ENVIRONMENTAL AND REMEDIATION SERVICES

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TRANSMITTAL SHEET

To:	Mr. William D. Davis, LPG Senior Environmental Manager Indiana Department of Environmental Management Office of Land Quality / Underground Storage Tank Branch Leaking Underground Storage Tank Section 100 North Senate Avenue, IGCN 11th Floor - Room 1101 Indianapolis, Indiana 46204-2251	From:	Jon Lloyd Russ Schlukebir
Date:	02/03/2017	Sent Via:	Courier
Subject:	Belmont Food Mart (Active Conoco Branded Station) 2030 West Washington Street Indianapolis, Marion County, Indiana 46222 **IDEM FID: #6988** **IDEM LUST Incident: #2014-07-501** Golars Project: E-14011		

Copies	Item Description	Comments
2	Request for No-Further-Action (NFA) Status	2 Hardcopies & 1 CD

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February 3, 2017

Mr. William D. Davis, LPG
Senior Environmental Manager
Indiana Department of Environmental Management
Office of Land Quality / Underground Storage Tank Branch
Leaking Underground Storage Tank Section
100 North Senate Avenue, IGCN 11th Floor - Room 1101
Indianapolis, Indiana 46204-2251

Re: Request for No-Further-Action (NFA) Status
Belmont Food Mart (Active Conoco Branded Station)
2030 West Washington Street
Indianapolis, Marion County, Indiana 46222
IDEM LUST Incident: #2014-07-501
IDEM FID: #6988
Golars Project: E-14011

Dear Mr. Davis:

On behalf of Aman, LLC (Aman), Golars, LLC d/b/a Golars Environmental and Remediation Services (Golars), has prepared this *Request for a No-Further-Action (NFA) Status* for the Indiana Department of Environmental Management (IDEM) Leaking Underground Storage Tank (LUST) Incident #2014-07-501 associated with the above-referenced property (hereafter referred to as the "Site"). The following sections of this report provide the historical and current Site conditions and present the rationale for this NFA request.

Background

Belmont Food Mart is currently an operating Conoco branded retail petroleum station and convenience store located at 2030 West Washington Street (US 40) in Indianapolis, Center Township, Marion County, Indiana. The Site and surrounding area are presented on the United States Geological Survey (USGS) topographic map as **Figure 1**. The Site is located on the northeastern corner of Washington Street (US 40) and Belmont Avenue in a commercial/residential area in the west-central portion of the City of Indianapolis. The layout of the Site and surrounding properties are illustrated on a Site Vicinity Map as **Figure 2**. A Site Map illustrating known Site utilities, surface features, monitoring wells, and soil borings is included as **Figure 3**.

On July 11, 2014, a *UST System Product Line Closure Report* was submitted to the IDEM. The report confirmed the release of petroleum hydrocarbons present at the Site. Subsequently, the IDEM assigned LUST Incident #2014-07-501 to the release.

On August 12, 2014, an *Initial Site Characterization* (ISC) *Report* was submitted to the IDEM documenting subsurface investigation activities completed in July 2014. Soil and groundwater samples were analyzed for the following constituents-of-concern (COCs): volatile organic

compounds (VOCs) using United States Environmental Protection Agency (USEPA) SW-846 Test Method 5035A/8260 and lead using USEPA SW-846 Test Method 3050B/6010B. The laboratory analytical results revealed no petroleum hydrocarbon COCs were present in soil or groundwater samples above the respective IDEM *Remediation Closure Guide* (RCG) Screening Levels (SLs). Based on the lack of COCs present at the Site, Golars requested the IDEM grant NFA status to LUST Incident #2014-07-501.

On October 14, 2014, a *Site Characterization Approval No Further Action Denial* letter was issued by the IDEM. The letter requested three (3) additional quarters of groundwater monitoring be completed to account for seasonal data variation.

On September 23, 2016, a *Closure Strategy* was submitted to the IDEM. The letter documented completion of the three (3) requested groundwater monitoring events and requested one (1) additional quarter of groundwater monitoring be performed with accompanying Level IV Quality Assurance/Quality Control (QA/QC) to satisfy data validation requirements for Site closure sampling.

On November 1, 2016, via email, the IDEM approved the proposal to complete one (1) additional groundwater monitoring event with Level IV QA/QC and requested a formal NFA request be submitted upon completion of the final groundwater monitoring event.

Groundwater Sampling Methodology

On November 3, 2016, Golars collected water level measurements and sampled the entire groundwater monitoring well network (MW-1 through MW-3). A Site Map illustrating the locations of the monitoring wells is included as **Figure 3**.

Prior to obtaining water level measurements, expandable well caps for each groundwater monitoring well were removed to allow equilibration of the groundwater within the monitoring well casing for approximately 30 minutes. Water level measurements were obtained from the monitoring well network utilizing a properly decontaminated electronic water level indicator. The depth-to-water (DTW) was measured to the nearest 0.01 feet from a standardized mark at the top-of-casing (TOC) of each well. Groundwater elevation measurements from the Fourth Quarter 2016 monitoring activities are summarized in **Table 2**.

Using the DTW measurements, the volume of water (water column) contained in each monitoring well was calculated to determine the required purge volume. Approximately three (3) well volumes of water were removed from each well (unless noted) using a dedicated-disposable polyethylene (PE) bailer and twine.

After purging the monitoring wells, groundwater samples were collected using dedicated-disposable PE bailers. Each groundwater sample was transferred directly from the bailer into laboratory-supplied pre-preserved containers, labeled, placed directly into an insulated cooler with ice, and recorded on the chain-of-custody form. Once a sample was collected from each monitoring well, the disposable bailer and twine were then properly disposed.

Upon completion of sampling activities, samples were transported to LSAI Labs, LLC (LSAI) of Indianapolis, Indiana and submitted with appropriate chain-of-custody documentation for

laboratory analysis of VOCs using the USEPA SW-846 Test Method 5030B/8260B and total lead using the USEPA SW-846 Test Method 3020A/7010A.

As outlined in the IDEM's *Minimum Data Documentation Requirements*, Golars collected the following quality control (QC) samples during the groundwater sampling event. The samples are identified as follows:

Duplicate - One (1) duplicate groundwater sample was collected and analyzed for VOCs and total lead during the groundwater sampling event.

Matrix Spike/Matrix Spike Duplicate – One (1) groundwater sample was collected and analyzed for VOCs and total lead during field activities in order to cross check the accuracy and precision of the laboratory analysis method for that specific sample.

Trip Blank - A laboratory supplied trip blank sample was analyzed for VOCs. The trip blank sample was placed in the same cooler as the groundwater samples during the sampling activities and transport to the laboratory

The laboratory analysis with the number of sample containers used, size of the sample containers, and preservative materials in contained in the sample containers are presented in the table below:

Laboratory Analysis	Number of Containers	Container Description	Preservative
VOCs	3	40 milliliter (ml) vials	Hydrochloric Acid (HCl)
Total Lead	1	200 ml container	Nitric Acid (HNO_3)

The purge water and equipment decontamination water generated during the sampling activities was stored on-Site in a "Non-Hazardous" labeled Department of Transportation (DOT) approved 55-gallon steel drum(s) for future disposal at a licensed facility in accordance with local, state, and federal regulations.

Groundwater Analytical Results

Based on the water level measurements collected during the Fourth Quarter 2016 monitoring event the groundwater flow direction at the Site appears to be to the southeast (towards the White River located approximately 6,300 feet east of the Site), which is consistent with previous quarterly groundwater monitoring events flow data. A summary of historical groundwater elevation measurements are provided in **Table 2.** A groundwater potentiometric surface map for the Fourth Quarter 2016 monitoring event is included as **Figure 5**.

The groundwater laboratory analytical results were compared to the IDEM RCG Groundwater TAP SLs. Based on the laboratory analytical results of groundwater samples collected and analyzed during the Fourth Quarter 2016 sampling event, only total lead was detected above the IDEM RCG Groundwater TAP SL in monitoring well MW-1. No other dissolved petroleum hydrocarbon concentrations were reported above the respective IDEM RCG Groundwater TAP SLs. The trip blank sample analytical results reported dissolved petroleum hydrocarbon concentrations below the respective laboratory detection limits.

The Fourth Quarter 2016 groundwater laboratory analytical results are summarized in **Table 3**. Historical groundwater analytical results are summarized in **Table 4**. The Fourth Quarter 2016 groundwater analytical data is depicted on **Figure 6**. The Fourth Quarter 2016 groundwater monitoring event laboratory analytical report including full Level IV QA/QC with the supporting chain-of-custody documentation have been included in **Attachment A**.

Conclusions

On November 1, 2016, Golars received IDEM approval to conduct a final groundwater monitoring event with accompanying Level IV QA/QC to satisfy data validation requirements for Site closure sampling.

On November 3, 2016, Golars collected water level measurements and sampled the entire groundwater monitoring well network (MW-1 through MW-3). The groundwater laboratory analytical results were compared to the IDEM RCG Groundwater TAP SLs. Based on the laboratory analytical results of groundwater samples collected and analyzed during the Fourth Quarter 2016 sampling event, only total lead was detected above the IDEM RCG Groundwater TAP SL in monitoring well MW-1. No other dissolved petroleum hydrocarbon concentrations were reported above the respective IDEM RCG Groundwater TAP SLs. Due to the lack of dissolved petroleum hydrocarbons present at the Site, it is Golars opinion that the total lead detections in groundwater are likely naturally occurring and not related to IDEM LUST Incident #2014-07-501.

Based on both current and historic groundwater laboratory analytical results, Golars formally requests IDEM grant the Belmont Food Mart (Conoco Branded Station) NFA status and unconditional closure of LUST Incident #2014-07-501. Upon written IDEM approval granting NFA status for the Site, Golars will abandon the entire monitoring well network and submit an Indiana Department of Natural Resources (IDNR) *Well Abandonment Report* to both the IDEM and the IDNR.

Should you have any questions or need additional information, please contact either of the undersigned at 317-436-7053. Further correspondence to Golars regarding this project should be sent to idem@golars.com.

Respectfully submitted,

GOLARS LLC

Jon Lloyd, CHMM
Project Manager
jlloyd@golars.com

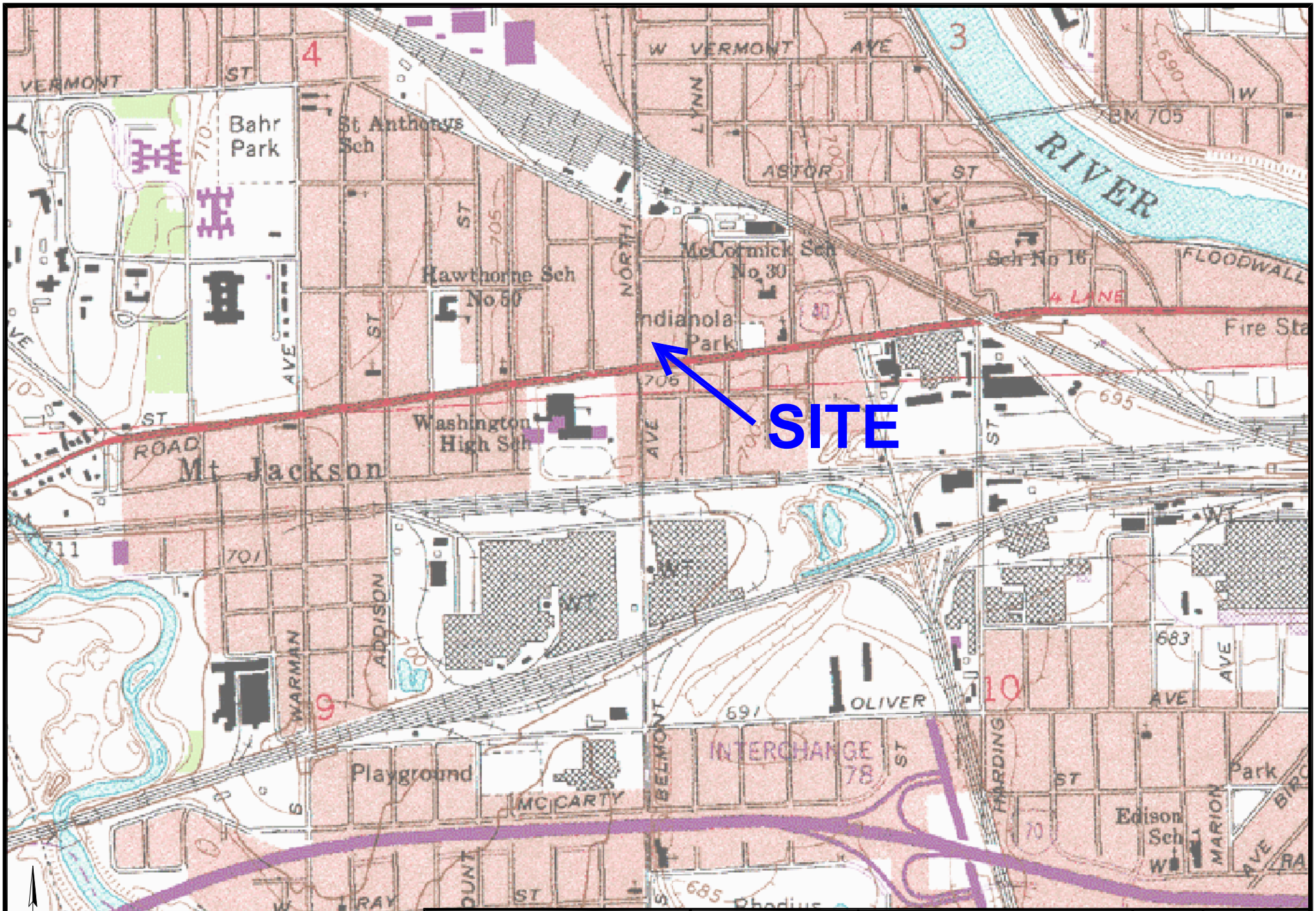
Russell J. Schlukebir
Senior Project Manager
rschlukebir@golars.com

Attachments:

A. Groundwater Laboratory Analytical Data and Chain-of-Custody Documentation with Level IV Data Package

Figures

Figure 1: Site Location/Topographic Map
Figure 2: Site Vicinity Map
Figure 3: Site Map
Figure 4: Soil Analytical Results Map
Figure 5: Groundwater Potentiometric Surface Map – Fourth Quarter 2016
Figure 6: Groundwater Analytical Results Map – Fourth Quarter 2016



Golars Environmental Services 15755 North Point Boulevard Noblesville, Indiana 46060	GOLARS	Site Location/Topographic Map	CHECKED: J. Lloyd	DATE: 12/29/16	FIGURE: 1
		Belmont Food Mart (Conoco) 2030 West Washington Street (US 40) Indianapolis, Indiana 4622	DRAWN: M. Wathen TopoMap	PROJECT NO. E-14011

LEGEND:

PROPERTY BOUNDARY

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Noblesville, Indiana 46060

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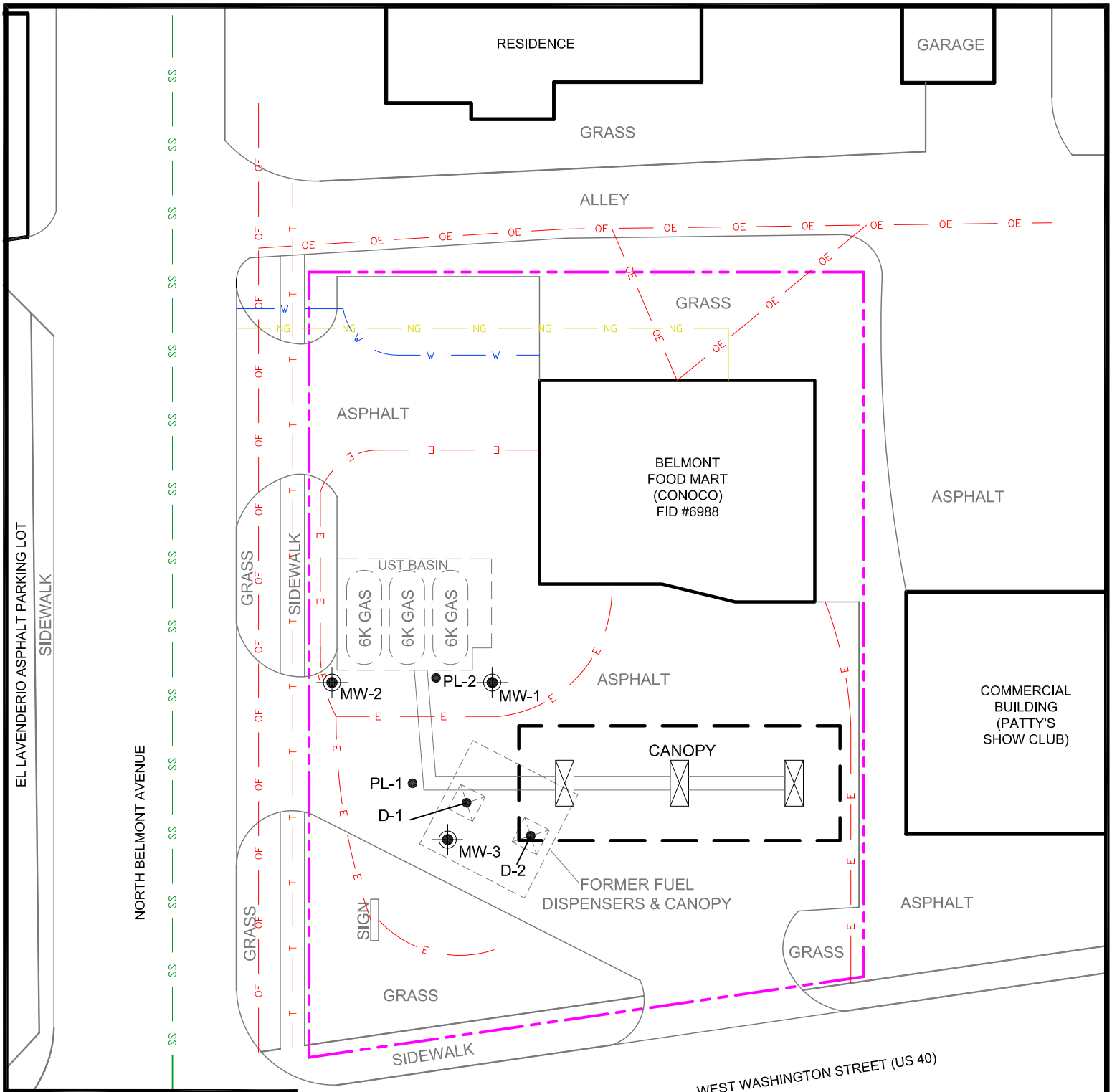
Site Vicinity Map	CHECKED: J. Lloyd	DATE: 12/29/16	FIGURE: 2
Belmont Food Mart (Conoco) 2030 West Washington Street (US 40) Indianapolis, Indiana 46222	DRAWN: M. Wathen SiteVicinity	PROJECT NO. E-14011	

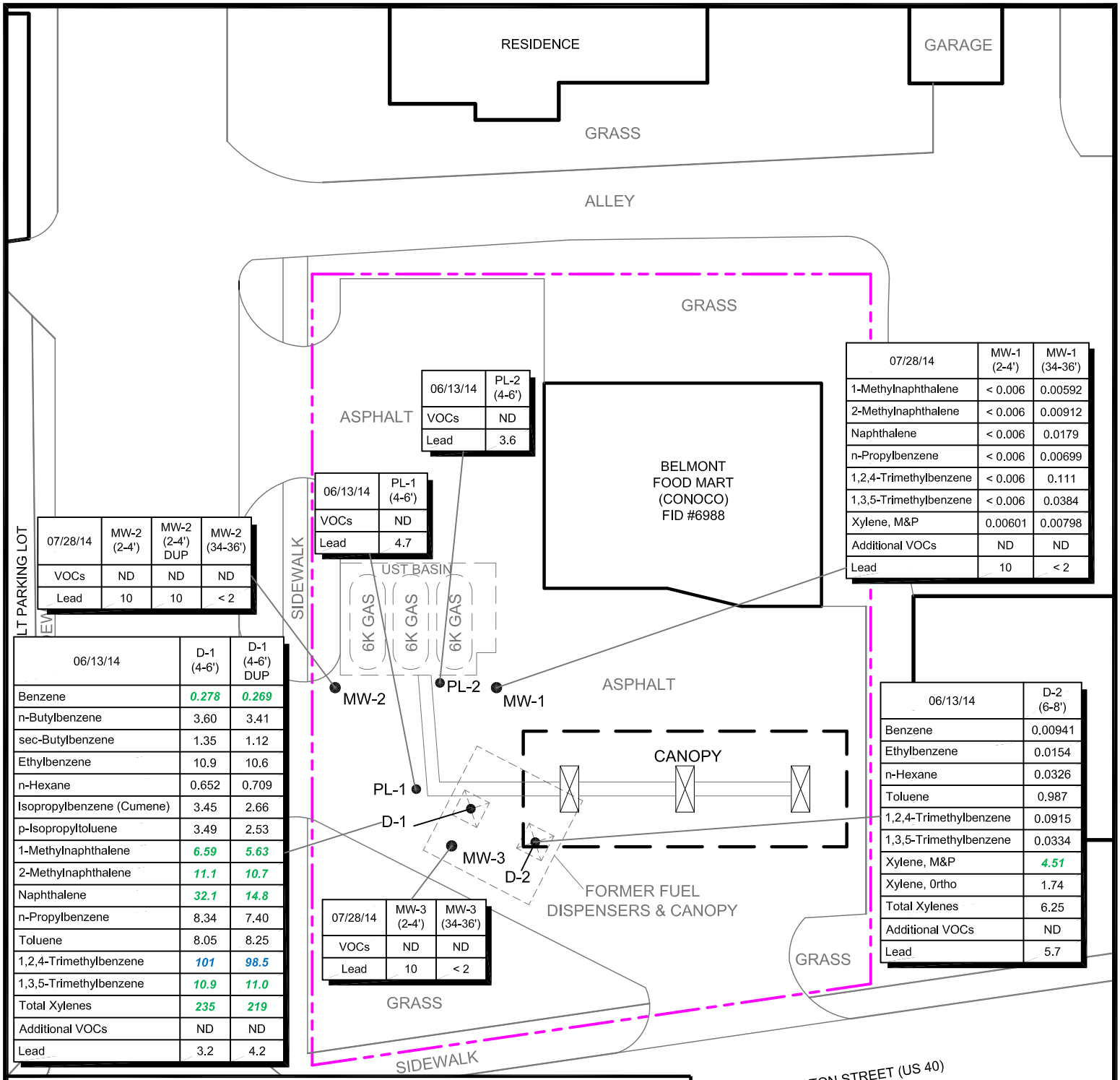


LEGEND:

- PROPERTY BOUNDARY
- OE — OVERHEAD ELECTRIC LINE
- E — ELECTRIC LINE
- W — WATER LINE
- NG — GAS LINE
- T — COMMUNICATION LINE
- SS — SANITARY SEWER LINE
- PL-1, D-2 • — SOIL BORING
- MW-1 — SOIL BORING CONVERTED TO MONITORING WELL
- FUEL DISPENSERS
- (6K GAS) — UST, CAPACITY, CONTENT

0 30'
GRAPHIC SCALE

Golars Environmental Services 15755 North Point Boulevard Noblesville, Indiana 46060	GOLARS	Site Map	CHECKED: J. Lloyd	DATE: 12/29/16	FIGURE: 3
		Belmont Food Mart (Conoco) 2030 West Washington Street (US 40) Indianapolis, Indiana 46222	DRAWN: M. Wathen SiteMap	PROJECT NO. E-14011



06/13/14	PL-2 (4-6')
VOCs	ND
Lead	3.6

06/13/14	PL-1 (4-6')
VOCs	ND
Lead	4.7

07/28/14	MW-2 (2-4')	MW-2 (2-4') DUP	MW-2 (34-36')
VOCs	ND	ND	ND
Lead	10	10	< 2

07/28/14	MW-1 (2-4')	MW-1 (34-36')
1-Methylnaphthalene	< 0.006	0.00592
2-Methylnaphthalene	< 0.006	0.00912
Naphthalene	< 0.006	0.0179
n-Propylbenzene	< 0.006	0.00699
1,2,4-Trimethylbenzene	< 0.006	0.111
1,3,5-Trimethylbenzene	< 0.006	0.0384
Xylene, M&P	0.00601	0.00798
Additional VOCs	ND	ND
Lead	10	< 2

06/13/14	D-1 (4-6')	D-1 (4-6') DUP
Benzene	***0.278***	***0.269***
n-Butylbenzene	3.60	3.41
sec-Butylbenzene	1.35	1.12
Ethylbenzene	10.9	10.6
n-Hexane	0.652	0.709
Isopropylbenzene (Cumene)	3.45	2.66
p-Isopropyltoluene	3.49	2.53
1-Methylnaphthalene	***6.59***	***5.63***
2-Methylnaphthalene	***11.1***	***10.7***
Naphthalene	***32.1***	***14.8***
n-Propylbenzene	8.34	7.40
Toluene	8.05	8.25
1,2,4-Trimethylbenzene	***101***	***98.5***
1,3,5-Trimethylbenzene	***10.9***	***11.0***
Total Xylenes	***235***	***219***
Additional VOCs	ND	ND
Lead	3.2	4.2

06/13/14	D-2 (6-8')
Benzene	0.00941
Ethylbenzene	0.0154
n-Hexane	0.0326
Toluene	0.987
1,2,4-Trimethylbenzene	0.0915
1,3,5-Trimethylbenzene	0.0334
Xylene, M&P	***4.51***
Xylene, 0rtho	1.74
Total Xylenes	6.25
Additional VOCs	ND
Lead	5.7

07/28/14	MW-3 (2-4')	MW-3 (34-36')
VOCs	ND	ND
Lead	10	< 2

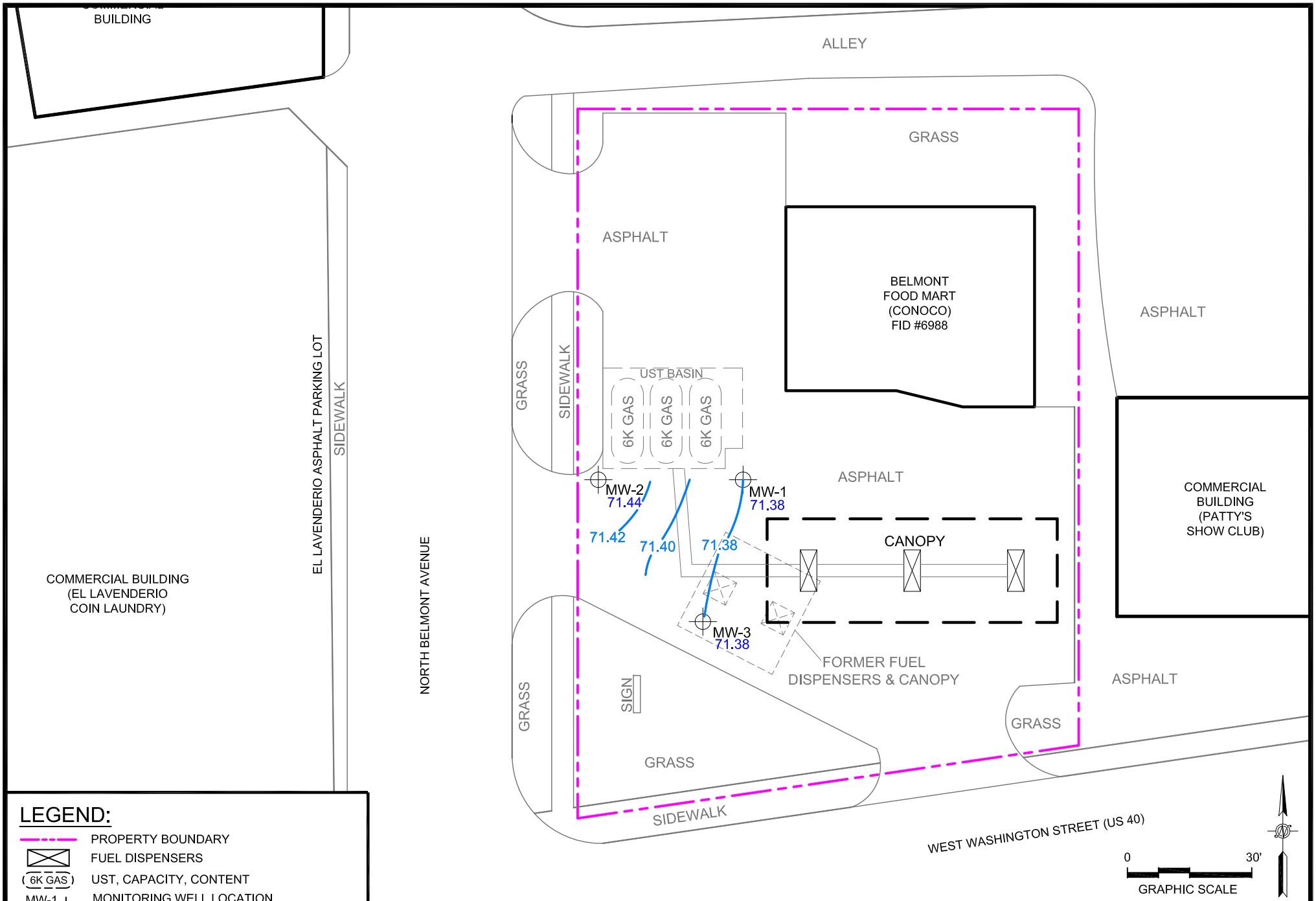
LEGEND:

- PROPERTY BOUNDARY
- MW-1 ● SOIL BORING LOCATION
- DISPENSERS
- (6K GAS) UST, CAPACITY, CONTENT

NOTES:
Soil results are presented in Milligrams per Kilogram (mg/kg)
Constituents not analyzed or detected below lab detection limits are not presented
ND - Non-detect VOCs - Volatile Organic Chemicals
RCG Screening Levels per IDEM Remediation Closure Guide with corrections through July 9, 2012 - Appendix A/Table A-6: IDEM OLQ 2016 Screening Levels (Revised March 7, 2016)
Analytical results above RCG Soil MTG screening levels are ***bolded, italicized, and green***
Analytical results above RCG Direct Contact: Residential screening levels are ***bolded, italicized, and blue***
Analytical results above RCG Direct Contact: Commercial/Industrial screening levels are **bolded and red**
Analytical results above RCG Direct Contact: Excavation screening levels are **bolded and purple**

0 30'
GRAPHIC SCALE

Golars Environmental Services, 15755 North Point Boulevard, Noblesville, Indiana 46060	Soil Analytical Results Map	CHECKED: J. Lloyd	DATE: 12/29/16	FIGURE: 4
	Belmont Food Mart (Conoco), 2030 West Washington Street (US 40), Indianapolis, Indiana 46222	DRAWN: M. Wathen SoilMap	PROJECT NO. E-14011	



LEGEND:

- PROPERTY BOUNDARY
- FUEL DISPENSERS
- (6K GAS) UST, CAPACITY, CONTENT
- MW-1 71.15 MONITORING WELL LOCATION AND RELATIVE GW ELEVATION
- 71.15 INTERPRETED GROUNDWATER CONTOUR

NOTE: Groundwater elevation measurements for the Fourth Quarter 2016 were collected on November 3, 2016.

