Final Addendum Remedial Action Report

Petro-Chemical Systems, Inc. (Turtle Bayou) Site
Liberty County, Texas
EPA Identification No. TXD980873350

Remedial Action Contract 2 Full Service
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LIST OF ACRONYMS AND ABBREVIATIONS

µg/L	Microgram(s) per liter
bgs	Below ground surface
CLP	Contract Laboratory Program
COPC	Contaminants of potential concern
DER	Data Evaluation Report
EA	EA Engineering, Science, and Technology, Inc., PBC
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Differences
ft	Foot (feet)
GPS	Global positioning system
IDW	Investigation-derived waste
MCL	Maximum Contaminant Level
RA	Remedial action
ROD	Record of Decision
RTK	Real time kinematic
SAP	Sampling and Analysis Plan
Site or site	Petro Chemical Systems, Inc. (Turtle Bayou) Site
SOW	Statement of Work
SVOC	Semi-volatile organic compound
TCEQ	Texas Commission on Environmental Quality
TCLP	Toxicity characteristic leaching procedure
TI Zone	Technical Impracticability Waiver Zone
VI	Vapor intrusion
VOC	Volatile organic compound

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1. INTRODUCTION

This report has been prepared as the final Addendum Remedial Action (RA) Report to document the procedures, analysis, and results for a vapor intrusion (VI) assessment, the installation of temporary and permanent monitoring wells within the ground water plume, and ground water sampling at the Petro-Chemical Systems, Inc. (Turtle Bayou) Site (site) in Liberty County, Texas. A site location map is provided as Figure 1. This Addendum RA Report, Revision 01 was previously submitted in December 2016 and has been revised to include the August and September 2018 field activities.

1.1 BACKGROUND

In 2013, EA Engineering, Science, and Technology, Inc., PBC (EA) completed a Data Evaluation Report (DER) (EA 2013) based upon the requirements set forth in the September 2010 Explanation of Significant Differences (ESD) (EPA 2010) document for the site. Per the ESD, EA, on behalf of the U.S. Environmental Protection Agency (EPA), collected quarterly ground water samples for laboratory analysis from wells MW-109A, MW-33, MW-108, MW-110, MW-191, MW-192, and MW-193 for a period of two years following finalization of the 2010 ESD. An evaluation of the data was completed to establish the temporal response of post-remedial ground water concentrations and to determine if natural attenuation was occurring or if further action was necessary.

The DER determined that a data gap existed in the ground water monitoring network to the south of well MW-109A. In addition, it was determined that a well survey was needed to more accurately calculate ground water flow direction and the potential for contaminant fate and transport. To close the data gap, a series of laterally distributed temporary direct-push borings for collection of discrete ground water samples along the predicted longitudinal and transverse axis of the expected plume downgradient of MW-109A were recommended. Following boring advancement and sample collection and analysis, installation of at least two downgradient monitoring wells was additionally recommended, along with a ground water sampling event to evaluate temporal stability of plume conditions in the downgradient direction. The RA Statement of Work (SOW), Revisions 00 and 01, additionally stated that EA was to provide technical support to EPA for the establishment of a Technical Impracticability Waiver Zone (TI Zone) in the vicinity of the MW-109 Area (EPA 2015, 2018). Based upon these recommendations and the RA SOW, Revisions 00 and 01, EA conducted temporary and permanent well installations, replaced monitoring well MW-191, conducted two ground water sampling events, and completed two monitoring well surveys between March 2016 and September 2018. In addition, a VI assessment was conducted at the site. Results of the VI assessment are included as a Technical Memorandum (Attachment 1).

1.2 COMPLETED SCOPE

As part of the additional RA activities, the following scope was completed:

- Completed a VI sampling event (March 2016)

- Conducted a survey of existing wells (March 2016)
- Cleared vegetation in vicinity of new monitoring well locations (April 2016)
- Installed temporary and permanent ground water monitoring wells (May 2016)
    - Temporary wells installed included wells TW-01 through TW-11
    - Temporary wells TW-02, TW-03, and TW-08 were converted into permanent monitoring wells MW-201, MW-203, and MW-204, respectively. These wells were all completed as shallow wells to approximately 30 feet (ft) below ground surface (bgs)
    - Permanent monitoring well MW-202 was installed as a deeper well to approximately 45 ft bgs.
- Analyzed ground water samples from temporary wells in the field with a portable gas chromatograph (May 2016)
- Plugged and abandoned temporary wells not converted into permanent wells (May 2016)
- Gauged water levels of newly-installed monitoring wells (May 2016)
- Collected investigation-derived waste (IDW) samples from purge water and soil cuttings (May 2016) for characterization prior to disposal. The IDW samples were submitted to the private analytical laboratory TestAmerica Laboratories, Inc. in Houston, Texas. The samples were analyzed for:
    - Toxicity characteristic leaching procedure (TCLP) semivolatile organic compounds (SVOCs)
    - TCLP volatile organic compounds (VOCs)
    - TCLP Resource Conservation and Recovery Act metals
    - Reactivity, corrosivity, and ignitability
    - Benzene, toluene, ethylbenzene, and xylene
    - Total petroleum hydrocarbons.

- Conducted a site-wide ground water monitoring event on 14 June 2016 using HydraSleeve™ samplers. Samples were submitted for VOC and SVOC analyses to the EPA Region 6 Houston Laboratory on 15 June 2016.
    - During the sampling event, EA observed well MW-191 was flooded with muddy water, and ground water samples were not collected from this well.
- Completed a survey of the newly-installed ground water monitoring wells and conducted a site-wide water level gauging event (June 2016)
- Determined that the casing was damaged in well MW-191 during redevelopment of this well (July 2016)
- Disposed of a total of seventeen 55-gallon drums of IDW at the Fort Bend Regional Landfill (July 2016)
- Plugged and abandoned damaged well MW-191 and installed replacement well MW-191R (August 2018)
- Developed replacement well MW-191R (August 2018)
- Conducted a ground water monitoring event on 15 August 2018 using HydraSleeve™ samplers. Samples were submitted for VOC and SVOC analyses to the EPA Region 6 Houston Laboratory on 16 August 2018.
- Collected IDW samples from purge water and soil cuttings (August 2018) for characterization prior to disposal. The IDW samples were submitted to the private analytical laboratory TestAmerica Laboratories, Inc. in Houston, Texas. The samples were analyzed for:
    - TCLP SVOCs
    - TCLP VOCs
    - TCLP Resource Conservation and Recovery Act metals
    - Reactivity, corrosivity, ignitability
    - Benzene, toluene, ethylbenzene, and xylene
    - Total petroleum hydrocarbons.
- Gauged water levels and surveyed the top of casing elevations for the sampled monitoring wells (September 2018).

2. VAPOR INTRUSION SAMPLING AND WELL SURVEY – MARCH 2016

Between 21 and 23 March 2016, VI sampling was conducted at the site. The VI evaluation and associated field investigation activities were performed at one residential structure, identified as Building 1, which is located in close proximity to well MW-109A (Attachment 1, Figure 3-1). The field work and analytical laboratory analyses were completed in accordance with the EPA-approved Work Plan, Revision 00 (EA 2015) and the Sampling and Analysis Plan (SAP), Revision 01 (EA 2016a).

The assessment concluded that although contaminants of potential concern (COPCs) were detected in sub-slab soil gas, they were not detected at concentrations exceeding screening criteria; suggesting that the source strength of COPCs below the building is insufficient to dictate a VI risk. Three COPCs did exceed associated indoor air screening criteria for residential use. However, the lack of exceedances in sub-slab soil gas (low to no source strength), the spatial distribution of COPCs throughout the indoor air space (i.e., detected in each sample at similar concentration), and the fact that indoor air concentrations were in excess of sub-slab soil gas concentrations for the same compounds, suggest that the exceedances are the result of contributing anthropogenic and/or ambient outdoor air sources and not VI. It was noted during the building survey that solvents, such as brake cleaner, are stored in the attached garage. These household products have the potential to influence indoor air quality, and specifically compounds such as trichloroethylene and 1,2-dichloroethane. Based upon the VI evaluation completed, no further VI assessment is required at this time. The complete Technical Memorandum on the VI Assessment is included in Attachment 1.

2.1 SURVEY OF CURRENT WELLS

On 22 March 2016, wells MW-33, MW-108, MW-109A, MW-110, MW-191, MW-192, and MW-193 were surveyed using a real time kinematic (RTK) global positioning system (GPS) base station. Survey results are included in Table 1.

3. WELL INSTALLATION AND PLUGGING ACTIVITIES

This section summarizes the well installation and plugging and abandonment activities conducted under this RA between March 2016 and August 2018. The field work and analytical laboratory analyses were completed in accordance with the EPA-approved Work Plan, Revisions 00 and 01 (EA 2015, 2018) and the Sampling and Analysis Plan (SAP), Revision 01 (EA 2016a).

3.1 TEMPORARY AND PERMANENT MONITORING WELL INSTALLATION (MAY 2016)

On 26 April 2016, EA was onsite to conduct clearing activities in preparation of the installation of new monitoring wells. EA met with the clearing subcontractor that used a track-mounted excavator with a thumb-bucket attachment to clear trees and undergrowth from the paths where temporary and permanent monitoring wells were to be installed for plume delineation. One east-

west path approximately 50 ft south of the fence was cleared to 100 ft on either side of the main path. A second east-west path approximately 100 ft south of the fence was cleared in the same manner. At approximately 200 ft south of the fence, a 6- to 8-ft wide and 1- to 2-ft deep drainage channel filled with water was encountered, therefore, clearing was stopped at the channel.

Between 2 and 11 May 2016, a total of 11 temporary ground water monitoring wells were installed at the site (TW-01 through TW-11) using a geo-probe rig with hollow-stem augers (Figure 5). Temporary wells TW-02, TW-03, and TW-08 were converted into permanent wells MW-201, MW-203, and MW-204, respectively. These wells were installed as shallow ground water monitoring wells to depths of approximately 30 ft bgs. A deeper ground water monitoring well was installed to a depth of 45 ft bgs (MW-202). Work was conducted by a licensed driller in the State of Texas and was completed in accordance with the EA's SOW (EA 2016b) and the SAP, Revision 01 (EA 2016a). Figure 2 shows the location of the new wells. Field notes are included in Attachment 2, photographic documentation is included in Attachment 3, and temporary and permanent well boring logs are included in Attachment 4. The survey for new monitoring wells was completed using an RTK GPS base station on 15 June 2016. Survey results are included in Table 1.

All temporary ground water monitoring wells were plugged and abandoned on 5 May 2016. Each temporary well was plugged and abandoned by filling the well casing from bottom to top with cement grout pumped through a tremie pipe. Note that wells converted into permanent wells were plugged and abandoned prior to drilling them out in order to install the permanent well in the borehole previously logged as a temporary well. State of Texas Plugging Reports for these activities are included in Attachment 4.

3.2 REDEVELOPMENT OF WELL MW-191

During ground water sampling conducted in June 2016, well MW-191 was found to be flooded with muddy water. According to the property owner, this well had been under water from spring rain events. The depth to water was found to be 8.87 ft bgs, while the historical range is between 15 to 17 ft bgs. In addition, the HydraSleeve™ was found to be coated with mud, and the water within the sleeve was muddy as well. Therefore, a ground water sample was not collected from this well.

On 5 July 2016, EA arrived on site to redevelop this well. After recording a depth to water of 15.28 ft bgs, the well was hand-bailed with a clean, disposable polyethylene bailer in order to evacuate the well casing of accumulated sediment. A total of 10 gallons of water was removed from the well, and the total depth was measured at 28.13 ft bgs. After one hour of recharge, the depth to water was 27.09 ft bgs, and the well yielded water clear and free of sediment. During redevelopment activities, it was observed that the top of the well casing was cracked, which allowed water to seep into the well. The property owner stated that he would be in agreement with the installation of a stick-up (monument) well casing to replace the existing flush-mount well pad to prevent the well from being under flood waters during future rain events/flooding in the area.

3.3 REPLACEMENT OF MW-191 (AUGUST 2018)

On 13 August 2018, EA supervised the installation of MW-191R, the replacement well for MW-191. The well was installed using the hollow stem auger drilling method to a depth of 30 ft bgs, screened from 20 to 30 ft bgs. The well was completed using a stick-up well casing to prevent the well from being flooded during future rain events. On 14 August 2018, the former MW-191 was plugged and abandoned, and MW-191R was developed in preparation for sampling. Approximately 30 gallons of water were removed from MW-191R. Figure 2 shows the location of MW-191R. Field notes are included in Attachment 2, photographic documentation is included in Attachment 3, and the well boring log is included in Attachment 4. The State of Texas Plugging Report for the former MW-191 is included in Attachment 4.

4. GROUND WATER SAMPLING

This section summarizes the well installation and the plugging and abandonment activities conducted under this RA between March 2016 and August 2018.

4.1 MAY/JUNE 2016

4.1.1 Well Gauging

Newly-installed ground water monitoring wells were gauged after installation and development on 10 May 2016, and a site-wide gauging event took place during the ground water sampling event conducted on 14 June 2016. Ground water elevations are shown in Table 1, a potentiometric map for June 2016 is provided in Figure 3, and hydrographs are included as Figure 4.

4.1.2 Ground Water Sampling

After the installation and development of the temporary wells, ground water samples were collected from wells TW-01 through TW-04 and from wells TW-06, TW-07, TW-08, TW-10, and TW-11 between 3 and 4 May 2016. Wells TW-05 and TW-09 did not produce a sufficient amount of water to allow for sampling. Work was conducted in accordance with the SAP, Revision 01 (EA 2016a). Ground water samples collected from temporary wells were analyzed in the field utilizing a FROG 4000 portable gas chromatograph, and results were used for decision making regarding the location of permanent monitoring wells. Note that false positive results were found for all analytes except for benzene. Results for field analyses conducted in May 2016 are shown in Table 2 and on Figure 5 (benzene only). Daily reports and field forms are included as Attachment 2.

On 14 and 15 June 2016, ground water samples were collected from newly-installed wells MW-201 through MW-204 and from existing wells MW-33, MW-108, MW-109A, MW-110, MW-192, and MW-193. Ground water samples were submitted to the EPA Region 6 Laboratory

in Houston, Texas, for analysis of VOCs by Contract Laboratory Program (CLP) Method OLM04.2 (low-level) and for SVOCs by CLP Method OLM04.2.

Ground water sampling was conducted as specified in the SAP, Revision 01 (EA 2016a). Field forms for ground water sampling activities are provided in Attachment 2. Ground water monitoring field parameters are provided in Table 3, and a summary of detected analytes for wells sampled during June 2016 field activities is provided in Table 4. Results are shown in Figure 6. Benzene, toluene, naphthalene, and ethylbenzene trends for well MW-109A from 2011 through 2016 are shown in Figure 7. Laboratory analytical reports are included in Attachment 5.

4.1.3 Analytical Results

During the June 2016 sampling event, naphthalene was detected in MW-109A at a concentration of 3,560 micrograms per liter [µg/L]. This is above the cleanup criteria of 327 µg/L identified in EPA's Record of Decision (ROD) Amendment (EPA 2006). Naphthalene was not detected in the other monitoring wells that were sampled.

VOCs were detected above their respective Maximum Contaminant Levels (MCLs) in monitoring wells MW-109A and MW-203 as follows:

MW-109A (shallow aquifer well)
- Benzene = 137,000 µg/L (MCL = 5 µg/L)
- Toluene = 5,760 µg/L (MCL = 1,000 µg/L)
- Ethylbenzene = 887 (MCL = 700 µg/L).

MW-203 (shallow aquifer well)
- Benzene = 9,160 (MCL = 5 µg/L).

No other analyte exceedances were identified. The laboratory analytical data for all detected analytes is summarized in Table 5 and the EPA Region 6 Final Analytical Report is provided in Attachment 5.

4.2 AUGUST 2018

4.2.1 Well Gauging

The monitoring wells were gauged on 16 August 2018 and on 19 September 2018. On 19 September 2018, EA also surveyed the top of casing elevations for MW-191R and the existing monitoring wells. Ground water elevations are shown in Table 1, a potentiometric map for September 2018 is provided in Figure 8, and hydrographs are included as Figure 4.

4.2.2 Ground Water Sampling

On 15 August 2018, ground water samples were collected from MW-33, MW-108, MW-109A, MW-110, MW-191R, MW-192, MW-193, MW-201, MW-202, MW-203, and MW-204. Ground

water samples were submitted to the EPA Region 6 Laboratory in Houston, Texas, for analysis of VOCs by CLP Method OLM04.2 (low-level) and for SVOCs by CLP Method OLM04.2.

Ground water sampling was conducted as specified in the SAP, Revision 01 (EA 2016a). Field forms for ground water sampling activities are provided in Attachment 2. Ground water monitoring field parameters are provided in Table 4, and a summary of detected analytes for wells sampled during August 2018 field activities is provided in Table 5. The benzene results are shown in Figure 9. Benzene, toluene, naphthalene, and ethylbenzene trends for well MW-109A from 2011 through 2018 are shown in Figure 7. Laboratory analytical reports are included in Attachment 5.

4.2.3 Analytical Results

During the August 2018 sampling event, naphthalene was detected in MW-109A at a concentration of 3,390 µg/L. This is above the cleanup criteria of 327 µg/L identified in EPA's ROD Amendment (EPA 2006). Naphthalene was not detected in the other monitoring wells that were sampled.

VOCs were detected above their respective MCLs as follows:

MW-109A (shallow aquifer well)
- Benzene = 94,700 µg/L; 104,000 µg/L in MW-109A DUP (MCL = 5 µg/L)
- Ethylbenzene = 702 µg/L in MW-109A DUP (MCL = 700 µg/L)

MW-203 (shallow aquifer well)
- Benzene = 20.9 µg/L (MCL = 5 µg/L).

MW-202 (deeper aquifer well)
- 1,2-dichloroethane = 8.4 µg/L (MCL = 5 µg/L).

No other analyte exceedances were identified. The laboratory analytical data for all detected analytes is summarized in Table 5 and the EPA Region 6 Final Analytical Report is provided in Attachment 5.

5. DISPOSITION OF INVESTIGATION DERIVED WASTE

On 11 May 2016, composite soil and ground water samples were collected for characterization of IDW generated during field efforts. On 19 July 2016, a total of eleven 55-gallon drums of soil cuttings and six 55-gallon drums of purge water/well development water were removed from the site and transported to the Fort Bend Regional Landfill (Texas Commission on Environmental Quality [TCEQ] MSW No. 2270).

On 15 August 2018, composite soil and ground water samples were collected for characterization of IDW generated during field efforts. On 19 September 2018, a total of five 55-gallon drums of soil cuttings and a 55-gallon drum of well development water were removed from the site and scheduled for transport to the Seabreeze Environmental Landfill (TCEQ MSW No. 1539A/IHW SWR No. H1539) in Angleton, Texas. The final signed manifest is pending at the time of this report.

IDW disposal documentation is provided in Attachment 3 (photographic log) and in Attachment 6 (waste profiles and manifests).

6. DISCUSSION AND CONCLUSION

The horizontal extent of ground water contamination in the shallow aquifer has been delineated. Benzene concentrations were found to be localized to around well MW-109A and MW-203 (Figures 6 and 9). Ethylbenzene and naphthalene concentrations above clean up levels were also limited to MW-109A. Toluene was detected at 5,760 µg/L in MW-109A during June 2016 but was not detected in August 2018 (Table 5). The general ground water flow direction in the shallow aquifer is to the south with a hydraulic gradient ranging between 0.003 and 0.006 ft/ft. Potentiometric surface maps for 2016 and 2018 are presented in Figures 3 and 8, respectively.

MW-202, which is screened in the deeper sand layer, contained 1,2-dichloroethane at a concentration of 8.4 µg/L, which exceeds the ground water cleanup standard (Table 5). Cyclohexane, methyl tert-butyl ether, and 1,1-dichloroethane were also detected in MW-202, but the concentrations were below the ground water cleanup standards. Additional ground water sampling is recommended to verify the ground water concentrations.

Benzene, toluene, and ethylbenzene concentrations peaked in well MW-109A in October 2012 with respective concentrations of 431,000 µg/L, 24,400 µg/L, and 1,660 µg/L. Since this time, concentrations of these constituents have decreased to 94,700 µg/L, <50 µg/L, and 630 µg/L, respectively, in August 2018. The naphthalene concentration in MW-109A appears to have leveled off with a peak concentration of 3,690 µg/L in January 2013 and a current concentration of 3,390 µg/L in August 2018. Although there appears to be a general decline in concentration trends (Figure 7), VOCs at the site continue to substantially exceed MCLs, and naphthalene substantially exceeds the cleanup standard identified in the ROD Amendment (EPA 2006).

Since the benzene concentration detected in MW-109A remain at levels greater than 5% of benzene solubility, a non-aqueous phase liquid is probable in the shallow ground water, and attainment of Remedial Action Objectives, particularly for benzene, is not likely technically feasible. Therefore, a technical impracticability waiver may be appropriate in the future to waive the ground water cleanup goals. MW-191R is non-detect, which delineates the upgradient portion of the benzene plume. MW-201 and MW-204 concentrations are below the ground water cleanup levels, which delineates the downgradient portion of the benzene plume. The likely horizontal extent of the TI Zone is illustrated on Figure 9. Vertically, the TI Zone would encompass the shallow ground water, also known as the S1 unit. TI Zones have been utilized in

other areas of the site where it was concluded that complete restoration of the ground water is technically impracticable, including the CR 126 West Area (EPA 2006). The applicable or relevant and appropriate requirements for ground water would be waived within the TI Zone. The TI Zone would be utilized in conjunction with ground water monitoring, contingent response actions if the ground water plume was to expand or increase in concentration, and institutional controls. Institutional controls would prevent the use of the affected ground water, prevent installation of drinking water wells within the TI Zone, and prevent exposure to the affected soils. The proposed TI Zone would be documented in a new ESD.

7. REFERENCES

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TABLES

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Table 1 Survey Data and Ground Water Elevations

Well	Date	X Coordinate[1]	Y Coordinate[1]	Top of Casing Elevation[2]	Depth to Water	Ground Water Elevation
MW-33	1-Apr-2011	4082184.27	9979441.230	41.03	18.55	22.48
	1-Oct-2011				19.62	21.41
	10-Jul-2012				20.08	20.95
	1-Feb-2013				20.15	20.88
	10-May-2016				NM	--
	14-Jun-2016				17.84	23.19
	16-Aug-2018				17.96	23.07
	19-Sep-2018				17.99	23.04
MW-108	1-Apr-2011	4081849.71	9979469.819	40.31	18.02	22.29
	1-Oct-2011				19.62	20.69
	10-Jul-2012				20.05	20.26
	1-Feb-2013				20.26	20.05
	10-May-2016				NM	--
	14-Jun-2016				17.23	23.08
	16-Aug-2018				17.60	22.71
	19-Sep-2018				17.82	22.49
MW-109A	1-Apr-2011	4082092.33	9979485.367	41.11	17.62	23.49
	1-Oct-2011				19.54	21.57
	10-Jul-2012				19.13	21.98
	1-Feb-2013				18.97	22.14
	10-May-2016				NM	--
	14-Jun-2016				17.33	23.78
	16-Aug-2018				17.68	23.43
	19-Sep-2018				17.63	23.48
MW-110	1-Apr-2011	4081854.61	9979417.391	41.82	19.61	22.21
	1-Oct-2011				20.10	21.72
	10-Jul-2012				21.52	20.30
	1-Feb-2013				21.75	20.07
	10-May-2016				NM	--
	14-Jun-2016				18.70	23.12
	16-Aug-2018				19.11	22.71
	19-Sep-2018				19.34	22.48
MW-191	1-Apr-2011	4082161.76	9979570.621	38.74	16.20	22.54
	1-Oct-2011				17.64	21.10
	10-Jul-2012				17.95	20.79
	1-Feb-2013				17.53	21.21
	10-May-2016				NM	--
	14-Jun-2016				8.87*	--
MW-191R	16-Aug-2018	4082117.25	9979607.763	41.25	18.45	22.80
	19-Sep-2018				18.56	22.69
MW-192	1-Apr-2011	4082046.80	9979482.314	40.24	17.16	23.08
	1-Oct-2011				18.93	21.31
	10-Jul-2012				19.01	21.23
	1-Feb-2013				19.04	21.20
	10-May-2016				NM	--
	14-Jun-2016				16.83	23.41
	16-Aug-2018				17.04	23.20
	18-Sep-2018				17.14	23.10
MW-193	1-Apr-2011	4082262.40	9979498.547	40.06	18.63	21.43
	1-Oct-2011				18.74	21.32
	10-Jul-2012				19.22	20.84
	1-Feb-2013				19.40	20.66
	10-May-2016				NM	--
	14-Jun-2016				16.91	23.15
	16-Aug-2018				17.20	22.86
	19-Sep-2018				17.22	22.84
MW-201	10-May-2016	4082071.23	9979432.01	42.33	16.48	25.85
	14-Jun-2016				19.13	23.20
	16-Aug-2018				19.01	23.32
	19-Sep-2018				19.09	23.24
MW-202	10-May-2016	4082115.97	9979436.10	42.31	16.76	25.55
	14-Jun-2016				18.31	24.00
	16-Aug-2018				20.33	21.98
	19-Sep-2018				20.53	21.78
MW-203	10-May-2016	4082118.55	9979437.51	42.34	17.63	24.71
	14-Jun-2016				18.89	23.45
	16-Aug-2018				18.95	23.39
	19-Sep-2018				19.98	22.36
MW-204	10-May-2016	4082143.86	9979403.24	42.25	16.68	25.57
	14-Jun-2016				19.04	23.21
	16-Aug-2018				19.06	23.19
	19-Sep-2018				19.08	23.17

NOTES:
* = Well was found to be flooded; suspect data point.
(1) = Units are in Texas State Plane Coordinates, Central Zone, US feet.
(2) = Elevation is in the North American Vertical Datum of 1988 (NAV88), US feet.
NM = Not measured
Wells MW-201 through MW-204 were installed in May 2016 and were surveyed on 15 June 2016; well MW-191R was surveyed on 19 September 2018; all other wells surveyed on 22 March 2016.

