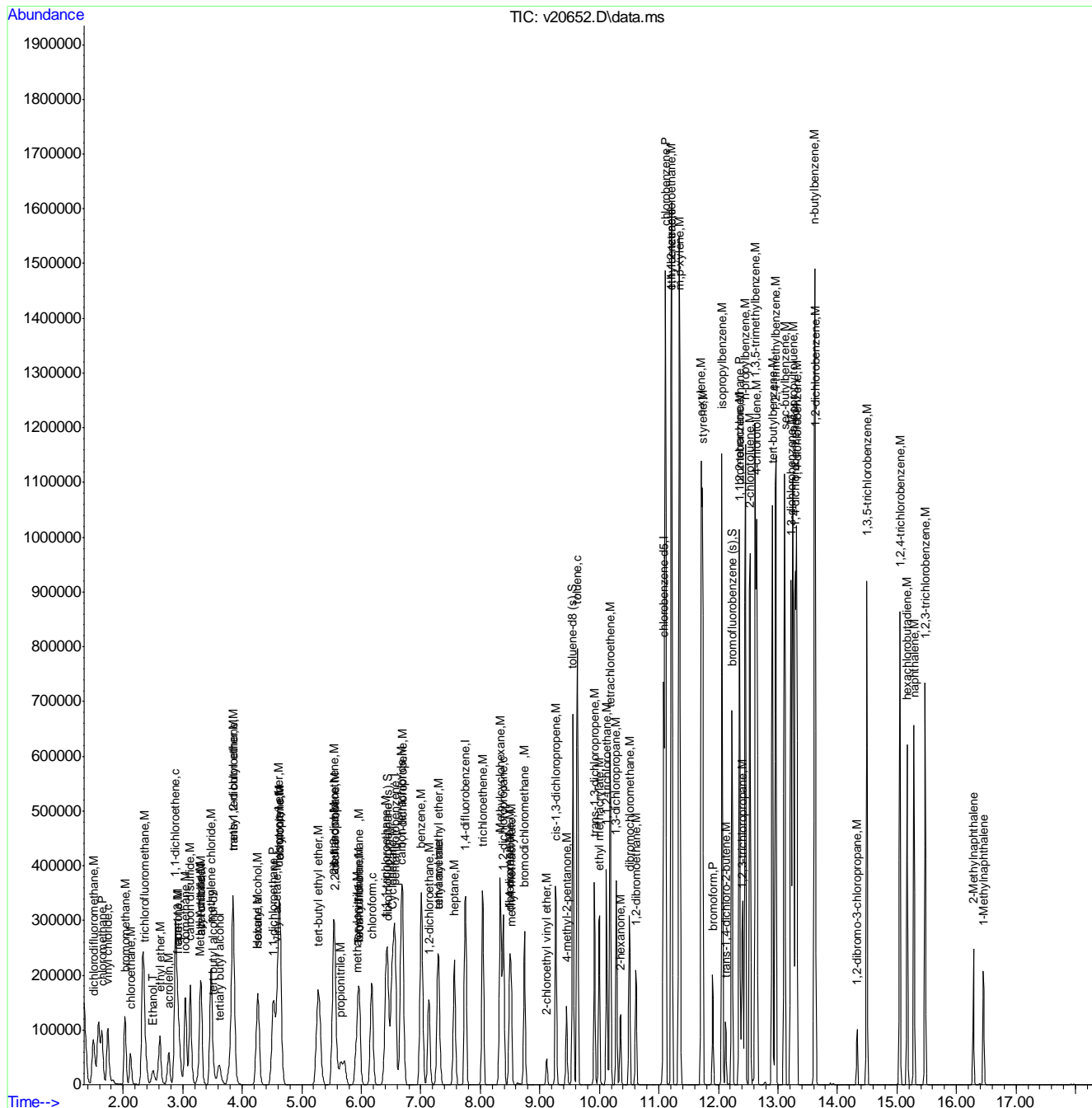
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,3-dichlorobenzene	13.218	146	339414	58.52	ug/L	99
94) p-isopropyltoluene	13.251	119	584421	61.96	ug/L	99
95) 1,4-dichlorobenzene	13.313	146	347758	54.01	ug/L	98
96) 1,2-dichlorobenzene	13.630	146	324586	57.79	ug/L	99
97) n-butylbenzene	13.615	91	528268	57.60	ug/L	95
98) 1,2-dibromo-3-chloropr...	14.331	75	21218	47.40	ug/L	93
99) 1,3,5-trichlorobenzene	14.495	180	263764	58.49	ug/L	95
100) 1,2,4-trichlorobenzene	15.051	180	247475	57.52	ug/L	97
101) hexachlorobutadiene	15.173	225	108408	75.76	ug/L	94
102) naphthalene	15.285	128	453264	48.18	ug/L	100
103) 1,2,3-trichlorobenzene	15.474	180	215911	55.63	ug/L	97
104) 2-Methylnaphthalene	16.284	142	105520	24.05	ug/L	100
105) 1-Methylnaphthalene	16.454	142	91347	25.46	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V130709\  
 Data File : v20652.D  
 Acq On : 9 Jul 2013 9:58 pm  
 Operator : amym  
 Sample : cc776-50  
 Misc : MS29358,MSV803,,,,5,1  
 ALS Vial : 32 Sample Multiplier: 1