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Noblesville, Indiana 46060

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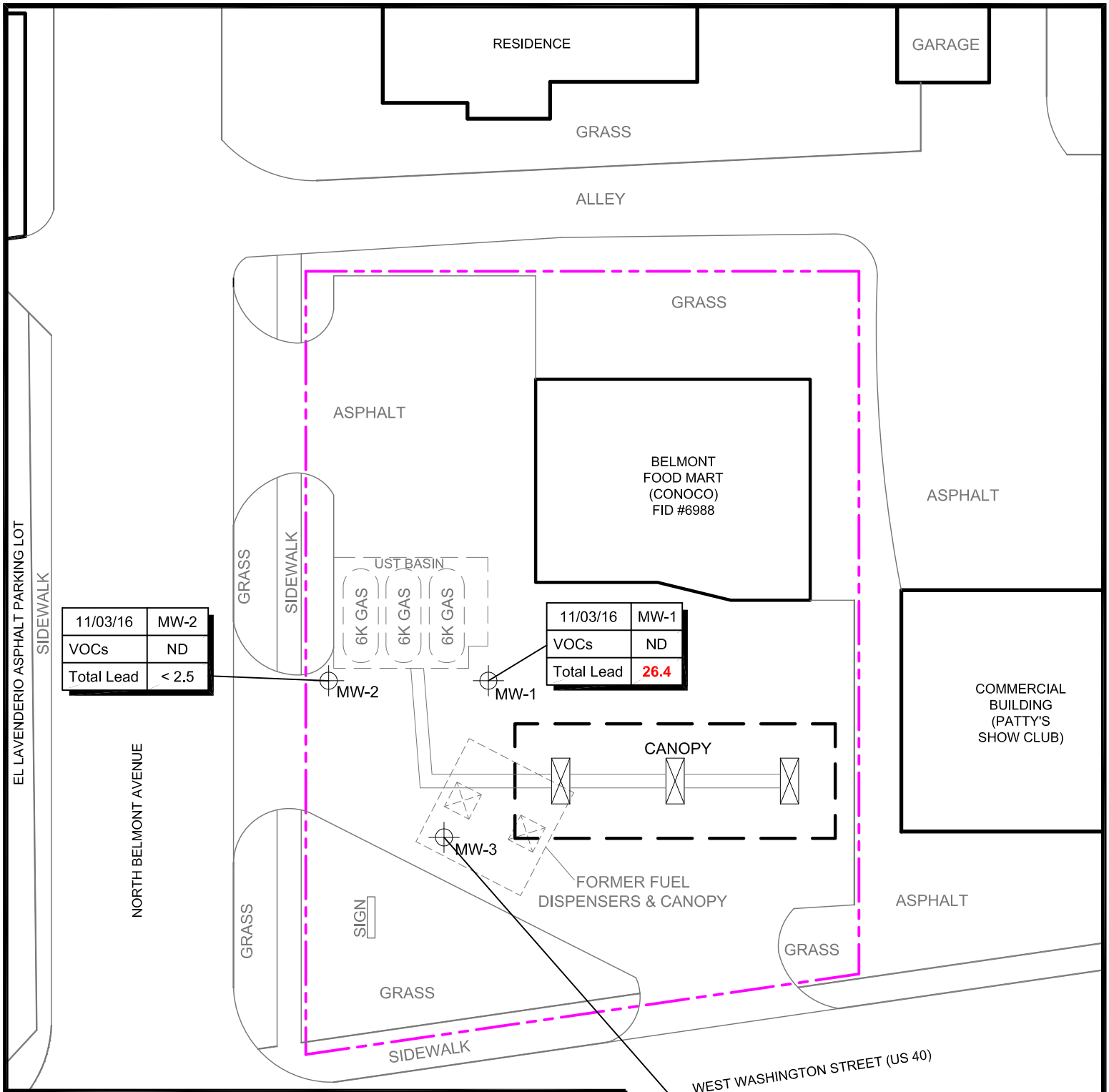
Groundwater Potentiometric Surface Map - Fourth Quarter 2016	CHECKED: J. Lloyd	DATE: 12/29/16	FIGURE: 5
Belmont Food Mart (Conoco) 2030 West Washington Street (US 40) Indianapolis, Indiana 46222	DRAWN: M. Wathen PotMap	PROJECT NO. E-14011	



11/03/16	MW-2
VOCs	ND
Total Lead	< 2.5

11/03/16	MW-1
VOCs	ND
Total Lead	**26.4**

11/03/16	MW-3	MW-3 DUP
VOCs	ND	ND
Total Lead	9.8	13.9

LEGEND:

- PROPERTY BOUNDARY
- MW-1 MONITORING WELL LOCATION
- FUEL DISPENSERS
- 6K GAS UST, CAPACITY, CONTENT

NOTES:
Results are presented in Micrograms per Liter (µg/L)
ND - Non detect
VOCs - Volatile Organic Chemicals
Constituents not analyzed or detected below lab detection limits are not presented
Analytical results above RCG TAP screening levels are **bolded and red**
RCG Screening Levels per IDEM Remediation Closure Guide with corrections through July 9, 2012 - Appendix A/Tables A-6: IDEM OLQ 2016 Screening Levels (Revised March 7, 2016)

0 30'
GRAPHIC SCALE

Golars Environmental Services, 15755 North Point Boulevard, Noblesville, Indiana 46060	Groundwater Analytical Results Map - Fourth Quarter 2016	CHECKED: J. Lloyd	DATE: 12/29/16	FIGURE: 6
	Belmont Food Mart (Conoco) 2030 West Washington Street (US 40) Indianapolis, Indiana 46222	DRAWN: M. Wathen GW Map	PROJECT NO. E-14011	

Tables

Table 1: Summary of Soil Analytical Results
Table 2: Summary of Groundwater Elevation Data
Table 3: Summary of Groundwater Analytical Results – Fourth Quarter 2016
Table 4: Summary of Historical Groundwater Analytical Results

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS

BELMONT FOOD MART (CONOCO)
2030 WEST WASHINGTON STREET (US 40), INDIANAPOLIS, INDIANA 46222

Sample No.	IDEM RCG Soil MTG	IDEM RCG Direct Contact: Residential	IDEM RCG Direct Contact: Commercial/ Industrial	IDEM RCG Direct Contact: Excavation	D-1 (4-6')	D-1 (4-6') DUP	D-2 (6-8')	PL-1 (4-6')	PL-2 (4-6')	MW-1 (2-4')	MW-1 (34-36')
Date Sampled					06/13/14	06/13/14	06/13/14	06/13/14	06/13/14	07/28/14	07/28/14
Volatiles	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acetone	57	85,000	100,000	100,000	< 5.32	< 5.26	< 0.104	< 0.105	< 0.104	< 0.119	< 0.109
Acrolein	0.00017	0.2	0.6	3.4	< 0.00904	< 0.00895	< 0.00018	< 0.00018	< 0.00018	< 0.00020	< 0.00018
Acrylonitrile	0.0023	3.5	11	370	< 0.106	< 0.105	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Benzene	0.051	17	51	1,800	0.278	0.269	0.00941	< 0.005	< 0.005	< 0.006	< 0.005
Bromobenzene	0.84	410	680	680	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Bromochloromethane	0.41	210	630	3,500	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Bromodichloromethane	0.43	4.1	13	930	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Bromoform	0.42	270	860	920	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Bromomethane	0.038	9.5	30	160	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
n-Butanol	8.3	7,600	7,600	7,600	< 2.66	< 2.63	< 0.052	< 0.053	< 0.052	< 0.060	< 0.054
2-Butanone (MEK)	23	28,000	28,000	28,000	< 0.532	< 0.526	< 0.010	< 0.011	< 0.010	< 0.012	< 0.011
n-Butylbenzene	64	110	110	110	3.60	3.41	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
sec-Butylbenzene	120	150	150	150	1.35	1.12	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
tert-Butylbenzene	31	180	180	180	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Carbon Disulfide	4.8	740	740	740	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Carbon Tetrachloride	0.039	9.1	29	460	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Chlorobenzene	1.4	390	760	760	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Chloroethane	NA	NA	NA	NA	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
2-Chloroethylvinylether	NA	NA	NA	NA	< 2.66	< 2.63	< 0.052	< 0.053	< 0.052	< 0.060	< 0.054
Chloroform	0.44	4.5	14	1,900	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Chloromethane	0.98	150	460	1,300	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
2-Chlorotoluene	4.7	910	910	910	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
4-Chlorotoluene	4.8	250	250	250	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,2-Dibromo-3-chloropropane	0.0017	0.074	0.64	86	< 0.0904	< 0.0895	< 0.0018	< 0.0018	< 0.0018	< 0.0020	< 0.0018
Dibromochloromethane	0.43	120	390	800	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,2-Dibromoethane (EDB)	0.00028	0.5	1.6	180	< 0.0149	< 0.0147	< 0.00029	< 0.00029	< 0.00029	< 0.00033	< 0.00030
Dibromomethane	0.041	34	99	550	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,2-Dichlorobenzene	12	380	380	380	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,3-Dichlorobenzene	NA	NA	NA	NA	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,4-Dichlorobenzene	1.4	36	110	16,000	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
trans-1,4-Dichloro-2-butene	0.00012	0.1	0.32	44	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Dichlorodifluoromethane	6	120	370	850	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,1-Dichloroethane	0.16	50	160	1,700	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,2-Dichloroethane	0.028	6.4	20	730	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,1-Dichloroethene	0.05	320	1,000	1,200	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
cis-1,2-Dichloroethene	0.41	220	2,300	2,400	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
trans-1,2-Dichloroethene	0.62	1900	1,900	1,900	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,2-Dichloropropane	0.033	14	44	370	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,3-Dichloropropane	2.6	1,500	1,500	1,500	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS

BELMONT FOOD MART (CONOCO)
2030 WEST WASHINGTON STREET (US 40), INDIANAPOLIS, INDIANA 46222

Sample No.	IDEM RCG Soil MTG	IDEM RCG Direct Contact: Residential	IDEM RCG Direct Contact: Commercial/ Industrial	IDEM RCG Direct Contact: Excavation	D-1 (4-6')	D-1 (4-6') DUP	D-2 (6-8')	PL-1 (4-6')	PL-2 (4-6')	MW-1 (2-4')	MW-1 (34-36')
Date Sampled					06/13/14	06/13/14	06/13/14	06/13/14	06/13/14	07/28/14	07/28/14
Volatiles	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
2,2-Dichloropropane	NA	NA	NA	NA	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,1-Dichloropropene	NA	NA	NA	NA	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,3-Dichloropropene	0.034	25	82	1,600	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Ethylbenzene	16	81	250	480	10.9	10.6	0.0154	< 0.005	< 0.005	< 0.006	< 0.005
Ethyl methacrylate	3	1,100	1,100	1,100	< 5.32	< 5.26	< 0.104	< 0.105	< 0.104	< 0.119	< 0.109
Hexachloro-1,3-butadiene	0.12	87	300	1800	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
n-Hexane	210	140	140	140	0.652	0.709	0.0326	< 0.011	< 0.010	< 0.012	< 0.011
2-Hexanone	0.18	280	1,300	3,300	< 0.532	< 0.526	< 0.010	< 0.011	< 0.010	< 0.012	< 0.011
Iodomethane	NA	NA	NA	NA	< 0.532	< 0.526	< 0.010	< 0.011	< 0.010	< 0.012	< 0.011
Isopropylbenzene (Cumene)	15	270	270	270	3.45	2.66	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
p-Isopropyltoluene	NA	NA	NA	NA	3.49	2.53	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Methylene chloride	0.025	490	3,200	3,300	< 1.06	< 1.05	< 0.021	< 0.021	< 0.021	< 0.006	< 0.022
4-Methyl-2-pentanone (MIBK)	5.4	3,400	3,400	3,400	< 0.532	< 0.526	< 0.010	< 0.011	< 0.010	< 0.006	< 0.011
Methyl-tertiary-butyl-ether	0.63	660	2,100	8,900	< 0.180	< 0.180	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1-Methylnaphthalene	1.2	250	390	390	6.59	5.63	< 0.005	< 0.005	< 0.005	< 0.006	0.00592
2-Methylnaphthalene	3.7	340	3,000	6,800	11.1	10.7	< 0.005	< 0.005	< 0.005	< 0.006	0.00912
Naphthalene	0.11	53	170	3,100	32.1	14.8	< 0.005	< 0.005	< 0.005	< 0.006	0.0179
n-Propylbenzene	25	260	260	260	8.34	7.40	< 0.005	< 0.005	< 0.005	< 0.006	0.00699
Styrene	2.2	870	870	870	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,1,1,2-Tetrachloroethane	0.043	28	88	680	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,1,2,2-Tetrachloroethane	0.0059	8.4	27	1,900	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Tetrachloroethene	0.045	110	170	170	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Toluene	14	820	820	820	8.05	8.25	0.987	< 0.005	< 0.005	< 0.006	< 0.005
1,2,3-Trichlorobenzene	0.42	88	930	1,600	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,2,4-Trichlorobenzene	4.1	81	260	400	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,1,1-Trichloroethane	1.4	640	640	640	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,1,2-Trichloroethane	0.032	2.1	6.3	35	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Trichloroethene	0.036	5.7	19	95	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
Trichlorofluoromethane	66	1,200	1,200	1,200	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,2,3-Trichloropropane	0.000065	0.071	1.1	46	< 0.266	< 0.263	< 0.005	< 0.005	< 0.005	< 0.006	< 0.005
1,2,4-Trimethylbenzene	0.44	81	220	220	101	98.5	0.0915	< 0.005	< 0.005	< 0.006	0.111
1,3,5-Trimethylbenzene	3.4	180	180	180	10.9	11.0	0.0334	< 0.005	< 0.005	< 0.006	0.0384
Vinyl acetate	1.7	1,300	2,800	2,800	< 0.532	< 0.526	< 0.010	< 0.011	< 0.010	< 0.012	< 0.011
Vinyl chloride	0.014	0.83	17	1,300	< 0.106	< 0.105	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Xylene, M&P	3.7	390	390	390	173	161	4.51	< 0.005	< 0.005	0.00601	0.00798
Xylene, 0rtho	3.7	430	430	430	62.0	57.8	1.74	< 0.005	< 0.005	< 0.006	< 0.005
Total Xylenes	200	260	260	260	235	219	6.25	< 0.011	< 0.010	< 0.012	< 0.011
Metals	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	270	560	800	NA	3.2	4.2	5.7	4.7	3.6	10	< 2

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS

BELMONT FOOD MART (CONOCO)
2030 WEST WASHINGTON STREET (US 40), INDIANAPOLIS, INDIANA 46222

Sample No.	IDEM RCG Soil MTG	IDEM RCG Direct Contact: Residential	IDEM RCG Direct Contact: Commercial/ Industrial	IDEM RCG Direct Contact: Excavation	MW-2 (2-4')	MW-2 (2-4') DUP	MW-2 (34-36')	MW-3 (2-4')	MW-3 (34-36')
Date Sampled					07/28/14	07/28/14	07/28/14	07/28/14	07/28/14
Volatiles	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acetone	57	85,000	100,000	100,000	< 0.130	< 0.125	< 0.109	< 0.125	< 0.106
Acrolein	0.00017	0.2	0.6	3.4	< 0.00022	< 0.00021	< 0.00018	< 0.00021	< 0.00018
Acrylonitrile	0.0023	3.5	11	370	< 0.003	< 0.003	< 0.002	< 0.003	< 0.002
Benzene	0.051	17	51	1,800	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Bromobenzene	0.84	410	680	680	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Bromochloromethane	0.41	210	630	3,500	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Bromodichloromethane	0.43	4.1	13	930	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Bromoform	0.42	270	860	920	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Bromomethane	0.038	9.5	30	160	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
n-Butanol	8.3	7,600	7,600	7,600	< 0.065	< 0.063	< 0.054	< 0.063	< 0.053
2-Butanone (MEK)	23	28,000	28,000	28,000	< 0.013	< 0.013	< 0.011	< 0.013	< 0.011
n-Butylbenzene	64	110	110	110	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
sec-Butylbenzene	120	150	150	150	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
tert-Butylbenzene	31	180	180	180	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Carbon Disulfide	4.8	740	740	740	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Carbon Tetrachloride	0.039	9.1	29	460	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Chlorobenzene	1.4	390	760	760	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Chloroethane	NA	NA	NA	NA	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
2-Chloroethylvinylether	NA	NA	NA	NA	< 0.065	< 0.063	< 0.054	< 0.063	< 0.053
Chloroform	0.44	4.5	14	1,900	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Chloromethane	0.98	150	460	1,300	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
2-Chlorotoluene	4.7	910	910	910	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
4-Chlorotoluene	4.8	250	250	250	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,2-Dibromo-3-chloropropane	0.0017	0.074	0.64	86	< 0.0022	< 0.0021	< 0.0018	< 0.0021	< 0.0018
Dibromochloromethane	0.43	120	390	800	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,2-Dibromoethane (EDB)	0.00028	0.5	1.6	180	< 0.00036	< 0.00035	< 0.00030	< 0.00035	< 0.00030
Dibromomethane	0.041	34	99	550	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,2-Dichlorobenzene	12	380	380	380	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,3-Dichlorobenzene	NA	NA	NA	NA	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,4-Dichlorobenzene	1.4	36	110	16,000	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
trans-1,4-Dichloro-2-butene	0.00012	0.1	0.32	44	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Dichlorodifluoromethane	6	120	370	850	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,1-Dichloroethane	0.16	50	160	1,700	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,2-Dichloroethane	0.028	6.4	20	730	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,1-Dichloroethene	0.05	320	1,000	1,200	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
cis-1,2-Dichloroethene	0.41	220	2,300	2,400	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
trans-1,2-Dichloroethene	0.62	1900	1,900	1,900	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,2-Dichloropropane	0.033	14	44	370	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,3-Dichloropropane	2.6	1,500	1,500	1,500	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS

BELMONT FOOD MART (CONOCO)
2030 WEST WASHINGTON STREET (US 40), INDIANAPOLIS, INDIANA 46222

Sample No.	IDEM RCG Soil MTG	IDEM RCG Direct Contact: Residential	IDEM RCG Direct Contact: Commercial/ Industrial	IDEM RCG Direct Contact: Excavation	MW-2 (2-4')	MW-2 (2-4') DUP	MW-2 (34-36')	MW-3 (2-4')	MW-3 (34-36')
Date Sampled					07/28/14	07/28/14	07/28/14	07/28/14	07/28/14
Volatiles	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
2,2-Dichloropropane	NA	NA	NA	NA	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,1-Dichloropropene	NA	NA	NA	NA	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,3-Dichloropropene	0.034	25	82	1,600	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Ethylbenzene	16	81	250	480	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Ethyl methacrylate	3	1,100	1,100	1,100	< 0.130	< 0.125	< 0.109	< 0.125	< 0.106
Hexachloro-1,3-butadiene	0.12	87	300	1800	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
n-Hexane	210	140	140	140	< 0.013	< 0.013	< 0.011	< 0.013	< 0.011
2-Hexanone	0.18	280	1,300	3,300	< 0.013	< 0.013	< 0.011	< 0.013	< 0.011
Iodomethane	NA	NA	NA	NA	< 0.013	< 0.013	< 0.011	< 0.013	< 0.011
Isopropylbenzene (Cumene)	15	270	270	270	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
p-Isopropyltoluene	NA	NA	NA	NA	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Methylene chloride	0.025	490	3,200	3,300	< 0.026	< 0.025	< 0.022	< 0.025	< 0.021
4-Methyl-2-pentanone (MIBK)	5.4	3,400	3,400	3,400	< 0.013	< 0.013	< 0.011	< 0.013	< 0.011
Methyl-tertiary-butyl-ether	0.63	660	2,100	8,900	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1-Methylnaphthalene	1.2	250	390	390	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
2-Methylnaphthalene	3.7	340	3,000	6,800	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Naphthalene	0.11	53	170	3,100	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
n-Propylbenzene	25	260	260	260	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Styrene	2.2	870	870	870	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,1,1,2-Tetrachloroethane	0.043	28	88	680	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,1,2,2-Tetrachloroethane	0.0059	8.4	27	1,900	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Tetrachloroethene	0.045	110	170	170	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Toluene	14	820	820	820	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,2,3-Trichlorobenzene	0.42	88	930	1,600	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,2,4-Trichlorobenzene	4.1	81	260	400	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,1,1-Trichloroethane	1.4	640	640	640	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,1,2-Trichloroethane	0.032	2.1	6.3	35	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Trichloroethene	0.036	5.7	19	95	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Trichlorofluoromethane	66	1,200	1,200	1,200	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,2,3-Trichloropropane	0.000065	0.071	1.1	46	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,2,4-Trimethylbenzene	0.44	81	220	220	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
1,3,5-Trimethylbenzene	3.4	180	180	180	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Vinyl acetate	1.7	1,300	2,800	2,800	< 0.013	< 0.013	< 0.011	< 0.013	< 0.011
Vinyl chloride	0.014	0.83	17	1,300	< 0.003	< 0.003	< 0.002	< 0.003	< 0.002
Xylene, M&P	3.7	390	390	390	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Xylene, 0rtho	3.7	430	430	430	< 0.006	< 0.006	< 0.005	< 0.006	< 0.005
Total Xylenes	200	260	260	260	< 0.013	< 0.013	< 0.011	< 0.013	< 0.011
Metals	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lead	270	560	800	NA	10	10	< 2	10	< 2

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS

BELMONT FOOD MART (CONOCO)
2030 WEST WASHINGTON STREET (US 40), INDIANAPOLIS, INDIANA 46222

User Notes:

RCG Screening Levels per IDEM Remediation Closure Guide with corrections through July 9, 2012 - Appendix A/Table A-6: IDEM OLQ 2016 Screening Levels
Analytical results above RCG MTG Screening Levels are ***bolded, italicized, and green***
Analytical results above RCG Direct Contact Residential Screening Levels are ***bolded, italicized, and blue***
Analytical results above RCG Direct Contact Commercial/Industrial Screening Levels are **bolded and red**
Analytical results above RCG Direct Contact Excavation Screening Levels are ***bolded, italicized, and purple***
mg/kg - milligrams per kilogram

TABLE 2
SUMMARY OF GROUNDWATER ELEVATION DATA

BELMONT FOOD MART (CONOCO)
2030 WEST WASHINGTON STREET (US 40), INDIANAPOLIS, INDIANA 46222

Well Name	Installation Date	On-Site/ Off-Site	Date Measured	Ground Surface Elevation (ft)	Top of Casing Elevation (ft)	Well Depth (ft)	Top of Screen Elevation (ft)	Bottom of Well Elevation (ft)	Static Water Level from Top of Casing (ft)	Potentiometric Surface Elevation (ft)	Hydrocarbon Thickness (ft)	Corrected Potentiometric Surface Elevation (ft)	Well Screen Elevation Intervals (ft)
MW-1	07/28/14	On	07/30/14	98.23	97.87	35.13	72.74	62.74	26.72	71.15	0.00	71.15	72.74-62.74
			02/26/16	98.23	97.87	35.13	72.74	62.74	28.35	69.52	0.00	69.52	72.74-62.74
			04/15/16	98.23	97.87	35.13	72.74	62.74	27.70	70.17	0.00	70.17	72.74-62.74
			07/19/16	98.23	97.87	35.13	72.74	62.74	26.82	71.05	0.00	71.05	72.74-62.74
			11/03/16	98.23	97.87	35.13	72.74	62.74	26.49	71.38	0.00	71.38	72.74-62.74
MW-2	07/28/14	On	07/30/14	97.72	97.42	35.10	72.32	62.32	26.23	71.19	0.00	71.19	72.32-62.32
			02/26/16	97.72	97.42	35.10	72.32	62.32	27.84	69.58	0.00	69.58	72.32-62.32
			04/15/16	97.72	97.42	35.10	72.32	62.32	27.21	70.21	0.00	70.21	72.32-62.32
			07/19/16	97.72	97.42	35.10	72.32	62.32	26.31	71.11	0.00	71.11	72.32-62.32
			11/03/16	97.72	97.42	35.10	72.32	62.32	25.98	71.44	0.00	71.44	72.32-62.32
MW-3	07/28/14	On	07/30/14	97.87	97.40	35.05	72.35	62.35	26.26	71.14	0.00	71.14	72.35-62.35
			02/26/16	97.87	97.40	35.05	72.35	62.35	27.88	69.52	0.00	69.52	72.35-62.35
			04/15/16	97.87	97.40	35.05	72.35	62.35	27.26	70.14	0.00	70.14	72.35-62.35
			07/19/16	97.87	97.40	35.05	72.35	62.35	26.36	71.04	0.00	71.04	72.35-62.35
			11/03/16	97.87	97.40	35.05	72.35	62.35	26.02	71.38	0.00	71.38	72.35-62.35

User Notes:

MW = Monitoring Well

ft = feet

NA = Not Applicable

Groundwater elevation above screen elevations are ***bolded***

Water/hydrocarbon level measurements are recorded to 0.01 ft. accuracy

Specific gravity of hydrocarbons (S.G.) = 0.73

Note: Corrected Potentiometric Surface Elevation = (Top of Casing)-(Static Water Level from Top of Casing)+[(S.G.)(Hydrocarbon Thickness)]*

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - FOURTH QUARTER 2016

BELMONT FOOD MART (CONOCO)
2030 WEST WASHINGTON STREET (US 40), INDIANAPOLIS, INDIANA 46222

Sample No.	IDEM RCG TAP	MW-1	MW-2	MW-3	MW-3 DUP	TRIP BLANK
Date Sampled		11/03/16	11/03/16	11/03/16	11/03/16	11/03/16
On-Site/Off-Site		On	On	On	On	NA
Acetone	14,000	< 120	< 120	< 120	< 120	< 120
Acrolein	0.042	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Acrylonitrile	0.52	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromobenzene	62	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	83	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	80	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Bromomethane	7.5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
n-Butanol	2,000	< 50	< 50	< 50	< 50	< 50
2-Butanone (MEK)	5,600	< 10	< 10	< 10	< 10	< 10
n-Butylbenzene	1,000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	2,000	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
tert-Butylbenzene	690	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon Disulfide	810	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Chloroethylvinylether	NA	< 50	< 50	< 50	< 50	< 50
Chloroform	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	190	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	240	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	250	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	0.2	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Dibromochloromethane	80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane (EDB)	0.05	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromomethane	8.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	600	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	75	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,4-Dichloro-2-butene	0.013	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Dichlorodifluoromethane	200	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	28	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	70	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,3-Dichloropropane	370	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2,2-Dichloropropane	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,3-Dichloropropene	4.7	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	700	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethyl methacrylate	630	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Hexachloro-1,3-butadiene	3	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
n-Hexane	630	< 10	< 10	< 10	< 10	< 10

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - FOURTH QUARTER 2016

BELMONT FOOD MART (CONOCO)
2030 WEST WASHINGTON STREET (US 40), INDIANAPOLIS, INDIANA 46222

Sample No.	IDEM RCG TAP	MW-1	MW-2	MW-3	MW-3 DUP	TRIP BLANK
Date Sampled		11/03/16	11/03/16	11/03/16	11/03/16	11/03/16
On-Site/Off-Site		On	On	On	On	NA
2-Hexanone	**38**	< 10	< 10	< 10	< 10	< 10
Iodomethane	**NA**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Isopropylbenzene (Cumene)	**450**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	**NA**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene chloride	**5**	< 20	< 20	< 20	< 20	< 20
4-Methyl-2-pentanone (MIBK)	**6,300**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-tert-butyl-ether	**140**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1-methylnaphthalene	**11**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-methylnaphthalene	**36**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	**1.7**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
n-Propylbenzene	**660**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	**100**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	**5.7**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	**0.76**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	**5**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	**1,000**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2,3-Trichlorobenzene	**7**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	**70**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	**200**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	**5**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	**5**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Trichlorofluoromethane	**5,200**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2,3-Trichloropropane	**0.0075**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,2,4-Trimethylbenzene	**15**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	**120**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl acetate	**410**	< 10	< 10	< 10	< 10	< 10
Vinyl chloride	**2**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene, M&P	**190**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Xylene, Ortho	**190**	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Xylenes	**10,000**	< 10	< 10	< 10	< 10	< 10
Metals	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Total Lead	**15**	**26.4**	< 2.5	9.8	13.9	NA

User Notes:

RCG Screening Levels per IDEM Remediation Closure Guide with corrections through July 9, 2012 - Appendix A/Table A-6: IDEM OLQ 2016 Screening Levels

Analytical results above RCG screening levels are **bolded and red**

All results presented in µg/L (micrograms per liter)

NA - not analyzed

TABLE 4
SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS

BELMONT FOOD MART (CONOCO)
2030 WEST WASHINGTON STREET (US 40), INDIANAPOLIS, INDIANA 46222

Sample ID	On-Site/ Off-Site	Date Sampled	VOCs											Metals
			Benzene	Chloroform	Ethylbenzene	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylene, M&P	Xylene, Ortho	Total Xylenes	Additional VOCs	Total Lead
IDEM RCG TAP			**5**	**80**	**700**	**660**	**1,000**	**15**	**120**	**190**	**190**	**10,000**	**-**	**15**
GW-1	On-Site	06/13/14	**14.7**	< 5	32.7	5.57	192	**17.5**	6.67	127	63.2	190	ND	< 10
MW-1	On-Site	07/30/14	< 5	5.32	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND	< 10
		02/26/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	**334.0**
		04/15/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	**352**
		07/19/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	**146**
		11/03/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	**26.4**
MW-2	On-Site	07/30/14	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND	< 10
		02/26/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	< 2.5
		04/15/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	**52.7**
		07/19/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	**16.5**
		11/03/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	< 2.5
MW-3	On-Site	07/30/14	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND	< 10
		02/26/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	**29.4**
		04/15/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	**17.4**
		07/19/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	**15.4**
		11/03/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	9.8
MW-3 DUP	On-Site	07/30/14	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND	< 10
		02/26/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	**30.8**
		04/15/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	14.6
		07/19/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	12.7
		11/03/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	13.9
TRIP BLANK	NA	06/13/14	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND	NA
		07/30/14	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND	NA
		02/26/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	NA
		04/15/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	NA
		07/19/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	NA
		11/03/16	< 5.0	< 1.0	< 5.0	< 1.0	< 5.0	< 1.0	< 1.0	< 5.0	< 5.0	< 10	ND	NA

User Notes:

RCG Screening Levels per IDEM Remediation Closure Guide with corrections through July 9, 2012 - Appendix A/Table A-6: IDEM OLQ 2016 Screening Levels

Analytical results above RCG screening levels are ***bolded and red***

All results presented in ug/L - micrograms per liter

VOCs - Volatile Organic Compounds

ND - Non Detect

NA - Not Analyzed

Attachment A

Groundwater Laboratory Analytical Data
&
Chain-of-Custody Documentation

LSAI Labs, LLC (LSAI) Analytical Report

Samples 16-5261 to 16-5267 - dated November 18, 2016 (Level IV QA/QC)

LSAI Labs, LLC
8444 Castlewood Drive, Suite 800
Indianapolis IN 46250
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Lab Solutions for AnalyticalTesting & Issues

Golars, LLC
15755 North Point Blvd.
Noblesville, IN 46060

November 18, 2016

Client Project Name: E-14011n / Indianapolis, IN

Dear Client,

We are pleased to provide the attached analytical report(s) for the samples received November 3, 2016. All testing was performed as requested on the enclosed chain of custody. All methods cited were executed in full compliance with local, state, and EPA regulations. All control data met QA/QC criteria as outlined in EPA methodology. Please review the flag sections for any and all deviations from the Quality Control Data and Procedures.

LSAI Labs utilized the following EPA methodologies to perform the volatile organics (VOCs) and lead (Pb) assay in ground water. Preservation technique referenced in table 4-1 of SW-846; sample preparation via 5030B and 3020A; and sample analysis was performed using GC/MS and GFAAS via 8260B and 7010A respectively.

Please contact me with any questions, concerns, or comments regarding the attached analytical report.

Thank you for your business. We are committed to providing Lab Solutions and Services for your upcoming Analytical Testing needs and Issues.

Sincerely,

Ken Kaufman

Laboratory Manager
LSAI Labs, LLC

UDOH Lab Code: IN018112016-4

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FLAGS & DEFINITIONS

FLAGS & QUALIFIERS

B	Analyte detected in the blank
C	Result confirmed by reanalysis
DF	Dilution Factor: represents factor applied to sample aliquot due to a dilution 1 - reported result is a 2X dilution; 2 - reported result is a 5X dilution; 3 – reported result is a 10X dilution; 4 – reported result is a 20X dilution; 5 – reported result is a 25X dilution; 6 – reported result is a 50X dilution; 7 – reported result is a 100X dilution; 8 – reported result is a 250X dilution; 9 – reported result is a 500X dilution; 10 – reported result is a 1000X dilution; 11 – reported result is a 2500X dilution .
E	Concentration exceeds calibration range
J	Estimated value J1. ≥ Method Detection Limit (MDL) & < Limit of Quantitation (LOQ) or Reporting Limit (RL) J2. Estimated due to presence of interference
U	Analyzed for but not detected
N	Indicates presumptive evidence of a compound
P	Post-analysis pH measurement indicates insufficient VOA sample preservation.
R	Recovery outside control limits
R1	RPD value outside control limits
Rd	Duplicate analysis outside control limits

DEFINITIONS

RL: Reporting Limit
LCS: Laboratory Control Sample
MS: Matrix Spike
DUP: Sample Duplicate
ND: none detected
ppm: parts per million
TNI: The NELAC Institute
BMQL: Below Minimum Quantitation Level
LCS (D): Laboratory Control Sample Duplicate
MSD: Matrix Spike Duplicate
RPD: Relative Percent Difference
MPN: Most Probable Number
ppb: parts per billion
S: Surrogate

Note: A critical step involved in environmental analysis is the sample collection. It is required by the client that the submitted sample is truly representative of the replicate(s) and/or bulk material.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Lab Solutions for AnalyticalTesting & Issues

CERTIFICATE OF ANALYSIS

Sample Submission Description

Customer Name:	Golars, LLC	Project ID:	E-14011n	
Customer Address:	15755 North Point Blvd.	Site Name:	Belmont Food Mart	
	Noblesville	Site Location:	Indianapolis, IN	
	IN 46060	Sample Collected By:	Nathan Fish	
Sample Field ID:	MW-1	Sample Collection Date/Time:	11/3/2016	11:35
LSAI Sample ID:	16-5261	Sample Receipt Date/Time:	11/3/2016	15:39

Sample Analysis Description

Analytical Method:	EPA 8260B	Analytical Batch:	06NOV2016	
Preparation Method:	EPA 5030B	Analysis Date/Time:	11/7/2016	4:50
Sample Matrix:	Ground Water	Analyst:	NPR	

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
Acetone	< 120	120	
Acrolein	< 1.0	1.0	
Acrylonitrile	< 1.0	1.0	
Benzene	< 5.0	5.0	
Bromobenzene	< 1.0	1.0	
Bromochloromethane	< 1.0	1.0	
Bromodichloromethane	< 1.0	1.0	
Bromoform	< 5.0	5.0	
Bromomethane	< 5.0	5.0	
n-Butanol	< 50	50	
2-Butanone (MEK)	< 10	10	
n-Butylbenzene	< 1.0	1.0	
sec-Butylbenzene	< 1.0	1.0	
tert-Butylbenzene	< 1.0	1.0	
Carbon Disulfide	< 5.0	5.0	
Carbon Tetrachloride	< 1.0	1.0	
Chlorobenzene	< 1.0	1.0	
Chloroethane	< 5.0	5.0	
2-Chloroethylvinylether	< 50	50	
Chloroform	< 1.0	1.0	
Chloromethane	< 1.0	1.0	
2-Chlorotoluene	< 1.0	1.0	
4-Chlorotoluene	< 1.0	1.0	
1,2-Dibromo-3-chloropropane	< 5.0	5.0	
Dibromochloromethane	< 1.0	1.0	
1,2-Dibromoethane (EDB)	< 1.0	1.0	
Dibromomethane	< 1.0	1.0	
1,2-Dichlorobenzene	< 1.0	1.0	

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LSAI SAMPLE ID continued 16-5261

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
1,3-Dichlorobenzene	< 1.0	1.0	
1,4-Dichlorobenzene	< 1.0	1.0	
trans-1,4-Dichloro-2-butene	< 5.0	5.0	
Dichlorodifluoromethane	< 1.0	1.0	
1,1-Dichloroethane	< 1.0	1.0	
1,2-Dichloroethane	< 1.0	1.0	
1,1-Dichloroethene	< 1.0	1.0	
cis-1,2-Dichloroethene	< 1.0	1.0	
trans-1,2-Dichloroethene	< 5.0	5.0	
1,2-Dichloropropane	< 5.0	5.0	
1,3-Dichloropropane	< 1.0	1.0	
2,2-Dichloropropane	< 1.0	1.0	
1,1-Dichloropropene	< 5.0	5.0	
1,3-Dichloropropene	< 5.0	5.0	
Ethylbenzene	< 5.0	5.0	
Ethylmethacrylate	< 1.0	1.0	
Hexachloro-1,3-butadiene	< 5.0	5.0	
n-Hexane	< 10	10	
2-Hexanone	< 10	10	
Iodomethane	< 5.0	5.0	
Isopropylbenzene (Cumene)	< 1.0	1.0	
p-Isopropyltoluene	< 1.0	1.0	
Methylene chloride	< 20	20	
4-Methyl-2-pentanone (MIBK)	< 1.0	1.0	
Methyl tert-butyl ether (MTBE)	< 5.0	5.0	
1-Methylnaphthalene	< 1.0	1.0	
2-Methylnaphthalene	< 1.0	1.0	
Naphthalene	< 1.0	1.0	
n-Propylbenzene	< 1.0	1.0	
Styrene	< 1.0	1.0	
1,1,1,2-Tetrachloroethane	< 1.0	1.0	
1,1,2,2-Tetrachloroethane	< 1.0	1.0	
Tetrachloroethene	< 1.0	1.0	
Toluene	< 5.0	5.0	
1,2,3-Trichlorobenzene	< 1.0	1.0	
1,2,4-Trichlorobenzene	< 1.0	1.0	
1,1,1-Trichloroethane	< 5.0	5.0	
1,1,2-Trichloroethane	< 1.0	1.0	
Trichloroethene	< 5.0	5.0	

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CERTIFICATE OF ANALYSIS

Lab Solutions for AnalyticalTesting & Issues

LSAI SAMPLE ID continued 16-5261

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
Trichlorofluoromethane	< 5.0	5.0	
1,2,3-Trichloropropane	< 5.0	5.0	
1,2,4-Trimethylbenzene	< 1.0	1.0	
1,3,5-Trimethylbenzene	< 1.0	1.0	
Vinyl acetate	< 10	10	
Vinyl chloride	< 1.0	1.0	
Xylene M&P	< 5.0	5.0	
Xylene Ortho	< 5.0	5.0	
Total Xylenes	< 10	10	

QA/QC

Surrogates	% Recovery	Flags
Dibromofluoromethane	105%	
1,2-Dichloroethane-d4	102%	
Toluene-d8	99.9%	
4-bromofluorobenzene	97.4%	

Sample Analysis Description

Analytical Method:	EPA 7010A	Analytical Batch:	Pb_11Nov16
Preparation Method:	EPA 3020A	Analysis Date/Time:	11/11/2016 13:38
Sample Matrix:	Ground Water	Analyst:	KJK

Analyte	Results (ppb)	Reporting Limit (ppb)	Flags
Lead	26.4	2.5	

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Lab Solutions for AnalyticalTesting & Issues

CERTIFICATE OF ANALYSIS

Sample Submission Description

Customer Name:	Golars, LLC	Project ID:	E-14011n	
Customer Address:	15755 North Point Blvd.	Site Name:	Belmont Food Mart	
	Noblesville	Site Location:	Indianapolis, IN	
	IN 46060	Sample Collected By:	Nathan Fish	
Sample Field ID:	MW-2	Sample Collection Date/Time:	11/3/2016	11:40
LSAI Sample ID:	16-5262	Sample Receipt Date/Time:	11/3/2016	15:39

Sample Analysis Description

Analytical Method:	EPA 8260B	Analytical Batch:	06NOV2016	
Preparation Method:	EPA 5030B	Analysis Date/Time:	11/7/2016	5:12
Sample Matrix:	Ground Water	Analyst:	NPR	