Table 2 Summary of Field-Analyzed Contaminants in Temporary Wells

Sample Identification	Date	Analyte	Result (µg/L)	Contaminant Level[1] (µg/L)
TW-01	3-May-16	ortho-Xylene	2.25	10,000[2]
		para/meta-Xylene	3.59	10,000[2]
		Toluene	429.00	1,000
TW-02 RR	3-May-16	Methyl tert-butyl ether	164.57	---
		para/meta-Xylene	3.85	10,000[2]
		ortho-Xylene	2.32	10,000[2]
TW-03 RR[3]	3-May-16	Benzene	***9,996.50***	5
		Methyl tert-butyl ether	32.75	---
		ortho-Xylene	57.75	10,000[2]
		para/meta-Xylene	86.25	10,000[2]
		Toluene	101.25	1,000
TW-04	4-May-16	Benzene	1.61	5
		Methyl tert-butyl ether	76.57	---
TW-06 RR[3]	4-May-16	Benzene	***3,364.75***	5
		ortho-Xylene	56.00	10,000[2]
		para/meta-Xylene	85.75	10,000[2]
		Toluene	97.50	1,000
TW-07	4-May-16	ortho-Xylene	2.30	10,000[2]
		para/meta-Xylene	3.63	10,000[2]
		Toluene	4.33	1000
TW-08	4-May-16	ortho-Xylene	2.24	10,000[2]
		para/meta-Xylene	3.60	10,000[2]
		Toluene	4.32	1000
TW-10	4-May-16	Benzene	4.86	5
		Ethylbenzene	3.11	700
		Methyl tert-butyl ether	2.81	---
		ortho-Xylene	2.25	10,000[2]
		para/meta-Xylene	3.49	10,000[2]
		Toluene	4.18	1,000
TW-10 DUP	4-May-16	Benzene	4.32	5
		Ethylbenzene	3.96	700
		Methyl tert-butyl ether	2.67	---
		ortho-Xylene	2.38	10,000[2]
		para/meta-Xylene	3.81	10,000[2]
		Toluene	4.15	1,000

NOTES:

[1] = U.S. Environmental Protection Agency's (EPA) National Primary Drinking Water Standards Maximum Contaminant Level (MCL); (EPA 2016).

[2] = MCL of total xylenes is 10,000 µg/L.

[3] = Values obtained from a dilution factor of 25.

"--" = MCL for analyte not established.

Bold/Italics = Concentration exceeds MCL.

No contaminants were identified in TW-11 when screened on 5 May 2016.

RR = "Re-run"; sample was analyzed twice due to high values.

All analyses conducted in the field using a "FROG 4000" portable gas chromatograph.

All concentrations are in micrograms per liter (µg/L).

Note that false positive readings were found for all analytes except for benzene; data were for screening purposes only.

Table 3 Ground Water Quality Parameters, June 2016

Well ID	Sample Date	Sample Time (Hours)	Specific Conductance (µS/cm)	Temperature (Celsius)	pH	ORP (mV)	Turbidity (NTU)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	HydroSleeve™ Sampler Depth (ft)	Depth to Water (ft)
MW-191	14-Jun-2016	NS	--	--	--	--	--	--	--	25.00	8.87
MW-202*	14-Jun-2016	0920	1232	22.64	7.35	252.8	55.30	54.3	3.45	44.00	18.31
MW-201	14-Jun-2016	1000	3142	24.27	7.12	179.8	6.70	41.8	3.36	32.70	19.13
MW-204	14-Jun-2016	1030	2145	23.53	7.10	377.3	5.74	55.1	4.53	27.87	19.04
MW-33	14-Jun-2016	1100	2340	24.40	7.21	563.7	4.27	36.4	3.02	29.00	17.84
MW-193	14-Jun-2016	1230	1714	27.05	6.98	21.2	105.00	34.5	2.65	22.00	16.91
MW-108	14-Jun-2016	1340	1141	27.14	7.08	102.6	7.53	51.2	4.02	25.00	17.23
MW-110	14-Jun-2016	1440	1149	25.21	6.75	-101.2	4.17	23.1	1.88	25.00	18.70
MW-192	14-Jun-2016	1505	4369	25.94	6.67	-9.7	5.79	29.5	2.24	25.00	16.83
MW-203	14-Jun-2016	1550	3127	24.84	6.88	47.6	6.52	24.3	1.91	32.00	18.89
MW-109A	14-Jun-2016	1655	2870	25.38	7.39	-109.1	11.10	22.9	1.68	25.00	17.33

NOTES:
* = Deeper aquifer monitoring well
% = Percent
µS/cm = Microsiemens per centimeter
ft = Foot/feet
mg/L = Milligrams per liter
mV = Millivolts
NS = Not sampled due to mud and sediment in well as a result of flooding
NTU = Nephelometric turbidity units

Table 4 Ground Water Quality Parameters, August 2018

Well ID	Sample Date	Sample Time (Hours)	Specific Conductance (µS/cm)	Temperature (Celsius)	pH	ORP (mV)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	HydroSleeve™ Sampler Depth (ft)	Depth to Water (ft)
MW-108	8/15/2018	1336	1016	24.3	6.52	139.8	1.99	5.04	25.00	17.60
MW-109A	8/15/2018	1800	2085	24.4	6.52	80.4	35.60	1.97	26.15	17.68
MW-110	8/15/2018	1010	1028	22.9	6.38	138.5	7.01	--	25.00	19.11
MW-191R	8/15/2018	1555	2303	22.9	6.35	148.5	9.15	6.82	27.00	18.45
MW-192	8/15/2018	1415	4196	23.9	6.30	139.7	28.20	2.80	25.25	17.04
MW-193	8/15/2018	1450	1523	23.2	6.47	136.0	45.30	1.44	25.00	17.20
MW-201	8/15/2018	1226	2855	22.8	6.61	142.2	19.20	3.32	27.67	19.01
MW-202*	8/15/2018	0905	1614	24.1	6.60	19.0	148.00	4.89	41.00	20.33
MW-203	8/15/2018	1710	1222	22.9	6.42	156.5	8.09	2.72	27.65	18.95
MW-204	8/15/2018	1155	2421	21.8	6.62	138.3	13.40	4.30	26.87	19.06
MW-33	8/15/2018	1111	2077	22.4	7.02	151.3	3.21	3.62	27.00	17.96

NOTES:
"--" = Equipment reading not taken
* = Deeper aquifer monitoring well
% = Percent
µS/cm = Microsiemens per centimeter
ft = Foot/feet
mg/L = Milligrams per liter
mV = Millivolts
NTU = Nephelometric turbidity units

TABLE 5 DETECTED GROUND WATER RESULTS JUNE 2016 AND AUGUST 2018

		Location ID	MW-108	MW-108	MW-108	MW-109A	MW-109A	MW-109A	MW-110	MW-110	MW-110
		Sample Name	MW-108	MW-108	MW-108-DUP	MW-109A	MW-109A	MW-109A-DUP	MW-110	MW-110	MW-110-DUP
		Parent Sample ID			MW-108			MW-109A			MW-110
		Sample Date	6/14/2016	8/15/2018	8/15/2018	6/14/2016	8/15/2018	8/15/2018	6/14/2016	8/15/2018	8/15/2018
Analyte	**Ground Water Cleanup Standard**	**Unit**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Semi-Volatile Organic Compounds (Method OLM04.2)											
1,1-Biphenyl	NSL	µg/L	< 4.8 U	< 4.8 U	< 4.9 U	**42.1**	**44.4**	--	< 4.8 U	< 5 U	< 4.8 U
1-Methylnaphthalene	NSL	µg/L	< 1.9 U	< 1.9 U	< 2 U	**205**	**193**	--	< 1.9 U	< 2 U	< 1.9 U
2-Methylnaphthalene	NSL	µg/L	< 1.9 U	< 1.9 U	< 2 U	**178**	**162**	--	< 1.9 U	< 2 U	< 1.9 U
Acenaphthene	NSL	µg/L	< 1.9 U	< 1.9 U	< 2 U	**5.2**	**5.4**	--	< 1.9 U	< 2 U	< 1.9 U
Acetophenone	NSL	µg/L	< 4.8 U	< 4.8 U	< 4.9 U	**10.2**	< 10 U	--	< 4.8 U	< 5 U	< 4.8 U
Benzoic acid	NSL	µg/L	< 9.5 U	--	--	**62.4 J**	--	--	< 9.6 U	--	--
Fluorene	NSL	µg/L	< 1.9 U	< 1.9 U	< 2 U	**9.5**	**7.4**	--	< 1.9 U	< 2 U	< 1.9 U
Naphthalene	327 [a]	µg/L	< 1.9 U	< 1.9 U	< 2 U	**3,560**	**3,390**	--	< 1.9 U	< 2 U	< 1.9 U
Phenol	NSL	µg/L	< 4.8 U	< 4.8 U	< 4.9 U	**250**	**86.6**	--	< 4.8 U	< 5 U	< 4.8 U
Volatile Organic Compounds (Method OLM04.2)											
1,1-Dichloroethane	2,400 [b]	µg/L	**8.7**	**10**	--	< 100 U	< 50 U	< 50 U	< 1.0 U	< 1 U	--
1,2-Dichloroethane	5 [c]	µg/L	**1**	**1.2**	--	< 100 U	< 50 U	< 50 U	< 1.0 U	< 1 U	--
Acetone	22,000 [b]	µg/L	< 5.0 U	< 5 U	--	< 500 U	< 250 U	< 250 U	< 5.0 U	< 5 U	--
Benzene	5 [a]	µg/L	< 1.0 U	< 1 U	--	**137,000**	**94,700**	**104,000**	< 1.0 U	< 1 U	--
Bromomethane	NSL	µg/L	< 1.0 U	< 1 U	--	< 100 U	< 50 U	< 50 U	**1.1 JB**	< 1 U	--
Cyclohexane	NSL	µg/L	< 1.0 U	< 1 U	--	< 100 U	< 50 U	< 50 U	< 1.0 U	< 1 U	--
Ethylbenzene	700 [a]	µg/L	< 1.0 U	< 1 U	--	**887**	**630**	**702**	< 1.0 U	< 1 U	--
Isopropylbenzene	NSL	µg/L	< 1.0 U	< 1 U	--	< 100 U	< 50 U	< 50 U	< 1.0 U	< 1 U	--
m,p-Xylene	10,000 [a,d]	µg/L	< 2.0 U	< 2 U	--	**454**	**200**	**213**	< 2.0 U	< 2 U	--
Methyl tert-butyl ether	NSL	µg/L	< 1.0 U	< 1 U	--	< 100 U	< 50 U	< 50 U	< 1.0 U	< 1 U	--
o-Xylene	10,000 [a,d]	µg/L	< 1.0 U	< 1 U	--	**394**	**124**	**132**	< 1.0 U	< 1 U	--
Toluene	1,000 [c]	µg/L	< 1.0 U	< 1 U	--	**5,760**	< 50 U	< 50 U	< 1.0 U	< 1 U	--

NOTES:

[a] = Health Based Value (1991 Record of Decision).

[b] = TCEQ Texas Risk Reduction Program Tier One PCL.

[c] = USEPA Maximum Contaminant Level.

[d] = Value for total xylenes.

µg/L = microgram per liter.

B = Blank contamination.

J = Estimated value

NSL = No screening level.

U =Not detected above the detection limit.

-- = Not analyzed.

Detected values are bolded.

Shaded values exceed the ground water clean up level

TABLE 5. DETECTED GROUND WATER RESULTS JUNE 2016 AND AUGUST 2018

			Location ID	MW-191R	MW-192	MW-192	MW-193	MW-193	MW-201	MW-201	MW-202	MW-202
			Sample Name	MW-191R	MW-192	MW-192	MW-193	MW-193	MW-201	MW-201	MW-202	MW-202
			Parent Sample ID									
			Sample Date	8/15/2018	6/14/2016	8/15/2018	6/14/2016	8/15/2018	6/14/2016	8/15/2018	6/14/2016	8/15/2018
Analyte	**Ground Water Cleanup Standard**	**Unit**		**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Semi-Volatile Organic Compounds (Method OLM04.2)												
1,1-Biphenyl	NSL	µg/L		< 4.8 U	< 4.8 U	< 5 U	< 4.8 U	< 4.9 U	< 4.8 U	< 5.1 U	< 4.8 U	< 5.1 U
1-Methylnaphthalene	NSL	µg/L		< 1.9 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U
2-Methylnaphthalene	NSL	µg/L		< 1.9 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U
Acenaphthene	NSL	µg/L		< 1.9 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U
Acetophenone	NSL	µg/L		< 4.8 U	< 4.8 U	< 5 U	< 4.8 U	< 4.9 U	< 4.8 U	< 5.1 U	< 4.8 U	< 5.1 U
Benzoic acid	NSL	µg/L		--	< 9.5 U	--	< 9.5 U	--	< 9.5 U	--	< 9.6 U	--
Fluorene	NSL	µg/L		< 1.9 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U
Naphthalene	327 [a]	µg/L		< 1.9 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U	< 1.9 U	< 2 U
Phenol	NSL	µg/L		< 4.8 U	< 4.8 U	< 5 U	< 4.8 U	< 4.9 U	< 4.8 U	< 5.1 U	< 4.8 U	< 5.1 U
Volatile Organic Compounds (Method OLM04.2)												
1,1-Dichloroethane	2,400 [b]	µg/L		< 1 U	**8.1**	**7.7**	**11**	**13.8**	< 1.0 U	< 1 U	< 1.0 U	**18.1**
1,2-Dichloroethane	5 [c]	µg/L		< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	**8.4**
Acetone	22,000 [b]	µg/L		< 5 U	< 5.0 U	< 5 U	< 5.0 U	< 5 U	< 5.0 U	**5.9**	< 5.0 U	< 5 U
Benzene	5 [a]	µg/L		< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U
Bromomethane	NSL	µg/L		< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U
Cyclohexane	NSL	µg/L		< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	**2**
Ethylbenzene	700 [a]	µg/L		< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U
Isopropylbenzene	NSL	µg/L		< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U
m,p-Xylene	10,000 [a,d]	µg/L		< 2 U	< 2.0 U	< 2 U	< 2.0 U	< 2 U	< 2.0 U	< 2 U	< 2.0 U	< 2 U
Methyl tert-butyl ether	NSL	µg/L		< 1 U	< 1.0 U	**1.1**	**1.5**	**1.9**	**29.6**	**6.4**	< 1.0 U	**9.9**
o-Xylene	10,000 [a,d]	µg/L		< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U
Toluene	1,000 [c]	µg/L		< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U

NOTES:

[a] = Health Based Value (1991 Record of Decision).

[b] = TCEQ Texas Risk Reduction Program Tier One PCL.

[c] = USEPA Maximum Contaminant Level.

[d] = Value for total xylenes.

µg/L = microgram per liter.

B = Blank contamination.

J = Estimated value

NSL = No screening level.

U =Not detected above the detection limit.

-- = Not analyzed.

Detected values are bolded.

Shaded values exceed the ground water clean up level

TABLE 5. DETECTED GROUND WATER RESULTS JUNE 2016 AND AUGUST 2018

		Location ID	MW-203	MW-203	MW-203	MW-203	MW-204	MW-204	MW-33	MW-33
		Sample Name	MW-203	MW-203-DUP	MW-203	MW-203-DUP	MW-204	MW-204	MW-33	MW-33
		Parent Sample ID		MW-203		MW-203				
		Sample Date	6/14/2016	6/14/2016	8/15/2018	8/15/2018	6/14/2016	8/15/2018	6/14/2016	8/15/2018
Analyte	**Ground Water Cleanup Standard**	**Unit**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
Semi-Volatile Organic Compounds (Method OLM04.2)										
1,1-Biphenyl	NSL	µg/L	< 4.8 U	< 4.8 U	< 5 U	--	< 4.9 U	< 5 U	< 4.8 U	< 4.8 U
1-Methylnaphthalene	NSL	µg/L	< 1.9 U	< 1.9 U	< 2 U	--	< 2.0 U	< 2 U	< 1.9 U	< 1.9 U
2-Methylnaphthalene	NSL	µg/L	< 1.9 U	< 1.9 U	< 2 U	--	< 2.0 U	< 2 U	< 1.9 U	< 1.9 U
Acenaphthene	NSL	µg/L	< 1.9 U	< 1.9 U	< 2 U	--	< 2.0 U	< 2 U	< 1.9 U	< 1.9 U
Acetophenone	NSL	µg/L	< 4.8 U	< 4.8 U	< 5 U	--	< 4.9 U	< 5 U	< 4.8 U	< 4.8 U
Benzoic acid	NSL	µg/L	< 9.7 U	< 9.6 U	--	--	< 9.9 U	--	< 9.7 U	--
Fluorene	NSL	µg/L	< 1.9 U	< 1.9 U	< 2 U	--	< 2.0 U	< 2 U	< 1.9 U	< 1.9 U
Naphthalene	327 [a]	µg/L	< 1.9 U	< 1.9 U	< 2 U	--	< 2.0 U	< 2 U	< 1.9 U	< 1.9 U
Phenol	NSL	µg/L	**682**	**594**	< 5 U	--	< 4.9 U	< 5 U	< 4.8 U	< 4.8 U
Volatile Organic Compounds (Method OLM04.2)										
1,1-Dichloroethane	2,400 [b]	µg/L	**35.9**	**34.8**	**4.8**	**5.2**	< 1.0 U	< 1 U	< 1.0 U	< 1 U
1,2-Dichloroethane	5 [c]	µg/L	< 10.0 U	< 10.0 U	**1.9**	**2.1**	< 1.0 U	< 1 U	< 1.0 U	< 1 U
Acetone	22,000 [b]	µg/L	< 50.0 U	< 50.0 U	< 5 U	< 5 U	**7.5 J**	**6.3**	< 5.0 U	< 5 U
Benzene	5 [a]	µg/L	**9,160**	**9,920**	**20.9**	**21.3**	< 1.0 U	< 1 U	< 1.0 U	< 1 U
Bromomethane	NSL	µg/L	< 10.0 U	< 10.0 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U
Cyclohexane	NSL	µg/L	< 10.0 U	< 10.0 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U
Ethylbenzene	700 [a]	µg/L	< 10.0 U	< 10.0 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U
Isopropylbenzene	NSL	µg/L	**18.3**	**17.7**	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U
m,p-Xylene	10,000 [a,d]	µg/L	< 20.0 U	< 20.0 U	< 2 U	< 2 U	< 2.0 U	< 2 U	< 2.0 U	< 2 U
Methyl tert-butyl ether	NSL	µg/L	< 10.0 U	< 10.0 U	**1.9**	**2.1**	**1.2**	< 1 U	**2.2**	**2.1**
o-Xylene	10,000 [a,d]	µg/L	< 10.0 U	< 10.0 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U
Toluene	1,000 [c]	µg/L	< 10.0 U	< 10.0 U	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1.0 U	< 1 U

NOTES:

[a] = Health Based Value (1991 Record of Decision).

[b] = TCEQ Texas Risk Reduction Program Tier One PCL.

[c] = USEPA Maximum Contaminant Level.

[d] = Value for total xylenes.

µg/L = microgram per liter.

B = Blank contamination.

J = Estimated value

NSL = No screening level.

U =Not detected above the detection limit.

-- = Not analyzed.

Detected values are bolded.

Shaded values exceed the ground water clean up level

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FIGURES

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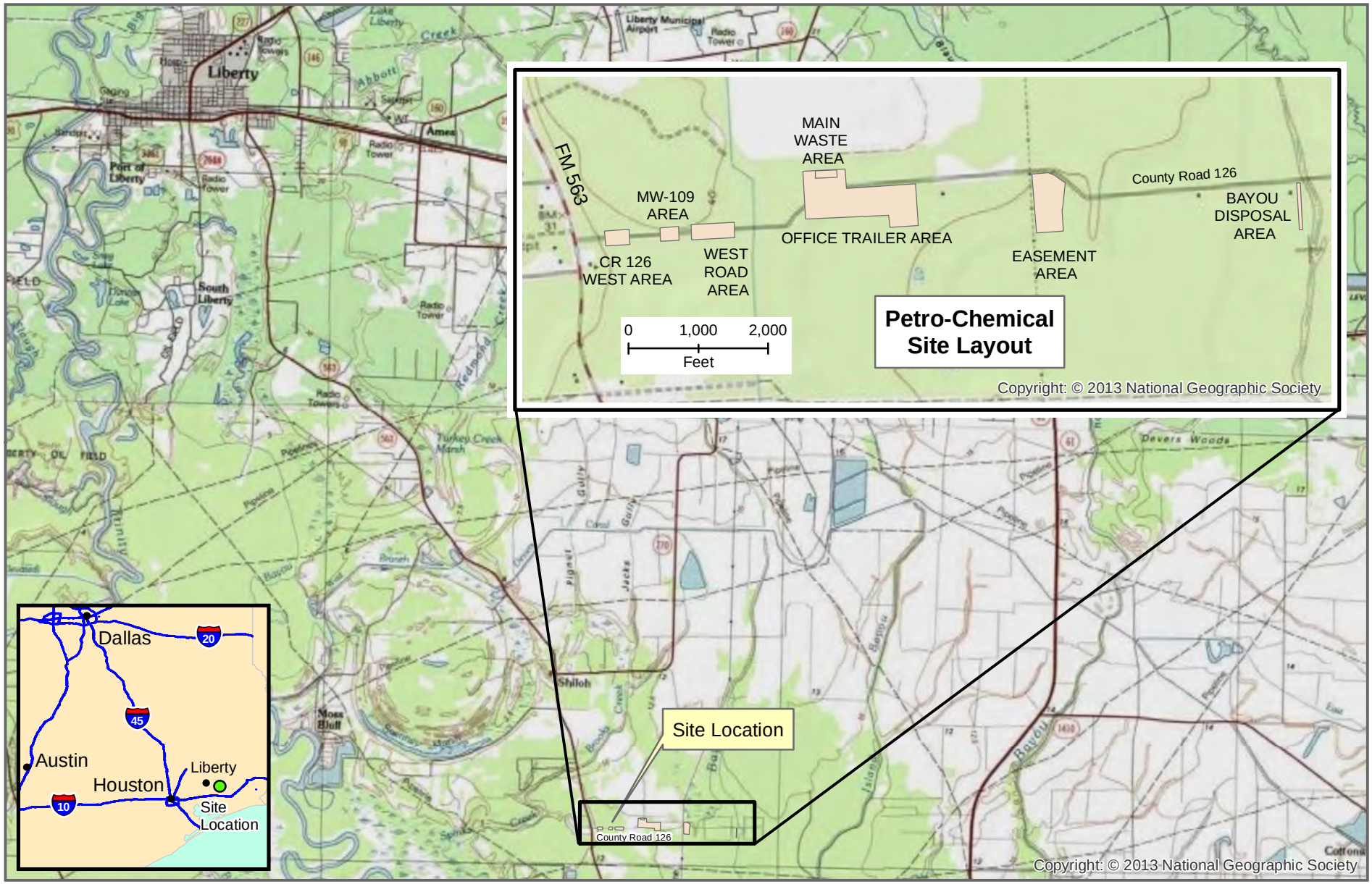

0 5,000 10,000
Feet

1 inch = 10,000 feet

N

Source: ESRI ArcGIS Online and data partners including USGS and © 2007 National Geographic Society, 2009 Redlands, CA: Environmental Systems Research Institute

Figure 1
Site Location Map
Remedial Action
Petro-Chemical Systems, Inc. (Turtle Bayou) Site
Liberty County, Texas

R:\Federal\EPA\RAC II\0072-Petro-Chem TA 3\GIS\MXDs\2016\Jun14\Fig01_SiteLoc.mxd 8/29/2016 EA eomalia



Legend:

- Ground Water Monitoring Well
- Ground Water Monitoring Well - Plugged and Abandoned

0 25 50
Feet
1 inch = 50 feet
Source: Google Earth Pro, 2018.