Quant Time: Jul 10 10:21:32 2013  
 Quant Method : C:\msdchem\1\METHODS\v130624w.m  
 Quant Title : SW-846 Method 8260  
 QLast Update : Tue Jun 25 09:47:02 2013  
 Response via : Initial Calibration



7.6.26  
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Standards Data

Daily Saved File

Lot #	Description	Conc
MS9277	8.26cc	200ug/ml
9284	↓ b5	↓ c
9278	↓ T5/S3	125ppm

Tune file 1: N17980
Tune file 2:
Initial Cal: 7/7/13
ID File: N130701
ICAL Verified: JSB
Sequence verified: JSB

Date: 7/7/13  
 Batch ID: MSN2927  
 Analysts: JSB  
 Signature: JSB

\*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
N17980	bfb	NA	NA	NA	25	NA	5ml	NA	1:1	NA	✓
981	1b1k	1			26						✓
982	1C2927-0.5	3			27						✓
983	↓ -1.0				28						✓
984	↓ -2.0				29						✓
985	↓ -5.0				30						✓
986	↓ -10.0				31						✓
987	↓ -25				32						✓
988	1C2927-50				33						✓
989	1C2927-100				34						✓
990	↓ -200				35						✓
991	↓ -400				36						✓
992	1b1k	NA			37						✓
993	1b1k	1			38						✓
994	1C2927-50	1			39						✓
995	1C2927-50	1			40						✓

JSB  
7/8/13

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.

MS001-04 Date: 12/02/08

Review: \_\_\_\_\_

Standards Data

Daily Saved File

Lot #	Description	Conc
MS9271	826cc	10ug/ml
9284	bs	LC
9276	IS/SS	25ppm

Tune file 1:	N17800
Tune file 2:	
Initial Cal:	7/7/13
ID File:	N130707
ICAL Verified:	JB
Sequence verified:	JK

Date: 7/8/13

Batch ID: MSN2928

Analysts: JB

Signature: JB

\*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
N17998	1bik	NA	NA	NA	15	NA	Sml	NA	1:1	NA	✓
999	1bik	1			16						✓
8000	CC3927-50	3			17						✓✓
8001	bs	1			18						✓✓
8002	1bik	NA			19						✓
8003	mb	1			20						✓✓
8004	mc22232-14	4	MS22348	STD, NTBE	21	GW				2	✓✓
8005	mc22419-13	4			22						✓✓
8006	mc22232-1	1			23						✓✓
8007	-2	2			24						✓✓
8008	-3	2			25						✓✓
009	-4	1			26						✓✓
010	mc21885-3	3	MS22332	SL	27						✓✓
011	mc22232-5	3	MS21348	STD, NTBE	28						✓✓
012	-6	3			29						✓✓
-013	-7	1			30						✓✓
014	-8	2			31						RRel:50
015	-9	1			32						RRel:1
016	-10	3			33						RRel:100
017	-11	2			34						RRel:1
018	-12	1			35						✓✓
019	-13	3			36						✓✓
020	-15	1			37						✓✓
021	-16	2			38						✓✓
022	mc22166-4ms	2			39			1:5			✓✓
023	-4ms	2			40			1			✓✓
024	mc22232-14ms	2.5, 7			41			1:1			✓✓
025	-14ms	1			42			1			✓✓

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.