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
Acetone	< 120	120	
Acrolein	< 1.0	1.0	
Acrylonitrile	< 1.0	1.0	
Benzene	< 5.0	5.0	
Bromobenzene	< 1.0	1.0	
Bromochloromethane	< 1.0	1.0	
Bromodichloromethane	< 1.0	1.0	
Bromoform	< 5.0	5.0	
Bromomethane	< 5.0	5.0	
n-Butanol	< 50	50	
2-Butanone (MEK)	< 10	10	
n-Butylbenzene	< 1.0	1.0	
sec-Butylbenzene	< 1.0	1.0	
tert-Butylbenzene	< 1.0	1.0	
Carbon Disulfide	< 5.0	5.0	
Carbon Tetrachloride	< 1.0	1.0	
Chlorobenzene	< 1.0	1.0	
Chloroethane	< 5.0	5.0	
2-Chloroethylvinylether	< 50	50	
Chloroform	< 1.0	1.0	
Chloromethane	< 1.0	1.0	
2-Chlorotoluene	< 1.0	1.0	
4-Chlorotoluene	< 1.0	1.0	
1,2-Dibromo-3-chloropropane	< 5.0	5.0	
Dibromochloromethane	< 1.0	1.0	
1,2-Dibromoethane (EDB)	< 1.0	1.0	
Dibromomethane	< 1.0	1.0	
1,2-Dichlorobenzene	< 1.0	1.0	

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LSAI SAMPLE ID continued 16-5262

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
1,3-Dichlorobenzene	< 1.0	1.0	
1,4-Dichlorobenzene	< 1.0	1.0	
trans-1,4-Dichloro-2-butene	< 5.0	5.0	
Dichlorodifluoromethane	< 1.0	1.0	
1,1-Dichloroethane	< 1.0	1.0	
1,2-Dichloroethane	< 1.0	1.0	
1,1-Dichloroethene	< 1.0	1.0	
cis-1,2-Dichloroethene	< 1.0	1.0	
trans-1,2-Dichloroethene	< 5.0	5.0	
1,2-Dichloropropane	< 5.0	5.0	
1,3-Dichloropropane	< 1.0	1.0	
2,2-Dichloropropane	< 1.0	1.0	
1,1-Dichloropropene	< 5.0	5.0	
1,3-Dichloropropene	< 5.0	5.0	
Ethylbenzene	< 5.0	5.0	
Ethylmethacrylate	< 1.0	1.0	
Hexachloro-1,3-butadiene	< 5.0	5.0	
n-Hexane	< 10	10	
2-Hexanone	< 10	10	
Iodomethane	< 5.0	5.0	
Isopropylbenzene (Cumene)	< 1.0	1.0	
p-Isopropyltoluene	< 1.0	1.0	
Methylene chloride	< 20	20	
4-Methyl-2-pentanone (MIBK)	< 1.0	1.0	
Methyl tert-butyl ether (MTBE)	< 5.0	5.0	
1-Methylnaphthalene	< 1.0	1.0	
2-Methylnaphthalene	< 1.0	1.0	
Naphthalene	< 1.0	1.0	
n-Propylbenzene	< 1.0	1.0	
Styrene	< 1.0	1.0	
1,1,1,2-Tetrachloroethane	< 1.0	1.0	
1,1,2,2-Tetrachloroethane	< 1.0	1.0	
Tetrachloroethene	< 1.0	1.0	
Toluene	< 5.0	5.0	
1,2,3-Trichlorobenzene	< 1.0	1.0	
1,2,4-Trichlorobenzene	< 1.0	1.0	
1,1,1-Trichloroethane	< 5.0	5.0	
1,1,2-Trichloroethane	< 1.0	1.0	
Trichloroethene	< 5.0	5.0	

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LSAI SAMPLE ID continued 16-5262

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
Trichlorofluoromethane	< 5.0	5.0	
1,2,3-Trichloropropane	< 5.0	5.0	
1,2,4-Trimethylbenzene	< 1.0	1.0	
1,3,5-Trimethylbenzene	< 1.0	1.0	
Vinyl acetate	< 10	10	
Vinyl chloride	< 1.0	1.0	
Xylene M&P	< 5.0	5.0	
Xylene Ortho	< 5.0	5.0	
Total Xylenes	< 10	10	

QA/QC

Surrogates	% Recovery	Flags
Dibromofluoromethane	105%	
1,2-Dichloroethane-d4	102%	
Toluene-d8	100%	
4-bromofluorobenzene	98.6%	

Sample Analysis Description

Analytical Method:	EPA 7010A	Analytical Batch:	Pb_11Nov16
Preparation Method:	EPA 3020A	Analysis Date/Time:	11/11/2016 13:38
Sample Matrix:	Ground Water	Analyst:	KJK

Analyte	Results (ppb)	Reporting Limit (ppb)	Flags
Lead	< 2.5	2.5	

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CERTIFICATE OF ANALYSIS

Sample Submission Description

Customer Name:	Golars, LLC	Project ID:	E-14011n	
Customer Address:	15755 North Point Blvd.	Site Name:	Belmont Food Mart	
	Noblesville	Site Location:	Indianapolis, IN	
	IN 46060	Sample Collected By:	Nathan Fish	
Sample Field ID:	MW-3	Sample Collection Date/Time:	11/3/2016	11:45
LSAI Sample ID:	16-5263	Sample Receipt Date/Time:	11/3/2016	15:39

Sample Analysis Description

Analytical Method:	EPA 8260B	Analytical Batch:	06NOV2016	
Preparation Method:	EPA 5030B	Analysis Date/Time:	11/7/2016	5:34
Sample Matrix:	Ground Water	Analyst:	NPR	

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
Acetone	< 120	120	
Acrolein	< 1.0	1.0	
Acrylonitrile	< 1.0	1.0	
Benzene	< 5.0	5.0	
Bromobenzene	< 1.0	1.0	
Bromochloromethane	< 1.0	1.0	
Bromodichloromethane	< 1.0	1.0	
Bromoform	< 5.0	5.0	
Bromomethane	< 5.0	5.0	
n-Butanol	< 50	50	
2-Butanone (MEK)	< 10	10	
n-Butylbenzene	< 1.0	1.0	
sec-Butylbenzene	< 1.0	1.0	
tert-Butylbenzene	< 1.0	1.0	
Carbon Disulfide	< 5.0	5.0	
Carbon Tetrachloride	< 1.0	1.0	
Chlorobenzene	< 1.0	1.0	
Chloroethane	< 5.0	5.0	
2-Chloroethylvinylether	< 50	50	
Chloroform	< 1.0	1.0	
Chloromethane	< 1.0	1.0	
2-Chlorotoluene	< 1.0	1.0	
4-Chlorotoluene	< 1.0	1.0	
1,2-Dibromo-3-chloropropane	< 5.0	5.0	
Dibromochloromethane	< 1.0	1.0	
1,2-Dibromoethane (EDB)	< 1.0	1.0	
Dibromomethane	< 1.0	1.0	
1,2-Dichlorobenzene	< 1.0	1.0	

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LSAI SAMPLE ID continued 16-5263

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
1,3-Dichlorobenzene	< 1.0	1.0	
1,4-Dichlorobenzene	< 1.0	1.0	
trans-1,4-Dichloro-2-butene	< 5.0	5.0	
Dichlorodifluoromethane	< 1.0	1.0	
1,1-Dichloroethane	< 1.0	1.0	
1,2-Dichloroethane	< 1.0	1.0	
1,1-Dichloroethene	< 1.0	1.0	
cis-1,2-Dichloroethene	< 1.0	1.0	
trans-1,2-Dichloroethene	< 5.0	5.0	
1,2-Dichloropropane	< 5.0	5.0	
1,3-Dichloropropane	< 1.0	1.0	
2,2-Dichloropropane	< 1.0	1.0	
1,1-Dichloropropene	< 5.0	5.0	
1,3-Dichloropropene	< 5.0	5.0	
Ethylbenzene	< 5.0	5.0	
Ethylmethacrylate	< 1.0	1.0	
Hexachloro-1,3-butadiene	< 5.0	5.0	
n-Hexane	< 10	10	
2-Hexanone	< 10	10	
Iodomethane	< 5.0	5.0	
Isopropylbenzene (Cumene)	< 1.0	1.0	
p-Isopropyltoluene	< 1.0	1.0	
Methylene chloride	< 20	20	
4-Methyl-2-pentanone (MIBK)	< 1.0	1.0	
Methyl tert-butyl ether (MTBE)	< 5.0	5.0	
1-Methylnaphthalene	< 1.0	1.0	
2-Methylnaphthalene	< 1.0	1.0	
Naphthalene	< 1.0	1.0	
n-Propylbenzene	< 1.0	1.0	
Styrene	< 1.0	1.0	
1,1,1,2-Tetrachloroethane	< 1.0	1.0	
1,1,2,2-Tetrachloroethane	< 1.0	1.0	
Tetrachloroethene	< 1.0	1.0	
Toluene	< 5.0	5.0	
1,2,3-Trichlorobenzene	< 1.0	1.0	
1,2,4-Trichlorobenzene	< 1.0	1.0	
1,1,1-Trichloroethane	< 5.0	5.0	
1,1,2-Trichloroethane	< 1.0	1.0	
Trichloroethene	< 5.0	5.0	

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LSAI SAMPLE ID continued 16-5263

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
Trichlorofluoromethane	< 5.0	5.0	
1,2,3-Trichloropropane	< 5.0	5.0	
1,2,4-Trimethylbenzene	< 1.0	1.0	
1,3,5-Trimethylbenzene	< 1.0	1.0	
Vinyl acetate	< 10	10	
Vinyl chloride	< 1.0	1.0	
Xylene M&P	< 5.0	5.0	
Xylene Ortho	< 5.0	5.0	
Total Xylenes	< 10	10	

QA/QC

Surrogates	% Recovery	Flags
Dibromofluoromethane	107%	
1,2-Dichloroethane-d4	103%	
Toluene-d8	100%	
4-bromofluorobenzene	97.9%	

Sample Analysis Description

Analytical Method:	EPA 7010A	Analytical Batch:	Pb_11Nov16
Preparation Method:	EPA 3020A	Analysis Date/Time:	11/11/2016 13:38
Sample Matrix:	Ground Water	Analyst:	KJK

Analyte	Results (ppb)	Reporting Limit (ppb)	Flags
Lead	9.8	2.5	

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CERTIFICATE OF ANALYSIS

Sample Submission Description

Customer Name:	Golars, LLC	Project ID:	E-14011n	
Customer Address:	15755 North Point Blvd.	Site Name:	Belmont Food Mart	
	Noblesville	Site Location:	Indianapolis, IN	
	IN 46060	Sample Collected By:	Nathan Fish	
Sample Field ID:	DUP	Sample Collection Date/Time:	11/3/2016	
LSAI Sample ID:	16-5266	Sample Receipt Date/Time:	11/3/2016	15:39

Sample Analysis Description

Analytical Method:	EPA 8260B	Analytical Batch:	06NOV2016	
Preparation Method:	EPA 5030B	Analysis Date/Time:	11/7/2016	5:55
Sample Matrix:	Ground Water	Analyst:	NPR	

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
Acetone	< 120	120	
Acrolein	< 1.0	1.0	
Acrylonitrile	< 1.0	1.0	
Benzene	< 5.0	5.0	
Bromobenzene	< 1.0	1.0	
Bromochloromethane	< 1.0	1.0	
Bromodichloromethane	< 1.0	1.0	
Bromoform	< 5.0	5.0	
Bromomethane	< 5.0	5.0	
n-Butanol	< 50	50	
2-Butanone (MEK)	< 10	10	
n-Butylbenzene	< 1.0	1.0	
sec-Butylbenzene	< 1.0	1.0	
tert-Butylbenzene	< 1.0	1.0	
Carbon Disulfide	< 5.0	5.0	
Carbon Tetrachloride	< 1.0	1.0	
Chlorobenzene	< 1.0	1.0	
Chloroethane	< 5.0	5.0	
2-Chloroethylvinylether	< 50	50	
Chloroform	< 1.0	1.0	
Chloromethane	< 1.0	1.0	
2-Chlorotoluene	< 1.0	1.0	
4-Chlorotoluene	< 1.0	1.0	
1,2-Dibromo-3-chloropropane	< 5.0	5.0	
Dibromochloromethane	< 1.0	1.0	
1,2-Dibromoethane (EDB)	< 1.0	1.0	
Dibromomethane	< 1.0	1.0	
1,2-Dichlorobenzene	< 1.0	1.0	

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LSAI SAMPLE ID continued 16-5266

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
1,3-Dichlorobenzene	< 1.0	1.0	
1,4-Dichlorobenzene	< 1.0	1.0	
trans-1,4-Dichloro-2-butene	< 5.0	5.0	
Dichlorodifluoromethane	< 1.0	1.0	
1,1-Dichloroethane	< 1.0	1.0	
1,2-Dichloroethane	< 1.0	1.0	
1,1-Dichloroethene	< 1.0	1.0	
cis-1,2-Dichloroethene	< 1.0	1.0	
trans-1,2-Dichloroethene	< 5.0	5.0	
1,2-Dichloropropane	< 5.0	5.0	
1,3-Dichloropropane	< 1.0	1.0	
2,2-Dichloropropane	< 1.0	1.0	
1,1-Dichloropropene	< 5.0	5.0	
1,3-Dichloropropene	< 5.0	5.0	
Ethylbenzene	< 5.0	5.0	
Ethylmethacrylate	< 1.0	1.0	
Hexachloro-1,3-butadiene	< 5.0	5.0	
n-Hexane	< 10	10	
2-Hexanone	< 10	10	
Iodomethane	< 5.0	5.0	
Isopropylbenzene (Cumene)	< 1.0	1.0	
p-Isopropyltoluene	< 1.0	1.0	
Methylene chloride	< 20	20	
4-Methyl-2-pentanone (MIBK)	< 1.0	1.0	
Methyl tert-butyl ether (MTBE)	< 5.0	5.0	
1-Methylnaphthalene	< 1.0	1.0	
2-Methylnaphthalene	< 1.0	1.0	
Naphthalene	< 1.0	1.0	
n-Propylbenzene	< 1.0	1.0	
Styrene	< 1.0	1.0	
1,1,1,2-Tetrachloroethane	< 1.0	1.0	
1,1,2,2-Tetrachloroethane	< 1.0	1.0	
Tetrachloroethene	< 1.0	1.0	
Toluene	< 5.0	5.0	
1,2,3-Trichlorobenzene	< 1.0	1.0	
1,2,4-Trichlorobenzene	< 1.0	1.0	
1,1,1-Trichloroethane	< 5.0	5.0	
1,1,2-Trichloroethane	< 1.0	1.0	
Trichloroethene	< 5.0	5.0	

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LSAI SAMPLE ID continued 16-5266

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
Trichlorofluoromethane	< 5.0	5.0	
1,2,3-Trichloropropane	< 5.0	5.0	
1,2,4-Trimethylbenzene	< 1.0	1.0	
1,3,5-Trimethylbenzene	< 1.0	1.0	
Vinyl acetate	< 10	10	
Vinyl chloride	< 1.0	1.0	
Xylene M&P	< 5.0	5.0	
Xylene Ortho	< 5.0	5.0	
Total Xylenes	< 10	10	

QA/QC

Surrogates	% Recovery	Flags
Dibromofluoromethane	104%	
1,2-Dichloroethane-d4	103%	
Toluene-d8	100%	
4-bromofluorobenzene	98.9%	

Sample Analysis Description

Analytical Method:	EPA 7010A	Analytical Batch:	Pb_11Nov16
Preparation Method:	EPA 3020A	Analysis Date/Time:	11/11/2016 13:38
Sample Matrix:	Ground Water	Analyst:	KJK

Analyte	Results (ppb)	Reporting Limit (ppb)	Flags
Lead	13.9	2.5	

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CERTIFICATE OF ANALYSIS

Sample Submission Description

Customer Name:	Golars, LLC	Project ID:	E-14011n	
Customer Address:	15755 North Point Blvd.	Site Name:	Belmont Food Mart	
	Noblesville	Site Location:	Indianapolis, IN	
	IN 46060	Sample Collected By:	Nathan Fish	
Sample Field ID:	TRIP BLANK	Sample Collection Date/Time:	11/3/2016	
LSAI Sample ID:	16-5267	Sample Receipt Date/Time:	11/3/2016	15:39

Sample Analysis Description

Analytical Method:	EPA 8260B	Analytical Batch:	06NOV2016	
Preparation Method:	EPA 5030B	Analysis Date/Time:	11/7/2016	3:46
Sample Matrix:	Ground Water	Analyst:	NPR	

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
Acetone	< 120	120	
Acrolein	< 1.0	1.0	
Acrylonitrile	< 1.0	1.0	
Benzene	< 5.0	5.0	
Bromobenzene	< 1.0	1.0	
Bromochloromethane	< 1.0	1.0	
Bromodichloromethane	< 1.0	1.0	
Bromoform	< 5.0	5.0	
Bromomethane	< 5.0	5.0	
n-Butanol	< 50	50	
2-Butanone (MEK)	< 10	10	
n-Butylbenzene	< 1.0	1.0	
sec-Butylbenzene	< 1.0	1.0	
tert-Butylbenzene	< 1.0	1.0	
Carbon Disulfide	< 5.0	5.0	
Carbon Tetrachloride	< 1.0	1.0	
Chlorobenzene	< 1.0	1.0	
Chloroethane	< 5.0	5.0	
2-Chloroethylvinylether	< 50	50	
Chloroform	< 1.0	1.0	
Chloromethane	< 1.0	1.0	
2-Chlorotoluene	< 1.0	1.0	
4-Chlorotoluene	< 1.0	1.0	
1,2-Dibromo-3-chloropropane	< 5.0	5.0	
Dibromochloromethane	< 1.0	1.0	
1,2-Dibromoethane (EDB)	< 1.0	1.0	
Dibromomethane	< 1.0	1.0	
1,2-Dichlorobenzene	< 1.0	1.0	

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LSAI SAMPLE ID continued 16-5267

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
1,3-Dichlorobenzene	< 1.0	1.0	
1,4-Dichlorobenzene	< 1.0	1.0	
trans-1,4-Dichloro-2-butene	< 5.0	5.0	
Dichlorodifluoromethane	< 1.0	1.0	
1,1-Dichloroethane	< 1.0	1.0	
1,2-Dichloroethane	< 1.0	1.0	
1,1-Dichloroethene	< 1.0	1.0	
cis-1,2-Dichloroethene	< 1.0	1.0	
trans-1,2-Dichloroethene	< 5.0	5.0	
1,2-Dichloropropane	< 5.0	5.0	
1,3-Dichloropropane	< 1.0	1.0	
2,2-Dichloropropane	< 1.0	1.0	
1,1-Dichloropropene	< 5.0	5.0	
1,3-Dichloropropene	< 5.0	5.0	
Ethylbenzene	< 5.0	5.0	
Ethylmethacrylate	< 1.0	1.0	
Hexachloro-1,3-butadiene	< 5.0	5.0	
n-Hexane	< 10	10	
2-Hexanone	< 10	10	
Iodomethane	< 5.0	5.0	
Isopropylbenzene (Cumene)	< 1.0	1.0	
p-Isopropyltoluene	< 1.0	1.0	
Methylene chloride	< 20	20	
4-Methyl-2-pentanone (MIBK)	< 1.0	1.0	
Methyl tert-butyl ether (MTBE)	< 5.0	5.0	
1-Methylnaphthalene	< 1.0	1.0	
2-Methylnaphthalene	< 1.0	1.0	
Naphthalene	< 1.0	1.0	
n-Propylbenzene	< 1.0	1.0	
Styrene	< 1.0	1.0	
1,1,1,2-Tetrachloroethane	< 1.0	1.0	
1,1,2,2-Tetrachloroethane	< 1.0	1.0	
Tetrachloroethene	< 1.0	1.0	
Toluene	< 5.0	5.0	
1,2,3-Trichlorobenzene	< 1.0	1.0	
1,2,4-Trichlorobenzene	< 1.0	1.0	
1,1,1-Trichloroethane	< 5.0	5.0	
1,1,2-Trichloroethane	< 1.0	1.0	
Trichloroethene	< 5.0	5.0	

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LSAI SAMPLE ID continued 16-5267

Analyte	Results (µg/L)	Reporting Limit (µg/L)	Flags
Trichlorofluoromethane	< 5.0	5.0	
1,2,3-Trichloropropane	< 5.0	5.0	
1,2,4-Trimethylbenzene	< 1.0	1.0	
1,3,5-Trimethylbenzene	< 1.0	1.0	
Vinyl acetate	< 10	10	
Vinyl chloride	< 1.0	1.0	
Xylene M&P	< 5.0	5.0	
Xylene Ortho	< 5.0	5.0	
Total Xylenes	< 10	10	

QA/QC

Surrogates	% Recovery	Flags
Dibromofluoromethane	105%	
1,2-Dichloroethane-d4	103%	
Toluene-d8	98.5%	
4-bromofluorobenzene	96.7%	

LSAI LABS, LLC Chain of Custody Record

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Client Information:

Company Name	Golars, LLC
Contact Name	Andrew Paine
Address	15755 North Point Blvd.
City	Noblesville
State & Zip	IN 46060
Phone Number	317-436-7053
Email	
Project ID	E-14011n
Site Name	Belmont Food Mart
Site Location	Indianapolis, IN

Billing Information:

Billing Comments: (e.g. 8260B / 8021: ELTF / non-ELTF)

TAT: Standard (7 business days)

Rush: 1 day / 2 days / 3 days

Rush TAT will incur a surcharge

Sampler's Name: Nathan Fish

Sampler's Signature: Nathan Fish

Required QC Level: Level II / III / IV

Shipping Method: Drop-off / Picked / UPS / FedEx / Airborne / Other:

LSAI Quote#

LSAI PO#

Page 1 of 1

Sample Integrity Notes

- Samples Received on Ice: Yes/No
- Cooler Temp: 3.2 °C
- Samples Intact? Yes / No
- Vials free of head-space: Yes/No/N/A
- Other comments:

Matrix Code

DW =	Drinking Water
WW =	Waste Wateer
GW =	Ground Water
SO =	Soil
EF =	Effluent
SOL =	Solid
Other =	

Which Regulations Apply:

NPDES / RECAP / RCG / RISC / POTW / STATE / USDA / FDA / Other

Sample ID / Description		Collection Information				Container		Preservative	Requested Tests								
Client ID	LSAI ID	Date	Time	Grab /Composite	Matrix	Quantity	Type P=Plastic, G=Glass, V=Vial	HCl, HNO3, H2SO4, NaOH, NaHSO4	VOCs	Lead							
MW-1	16-5261	11-3-16	1135	G	GW	3/1	V/P	HCl/HNO3	X	X							
MW-2	16-5262	11-3-16	1140	G	GW	3/1	V/P	HCl/HNO3	X	X							
MW-3	16-5263	11-3-16	1145	G	GW	3/1	V/P	HCl/HNO3	X	X							
MS	16-5264	11-3-16	1135	G	GW	3/1	V/P	HCl/HNO3	X	X							
MSD	16-5265	11-3-16	1135	G	GW	3/1	V/P	HCl/HNO3	X	X							
DUP	16-5266	11-3-16	—	G	GW	3/1	V/P	HCl/HNO3	X	X							
TRIP BLANK	16-5267	11-3-16	—	G	GW	3	V	HCl	X								

Comments:

	Relinquished by	Date	Time		Received By	Date	Time	Comments:
1	Nathan Fish	11-3-16	1300		Mund Beg	11/3/16	15:39	SL
2								
3								

QF-5.8.1 rev.2
1/13/15

LSAI LABORATORIES

Lab Solutions for AnalyticalTesting & Issues

SAMPLE CONDITION UPON RECEPTION

Customer: Golars COC Date 11/3/16 Project # E-14011n

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Customer ☑ LSAI ☐ Other _____
Tracking #: _____

Custody Seal on Cooler: ☐ Yes ☑ No Seal Intact: ☐ Yes ☐ No

Temperature 3.2 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process begun

Logged in by: (Date and Initial) 11/4/16 /4/h		**Comments**
Chain of Custody Present	☑ Yes ☐ No ☐ N/A	
Chain of Custody Properly Filled Out	☑ Yes ☐ No ☐ N/A	
Chain of Custody Relinquished	☑ Yes ☐ No ☐ N/A	
Sampler Name and Signatory on COC	☑ Yes ☐ No ☐ N/A	
Adherence to Holding Times	☑ Yes ☐ No ☐ N/A	
Rush Turn Around Time Requested	☐ Yes ☑ No ☐ N/A	
Containers Intact	☑ Yes ☐ No ☐ N/A	
Sample Labels Match COC	☑ Yes ☐ No ☐ N/A	
Sample Labels Legible	☑ Yes ☐ No ☐ N/A	
Samples Preserved Properly	☑ Yes ☐ No ☐ N/A	
Headspace in VOA vials (> pea size)	☐ Yes ☑ No ☐ N/A	
Trip Blank Present	☑ Yes ☐ No ☐ N/A	
Sufficient Volume for Requested Tests	☑ Yes ☐ No ☐ N/A	
Correct Containers Used	☑ Yes ☐ No ☐ N/A	

Deviations from above needing customer notification? ☐ Yes ☐ No

Description _____

_____

Person Contacted _____ Date/Time _____

QF-4.9.1 Enacted ☐ Yes ☐ No

Level IV QA/QC Checklist

Analytical Method	8260B
Extraction Method (If applicable)	5030B
LSAI Batch I.D.	06NOV2016
Sequence Log	✓
Reporting Limits	✓
Initial Calibration Data:	
Calibration Curve	06NOV2016
Initial Calibration Raw Data	✓
Initial Calibration RF Summary	✓
Initial Calibration Second Source Check	✓
Tune Data	✓
Continuing Calibration Verification (CCV) Data:	
CCV Raw Data	✓
CCV Summary	✓
Tune Data	✓
Quality Control Data:	
Method Blank (MBLANK)	✓
Laboratory Control Standard (LCS)	✓
Matrix Spike/Matrix Spike Duplicate (MS/MSD)	✓
Raw Sample Data	✓

The contents of this report packet have been reviewed for completeness and accuracy regarding LSAI & methodology requirements.

Signature of Approval: [illegible]

2016 Nov 06 1928 Sequence Log .LOG

Starting sequence Sun Nov 06 19:28:14 2016

Instrument Name: VOA MSD
Sequence File: C:\msdchem\1\sequence\1014 sequences\06NOV2016.s
Comment:
Operator: NPR
Data Path: C:\MSDCHEM\1\DATA\2016\11-2016\06NOV2016-2\
Method Path: C:\MSDCHEM\1\METHODS\

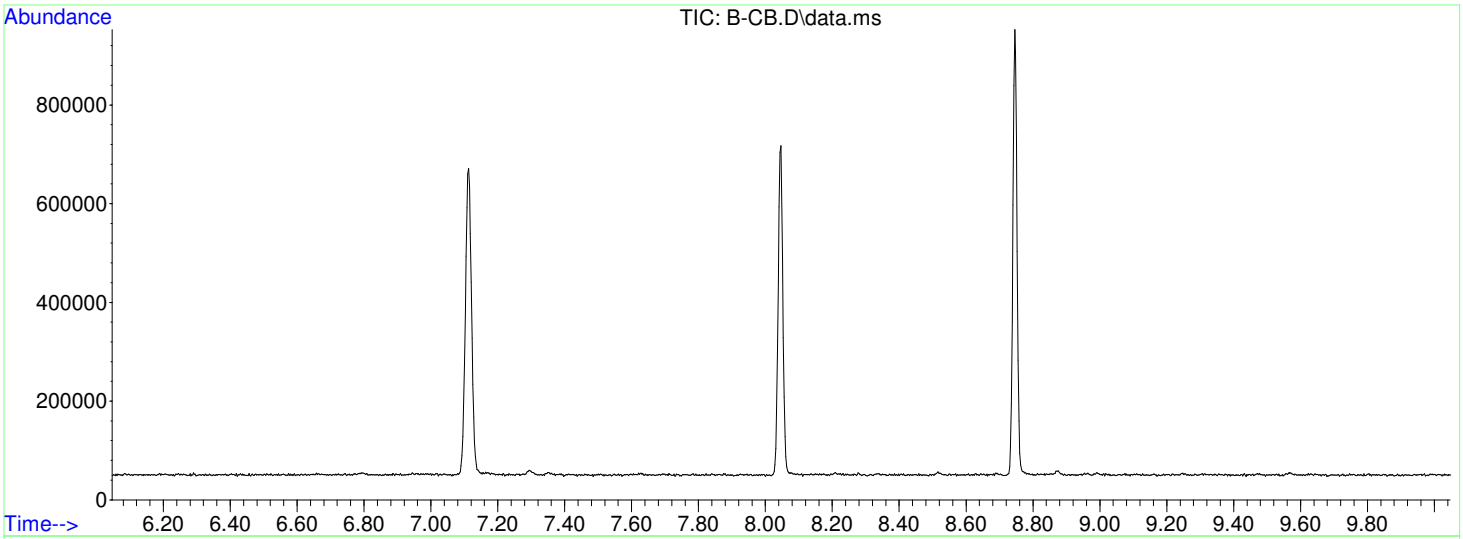
Line	Type	Vial	DataFile	Method	Sample Name
1)	Blank	81	SB01	8260B	SB01
2)	DailyCal	1	CAL-SP	8260B	CAL-SP
3)	Blank	2	B-CB	8260B	B-CB
4)	Calibration	3	B-001PPB	8260B	B-001PPB
5)	Calibration	4	B-005PPB	8260B	B-005PPB
6)	Calibration	5	B-010PPB	8260B	B-010PPB
7)	Calibration	6	B-050PPB	8260B	B-050PPB
8)	Calibration	7	B-100PPB	8260B	B-100PPB
9)	Calibration	8	B-200PPB	8260B	B-200PPB
10)	Blank	82	SB02	8260B	SB02
11)	Blank	83	SB03	8260B	SB03
12)	Blank	9	V-CB	8260B	V-CB
13)	Calibration	10	EDB	EDB	EDB
14)	Calibration	11	V-001PPB	8260B	V-001PPB
15)	Calibration	12	V-005PPB	8260B	V-005PPB
16)	Calibration	13	V-010PPB	8260B	V-010PPB
17)	Calibration	14	V-050PPB	8260B	V-050PPB
18)	DailyCal	15	ICV-1	8260B	ICV-1
19)	Calibration	16	V-100PPB	8260B	V-100PPB
20)	Calibration	17	V-200PPB	8260B	V-200PPB
21)	DailyCal	18	ICV-2	8260B	ICV-2
22)	Blank	84	SB04	8260B	SB04
23)	Blank	19	MB-1	8260B	MB-1
24)	Sample	20	16-5267	8260B	16-5267
25)	Sample	21	16-5277	8260B	16-5277
26)	Sample	22	16-5276	8260B	16-5276
27)	Sample	23	16-5261	8260B	16-5261
28)	Sample	24	16-5262	8260B	16-5262
29)	Sample	25	16-5263	8260B	16-5263
30)	Sample	26	16-5266	8260B	16-5266
31)	Sample	27	16-5268	8260B	16-5268
32)	Sample	28	16-5269	8260B	16-5269
33)	Sample	29	16-5270	8260B	16-5270
34)	Sample	30	16-5271	8260B	16-5271
35)	Sample	31	16-5272	8260B	16-5272
36)	Sample	32	16-5273	8260B	16-5273
37)	Spike	33	16-5264-MS		
	Datafile		16-5264-MS		
	Method		8260B		
38)	Spike	34	16-5265-MSD		
	Datafile		16-5265-MSD		
	Method		8260B		
39)	Spike	35	16-5274-MS		
	Datafile		16-5274-MS		
	Method		8260B		
40)	Spike	36	16-5275-MSD		
	Datafile		16-5275-MSD		
	Method		8260B		
41)	DailyCal	37	LCS-2	8260B	LCS-2
42)	Blank	85	SB05	8260B	SB05
43)	Blank	38	MB-2	8260B	MB-2
44)	Sample	61	16-5193	8260B	16-5193
45)	Blank	81	SSB01	8260B	SSB01
46)	Sample	1	PTX2	8260B	PTX2
47)	Sample	2	PTX5	8260B	PTX5
48)	Blank	3	SSB02	8260B	SSB02
49)	Blank	3	SSB03	8260B	SSB03
50)	Sample	39	16-5301	8260B	16-5301
51)	Sample	40	16-5288	8260B	16-5288
52)	Sample	41	16-5291	8260B	16-5291
53)	Sample	42	16-5292	8260B	16-5292
54)	Sample	43	16-5293	8260B	16-5293
55)	Sample	44	16-5295	8260B	16-5295
56)	Sample	45	16-5296	8260B	16-5296
57)	Sample	46	16-5297	8260B	16-5297
58)	Sample	47	16-5298	8260B	16-5298
59)	Sample	48	16-5299	8260B	16-5299
60)	Sample	49	16-5289	8260B	16-5289

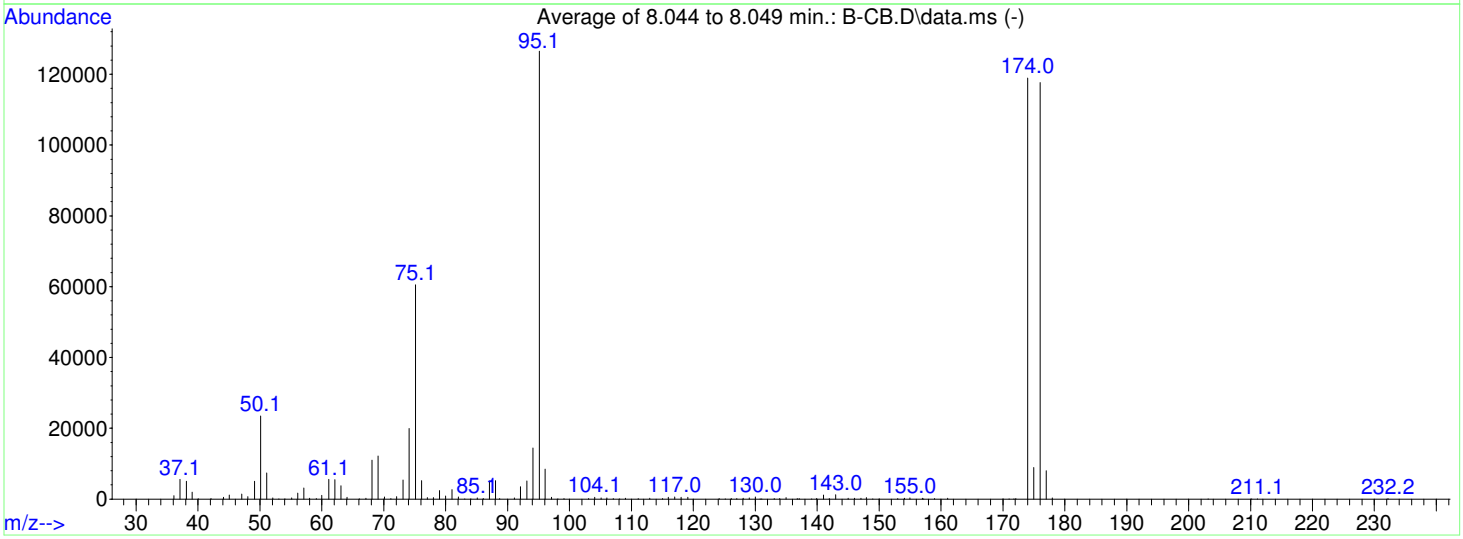
```
 61) Sample        50  16-5289X10
      Datafile         16-5289X10
      Method           8260B
 62) Sample        51  16-5294   8260B     16-5294
 63) Sample        52  16-5294X25
      Datafile         16-5294X25
      Method           8260B
 64) Sample        53  16-5290   8260B     16-5290
 65) Sample        54  16-5290X25
      Datafile         16-5290X25
      Method           8260B
 66) Sample        55  16-5300   8260B     16-5300
 67) Sample        56  16-5300X25
      Datafile         16-5300X25
      Method           8260B
 68) Spike         57  16-5288-MS
      Datafile         16-5288-MS
      Method           8260B
 69) Spike         58  16-5288-MSD
      Datafile         16-5288-MSD
      Method           8260B
 70) DailyCal      59  LCS-3     8260B     LCS-3
 71) Blank         86  SB06      8260B     SB06
 72) Blank         60  MB-3      8260B     MB-3
 73) Sample        61  B16-5349  8260B     B16-5349
 74) Sample        62  B16-5350  8260B     B16-5350
 75) Sample        63  B16-5351  8260B     B16-5351
 76) Sample        64  B16-5352  8260B     B16-5352
 77) Sample        65  B16-5353  8260B     B16-5353
 78) Sample        66  B16-5354  8260B     B16-5354

Sequence completed Tue Nov 08 00:02:54 2016

  C:\MSDCHEM\1\DATA\2016\11-2016\06NOV2016-2\2016 Nov 06 1928 Quality Log.LOG
  C:\MSDCHEM\1\DATA\2016\11-2016\06NOV2016-2\2016 Nov 06 1928 Sequence Log .LOG
```