N

Figure 2
Monitoring Well Location Map
Remedial Action
Petro-Chemical System's Inc. (Turtle Bayou) Site
Liberty County, Texas

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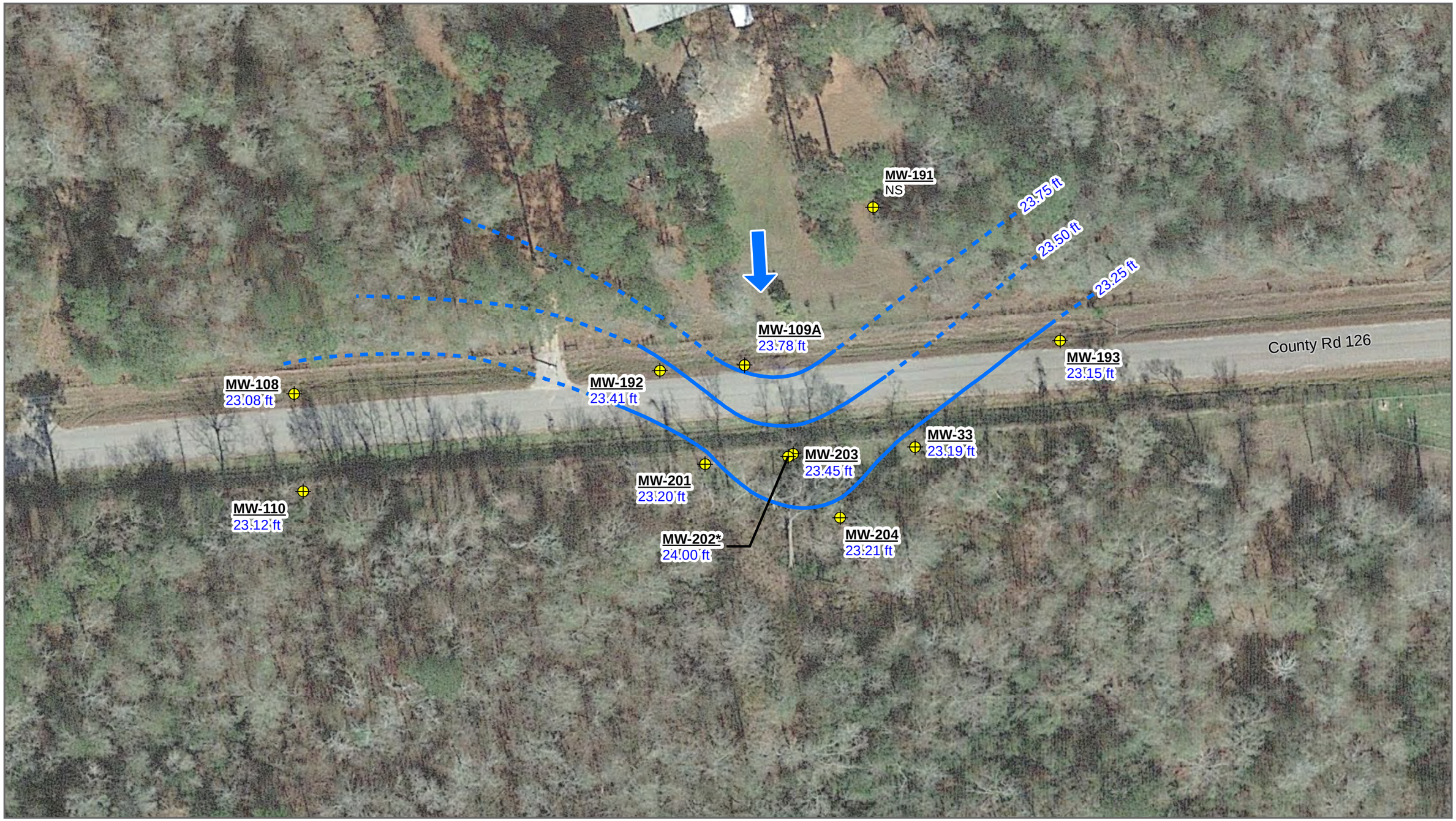


Legend:

- Ground Water Monitoring Well
- Depth to Ground Water Contour (ft)
- Inferred Depth to Ground Water Contour
- Groundwater flow direction

Note(s):
* = Deeper aquifer monitoring well, value not used for contouring
NS = Not sampled due to mud and sediment in well as a result of recent localized flooding

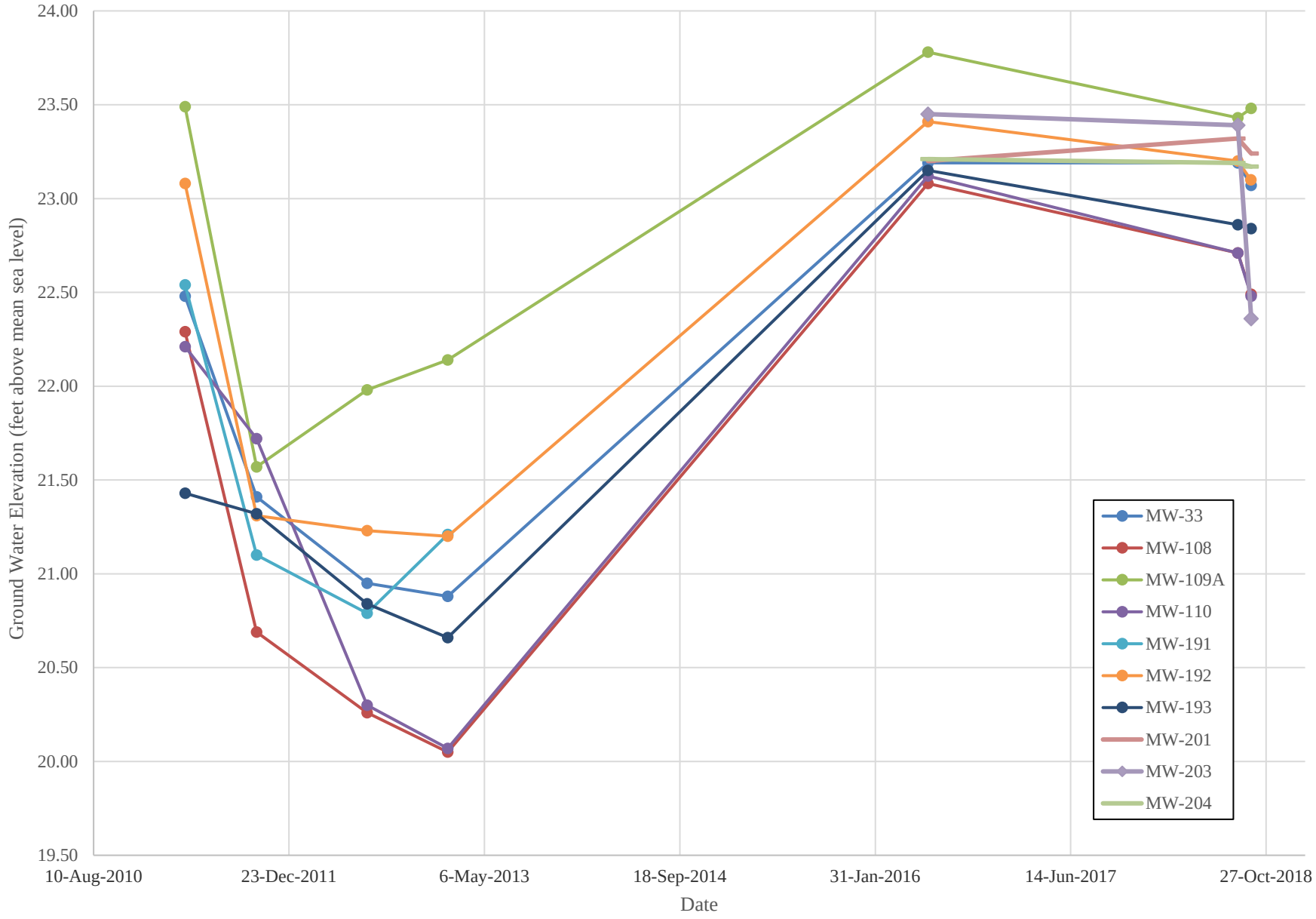
0 25 50
Feet
1 inch = 50 feet
Source: Google Earth Pro, 2018.

N

Figure 3
Potentiometric Surface Map - June 2016
Remedial Action
Petro-Chemical System's Inc. (Turtle Bayou) Site
Liberty County, Texas

P:\gis\Projects\PetroChem\MXDs\201809\Fig03_TurtleBayouPotentiometric.mxd 9/13/2018 EA rmullen

Figure 4. Hydrographs for Shallow Wells - April 2011 through September 2018





Legend:

Temporary Well

Temporary Well Location ID
Benzene Concentration (µg/L)

Note(s):
Dup = Duplicate sample
µg/L = Microgram per liter
NS = Not sampled due to insufficient water volume
ND = Benzene not detected in field screening

0 25 50
Feet

1 inch = 50 feet

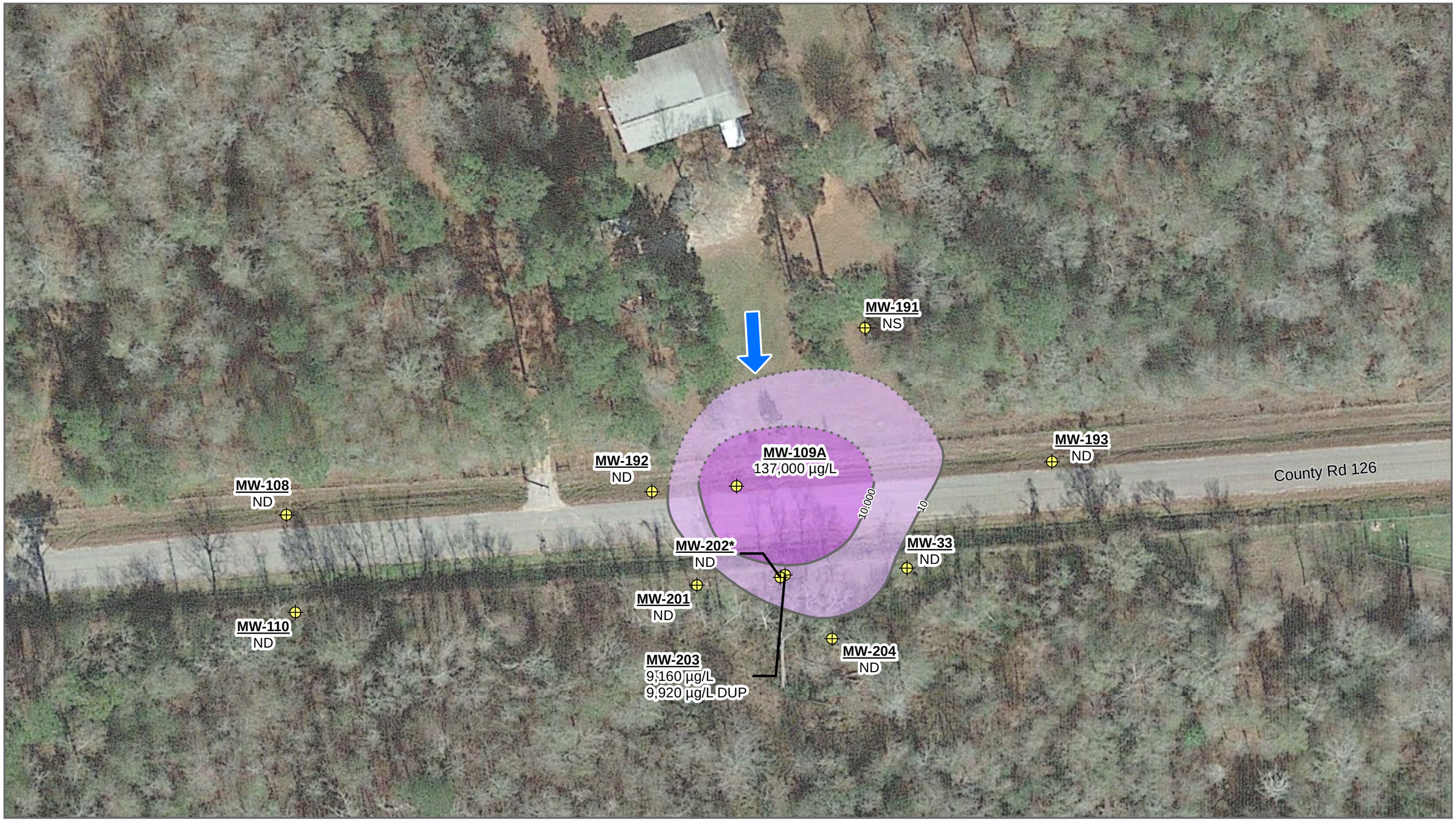
Source: Google Earth Pro, 2018.

N

Figure 5
Temporary Well Ground Water Quality Data for Benzene - May 2016

Remedial Action
Petro-Chemical System's Inc. (Turtle Bayou) Site
Liberty County, Texas

P:\gis\Projects\PetroChem\MXDs\201809\Fig05_TempWell_WaterQuality.mxd 9/24/2018 EA mullen



Well Location ID
Benzene Concentration (µg/L)

Legend:

Ground Water Monitoring Well

Groundwater flow direction

Benzene Concentration Range

10 - 10,000 µg/L

>10,000 µg/L

Note(s):
* = Deeper aquifer monitoring well
µg/L = microgram per liter
ND = Not detected
NS = Not sampled due to mud and sediment in well as a result of recent localized flooding.

DUP = duplicate sample

0 25 50
Feet
1 inch = 50 feet

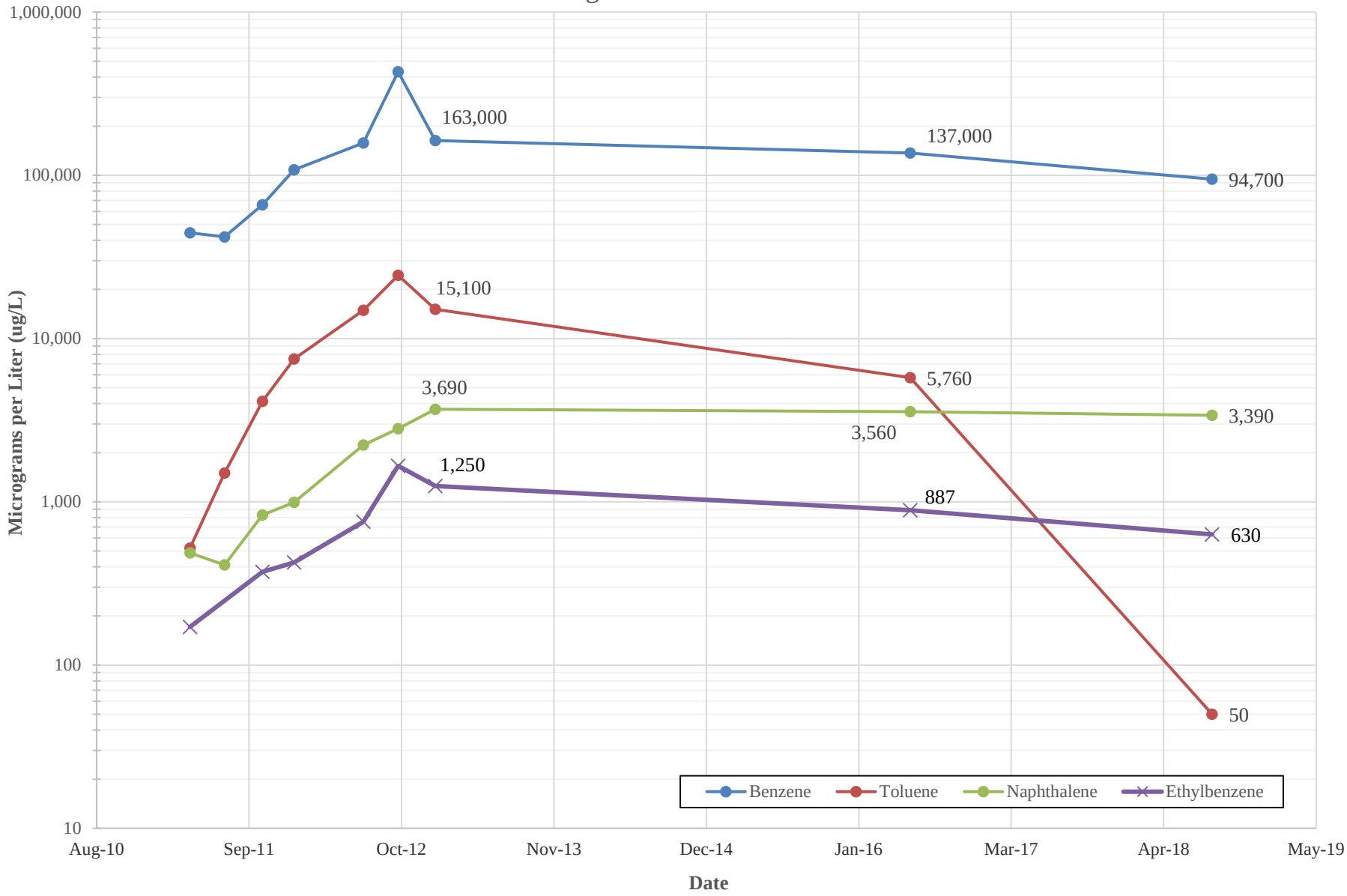
Source: Google Earth Pro, 2018.

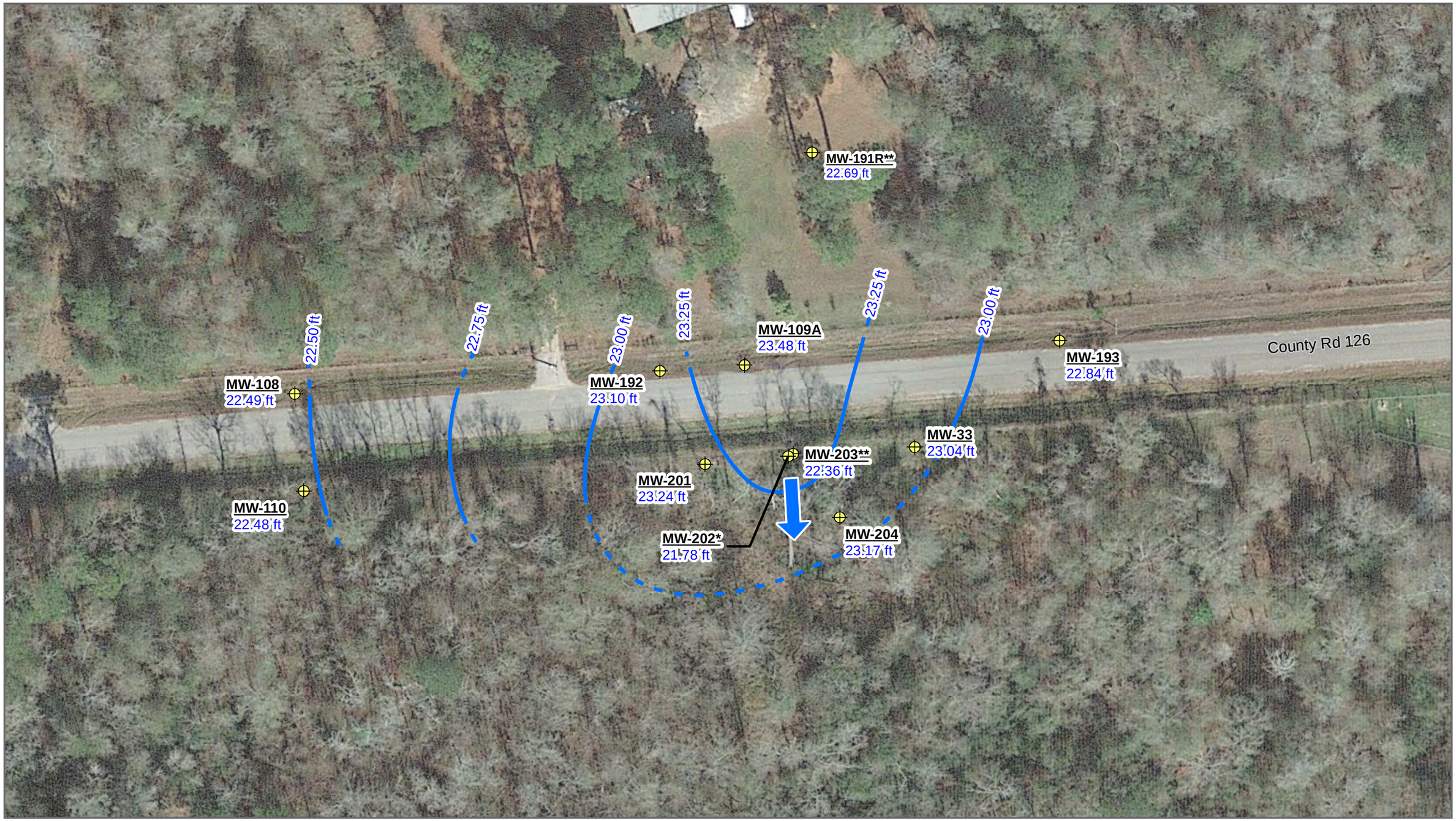
N

Figure 6
Benzene Plume Map - June 2016
Remedial Action
Petro-Chemical System's Inc. (Turtle Bayou) Site
Liberty County, Texas

P:\gis\Projects\PetroChemMXDs\201809\Fig06_TurtleBayouPlume.mxd 9/13/2018 EA rmullen

Figure 7. Trend Analysis of Benzene, Toluene, Naphthalene, and Ethylbenzene in Monitoring Well MW-109A





Legend:

- Ground Water Monitoring Well
- Depth to Ground Water Contour (ft)
- Inferred Depth to Ground Water Contour
- Ground water Flow Direction

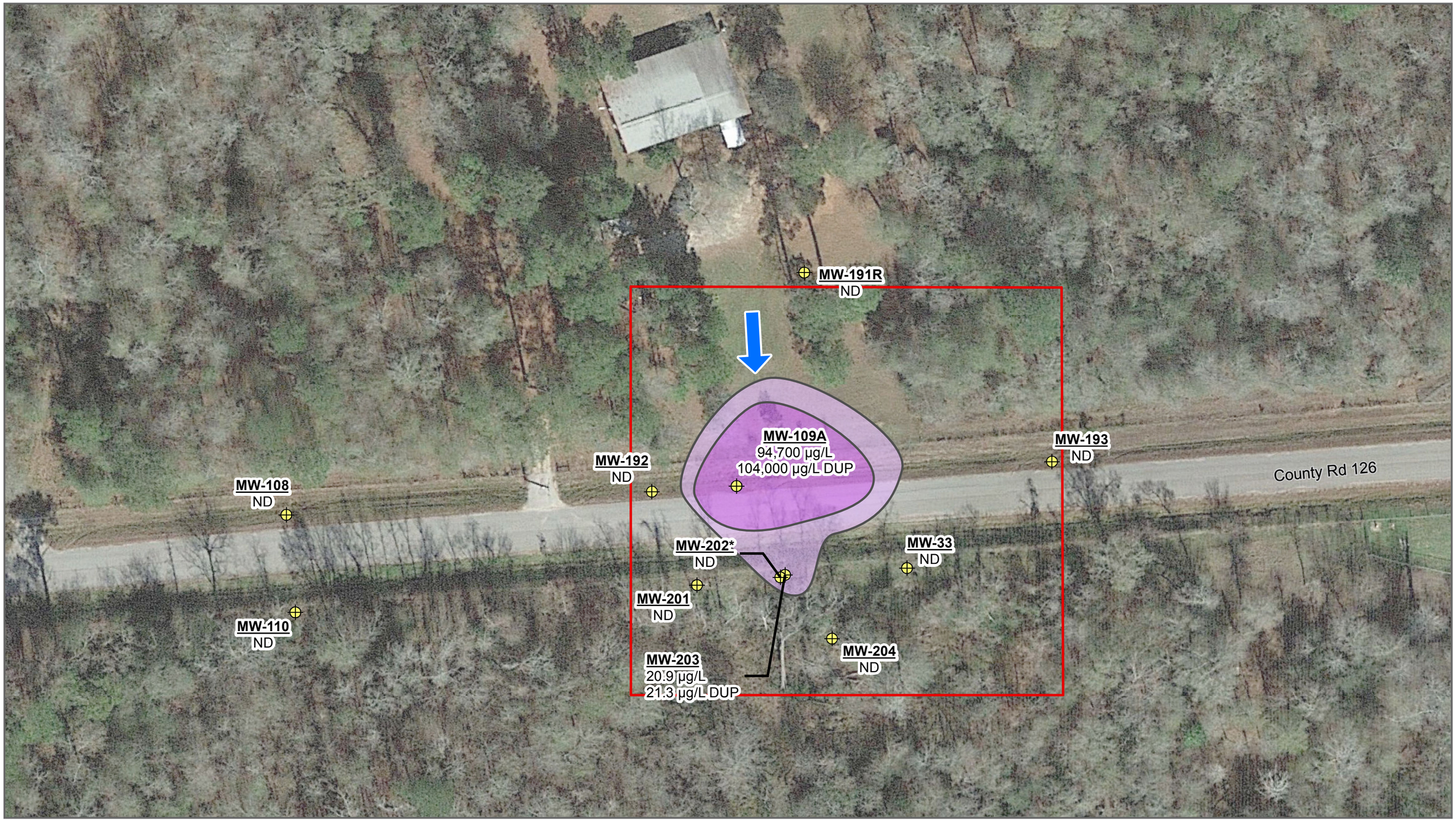
Note(s):
* = Deeper aquifer monitoring well, value not used for contouring
**=Shallow aquifer well, value not used for contouring

0 25 50
Feet
1 inch = 50 feet
Source: Google Earth Pro, 2018.