MS001-04 Date: 12/02/08

Review: \_\_\_\_\_

7.7.2  
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Standards Data

Daily Saved File

Lot #	Description	Conc
459277	8260cc	200ug/ml
9284	bs	1
928	IS/SS	125ppm

Tune file 1: N78026
Tune file 2:
Initial Cal: 7/7/13
ID File: N130707
ICAL Verified: JB
Sequence verified: HR

Date: 7/8/13  
 Batch ID: MSN2929  
 Analysts: JB  
 Signature: JB

\*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
N78026	CC2927-50	3	NA	NA	43	NA	5ml	NA	1:1	NA	✓
	027	1			44						✓
	028	NA			45						✓
	029	1			46						✓
	030	1	MS29349	STD, MTBE	47	WTB				22	✓
	031	1		NHF	48						✓
	032	1		RCP	49						✓
	033	4		STD, MTBE	50	GW					✓
	034	2			51						✓
	035	2			52						RRC:100
	036	3			53						RRC:1
	037	3			54						✓
	038	3			55						✓
	039	3			56						✓
	040	3			57						✓
	041	4		NHF	58						✓
	042	4			59						✓
	043	4			60						RRC:1
	044	4			61						✓
	045	8		RCP	62						RRC:20
	046	3			63						RRC:100
	047	2			64						RRC:100
	048	2			65						RRC:100
	049	3			66						RRC:100
	050	11.9		STD, MTBE	67						✓
	051	1			68						✓
	052										

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.

MS001-04 Date: 12/02/08

Review: \_\_\_\_\_

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RRC:1  
 071

JB  
 7/8/13

Standards Data

Lot #	Description	Conc
MS 9234	V B260 Cal STD	200 <del>400</del>
9261	V B260 BS (2nd S)	200
9226	V B260 25/55	250

Daily Saved File

Tune file 1:	V19971
Tune file 2:	NA
Initial Cal:	26/24/13
ID File:	V130624W
ICAL Verified:	<i>[initials]</i>
Sequence verified:	<i>[initials]</i>

Date: 6/24/13  
 Batch ID: MSV776  
 Analysts: Ang Young  
 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
V19964	MLK	NA	NA	NA	1	NA	NA	NA	NA	NA	
	65				2						
	66				3						
	67				4						
	68				5						
	69				6						
	70			test 0.5	7						
	71			MLK (BFB)	8						
	72	3	MS 9234		9						
	73			-1	10						
	74			-2	11						
	75			-5	12						
	76			-10	13						
	77			-25	14						
	78			ICV 776-50	15						
	79			IC 776-100	16						
	80			-200	17						
	81			-400	18						
	82	NA	NA	MLK	19						
	83				20						
	84				21						
	85	2	MS 9261	ICV 776-10	22						
	86				23						
	87	NA	NA	MLK	24						
	88				25						

*[Signature]*  
6/25/13

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.

MS001-04 Date: 12/02/08

Review: \_\_\_\_\_

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Standards Data

Daily Saved File

Lot #	Description	Conc
MS 9277	V. Bto Cal STD	200 <del>100</del>
9284	V. Bto BSTD	200
9226	V. Bto 25/55	210

Tune file 1:	V20622
Tune file 2:	NA
Initial Cal:	06/24/13
ID File:	V/30624W
ICAL Verified:	
Sequence verified:	BS

Date: 7/9/13

Batch ID: MSV 802

Analysts: Ag Yang

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
V20621	NA	NA	NA	NA	1	NA	5ml	NA	1:1	NA	
22	CC 776-10	3	MS 9277		2						Fail
23	BS	1	MS 9284		3						
24	BSD				4						
25	NA	NA	NA		5						
26	MB				6						
27	MC22430-3	4	MS29349	V. Bto MHF	7	EW					
28	MC22424-2	2	MS29354	V. Bto STD	8						
29	-4	3			9				1:10		
30	MC22437-28	6	MS29349	V. Bto RCP	10				1:20		
31	-30	2			11				1:100		
32	-38	3			12						
33	-40	3			13						RR=1:500
34	-42	2			14						
35	MC22232-17	1	MS29368	V. Bto STD	15				1:1		
-36	-78				16						RR=1:50
X 37	-79				17						C.O? RR
38	MC22437-40	3	MS29349	V. Bto RCP	18				1:500		
39	MC22424-219	2	MS29354	V. Bto STD	19				1:5		
40	-2MS				20						
41	MC22232-8	1	MS29348	V. Bto STD	21				1:50		
42	-70	1			22				1:100		
43	MC22239-1	2	MS29368		23				1:100		MC22239-1
44	-2	2	MS29348		24				1:1		
45	-11	1			25						
46	-23	1	MS29349		26						
47	MC22239-1	3	MS29358	V. Bto STD	27				1:1		MC22232-19
48	-2	2			28						
49	MC22342-8MS	2			29				1:5		
50	-8MS	2			30						

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.