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : B-CB.D
Acq On : 6 Nov 2016 8:12 pm
Operator : NPR
Sample : B-CB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Title : VOC
Last Update : Mon Nov 07 09:52:36 2016





AutoFind: Scans 2806, 2807, 2808; Background Corrected with Scan 2795

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.5	23461	PASS
75	95	30	60	47.8	60536	PASS
95	95	100	100	100.0	126561	PASS
96	95	5	9	6.7	8448	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	93.9	118893	PASS
175	174	5	9	7.5	8936	PASS
176	174	95	101	98.9	117632	PASS
177	176	5	9	6.8	7969	PASS

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-CB.D
Acq On : 6 Nov 2016 11:26 pm
Operator : NPR
Sample : V-CB
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 07 10:02:12 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:52:36 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	4.101	96	327420	50.00 ppb	0.00
42) Chlorobenzene-d5	7.114	117	272643	50.00 ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	140583	50.00 ppb	# 0.00
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	3.367	111	56913	60.97 ppb	0.00
Spiked Amount 50.000			Recovery = 121.94%		
32) 1,2-Dichloroethane-d4 ...	3.849	102	19405	54.52 ppb	0.00
Spiked Amount 50.000			Recovery = 109.04%		
44) Toluene-d8 (SS)	5.609	98	354372	52.70 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 105.40%		
63) 4-Bromofluorobenzene (...	8.047	174	127660	49.20 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.40%		

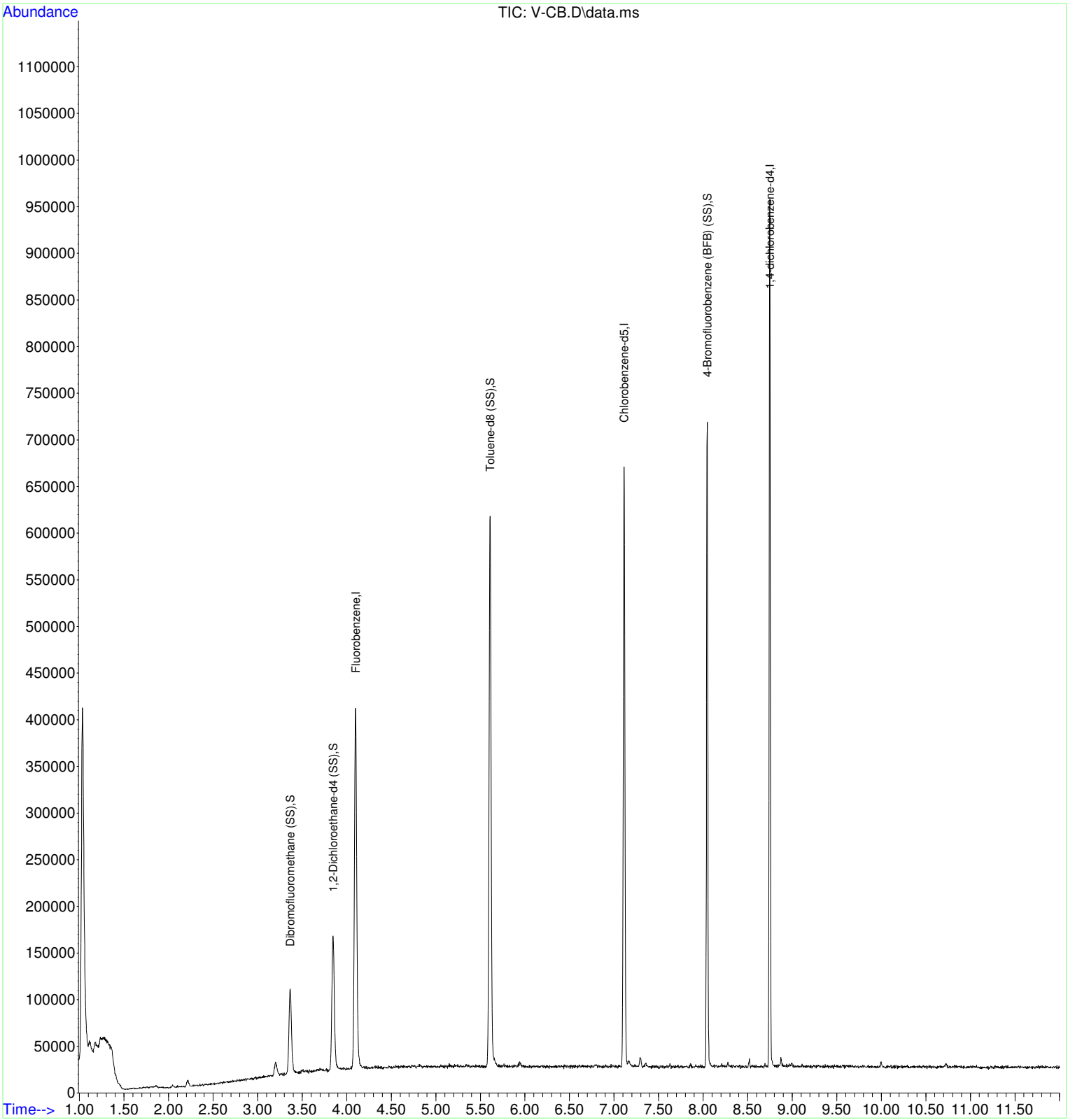
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-CB.D
Acq On : 6 Nov 2016 11:26 pm
Operator : NPR
Sample : V-CB
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 07 10:02:12 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:52:36 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : EDB.D
Acq On : 6 Nov 2016 11:48 pm
Operator : NPR
Sample : EDB
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 07 09:58:18 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:52:36 2016
Response via : Initial Calibration

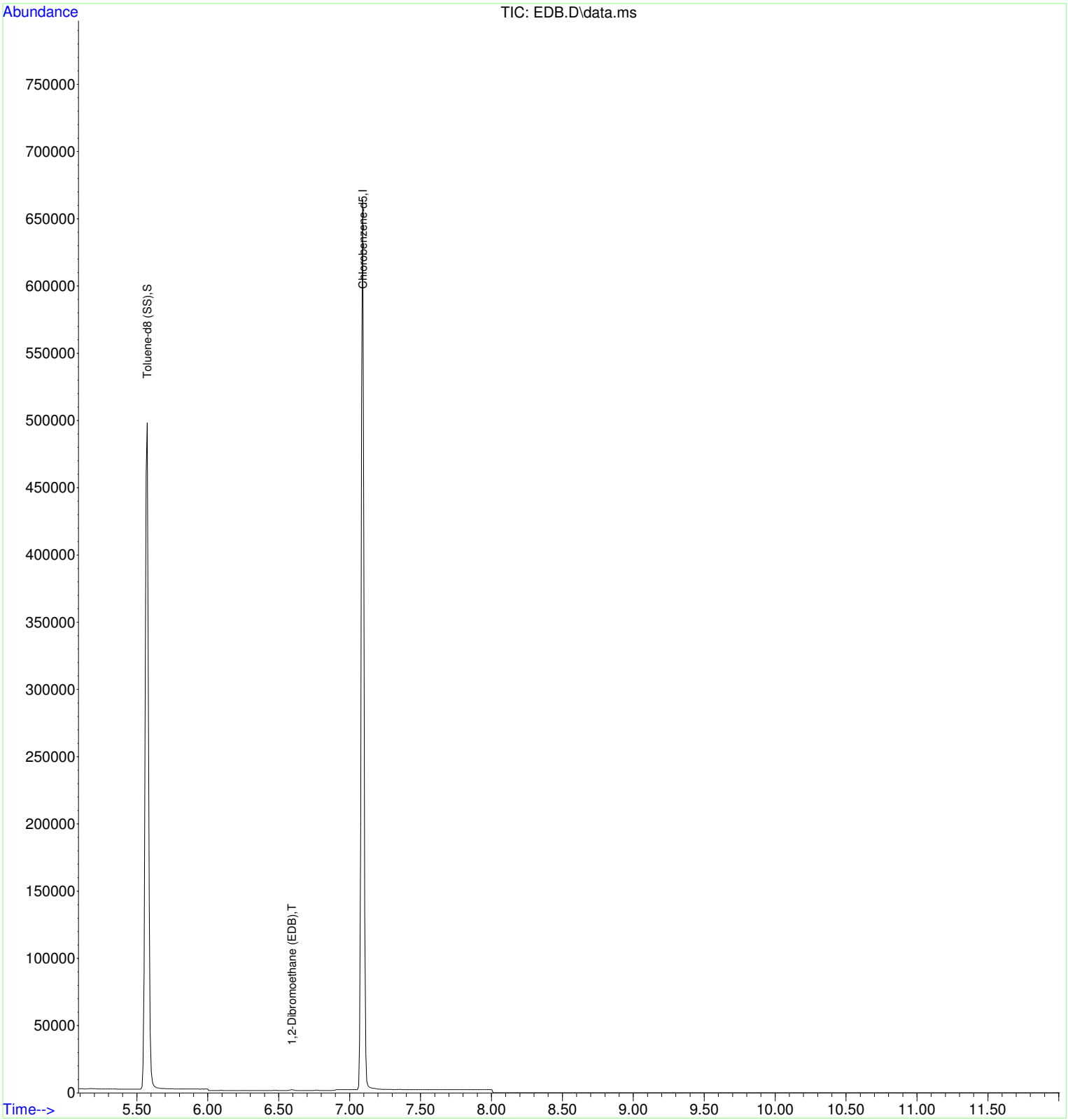
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	0.000	96	0	0.00 ppb	-4.09
42) Chlorobenzene-d5	7.092	117	563027m	50.00 ppb	-0.02
62) 1,4-dichlorobenzene-d4	0.000	152	0	0.00 ppb	-8.75
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	0.000	111	0	0.00 ppb	
Spiked Amount 50.000			Recovery	= 0.00%	
32) 1,2-Dichloroethane-d4 ...	0.000	102	0	0.00 ppb	
Spiked Amount 50.000			Recovery	= 0.00%	
44) Toluene-d8 (SS)	5.571	98	719960	51.85 ppb	-0.03
Spiked Amount 50.000	Range 70 - 130		Recovery	= 103.70%	
63) 4-Bromofluorobenzene (...	0.000	174	0	0.00 ppb	
Spiked Amount 50.000	Range 70 - 130		Recovery	= 0.00%#	
Target Compounds					Qvalue
52) 1,2-Dibromoethane (EDB)	6.593	107	520m	0.12 ppb	

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : EDB.D
Acq On : 6 Nov 2016 11:48 pm
Operator : NPR
Sample : EDB
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 07 09:58:18 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:52:36 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-001PPB.D
Acq On : 7 Nov 2016 12:10 am
Operator : NPR
Sample : V-001PPB
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 07 09:11:06 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:09:12 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.094	96	206634	50.00	ppb	0.00
42) Chlorobenzene-d5	7.112	117	258303	50.00	ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	138604	50.00	ppb	0.00
System Monitoring Compounds						
27) Dibromofluoromethane (SS)	3.360	111	28541	47.32	ppb	0.00
Spiked Amount 50.000			Recovery = 94.64%			
32) 1,2-Dichloroethane-d4 ...	3.842	102	11124	48.25	ppb	0.00
Spiked Amount 50.000			Recovery = 96.50%			
44) Toluene-d8 (SS)	5.605	98	315038	51.45	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.90%			
63) 4-Bromofluorobenzene (...	8.047	174	123163	52.24	ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 104.48%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.104	85	2838	1.53	ppb	# 1
3) Chloromethane	1.201	50	6243	4.21	ppb	# 46
4) Vinyl Chloride	1.231	62	8558	4.76	ppb	# 100
5) Bromomethane	1.365	94	613m	2.82	ppb	
6) Chloroethane	1.382	64	120m	1.66	ppb	
7) Trichlorofluoromethane	1.460	101	77m	1.11	ppb	
8) Carbon disulfide	1.724	76	95m	1.48	ppb	
9) 1,1-Dichloroethene	1.667	96	76m	2.64	ppb	
10) Iodomethane	1.785	142	25m	1.18	ppb	
12) Methylene Chloride	2.035	84	1151	12.77	ppb	# 41
13) Acetone	2.107	58	137m	3.88	ppb	
14) trans-1,2-Dichloroethene	2.119	61	344m	4.40	ppb	
17) Chloroprene (2-Chloro-...	2.507	53	1081m	5.45	ppb	
18) 1,1-Dichloroethane	2.532	63	727m	5.21	ppb	
19) Acrylonitrile	2.507	53	1081m	13.29	ppb	
21) cis-1,2-Dichloroethene	2.955	61	1074m	6.33	ppb	
22) 2,2-Dichloropropane	3.045	77	1088m	9.91	ppb	
23) Bromochloromethane	3.131	49	914m	5.11	ppb	
24) Chloroform	3.196	83	6837	28.84	ppb	# 87
25) Carbon tetrachloride	3.302	117	1307m	11.38	ppb	
26) 1,1,1-Trichloroethane	3.369	97	1131	6.28	ppb	# 24
28) 1,1-Dichloropropene	3.478	75	992m	5.74	ppb	
29) 2-Butanone	3.507	72	1783	29.06	ppb	# 45
30) Benzene	3.707	78	5079	1.28	ppb	# 65
31) Methacrylonitrile*	3.785	41	2209m	5.31	ppb	
33) 1,2-Dichloroethane	3.904	62	2188	1.02	ppb	# 1
34) Trichloroethene	4.248	95	1789m	8.47	ppb	
35) Dibromomethane	4.649	93	1262	6.47	ppb	# 75
36) n-Butanol	4.667	56	1550	34.32	ppb	# 47
37) 1,2-Dichloropropane	4.745	63	2178	5.16	ppb	# 92
38) Bromodichloromethane	4.814	83	3681	8.95	ppb	# 74
39) Methyl methacrylate	5.005	41	3293	3.44	ppb	# 47
41) cis-1,3-Dichloropropene	5.431	75	3291	2.77	ppb	# 84
43) Toluene	5.654	91	10513	1.47	ppb	97
45) Tetrachloroethene	6.019	164	1520m	2.56	ppb	
46) 4-Methyl-2-pentanone (...	6.072	43	4892	2.47	ppb	# 69
47) trans-1,3-Dichloropropene	6.088	75	3038	2.52	ppb	# 67
48) 1,1,2-Trichloroethane	6.242	97	2374	2.93	ppb	# 67
49) Ethyl methacrylate	6.285	69	3961	2.44	ppb	# 67
50) Dibromochloromethane	6.403	129	2701	3.31	ppb	# 81
51) 1,3-Dichloropropane	6.505	76	3727	2.38	ppb	# 91
52) 1,2-Dibromoethane (EDB)	6.620	107	2391	1.14	ppb	# 95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-001PPB.D
Acq On : 7 Nov 2016 12:10 am
Operator : NPR
Sample : V-001PPB
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 07 09:11:06 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:09:12 2016
Response via : Initial Calibration

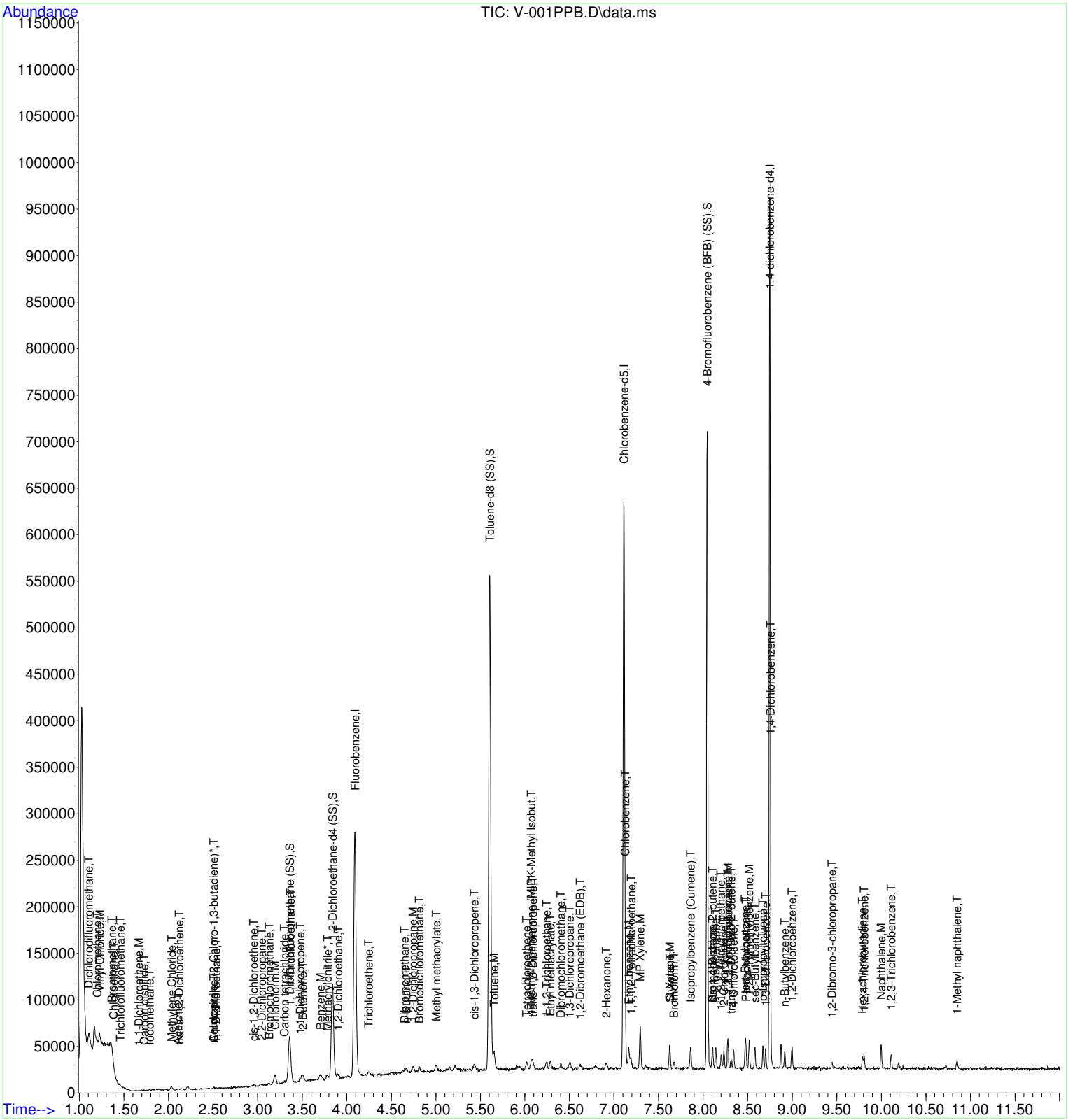
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
53) 2-Hexanone	6.913	43	3554	2.00 ppb	#	58
54) Chlorobenzene	7.126	112	6010	2.38 ppb	#	66
55) Ethyl benzene	7.167	91	12100	1.34 ppb		98
56) 1,1,1,2-Tetrachloroethane	7.192	131	2484	2.87 ppb	#	87
57) MP Xylene	7.295	91	18642	2.99 ppb		98
58) O Xylene	7.627	91	9279	1.31 ppb		91
59) Styrene	7.628	104	387m	0.13 ppb		
60) Bromoform	7.674	173	2304	2.93 ppb	#	1
61) Isopropylbenzene (Cumene)	7.861	105	10436	1.29 ppb		96
64) Bromobenzene	8.107	156	2532	1.88 ppb	#	83
65) cis-1,4-Dichloro-2-butene	8.107	75	1725	2.14 ppb	#	81
66) n-Propylbenzene	8.143	91	10362	1.83 ppb	#	28
67) 1,1,2,2-Tetrachloroethane	8.202	83	3997	1.96 ppb	#	82
68) 2-Chlorotoluene	8.233	91	6854	1.85 ppb	#	82
69) 1,2,3-Trichloropropane	8.277	75	3271	1.84 ppb	#	79
70) 1,3,5-Trimethylbenzene	8.277	105	6840	0.91 ppb		88
71) trans-1,4-Dichloro-2-b...	8.316	53	1965	2.93 ppb	#	59
72) 4-Chlorotoluene	8.343	91	6014	1.60 ppb	#	80
73) tert-Butylbenzene	8.473	119	8523	2.01 ppb		94
74) Pentachloroethane	8.481	167	1859	2.33 ppb	#	57
75) 1,2,4-Trimethylbenzene	8.517	105	9420	1.22 ppb		96
76) sec-Butylbenzene	8.581	105	9037	7.50 ppb		93
77) p-Isopropyltoluene	8.671	119	7464	7.13 ppb	#	89
78) 1,3-Dichlorobenzene	8.702	146	4187	1.67 ppb		93
79) 1,4-Dichlorobenzene	8.755	146	4328m	1.72 ppb		
80) n-Butylbenzene	8.915	91	6340	1.56 ppb	#	94
81) 1,2-Dichlorobenzene	8.998	146	4642	1.68 ppb		86
82) 1,2-Dibromo-3-chloropr...	9.444	157	1338	1.79 ppb	#	64
83) Hexachlorobutadiene	9.789	225	1725	1.53 ppb	#	52
84) 1,2,4-Trichlorobenzene	9.806	180	2919	1.27 ppb	#	71
85) Naphthalene	9.999	128	12176	1.05 ppb		98
86) 1,2,3-Trichlorobenzene	10.111	180	3282	1.33 ppb		96
88) 1-Methyl naphthalene	10.851	142	3542	0.83 ppb	#	91

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-001PPB.D
Acq On : 7 Nov 2016 12:10 am
Operator : NPR
Sample : V-001PPB
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 07 09:11:06 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:09:12 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-005PPB.D
Acq On : 7 Nov 2016 12:31 am
Operator : NPR
Sample : V-005PPB
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 07 09:15:09 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	4.094	96	201518	50.00	ppb		0.00
42) Chlorobenzene-d5	7.112	117	254301	50.00	ppb		0.00
62) 1,4-dichlorobenzene-d4	8.747	152	137119	50.00	ppb		0.00
System Monitoring Compounds							
27) Dibromofluoromethane (SS)	3.360	111	26240	44.90	ppb		0.00
Spiked Amount 50.000			Recovery = 89.80%				
32) 1,2-Dichloroethane-d4 ...	3.842	102	10905	48.71	ppb		0.00
Spiked Amount 50.000			Recovery = 97.42%				
44) Toluene-d8 (SS)	5.605	98	310968	51.39	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.78%				
63) 4-Bromofluorobenzene (...	8.046	174	121833	52.00	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 104.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.107	85	12570	6.95	ppb	#	99
3) Chloromethane	1.206	50	15737	10.89	ppb	#	40
4) Vinyl Chloride	1.232	62	19658	11.20	ppb	#	100
5) Bromomethane	1.367	94	1690	7.97	ppb	#	80
6) Chloroethane	1.410	64	583m	8.29	ppb		
7) Trichlorofluoromethane	1.460	101	451m	6.67	ppb		
8) Carbon disulfide	1.727	76	905m	12.70	ppb		
9) 1,1-Dichloroethene	1.704	96	375m	12.50	ppb		
10) Iodomethane	1.792	142	501m	16.83	ppb		
12) Methylene Chloride	2.034	84	1753	24.43	ppb	#	82
13) Acetone	2.109	58	403m	11.71	ppb		
14) trans-1,2-Dichloroethene	2.122	61	1612	18.83	ppb	#	35
15) n-Hexane	2.147	57	1722	22.01	ppb	#	73
17) Chloroprene (2-Chloro-...	2.509	53	4448	21.26	ppb	#	92
18) 1,1-Dichloroethane	2.533	63	3066	20.51	ppb	#	51
19) Acrylonitrile	2.605	53	2104m	24.68	ppb		
21) cis-1,2-Dichloroethene	2.956	61	4239	23.49	ppb	#	79
22) 2,2-Dichloropropane	3.046	77	3311	27.93	ppb	#	71
23) Bromochloromethane	3.130	49	4284	22.90	ppb	#	68
24) Chloroform	3.196	83	10464	42.43	ppb		93
25) Carbon tetrachloride	3.302	117	4451	32.42	ppb	#	86
26) 1,1,1-Trichloroethane	3.370	97	5433	26.44	ppb	#	88
28) 1,1-Dichloropropene	3.478	75	5145	26.41	ppb		91
29) 2-Butanone	3.505	72	2734	42.52	ppb	#	93
30) Benzene	3.707	78	19087	4.92	ppb		96
31) Methacrylonitrile*	3.782	41	8091	19.03	ppb		94
33) 1,2-Dichloroethane	3.904	62	9492	4.55	ppb	#	100
34) Trichloroethene	4.248	95	6223	27.38	ppb	#	81
35) Dibromomethane	4.648	93	4856	23.58	ppb		83
36) n-Butanol	4.666	56	7273	157.40	ppb	#	81
37) 1,2-Dichloropropane	4.745	63	9160	21.16	ppb	#	79
38) Bromodichloromethane	4.815	83	11769	26.81	ppb		93
39) Methyl methacrylate	5.001	41	13275	13.91	ppb	#	80
41) cis-1,3-Dichloropropene	5.431	75	14024	12.11	ppb	#	85
43) Toluene	5.654	91	39151	5.57	ppb		97
45) Tetrachloroethene	6.020	164	7587	12.98	ppb	#	71
46) 4-Methyl-2-pentanone (...	6.071	43	18172	9.31	ppb		84
47) trans-1,3-Dichloropropene	6.087	75	13387	11.28	ppb	#	81
48) 1,1,2-Trichloroethane	6.239	97	9254	11.59	ppb		84
49) Ethyl methacrylate	6.285	69	18772	11.72	ppb	#	60
50) Dibromochloromethane	6.403	129	10216	12.72	ppb		95
51) 1,3-Dichloropropane	6.504	76	16205	10.51	ppb	#	76

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-005PPB.D
Acq On : 7 Nov 2016 12:31 am
Operator : NPR
Sample : V-005PPB
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 07 09:15:09 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration

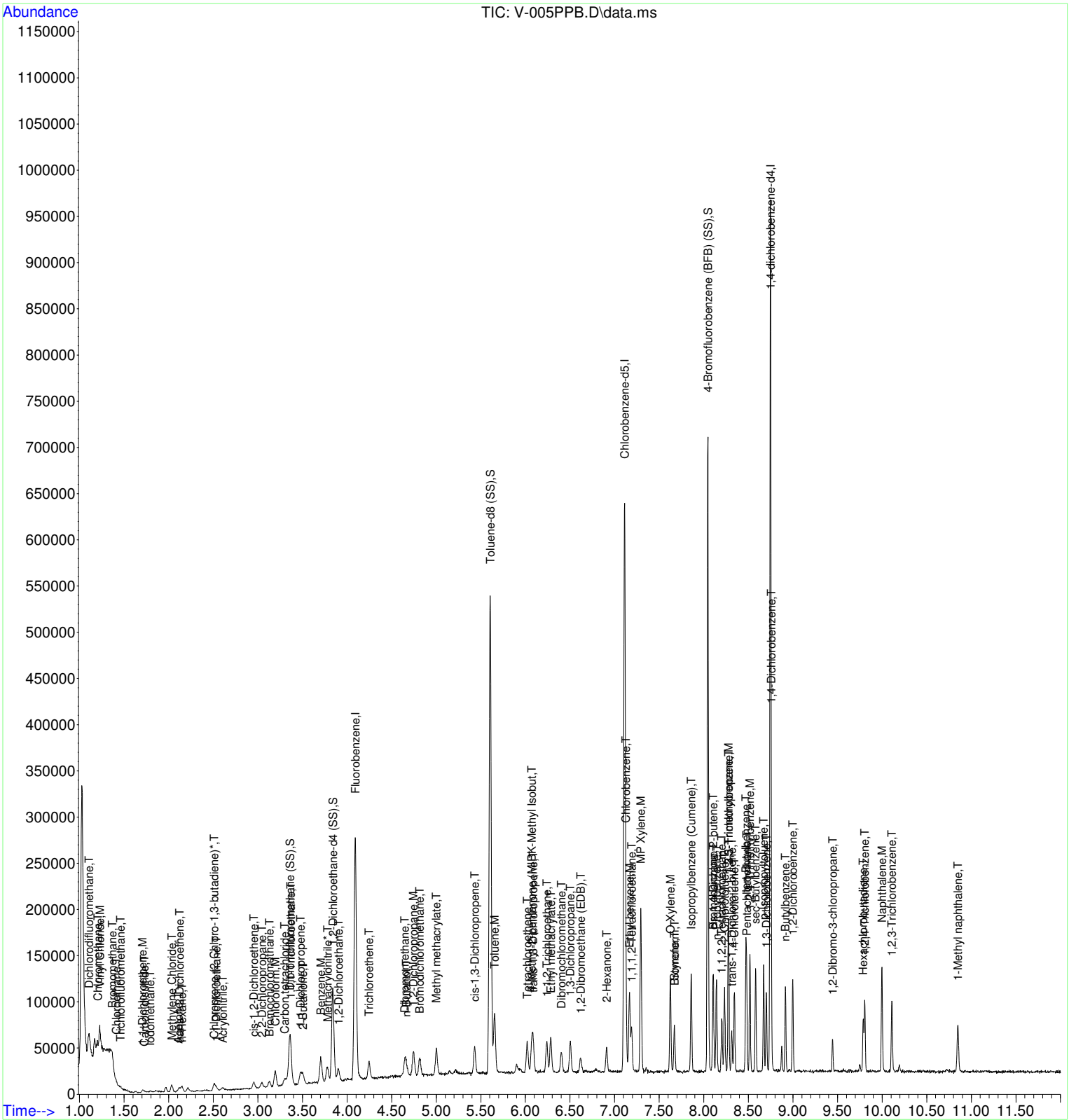
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
52) 1,2-Dibromoethane (EDB)	6.619	107	9898	4.81 ppb	#	98
53) 2-Hexanone	6.911	43	13511	7.74 ppb		74
54) Chlorobenzene	7.126	112	25055	10.06 ppb		95
55) Ethyl benzene	7.167	91	44925	5.04 ppb		99
56) 1,1,1,2-Tetrachloroethane	7.191	131	9820	11.54 ppb		94
57) MP Xylene	7.295	91	70469	11.48 ppb		99
58) O Xylene	7.626	91	39648	5.67 ppb		99
59) Styrene	7.671	104	8332m	2.87 ppb		
60) Bromoform	7.673	173	9996	12.90 ppb		97
61) Isopropylbenzene (Cumene)	7.860	105	43935	5.51 ppb		99
64) Bromobenzene	8.106	156	11713	8.81 ppb	#	82
65) cis-1,4-Dichloro-2-butene	8.106	75	7213	9.04 ppb	#	78
66) n-Propylbenzene	8.143	91	48080	8.59 ppb	#	28
67) 1,1,2,2-Tetrachloroethane	8.202	83	17389	8.60 ppb		95
68) 2-Chlorotoluene	8.233	91	30766	8.39 ppb		97
69) 1,2,3-Trichloropropane	8.276	75	13653	7.76 ppb		96
70) 1,3,5-Trimethylbenzene	8.277	105	35246	4.75 ppb		92
71) trans-1,4-Dichloro-2-b...	8.313	53	5239	7.90 ppb	#	71
72) 4-Chlorotoluene	8.342	91	29051	7.83 ppb		98
73) tert-Butylbenzene	8.473	119	38153	9.07 ppb		95
74) Pentachloroethane	8.481	167	8888	11.26 ppb	#	49
75) 1,2,4-Trimethylbenzene	8.517	105	39934	5.25 ppb		97
76) sec-Butylbenzene	8.580	105	43705	36.64 ppb		99
77) p-Isopropyltoluene	8.671	119	35377	34.15 ppb		99
78) 1,3-Dichlorobenzene	8.701	146	19560	7.90 ppb		91
79) 1,4-Dichlorobenzene	8.755	146	19242m	7.73 ppb		
80) n-Butylbenzene	8.915	91	26714	6.65 ppb		98
81) 1,2-Dichlorobenzene	8.997	146	21971	8.04 ppb		91
82) 1,2-Dibromo-3-chloropr...	9.444	157	5951	8.06 ppb	#	81
83) Hexachlorobutadiene	9.788	225	8063	7.22 ppb		97
84) 1,2,4-Trichlorobenzene	9.805	180	14328	6.32 ppb		94
85) Naphthalene	9.997	128	51788	4.52 ppb		99
86) 1,2,3-Trichlorobenzene	10.110	180	15785	6.49 ppb		92
88) 1-Methyl naphthalene	10.850	142	19066	4.53 ppb		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-005PPB.D
Acq On : 7 Nov 2016 12:31 am
Operator : NPR
Sample : V-005PPB
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 07 09:15:09 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-010PPB.D
Acq On : 7 Nov 2016 12:53 am
Operator : NPR
Sample : V-010PPB
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 07 09:32:11 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	4.094	96	189941	50.00	ppb		0.00
42) Chlorobenzene-d5	7.112	117	247195	50.00	ppb		0.00
62) 1,4-dichlorobenzene-d4	8.747	152	132895	50.00	ppb		0.00
System Monitoring Compounds							
27) Dibromofluoromethane (SS)	3.359	111	24749	44.93	ppb		0.00
Spiked Amount 50.000			Recovery = 89.86%				
32) 1,2-Dichloroethane-d4 ...	3.841	102	10423	49.40	ppb		0.00
Spiked Amount 50.000			Recovery = 98.80%				
44) Toluene-d8 (SS)	5.605	98	299560	50.92	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 101.84%				
63) 4-Bromofluorobenzene (...	8.046	174	117676	51.82	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 103.64%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.108	85	24978	14.65	ppb	#	96
3) Chloromethane	1.205	50	29285	21.49	ppb	#	35
4) Vinyl Chloride	1.232	62	33556	20.29	ppb	#	100
5) Bromomethane	1.367	94	3177	15.89	ppb	#	78
6) Chloroethane	1.410	64	1367m	20.61	ppb		
7) Trichlorofluoromethane	1.460	101	993m	15.59	ppb		
8) Carbon disulfide	1.724	76	1856	24.52	ppb	#	27
9) 1,1-Dichloroethene	1.702	96	583m	19.71	ppb		
10) Iodomethane	1.791	142	1130	31.35	ppb	#	33
12) Methylene Chloride	2.033	84	2960	50.10	ppb	#	82
13) Acetone	2.112	58	882m	27.19	ppb		
14) trans-1,2-Dichloroethene	2.120	61	3205	35.31	ppb	#	51
15) n-Hexane	2.146	57	2909	35.08	ppb	#	67
17) Chloroprene (2-Chloro-...	2.509	53	8699	40.44	ppb	#	91
18) 1,1-Dichloroethane	2.531	63	6362	40.44	ppb	#	92
19) Acrylonitrile	2.605	53	3986m	44.44	ppb		
21) cis-1,2-Dichloroethene	2.955	61	8549	45.45	ppb		91
22) 2,2-Dichloropropane	3.044	77	5927	47.94	ppb	#	74
23) Bromochloromethane	3.128	49	8560	44.83	ppb		82
24) Chloroform	3.196	83	15065	59.97	ppb		93
25) Carbon tetrachloride	3.301	117	8257	53.79	ppb		92
26) 1,1,1-Trichloroethane	3.368	97	11083	49.23	ppb	#	91
28) 1,1-Dichloropropene	3.478	75	9693	46.68	ppb		89
29) 2-Butanone	3.503	72	3735	57.28	ppb	#	86
30) Benzene	3.707	78	35770	9.79	ppb		98
31) Methacrylonitrile*	3.780	41	15868	37.40	ppb		95
33) 1,2-Dichloroethane	3.904	62	18465	9.39	ppb	#	99
34) Trichloroethene	4.248	95	11229	47.72	ppb		95
35) Dibromomethane	4.647	93	9298	44.01	ppb		89
36) n-Butanol	4.663	56	14849	321.27	ppb	#	90
37) 1,2-Dichloropropane	4.744	63	17404	40.37	ppb	#	82
38) Bromodichloromethane	4.815	83	20473	45.47	ppb		96
39) Methyl methacrylate	5.000	41	25464	27.52	ppb	#	80
41) cis-1,3-Dichloropropene	5.430	75	27755	25.43	ppb	#	81
43) Toluene	5.653	91	75477	11.05	ppb		99
45) Tetrachloroethene	6.020	164	14195	24.98	ppb	#	74
46) 4-Methyl-2-pentanone (...	6.070	43	36266	19.12	ppb		88
47) trans-1,3-Dichloropropene	6.087	75	27175	23.55	ppb	#	84
48) 1,1,2-Trichloroethane	6.239	97	18198	23.44	ppb		91
49) Ethyl methacrylate	6.284	69	34862	22.40	ppb	#	63
50) Dibromochloromethane	6.403	129	19985	25.60	ppb		97
51) 1,3-Dichloropropane	6.503	76	32220	21.49	ppb	#	75