N

Figure 8
Potentiometric Surface Map - September 2018
Remedial Action
Petro-Chemical System's Inc. (Turtle Bayou) Site
Liberty County, Texas

P:\gis\Projects\PetroChemMXDs\201809\Fig08_TurtleBayouPotentiometric2018.mxd 9/20/2018 EA rmullen



Legend:

Well Location ID
Benzene Concentration (µg/L)

Ground Water Monitoring Well

Proposed TI Zone

Groundwater Flow Direction

Benzene Concentration Range

10 - 10,000 µg/L

>10,000 µg/L

Note(s):
* = Deeper aquifer monitoring well
µg/L = Microgram per liter
DUP = Duplicate sample
ND = Not detected
TI = Technical impracticability

0 25 50
Feet

1 inch = 50 feet

Source: Google Earth Pro, 2018.

N

Figure 9
Benzene Plume Map - August 2018
Remedial Action
Petro-Chemical System's Inc. (Turtle Bayou) Site
Liberty County, Texas

P:\gis\Projects\PetroChem\MXDs\201809\Fig09_TurtleBayouPlume.mxd 9/13/2018 EA rmullen

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ATTACHMENT 1

TECHNICAL MEMORANDUM ON VAPOR INTRUSION ASSESSMENT

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Technical Memorandum for
Vapor Intrusion Assessment
Petro-Chemical Systems, Inc. (Turtle Bayou) Site
Liberty County, Texas
EPA Identification No. TXD980873350

Remedial Action Contract 2 Full Service
Contract: EP-W-06-004
Task Order: 0134-RARA-0681

Prepared for
U.S. Environmental Protection Agency
Region 6
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December 2016
Revision: 00
EA Project No. 14342134

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LIST OF ACRONYMS AND ABBREVIATIONS

COPC	Contaminant(s) of potential concern
EA	EA Engineering, Science, and Technology, Inc., PBC
EPA	U.S. Environmental Protection Agency
ft	Foot (feet)
Hg	Mercury
in.	Inch(es)
L	Liter
No.	Number
OSWER	Office of Solid Waste and Emergency Response
PCE	Tetrachloroethene
ppb	Parts per billion
ppbRAE	Photoionization organic vapor analyzer
ppbv	Parts per billion by volume
QA	Quality Assurance
QC	Quality Control
RSL	Regional screening level
SAP	Sampling and Analysis Plan
Site	Petro Chemical Systems, Inc. (Turtle Bayou) Site
TCE	Trichloroethene
VI	Vapor intrusion
VOC	Volatile organic compound

1. INTRODUCTION

EA Engineering, Science, and Technology, Inc., PBC (EA) has been authorized by the U.S. Environmental Protection Agency (EPA), under Remedial Action Contract No. EP-W-06-004, Task Order 0134-RARA-0681, to perform a Remedial Action at the Petro-Chemical Systems, Inc. (Turtle Bayou) Site (site) near Liberty, Liberty County, Texas (Figure 1-1). This technical memorandum has been prepared by EA to summarize the vapor intrusion (VI) evaluation conducted at the Petro-Chemical site in March 2016 (EA 2015). VI evaluation was performed to evaluate the potential for vapor migration into a residential structure located within the vicinity of a known ground water contamination plume. The VI evaluation was conducted in accordance with the EPA Office of Solid Waste and Emergency Response (OSWER) *Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air* (EPA 2015b).

The VI evaluation and associated field investigation activities were performed at one residential structure, herein identified as Building 1, which is located in close proximity to the MW-109A Area (Figure 1-1). The field work and analytical laboratory analyses were completed in accordance with the EPA approved Sampling and Analysis Plan (SAP), Revision 01 (EA 2016). This document presents a summary of the field investigation activities, data collected, and the analysis and interpretation of the data as part of the March 2016 VI sampling event.

1.1 OBJECTIVES

The VI evaluation at Building 1 is being completed to collect VI relevant building data, conduct a multiple-lines-of-evidence evaluation of the chemical and physical data generated, assess whether the VI pathway is complete or incomplete, and provide recommendations for future management of the VI pathway, as necessary.

The building selection process was initiated by EPA and EA for the existing building within the vicinity of volatile ground water contamination that exceeds maximum contaminant levels and that have the potential for being considered at risk for VI. Based on occupancy, climate control conditions, and proximity to the volatile organic compound (VOC) ground water plume, Building 1 was selected for the VI evaluation.

The field investigation discussed in this technical memorandum included the sampling of sub-slab soil gas, indoor air, and outdoor air at Building 1. The objectives of the VI evaluation were as follows:

- Assess whether the VI pathway is complete or incomplete at Building 1 through the collection and analysis of sub-slab soil gas, indoor air, and outdoor air samples and other relevant field, and building-specific data.

- Evaluate data generated during the VI evaluation using a multiple-lines-of-evidence approach.

- Provide recommendations based on the multiple-lines-of-evidence evaluation for future management of the VI pathway, if one is identified.

The information collected during any ongoing or future investigations should be combined with data collected during this VI evaluation to better understand the potential for a VI pathway.

1.2 SCOPE OF WORK

An investigative field task was performed during March 2016 and included the following major components:

- Building inventory and VOC product screening/sampling using qualitative field meters, including a photoionization organic vapor analyzer (ppbRAE).

- Collection of sub-slab soil gas, indoor air, and ambient outdoor air samples for laboratory analysis to determine contaminants of potential concern (COPC) presence, concentrations, and distribution.

- Documentation of building conditions and pertinent weather conditions during the time of sampling.

Based on the results of the field investigation, a VI evaluation was performed for Building 1 using a multiple-lines-of-evidence approach. Sample concentrations from the VI field investigation program are compared against the VI screening criteria identified during the planning process. The data collected are of sufficient quality, as discussed in Section 4.1.

1.3 DOCUMENT ORGANIZATION

The organization of the technical memorandum is as follows:

- ***Section 1 – Introduction***—Describes the purpose and scope of work of the VI evaluation.

- ***Section 2 – Field Investigation Activities***—Provides a summary of the field investigation methodologies and activities performed during the March 2016 field event.

- ***Section 3 – Summary of Analytical Results***—Provides a summary of the contaminants detected for medium sampled and analyzed. This section also includes a comparison of the analytical results with Risk-based Regional Screening Levels (RSLs) for residential indoor air quality and the project decision conditions presented in the SAP Revision 01 (EA 2016).

- ***Section 4 – Vapor Intrusion Assessments***—Provides the VI evaluation summary based upon the multiple-lines-of-evidence evaluation approach and summarizes the interpretations made for Building 1 based upon the data generated during the field investigation activities.

- ***Section 5 – Recommendations***—Provides recommendations for management of the VI pathway at Building 1.

The appendices provided in this technical memorandum are as follows:

- Appendix A - Field Logbook (A-1), Field Sampling Forms (A-2)
- Appendix B - Photographic Log
- Appendix C - Building Inventory and Indoor Air Sampling Questionnaire
- Appendix D - Data Validation Report
- Appendix E - Laboratory Analytical Reports and Electronic Data Deliverable.

2. FIELD INVESTIGATION ACTIVITIES

This section summarizes the field activities completed at Building 1 during the VI field investigation program. Field activities were performed in accordance with the SAP (EA 2016).

Field documentation is provided in Appendix A, and consists of field logbook notes (Appendix A-1) and field sampling forms (Appendix A-2). In addition, a photographic log of field implementation procedures, sample media setups, and building/inventory photographs are provided in Appendix B.

2.1 BUILDING INFORMATION AND SURVEYS

As part of the field investigation, Building 1 was physically inspected and characteristics were documented during building survey activities. Table 2-1 presents a summary of building characteristics, heating, ventilation, and air conditioning systems, occupancy details, and the rationale behind the selection.

A building inventory, questionnaire, and photographic logs were completed in March 2016 as part of the field investigation. The completed building inventory and indoor air sampling questionnaire is provided in Appendix C. Building 1 is a metal building with house and garage built inside of the outer shell. It is constructed on a poured concrete slab foundation. The building is heated via a heat pump that is a component of the central air conditioning which is also used for cooling. Hot water is provided via an electric hot water heater. Two adult residents live in the building on a consistent basis.

2.1.1 Volatile Organic Compound Screening – Photoionization Organic Vapor Analyzer

Subsequent to the building inventory, a building survey was conducted using portable VOC monitoring equipment (i.e., a ppbRAE which is a photoionization organic vapor analyzer) to screen potential sub-slab soil gas VI entry points, and potential indoor air VOC sources that could influence building indoor air quality, and ultimately VI study sample data. Results of the VOC screening survey are included in Table 2-2 and Appendix C. Total VOC concentrations throughout the building ranged from 10 to 66 parts per billion (ppb). Generally, VOC concentrations were fairly consistent throughout the building with no observed elevated areas of concern.

2.2 SUB-SLAB SOIL GAS MONITORING POINTS

The procedures used for the selection and installation of sub-slab soil gas monitoring points within Building 1 were based on applicable guidance. The procedures were intended to provide the specific process used to select, install, and sample semi-permanent sub-slab soil gas monitoring points.

2.2.1 Sub-Slab Soil Gas Monitoring Point Installation

The procedures presented below were followed for the selection and installation of each semi-permanent sub-slab soil gas monitoring point within Building 1 during the field investigation:

1. A visual assessment of the condition of the slab was completed. Sub-slab soil gas sampling locations were selected to be out of the line of foot traffic and were placed a minimum of 6 feet (ft) from an exterior wall (where possible) and/or major cracks in the concrete slab.

2. The semi-permanent sub-slab soil gas monitoring points were installed by drilling a 1-inch (in.)-diameter drill bit ½ to 1 in. into the concrete slab to create an annular space for the surface seal. A ¼-in.-diameter drill bit was then used to drill a hole through the 1-in. annular space to approximately 2 in. below the concrete slab using a hand-held electric hammer drill.

3. After drilling the slab, the approximate thickness of the slab was recorded, and the slab was cleaned of dust using an electric shop vacuum and wiped with a dampened towel.

4. Upon completion of the borehole, an appropriate length of ¼-in. outside diameter stainless steel tubing was cut to extend from ½ in. above the bottom of the 1-in. annular space borehole to a depth approximately 2 in. below the bottom of the slab. The stainless steel tubing was attached to a ¼-in. stainless steel union and tightened to secure the tubing in-place. The assembly was placed into the borehole and checked for tightness within the borehole. Figure 3-1 presents a diagram and parts list for a typical semi-permanent sub-slab soil gas monitoring point.

5. The bottom of the stainless steel tube was set at approximately 2 in. below the concrete slab surface; therefore, the intake interval was located within the near sub-slab environment, targeting near-slab soil gas.

6. A thin, ½ to ¾-in. (up to the lowest threads on the union) layer of beeswax was placed into the 1-in. annular space borehole to seal the sub-slab soil gas monitoring point, preventing air communication between the sub-slab environment and the indoor air space.

7. After the semi-permanent sub-slab soil gas monitoring point was installed, a ¼-in. stainless steel plug was hand tightened until a quarter past snug to seal the point from ambient air intrusion and sub-slab soil gas leakage to indoor air.

8. The sub-slab soil gas monitoring points were allowed to set up and equilibrate for approximately 24 hours prior to conducting leak check testing, purging, and sampling activities.

2.3 LEAK TESTING

Leak testing was conducted at each sub-slab soil gas monitoring point prior to sample collection. Results of the leak tests are documented on the sampling forms that are included as Appendix A-2. The leak tests employed during the field activities include a shut-in test and a tracer-leak test. These leak tests were conducted to assess whether a good seal was established in the sampling train and the monitoring point interface with the concrete slab. Table 2-3 presents leak test results, and VOC readings recorded during leak testing and the monitoring point purging process. Additional details on the leak test procedures are provided below.

2.3.1 Tracer-Leak Test and Sub-Slab Soil Gas Monitoring Point Purging

The tracer-leak test was designed to check for leaks in the sub-slab soil gas monitoring point surface seal interface. The monitoring point seal integrity was confirmed in real-time by analyzing soil gas purge samples for the selected tracer compound. Medical grade helium was used as the tracer compound during field activities.

A shroud was placed over the sub-slab soil gas monitoring point and a 3-ft length of Teflon tubing connected to the monitoring point was pulled through the shroud. A Gil Air5 sampling pump was connected to the Teflon tubing at the monitoring point using a short length of Tygon tubing. The outlet of the Gil Air5 pump was connected to a 3-liter (L) Tedlar bag using Tygon tubing. Helium tracer gas was then infused into the shroud covering the sub-slab soil gas monitoring point by directing a tube from a helium cylinder source to a 0.25-in. threaded male-barbed fitting into the shroud. The interior space of the shroud was then monitored for helium concentration using a Radiodetection/Dielectric MGD-2002 Multi-Gas Detector. Once the interior of the shroud reached approximately 60 percent helium, the Gil Air5 pump was activated and allowed to purge approximately 3 L of soil gas from the sub-slab soil gas monitoring point. Upon completion of purging, the Tedlar bag was closed, the purging pump shut down, and the helium detector was removed from the shroud.

The helium detector was allowed to equilibrate with the atmosphere and then inserted into the Tedlar bag to assess helium concentrations from the purged volume. The monitoring point was considered sealed from atmospheric air intrusion if the helium meter did not detect 10 percent helium in the Tedlar bag. Helium was not detected in any of the sub-slab soil gas monitoring point purge samples above 10 percent during the tracer gas testing.

The remaining volume of the Tedlar bag was used to screen sub-slab soil gas concentrations for VOCs via a photoionization organic vapor analyzer (ppbRAE 3000) and documented accordingly on the field sampling form. The ppbRAE 3000, with a detection range between 1 ppb and 10,000 parts per million, was used to provide a relative assessment of expected impacts. Following purging and collection of sub-slab soil gas samples, the VOC monitor was used to qualitatively assess whether the VOCs at the monitoring point were low (0–100 ppb by volume [ppbv]), moderate (100–1,000 ppbv), or high (greater than 1,000 ppbv). Based on results from the VOC purging process, total VOCs at each of the two monitoring point were considered moderate. This information was documented on the field sampling forms (Appendix A-2).

2.3.2 Shut-In Testing

The shut-in test was designed to check for leaks in aboveground fittings and was conducted at a total of 10 percent (i.e., two) of the sub-slab soil gas monitoring points. Table 2-3 presents shut-in test results. To perform the shut-in test, the aboveground sample train was evacuated of air to a measured vacuum of approximately 100 in. of mercury (Hg) using a vacuum pump. If there was an observable loss of vacuum (>1 in. of Hg), the sample train fittings were tightened and adjusted as needed until the vacuum in the sample train did not dissipate for at least one minute.

2.4 SUB-SLAB SOIL GAS SAMPLING

The following procedures for the collection of sub-slab soil gas samples were based on the SAP (EA 2016), applicable federal and state guidance, and practical experience during the implementation of field activities. A summary of the sub-slab soil gas samples collected during the March 2016 sampling event is provided in Table 2-4. Field sampling forms and photographic logs from the sampling event are presented in Appendix A and B, respectively. Sub-slab soil gas locations are presented in Figure 2-1.

2.4.1 Volatile Organic Compounds Sampling

A 6-L Summa® canister with a vacuum gauge and flow controller were used to collect the sub-slab soil gas samples. The canisters were individually certified clean in accordance with EPA Method TO-15 SIM and under a vacuum pressure of no less than -25 in. of Hg. Each 6-L Summa® canister was paired with an associated vacuum gauge and flow controller by the laboratory during the certification process and used at only one location. The sub-slab soil gas flow controllers, which feature a particulate filter and vacuum gauge, were regulated to collect at 3.5 milliliters (mL)/minute over a 24-hour collection period as set by the analytical laboratory prior to shipping. Prior to sample setup and collection, vacuum readings for each Summa® canister were verified with a handheld pressure gauge to assess for potential leaks during transit from the laboratory to the field. Initial vacuum gauge readings were recorded on the field sampling forms prior to sample collection.

To initiate sub-slab soil gas sample collection in a Summa® canister, the flow controller was connected to the top of the Summa® canister using Swagelok® connections. A new length of Teflon tubing was connected to the sub-slab soil gas monitoring point, which was connected to the top of the flow controller using a Swagelok® connector and disposable ferrule (ferrules were used at only one location).

One sub-slab soil gas sample was collected from each of the semi-permanent sub-slab soil gas monitoring points. Following the 24-hour collection period, the Summa® canister valves were closed to terminate sample collection. If Summa® canister vacuum gauges reached -5 in. of Hg or less before the 24-hour collection period had concluded, the canister valves were closed to terminate sample collection. Summa® canister sample collection was terminated at or prior to the vacuum gauge reading -5 in. of Hg due to the inherent error associated with flow controllers and vacuum gauges. Flow regulator ending gauge pressures and sample end times were recorded

on the canister identification tags and the field sampling forms. Once sample collection was completed, the canister and flow controllers were disconnected from the sample tubing and a cap was tightened onto the Summa® canister. Pertinent sample information was recorded on the associated chain-of-custody, and the canister was repackaged into the originating box. The final pressure readings were also measured and recorded by the laboratory upon arrival from the field.

Sub-slab soil gas samples were sent to Eurofins Air Toxics, Folsom, California for analysis of VOCs by EPA Method TO-15 SIM.

2.5 INDOOR AIR SAMPLING

The following procedures for the collection of indoor air samples were based on the SAP (EA 2016), applicable federal and state guidance, and practical experience during the implementation of field activities. A summary of the indoor air samples collected during the March 2016 sampling event is provided in Table 2-4. Field sampling forms and photographic logs from the sampling event are presented in Appendix A and B, respectively. Indoor air sampling locations are presented in Figure 2-1.

2.5.1 Volatile Organic Compounds Sampling

Two 6-L Summa® canisters with a vacuum gauges and flow controllers were used to collect indoor air samples. The canisters were individually certified clean in accordance with EPA Method TO-15 SIM and under a vacuum pressure of no less than -25 (in.) of Hg. Each 6-L Summa® canister was paired with an associated vacuum gauge and flow controller by the laboratory during the certification process and were used at only one location. The indoor air flow controllers, which feature a particulate filter and vacuum gauge, were regulated to collect at 3.5 mL/minute over a 24-hour collection period as set by the analytical laboratory prior to shipping. Prior to sample setup and collection, vacuum readings for each Summa® canister were verified with a handheld pressure gauge to assess for potential leaks during transit from the laboratory to the field. Initial vacuum gauge readings were recorded on the field sampling forms prior to sample collection.

Indoor air sampling locations were also selected to cover multiple areas of the indoor air space across the footprint of the building. The Summa® canisters were placed in a location approximately 3–5 ft aboveground, representative of the breathing zone. Periodically throughout the 24-hour sampling period, the pressure gauges were monitored to ensure canisters were shut down prior to reaching -5 in Hg. Canister sample end times and ending pressures were recorded on the field sampling form. To terminate sample collection, the Summa® canister valve was closed, and the sample was contained within the canister. The sample identification and collection date/time was recorded on the sample label attached to each Summa® canister and on the field sampling form. Initial and final pressures of the canisters were documented on the field sampling form and the chain-of-custody. The final pressures were also measured and recorded by the laboratory upon arrival from the field. Each indoor air sample was sent to Eurofins Air Toxics of Folsom, California for analysis of VOCs by EPA Method TO-15 SIM.

2.6 OUTDOOR AIR SAMPLING

The following procedures for the collection of outdoor ambient air samples were based on the SAP (EA 2016), applicable federal guidance, and practical experience during the implementation of field activities. A summary of the outdoor air sample collected during the March 2016 sampling event is provided in Table 2-4. Field sampling forms and photographic logs from the sampling event are presented in Appendices A and B, respectively. The outdoor air sampling location is presented in Figure 2-1.

The procedures to collect an outdoor ambient air sample are identical to those described for indoor air samples. Due to fair weather conditions and sampling location, the Summa® canister did not require temporary shelter during the 24-hour sample collection process.

One outdoor ambient air sample was collected at an upwind, exterior location on the south side of Building 1. The outdoor ambient air sample location was determined based on current wind conditions at the time of sampling.

2.7 FIELD QUALITY CONTROL SAMPLING

Duplicate samples were collected on a 10 percent basis, rounding up, for each analysis and for each environmental medium. The location of the duplicate sample was determined by the field team during the March 2016 sampling event. Table 2-4 summarizes the field quality control sample collected during the sampling event.

2.8 WEATHER CONDITIONS

Weather conditions recorded during the sampling event were obtained from the George Bush Intercontinental Airport (IAH) weather station through the Weather Underground website (www.wunderground.com). Table 2-5 details pertinent daily weather conditions during the March 2016 sampling event.

2.9 SAMPLE CUSTODY

Sub-slab soil gas, indoor air, and outdoor air samples were sent to Eurofins Air Toxics of Folsom, California for VOC analysis via EPA Method TO-15 SIM. Once sample collection was complete, samples were staged for sample processing prior to being repacked within the original shipment receipt boxes or containers. Sample processing included a review of sample labels, tightness check of canister caps, and completion of chain-of-custody forms. The shipment of samples was completed as quickly as possible (i.e., the shipment was made the day of sample collection). None of the samples collected and shipped exceeded their analysis holding time.