MS001-04 Date: 12/02/08

Review: \_\_\_\_\_

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VOLATILE ORGANICS BY GC/MS ANALYSIS LOG

Standards Data

Daily Saved File

Lot #	Description	Conc
MS 9277	VABO CAL STD	200.47/100
↓ 9284	VABO BS (std)	200
↓ 2226	VABO 2.5/55	250 ↓

Tune file 1:	V.20651
Tune file 2:	NA
Initial Cal:	06/24/13
ID File:	V130624W
ICAL Verified:	✓
Sequence verified:	KJB

Date: 7/9/13  
 Batch ID: MSV 803  
 Analysts: Ang Yang  
 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
V.20651	CC776-50	3	MS 9277	NA	31	NA	5ml	NA	1:1	NA	
	52 BS/CC	1	MS 9284		32						
	53 BSD/BS	↓	↓		33						
	54 BKR	NA	NA		34						
	55 MB	↓	↓		35						
	56 MC22232-18	2	MS 9368	VABO STD	36	GW			1:100	<2	
	57 ↓ 222	1	MS 9348	↓	37	↓			↓		
	58 MC22416-16	1		VABO TCL	38	WTB			1:1		
	59 @-1	1			39	GW			↓		RR = 1:100
	60 -MS	2			40				1:5		
	61 -MO	↓			41				↓		
	62 -1	↓			42				1:20		1/2 need
	63 -2	1			43				1:1		RR = 1:1000
	64 -3				44						RR = 1:100
	65 -4				45						C O? RR
	66 -5				46						RR = 1:100
	67 -6				47						RR = 1:100
	68 -7				48						RR = 1:100
	69 -8				49						RR = 1:10
	70 -9				50						RR = 1:10
	71 -10				51						RR = 1:10
	72 -11				1						RR = 1:20
	73 -12				2						RR = 1:1000
	74 -13				3						RR = 1:1000
	75 -14				4						RR = 1:100
	76 -15				5						RR = 1:1000
X 77	MC22482-3	↓	↓	VABO MTF	6	↓	↓	↓	↓	↓	NA move to 'k' Y

7/10/13

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.

7.7.6  
7

**SUMMARY OF THE ANALYTICAL DATA USABILITY  
NFARS, Niagara Falls, NY**

**Water Volatile Organic Analyses**

**Samples Collected: June 25, 2013**

**Samples Received: June 27, 2013**

**Sample Delivery Group: MC22232**

**Laboratory Reference Numbers:**

<b>Lab Sample ID</b>	<b>Field ID</b>
MC22232-1	MW3-3DA
MC22232-2	MW3-4DA
MC22232-3	PW3-3A
MC22232-4	PZ3-6D
MC22232-5	PZ3-7D
MC22232-6	PZ3-8D
MC22232-7	MW5-1DA
MC22232-8	MW5-5D
MC22232-8 DL	MW5-5D
MC22232-9	MW5-6
MC22232-10	RW5-1
MC22232-10 DL	RW5-1 DL
MC22232-11	RW5-2
MC22232-12	RW5-4
MC22232-13	MW8-1
MC22232-14	MW8-10D
MC22232-14 MS	MW8-10D MS
MC22232-14 MSD	MW8-10D MSD
MC22232-15	MW8-11D
MC22232-16	MW10-7
MC22232-17	PW10-1
MC22232-18	PW10-2
MC22232-19	PW10-7
MC22232-20	MW13-4D
MC22232-20MS	MW13-4DMS
MC22232-20MSD	MW13-4D MSD
MC22232-21	MW13-5D
MC22232-22	PW10-2Q
MC22232-23	W3-3DAQ
MC22232-24	TB-062513

Water samples were validated for analyses of volatile organics by the US EPA Region II data validation SOP (HW-24, Revision 2). Data were reviewed for usability according to the following criteria:

- \* - Data Completeness
- \* - GC/MS Tuning
- \* - Holding Times
  - Calibrations
- \* - Laboratory Blanks
  - Trip Blanks
  - Field Blanks - See Note
  - Storage Blank
- \* - System Monitoring Compound Recoveries
- \* - Internal Standard Recoveries
  - Matrix Spike / Matrix Spike Duplicate
  - Laboratory Control Samples
- \* - Compound Identification
- \* - Compound Quantitation

\* - Indicates that all criteria were met for this parameter.