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-010PPB.D
Acq On : 7 Nov 2016 12:53 am
Operator : NPR
Sample : V-010PPB
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 07 09:32:11 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration

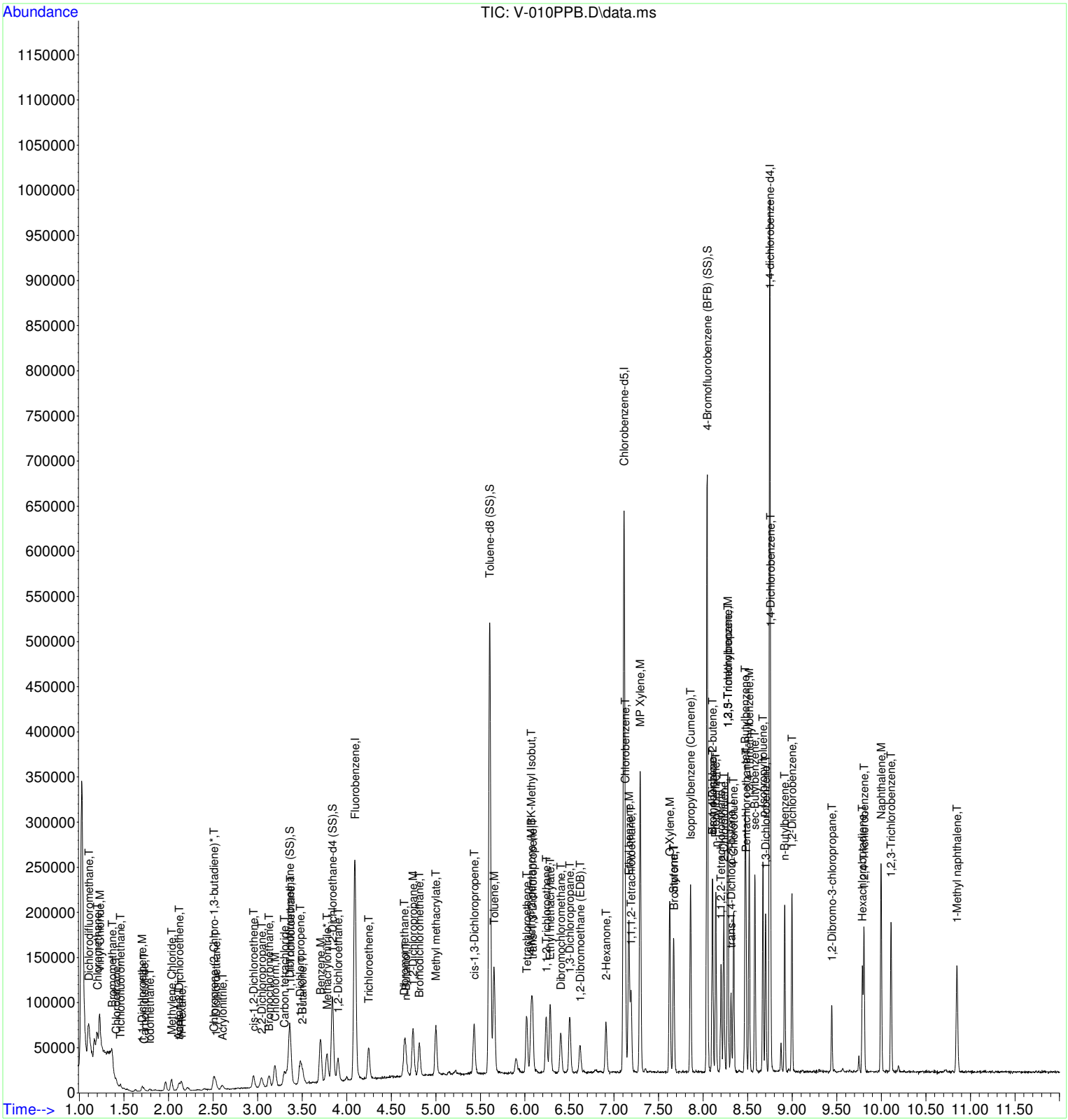
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
52) 1,2-Dibromoethane (EDB)	6.619	107	19475	9.74 ppb	#	99
53) 2-Hexanone	6.911	43	28330	16.69 ppb		79
54) Chlorobenzene	7.126	112	49635	20.50 ppb		95
55) Ethyl benzene	7.167	91	89347	10.31 ppb		100
56) 1,1,1,2-Tetrachloroethane	7.191	131	19482	23.55 ppb		98
57) MP Xylene	7.294	91	137607	23.06 ppb		99
58) O Xylene	7.626	91	76235	11.22 ppb		99
59) Styrene	7.669	104	31450	11.13 ppb		90
60) Bromoform	7.673	173	19927	26.46 ppb		95
61) Isopropylbenzene (Cumene)	7.860	105	87862	11.34 ppb		99
64) Bromobenzene	8.106	156	23766	18.44 ppb	#	79
65) cis-1,4-Dichloro-2-butene	8.106	75	14189	18.34 ppb	#	83
66) n-Propylbenzene	8.142	91	93715	17.27 ppb	#	28
67) 1,1,2,2-Tetrachloroethane	8.202	83	33644	17.17 ppb		97
68) 2-Chlorotoluene	8.233	91	60886	17.14 ppb		97
69) 1,2,3-Trichloropropane	8.276	75	27835	16.32 ppb		96
70) 1,3,5-Trimethylbenzene	8.277	105	70870	9.86 ppb		94
71) trans-1,4-Dichloro-2-b...	8.313	53	10874	16.92 ppb	#	75
72) 4-Chlorotoluene	8.342	91	58154	16.18 ppb		97
73) tert-Butylbenzene	8.473	119	74802	18.35 ppb		94
74) Pentachloroethane	8.481	167	17580	22.97 ppb	#	48
75) 1,2,4-Trimethylbenzene	8.517	105	77238	10.47 ppb		99
76) sec-Butylbenzene	8.580	105	87948	76.08 ppb		98
77) p-Isopropyltoluene	8.671	119	71416	71.14 ppb		98
78) 1,3-Dichlorobenzene	8.701	146	40036	16.68 ppb		92
79) 1,4-Dichlorobenzene	8.755	146	39689m	16.46 ppb		
80) n-Butylbenzene	8.915	91	56726	14.58 ppb		98
81) 1,2-Dichlorobenzene	8.997	146	44671	16.86 ppb		91
82) 1,2-Dibromo-3-chloropr...	9.444	157	11894	16.63 ppb	#	82
83) Hexachlorobutadiene	9.788	225	16333	15.09 ppb		98
84) 1,2,4-Trichlorobenzene	9.806	180	29986	13.64 ppb		94
85) Naphthalene	9.998	128	108319	9.75 ppb		99
86) 1,2,3-Trichlorobenzene	10.110	180	33389	14.16 ppb		94
88) 1-Methyl naphthalene	10.850	142	44148	10.82 ppb		93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-010PPB.D
Acq On : 7 Nov 2016 12:53 am
Operator : NPR
Sample : V-010PPB
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 07 09:32:11 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-050PPB.D
Acq On : 7 Nov 2016 1:15 am
Operator : NPR
Sample : V-050PPB
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 07 09:36:13 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	4.094	96	193370	50.00	ppb		0.00
42) Chlorobenzene-d5	7.113	117	244986	50.00	ppb		0.00
62) 1,4-dichlorobenzene-d4	8.748	152	116958	50.00	ppb		0.00
System Monitoring Compounds							
27) Dibromofluoromethane (SS)	3.360	111	27794	49.57	ppb		0.00
Spiked Amount 50.000			Recovery = 99.14%				
32) 1,2-Dichloroethane-d4 ...	3.842	102	10285	47.88	ppb		0.00
Spiked Amount 50.000			Recovery = 95.76%				
44) Toluene-d8 (SS)	5.605	98	298085	51.13	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 102.26%				
63) 4-Bromofluorobenzene (...	8.047	174	112575	56.33	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 112.66%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.109	85	125055	72.04	ppb	#	97
3) Chloromethane	1.207	50	146197	105.40	ppb	#	43
4) Vinyl Chloride	1.233	62	152417	90.51	ppb	#	100
5) Bromomethane	1.369	94	15086	74.10	ppb	#	98
6) Chloroethane	1.413	64	6094	90.27	ppb	#	100
7) Trichlorofluoromethane	1.461	101	4997	77.06	ppb		85
8) Carbon disulfide	1.727	76	10232	84.42	ppb	#	60
9) 1,1-Dichloroethene	1.703	96	3251	79.21	ppb	#	85
10) Iodomethane	1.795	142	6902	95.24	ppb	#	88
12) Methylene Chloride	2.036	84	13906	260.05	ppb	#	78
13) Acetone	2.117	58	4088m	123.81	ppb		
14) trans-1,2-Dichloroethene	2.122	61	18136	123.17	ppb		98
15) n-Hexane	2.148	57	17967	122.35	ppb	#	83
17) Chloroprene (2-Chloro-...	2.510	53	45808	144.22	ppb	#	93
18) 1,1-Dichloroethane	2.534	63	35923	144.99	ppb	#	99
19) Acrylonitrile	2.605	53	20110m	144.39	ppb		
21) cis-1,2-Dichloroethene	2.955	61	45645	159.39	ppb		92
22) 2,2-Dichloropropane	3.046	77	32046	163.51	ppb	#	83
23) Bromochloromethane	3.130	49	45611	165.11	ppb		87
24) Chloroform	3.197	83	61512	165.84	ppb		92
25) Carbon tetrachloride	3.302	117	44879	160.76	ppb		97
26) 1,1,1-Trichloroethane	3.370	97	56430	151.40	ppb		91
28) 1,1-Dichloropropene	3.479	75	52767	154.47	ppb		90
29) 2-Butanone	3.501	72	13903	146.69	ppb	#	99
30) Benzene	3.708	78	184145	49.51	ppb		99
31) Methacrylonitrile*	3.780	41	77001	137.05	ppb		97
33) 1,2-Dichloroethane	3.905	62	96632	48.25	ppb	#	98
34) Trichloroethene	4.249	95	56857	159.19	ppb		97
35) Dibromomethane	4.648	93	45887	149.97	ppb		87
36) n-Butanol	4.662	56	80955	1284.54	ppb	#	90
37) 1,2-Dichloropropane	4.745	63	86255	150.33	ppb	#	82
38) Bromodichloromethane	4.816	83	101921	152.01	ppb		98
39) Methyl methacrylate	5.001	41	132098	118.21	ppb	#	84
41) cis-1,3-Dichloropropene	5.430	75	141402	127.25	ppb	#	83
43) Toluene	5.654	91	358595	52.98	ppb		99
45) Tetrachloroethene	6.021	164	74171	131.68	ppb	#	73
46) 4-Methyl-2-pentanone (...	6.070	43	183555	97.63	ppb		91
47) trans-1,3-Dichloropropene	6.087	75	135576	118.56	ppb		86
48) 1,1,2-Trichloroethane	6.240	97	89673	116.57	ppb		91
49) Ethyl methacrylate	6.284	69	166684	108.06	ppb	#	68
50) Dibromochloromethane	6.404	129	97666	126.26	ppb		98
51) 1,3-Dichloropropane	6.504	76	157983	106.34	ppb	#	77

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-050PPB.D
Acq On : 7 Nov 2016 1:15 am
Operator : NPR
Sample : V-050PPB
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 07 09:36:13 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration

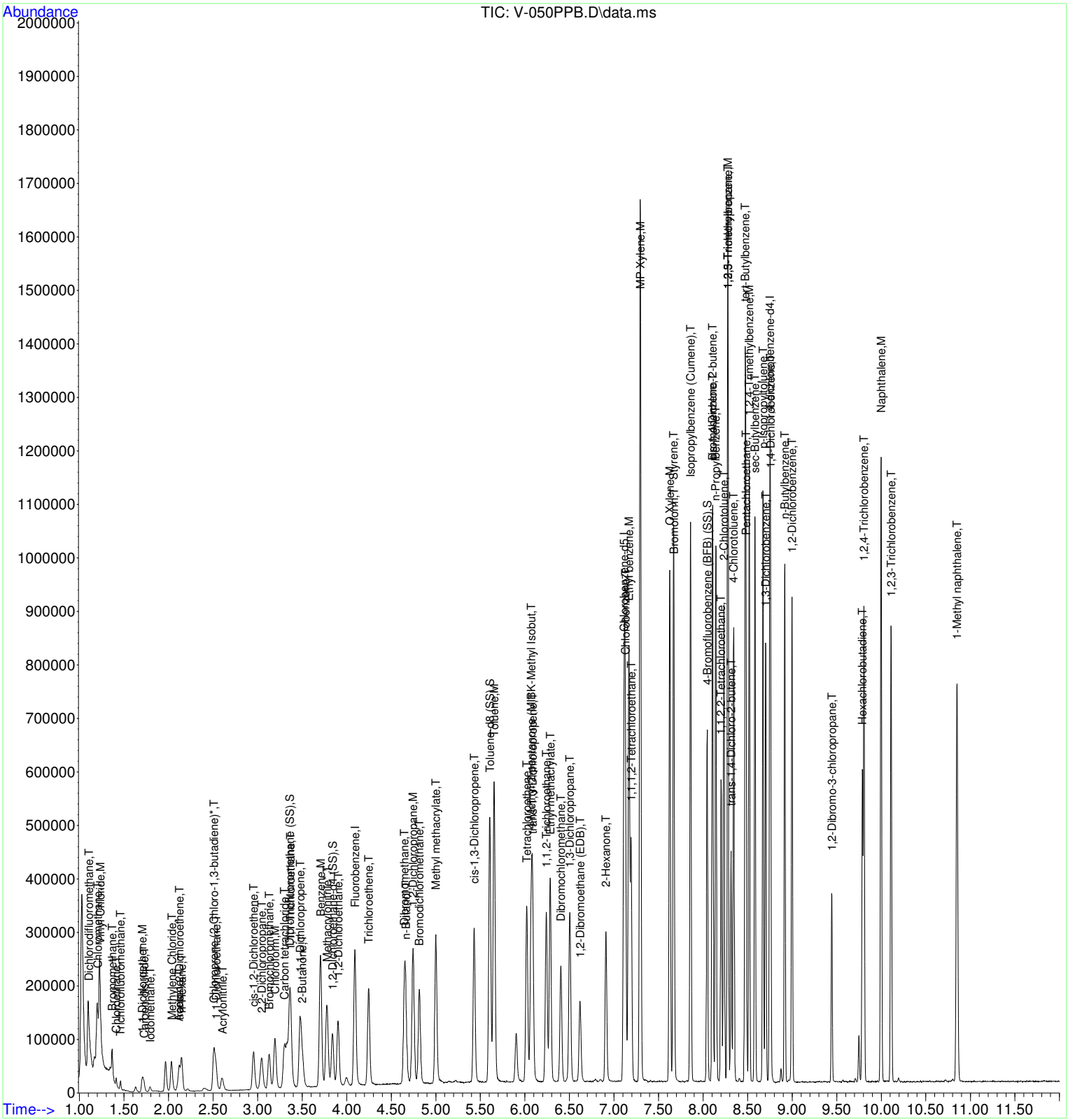
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
52) 1,2-Dibromoethane (EDB)	6.619	107	93844	47.36 ppb	#	98
53) 2-Hexanone	6.910	43	144329	85.81 ppb		85
54) Chlorobenzene	7.127	112	244873	102.05 ppb		96
55) Ethyl benzene	7.168	91	431112	50.19 ppb		99
56) 1,1,1,2-Tetrachloroethane	7.192	131	92965	113.38 ppb		99
57) MP Xylene	7.295	91	648675	109.70 ppb		99
58) O Xylene	7.626	91	362062	53.76 ppb		100
59) Styrene	7.670	104	246747	88.10 ppb		93
60) Bromoform	7.674	173	94039	125.99 ppb		95
61) Isopropylbenzene (Cumene)	7.860	105	414775	54.01 ppb		99
64) Bromobenzene	8.106	156	114178	100.67 ppb	#	83
65) cis-1,4-Dichloro-2-butene	8.106	75	69372	101.89 ppb	#	83
66) n-Propylbenzene	8.143	91	460376	96.37 ppb	#	29
67) 1,1,2,2-Tetrachloroethane	8.202	83	156528	90.79 ppb		98
68) 2-Chlorotoluene	8.234	91	290986	93.05 ppb		98
69) 1,2,3-Trichloropropane	8.277	75	131375	87.53 ppb		96
70) 1,3,5-Trimethylbenzene	8.278	105	334239	52.83 ppb		94
71) trans-1,4-Dichloro-2-b...	8.313	53	53940	95.39 ppb	#	81
72) 4-Chlorotoluene	8.343	91	279230	88.26 ppb		98
73) tert-Butylbenzene	8.474	119	333516	92.98 ppb		95
74) Pentachloroethane	8.481	167	74516	110.64 ppb	#	54
75) 1,2,4-Trimethylbenzene	8.517	105	338043	52.08 ppb		100
76) sec-Butylbenzene	8.581	105	390966	384.28 ppb		98
77) p-Isopropyltoluene	8.671	119	328956	372.34 ppb		98
78) 1,3-Dichlorobenzene	8.702	146	180730	85.57 ppb		94
79) 1,4-Dichlorobenzene	8.756	146	173582	81.79 ppb		95
80) n-Butylbenzene	8.915	91	281052	82.06 ppb		99
81) 1,2-Dichlorobenzene	8.997	146	194871	83.59 ppb		92
82) 1,2-Dibromo-3-chloropr...	9.444	157	54766	87.01 ppb		87
83) Hexachlorobutadiene	9.788	225	77931	81.79 ppb		99
84) 1,2,4-Trichlorobenzene	9.806	180	153117	79.12 ppb		96
85) Naphthalene	9.998	128	513645	52.52 ppb		99
86) 1,2,3-Trichlorobenzene	10.110	180	168624	81.27 ppb		94
88) 1-Methyl naphthalene	10.850	142	272539	75.87 ppb		95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-050PPB.D
Acq On : 7 Nov 2016 1:15 am
Operator : NPR
Sample : V-050PPB
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 07 09:36:13 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-100PPB.D
Acq On : 7 Nov 2016 1:58 am
Operator : NPR
Sample : V-100PPB
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 07 09:39:39 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	4.095	96	201953	50.00	ppb		0.00
42) Chlorobenzene-d5	7.113	117	227870	50.00	ppb		0.00
62) 1,4-dichlorobenzene-d4	8.748	152	96098	50.00	ppb	#	0.00
System Monitoring Compounds							
27) Dibromofluoromethane (SS)	3.361	111	30611	52.27	ppb		0.00
Spiked Amount 50.000			Recovery = 104.54%				
32) 1,2-Dichloroethane-d4 ...	3.843	102	10918	48.67	ppb		0.00
Spiked Amount 50.000			Recovery = 97.34%				
44) Toluene-d8 (SS)	5.606	98	286460	52.83	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 105.66%				
63) 4-Bromofluorobenzene (...	8.047	174	96415	58.72	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 117.44%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.109	85	238008	131.28	ppb	#	97
3) Chloromethane	1.208	50	298655	206.16	ppb	#	32
4) Vinyl Chloride	1.233	62	297767	169.30	ppb	#	100
5) Bromomethane	1.369	94	31347	147.43	ppb	#	100
6) Chloroethane	1.414	64	12146	172.27	ppb	#	100
7) Trichlorofluoromethane	1.461	101	9970	147.22	ppb		92
8) Carbon disulfide	1.729	76	22586	135.91	ppb	#	65
9) 1,1-Dichloroethene	1.705	96	6608	126.99	ppb		93
10) Iodomethane	1.799	142	17437	156.43	ppb	#	94
12) Methylene Chloride	2.036	84	29483	536.15	ppb	#	76
13) Acetone	2.117	58	9177m	266.12	ppb		
14) trans-1,2-Dichloroethene	2.123	61	41575	202.40	ppb		98
15) n-Hexane	2.149	57	40752	195.74	ppb	#	90
17) Chloroprene (2-Chloro-...	2.510	53	102938	240.77	ppb	#	94
18) 1,1-Dichloroethane	2.535	63	80810	237.74	ppb	#	99
19) Acrylonitrile	2.604	53	42219	226.32	ppb	#	93
21) cis-1,2-Dichloroethene	2.956	61	101651	261.85	ppb		92
22) 2,2-Dichloropropane	3.047	77	72091	266.85	ppb		85
23) Bromochloromethane	3.130	49	97951	269.86	ppb		89
24) Chloroform	3.197	83	130598	262.61	ppb		94
25) Carbon tetrachloride	3.302	117	100662	251.43	ppb		95
26) 1,1,1-Trichloroethane	3.370	97	125933	241.51	ppb		93
28) 1,1-Dichloropropene	3.480	75	115511	245.16	ppb		94
29) 2-Butanone	3.501	72	29315	230.95	ppb	#	80
30) Benzene	3.709	78	385584	99.26	ppb		99
31) Methacrylonitrile*	3.780	41	156810	222.85	ppb		98
33) 1,2-Dichloroethane	3.905	62	194621	93.05	ppb	#	99
34) Trichloroethene	4.248	95	115290	245.99	ppb		97
35) Dibromomethane	4.649	93	91757	232.95	ppb		87
36) n-Butanol	4.661	56	163968	2066.29	ppb	#	86
37) 1,2-Dichloropropane	4.746	63	166791	235.47	ppb	#	83
38) Bromodichloromethane	4.816	83	198176	229.87	ppb		99
39) Methyl methacrylate	5.000	41	265488	199.45	ppb		87
41) cis-1,3-Dichloropropene	5.430	75	272927	235.18	ppb	#	85
43) Toluene	5.655	91	676067	107.38	ppb		99
45) Tetrachloroethene	6.021	164	141294	269.69	ppb	#	75
46) 4-Methyl-2-pentanone (...	6.071	43	360958	206.40	ppb		91
47) trans-1,3-Dichloropropene	6.088	75	259886	244.34	ppb		89
48) 1,1,2-Trichloroethane	6.241	97	166288	232.40	ppb		93
49) Ethyl methacrylate	6.285	69	311038	216.78	ppb	#	72
50) Dibromochloromethane	6.405	129	180191	250.44	ppb		98
51) 1,3-Dichloropropane	6.505	76	295908	214.14	ppb	#	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-100PPB.D
Acq On : 7 Nov 2016 1:58 am
Operator : NPR
Sample : V-100PPB
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 07 09:39:39 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration

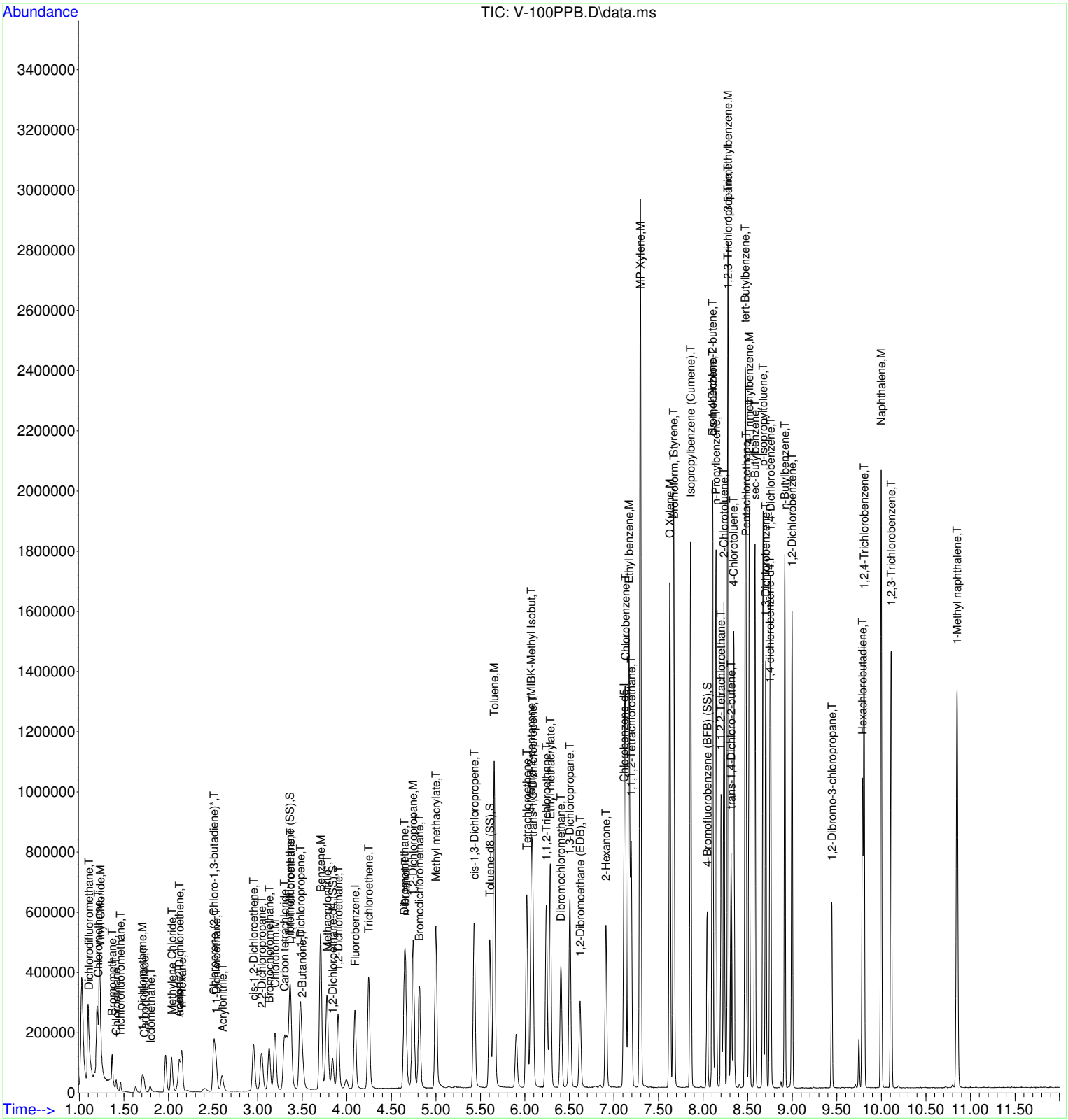
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
52) 1,2-Dibromoethane (EDB)	6.620	107	171916	93.28 ppb	#	99
53) 2-Hexanone	6.910	43	284070	181.59 ppb		87
54) Chlorobenzene	7.128	112	456880	204.70 ppb		97
55) Ethyl benzene	7.169	91	777972	97.38 ppb		98
56) 1,1,1,2-Tetrachloroethane	7.193	131	165893	217.52 ppb		100
57) MP Xylene	7.296	91	1126190	204.76 ppb		100
58) O Xylene	7.627	91	643993	102.81 ppb		99
59) Styrene	7.670	104	448637	172.21 ppb		96
60) Bromoform	7.675	173	156866	225.94 ppb		96
61) Isopropylbenzene (Cumene)	7.861	105	718558	100.60 ppb		98
64) Bromobenzene	8.107	156	194710	208.94 ppb		89
65) cis-1,4-Dichloro-2-butene	8.107	75	124520	222.58 ppb	#	84
66) n-Propylbenzene	8.144	91	803334	204.67 ppb	#	29
67) 1,1,2,2-Tetrachloroethane	8.203	83	269165	190.01 ppb		98
68) 2-Chlorotoluene	8.234	91	504525	196.36 ppb		99
69) 1,2,3-Trichloropropane	8.278	75	227822	184.74 ppb		97
70) 1,3,5-Trimethylbenzene	8.279	105	563013	108.31 ppb		94
71) trans-1,4-Dichloro-2-b...	8.314	53	101072	217.54 ppb		89
72) 4-Chlorotoluene	8.344	91	488788	188.04 ppb		98
73) tert-Butylbenzene	8.474	119	555243	188.40 ppb		98
74) Pentachloroethane	8.482	167	119523	216.00 ppb	#	59
75) 1,2,4-Trimethylbenzene	8.518	105	571983	107.26 ppb		99
76) sec-Butylbenzene	8.581	105	661547	791.39 ppb		98
77) p-Isopropyltoluene	8.672	119	557958	768.63 ppb		98
78) 1,3-Dichlorobenzene	8.702	146	303698	175.01 ppb		96
79) 1,4-Dichlorobenzene	8.757	146	298985	171.46 ppb		96
80) n-Butylbenzene	8.916	91	497164	176.66 ppb		99
81) 1,2-Dichlorobenzene	8.998	146	329760	172.15 ppb		94
82) 1,2-Dibromo-3-chloropr...	9.444	157	90858	175.68 ppb		91
83) Hexachlorobutadiene	9.788	225	130540	166.74 ppb		99
84) 1,2,4-Trichlorobenzene	9.806	180	259709	163.34 ppb		97
85) Naphthalene	9.998	128	854977	106.39 ppb		98
86) 1,2,3-Trichlorobenzene	10.111	180	276824	162.37 ppb		95
88) 1-Methyl naphthalene	10.850	142	480509	162.79 ppb		95

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-100PPB.D
Acq On : 7 Nov 2016 1:58 am
Operator : NPR
Sample : V-100PPB
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 07 09:39:39 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-200PPB.D
Acq On : 7 Nov 2016 2:20 am
Operator : NPR
Sample : V-200PPB
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 07 09:43:00 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	4.094	96	198062	50.00	ppb		0.00
42) Chlorobenzene-d5	7.115	117	191248	50.00	ppb		0.00
62) 1,4-dichlorobenzene-d4	8.750	152	106609	50.00	ppb	#	0.00
System Monitoring Compounds							
27) Dibromofluoromethane (SS)	3.360	111	31962	55.65	ppb		0.00
Spiked Amount 50.000			Recovery = 111.30%				
32) 1,2-Dichloroethane-d4 ...	3.842	102	11100	50.45	ppb		0.00
Spiked Amount 50.000			Recovery = 100.90%				
44) Toluene-d8 (SS)	5.606	98	243021	53.40	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 106.80%				
63) 4-Bromofluorobenzene (...	8.048	174	87776	48.19	ppb		0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.38%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.108	85	414508	233.13	ppb	#	98
3) Chloromethane	1.207	50	579778	408.09	ppb	#	34
4) Vinyl Chloride	1.232	62	520090	301.52	ppb	#	100
5) Bromomethane	1.369	94	52490	251.71	ppb	#	100
6) Chloroethane	1.413	64	22236	321.58	ppb	#	100
7) Trichlorofluoromethane	1.460	101	17460	262.89	ppb		91
8) Carbon disulfide	1.722	76	48742	217.25	ppb	#	68
9) 1,1-Dichloroethene	1.699	96	14002	210.04	ppb	#	88
10) Iodomethane	1.795	142	46246	267.40	ppb	#	90
12) Methylene Chloride	2.034	84	67355	1259.54	ppb	#	66
13) Acetone	2.119	58	20079	593.70	ppb	#	60
14) trans-1,2-Dichloroethene	2.119	61	91913	327.00	ppb		96
15) n-Hexane	2.143	57	93332	317.84	ppb	#	88
17) Chloroprene (2-Chloro-...	2.507	53	205911	374.65	ppb	#	97
18) 1,1-Dichloroethane	2.532	63	168781	374.49	ppb	#	99
19) Acrylonitrile	2.607	53	91542m	364.71	ppb		
21) cis-1,2-Dichloroethene	2.954	61	203805	405.18	ppb		95
22) 2,2-Dichloropropane	3.045	77	143709	407.72	ppb		89
23) Bromochloromethane	3.129	49	186080	410.11	ppb		94
24) Chloroform	3.196	83	258234	401.76	ppb		96
25) Carbon tetrachloride	3.300	117	213085	386.41	ppb		96
26) 1,1,1-Trichloroethane	3.369	97	257477	369.90	ppb		95
28) 1,1-Dichloropropene	3.478	75	234005	375.44	ppb		97
29) 2-Butanone	3.503	72	58404	354.61	ppb	#	73
30) Benzene	3.707	78	763803	200.48	ppb		96
31) Methacrylonitrile*	3.782	41	297409	347.30	ppb		97
33) 1,2-Dichloroethane	3.905	62	365337	178.10	ppb	#	99
34) Trichloroethene	4.248	95	222284	372.63	ppb		98
35) Dibromomethane	4.649	93	165187	342.40	ppb		87
36) n-Butanol	4.674	56	300871	3135.02	ppb	#	88
37) 1,2-Dichloropropane	4.746	63	293745	350.19	ppb	#	84
38) Bromodichloromethane	4.817	83	354843	334.88	ppb		99
39) Methyl methacrylate	5.002	41	485920	316.20	ppb		87
41) cis-1,3-Dichloropropene	5.431	75	469832	412.81	ppb		88
43) Toluene	5.655	91	1115687	211.14	ppb		98
45) Tetrachloroethene	6.021	164	224857	511.37	ppb		80
46) 4-Methyl-2-pentanone (...	6.074	43	673690	459.00	ppb		93
47) trans-1,3-Dichloropropene	6.089	75	446027	499.64	ppb		94
48) 1,1,2-Trichloroethane	6.243	97	281346	468.50	ppb		94
49) Ethyl methacrylate	6.288	69	541223	449.45	ppb	#	77
50) Dibromochloromethane	6.407	129	309864	513.13	ppb		99
51) 1,3-Dichloropropane	6.507	76	504303	434.84	ppb	#	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-200PPB.D
Acq On : 7 Nov 2016 2:20 am
Operator : NPR
Sample : V-200PPB
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 07 09:43:00 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration

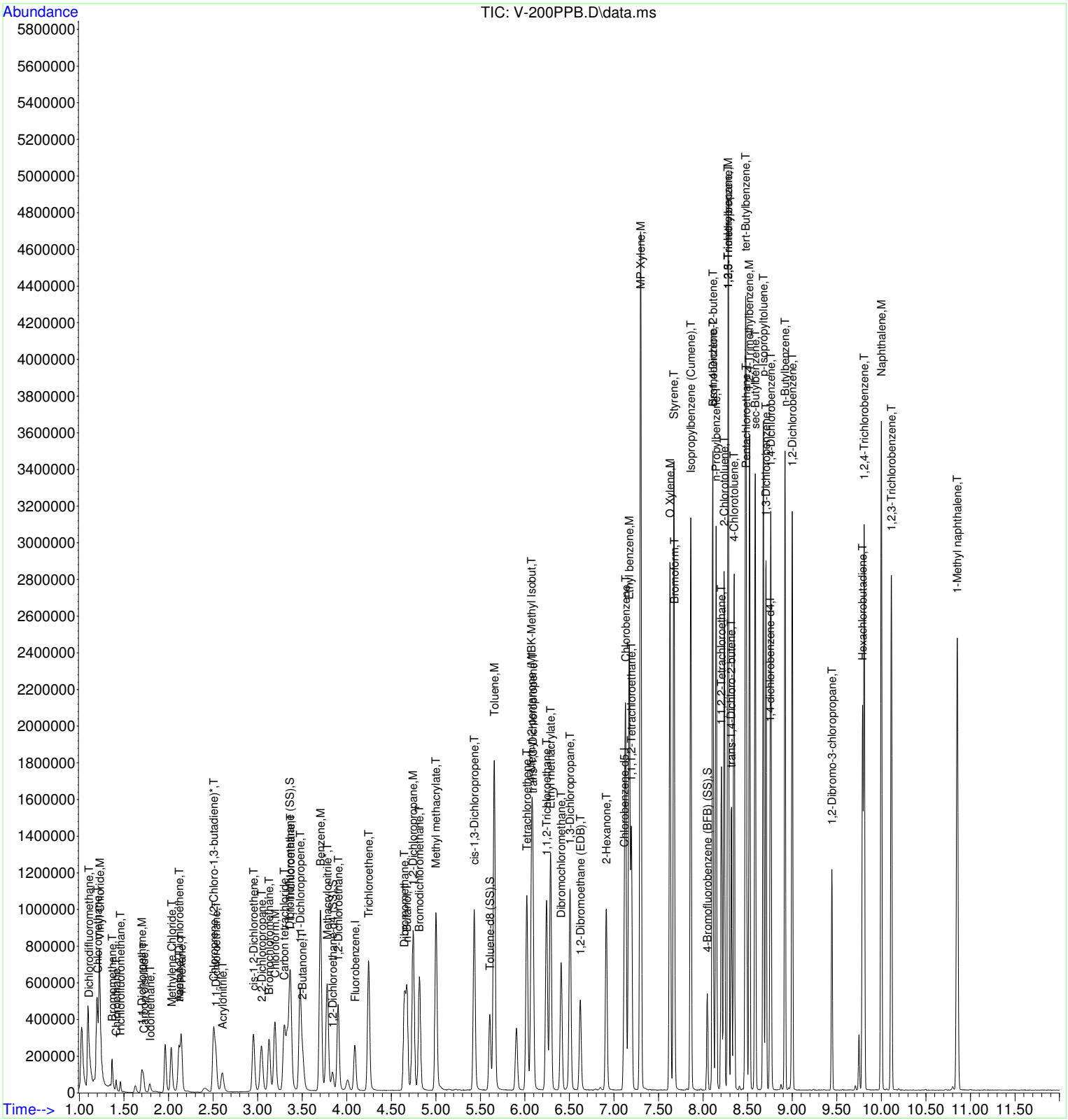
Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
52) 1,2-Dibromoethane (EDB)	6.622	107	296021	191.37 ppb	#	98
53) 2-Hexanone	6.913	43	548219	417.55 ppb		90
54) Chlorobenzene	7.129	112	755432	403.28 ppb		97
55) Ethyl benzene	7.171	91	1287139	191.96 ppb		97
56) 1,1,1,2-Tetrachloroethane	7.196	131	281399	439.63 ppb		99
57) MP Xylene	7.299	91	1809116	391.92 ppb		99
58) O Xylene	7.629	91	1083229	206.05 ppb		99
59) Styrene	7.672	104	778629	356.11 ppb		98
60) Bromoform	7.678	173	270385	464.03 ppb		96
61) Isopropylbenzene (Cumene)	7.862	105	1209918	201.83 ppb		97
64) Bromobenzene	8.108	156	332386	321.51 ppb		94
65) cis-1,4-Dichloro-2-butene	8.109	75	225550	363.43 ppb		88
66) n-Propylbenzene	8.146	91	1386306	318.38 ppb	#	30
67) 1,1,2,2-Tetrachloroethane	8.206	83	502032	319.45 ppb		99
68) 2-Chlorotoluene	8.236	91	914477	320.82 ppb		98
69) 1,2,3-Trichloropropane	8.280	75	422074	308.51 ppb		96
70) 1,3,5-Trimethylbenzene	8.282	105	991688	171.96 ppb		93
71) trans-1,4-Dichloro-2-b...	8.316	53	197378	382.94 ppb		89
72) 4-Chlorotoluene	8.347	91	927615	321.68 ppb		98
73) tert-Butylbenzene	8.477	119	1021446	312.41 ppb		99
74) Pentachloroethane	8.485	167	239164	389.59 ppb	#	50
75) 1,2,4-Trimethylbenzene	8.520	105	1083327	183.12 ppb		99
76) sec-Butylbenzene	8.583	105	1257425	1355.91 ppb		97
77) p-Isopropyltoluene	8.675	119	1082712	1344.46 ppb		97
78) 1,3-Dichlorobenzene	8.704	146	632563	328.58 ppb		96
79) 1,4-Dichlorobenzene	8.759	146	628927	325.11 ppb		94
80) n-Butylbenzene	8.918	91	996855	319.30 ppb		97
81) 1,2-Dichlorobenzene	9.000	146	687683	323.61 ppb		94
82) 1,2-Dibromo-3-chloropr...	9.445	157	177521	309.41 ppb		90
83) Hexachlorobutadiene	9.790	225	261922	301.58 ppb		98
84) 1,2,4-Trichlorobenzene	9.808	180	518371	293.87 ppb		97
85) Naphthalene	10.000	128	1549850	173.84 ppb		97
86) 1,2,3-Trichlorobenzene	10.113	180	542503	286.83 ppb		96
88) 1-Methyl naphthalene	10.852	142	870402	265.81 ppb		96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : V-200PPB.D
Acq On : 7 Nov 2016 2:20 am
Operator : NPR
Sample : V-200PPB
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 07 09:43:00 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:15:02 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\done\
Data File : ICV-1.D
Acq On : 7 Nov 2016 1:36 am
Operator : NPR
Sample : ICV-1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 07 09:52:47 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:52:36 2016
Response via : Initial Calibration

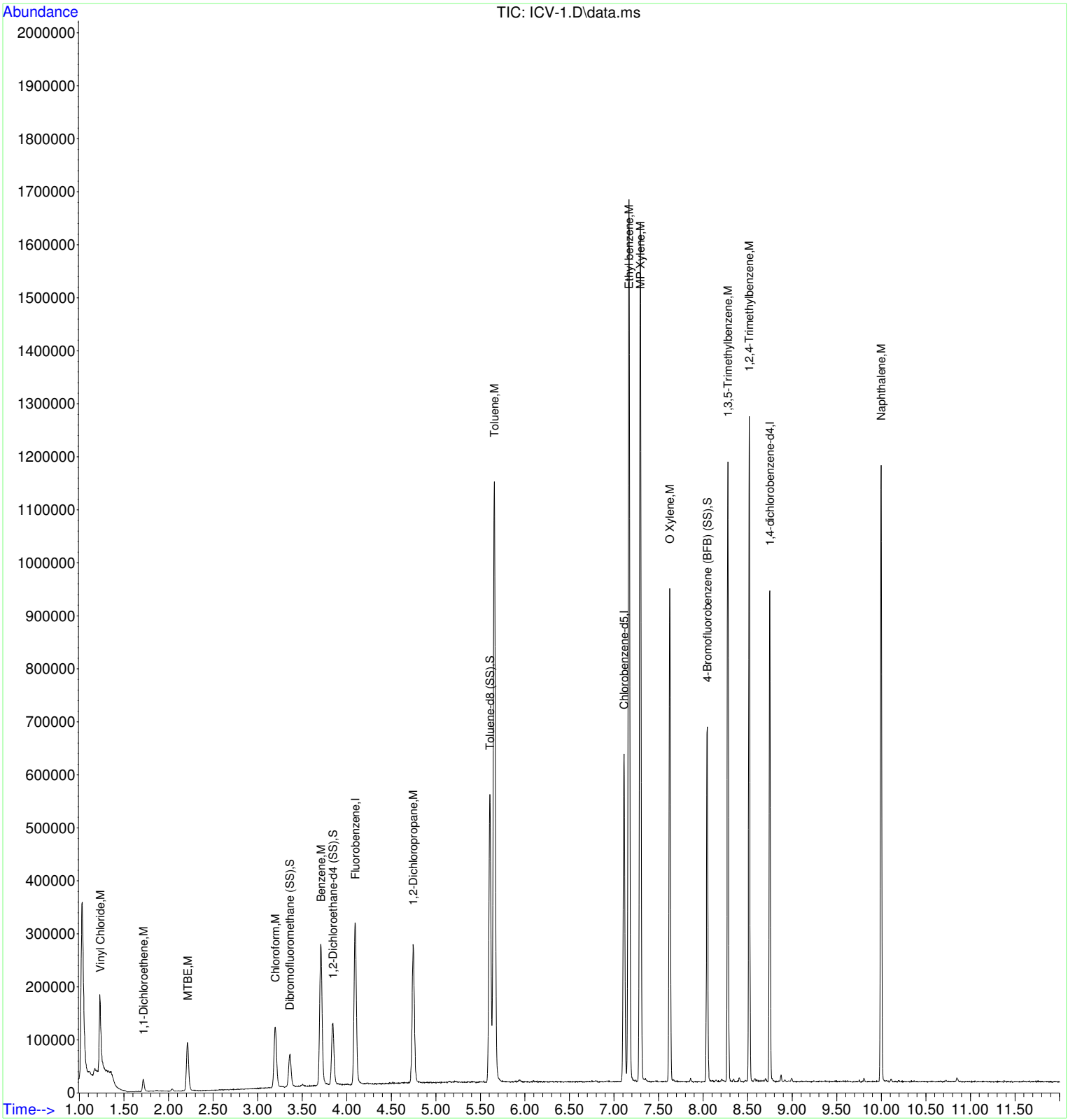
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	4.097	96	246471	50.00 ppb	0.00
42) Chlorobenzene-d5	7.113	117	259591	50.00 ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	136347	50.00 ppb	# 0.00
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	3.363	111	38311	54.52 ppb	0.00
Spiked Amount 50.000			Recovery = 109.04%		
32) 1,2-Dichloroethane-d4 ...	3.845	102	13902	51.89 ppb	0.00
Spiked Amount 50.000			Recovery = 103.78%		
44) Toluene-d8 (SS)	5.607	98	324393	50.67 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 101.34%		
63) 4-Bromofluorobenzene (...	8.046	174	119351	47.43 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.86%		
Target Compounds					Qvalue
4) Vinyl Chloride	1.236	62	123842	37.02 ppb	# 100
9) 1,1-Dichloroethene	1.718	96	4757	55.53 ppb	100
16) MTBE	2.214	73	55202	52.24 ppb	# 99
24) Chloroform	3.200	83	78203	48.77 ppb	98
30) Benzene	3.712	78	208937	44.07 ppb	97
37) 1,2-Dichloropropane	4.747	63	91332	48.43 ppb	# 95
43) Toluene	5.656	91	738884	97.24 ppb	99
55) Ethyl benzene	7.168	91	892051	101.60 ppb	98
57) MP Xylene	7.296	91	660044	105.97 ppb	99
58) O Xylene	7.626	91	349921	47.51 ppb	99
70) 1,3,5-Trimethylbenzene	8.278	105	372062	51.50 ppb	92
75) 1,2,4-Trimethylbenzene	8.517	105	382753	49.41 ppb	99
85) Naphthalene	9.998	128	529262	47.20 ppb	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\done\
Data File : ICV-1.D
Acq On : 7 Nov 2016 1:36 am
Operator : NPR
Sample : ICV-1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 07 09:52:47 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:52:36 2016
Response via : Initial Calibration



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Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : ICV-1.D
Acq On : 7 Nov 2016 1:36 am
Operator : NPR
Sample : ICV-1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 07 09:52:47 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:52:36 2016
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	50.000	50.000	0.0	127	0.00
4	M	Vinyl Chloride	50.000	37.017	26.0#	81	0.00
9	M	1,1-Dichloroethene	50.000	55.527	-11.1	146	0.01
16	M	MTBE	50.000	52.244	-4.5	118	0.00
24	M	Chloroform	50.000	48.768	2.5	127	0.00
27	S	Dibromofluoromethane (SS)	50.000	54.520	-9.0	138	0.00
30	M	Benzene	50.000	44.074	11.9	113	0.00
32	S	1,2-Dichloroethane-d4 (SS)	50.000	51.887	-3.8	135	0.00
37	M	1,2-Dichloropropane	50.000	48.430	3.1	106	0.00
42	I	Chlorobenzene-d5	50.000	50.000	0.0	106	0.00
43	M	Toluene	100.000	97.237	2.8	109	0.00
44	S	Toluene-d8 (SS)	50.000	50.668	-1.3	109	0.00
55	M	Ethyl benzene	100.000	101.598	-1.6	115	0.00
57	M	MP Xylene	100.000	105.965	-6.0	102	0.00
58	M	O Xylene	50.000	47.507	5.0	97	0.00
62	I	1,4-dichlorobenzene-d4	50.000	50.000	0.0	117	0.00
63	S	4-Bromofluorobenzene (BFB)	50.000	47.427	5.1	106	0.00
70	M	1,3,5-Trimethylbenzene	50.000	51.501	-3.0	111	0.00
75	M	1,2,4-Trimethylbenzene	50.000	49.412	1.2	113	0.00
85	M	Naphthalene	50.000	47.201	5.6	103	0.00

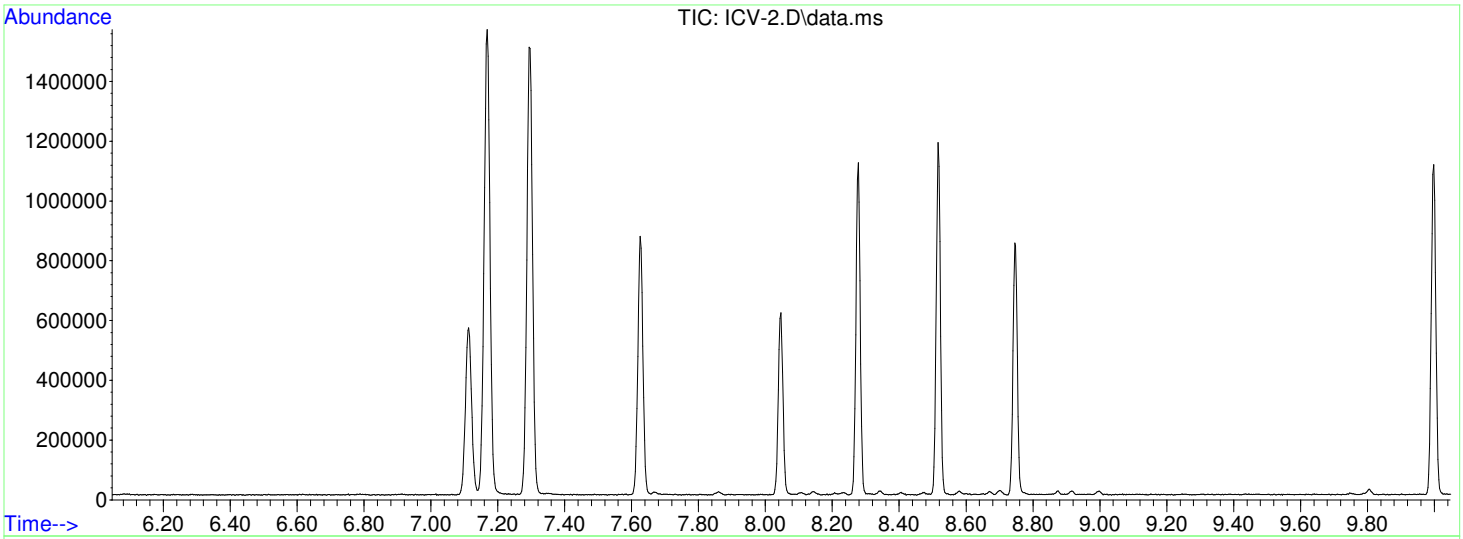
(#) = Out of Range SPCC's out = 0 CCC's out = 0

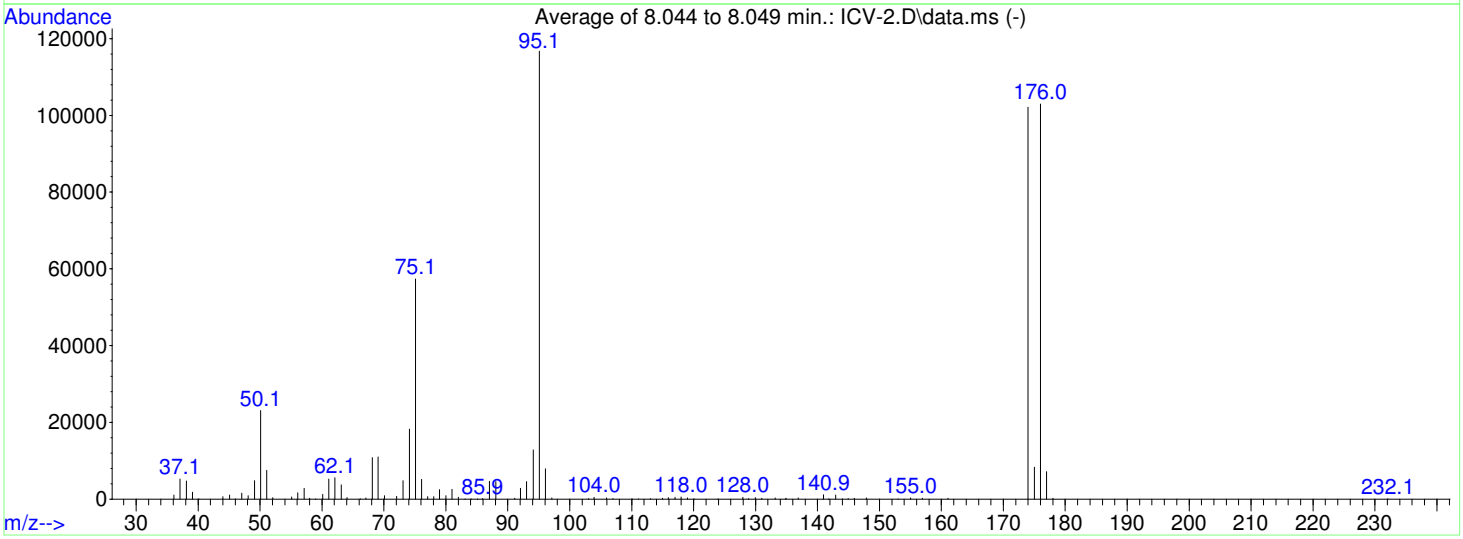
VOC-DA-06NOV2016.M Mon Nov 07 09:53:27 2016 VOA

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\done\
Data File : ICV-2.D
Acq On : 7 Nov 2016 2:41 am
Operator : NPR
Sample : ICV-2
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Title : VOC
Last Update : Tue Nov 08 14:47:44 2016





AutoFind: Scans 2806, 2807, 2808; Background Corrected with Scan 2794

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.7	23059	PASS
75	95	30	60	49.1	57312	PASS
95	95	100	100	100.0	116771	PASS
96	95	5	9	6.8	7908	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	87.5	102144	PASS
175	174	5	9	8.1	8283	PASS
176	174	95	101	100.8	102973	PASS
177	176	5	9	6.9	7143	PASS

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : MB-1.D
Acq On : 7 Nov 2016 3:24 am
Operator : NPR
Sample : MB-1
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 07 09:59:16 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:52:36 2016
Response via : Initial Calibration

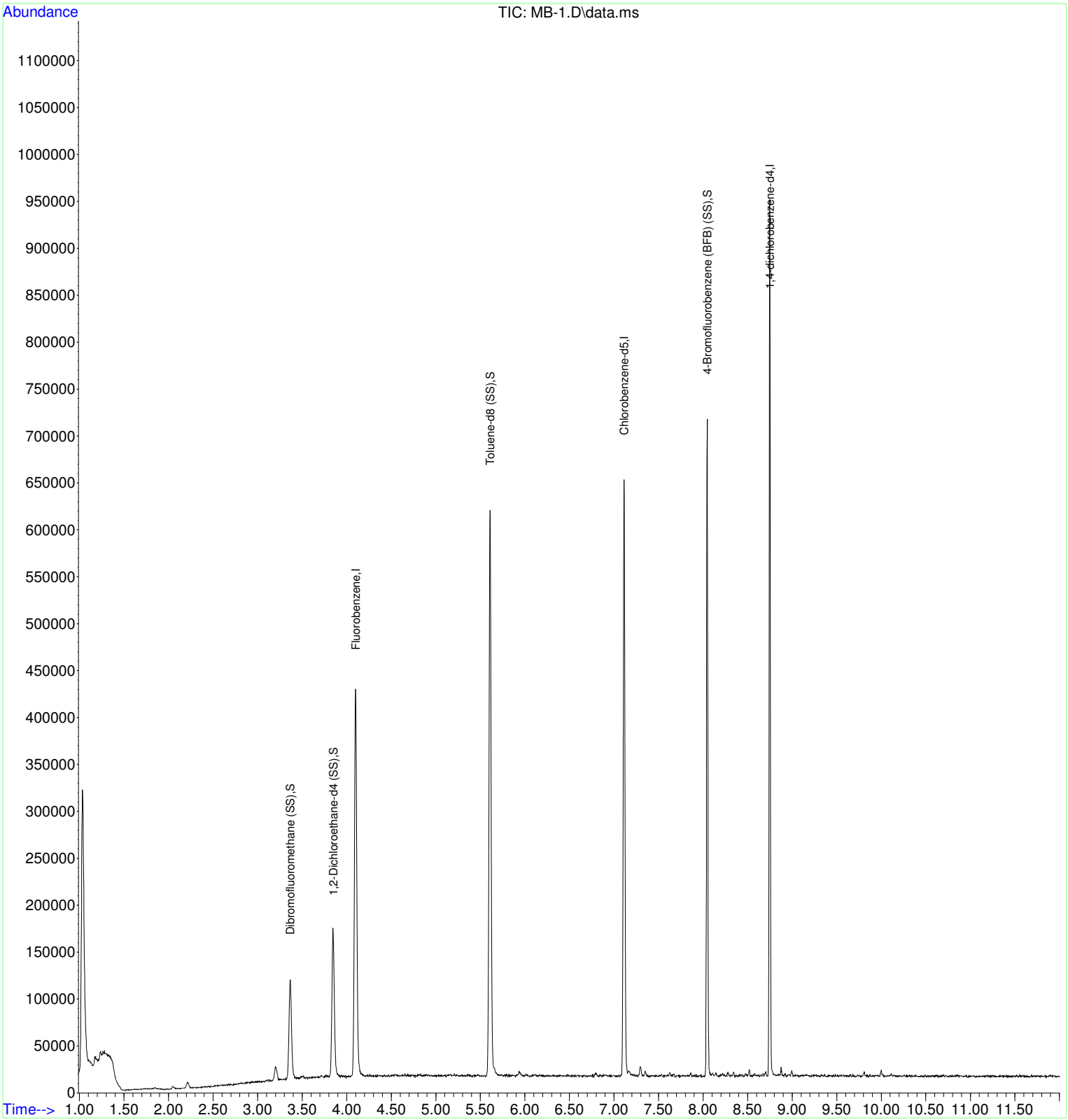
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	4.102	96	352651	50.00 ppb	0.00
42) Chlorobenzene-d5	7.114	117	272925	50.00 ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	138752	50.00 ppb	# 0.00
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	3.368	111	65944	65.59 ppb	0.00
Spiked Amount 50.000			Recovery = 131.18%		
32) 1,2-Dichloroethane-d4 ...	3.849	102	21218	55.35 ppb	0.00
Spiked Amount 50.000			Recovery = 110.70%		
44) Toluene-d8 (SS)	5.609	98	364442	54.14 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 108.28%		
63) 4-Bromofluorobenzene (...	8.047	174	124934	48.79 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.58%		
Target Compounds					Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : MB-1.D
Acq On : 7 Nov 2016 3:24 am
Operator : NPR
Sample : MB-1
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 07 09:59:16 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 09:52:36 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : LCS-2.D
Acq On : 7 Nov 2016 9:53 am
Operator : NPR
Sample : LCS-2
Misc :
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Nov 07 11:19:35 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration

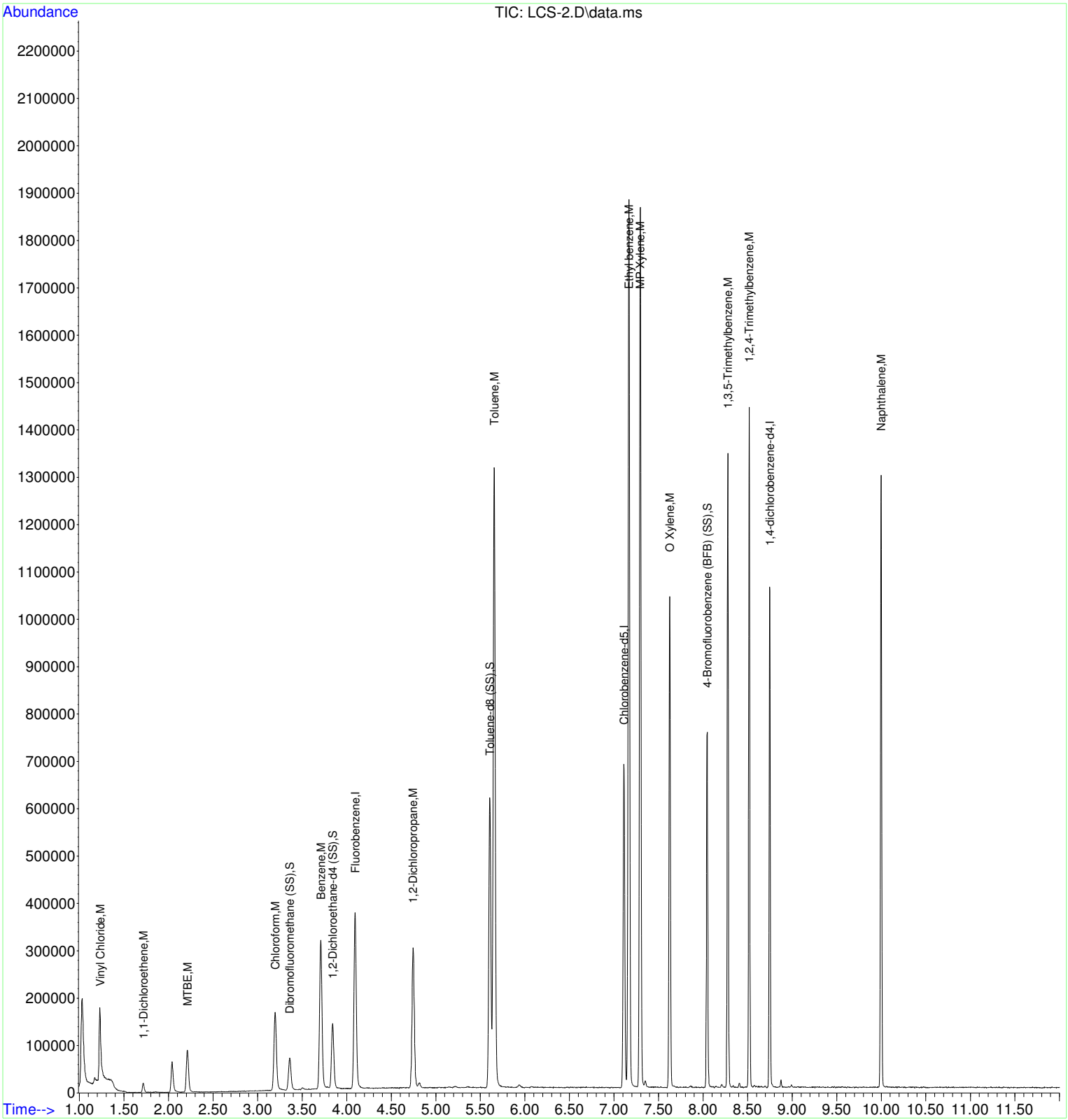
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	4.096	96	302749	50.00 ppb	0.00
42) Chlorobenzene-d5	7.113	117	287937	50.00 ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	156475	50.00 ppb	# 0.00
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	3.362	111	41057	39.24 ppb	0.00
Spiked Amount 50.000			Recovery = 78.48%		
32) 1,2-Dichloroethane-d4 ...	3.844	102	17012	47.31 ppb	0.00
Spiked Amount 50.000			Recovery = 94.62%		
44) Toluene-d8 (SS)	5.606	98	371992	48.24 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.48%		
63) 4-Bromofluorobenzene (...	8.046	174	136666	47.32 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.64%		
Target Compounds					Qvalue
4) Vinyl Chloride	1.235	62	136052	33.11 ppb	# 100
9) 1,1-Dichloroethene	1.717	96	4107	39.03 ppb	97
16) MTBE	2.213	73	52255	40.26 ppb	# 97
24) Chloroform	3.199	83	111700	56.71 ppb	99
30) Benzene	3.711	78	247440	42.49 ppb	96
37) 1,2-Dichloropropane	4.746	63	105474	45.53 ppb	# 93
43) Toluene	5.655	91	860412	102.08 ppb	99
55) Ethyl benzene	7.168	91	1007119	103.41 ppb	98
57) MP Xylene	7.295	91	752223	108.88 ppb	99
58) O Xylene	7.626	91	398821	48.82 ppb	99
70) 1,3,5-Trimethylbenzene	8.277	105	419659	50.62 ppb	92
75) 1,2,4-Trimethylbenzene	8.517	105	430198	48.39 ppb	99
85) Naphthalene	9.998	128	588927	45.77 ppb	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : LCS-2.D
Acq On : 7 Nov 2016 9:53 am
Operator : NPR
Sample : LCS-2
Misc :
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Nov 07 11:19:35 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration



Untitled
Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : LCS-2.D
Acq On : 7 Nov 2016 9:53 am
Operator : NPR
Sample : LCS-2
Misc :
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Nov 07 11:19:35 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration

Min. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	50.000	50.000	0.0	157	0.00
4	M	Vinyl Chloride	50.000	33.107	33.8#	89	0.00
9	M	1,1-Dichloroethene	50.000	39.028	21.9	126	0.01
16	M	MTBE	50.000	40.262	19.5	112	0.00
24	M	Chloroform	50.000	56.708	-13.4	182	0.00
27	S	Dibromofluoromethane (SS)	50.000	39.242	21.5	121	0.00
30	M	Benzene	50.000	42.493	15.0	134	0.00
32	S	1,2-Dichloroethane-d4 (SS)	50.000	47.305	5.4	151	0.00
37	M	1,2-Dichloropropane	50.000	45.532	8.9	122	0.00
42	I	Chlorobenzene-d5	50.000	50.000	0.0	118	0.00
43	M	Toluene	100.000	102.083	-2.1	127	0.00
44	S	Toluene-d8 (SS)	50.000	48.236	3.5	113	0.00
55	M	Ethyl benzene	100.000	103.411	-3.4	129	0.00
57	M	MP Xylene	100.000	108.875	-8.9	116	0.00
58	M	O Xylene	50.000	48.816	2.4	110	0.00
62	I	1,4-dichlorobenzene-d4	50.000	50.000	0.0	134	0.00
63	S	4-Bromofluorobenzene (BFB)	50.000	47.322	5.4	121	0.00
70	M	1,3,5-Trimethylbenzene	50.000	50.617	-1.2	126	0.00
75	M	1,2,4-Trimethylbenzene	50.000	48.394	3.2	127	0.00
85	M	Naphthalene	50.000	45.766	8.5	115	0.00

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

VOC-DA-06NOV2016.M Mon Nov 07 11:21:26 2016 VOA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5261.D
Acq On : 7 Nov 2016 4:50 am
Operator : NPR
Sample : 16-5261
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Nov 07 10:21:28 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	4.101	96	371656	50.00 ppb	0.00
42) Chlorobenzene-d5	7.114	117	284710	50.00 ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	146866	50.00 ppb	# 0.00
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	3.367	111	67358	52.44 ppb	0.00
Spiked Amount 50.000			Recovery = 104.88%		
32) 1,2-Dichloroethane-d4 ...	3.849	102	22629	51.26 ppb	0.00
Spiked Amount 50.000			Recovery = 102.52%		
44) Toluene-d8 (SS)	5.608	98	381316	50.01 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.02%		
63) 4-Bromofluorobenzene (...	8.046	174	131970	48.69 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.38%		

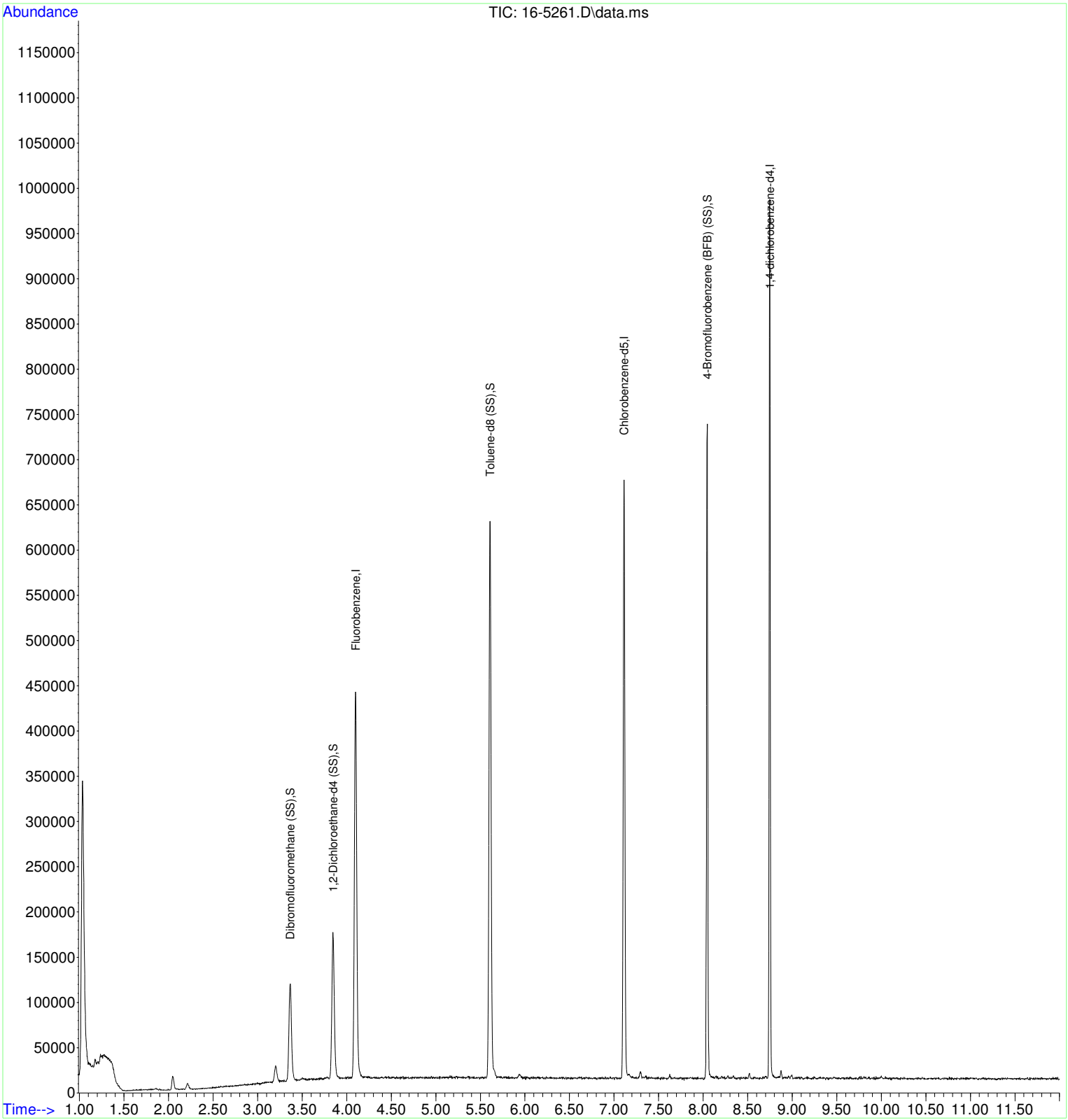
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5261.D
Acq On : 7 Nov 2016 4:50 am
Operator : NPR
Sample : 16-5261
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Nov 07 10:21:28 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5262.D
Acq On : 7 Nov 2016 5:12 am
Operator : NPR
Sample : 16-5262
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Nov 07 10:24:08 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	4.102	96	384032	50.00 ppb	0.00
42) Chlorobenzene-d5	7.114	117	288960	50.00 ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	148596	50.00 ppb	# 0.00
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	3.368	111	69910	52.68 ppb	0.00
Spiked Amount 50.000			Recovery = 105.36%		
32) 1,2-Dichloroethane-d4 ...	3.849	102	23263	51.00 ppb	0.00
Spiked Amount 50.000			Recovery = 102.00%		
44) Toluene-d8 (SS)	5.609	98	388559	50.21 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.42%		
63) 4-Bromofluorobenzene (...	8.047	174	135203	49.30 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.60%		