2.10 MANAGEMENT OF INVESTIGATION-DERIVED MATERIAL

Investigation-derived materials generated during the VI field effort consisted of expendable waste materials and were collected, removed, and properly disposed. These materials consisted primarily of sampling materials (i.e., tubing, gloves, etc.), waste paper, food and beverage

containers, and expendables. Expendable materials used during the investigation was properly disposed of as general debris/trash or recycled.

3. SUMMARY OF ANALYTICAL RESULTS

This section discusses the analytical data results of VI evaluation performed at Building 1 during the field sampling event. A summary of the types and number of samples that were analyzed, and the analyte suites that were part of the VI study analytical program were presented in Section 2 and are shown in Table 2-4.

3.1 DATA QUALITY

A quality assurance (QA)/quality control (QC) program was implemented during the field investigation to ensure the generation of data of known and defensible quality. The specifications for the QA/QC program are outlined in the SAP (EA 2016). The QA/QC program was designed to minimize error, provide early identification and correction of potential problems, control the data acquisition process, and evaluate the performance of the sampling program. The QA/QC procedures were followed in the field, as well as at the offsite laboratory.

A field duplicate was collected at a frequency of one duplicate for every ten normal field samples, per the SAP (EA 2016). The field duplicate for the sample collected during the field activities is identified in the applicable data table for the associated native sample (Table 3-1).

In addition, an outdoor ambient air sample was collected as part of the QA/QC process. Outdoor ambient air data was used to evaluate the potential for contributing sources of background contamination identified in indoor air samples. A full data validation report is included in Appendix D.

3.2 SUMMARY OF DATA USABILITY

Data validation and QA review was conducted by EA for each analytical data sample generated during the VI sampling event. Data validation procedures and processes were performed in accordance with the SAP (EA 2016).

The data reported for the sampled media (air, including indoor air, outdoor air, and sub-slab soil gas) were found to meet the objectives specified in the SAP (EA 2016) and are considered accurate and usable as qualified for the intended purpose and to be representative of site conditions at the time of collection based on data validation presented in Appendix D.

The Data Validation Report (Appendix D) concluded that the overall quality of the data were acceptable and are usable for the intended purpose.

The following notes were made during the data validation process:

- Field duplicates: Laboratory method blank samples were prepared and analyzed with each analytical method batch in addition to project samples.

  Analytical data were qualified based on method blank contamination as noted below. Due to the sensitivity of the TO-15 SIM method, several low-level VOC detections were

reported in the method blank samples that resulted in the qualification of low-level sample detections as estimated non-detect data (UJ).

- Sample 1603470-01A─1,2-dibromoethane and 1,4-dichlorobenzene were UJ-qualified
- Sample 1603470-02A─1,2-dibromoethane, 1,2-dichloroethane and 1,4-dichlorobenzene were UJ-qualified
- Sample 1603470-03A─1,2-dibromoethane, 1,4-dichlorobenzene and benzene were UJ-qualified
- Sample 1603470-04A─1,2-dibromoethane and 1,4-dichlorobenzene were UJ-qualified
- Sample 1603470-05A─1,1,2,2-tetrachloroethane, 1,2-dibromoethane, 1,4-dichlorobenzene and cis-1,2-dichloroethene were UJ-qualified
- Sample 1603470-06A─1,2-dibromoethane and 1,4-dichlorobenzene were UJ-qualified.

- Field and Laboratory Duplicate Samples: A field duplicate sample was collected for 1603470-03A/-04A (SG-01). Field duplicate analyte relative percent differences were within the 50 percent control criteria with the exception of chloroethane and chloromethane. The low-level detections of chloroethane are already J-qualified, the detects for chloromethane are J-qualified to signify estimated data values.

Project data deliverables were reviewed for completeness and compliance with the SAP (EA 2016). Based on the data review, the completeness of deliverables is 100 percent. No analytical data were R-qualified signifying rejected or unusable data. The analytical data achieve greater than the 90 percent data completeness objective and the project data quality objectives. The March 2016 sample data are usable to support the site remedial action.

3.3 LABORATORY DATA

The analytical laboratory data are summarized on Table 3-1 and are organized by air sample type (i.e., sub-slab soil gas, indoor air, and outdoor air). Analytical results are compared to screening criteria as defined in the SAP (EA 2016). The screening criteria are provided below.

Sub-slab Soil Gas

- Values calculated based on EPA current residential air RSLs (EPA 2015a) modified using the methodology specified in the *OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air* (EPA 2015b) by dividing by an attenuation factor of 0.03 for sub-slab soil gas.

Indoor Air

- EPA residential air RSLs (EPA 2015a).

It should be noted that screening levels are based on conservative estimates of exposure and are not the same as cleanup levels. Screening level exceedances do not automatically designate an area as contaminated or indicate a response action is necessary. Rather, screening level exceedances suggest that further evaluation of the potential risks posed by site-related COPCs may be necessary.

Table 3-2 provides a summary of detected contaminant concentration ranges by sample type (i.e., sub-slab soil gas, indoor air, and outdoor air) for the analytical data set. Laboratory analytical reports for the March 2016 samples are provided in Appendix E.

3.4 SUB-SLAB SOIL GAS SAMPLING RESULTS

Sub-slab soil gas sampling included the collection of 3 samples (2 parent and 1 duplicate) for COPCs analysis via EPA Method TO-15 SIM, as identified on Table 2-4. Analytical results for sub-slab soil gas samples are presented in Table 3-1 and sub-slab soil gas sample locations are shown in Figure 3-1.

A total of eighteen (18) COPCs were detected in sub-slab soil gas, with eight (8) COPCs identified only as estimated concentration values. The most notable detection was tetrachloroethene (PCE) with concentrations ranging from 17 to 33 micrograms per cubic meter (Table 3-1 and Table 3-2). None of the COPCs detected in sub-slab soil gas samples exceeded screening criteria and were typically two to three orders of magnitude below the screening levels, with the exception of PCE which was only one order of magnitude below the screening level. Analytical results for sub-slab soil gas indicate that the source strength of COPCs is limited and existing sub-slab soil gas conditions do not pose an immediate concern from a VI perspective.

3.5 INDOOR AIR SAMPLING RESULTS

Indoor air sampling included the collection of 2 parent samples for COPC analysis via EPA Method TO-15 SIM, as identified on Table 2-4. Analytical results for indoor air samples are summarized in Table 3-1 and indoor air sample locations are shown in Figure 3-1.

A total of seventeen (17) COPCs were detected in indoor air. There were three (3) COPCs, 1,2-dichloroethane, naphthalene, and trichloroethene (TCE), that exceed indoor air screening criteria. Exceedances for naphthalene and TCE were slightly above the screening criteria, while 1,2-dichloroethane exceeded screening criteria by one order of magnitude. It was also noted that detected indoor air concentration ranges (Table 3-2) of these three COPCs also exceeded the sub-slab soil gas concentration ranges, which is suggestive of contributing anthropogenic sources to indoor air.

3.6 OUTDOOR AIR SAMPLING RESULTS

Outdoor air sampling included the collection of 1 parent sample for COPC analysis via EPA Method TO-15 SIM as identified on Table 2-4. Analytical results for the outdoor air sample is summarized in Table 3-1 and the outdoor air sample location is shown on Figure 3-1.

Because indoor air sampling was performed as part of the VI study, corresponding outdoor air samples were also collected. Depending upon a building's air exchange rate, outdoor air contamination has the potential to make up a large percentage of indoor air contamination. Table 3-2 provides the contaminant concentration ranges of outdoor air samples that were collected for Building 1. EPA indoor air screening criteria identified in Table 3-1 were applied to outdoor air COPC concentrations to characterize site-specific outdoor air COPCs that may be contributing to COPC concentrations detected in indoor air. In many cases, there may be multiple sources of contamination in indoor air not associated with VI from a potential source area. Identifying potentially contributing ambient contamination supports the interpretation of indoor air results.

No COPCs exceeded screening criteria in the outdoor air sample. The only noted detection with relevance to potential impact on indoor air quality would be the identification of low-level estimated concentrations of TCE in outdoor air.

3.7 DATA MANAGEMENT

Chemical analytical data were placed in the summary tables after verification and validation. The analytical requests were coordinated by the Task Manager and Project Manager, and chain-of-custody documentation was filled out in the field by the sampling team. The data placed into the summary tables have undergone the review/revision cycles required for acceptance.

4. VAPOR INTRUSION ASSESSMENT

The following sections summarize the overall VI assessment for Building 1 based upon a multiple-lines-of-evidence strategy to assess if the VI pathway is complete or incomplete.

4.1 MULTIPLE-LINES-OF-EVIDENCE STRATEGY

In order for a VI pathway to be considered complete, contaminants need to exist as a subsurface source (i.e., soil gas) with the potential for migrating into an above-lying building. Should a source of COPCs (i.e., a screening criteria exceedance) be identified in the sub-slab environment, then further assessment of indoor air quality in the above-lying building is completed. An initial evaluation of detected contaminant ranges was applied as a first-step approach to identify sub-slab soil gas concentrations that exceeded screening level criteria. Through this initial VI data evaluation process, sub-slab soil gas sources of potential contamination can be identified and/or eliminated from further VI assessment.

If a sub-slab soil gas source is identified then the evaluation of contaminants in indoor air quality is completed. This second step of the VI assessment includes evaluating indoor air contaminant concentration ranges against applicable screening level criteria. Through this second phase of the evaluation process, contaminants that do not exceed applicable screening criteria can be eliminated from further VI assessment. Additionally, contaminants that do exceed applicable screening criteria and can be correlated with contaminants that are either present and/or exceeded screening criteria in sub-slab soil gas. Culminating with a full assessment through a multiple-lines-of-evidence approach.

4.2 BUILDING 1 VAPOR INTRUSION ASSESSMENT

Although COPCs were detected in sub-slab slab soil gas, they were not detected at concentrations exceeding screening criteria - suggesting that the source strength of COPCs below the building is insufficient to dictate a VI risk. Three (3) COPCs did exceed associated indoor air screening criteria for residential use. However, the lack of exceedances in sub-slab soil gas (low to no source strength), the spatial distribution of COPCs throughout the indoor air space (i.e., detected in each sample at similar concentration), and the fact that indoor air concentrations were in excess of sub-slab soil gas concentrations for the same compounds, suggest that the exceedances are the result of contributing anthropogenic and/or ambient outdoor air sources and not VI. It was noted during the building survey that solvents, such as brake cleaner, are stored in the attached garage. These household products have the potential to influence indoor air quality, and specifically compounds such as TCE and 1,2-dichloroethane.

5. RECOMMENDATIONS

The following section details the recommendations for future management at Building 1 where the VI study was completed. A comprehensive multiple-lines-of-evidence strategy was employed during each phase of the VI assessment, from project planning to field investigation methodologies, sampling plan, data evaluation, and results interpretation. This strategy focuses on measuring potential sub-slab soil gas source strength, evaluating background contaminant sources, and then determining if enough evidence exists to conclusively identify a complete or incomplete VI pathway.

The recommendations that follow are based upon a comparison of the data generated during the VI assessment to EPA residential screening criteria. The results of this assessment are appropriate for the current use of the building.

The following section summarizes the recommendation following the completion of this VI evaluation.

5.1 NO FURTHER ASSESSMENT

Based upon the VI evaluation completed, Building 1 requires no further VI assessment at this time.

6. REFERENCES

EA Engineering, Science, and Technology, Inc., PBC (EA). 2015. Remedial Action Work Plan for Petro-Chemical Systems, Inc. (Turtle Bayou) Superfund Site. 23 December.

———. 2016. Sampling and Analysis Plan, Revision 01. 25 March.

U.S. Environmental Protection Agency (EPA). 2015a. *Regional Screening Levels for Industrial and Residential Air.* June.

———. 2015b. *Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air. Office of Solid Waste and Emergency Response.* June.

Weather Underground website (www.wunderground.com). 2016.

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Figures

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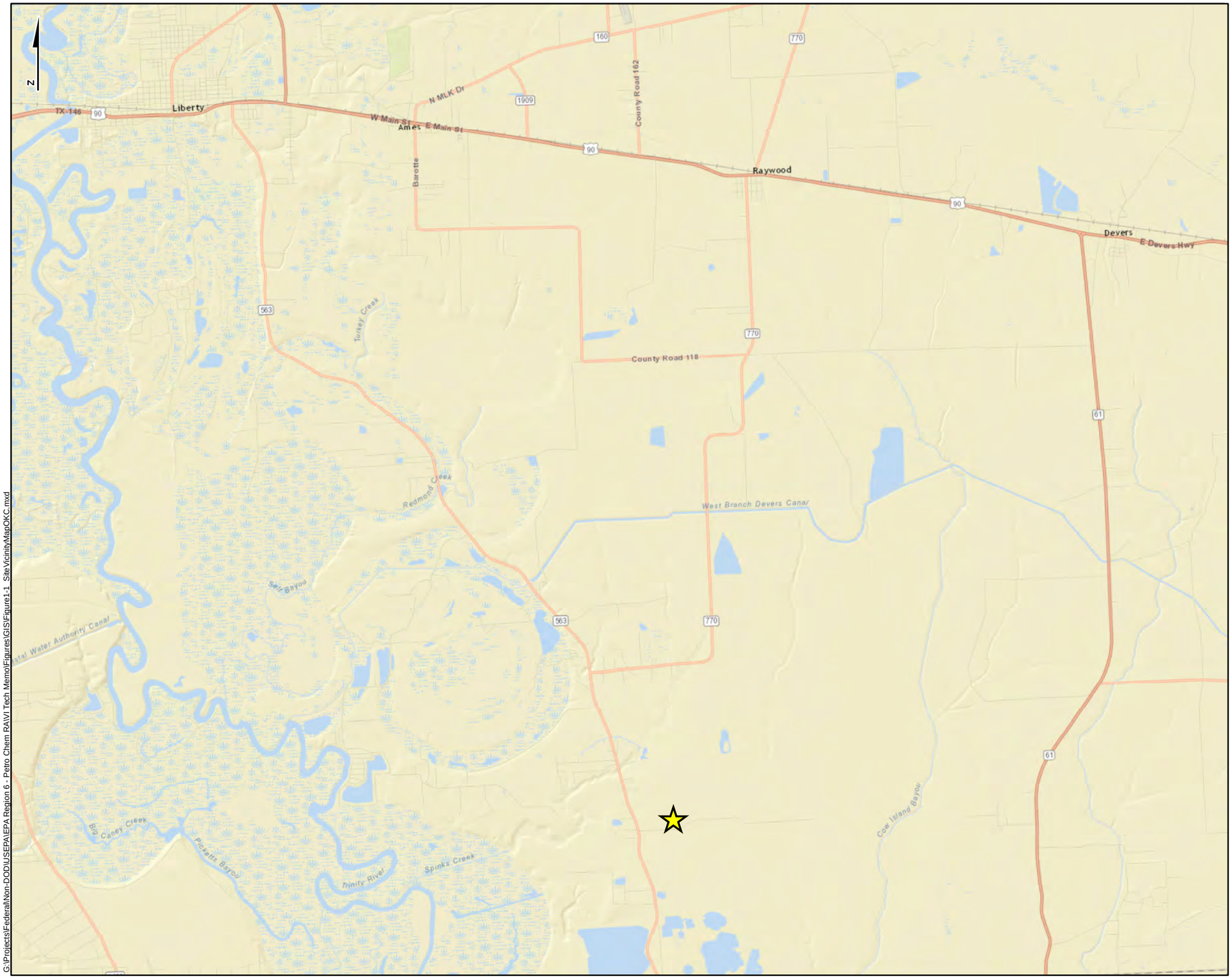
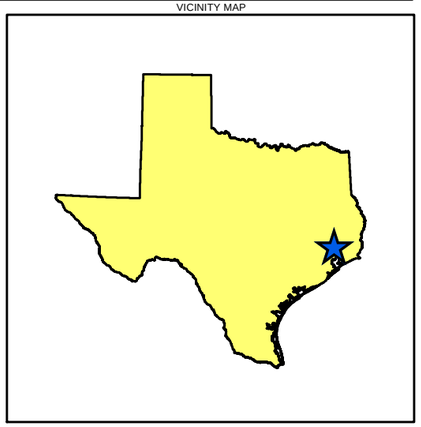


VICINITY MAP



Legend

★ Site Location

0 1.25 2.5
Miles

Figure 1-1
Site Vicinity Map
Technical Memorandum for
Vapor Intrusion Evaluation
Petro-Chemical Systems, Inc. (Turtle Bayou) Site
Liberty County, Texas

Aerial: ESRI ArcGIS Online Map Service

Map Date: 8/24/2016

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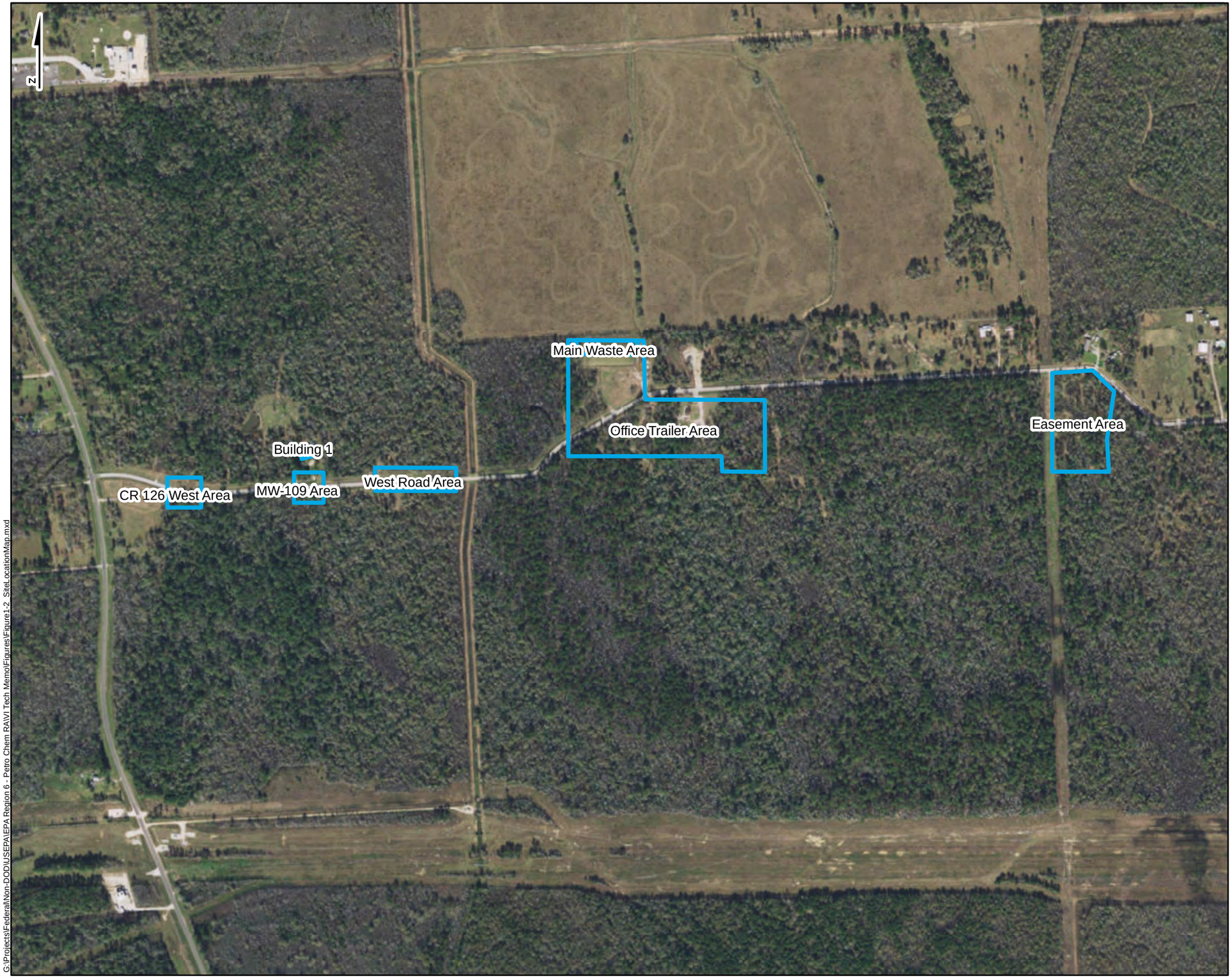
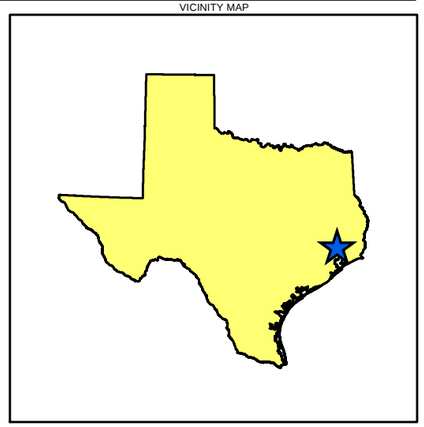


VICINITY MAP



Legend

Site Features

0 500 1,000
Feet

Figure 1-2
Site Location Map
Technical Memorandum for
Vapor Intrusion Evaluation
Petro-Chemical Systems, Inc. (Turtle Bayou) Site
Liberty County, Texas

Aerial: ESRI ArcGIS Online Map Service

Map Date: 8/24/2016

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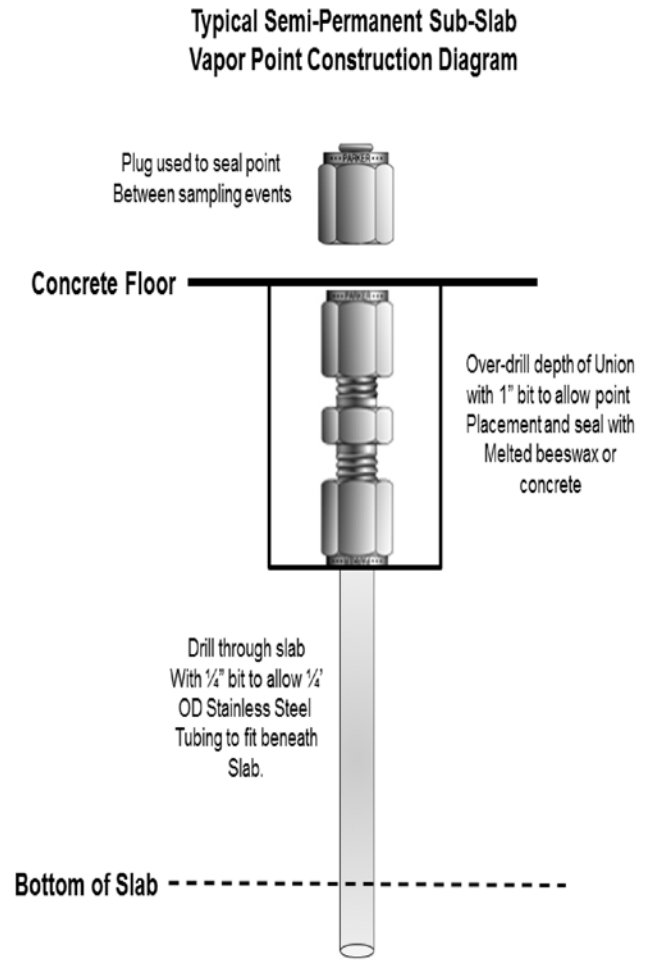

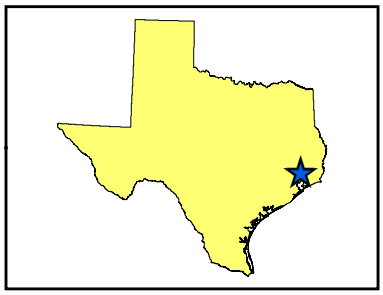

Figure 2-1
Sub-Slab Sampling
Point Diagram

Technical Memorandum for
Vapor Intrusion Evaluation
Petro-Chemical Systems, Inc. (Turtle Bayou) Site
Liberty County, Texas