## DATA VALIDATION SUMMARY

**Note:** The laboratory submitted a field blank and trip blank on 6/13/13 as SDG MC21741 which was to be associated with this sample delivery group. No compounds were detected in either the field or trip blanks.

The problems with matrix spike, laboratory control samples and calibrations should be noted.

These are described in detail below.

The below samples were analyzed at a dilution since several concentrations were above the linear range.,

MC22232-8 DL	MW5-5D DL
MC22232-10 DL	RW5-1 DL
MC22232-18 DL	PW10-2 DL
MC22232-22DL	PW10-2QDL

The required "DL" dilution flag was not attached to the sample designation in the laboratory PDF or EDD.

Generally when a sample is diluted, the full compound set for the original and undiluted analyses are reported. This was not done in this sample delivery group.

No other problems were detected that would affect the use of the data.



## Holding Times

Preserved aqueous samples were analyzed within 14 days of collection.

## Tunes

No problems were detected with the tunes associated with the samples of this delivery group.

## System Monitoring Compound Recoveries

All of the surrogate recoveries were within the required limits.

## Calibrations

The percent RSDs of several of the compounds in the 07/07 initial calibration were greater than 20%.

None of these compounds were detected in the samples and the data were not required to be qualified for the high %RSDs.

This initial calibration was associated with the analyses of the following samples:

MC22232-1	MW3-3DA
MC22232-2	MW3-4DA
MC22232-3	PW3-3A
MC22232-4	PZ3-6D
MC22232-5	PZ3-7D
MC22232-6	PZ3-8D
MC22232-7	MW5-1DA
MC22232-8	MW5-5D
MC22232-10	RW5-1
MC22232-12	RW5-4
MC22232-13	MW8-1
MC22232-14	MW8-10D
MC22232-15	MW8-11D
MC22232-16	MW10-7
MC22232-20	MW13-4D
MC22232-21	MW13-5D
MC22232-22	PW10-2Q
MC22232-24	TB-062513

All of the percent differences in the 7/8 (09:41 am) continuing calibrations were less than 20%.

This continuing calibration was associated with the analyses of the following samples:

MC22232-1	MW3-3DA
MC22232-2	MW3-4DA
MC22232-3	PW3-3A
MC22232-4	PZ3-6D

MC22232-5	PZ3-7D
MC22232-6	PZ3-8D
MC22232-7	MW5-1DA
MC22232-8	MW5-5D
MC22232-10	RW5-1
MC22232-12	RW5-4
MC22232-13	MW8-1
MC22232-14	MW8-10D
MC22232-15	MW8-11D
MC22232-16	MW10-7

All of the percent differences in the 7/8 (21:53 am) continuing calibrations were less than 20%. with the exception of 2-hexanone (27%).

The data for 2-hexanone were flagged with the "J" qualifier and are estimated values..

This continuing calibration was associated with the analyses of the following samples:

MC22232-20	MW13-4D
MC22232-21	MW13-5D
MC22232-22	PW10-2Q
MC22232-24	TB-062513

The percent RSDs of several of the compounds in the 06/24 initial calibration were greater than 20%.

If a compound was detected in one of these samples the data were flagged with the "J" qualifier and are estimated values.

This initial calibration was associated with the analyses of the following samples:

MC22232-8 DL	MW5-5D DL
MC22232-9	MW5-6
MC22232-10 DL	RW5-1 DL
MC22232-11	RW5-2
MC22232-17	PW10-1
MC22232-18	PW10-2
MC22232-18 DL	PW10-2 DL
MC22232-19	PW10-7
MC22232-22DL	PW10-2QDL
MC22232-23	W3-3DAQ

The only compound with a high %RSD was carbon tetrachloride (30%) in sample MC22232-18 / PW10-2. This was flagged with the "J" qualifier and is an estimated value.