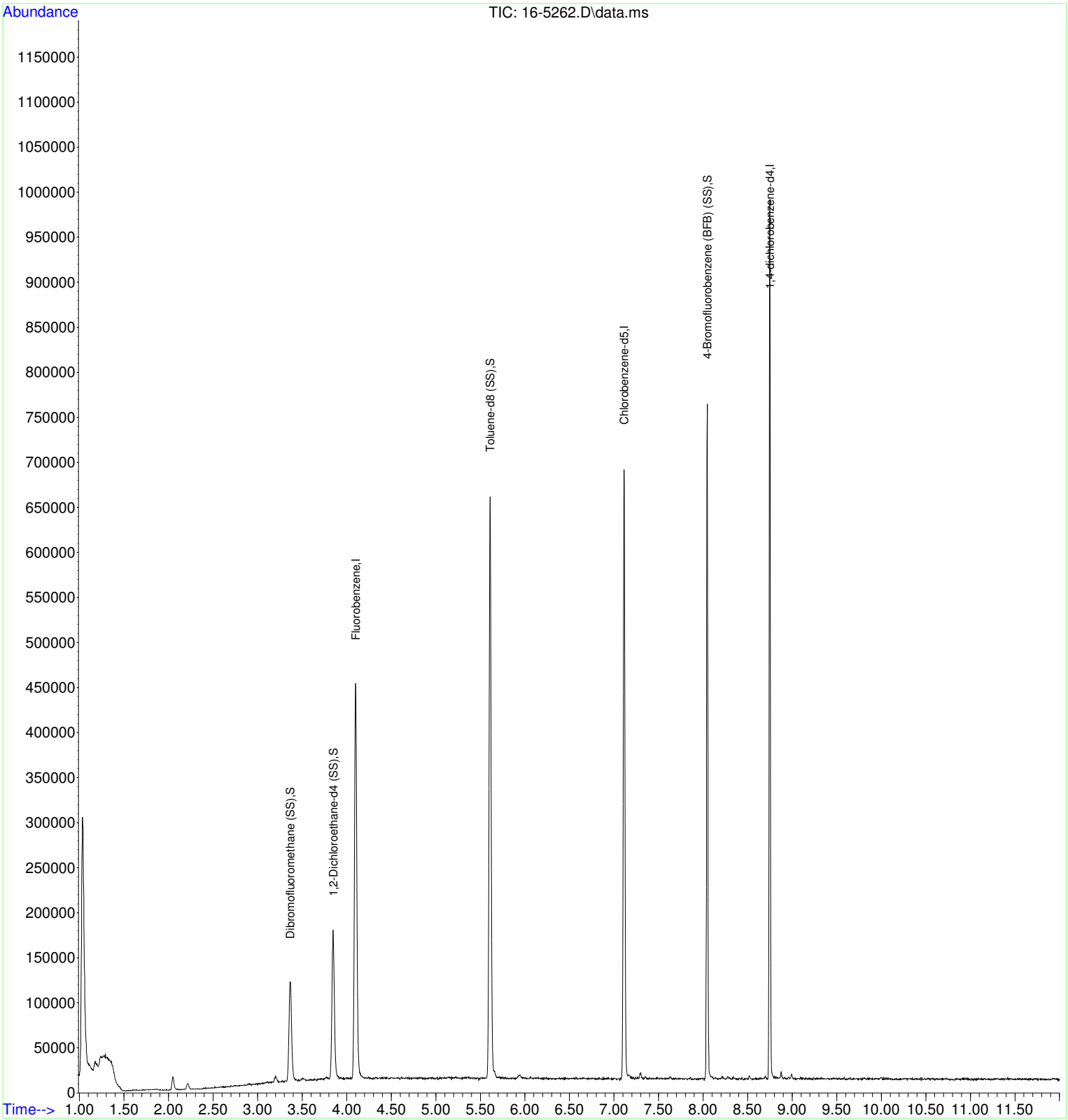
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5262.D
Acq On : 7 Nov 2016 5:12 am
Operator : NPR
Sample : 16-5262
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Nov 07 10:24:08 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5263.D
Acq On : 7 Nov 2016 5:34 am
Operator : NPR
Sample : 16-5263
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 07 10:25:10 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	4.101	96	382406	50.00 ppb	0.00
42) Chlorobenzene-d5	7.113	117	288943	50.00 ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	149774	50.00 ppb	# 0.00
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	3.367	111	70665	53.47 ppb	0.00
Spiked Amount 50.000			Recovery = 106.94%		
32) 1,2-Dichloroethane-d4 ...	3.848	102	23454	51.63 ppb	0.00
Spiked Amount 50.000			Recovery = 103.26%		
44) Toluene-d8 (SS)	5.608	98	387523	50.07 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.14%		
63) 4-Bromofluorobenzene (...	8.047	174	135346	48.96 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.92%		

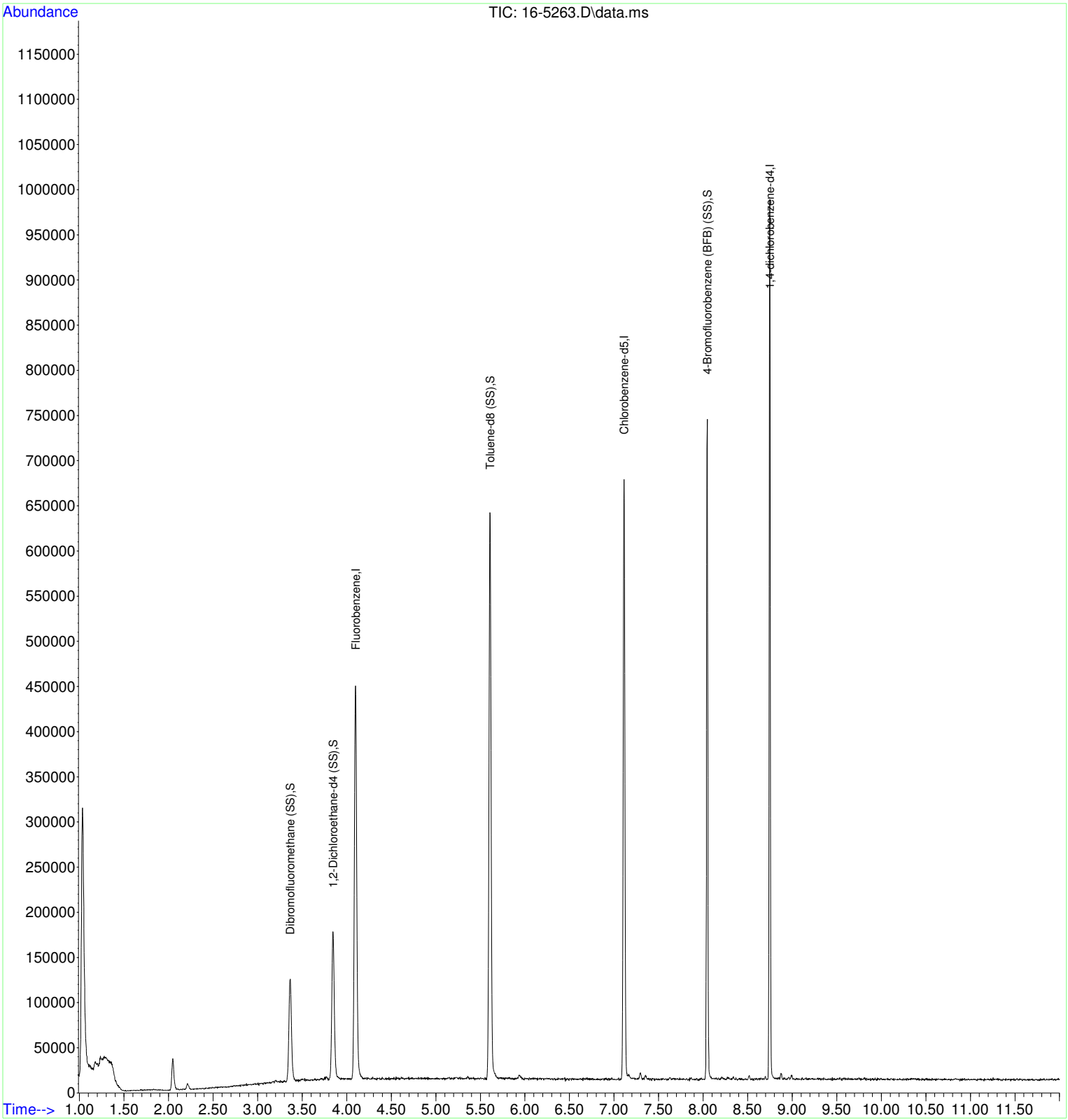
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5263.D
Acq On : 7 Nov 2016 5:34 am
Operator : NPR
Sample : 16-5263
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Nov 07 10:25:10 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5264-MS.D
Acq On : 7 Nov 2016 8:26 am
Operator : NPR
Sample : 16-5264-MS
Misc :
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Nov 07 10:25:50 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration

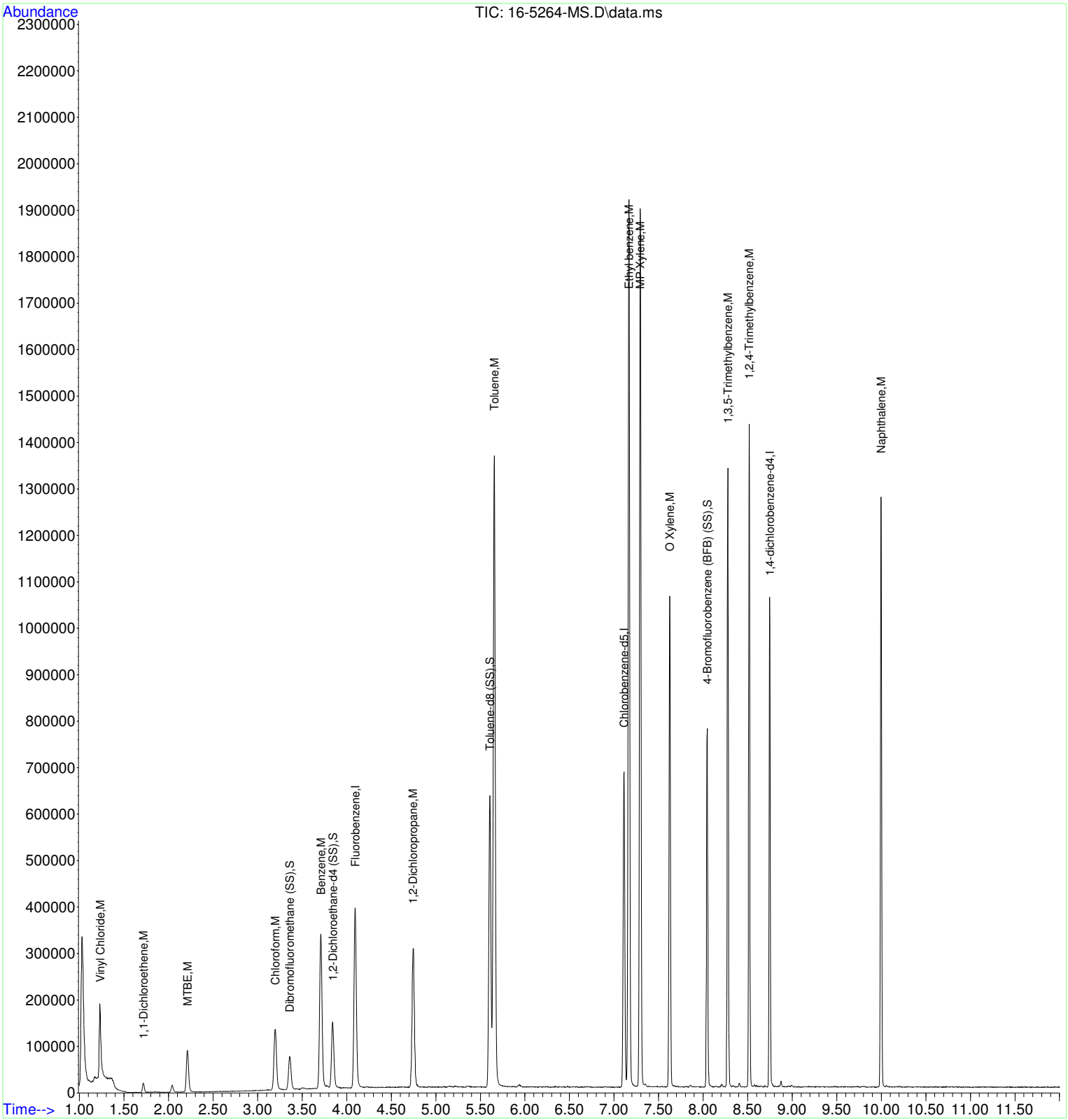
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	4.097	96	322166	50.00 ppb	0.00
42) Chlorobenzene-d5	7.113	117	292586	50.00 ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	158710	50.00 ppb	# 0.00
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	3.362	111	43860	39.39 ppb	0.00
Spiked Amount 50.000			Recovery = 78.78%		
32) 1,2-Dichloroethane-d4 ...	3.844	102	17653	46.13 ppb	0.00
Spiked Amount 50.000			Recovery = 92.26%		
44) Toluene-d8 (SS)	5.606	98	383154	48.89 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 97.78%		
63) 4-Bromofluorobenzene (...	8.046	174	139388	47.58 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 95.16%		
Target Compounds					Qvalue
4) Vinyl Chloride	1.235	62	138658	31.71 ppb	# 100
9) 1,1-Dichloroethene	1.717	96	3989	35.62 ppb	98
16) MTBE	2.214	73	51582	37.35 ppb	# 95
24) Chloroform	3.199	83	92537	44.15 ppb	98
30) Benzene	3.711	78	263486	42.52 ppb	95
37) 1,2-Dichloropropane	4.746	63	109824	44.55 ppb	# 91
43) Toluene	5.656	91	887473	103.62 ppb	98
55) Ethyl benzene	7.168	91	1018516	102.92 ppb	97
57) MP Xylene	7.295	91	760641	108.34 ppb	99
58) O Xylene	7.626	91	406348	48.95 ppb	99
70) 1,3,5-Trimethylbenzene	8.277	105	426707	50.74 ppb	92
75) 1,2,4-Trimethylbenzene	8.517	105	440943	48.90 ppb	99
85) Naphthalene	9.997	128	576241	44.15 ppb	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5264-MS.D
Acq On : 7 Nov 2016 8:26 am
Operator : NPR
Sample : 16-5264-MS
Misc :
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Nov 07 10:25:50 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5265-MSD.D
Acq On : 7 Nov 2016 8:48 am
Operator : NPR
Sample : 16-5265-MSD
Misc :
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Nov 07 10:32:07 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration

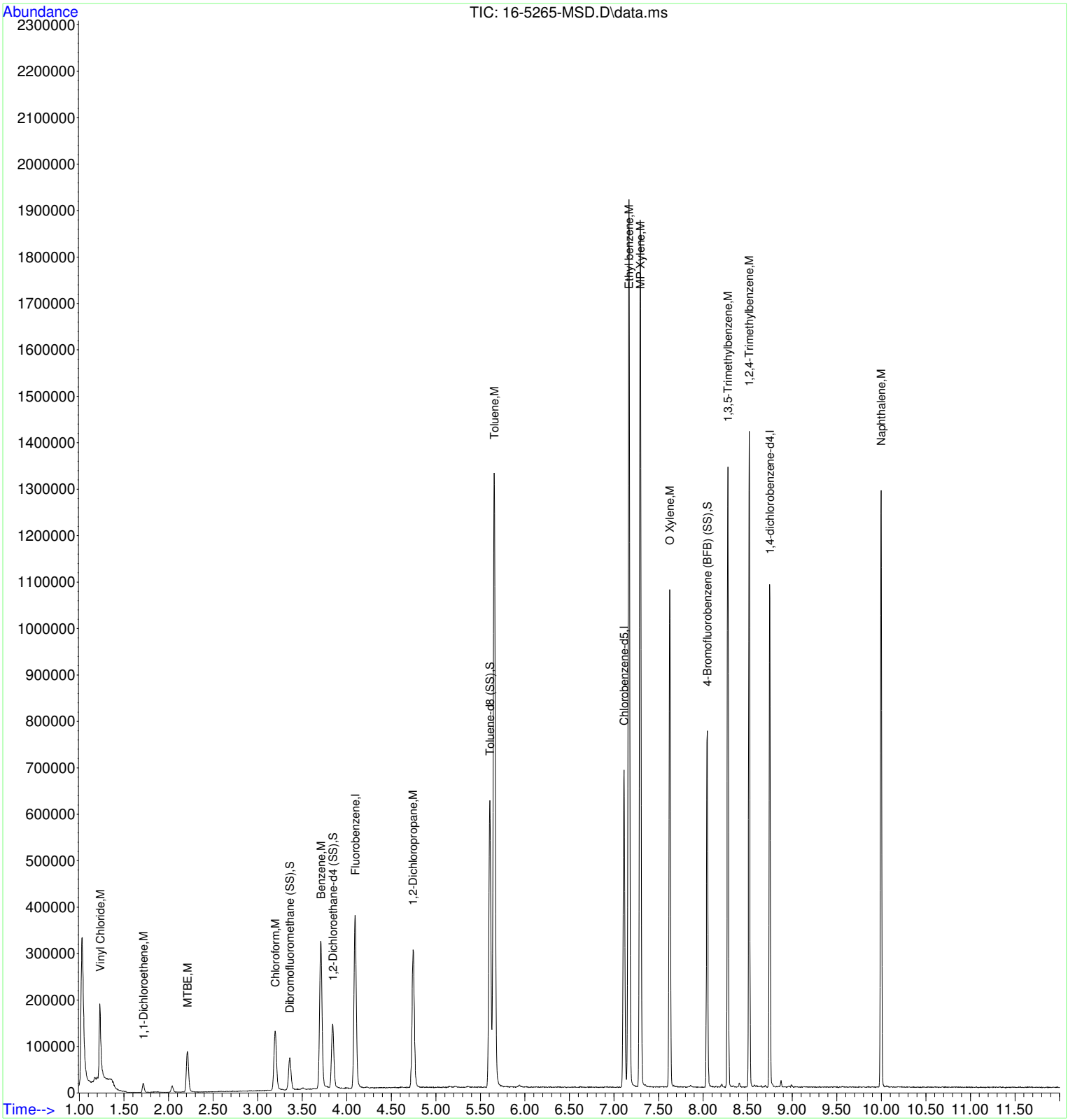
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	4.097	96	305482	50.00 ppb	0.00
42) Chlorobenzene-d5	7.113	117	292229	50.00 ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	158715	50.00 ppb	# 0.00
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	3.362	111	41829	39.62 ppb	0.00
Spiked Amount 50.000			Recovery = 79.24%		
32) 1,2-Dichloroethane-d4 ...	3.844	102	17260	47.57 ppb	0.00
Spiked Amount 50.000			Recovery = 95.14%		
44) Toluene-d8 (SS)	5.606	98	376520	48.11 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.22%		
63) 4-Bromofluorobenzene (...	8.046	174	138493	47.28 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 94.56%		
Target Compounds					Qvalue
4) Vinyl Chloride	1.235	62	138438	33.39 ppb	# 100
9) 1,1-Dichloroethene	1.717	96	4133	38.92 ppb	98
16) MTBE	2.213	73	52078	39.77 ppb	# 97
24) Chloroform	3.199	83	86875	43.71 ppb	98
30) Benzene	3.711	78	253292	43.11 ppb	96
37) 1,2-Dichloropropane	4.747	63	108655	46.49 ppb	# 92
43) Toluene	5.656	91	874507	102.23 ppb	99
55) Ethyl benzene	7.168	91	1018064	103.00 ppb	97
57) MP Xylene	7.295	91	758892	108.23 ppb	99
58) O Xylene	7.626	91	403899	48.71 ppb	99
70) 1,3,5-Trimethylbenzene	8.277	105	423974	50.42 ppb	91
75) 1,2,4-Trimethylbenzene	8.517	105	437969	48.57 ppb	99
85) Naphthalene	9.998	128	579658	44.41 ppb	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5265-MSD.D
Acq On : 7 Nov 2016 8:48 am
Operator : NPR
Sample : 16-5265-MSD
Misc :
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Nov 07 10:32:07 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration



Untitled
Spike Recovery and RPD Summary Report - WATER

Method Path : C:\msdchem\1\methods\
Method File : VOC-DA-06NOV2016.M
Title : VOC
Last Update : Tue Nov 08 14:47:44 2016
Response Via : Initial Calibration

Datafile Path: C:\msdchem\1\data\2016\11-2016\06NOV2016-2\done\

------Sample-------
File : 16-5261.D
Name : 16-5261 Acq Time: 7 Nov 2016 4:50 am

------Spike--------
File : 16-5264-MS.D
Name : 16-5264-MS Acq Time: 7 Nov 2016 8:26 am

--Spike Duplicate--
File : 16-5265-MSD.D
Name : 16-5265-MSD Acq Time: 7 Nov 2016 8:48 am

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Vinyl Chloride	0.0	50	32	33	63	67	5	20	50-144
1,1-Dichloroethene	0.0	50	36	39	71	78	9	20	55-121
MTBE	0.0	50	37	40	75	80	6	20	58-127
Chloroform	0.0	50	44	44	88	87	1	20	70-130
Benzene	0.2	50	43	43	85	86	1	20	70-130
1,2-Dichloropropane	0.0	50	45	46	89	93	4	20	70-130
Toluene	0.4	100	104	102	103	102	1	20	70-130
Ethyl benzene	0.2	100	103	103	103	103	0	20	70-130
MP Xylene	0.5	100	108	108	108	108	0	20	70-130
O Xylene	0.2	50	49	49	98	97	0	20	70-130
1,3,5-Trimethylbenze	0.0	50	51	50	101	101	1	20	70-130
1,2,4-Trimethylbenze	0.2	50	49	49	97	97	1	20	70-130
Naphthalene	0.1	50	44	44	88	89	1	20	56-130

- Fails Limit Check

VOC-DA-06NOV2016.M Mon Nov 14 11:04:47 2016 VOA

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5266.D
Acq On : 7 Nov 2016 5:55 am
Operator : NPR
Sample : 16-5266
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Nov 07 10:34:05 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	4.101	96	382632	50.00 ppb	0.00
42) Chlorobenzene-d5	7.114	117	290899	50.00 ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	149823	50.00 ppb	# 0.00
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	3.367	111	69002	52.18 ppb	0.00
Spiked Amount 50.000			Recovery = 104.36%		
32) 1,2-Dichloroethane-d4 ...	3.848	102	23411	51.51 ppb	0.00
Spiked Amount 50.000			Recovery = 103.02%		
44) Toluene-d8 (SS)	5.608	98	390702	50.15 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 100.30%		
63) 4-Bromofluorobenzene (...	8.047	174	136794	49.47 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.94%		

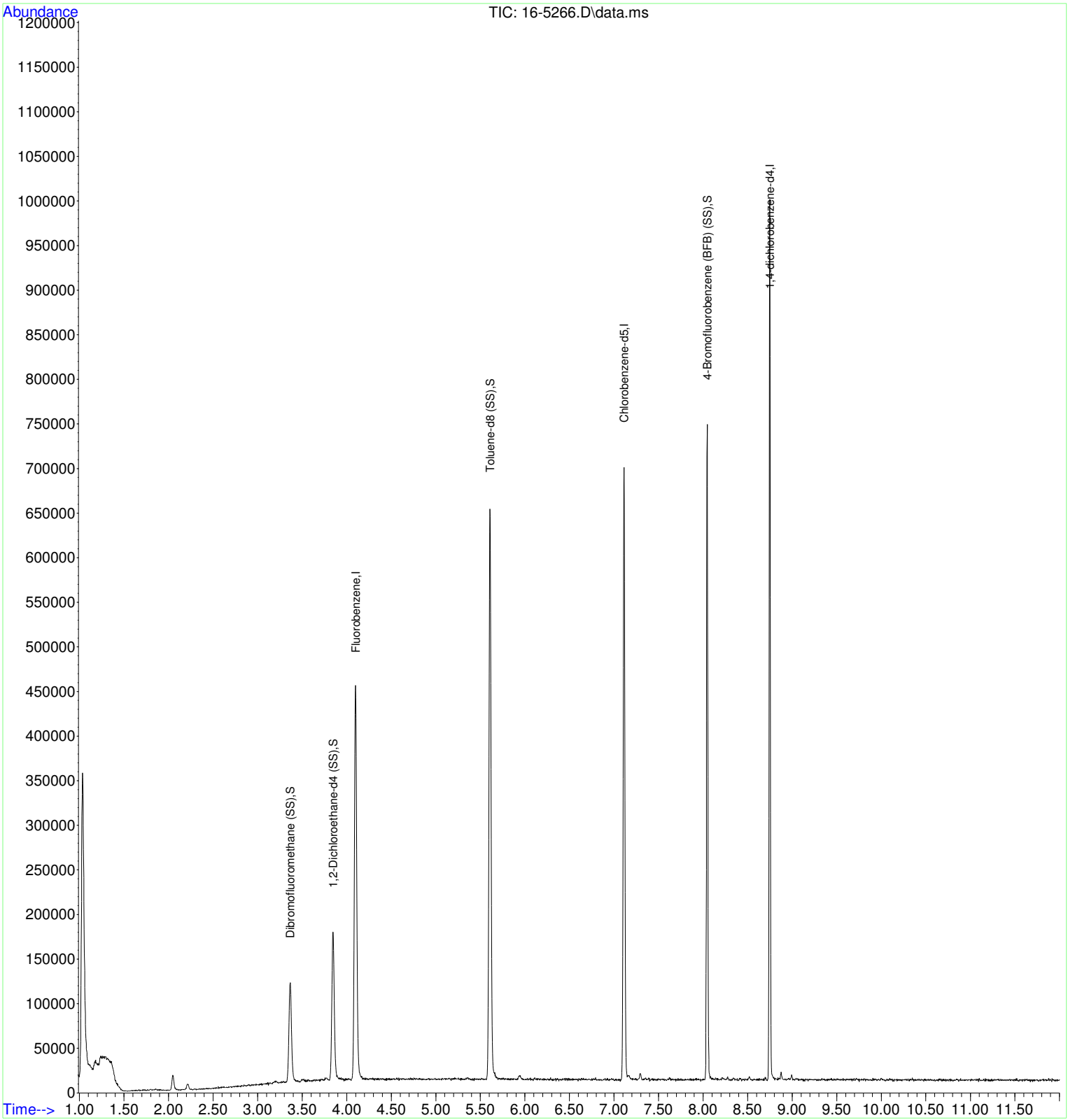
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5266.D
Acq On : 7 Nov 2016 5:55 am
Operator : NPR
Sample : 16-5266
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Nov 07 10:34:05 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5267.D
Acq On : 7 Nov 2016 3:46 am
Operator : NPR
Sample : 16-5267
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 07 10:34:50 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	4.102	96	363119	50.00 ppb	0.00
42) Chlorobenzene-d5	7.114	117	282819	50.00 ppb	0.00
62) 1,4-dichlorobenzene-d4	8.747	152	144895	50.00 ppb	# 0.00
System Monitoring Compounds					
27) Dibromofluoromethane (SS)	3.367	111	66260	52.80 ppb	0.00
Spiked Amount 50.000			Recovery = 105.60%		
32) 1,2-Dichloroethane-d4 ...	3.849	102	22336	51.78 ppb	0.00
Spiked Amount 50.000			Recovery = 103.56%		
44) Toluene-d8 (SS)	5.608	98	373204	49.27 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 98.54%		
63) 4-Bromofluorobenzene (...	8.047	174	129320	48.36 ppb	0.00
Spiked Amount 50.000	Range 70 - 130		Recovery = 96.72%		

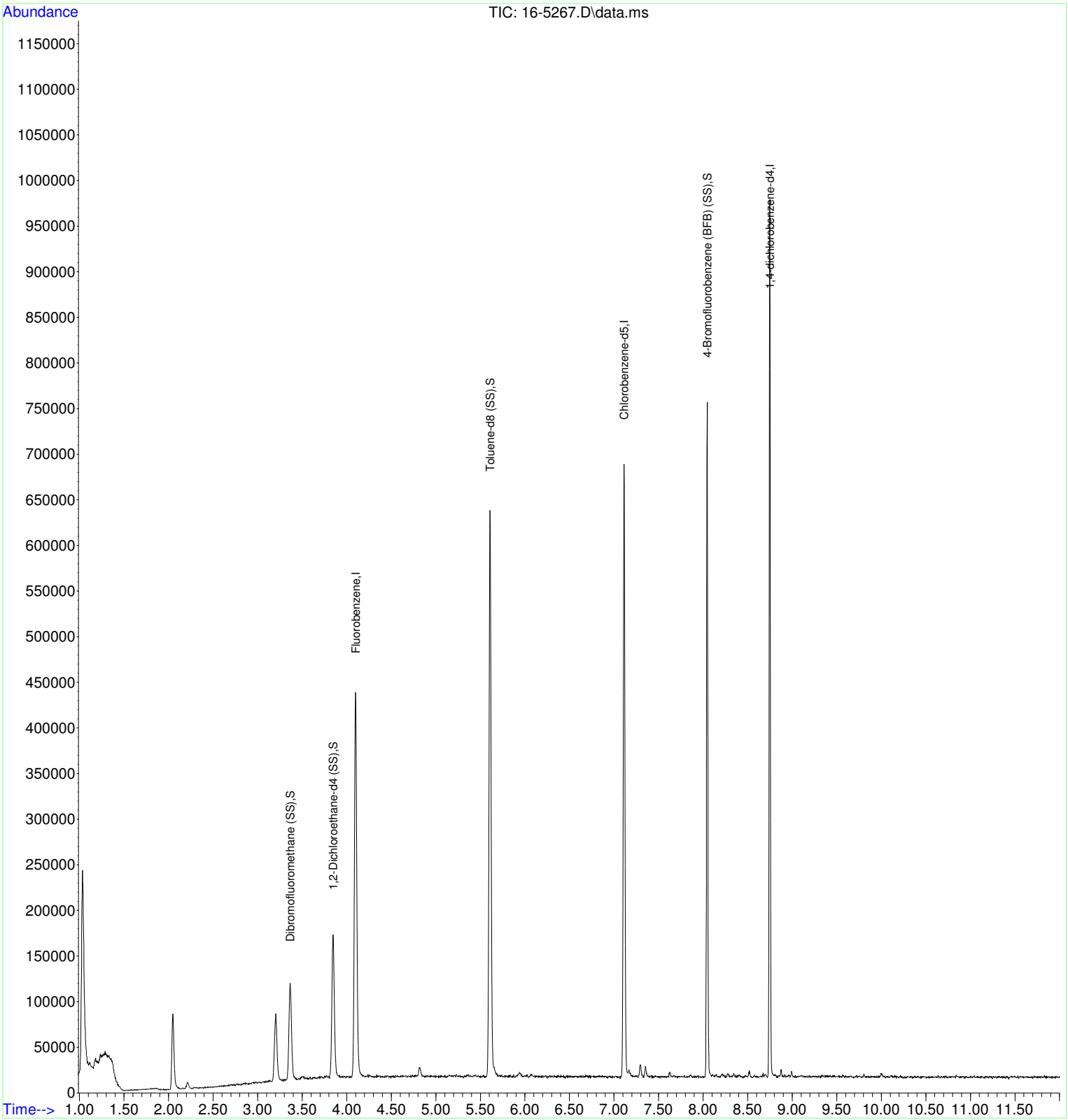
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2016\11-2016\06NOV2016-2\
Data File : 16-5267.D
Acq On : 7 Nov 2016 3:46 am
Operator : NPR
Sample : 16-5267
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Nov 07 10:34:50 2016
Quant Method : C:\msdchem\1\methods\VOC-DA-06NOV2016.M
Quant Title : VOC
QLast Update : Mon Nov 07 10:17:54 2016
Response via : Initial Calibration



Pb_11Nov16

Operator Name: KJK *Report Date:* 11/15/2016 6:40:45
Results File: C:\SOLAARM\DATA\Pb_4thQtr_2016.slr

General Parameters

Method : Pb_7010A_Current *Operator :* KJK *Instrument Mode:* Furnace
Autosampler : Furnace

Method Audit Trail

5/14/2015 10:39:26 KJK:OMNICADMIN-PC
Record created
6/17/2015 4:28:36 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
(Pb Standard Preparation: Fixed) changed to (Manual)
(Pb Modifier 1 Method None) changed to (Wet-mixed)
(Pb Use Stored Calibration: Yes) changed to (No)
7/16/2015 3:07:08 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
(Pb Phase 2 Time 0.0) changed to (5.0)
(Pb Standard 1 5.0000) changed to (1.0000)
(Pb Standard 2 10.0000) changed to (5.0000)
(Pb Standard 3 25.0000) changed to (10.0000)
(Pb Standard 4 50.0000) changed to (25.0000)
(Pb Standard 5 100.0000) changed to (50.0000)
(Pb Master Standard 100.0000) changed to (50.0000)
7/30/2015 6:18:48 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
(Pb Number of standards: 5) changed to (6)
(Pb Standard 6 0.0000) changed to (100.0000)
(Pb Master Standard 50.0000) changed to (100.0000)
8/21/2015 1:18:54 KJK:OMNICADMIN-PC
(Pb Standard 1 1.0000) changed to (2.5000)
9/22/2015 3:05:55 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
(Pb QC Blank Conc: 0.0000) changed to (5.0000)
(Pb QC Check 1 Limits 90.0000 110.0000) changed to (45.0000 55.0000)
(Pb QC Check 1 Conc: 57.0000) changed to (50.0000)
(Pb QC Check 1 Test No) changed to (Yes)
(Pb QC Check 2 Limits 90.0000 110.0000) changed to (45.0000 55.0000)
(Pb QC Check 2 Conc: 1.0000) changed to (50.0000)
(Pb QC Check 2 Test No) changed to (Yes)
9/22/2015 5:31:09 KJK:OMNICADMIN-PC
(Pb Phase 3 Temp 800) changed to (600)
(Pb Phase 4 Temp 1200) changed to (1300)
(Pb Modifier 1 Method Wet-mixed) changed to (None)
9/23/2015 9:11:36 KJK:OMNICADMIN-PC
(Pb Modifier 1 Method None) changed to (Wet-mixed)
9/23/2015 12:53:33 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
(Pb Standard 1 2.5000) changed to (2.5070)
(Pb Standard 2 5.0000) changed to (5.0150)
(Pb Standard 3 10.0000) changed to (10.0300)
(Pb Standard 4 25.0000) changed to (25.0750)
(Pb Standard 5 50.0000) changed to (50.1500)
(Pb Standard 6 100.0000) changed to (75.2250)
(Pb QC Blank Limits -0.0100 0.0100) changed to (-0.0300 0.0300)
(Pb QC Check 1 Limits 45.0000 55.0000) changed to (90.0000 110.0000)
(Pb QC Check 1 Conc: 50.0000) changed to (50.1500)
(Pb QC Check 1 Test Yes) changed to (No)
(Pb QC Check 2 Limits 45.0000 55.0000) changed to (90.0000 110.0000)
(Pb QC Check 2 Conc: 50.0000) changed to (50.2500)
(Pb QC Check 2 Test Yes) changed to (No)
9/29/2015 5:23:35 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
9/30/2015 12:18:49 KJK:OMNICADMIN-PC
Sample Details changed