Map Date: 8/24/2016

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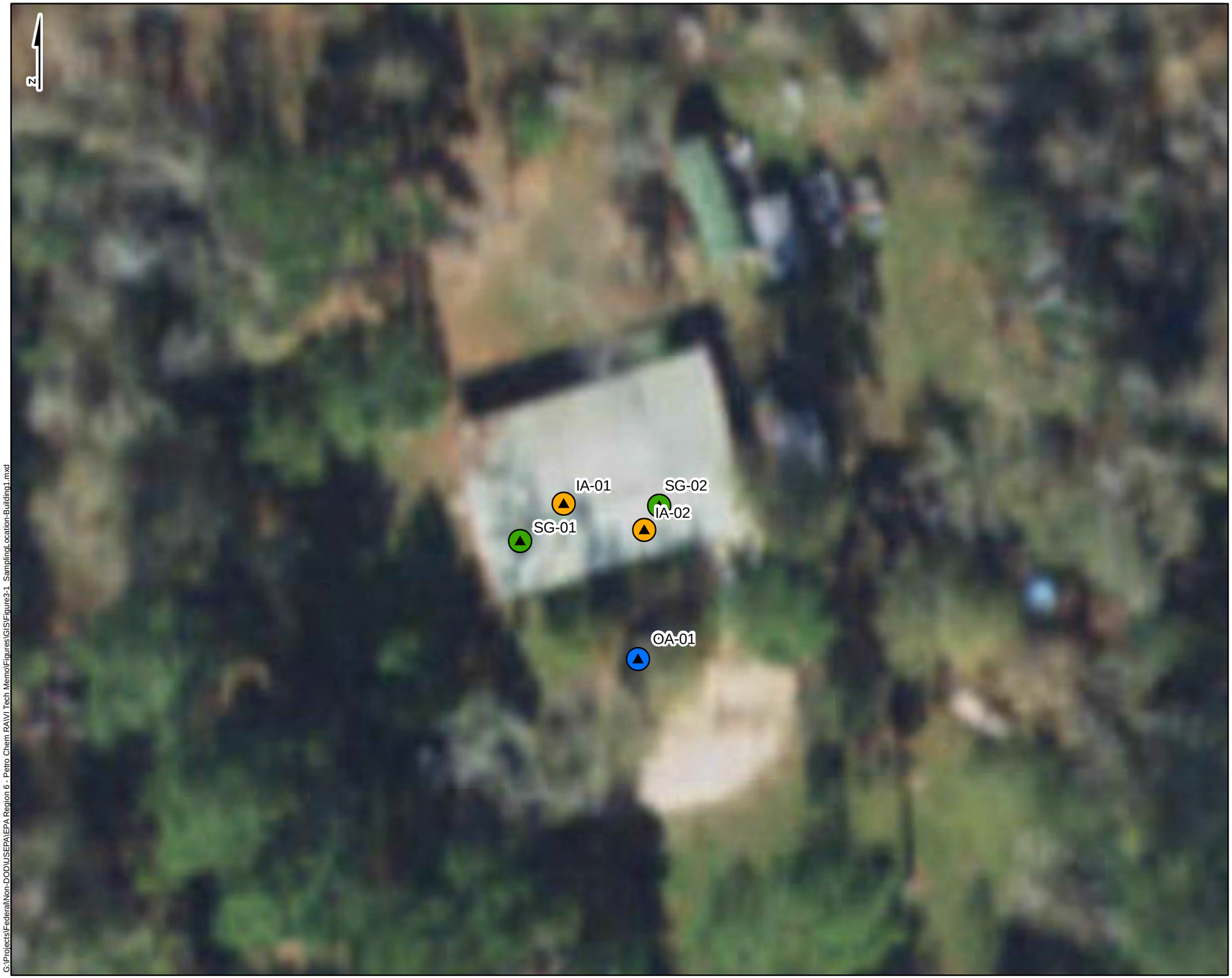

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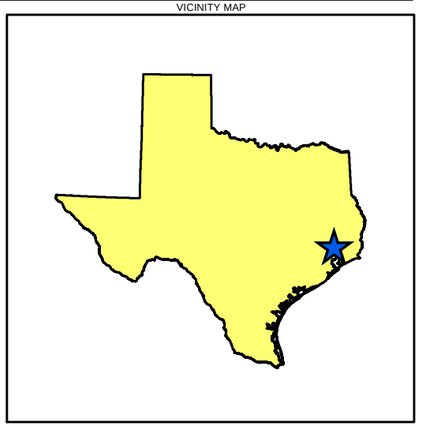

Legend

- Indoor Air
- Outdoor Air
- Sub-Slab Soil Gas

0 25 50
Feet

Figure 3-1
Sampling Locations - Building 1
Technical Memorandum for
Vapor Intrusion Evaluation
Petro-Chemical Systems, Inc. (Turtle Bayou) Site
Liberty County, Texas

Aerial: ESRI ArcGIS Online Map Service

Map Date: 8/24/2016

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Tables

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TABLE 2-1 PHYSICAL CHARACTERISTICS OF BUILDING 1
PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE, LIBERTY COUNTY, TEXAS

Sampling Event	Building ID	Building Square Footage (ft^2)	Building Construction Type	HVAC Systems	Occupancy Details	Rationale for Selection
March 2016	1	1,400	Single story, metal building with house and attached garage built inside of the outer shell. Constructed on slab-on grade; also includes a covered patio off the garage - approximately 15 years old	Heat pump and central air conditioning, distributed via air ducts; kitchen and bathroom exhaust fans to exterior; dryer in the garage with exhaust fan	Residential occupancy (full-time) - two residents	Occupancy, climate control conditions, proximity to the VOC ground water plume

NOTE:
AOC = Area of Concern
ft^2 = square feet
HVAC = Heating, ventilation and air conditioning
ID = Identification
VOC = Volatile organic compound

EA Engineering, Science, and Technology, Inc., PBC

**TABLE 2-2 BUILDING 1 - VOLATILE ORGANIC COMPOUND SURVEY
PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE, LIBERTY COUNTY, TEXAS**

Sampling Event	Building ID	Room Type	Total VOCs
March 2016	1	Kitchen	46 ppb
		Bathroom	61 ppb
		Bedroom Closet	10 ppb
		Bedroom	66 ppb
		Outdoor Air (South)	0 ppb

NOTES:
ID = Identification
ppb = Parts per billion
VOC = Volatile organic compound

EA Engineering, Science, and Technology, Inc., PBC

TABLE 2-3 LEAK-TEST CHECK FIELD DATA
PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE, LIBERTY COUNTY, TEXAS

Sampling Event	Building ID	Sub-Slab Soil Gas Sample Point ID	Slab Thickness (in.)	Helium Tracer Test Result (He% achieved in shroud / He% detected in purge volume)	Shut-in Test Result (observable loss of in. of Hg)	VOC Screening Result (ppbv)	VOC Screening Screening Designation
March 2016	1	SSG-01	4.5	62.2 / 0.5	0	446	M
		SSG-02	4.5	62.2 / 0	---	680	M

NOTES:
--- = Not applicable
H = high (> 1,000 ppbv)
He% = Percent helium
Hg = Mercury
in. = Inch(es)
L = Low (0-100 ppbv)
M = Moderate (100 - 1,000 ppbv)
ppbv = Parts per billion by volume
VOC = Volatile organic compound

EA Engineering, Science, and Technology, Inc., PBC

TABLE 2-4 FIELD SAMPLE COLLECTION SUMMARY
PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE, LIBERTY COUNTY,

Sampling Event	Building ID	Sample Type	Number of Samples Collected	Duplicate Samples Collected	Analytical Suite
March 2016	1	Indoor Air	2	0	TO-15 SIM
		Sub-Slab Soil Gas	2	1	TO-15 SIM
		Outdoor Air	1	0	TO-15 SIM

NOTES:
ID = Identification
SIM = Selected ion monitoring

EA Engineering, Science, and Technology, Inc., PBC

TABLE 2-5 WEATHER CONDITIONS - MARCH 2016 SAMPLING EVENT [a]
PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE, LIBERTY COUNTY, TEXAS

Field Investigation Dates	Building Sampled	Mean Temperature (°F)	Mean Humidity (%)	Mean Atmospheric Pressure (in. of Hg)	Mean Wind Speed (MPH)	Daily Precipitation Measured (in.)	Weather Event	Predominant Wind Direction
MARCH 2016								
3/20/2016	1	56	37	30.34	14	0.00	---	North Northwest
3/21/2016		54	46	30.41	5	0.00	---	Southeast
3/22/2016[b]		60	63	30.2	7	0.00	---	Southeast
3/23/2016		70	73	29.9	14	0.00	---	Southeast
3/24/2016		60	68	29.91	15	0.00	---	Northwest

NOTES:
(a) All weather details from 20 to 24 March 2016; George Bush Intercontinetal Airport Airport (IAH), accessed on 8 April 2016.
(b) Date samples were collected.
--- = Not applicable
% = Percent
°F = Decrees Fahrenheit
in. = Inches
in. of Hg = Inches of mercury
MPH = Miles per hour

TABLE 3-1 SUB-SLAB/INDOOR AIR DATA SUMMARY TABLE
PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE, LIBERTY COUNTY, TEXAS

Sample Date	Project Sample Identification	Reporting Limits (µg/m³)	Results (µg/m³)	Data Qualifiers	Analyte	Sub-Slab Air		Indoor Air (HI = 1)		Indoor Air (HI = 0.1)	
						EPA res-RSL[1] (µg/m³)	Exceeds Screening Level	EPA res-RSL[2] (µg/m³)	Exceeds Screening Level	EPA res-RSL[3] (µg/m³)	Exceeds Screening Level
Indoor Air											
3/23/2016	IA-01	0.16	0.023	J	1,1,1-Trichloroethane	--	--	5200	No	520	No
3/23/2016	IA-01	0.20	<0.2	ND	1,1,2,2-Tetrachloroethane	--	--	NS	No	NS	No
3/23/2016	IA-01	0.16	<0.16	ND	1,1,2-Trichloroethane	--	--	0.21	No	0.021	No
3/23/2016	IA-01	0.12	<0.12	ND	1,1-Dichloroethane	--	--	NS	No	NS	No
3/23/2016	IA-01	0.058	<0.058	ND	1,1-Dichloroethene	--	--	210	No	21	No
3/23/2016	IA-01	0.22	0.055	UJ	1,2-Dibromoethane (EDB)	--	--	9.4	No	0.94	No
3/23/2016	IA-01	0.12	2.0	--	1,2-Dichloroethane	--	--	7.3	No	0.73	***Yes***
3/23/2016	IA-01	0.18	0.22	UJ	1,4-Dichlorobenzene	--	--	830	No	83	No
3/23/2016	IA-01	0.23	1.3	--	Benzene	--	--	31	No	3.1	No
3/23/2016	IA-01	0.18	0.37	--	Carbon Tetrachloride	--	--	100	No	10	No
3/23/2016	IA-01	0.19	0.048	J	Chloroethane	--	--	10000	No	1000	No
3/23/2016	IA-01	0.14	0.12	J	Chloroform	--	--	100	No	10	No
3/23/2016	IA-01	0.15	1.1	--	Chloromethane	--	--	94	No	9.4	No
3/23/2016	IA-01	0.12	<0.12	ND	cis-1,2-Dichloroethene	--	--	NS	No	NS	No
3/23/2016	IA-01	0.13	1.0	--	Ethyl Benzene	--	--	1000	No	100	No
3/23/2016	IA-01	0.20	0.094	J	Freon 114	--	--	NS	No	NS	No
3/23/2016	IA-01	0.14	1.9	--	Freon 12	--	--	100	No	10	No
3/23/2016	IA-01	0.25	2.9	--	m,p-Xylene	--	--	100	No	10	No
3/23/2016	IA-01	0.53	<0.53	ND	Methyl tert-butyl ether	--	--	3100	No	310	No
3/23/2016	IA-01	0.38	0.46	--	Naphthalene	--	--	3.1	No	0.31	***Yes***
3/23/2016	IA-01	0.13	1.0	--	o-Xylene	--	--	100	No	10	No
3/23/2016	IA-01	0.20	2.7	--	Tetrachloroethene	--	--	42	No	4.2	No
3/23/2016	IA-01	0.11	8.0	--	Toluene	--	--	5200	No	520	No
3/23/2016	IA-01	0.58	<0.58	ND	trans-1,2-Dichloroethene	--	--	NS	No	NS	No
3/23/2016	IA-01	0.16	0.25	--	Trichloroethene	--	--	2.1	No	0.21	***Yes***
3/23/2016	IA-01	0.037	<0.037	ND	Vinyl Chloride	--	--	100	No	10	No
3/23/2016	IA-02	0.31	0.028	J	1,1,1-Trichloroethane	--	--	5200	No	520	No
3/23/2016	IA-02	0.40	0.089	UJ	1,1,2,2-Tetrachloroethane	--	--	NS	No	NS	No
3/23/2016	IA-02	0.31	<0.31	ND	1,1,2-Trichloroethane	--	--	0.21	No	0.021	No
3/23/2016	IA-02	0.23	<0.23	ND	1,1-Dichloroethane	--	--	NS	No	NS	No
3/23/2016	IA-02	0.11	<0.11	ND	1,1-Dichloroethene	--	--	210	No	21	No
3/23/2016	IA-02	0.44	0.13	UJ	1,2-Dibromoethane (EDB)	--	--	9.4	No	0.94	No
3/23/2016	IA-02	0.23	2.0	--	1,2-Dichloroethane	--	--	7.3	No	0.73	***Yes***
3/23/2016	IA-02	0.35	0.32	UJ	1,4-Dichlorobenzene	--	--	830	No	83	No
3/23/2016	IA-02	0.46	1.4	--	Benzene	--	--	31	No	3.1	No
3/23/2016	IA-02	0.36	0.38	--	Carbon Tetrachloride	--	--	100	No	10	No

TABLE 3-1 SUB-SLAB/INDOOR AIR DATA SUMMARY TABLE
PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE, LIBERTY COUNTY, TEXAS

Sample Date	Project Sample Identification	Reporting Limits ($\mu g/m^3$)	Results ($\mu g/m^3$)	Data Qualifiers	Analyte	Sub-Slab Air		Indoor Air (HI = 1)		Indoor Air (HI = 0.1)	
						EPA res-RSL[1] ($\mu g/m^3$)	Exceeds Screening Level	EPA res-RSL[2] ($\mu g/m^3$)	Exceeds Screening Level	EPA res-RSL[3] ($\mu g/m^3$)	Exceeds Screening Level
Indoor Air (Continued)											
3/23/2016	IA-02	0.38	0.06	J	Chloroethane	--	--	10000	No	1000	No
3/23/2016	IA-02	0.28	0.11	J	Chloroform	--	--	100	No	10	No
3/23/2016	IA-02	0.30	1.2	--	Chloromethane	--	--	94	No	9.4	No
3/23/2016	IA-02	0.23	0.033	UJ	cis-1,2-Dichloroethene	--	--	NS	No	NS	No
3/23/2016	IA-02	0.25	1.0	--	Ethyl Benzene	--	--	1000	No	100	No
3/23/2016	IA-02	0.40	0.1	J	Freon 114	--	--	NS	No	NS	No
3/23/2016	IA-02	0.28	1.8	--	Freon 12	--	--	100	No	10	No
3/23/2016	IA-02	0.50	2.8	--	m,p-Xylene	--	--	100	No	10	No
3/23/2016	IA-02	1.0	<1.0	ND	Methyl tert-butyl ether	--	--	3100	No	310	No
3/23/2016	IA-02	0.75	0.54	J	Naphthalene	--	--	3.1	No	0.31	***Yes***
3/23/2016	IA-02	0.25	1.0	--	o-Xylene	--	--	100	No	10	No
3/23/2016	IA-02	0.39	2.7	--	Tetrachloroethene	--	--	42	No	4.2	No
3/23/2016	IA-02	0.22	7.3	--	Toluene	--	--	5200	No	520	No
3/23/2016	IA-02	1.1	<1.1	ND	trans-1,2-Dichloroethene	--	--	NS	No	NS	No
3/23/2016	IA-02	0.31	0.13	J	Trichloroethene	--	--	2.1	No	0.21	No
3/23/2016	IA-02	0.074	<0.074	ND	Vinyl Chloride	--	--	100	No	10	No
Ambient Air											
3/23/2016	OA-01	0.16	0.026	J	1,1,1-Trichloroethane	--	--	5200	No	520	No
3/23/2016	OA-01	0.20	<0.2	ND	1,1,2,2-Tetrachloroethane	--	--	NS	No	NS	No
3/23/2016	OA-01	0.16	<0.16	ND	1,1,2-Trichloroethane	--	--	0.21	No	0.021	No
3/23/2016	OA-01	0.12	<0.12	ND	1,1-Dichloroethane	--	--	NS	No	NS	No
3/23/2016	OA-01	0.059	<0.059	ND	1,1-Dichloroethene	--	--	210	No	21	No
3/23/2016	OA-01	0.23	0.046	UJ	1,2-Dibromoethane (EDB)	--	--	9.4	No	0.94	No
3/23/2016	OA-01	0.12	0.057	UJ	1,2-Dichloroethane	--	--	7.3	No	0.73	No
3/23/2016	OA-01	0.18	0.074	UJ	1,4-Dichlorobenzene	--	--	830	No	83	No
3/23/2016	OA-01	0.24	0.41	--	Benzene	--	--	31	No	3.1	No
3/23/2016	OA-01	0.19	0.37	--	Carbon Tetrachloride	--	--	100	No	10	No
3/23/2016	OA-01	0.20	0.05	J	Chloroethane	--	--	10000	No	1000	No
3/23/2016	OA-01	0.15	0.072	J	Chloroform	--	--	100	No	10	No
3/23/2016	OA-01	0.15	1.2	--	Chloromethane	--	--	94	No	9.4	No
3/23/2016	OA-01	0.12	<0.12	ND	cis-1,2-Dichloroethene	--	--	NS	No	NS	No
3/23/2016	OA-01	0.13	0.064	J	Ethyl Benzene	--	--	1000	No	100	No
3/23/2016	OA-01	0.21	0.11	J	Freon 114	--	--	NS	No	NS	No
3/23/2016	OA-01	0.15	1.9	--	Freon 12	--	--	100	No	10	No
3/23/2016	OA-01	0.26	0.2	J	m,p-Xylene	--	--	100	No	10	No
3/23/2016	OA-01	0.54	<0.54	ND	Methyl tert-butyl ether	--	--	3100	No	310	No

TABLE 3-1 SUB-SLAB/INDOOR AIR DATA SUMMARY TABLE
PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE, LIBERTY COUNTY, TEXAS

Sample Date	Project Sample Identification	Reporting Limits (µg/m^3)	Results (µg/m^3)	Data Qualifiers	Analyte	Sub-Slab Air		Indoor Air (HI = 1)		Indoor Air (HI = 0.1)	
						EPA res-RSL[1] (µg/m^3)	Exceeds Screening Level	EPA res-RSL[2] (µg/m^3)	Exceeds Screening Level	EPA res-RSL[3] (µg/m^3)	Exceeds Screening Level
Ambient Air (Continued)											
3/23/2016	OA-01	0.39	<0.39	ND	Naphthalene	--	--	3.1	No	0.31	No
3/23/2016	OA-01	0.13	0.068	J	o-Xylene	--	--	100	No	10	No
3/23/2016	OA-01	0.20	0.04	J	Tetrachloroethene	--	--	42	No	4.2	No
3/23/2016	OA-01	0.11	0.56	--	Toluene	--	--	5200	No	520	No
3/23/2016	OA-01	0.59	<0.59	ND	trans-1,2-Dichloroethene	--	--	NS	No	NS	No
3/23/2016	OA-01	0.16	0.026	J	Trichloroethene	--	--	2.1	No	0.21	No
3/23/2016	OA-01	0.038	<0.038	ND	Vinyl Chloride	--	--	100	No	10	No
Sub-Slab Air											
3/23/2016	SG-01	0.16	0.01	J	1,1,1-Trichloroethane	17,333	No	--	--	--	--
3/23/2016	SG-01	0.20	<0.2	ND	1,1,2,2-Tetrachloroethane	NS	No	--	--	--	--
3/23/2016	SG-01	0.16	<0.16	ND	1,1,2-Trichloroethane	0.7	No	--	--	--	--
3/23/2016	SG-01	0.12	<0.12	ND	1,1-Dichloroethane	NS	No	--	--	--	--
3/23/2016	SG-01	0.059	<0.059	ND	1,1-Dichloroethene	700	No	--	--	--	--
3/23/2016	SG-01	0.23	0.04	UJ	1,2-Dibromoethane (EDB)	31	No	--	--	--	--
3/23/2016	SG-01	0.12	0.17	--	1,2-Dichloroethane	24	No	--	--	--	--
3/23/2016	SG-01	0.18	0.10	UJ	1,4-Dichlorobenzene	2,767	No	--	--	--	--
3/23/2016	SG-01	0.24	0.33	UJ	Benzene	103	No	--	--	--	--
3/23/2016	SG-01	0.19	0.25	--	Carbon Tetrachloride	333	No	--	--	--	--
3/23/2016	SG-01	0.20	0.036	UJ	Chloroethane	33,333	No	--	--	--	--
3/23/2016	SG-01	0.15	0.057	J	Chloroform	333	No	--	--	--	--
3/23/2016	SG-01	0.15	0.26	UJ	Chloromethane	313	No	--	--	--	--
3/23/2016	SG-01	0.12	<0.12	ND	cis-1,2-Dichloroethene	NS	No	--	--	--	--
3/23/2016	SG-01	0.13	0.23	--	Ethyl Benzene	3,333	No	--	--	--	--
3/23/2016	SG-01	0.21	0.11	J	Freon 114	NS	No	--	--	--	--
3/23/2016	SG-01	0.15	1.7	--	Freon 12	333	No	--	--	--	--
3/23/2016	SG-01	0.26	0.91	--	m,p-Xylene	333	No	--	--	--	--
3/23/2016	SG-01	0.54	<0.54	ND	Methyl tert-butyl ether	10,333	No	--	--	--	--
3/23/2016	SG-01	0.39	0.25	J	Naphthalene	10	No	--	--	--	--
3/23/2016	SG-01	0.13	0.48	--	o-Xylene	333	No	--	--	--	--
3/23/2016	SG-01	0.20	17	--	Tetrachloroethene	140	No	--	--	--	--
3/23/2016	SG-01	0.11	1.2	--	Toluene	17,333	No	--	--	--	--
3/23/2016	SG-01	0.59	<0.59	ND	trans-1,2-Dichloroethene	NS	No	--	--	--	--
3/23/2016	SG-01	0.16	0.063	J	Trichloroethene	7	No	--	--	--	--
3/23/2016	SG-01	0.038	<0.038	ND	Vinyl Chloride	333	No	--	--	--	--
3/23/2016	SG-01-Dup	0.16	0.014	J	1,1,1-Trichloroethane	17,333	No	--	--	--	--
3/23/2016	SG-01-Dup	0.20	<0.2	ND	1,1,2,2-Tetrachloroethane	NS	No	--	--	--	--

TABLE 3-1 SUB-SLAB/INDOOR AIR DATA SUMMARY TABLE
PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE, LIBERTY COUNTY, TEXAS