All of the percent differences in the 7/9 (9:11 am) continuing calibration were less than 20% with the following exceptions:

<b>Compound</b>	<b>%D</b>
2,2-Dichloropropane	30%
2-Butanone (MEK)	28%
Acetone	45%
Carbon disulfide	24%
Carbon tetrachloride	24%
Dichlorodifluoromethane	25%
Hexachlorobutadiene	41%
tert-Butylbenzene	22%
Tetrachloroethene	22%
Vinyl Acetate	30%

This continuing calibration was associated with the analyses of the following samples:

MC22232-8 DL	MW5-5D DL
MC22232-9	MW5-6
MC22232-10 DL	RW5-1 DL
MC22232-11	RW5-2
MC22232-17	PW10-1
MC22232-18	PW10-2
MC22232-19	PW10-7
MC22232-23	W3-3DAQ

The data for these compounds were flagged with the "J" qualifier and are estimated values.

### **Matrix Spike and Matrix Spike Duplicate**

Samples MC22232-14 / MW8-10D and MC22232-20 / MW13-4D used as the matrix spike and matrix spike duplicate. All recoveries were within the required limits with the following exceptions:

#### **Sample MC22232-14 / MW8-10D**

<b>Compound</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>
2-Butanone (MEK)	67%		
Acetone	60%	61%	
Vinyl Acetate	68%	68%	

#### **Sample MC22232-20 / MW13-4D:**

<b>Compound</b>	<b>MS</b>	<b>MSD</b>	<b>RPD</b>
Acetone		65%	
Tetrachloroethene	185%	135%	32%
Trichloroethene	202%	140%	36%
Vinyl Acetate	69%	60%	
Vinyl chloride		69%	

Data for compounds with low recoveries were flagged with the :J: qualifier and are estimated values.

Compounds with high recoveries were only flagged with the "J" qualified when they were detected in a sample. High matrix spike recoveries do not affect undetected data.

Several compounds had RPDs above the 30% quality control limit.

These were only flagged with the "J" qualifier when they were detected in a sample.

Samples MC22232-14 / MW8-10D and MC22232-20 / MW13-4D were qualified on the basis of the spike recoveries in each sample.

The remaining compounds with recoveries outside of the control limits were combined and used to qualify the remainder of the samples.

Note: Several matrix spikes were included that were not part of this sample delivery group. These were not reviewed during the validation.

### Laboratory Control Sample

The recovery of 2,2-dichloropropane (67%) was less than the 70% quality assurance limits in the 07/08/13 (22:21).

This LCS was associated with the following samples:

MC22232-20	MW13-4D
MC22232-21	MW13-5D
MC22232-22	PW10-2Q
MC22232-24	TB-062513

The data for this compound were flagged with the "J" qualifier and are estimated values.

The data for hexachlorobutadiene (137%) and vinyl acetate (68%) were outside of the 70% - 130% quality control limits in LCS V20624.D - 07/09 for the following samples:.

MC22232-8 DL	MW5-5D DL
MC22232-9	MW5-6
MC22232-10 DL	RW5-1 DL
MC22232-11	RW5-2
MC22232-17	PW10-1
MC22232-18	PW10-2
MC22232-19	PW10-7
MC22232-23	W3-3DAQ

The data for vinyl acetate were flagged with the "J" qualifier and are estimated values.

Hexachlorobutadiene was not detected in any of the samples and the high recovery does not affect undetected data.

All of the other laboratory control sample recoveries were within the required limits.

**Method Blanks**

No compounds were detected in the method blanks.

**Trip Blank**

No compounds were detected in the trip blank.

**Field Blank**

The laboratory submitted a field blank and trip blank on 6/13/13 as SDG MC21741 which was to be associated with this sample delivery group. No compounds were detected in either the field or trip blanks.

**Internal Standard Areas and Retention Times**

The recoveries and retention times of all internal standards were within the required quality control limits.

**Sample Results**

No problems were detected with the samples.