Pb_11Nov16

Operator Name: KJK *Report Date:* 11/15/2016 6:40:45
Results File: C:\SOLAARM\DATA\Pb_4thQtr_2016.slr

9/30/2015 12:18:49 KJK:OMNICADMIN-PC
Task Sequence changed
10/7/2015 1:51:48 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
10/23/2015 11:54:11 KJK:OMNICADMIN-PC
(Method : Pb_7010A) changed to (Pb_7010A_Current)
10/23/2015 12:14:57 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
3/25/2016 5:12:11 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
(Pb Modifier 1 Method Wet-mixed) changed to (None)
4/26/2016 5:30:15 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
5/2/2016 2:37:12 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
10/11/2016 3:17:58 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
11/3/2016 5:17:40 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed
11/11/2016 1:38:27 KJK:OMNICADMIN-PC
Sample Details changed
Task Sequence changed

Analysis Details

Analysis Name: Pb_11Nov16 11/11/2016 *Spectrometer:* iCE 3000 AA04121101 v1.30
Operator Name: KJK

Lamp Information

Element(s)	Serial Number	mA Hours
Pb	n/a	n/a

Deuterium Lamp Hours: 0.00

Sequence Table

Shared Standards: Yes

Action	Pb
Calibration	✓
Cuvette Clean	✓
QC Blank	✓
QC Check 1	✓
QC Check 2	✓
16-5321	✓
16-5322	✓
QC Check 2	✓
16-5323	✓
16-5324	✓
16-5325	✓
16-5326	✓
16-5327	✓
16-5328	✓
16-5329	✓
16-5330	✓
Cuvette Clean	✓
QC Blank	✓
QC Check 1	✓
16-5331MS	✓
16-5332MSD	✓
QC Check 1	✓
16-5333	✓
16-5335	✓
16-5336	✓
16-5337	✓
16-5338	✓
16-5339	✓
16-5340	✓

Pb_11Nov16

Operator Name: KJK *Report Date:* 11/15/2016 6:40:45

Results File: C:\SOLAARM\DATA\Pb_4thQtr_2016.slr

Sequence Table

Shared Standards: Yes

Action	Pb
16-5341	✓
Cuvette Clean	✓
QC Blank	✓
QC Check 1	✓
16-5342	✓
16-5343	✓
QC Check 1	✓
16-5344	✓
16-5345MS	✓
16-4346MSD	✓
Cuvette Clean	✓
QC Check 1	✓
16-5347	✓
MB_Soil	✓
LCS_Soil	✓
16-5258	✓
16-5261x10	✓
Cuvette Clean	✓
QC Blank	✓
QC Check 1	✓
16-5262	✓
16-5263	✓
16-5264MS	✓
16-5265MSD	✓
16-5266	✓
16-5285	✓
16-5288	✓
16-5289	✓
16-5290	✓
16-5291	✓
Cuvette Clean	✓
QC Blank	✓
QC Check 1	✓
16-5292	✓
16-5293	✓
16-5294	✓
16-5295	✓
16-5296	✓
16-5297	✓
16-5298	✓
16-5299	✓
16-5300	✓
MB_GW_07Nov	✓
Cuvette Clean	✓
QC Blank	✓
QC Check 1	✓
LCS_GW_07Nov	✓
16-5356	✓
16-5357	✓
16-5358	✓
16-5359	✓
16-5360	✓
16-5361	✓
16-5362MS	✓
16-5363MSD	✓
16-5394	✓
Cuvette Clean	✓
QC Blank	✓
QC Check 1	✓
16-5395	✓
16-5396	✓
16-5397	✓
16-5398	✓
16-5399	✓
16-5400MS	✓
16-5401MSD	✓
MB_GW_09Nov	✓
LCS_GW_09Nov	✓

Pb_11Nov16

Operator Name: KJK *Report Date:* 11/15/2016 6:40:45

Results File: C:\SOLAARM\DATA\Pb_4thQtr_2016.slr

Sequence Table

Shared Standards: Yes

Action	Pb
Cuvette Clean	✓
QC Blank	✓
QC Check 1	✓
16-5330x5	✓
16-5324x5	✓
16-5333x5	✓
16-5337x10	✓
16-5261x1	✓
16-5264MSx10	✓
16-5265MSDx10	✓
16-5357x5	✓
16-5361x5	✓
16-5395x5	✓
16-5399x5	✓

Sample Details

Nominal Mass:1.0000

No.	Sample Id	Sample Mass	Dilution Ratio
1	16-5321	1.0000	1.0000
2	16-5322	1.0000	1.0000
3	16-5323	1.0000	1.0000
4	16-5324	1.0000	1.0000
5	16-5325	1.0000	1.0000
6	16-5326	1.0000	1.0000
7	16-5327	1.0000	1.0000
8	16-5328	1.0000	1.0000
9	16-5329	1.0000	1.0000
10	16-5330	1.0000	1.0000
11	16-5331MS	1.0000	1.0000
12	16-5332MSD	1.0000	1.0000
13	16-5333	1.0000	1.0000
14	16-5335	1.0000	1.0000
15	16-5336	1.0000	1.0000
16	16-5337	1.0000	1.0000
17	16-5338	1.0000	1.0000
18	16-5339	1.0000	1.0000
19	16-5340	1.0000	1.0000
20	16-5341	1.0000	1.0000
21	16-5342	1.0000	1.0000
22	16-5343	1.0000	1.0000
23	16-5344	1.0000	1.0000
24	16-5345MS	1.0000	1.0000
25	16-4346MSD	1.0000	1.0000
26	16-5347	1.0000	1.0000
27	MB_Soil	1.0000	1.0000
28	LCS_Soil	1.0000	1.0000
29	16-5258	1.0000	1.0000
30	16-5261x10	1.0000	1.0000
31	16-5262	1.0000	1.0000
32	16-5263	1.0000	1.0000
33	16-5264MS	1.0000	1.0000
34	16-5265MSD	1.0000	1.0000
35	16-5266	1.0000	1.0000
36	16-5285	1.0000	1.0000
37	16-5288	1.0000	1.0000
38	16-5289	1.0000	1.0000
39	16-5290	1.0000	1.0000
40	16-5291	1.0000	1.0000
41	16-5292	1.0000	1.0000
42	16-5293	1.0000	1.0000
43	16-5294	1.0000	1.0000
44	16-5295	1.0000	1.0000
45	16-5296	1.0000	1.0000
46	16-5297	1.0000	1.0000
47	16-5298	1.0000	1.0000
48	16-5299	1.0000	1.0000
49	16-5300	1.0000	1.0000

Pb_11Nov16

Operator Name: KJK *Report Date:* 11/15/2016 6:40:45
Results File: C:\SOLAARM\DATA\Pb_4thQtr_2016.slr

Sample Details

Nominal Mass:1.0000

No.	Sample Id	Sample Mass	Dilution Ratio
50	MB_GW_07Nov	1.0000	1.0000
51	LCS_GW_07Nov	1.0000	1.0000
52	16-5356	1.0000	1.0000
53	16-5357	1.0000	1.0000
54	16-5358	1.0000	1.0000
55	16-5359	1.0000	1.0000
56	16-5360	1.0000	1.0000
57	16-5361	1.0000	1.0000
58	16-5362MS	1.0000	1.0000
59	16-5363MSD	1.0000	1.0000
60	16-5394	1.0000	1.0000
61	16-5395	1.0000	1.0000
62	16-5396	1.0000	1.0000
63	16-5397	1.0000	1.0000
64	16-5398	1.0000	1.0000
65	16-5399	1.0000	1.0000
66	16-5400MS	1.0000	1.0000
67	16-5401MSD	1.0000	1.0000
68	MB_GW_09Nov	1.0000	1.0000
69	LCS_GW_09Nov	1.0000	1.0000
70	16-5330x5	1.0000	1.0000
71	16-5324x5	1.0000	1.0000
72	16-5333x5	1.0000	1.0000
73	16-5337x10	1.0000	1.0000
74	16-5261x1	1.0000	1.0000
75	16-5264MSx10	1.0000	1.0000
76	16-5265MSDx10	1.0000	1.0000
77	16-5357x5	1.0000	1.0000
78	16-5361x5	1.0000	1.0000
79	16-5395x5	1.0000	1.0000
80	16-5399x5	1.0000	1.0000

Reagent Details

Reagent	Reagent Name
Matrix Modifier 1	Mg Nitrate

Analysis Audit Trail

11/11/2016 1:38:27 KJK:OMNICADMIN-PC
Record created
11/11/2016 5:50:38 KJK:OMNICADMIN-PC
The analysis has been completed.

Spectrometer Parameters - Pb

Element: Pb
Measurement Mode: Absorbance
Wavelength: 283.3nm
Bandpass: 0.5nm
Lamp Current: 90%
Background Correction: Zeeman
High Resolution: Off
Optimize Spectrometer Parameters: No
Signal Type: Transient
Transient Type: Area
Number Of Resamples: 1
Measurement Time: 3.0secs
Flier Mode: No
Measure Peak From: 0.00
To: 3.00secs
Use RSD Test: No

Furnace Parameters - Pb

Cuvette Type: Normal
Injection Temperature: 0°C

Furnace Program (84.0secs)

Phase	Temp (°C)	Time (sec)	Ramp (°C/sec)	Gas Type	Gas Flow	Commands
1	100	30.0	10	2	0.1L/min	
2	150	5.0	5	2	0.1L/min	
3	600	20.0	150	2	0.2L/min	
4	1300	3.0	0	2	Off	RD TC
5	2500	3.0	0	2	0.2L/min	TC

Pb_11Nov16

Operator Name: KJK
Results File: C:\SOLAARM\DATA\Pb_4thQtr_2016.slr

Report Date: 11/15/2016 6:40:45

Sampling Parameters - Pb

Sampling: Furnace
Working Volume: 20.0µL

Automatic Spike Prep: No
Sample Volume: 20.0µL

Matrix Modifiers

Modifier	Method	Volume	Order
1 Mg Nitrate	None	5.0µL	1
2	None	20.0µL	2
3	None	20.0µL	3
4	None	20.0µL	4
5	None	20.0µL	5
6	None	20.0µL	6

Sample Preparation: None
Standard Preparation: Manual
Slow Solution Uptake: No
Sampling Delay: No

Std Additions: None
Slow Injection: No
Number Of Washes: 1

Calibration Parameters - Pb

Calibration Mode: Normal
Concentration Units: µg/L
Acceptable Fit: 0.995
Master Standard: 100.0000

Line Fit: Linear
Scaled Units: µg/L
Rescale Limit: 10.0%

Use Stored Calibration: No
Scaling Factor: 1.0000
Failure Action: Flag and Continue

Standard 1	2.5070	Standard 4	25.0750
Standard 2	5.0150	Standard 5	50.1500
Standard 3	10.0300	Standard 6	75.2250

QC Parameters - Pb

Test	Conc:µg/L	Limits	Action	Repeat
QC Blank	5.0000	-0.030 to 0.030Abs.s	Continue	Continue Next Element
QC Check 1	50.1500	90.0 to 110.0%	Continue	Continue Next Element
QC Check 2	50.2500	90.0 to 110.0%	Continue	Continue Next Element

QC Results Summary - Pb

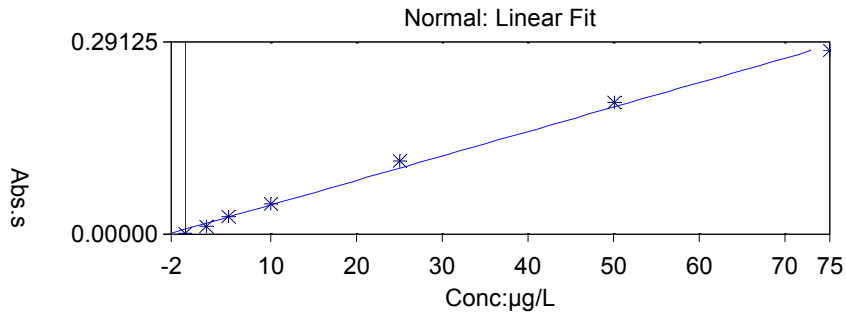
QC Blank	QC Blank	Passed 8/8 tests
QC Check 1	QC Check 1	Passed 9/11 tests
QC Check 2	QC Check 2	Passed 2/2 tests
Poor Calibration Fit	2 of 108 solutions	
Over/Under Calibration	17 of 108 solutions	

Element Audit Trail - Pb

No changes are recorded for this element

Solution Results - Pb

Y = 0.00370x + 0.0070
Fit: 0.9959
Characteristic Conc: 1.1892



Sample ID		Signal	Rsd	Conc	Corrected Conc
		Abs.s (Area)	%	µg/L	µg/L
Pb Blank		**0.001**		**0.0000**	
	1	0.001	Background:	0.001	11/11/2016 1:41:20
Pb Standard 1		**0.012**		**2.5070**	
	1	0.012	Background:	0.002	11/11/2016 1:43:27
Pb Standard 2		**0.026**		**5.0150 U**	
	1	0.026	Background:	0.003	11/11/2016 1:45:33
Pb Standard 3		**0.045**		**10.0300 U**	
	1	0.045	Background:	0.005	11/11/2016 1:47:38

Pb_11Nov16

Operator Name: KJK *Report Date:* 11/15/2016 6:40:45

Results File: C:\SOLAARM\DATA\Pb_4thQtr_2016.slr

Solution Results - Pb

Sample ID	Signal Abs.s (Area)	Rsd %	Conc µg/L	Corrected Conc µg/L
Pb Standard 4	**0.110**		**25.0750**	
1	0.110	Background:	0.011	11/11/2016 1:49:45
Pb Standard 5	**0.199**		**50.1500**	
1	0.199	Background:	0.020	11/11/2016 1:51:52
Pb Standard 6	**0.277**		**75.2250**	
1	0.277	Background:	0.030	11/11/2016 1:53:57
Pb QC Blank	**0.000**		**-1.8532 C**	**-1.8532 C**
1	0.000	Background:	0.001	11/11/2016 1:57:29
Test: QC Blank	*Value:* 0.000Abs.s (Area)			*Outcome:* Passed
Pb QC Check 1	**0.198**		**51.5172**	**51.5172**
1	0.198	Background:	0.021	11/11/2016 1:59:36
Test: QC Check 1	*Value:* 51.5172µg/L			*Outcome:* Passed
Pb QC Check 2	**0.192**		**49.9235**	**49.9235**
1	0.192	Background:	0.019	11/11/2016 2:01:42
Test: QC Check 2	*Value:* 49.9235µg/L			*Outcome:* Passed
Pb 16-5321	**0.276**		**72.6088**	**72.6088**
1	0.276	Background:	0.033	11/11/2016 2:04:41
Pb 16-5322	**0.082**		**20.2668**	**20.2668**
1	0.082	Background:	0.009	11/11/2016 2:06:47
Pb QC Check 2	**0.192**		**49.9325**	**49.9325**
1	0.192	Background:	0.020	11/11/2016 2:08:54
Test: QC Check 2	*Value:* 49.9325µg/L			*Outcome:* Passed
Pb 16-5323	**0.246**		**64.5138**	**64.5138**
1	0.246	Background:	0.026	11/11/2016 2:11:00
Pb 16-5324	**0.297**		**78.4488 C**	**78.4488 C**
1	0.297	Background:	0.042	11/11/2016 2:13:07
Pb 16-5325	**0.121**		**30.9242**	**30.9242**
1	0.121	Background:	0.016	11/11/2016 2:15:13
Pb 16-5326	**0.069**		**16.6425**	**16.6425**
1	0.069	Background:	0.009	11/11/2016 2:17:18
Pb 16-5327	**0.142**		**36.3850**	**36.3850**
1	0.142	Background:	0.017	11/11/2016 2:19:27
Pb 16-5328	**0.162**		**41.9669**	**41.9669**
1	0.162	Background:	0.025	11/11/2016 2:21:33
Pb 16-5329	**0.094**		**23.4496**	**23.4496**
1	0.094	Background:	0.009	11/11/2016 2:23:38
Pb 16-5330x5	**0.463**		**123.2792 C**	**123.2792 C**
1	0.463	Background:	0.068	11/11/2016 2:25:43
Pb QC Blank	**0.000**		**-1.8293 C**	**-1.8293 C**
1	0.000	Background:	0.000	11/11/2016 2:29:16
Test: QC Blank	*Value:* 0.000Abs.s (Area)			*Outcome:* Passed
Pb QC Check 1	**0.199**		**52.0203**	**52.0203**
1	0.199	Background:	0.021	11/11/2016 2:31:22
Test: QC Check 1	*Value:* 52.0203µg/L			*Outcome:* Passed
Pb 16-5331MS	**0.271**		**71.3120**	**71.3120**
1	0.271	Background:	0.029	11/11/2016 2:33:28
Pb 16-5332MSD	**0.175**		**45.5281**	**45.5281**
1	0.175	Background:	0.018	11/11/2016 2:35:35
Pb QC Check 1	**0.199**		**51.7839**	**51.7839**
1	0.199	Background:	0.021	11/11/2016 2:37:41
Test: QC Check 1	*Value:* 51.7839µg/L			*Outcome:* Passed

Pb_11Nov16

Operator Name: KJK *Report Date:* 11/15/2016 6:40:45

Results File: C:\SOLAARM\DATA\Pb_4thQtr_2016.slr

Solution Results - Pb

Sample ID	Signal Abs.s (Area)	Rsd %	Conc µg/L	Corrected Conc µg/L
Pb 16-5333	**0.286**		**75.3047 C**	**75.3047 C**
1	0.286	Background:	0.030	11/11/2016 2:39:47
Pb 16-5335	**0.050**		**11.5691**	**11.5691**
1	0.050	Background:	0.006	11/11/2016 2:41:54
Pb 16-5336	**0.093**		**23.2735**	**23.2735**
1	0.093	Background:	0.012	11/11/2016 2:44:00
Pb 16-5337	**0.705**		**188.7206 C**	**188.7206 C**
1	0.705	Background:	0.094	11/11/2016 2:46:05
Pb 16-5338	**0.080**		**19.6213**	**19.6213**
1	0.080	Background:	0.014	11/11/2016 2:48:12
Pb 16-5339	**0.079**		**19.3830**	**19.3830**
1	0.079	Background:	0.011	11/11/2016 2:50:18
Pb 16-5340	**0.053**		**12.5128**	**12.5128**
1	0.053	Background:	0.007	11/11/2016 2:52:25
Pb 16-5341	**0.052**		**12.0714**	**12.0714**
1	0.052	Background:	0.007	11/11/2016 2:54:55
Pb QC Blank	**0.001**		**-1.7253 C**	**-1.7253 C**
1	0.001	Background:	0.000	11/11/2016 2:58:28
Test: QC Blank	*Value:* 0.001Abs.s (Area)			*Outcome:* Passed
Pb QC Check 1	**0.218 T**		**57.1153 T**	**57.1153 T**
1	0.218	Background:	0.022	11/11/2016 3:00:33
Test: QC Check 1	*Value:* 57.1153µg/L			*Outcome:* Failed
Pb 16-5342	**0.050**		**11.6340**	**11.6340**
1	0.050	Background:	0.008	11/11/2016 3:02:40
Pb 16-5343	**0.050**		**11.6223**	**11.6223**
1	0.050	Background:	0.005	11/11/2016 3:04:59
Pb QC Check 1	**0.215 T**		**56.1275 T**	**56.1275 T**
1	0.215	Background:	0.023	11/11/2016 3:07:05
Test: QC Check 1	*Value:* 56.1275µg/L			*Outcome:* Failed
Pb 16-5344	**0.078**		**19.1051**	**19.1051**
1	0.078	Background:	0.009	11/11/2016 3:09:12
Pb 16-5345MS	**0.258**		**67.9557**	**67.9557**
1	0.258	Background:	0.031	11/11/2016 3:16:55
Pb 16-4346MSD	**0.159**		**41.0867**	**41.0867**
1	0.159	Background:	0.018	11/11/2016 3:19:01
Pb QC Check 1	**0.180**		**46.6938**	**46.6938**
1	0.180	Background:	0.018	11/11/2016 3:22:34
Test: QC Check 1	*Value:* 46.6938µg/L			*Outcome:* Passed
Pb 16-5347	**0.076**		**18.6686**	**18.6686**
1	0.076	Background:	0.008	11/11/2016 3:24:38
Pb MB_Soil	**0.016**		**2.4373**	**2.4373**
1	0.016	Background:	0.001	11/11/2016 3:26:45
Pb LCS_Soil	**0.183**		**47.5943**	**47.5943**
1	0.183	Background:	0.018	11/11/2016 3:28:50
Pb 16-5258	**0.006**		**-0.3145**	**-0.3145**
1	0.006	Background:	0.003	11/11/2016 3:30:57
Pb 16-5261x10	**0.013**		**1.5049**	**1.5049**
1	0.013	Background:	0.002	11/11/2016 3:33:03
Pb QC Blank	**0.000**		**-1.8428 C**	**-1.8428 C**
1	0.000	Background:	0.001	11/11/2016 3:36:35
Test: QC Blank	*Value:* 0.000Abs.s (Area)			*Outcome:* Passed

Pb_11Nov16

Operator Name: KJK *Report Date:* 11/15/2016 6:40:45

Results File: C:\SOLAARM\DATA\Pb_4thQtr_2016.slr

Solution Results - Pb

Sample ID	Signal Abs.s (Area)	Rsd %	Conc µg/L	Corrected Conc µg/L
Pb QC Check 1	**0.198**		**51.5104**	**51.5104**
1	0.198	Background:	0.020	11/11/2016 3:38:41
Test: QC Check 1	*Value:* 51.5104µg/L			*Outcome:* Passed
Pb 16-5262	**0.007**		**-0.1275**	**-0.1275**
1	0.007	Background:	0.002	11/11/2016 3:40:47
Pb 16-5263	**0.043**		**9.8201**	**9.8201**
1	0.043	Background:	0.006	11/11/2016 3:42:53
Pb 16-5264MS	**0.802**		**214.9815 C**	**214.9815 C**
1	0.802	Background:	0.111	11/11/2016 3:45:14
Pb 16-5265MSD	**0.649**		**173.4086 C**	**173.4086 C**
1	0.649	Background:	0.083	11/11/2016 3:47:22
Pb 16-5266	**0.058**		**13.9191**	**13.9191**
1	0.058	Background:	0.008	11/11/2016 3:49:28
Pb 16-5285	**0.004**		**-0.8113**	**-0.8113**
1	0.004	Background:	0.002	11/11/2016 3:51:33
Pb 16-5288	**0.002**		**-1.3897**	**-1.3897**
1	0.002	Background:	0.002	11/11/2016 3:53:40
Pb 16-5289	**0.006**		**-0.1938**	**-0.1938**
1	0.006	Background:	0.003	11/11/2016 3:55:46
Pb 16-5290	**0.005**		**-0.4586**	**-0.4586**
1	0.005	Background:	0.004	11/11/2016 3:57:51
Pb 16-5291	**0.005**		**-0.5947**	**-0.5947**
1	0.005	Background:	0.003	11/11/2016 3:59:58
Pb QC Blank	**0.000**		**-1.8045 C**	**-1.8045 C**
1	0.000	Background:	0.001	11/11/2016 4:03:28
Test: QC Blank	*Value:* 0.000Abs.s (Area)			*Outcome:* Passed
Pb QC Check 1	**0.189**		**49.1051**	**49.1051**
1	0.189	Background:	0.019	11/11/2016 4:05:37
Test: QC Check 1	*Value:* 49.1051µg/L			*Outcome:* Passed
Pb 16-5292	**0.003**		**-1.0014**	**-1.0014**
1	0.003	Background:	0.003	11/11/2016 4:07:43
Pb 16-5293	**0.004**		**-0.9338**	**-0.9338**
1	0.004	Background:	0.002	11/11/2016 4:09:48
Pb 16-5294	**0.002**		**-1.4406**	**-1.4406**
1	0.002	Background:	0.002	11/11/2016 4:12:21
Pb 16-5295	**0.003**		**-1.1753**	**-1.1753**
1	0.003	Background:	0.002	11/11/2016 4:14:26
Pb 16-5296	**0.006**		**-0.2564**	**-0.2564**
1	0.006	Background:	0.003	11/11/2016 4:16:32
Pb 16-5297	**0.003**		**-0.9672**	**-0.9672**
1	0.003	Background:	0.002	11/11/2016 4:18:36
Pb 16-5298	**0.002**		**-1.4167**	**-1.4167**
1	0.002	Background:	0.002	11/11/2016 4:20:44
Pb 16-5299	**0.020**		**3.5129**	**3.5129**
1	0.020	Background:	0.004	11/11/2016 4:22:49
Pb 16-5300	**0.005**		**-0.6109**	**-0.6109**
1	0.005	Background:	0.003	11/11/2016 4:24:56
Pb MB_GW_07Nov	**0.002**		**-1.3392**	**-1.3392**
1	0.002	Background:	0.000	11/11/2016 4:27:01
Pb QC Blank	**0.001**		**-1.6347**	**-1.6347**
1	0.001	Background:	-0.000	11/11/2016 4:30:33
Test: QC Blank	*Value:* 0.001Abs.s (Area)			*Outcome:* Passed

Pb_11Nov16

Operator Name: KJK *Report Date:* 11/15/2016 6:40:45

Results File: C:\SOLAARM\DATA\Pb_4thQtr_2016.slr

Solution Results - Pb

Sample ID	Signal Abs.s (Area)	Rsd %	Conc µg/L	Corrected Conc µg/L
Pb QC Check 1	**0.184**		**47.8141**	**47.8141**
1	0.184	Background:	0.019	11/11/2016 4:32:39
Test: QC Check 1	*Value:* 47.8141µg/L			*Outcome:* Passed
Pb LCS_GW_07Nov	**0.181**		**47.0704**	**47.0704**
1	0.181	Background:	0.018	11/11/2016 4:34:47
Pb 16-5356	**0.026**		**5.1575**	**5.1575**
1	0.026	Background:	0.004	11/11/2016 4:37:25
Pb 16-5357	**0.284**		**74.9173 C**	**74.9173 C**
1	0.284	Background:	0.032	11/11/2016 4:39:31
Pb 16-5358	**0.043**		**9.7318**	**9.7318**
1	0.043	Background:	0.006	11/11/2016 4:41:37
Pb 16-5359	**0.031**		**6.4931**	**6.4931**
1	0.031	Background:	0.004	11/11/2016 4:43:43
Pb 16-5360	**0.086**		**21.3505**	**21.3505**
1	0.086	Background:	0.010	11/11/2016 4:46:21
Pb 16-5361	**0.477**		**127.1440 C**	**127.1440 C**
1	0.477	Background:	0.056	11/11/2016 4:48:27
Pb 16-5362MS	**0.205**		**53.5095**	**53.5095**
1	0.205	Background:	0.022	11/11/2016 4:50:33
Pb 16-5363MSD	**0.226**		**59.0991**	**59.0991**
1	0.226	Background:	0.024	11/11/2016 4:52:38
Pb 16-5394	**0.033**		**7.0507**	**7.0507**
1	0.033	Background:	0.004	11/11/2016 4:54:44
Pb QC Blank	**0.000**		**-1.8514 C**	**-1.8514 C**
1	0.000	Background:	0.000	11/11/2016 4:58:16
Test: QC Blank	*Value:* 0.000Abs.s (Area)			*Outcome:* Passed
Pb QC Check 1	**0.189**		**49.2686**	**49.2686**
1	0.189	Background:	0.019	11/11/2016 5:01:31
Test: QC Check 1	*Value:* 49.2686µg/L			*Outcome:* Passed
Pb 16-5395	**0.480**		**127.8372 C**	**127.8372 C**
1	0.480	Background:	0.060	11/11/2016 5:03:37
Pb 16-5396	**0.013**		**1.6193**	**1.6193**
1	0.013	Background:	0.002	11/11/2016 5:05:42
Pb 16-5397	**0.009**		**0.4891**	**0.4891**
1	0.009	Background:	0.003	11/11/2016 5:07:58
Pb 16-5398	**0.023**		**4.4323**	**4.4323**
1	0.023	Background:	0.004	11/11/2016 5:10:02
Pb 16-5399	**0.488**		**129.9426 C**	**129.9426 C**
1	0.488	Background:	0.062	11/11/2016 5:12:08
Pb 16-5400MS	**0.180**		**46.8587**	**46.8587**
1	0.180	Background:	0.020	11/11/2016 5:14:15
Pb 16-5401MSD	**0.199**		**51.9136**	**51.9136**
1	0.199	Background:	0.022	11/11/2016 5:16:20
Pb MB_GW_09Nov	**0.003**		**-1.1028**	**-1.1028**
1	0.003	Background:	0.000	11/11/2016 5:18:26
Pb LCS_GW_09Nov	**0.171**		**44.3110**	**44.3110**
1	0.171	Background:	0.018	11/11/2016 5:20:33
Pb QC Blank	**0.001**		**-1.7406 C**	**-1.7406 C**
1	0.001	Background:	0.000	11/11/2016 5:24:05
Test: QC Blank	*Value:* 0.001Abs.s (Area)			*Outcome:* Passed

Pb_11Nov16

Operator Name: KJK *Report Date:* 11/15/2016 6:40:45

Results File: C:\SOLAARM\DATA\Pb_4thQtr_2016.slr

Solution Results - Pb

Sample ID	Signal	Rsd	Conc	Corrected Conc
	Abs.s (Area)	%	µg/L	µg/L
Pb QC Check 1	**0.190**		**49.4154**	**49.4154**
1	0.190	Background:	0.019	11/11/2016 5:26:13
Test: QC Check 1	*Value:* 49.4154µg/L			*Outcome:* Passed
Pb 16-5330x5	**0.095**		**23.8892**	**23.8892**
1	0.095	Background:	0.012	11/11/2016 5:29:37
Pb 16-5324x5	**0.058**		**13.9006**	**13.9006**
1	0.058	Background:	0.010	11/11/2016 5:31:44
Pb 16-5333x5	**0.063**		**15.2069**	**15.2069**
1	0.063	Background:	0.006	11/11/2016 5:33:50
Pb 16-5337x10	**0.109**		**27.7027**	**27.7027**
1	0.109	Background:	0.011	11/11/2016 5:35:55
Pb 16-5261x1	**0.105**		**26.3604**	**26.3604**
1	0.105	Background:	0.014	11/11/2016 5:38:01
Pb 16-5264MSx10	**0.106**		**26.7982**	**26.7982**
1	0.106	Background:	0.011	11/11/2016 5:40:07
Pb 16-5265MSDx10	**0.074**		**18.0461**	**18.0461**
1	0.074	Background:	0.007	11/11/2016 5:42:14
Pb 16-5357x5	**0.068**		**16.3573**	**16.3573**
1	0.068	Background:	0.007	11/11/2016 5:44:20
Pb 16-5361x5	**0.093**		**23.1681**	**23.1681**
1	0.093	Background:	0.009	11/11/2016 5:46:25
Pb 16-5395x5	**0.119**		**30.3337**	**30.3337**
1	0.119	Background:	0.012	11/11/2016 5:48:30
Pb 16-5399x5	**0.115**		**29.2252**	**29.2252**
1	0.115	Background:	0.013	11/11/2016 5:50:37

LSAI LABORATORIES

EPA 3020A
Acid Digestion of
Aqueous Samples and Extracts

Sample #	Date	Sample Volume (mL)	Additional HNO_3 needed (mL)	Filtration / Centrifuge Needed?	Analyst
16-4988	10/24/16	100			HS
4992					
4993			III		
MB					
LCS					
16-5053	10/28/16	100			HS
5058					
5059					
MB					
LCS					
16-5185	11/1/16	100	III	Yes	HS
5186				Yes	
5187				Yes	
5188				Yes	
5189			III	Yes	
MB					
LCS					
16-5196			III	Yes	
5197			III	Yes	
5198			III	Yes	
5200			III	Yes	
16-5258	11/7/16	100			HS
5261				Yes	
5262					
5263				Yes	
5264 MS				Yes	
5265MSD				Yes	
5266				Yes	
5285					
5288					
5289					
5290					
5291					
5292					

LSAI LABORATORIES

QF-5.3.2 Rev 1
Effective: 12/1/14

THERMOMETER TEMPERATURE RECORD

July - December

DEPT. Sample Reception Refrigerator TEMPERATURE RANGE 2.0°C TO 6.0°C

YEAR 2016 Thermometer Variance <0.5°C> Next Thermometer Calibration Date

MONTH	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
	RECORD	INITIAL	RECORD	INITIAL	RECORD	INITIAL	RECORD	INITIAL	RECORD	INITIAL	RECORD	INITIAL
DAY 1	3.2	DJD	↓		4.2	DD	3.8 max		2.2	DD		
2	min <2.8>		3.2	DD	1.0	DD	↓	DD	0.0	DD		
3	↓		2.0	DD	<2.1> min	DD	0.7	DD	2.2	DD		
4	max 5.9		2.0	DD	3.9 max	DD	0.0	DD	6.0	DD		
5	2.2	DJD	1.0	DD	↓		1.2	DD	0.0 min	DD		
6	3.2	DD	<0.3> min	DD	3.2	DD	0.7	DD	4.9 max	DD		
7	1.2	DD	4.2 max	DD	1.2	DD	0.7	DD	4.2	DD		
8	1.9	DD	1.0	DD	2.2	DD	<3.2> min	DD	2.7	DD		
9	0.2 min	DD	2.2	DD	3.2	DD	5.8 max	DD	2.7	DD		
10	5.0 max	DD	3.2	DD	~~<3.7>~~ <1.6> min	DD	0.7	DD	4.2	DD		
11	1.2	DD	2.2	DD	3.7 max	DD	1.7	DD	2.3	DD		
12	1.2	DD	2.2	DD	1.2	DD	2.2	DD				
13	2.2	DD	<0.5> min	DD	1.2	DD	4.2	DD				
14	0.2	DD	4.4 max	DD	1.2	DD	4.2	DD				
15	4.2	DD	3.2	DD	3.2	DD	<3.2> min	DD				
16	<0.8> min	DD	3.2	DD	1.7	DD	5.8 max	DD				
17	3.8 max	DD	1.0	DD	<1.2> min	DD	1.7	DD				
18	1.2	DD	2.2	DD	5.8 max	DD	1.2	DD				
19	1.2	DD	3.2	DD	3.2	DD	3.2	DD				
20	1.2	DD	<1.0> min	DD	2.2	DD	1.2	DD				
21	4.2	DD	4.7 max	DD	1.7	DD	0.0	DD				
22	<0.6> min	DD	↓		3.2	DD	<3.3> min	DD				
23	2.5 max	DD	0.7	DD	0.2	DD	4.7 max	DD				
24	↓		~~<2.2> min~~	2.2 DD	<2.8> min	DD	3.2	DD				
25	4.2	DD	~~6.0 max~~	3.2 DD	2.4 max	DD	1.2	DD				
26	1.0	DD	4.2	DD	5.2	DD	0.2	DD				
27	0.9	DD	<2.2> min	DD	3.2	DD	4.2	DD				
28	0.5	DD	6.0 max	DD	5.2	DD	3.2	DD				
29	0.5	DD	3.8	DD	3.2	DD	<0.9> min	DD				
30	<0.5> min	DD	3.2	DD	3.2	DD	6.0 max	DD				
31	4.1 max		1.8	DD	<2.8> min		3.2	DD				
SUPERV. REVIEW												