Sample Date	Project Sample Identification	Reporting Limits ($\mu g/m^3$)	Results ($\mu g/m^3$)	Data Qualifiers	Analyte	Sub-Slab Air		Indoor Air (HI = 1)		Indoor Air (HI = 0.1)	
						EPA res-RSL[1] ($\mu g/m^3$)	Exceeds Screening Level	EPA res-RSL[2] ($\mu g/m^3$)	Exceeds Screening Level	EPA res-RSL[3] ($\mu g/m^3$)	Exceeds Screening Level
Sub-Slab Air (Continued)											
3/23/2016	SG-01-Dup	0.16	<0.16	ND	1,1,2-Trichloroethane	0.7	No	--	--	--	--
3/23/2016	SG-01-Dup	0.12	<0.12	ND	1,1-Dichloroethane	NS	No	--	--	--	--
3/23/2016	SG-01-Dup	0.059	<0.059	ND	1,1-Dichloroethene	700	No	--	--	--	--
3/23/2016	SG-01-Dup	0.23	0.026	UJ	1,2-Dibromoethane (EDB)	31	No	--	--	--	--
3/23/2016	SG-01-Dup	0.12	0.18	--	1,2-Dichloroethane	24	No	--	--	--	--
3/23/2016	SG-01-Dup	0.18	0.10	UJ	1,4-Dichlorobenzene	2,767	No	--	--	--	--
3/23/2016	SG-01-Dup	0.24	0.4	--	Benzene	103	No	--	--	--	--
3/23/2016	SG-01-Dup	0.19	0.27	--	Carbon Tetrachloride	333	No	--	--	--	--
3/23/2016	SG-01-Dup	0.20	0.071	J	Chloroethane	33,333	No	--	--	--	--
3/23/2016	SG-01-Dup	0.14	0.052	J	Chloroform	333	No	--	--	--	--
3/23/2016	SG-01-Dup	0.15	0.44	J	Chloromethane	313	No	--	--	--	--
3/23/2016	SG-01-Dup	0.12	<0.12	ND	cis-1,2-Dichloroethene	NS	No	--	--	--	--
3/23/2016	SG-01-Dup	0.13	0.26	--	Ethyl Benzene	3,333	No	--	--	--	--
3/23/2016	SG-01-Dup	0.21	0.11	J	Freon 114	NS	No	--	--	--	--
3/23/2016	SG-01-Dup	0.15	1.8	--	Freon 12	333	No	--	--	--	--
3/23/2016	SG-01-Dup	0.26	1	--	m,p-Xylene	333	No	--	--	--	--
3/23/2016	SG-01-Dup	0.53	0.016	J	Methyl tert-butyl ether	10,333	No	--	--	--	--
3/23/2016	SG-01-Dup	0.39	0.26	J	Naphthalene	10	No	--	--	--	--
3/23/2016	SG-01-Dup	0.13	0.52	--	o-Xylene	333	No	--	--	--	--
3/23/2016	SG-01-Dup	0.20	18	--	Tetrachloroethene	140	No	--	--	--	--
3/23/2016	SG-01-Dup	0.11	1.6	--	Toluene	17,333	No	--	--	--	--
3/23/2016	SG-01-Dup	0.59	<0.59	ND	trans-1,2-Dichloroethene	NS	No	--	--	--	--
3/23/2016	SG-01-Dup	0.16	0.097	J	Trichloroethene	7	No	--	--	--	--
3/23/2016	SG-01-Dup	0.038	<0.038	ND	Vinyl Chloride	333	No	--	--	--	--
3/23/2016	SG-02	0.16	0.046	J	1,1,1-Trichloroethane	17,333	No	--	--	--	--
3/23/2016	SG-02	0.20	<0.2	ND	1,1,2,2-Tetrachloroethane	NS	No	--	--	--	--
3/23/2016	SG-02	0.16	<0.16	ND	1,1,2-Trichloroethane	0.7	No	--	--	--	--
3/23/2016	SG-02	0.12	<0.12	ND	1,1-Dichloroethane	NS	No	--	--	--	--
3/23/2016	SG-02	0.059	<0.059	ND	1,1-Dichloroethene	700	No	--	--	--	--
3/23/2016	SG-02	0.23	0.049	UJ	1,2-Dibromoethane (EDB)	31	No	--	--	--	--
3/23/2016	SG-02	0.12	0.36	--	1,2-Dichloroethane	24	No	--	--	--	--
3/23/2016	SG-02	0.18	0.062	UJ	1,4-Dichlorobenzene	2,767	No	--	--	--	--
3/23/2016	SG-02	0.24	3	--	Benzene	103	No	--	--	--	--
3/23/2016	SG-02	0.19	0.25	--	Carbon Tetrachloride	333	No	--	--	--	--
3/23/2016	SG-02	0.20	0.097	J	Chloroethane	33,333	No	--	--	--	--
3/23/2016	SG-02	0.14	<0.14	ND	Chloroform	333	No	--	--	--	--

TABLE 3-1 SUB-SLAB/INDOOR AIR DATA SUMMARY TABLE
PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE, LIBERTY COUNTY, TEXAS

Sample Date	Project Sample Identification	Reporting Limits (µg/m^3)	Results (µg/m^3)	Data Qualifiers	Analyte	Sub-Slab Air		Indoor Air (HI = 1)		Indoor Air (HI = 0.1)	
						EPA res-RSL[1] (µg/m^3)	Exceeds Screening Level	EPA res-RSL[2] (µg/m^3)	Exceeds Screening Level	EPA res-RSL[3] (µg/m^3)	Exceeds Screening Level
Sub-Slab Air (Continued)											
3/23/2016	SG-02	0.15	0.92	--	Chloromethane	313	No	--	--	--	--
3/23/2016	SG-02	0.12	<0.12	ND	cis-1,2-Dichloroethene	NS	No	--	--	--	--
3/23/2016	SG-02	0.13	1.3	--	Ethyl Benzene	3,333	No	--	--	--	--
3/23/2016	SG-02	0.21	0.13	J	Freon 114	NS	No	--	--	--	--
3/23/2016	SG-02	0.15	1.7	--	Freon 12	333	No	--	--	--	--
3/23/2016	SG-02	0.26	2.1	--	m,p-Xylene	333	No	--	--	--	--
3/23/2016	SG-02	0.54	0.037	J	Methyl tert-butyl ether	10,333	No	--	--	--	--
3/23/2016	SG-02	0.39	0.3	J	Naphthalene	10	No	--	--	--	--
3/23/2016	SG-02	0.13	0.96	--	o-Xylene	333	No	--	--	--	--
3/23/2016	SG-02	0.20	33	--	Tetrachloroethene	140	No	--	--	--	--
3/23/2016	SG-02	0.11	5.8	--	Toluene	17,333	No	--	--	--	--
3/23/2016	SG-02	0.59	<0.59	ND	trans-1,2-Dichloroethene	NS	No	--	--	--	--
3/23/2016	SG-02	0.16	0.1	J	Trichloroethene	7	No	--	--	--	--
3/23/2016	SG-02	0.038	0.036	J	Vinyl Chloride	333	No	--	--	--	--

NOTES:

[1] Values calculated based on EPA current residential air Regional Screening Levels (updated November 2015) modified using the methodology specified in the *EPA Final Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils* (Subsurface Vapor Intrusion Guidance), June 2015 by dividing by an attenuation factor of 0.03 for shallow/sub-slab soil gas.

[2] Values calculated based on EPA current Regional Screening Levels (updated November 2015), with a target hazard quotient of 1.0.

[3] Values calculated based on EPA current Regional Screening Levels (updated November 2015), with a target hazard quotient of 0.1.

-- = No applicable

Dup = Duplicate
EDB = Ethylene dibromide
EPA = U.S. Environmental Protection Agency
HI - Noncancer Hazard Index
IA = Indoor air
J = Estimated value
ND = Non detected
NS = Non specificed
OA = Outdoor ambient air
res = Residential.
RSL = Regional Screening Level.
SG = Sub-slab soil gas.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate.
µg/m3 = Micrograms per cubic m

EA Engineering, Science, and Technology, Inc., PBC

TABLE 3-2 CONTAMINANTS OF POTENTIAL CONCERN CONCENTRATION RANGES PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE, LIBERTY COUNTY, TEXAS

Building ID	Contaminant	Sub-Slab Soil Gas Concentration Range ($\mu g/m^3$)	Indoor Air Concentration Range ($\mu g/m^3$)	Outdoor Air Concentration Range ($\mu g/m^3$)
1	1,1,1-Trichloroethane	0.01 J - 0.046 J	0.023 J - 0.028 J	0.026 J
	1,1,2,2-Tetrachloroethane	ND	ND	ND
	1,1,2-Trichloroethane	ND	ND	ND
	1,1-Dichloroethane	ND	ND	ND
	1,1-Dichloroethene	ND	ND	ND
	1,2-Dibromoethane (EDB)	ND	ND	ND
	1,2-Dichloroethane	0.17 - 0.36	2.0	ND
	1,4-Dichlorobenzene	ND	ND	ND
	Benzene	ND - 3	1.3 - 1.4	0.41
	Carbon Tetrachloride	0.25 - 0.27	0.37 - 0.38	0.37
	Chloroethane	ND - 0.097 J	0.048 J - 0.06 J	0.05 J
	Chloroform	ND - 0.057 J	0.11 J - 0.12 J	0.072 J
	Chloromethane	ND - 0.92	1.1 - 1.2	1.2
	cis-1,2-Dichloroethene	ND	ND - 0.033	ND
	Ethyl Benzene	0.23 - 1.3	1.0	0.064 J
	Freon 114	0.11 J - 0.13 J	0.094 J - 0.1 J	0.11 J
	Freon 12	1.7 - 1.8	1.8 - 1.9	1.9
	m,p-Xylene	0.91 - 2.1	2.8 - 2.9	0.2 J
	Methyl tert-butyl ether	ND - 0.037 J	ND	ND
	Naphthalene	0.25 J - 0.3 J	0.46 - 0.54 J	ND
	o-Xylene	0.48 - 0.96	1.0	0.068 J
	Tetrachloroethene	17 - 33	2.7	0.04 J
	Toluene	1.2 - 5.8	7.3 - 8.0	0.56
	trans-1,2-Dichloroethene	ND	ND	ND
	Trichloroethene	0.063 J - 0.1 J	0.13 J - 0.25	0.026 J
	Vinyl Chloride	ND - 0.036 J	ND	ND

NOTES:

$\mu g/m^3$ = Micrograms per cubic meter
ID = Identification
J = Estimated value
ND = Non detected (includes UJ values from Table 3-1)
Shaded concentration ranges indicate that at least one detection exceeded screening level.

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Appendix A

Field Logbook (A-1)
Field Sampling Forms (A-2)

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Appendix A-1

Field Logbook

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geotech
Geotech Environmental Equipment, Inc.
2650 East 40th Avenue
Denver, CO 80205 (800) 833-7958 Fax (303) 322-7242
sales@geotechenv.com • www.geotechenv.com

ALL-WEATHER
ENVIRONMENTAL FIELD BOOK

Name EA Engineering, Science and Technology, Inc, PBC.
Address 405 S. Hwy 121, C-100
Lewisville, TX 75067

Phone (972) 315-3922

Project Petro-Chemical Systems, Inc. (Turtle Bayou) Site
EPA Region 6 Superfund RAC II

W

RiteintheRain.com

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JL DARLING LLC
Tacoma, WA 98424-1017 USA

US Pat No. 6,863,940
7-15

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Location Liberty, Liberty Co, Tx Date 3/21/2016

Project / Client Petro Chem / EPA 6

Install subslab ports

1000 arrive @ Hotel in Winnie, Tx to pickup supplies. Jason Strup & Jack Schwartz

1030 call Donnie Smith to confirm installing ports today (ph 713-705-0583) cell phone

1100 arrive @ 300 CR 126 to install ports talk to Donnie Smith about locations. (Health & Safety Review)

1120 start drilling first port @ SG-01 slab was ≈4" thick in area; port tubing installed to 1" below slab.

~~12~~ 1150 start drilling second port @ SG-02 slab was ≈ ~~5~~ 4.5" thick both locations installed into bedroom closets at ~~opposite~~ JAS opposite ends of the living area.

1220 finish installing ports.

1230 drive to Liberty, Tx to search for

1430 USGS control points ~~could not~~ JAS

~~1445~~ JAS depart Liberty ~~could~~ JAS return to site to locate monitor wells and recon location for RTK GPS station.

1515 depart site JAS 3/21/2016

Rite in the Rain

Location Liberty, Liberty Co, TX Date 3/22/2016

Project / Client PetroChem / EPA 6

Set up RTK, gauge, survey, Leak Test VI

~~0745 depart hotel JAS~~

0815 onsite; Jason Stroup (JAS) and Jack Schwertz (JFS) with EA onsite, Health and Safety Review

0820 Set up RTK GPS near road on Donnie Smith's property.

0830 slant of 4.97' for RTK setup turn on RTK for downloading

0903 setup to Survey Monitor wells and gauging; see gauging information on following page.

-MW-191 well cap and top of casing was split and damaged upon arrival

1000 depart site to pick up WD-40 for well locks, locks are rusted and cannot open all wells. only able to open MW-110, 193 and 191, ; also pick up helium regulator for helium canister, @ hotel supplier sent different canister and ~~to~~ regulator sent did not work.

JS 3/22/2016

Location Liberty, Liberty Co, TX Date 3/22/2016

Project / Client PetroChem / EPA

gauging, survey Leak test

Well ID	PSH (ft)	DTW (ft btoc)
MW-109A	0	18.17
MW-191	0	16.09
MW-192	0	17.63
MW-193	0	17.79
MW-33	0	18.69
MW-108	0	18.07
MW-110	0	19.67

~~0~~ 1215 onsite JAS & JFS to start leak testing subslab ports

1230 Setup subslab canisters with sample trash and check initial pressure

1315 initial leak test @ SG-01 failed had to reseal port and fittings with beeswax for temporary seal port will need to be redrilled if used as permanent port

1416 leak test passed @ SG-02

1515 leak test the seal at SG-01 again and port passed

1520 turn on samplers see data sheet for more information

JS 3/22/2016

Rite in the Rain

Location Liberty Co, Liberty, TX Date 3/22/2016

Project / Client Petrochem / EPA 6

gaugeing, survey & Leak test, start VI samples

1524	all samplers ~~are~~ were on.
1530	finish gaugeing and surveying remaining monitor wells
1648	start for rover 4.98' start gps monitor wells with rover
1700	finish gps & survey
1715	check summa Canisters; gauges seem to be operating correctly
1735	depart site

3/22/2016

Location Liberty Co, Liberty, TX Date 3/23/2016

Project / Client Petrochem / EPA 6

RTK download & VI Sampling

0825	onsite JAS & JFS
0830	Health and Safety Review
0839	Setup RTK, RTK did not download and save data correctly on 3/22/2016; restart and run again. Slant 5.22' for RTK
0845	Mark Kelly ~~of~~ (MK) and Jay Synder (JS) with EA onsite
0905	TCEQ representative onsite; in preparation for site walk for pre bid meeting to Do additional drilling for MW installation
	~~To~~ TCEQ Sherell Held + (SH)
0930	EPA PM onsite
0940	Jorge with Trustee representative Jorge Guzman; consultant for Lynoldell
1000	JAS & JFS depart site for hotel to pick up supplies
1125	JAS & JFS onsite

3/23/2016

Rite in the Rain

Location Liberty Co, Liberty, TX Date 3/23/2016

Project / Client PetroChem / EPA 6

RTK + VI Sampling

1130	show EPA + TCEQ VI sampling
1145	EPA + TCEQ depart Mr Smith's residence
1145	JAS + JFS depart
1300	onsite to tak down RTK and check summa
1335	Outdoor Air sample was collected on the South side of House up wind ~~of~~; during the sampling event. Wind from the SE @ 10-15 mph with gusts up to 20.
1400	shut down first canisters reading -5 inches of Hg
1540	off site JAS + JFS to ~~drop~~ return RTK and ship samples

3/23/2016

Location _____ Date _____

Project / Client _____

Rite in the Rain

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Appendix A-2

Field Sampling Forms

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FIELD SAMPLING FORM FOR VI ASSESSMENT

Samplers:	Site ID / Bldg ID	EA Project #: 14342134 Client: EPA Region 6 Site: Petro-Chemical Systems, Inc (Turtle Bayou) Site Description: Vapor Intrusion Assessment Sampling
VAS, JFS	300 CR 126	

Location ID: SG-01

Probe Installation Date/Time: 3/21/2016 1130

Slab Thickness: 4.5 0 " Probe Length: 5 inches

Helium Leak Check Date/Time: 3/22/2016 1319

62.2% He% Shroud ~~66.1~~ ~~64.8~~ 62.2 He% Tedlar Bag 0.5% VOC Purge 44

Shut in Check PSI drop in 1 minute: 0

Sample Type /Analysis:
- ☐ Indoor Air / TO-15 SIM
- ☒ Sub-Slab / TO-15 SIM
- ☐ Outdoor Air /TO-15 SIM

Duplicate: ☒ Yes ☐ No

He% 62.2

Pressure recorded in Inches of Hg

Summa Sample ID: SG-01

Summa Canister ID: ~~R-11~~ 2106

Initial Gauge Pressure: ~~-29~~ -29.5 Initial Reg. Pressure: ~~-30~~ -30

Flow Control ID: 20547

Flow Control Rate: 3.5

Canister Start Time/Date: 1522 3/22/16

Canister End Time/Date: 1523 3/23/16

Final Canister Gauge Pressure: -7.5

Duplicate

Summa Sample ID: SG-01 Dup

Summa Canister ID: 24492

Initial Gauge Pressure: -30 Initial Reg. Pressure: ~~-30~~ -30+

Flow Control ID: 40502

Flow Control Rate:

Canister Start Time/Date: 1522 3/22/16

Canister End Time/Date: 1523 3/23/16

Final Canister Gauge Pressure: -7.0

Comments/Observations:

BKg 167 ppm VOCs

FIELD SAMPLING FORM FOR VI ASSESSMENT

Samplers:	Site ID / Bldg ID	EA Project #: 14342134 Client: EPA Region 6 Site: Petro-Chemical Systems, Inc (Turtle Bayou) Site Description: Vapor Intrusion Assessment Sampling
JAS/JFS	300 CR 126	

Location ID: SIA-01

Probe Installation Date/Time: N/A

Slab Thickness: NA Probe Length: NA

Helium Leak Check Date/Time: _____

He% Shroud_____ He% Tedlar Bag_____ VOC Purge _____

Shut in Check PSI drop in 1 minute: _____

Sample Type /Analysis:
- ☒ Indoor Air / TO-15 SIM
- ☐ Sub-Slab / TO-15 SIM
- ☐ Outdoor Air /TO-15 SIM

Duplicate: ☐ Yes ☒ No

Pressure recorded in Inches of Hg

Summa Sample ID: IA-01

Summa Canister ID: 6L0026

Initial Gauge Pressure: -29 Initial Reg. Pressure: -28.0

Flow Control ID: 30831

Flow Control Rate: 3.5

Canister Start Time/Date: 1523 3/22/16

Canister End Time/Date: 1400 3/23/16

Final Canister Gauge Pressure: -4

Duplicate

Summa Sample ID:_____

Summa Canister ID:_____

Initial Gauge Pressure:_____ Initial Reg. Pressure:_____

Flow Control ID:_____

Flow Control Rate:_____

Canister Start Time/Date:_____

Canister End Time/Date:_____

Final Canister Gauge Pressure:_____

Comments/Observations:

FIELD SAMPLING FORM FOR VI ASSESSMENT

Samplers:	Site ID / Bldg ID	EA Project #: 14342134 Client: EPA Region 6 Site: Petro-Chemical Systems, Inc (Turtle Bayou) Site Description: Vapor Intrusion Assessment Sampling
JAS, JFS	300 CR 126	

Location ID: SG-02

Probe Installation Date/Time: 3/21/2015 1215

Slab Thickness: 4.5" Probe Length: 5.5"

Helium Leak Check Date/Time: 3/22/2016 1416

He% Shroud 62.5 He% Tedlar Bag 2190 ppm VOC Purge 680 ppb

Shut in Check PSI drop in 1 minute: _____

Sample Type /Analysis:
- ☐ Indoor Air / TO-15 SIM
- ☒ Sub-Slab / TO-15 SIM
- ☐ Outdoor Air /TO-15 SIM

Duplicate: ☐ Yes ☒ No

Pressure recorded in Inches of Hg	Duplicate
Summa Sample ID: SG-02	Summa Sample ID: _____
Summa Canister ID: R-14	Summa Canister ID: _____
Initial Gauge Pressure: -30 Initial Reg. Pressure: -30+	Initial Gauge Pressure: _____ Initial Reg. Pressure: _____
Flow Control ID: 40056	Flow Control ID: _____
Flow Control Rate: 3.5	Flow Control Rate: _____
Canister Start Time/Date: 1520 3/22/2016	Canister Start Time/Date: _____
Canister End Time/Date: 1426 3/23/2016	Canister End Time/Date: _____
Final Canister Gauge Pressure: -5	Final Canister Gauge Pressure: _____

Comments/Observations:

FIELD SAMPLING FORM FOR VI ASSESSMENT

Samplers:	Site ID / Bldg ID	EA Project #: 14342134 Client: EPA Region 6 Site: Petro-Chemical Systems, Inc (Turtle Bayou) Site Description: Vapor Intrusion Assessment Sampling
JAS, JFS	300 CR 126	

Location ID: IA-02

Probe Installation Date/Time: N/A

Slab Thickness:_____ Probe Length: _____

Helium Leak Check Date/Time: _____

He% Shroud_____ He% Tedlar Bag_____ VOC Purge _____

Shut in Check PSI drop in 1 minute: _____

Sample Type /Analysis:
- ☒ Indoor Air / TO-15 SIM
- ☐ Sub-Slab / TO-15 SIM
- ☐ Outdoor Air /TO-15 SIM

Duplicate: ☐ Yes ☒ No

Pressure recorded in Inches of Hg	Duplicate
Summa Sample ID: IA-02	Summa Sample ID:_____
Summa Canister ID: 35973	Summa Canister ID:_____
Initial Gauge Pressure: -30 Initial Reg. Pressure: -30+	Initial Gauge Pressure:_____ Initial Reg. Pressure:_____
Flow Control ID: 40302	Flow Control ID:_____
Flow Control Rate: 3.5	Flow Control Rate:_____
Canister Start Time/Date: 1521 3/22/16	Canister Start Time/Date:_____
Canister End Time/Date: 1524 3/23/16	Canister End Time/Date:_____
Final Canister Gauge Pressure: -6.0	Final Canister Gauge Pressure:_____

Comments/Observations:

FIELD SAMPLING FORM FOR VI ASSESSMENT

Samplers:	Site ID / Bldg ID	EA Project #: 14342134 Client: EPA Region 6 Site: Petro-Chemical Systems, Inc (Turtle Bayou) Site Description: Vapor Intrusion Assessment Sampling
JAS, JFH	300 or 126	

Location ID: OA-01

Probe Installation Date/Time: N/A

Slab Thickness: _____ Probe Length: _____

Helium Leak Check Date/Time: _____

He% Shroud_____ He% Tedlar Bag_____ VOC Purge _____

Shut in Check PSI drop in 1 minute: _____

Sample Type /Analysis:
- ☐ Indoor Air / TO-15 SIM
- ☐ Sub-Slab / TO-15 SIM
- ☒ Outdoor Air /TO-15 SIM

Duplicate: ☐ Yes ☒ No

Pressure recorded in Inches of Hg

Summa Sample ID: OA-01

Summa Canister ID: 9569

Initial Gauge Pressure: -30 Initial Reg. Pressure: -30

Flow Control ID: 20508

Flow Control Rate: 3.5

Canister Start Time/Date: 1324 3/22/16

Canister End Time/Date: 1525 3/23/16

Final Canister Gauge Pressure: -6.5

Duplicate

Summa Sample ID: _____

Summa Canister ID: _____

Initial Gauge Pressure: _____ Initial Reg. Pressure: _____

Flow Control ID: _____

Flow Control Rate: _____

Canister Start Time/Date: _____

Canister End Time/Date: _____

Final Canister Gauge Pressure: _____

Comments/Observations:

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Appendix B

Photographic Log

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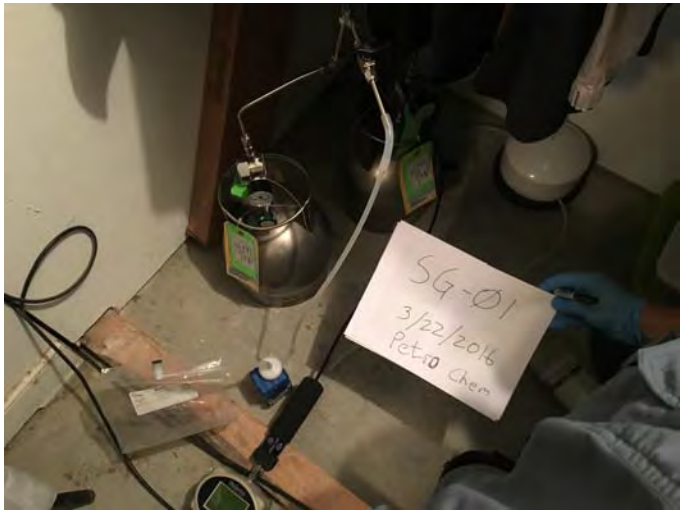
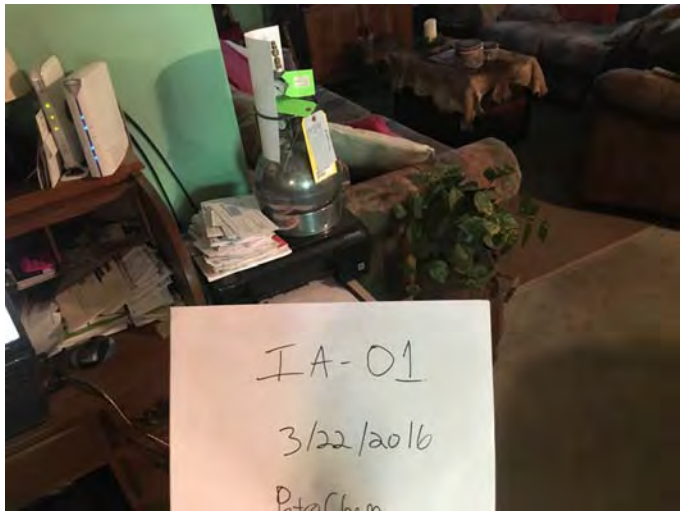
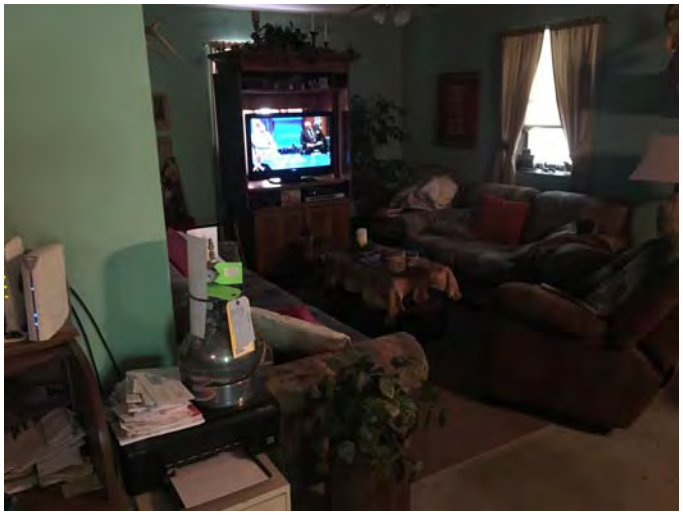
Photograph 1 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Setup for leak test at sub-slab air sample location SG-01.