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## **Appendix D**

### **Monthly Effluent Positive Analytical Results**

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**TABLE D-1**  
**Positive Analytical Results for Monthly Discharge Samples**  
**Data Summary Report June 2013 Basewide Sampling**  
**Niagara Falls Air Reserve Station, New York**

		Location ID	
Analyte	Screening Criteria <sup>(a)</sup>	PW10-Effluent	PW13-Composite
		6/26/2013	6/26/2013
<b>Volatile Organic Compounds Method 8260B (µg/L)</b>			
<i>cis</i> -1,2-Dichloroethene	5	<b>13.0</b>	<b>17.1</b>
Trichloroethene	5	1.0 U	<b>15.5</b>
Vinyl Chloride	2	1.0 U	<b>5.1</b>
<b>Metals Method 6010B (µg/L)</b>			
Copper, Total	200	25 U	---
Lead, Total	25	<b>9.5</b>	<b>3.5</b>
Nickel, Total	100	<b>1.4 B</b>	40 U
Zinc, Total	2000	<b>217</b>	<b>177</b>

<sup>(a)</sup> New York State Department of Environmental Conservation. 1998 (with updates). Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Class GA Groundwater Standards and Guidance Values

NOTE: µg/L = Micrograms per Liter

U = Not detected (method reporting limit provided)

B = Indicates >=method detection limit but < reporting limit

--- = Not analyzed

**Bold** values indicate detected concentration

Shaded values indicate exceedance of screening criteria

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**Appendix E**

**Operations and Maintenance  
Forms**

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EA Engineering P.C. and its Affiliate,  
EA Science and Technology

**OPERATIONS AND MAINTENANCE INSPECTION REPORT**  
Groundwater Pumping Stations - IRP Sites 10 and 13  
Niagara Falls Air Reserve Station

**Date of Inspection:** 26 June 2013                      **Weather:** Sunny, 75F  
**Names of EA Inspectors:** Rob Peterson, Frank DeSantis  
**Other Personnel Present/Company:** N/A

<b>Pumping Station Number</b>	<b>PW10-1</b>	<b>PW10-2</b>	<b>PW13-1</b>	<b>PW13-4D</b>
Previous Totalizer Reading (gals.)	52,415	N/A	40,910	242,140
Totalizer Reading (gals.)	58,866	N/A	60,587	261,789
Date/Time of Reading	06/26/13 @ 08:14	N/A	06/26/13 @ 08:52	06/26/13 @ 09:07
Water level depth (feet TOIC)	10.69	11.42	22.61	18.05
Total well depth (feet TOIC)	13.79	24.94	27.34	22.84
Date/Time of sample collection	N/A	N/A	06/26/13 @ 08:52	06/26/13 @ 09:10
Pump running at inspect.? (Y/N)	Y	N	N	N
Pressure during pumping (psig)	56	N/A	1.0	1.0
Flow rate (gpm)	6.5	N/A	6.6	4.0
<b>Condition Check Items (G = good, F = fair, P = poor; Y = yes, N = no, N/A = not applicable)</b>				
Enclosure (G/F/P)	G	G	G	G
Lock (G/F/P)	G	N/A	G	G
Concrete pad (G/F/P)	G	G	G	G
Are circuit breakers tripped? (Y/N)	N	N	N	N
Panel boards (G/F/P)	G	G	G	G
Electrical connections in well enclosure (G/F/P)	G	G	G	G
Run/Stop panel lights (G/P)	G	G	G	G
Trip test pump (Y/N/NA)	Y	Y	Y	Y
Evidence of leaks? (Y/N)	N	N	N	N
Is sump dry? (Y/N)	Y	N <sup>(a)</sup>	Y	Y
Is heater working? (Y/N/NA)	Y	N/A	Y	Y
Alarm conditions (describe)	NONE	N/A	NONE	NONE

Comments/Maintenance performed:

(a) ~1.0 feet of water in vault.

PW13-EFFL-JUNE13 metals composited in field @ 09:10  
Composite based on preceding 24-hr flow: PW13-1 557 gallons (50%)  
PW13-4D 553 gallons (50%)

**Key:**    gpm = Gallons per minute.                      gals = Gallons.                      N/A = Not applicable.  
          psig = Pounds per square inch, gauge.        TOIC = Top of inner casing.            G/F/P = Good/Fair/Poor



**OPERATIONS AND MAINTENANCE INSPECTION CHECKLIST**

Site 10 Groundwater Treatment Trailer

Niagara Falls Air Reserve Station

Date & time of inspection: 26 June 2013 @ 07:40 Weather: Sunny, 75F

Inspection personnel EA - Rob Peterson, Frank DeSantis

**Totalizer Readings**

	Date	Time	EQ Tank (Gallons)	Effluent Meter (Gal)
Previous Reading	05/22/13	08:02	6,615,720	86,565
Current Reading	06/26/13	07:41	6,669,872	119,146

**Effluent Sample Data**

Sample Date:	06/26/13	Analyses: <input checked="" type="checkbox"/> VOCs – 8260B <input checked="" type="checkbox"/> Metals – 6010B (Cu, Pb, Ni, Zn)
Sample Time:	0757	
Sample ID:	PW10-EFFL-JUNE13	

*If answers to inspection criteria are in shaded spaces, inspection personnel must provide corrective actions taken, as well as comments and/or recommendations.*

	Yes	No	Comments
<b>Trailer exterior:</b>			
Are there any signs of vandalism or burglary?		X	
Are there any signs of the trailer shifting, heaving, or settling?		X	
Are there any signs of damage to the vent stack?		X	
Are there any other signs of damage to the exterior of the trailer?		X	
Is the yard hydrant (potable water supply) operating properly?	X		
Are the trailer tie-down straps secure?	X		
Does outdoor GFCI outlet test and reset properly?	X		
Are outdoor flood lights functional?	X		
<b>Trailer interior:</b>			
Is there any standing water or signs of water damage?		X	
<b>Process piping:</b>			
Are there any signs of damage, failure, or stress that may compromise the integrity of either the interior process piping or the exterior connections?		X	
Are there any signs of damage, failure, or stress that may compromise the integrity of any valves?		X	
<b>Electrical and control panels:</b>			
Are there any signs of damage, failure, or stress that may compromise the integrity of the electrical panels?		X	
Do all green indicator lights on the main control panel illuminate during component operation?	X		
Are all control switches in the "AUTO" position? If no, explain.	X		
Are any red alarm indicator lights illuminated?		X	Specify:
Is the RP-2 elapsed time meter operational?	X		Reading: 784,251 Date/Time: 06/26/13 07:45
Is the system shut-down elapsed time meter operational?	X		Reading: 504.7 Date/Time: 06/26/13 07:45
Is the E-CON Kilowatt-hour meter operational?	X		Reading: 9.0.8.8 Date/Time: 06/26/13 07:45



**OPERATIONS AND MAINTENANCE INSPECTION CHECKLIST**  
**Site 10 Groundwater Treatment Trailer, Niagara Falls Air Reserve Station**

Date: 26 June 2013

*If answers to inspection criteria are in shaded spaces, inspection personnel must provide corrective actions taken, as well as comments and/or recommendations.*

	Yes	No	Comments
<b>Equalization tank/stripper sump tanks:</b>			
Are there any signs of damage, failure, or stress that may compromise the integrity of the tanks?		X	
<b>EQ tank feed pump:</b>			
Is the feed pump operating properly?	X		Sight glass (rotameter): <u>6.5</u> gpm
Are there any signs of damage or excessive wear to the pump, wiring, piping, or rotameter?		X	
<b>Cartridge filter:</b>			
Is the cartridge filter in use?		X	
<b>Antiscalant chemical metering system:</b>			
Is there an adequate amount of antiscalant chemical in the storage tank? [Provide the approximate chemical level.]	X		Tank level: <u>18</u> gallons
Is the antiscalant chemical metering pump operating properly?	X		Stroke: <u>40</u> Speed: <u>40</u>
Are there any signs of damage or excessive wear to the pump, tank, or lines?		X	
<b>Air stripper:</b>			
Is the air stripper blower operating properly?	X		Blower pressure: <u>9</u> inches H <sub>2</sub> O
Are there any leaks or other signs of damage to the stripper unit, vent pipe, or other pipe connections?		X	
<b>Stripper tank pump:</b>			
Is the stripper sump pump operating properly?	X		
Are there any signs of damage or excessive wear?		X	
<b>Activated carbon vessel:</b>			
Is the carbon vessel currently in use?		X	
<b>Effluent Flowmeter:</b>			
Is the flowmeter functioning?	X		Flow Rate: <u>7</u> gpm
<b>Pressure gauge readings:</b> PI 5-1: <u>0</u> psi PI 5-2: <u>N/A</u> psi PI 6: <u>0</u> psi			
<b>Electric heater</b> (for inspection during cold months only; if heater is not on during inspection, turn thermostat up until heater turns on; reset thermostat after inspection):			
Is the heater fan operating properly?	X		Air temperature: <u>74</u> °F
Is warm air coming out of heater?	X		
<b>Other Observations/Comments:</b>			
Antiscalant tank refilled to 45 gallons			

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