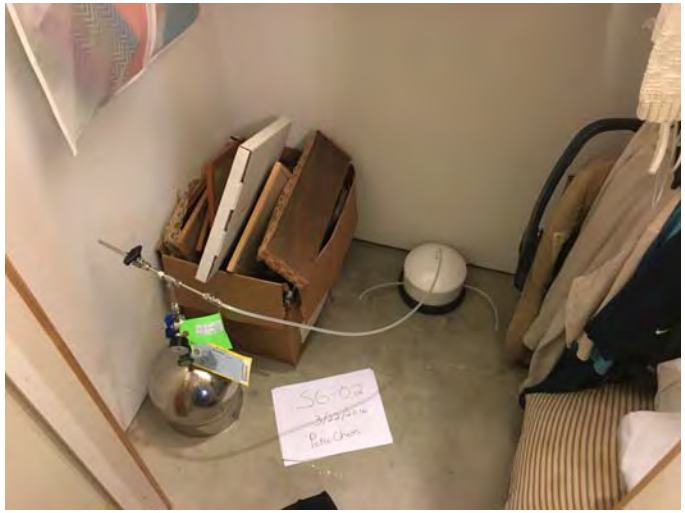
Photograph 2 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Performing leak test at SG-01 with duplicate sample setup.



Photograph 3 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Indoor air sample IA-01.



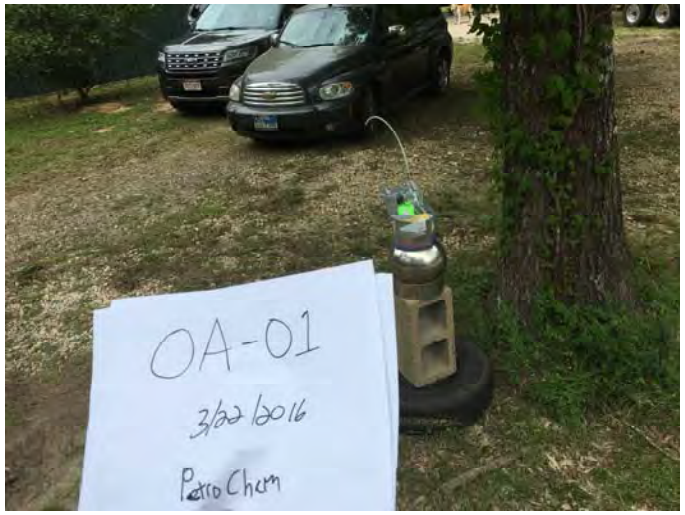
Photograph 4 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Indoor air sample SG-01 in sampling area.



Photograph 5 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Sub-slab air sample location SG-02.



Photograph 6 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of indoor air location IA-02 in proximity to SG-02.



Photograph 7 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Ambient air sample location OA-01.



Photograph 8 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Ambient air sample location OA-01 in relation to south side of residence.



Photograph 9 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Chemicals stored in the garage near the main entrance into the residence.



Photograph 10 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Example of chemicals stored in the garage.



Photograph 11 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Example of chemicals stored in the garage.



Photograph 12 Date: 22 March 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Example of chemicals stored in the garage.

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Appendix C

Building Inventory and Indoor Air Sampling Questionnaire

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BUILDING INVENTORY AND INDOOR AIR SAMPLING QUESTIONNAIRE

This form should be prepared by a person familiar with indoor air assessments with assistance from a person knowledgeable about the building. Complete this form for each building where interior samples (e.g., indoor air, crawl space, or subslab soil gas samples) will be collected. Section I of this form should be used to assist in choosing an investigative strategy during workplan development. Section II should be used to assist in identification of complicating factors during a presampling building walk-through.

Preparer's Name Jason Stroup Date/Time Prepared 3/23/2016 1330

Preparer's Affiliation EA Engineering Phone No. 972-315-3982

Purpose of Investigation VI assessment

SECTION I: BUILDING INVENTORY

1. OCCUPANT OR BUILDING PERSONNEL:

Interviewed: Y / N

Last Name _____ First Name _____

Address _____

City _____

Phone No. _____

Number of Occupants/people at this location _____ Age of Occupants _____

2. OWNER or LANDLORD: (Check if same as occupant_____.)

Interviewed: Y / N

Last Name Da Smith First Name Donnie

Address 300 CR 126

City Liberty, TX

Phone No. 713-705-0583

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response.)

(Residential)	School	Commercial/Multi-use
Industrial	Church	Other _____

If the property is residential, what type? (Circle appropriate response.)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouse/Condo
Modular	Log Home	Other Metal Building with House and Garage Inside

If multiple units, how many?_____

If the property is commercial, what type?

Business types(s) NA

Does it include residences (i.e., multi-use)? Y / N If yes, how many?_____

Other characteristics:

Number of floors 1 Building age 15 yrs

Is the building insulated? (Y) / N How airtight? Tight / (Average) / Not Tight

Have occupants noticed chemical odors in the building? Y / N

If yes, please describe: Chemical smell in the water

4. **AIRFLOW**

Use air current tubes, tracer smoke, or knowledge about the building to evaluate airflow patterns and qualitatively describe:

Airflow between floors

NA

Airflow in building near suspected source

Outdoor air infiltration Good; Doors left open

Infiltration into air ducts

5. **BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply.)

a. Above-grade construction:	wood frame	log	concrete	brick
	constructed on pilings with enclosed air space		constructed on pilings with open air space	
b. Basement type:	full	crawlspace	slab-on-grade	other_____
c. Basement floor:	concrete	dirt	stone	other _____
d. Basement floor:	unsealed	sealed	sealed with_____	
e. Foundation walls:	poured	block	stone	other _____
f. Foundation walls:	unsealed	sealed	sealed with _____	
g. The basement is:	wet	damp	dry	
h. The basement is:	finished	unfinished	partially finished	
i. Sump present?	Y / N			
j. Water in sump?	Y / N / not applicable			

Basement or lowest level depth below grade NA (feet).

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, and drains).

_____

_____

6. **HEATING, VENTING, and AIR CONDITIONING** (Circle all that apply.)

Type of heating system(s) used in this building: (Circle all that apply – not just primary.)

Hot air circulation	Heat pump	Hot water baseboard	
Space heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other_____

The primary type of fuel used is:

Natural gas	Fuel oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank is fueled by: Electric

Boiler/furnace is located in: Basement Outdoors Main floor Other_____

Do any of the heating appliances have cold-air intakes? Y / N

Type of air conditioning or ventilation used in this building:

Central air	Window units	Open windows	None
Commercial HVAC	Heat-recovery system	Passive air system	

Are there air distribution ducts present? (Y) / N

Describe the ventilation system in the building, its condition where visible, and the tightness of duct joints. Indicate the location of air supply and exhaust points on the floor plan.

_____

_____

_____

_____

Is there a radon mitigation system for the building/structure? Y (N) Date of Installation _____

Is the system active or passive? Active/Passive

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost never

Level	General Use of Each Floor (e.g., family room, bedroom, laundry, workshop, or storage).
Basement	NA
1st Floor	
2nd Floor	
3rd Floor	

8. WATER AND SEWAGE

Water supply: Public water (Drilled well) Driven well Dug well Other_____

Sewage disposal: Public sewer (Septic tank) (Leach field) Dry well Other_____

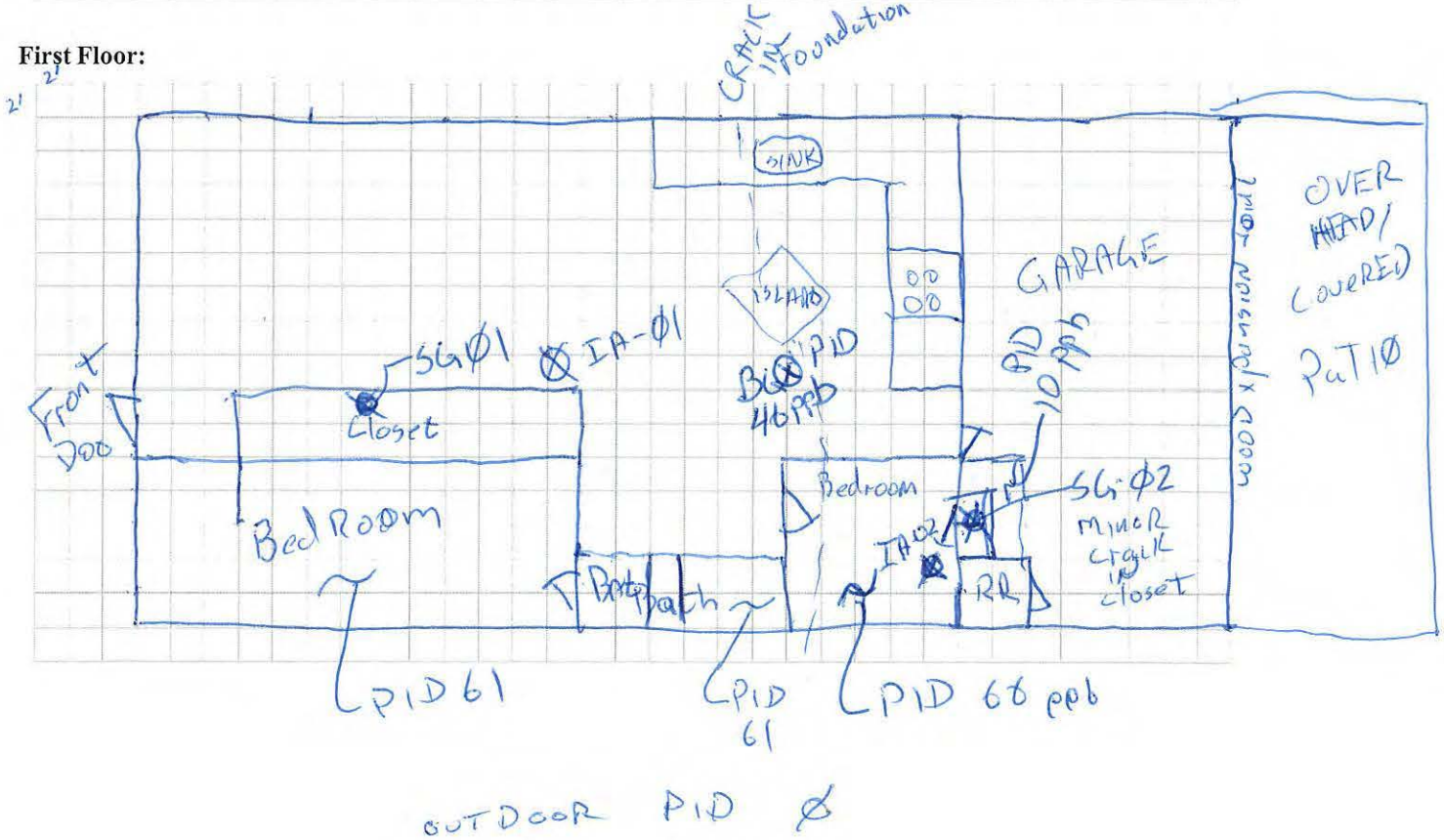
9. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note that.

Basement:

N/A

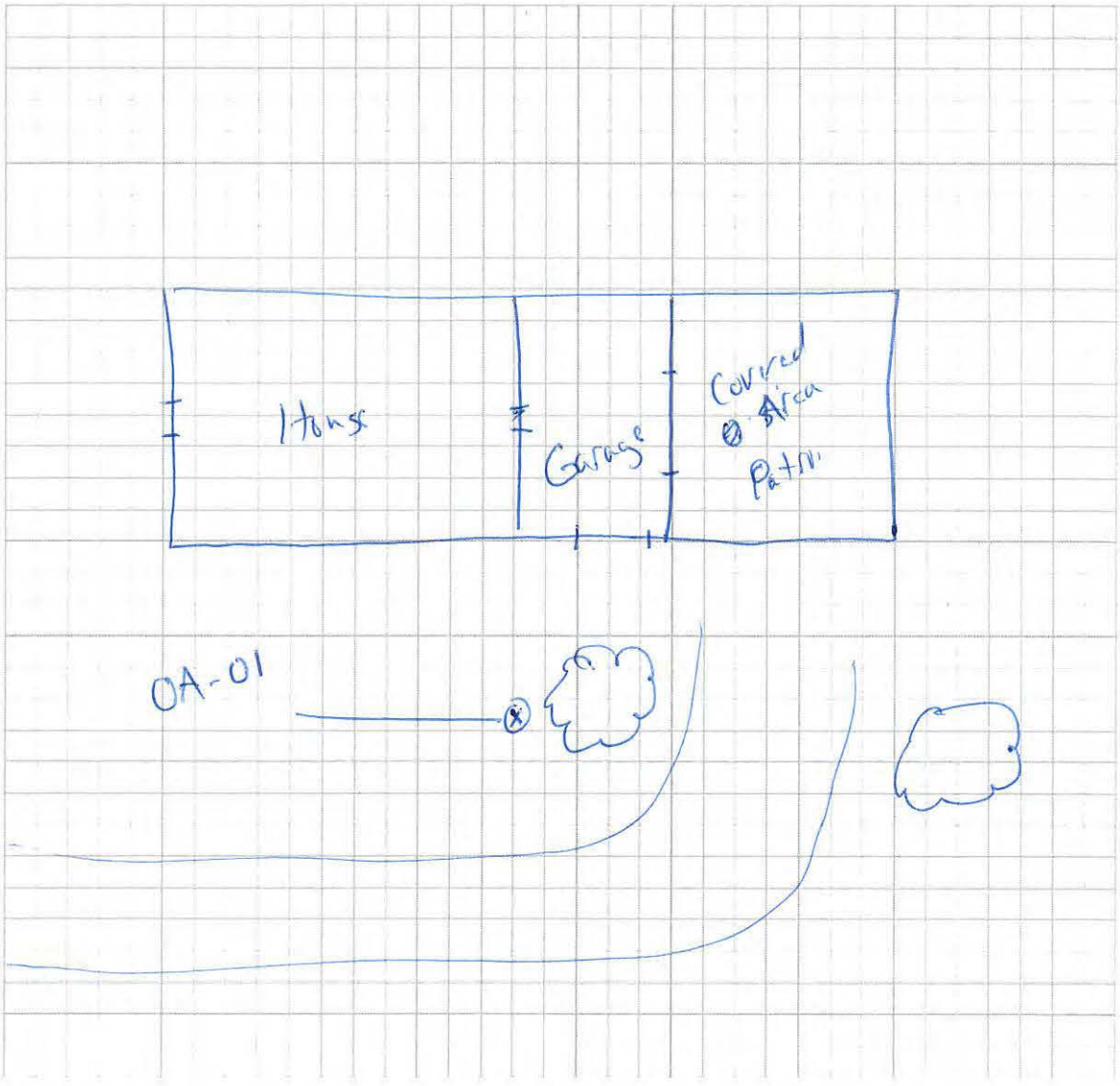
First Floor:



10. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (e.g., industries, gas stations, repair shops, landfills, etc.), outdoor air sampling locations and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the location of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



SECTION II: INDOOR AIR SAMPLING QUESTIONNAIRE

This section should be completed during a presampling walk-through. If indoor air sources of COCs are identified and removed, consider ventilating the building prior to sampling. However, ventilation and heating systems should be operating normally for 24 hours prior to sampling.

a) 1. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

Is there an attached garage? (Y) / N

Does the garage have a separate heating unit? Y / (N) / NA

Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, ATV, or car) (Y) / N / NA

Please specify_____

Has the building ever had a fire? Y / (N) When?_____

Is a kerosene or unvented gas space heater present? Y / (N) Where?_____

Is there a workshop or hobby/craft area? (Y) / N Where and type_____

Is there smoking in the building? Y / (N) How frequently?_____

Has painting/staining been done in the last six months? Y / (N) Where and when?_____

Is there new carpet, drapes or other textiles? Y / (N) Where and when?_____

Is there a kitchen exhaust fan? (Y) / N If yes, where is it vented?_____

Is there a bathroom exhaust fan? (Y) / N If yes, where is it vented?_____

Is there a clothes dryer? (Y) / N If yes, is it vented outside? (Y) / N in garage

Are cleaning products, cosmetic products, or pesticides used that could interfere with indoor air sampling? Y / N

If yes, please describe ~~Not~~ Raid but not in last 6 months

_____

_____

Do any of the building occupants use solvents at work? (Y) / N

(For example, is the building used for chemical manufacturing or a laboratory, auto mechanic or auto body shop, painting shop, fuel oil delivery area, or do any of the occupants work as a boiler mechanic, pesticide applicator, or cosmetologist?)

If yes, what types of solvents are used? Brake cleaners, etc in garage

If yes, are his/her/their clothes washed at work? Y / (N)

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry cleaning regularly (weekly) (No)

Yes, use dry cleaning infrequently (monthly or less) Unknown

Yes, work at a dry cleaning services

2. **PRODUCT INVENTORY FORM** (For use during building walk-through.)

Make and model of field instrument used: PPB RAE

List specific products found in the residence that have the potential to affect indoor air quality:

Location	Product Description	Site (units)	Condition[1]	Chemical Ingredients	Field Instrument Reading (units)	Photo[2] Y / N
	See Site photos					

[1] Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D).**

[2] Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

This form was modified from:

ITRC (Interstate Technology and Regulatory Council). 2007. *Vapor Intrusion Pathway: A Practical Guideline.* VI-1. Washington, D.C.: Interstate Technology and Regulatory Council, Vapor Intrusion Team. Available at: www.itrcweb.org.

Appendix D

Data Validation Report

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DATA VALIDATION REPORT
Petro-Chemical Systems, Inc. (Turtle Bayou) Site Remedial Action
March 2016 Sampling Event

Site Name: Petro-Chemical Systems, Inc. (Turtle Bayou) Site
Liberty County, Texas

Laboratory: Eurofins Air Toxics, Inc. (Eurofins), Folsom, CA 95630

QA Reviewer: Maria Briceno, Engineer I
EA Engineering, Science, and Technology, Inc., PBC (EA)

Sample Delivery Group Nos.: 1603470

Sample Identification: See Table 1

Matrix: Air

QC Criteria Reviewed: Section 2.0

Laboratory Report Date: 14 April 2016

1.0 INTRODUCTION

Six air samples were collected on 23 March 2016 in support of the Petro-Chemical Systems, Inc. (Turtle Bayou) Site Remedial Action (RA). The samples were shipped via overnight courier to Eurofins Air Toxics, Folsom, California for analysis. The respective analytical parameters and testing methods are provided below.

Eurofins Air Toxics:

- Volatile Organic Compounds (VOCs) in Air by Modified EPA TO-15 Selective Ion Monitoring (SIM)─Compendium Method TO-15, Determination of VOCs in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS).

The data was validated in accordance with requirements specified in the following documents:

- *EPA-540-R-014-002 Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, 2014

- *Sampling and Analysis Plan for Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas* (EA 2015).

Section 2.0 of this validation report identifies the criteria reviewed for the analytical method as appropriate based on EPA guidelines. Section 3.0 contains the definitions of the qualifiers to be

applied to the data results based on the validation process. Section 4.0 provides an assessment of the overall data quality, and Section 5 provides the references to the guidelines and documents used in performing the review of the data set.

Table 1─Sample Cross-Reference provides a list of the field sample identification (ID), laboratory sample delivery group (SDG) and sample ID, sample matrix, sample collection date, and analysis parameters. The results of these analyses are discussed in Section 4.0, Data Assessment.

2.0 DATA VALIDATION CRITERIA

The criteria listed below were evaluated as part of the validation process, as applicable to the analytical method.

- Method and project-specific analytical service requests
- Deliverables
- Chain of custody and sample receipt
- Holding times
- GS/MS instrument performance check
- Calibration (initial and continuing)
- Surrogate recovery
- Internal Standards
- Field quality control (QC) samples
- Matrix spike (MS), matrix spike duplicate (MSD), and/or laboratory duplicate
- Laboratory control sample (LCS)
- Sample quantitation and reported detection limits
- Target compound identification
- Overall assessment of data.

TABLE 1
SAMPLE CROSS-REFERENCE TABLE

Field Sample ID	Lab Sample Delivery Group/Sample ID	Matrix	Date Collected	Analytical Parameter/Method
IA-01	1603470-01A	Air	23 March 2016	VOCs Method TO-15 SIM
OA-01	1603470-02A	Air	23 March 2016	VOCs Method TO-15 SIM
SG-01	1603470-03A	Air	23 March 2016	VOCs Method TO-15 SIM
SG-01-Dup	1603470-04A	Air	23 March 2016	VOCs Method TO-15 SIM
IA-02	1603470-05A	Air	23 March 2016	VOCs Method TO-15 SIM
SG-02	1603470-06A	Air	23 March 2016	VOCs Method TO-15 SIM

Notes:
SIM – Selective ion monitoring
VOCs- Volatile organic compounds

3.0 GLOSSARY OF DATA QUALIFIERS

The following definitions provide a brief explanation for the data qualifiers that may be applied to the data during the data review process. The definitions are consistent with EPA guidance (2014).

No Qualifier	Indicates that the data are acceptable both qualitatively and quantitatively.
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated concentration. The associated numerical value is the approximate concentration of the analyte in the sample. The data are valid for project use to achieve project data quality objectives (DQOs).
J+	The result is an estimated concentration, but the result may be biased high. The data are valid for project use to achieve project DQOs.
J-	The result is an estimated concentration, but the result may be biased low. The data are valid for project use to achieve project DQOs.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate. The data are valid for project use to achieve project DQOs.
R	The sample result is not usable to achieve project DQOs based on certain QC criteria outside of acceptance limits. The analyte may or may not be present in the sample.

4.0 DATA ASSESSMENT

One hundred percent of the analytical data in SDG 1603470 was reviewed for the criteria listed in Section 2.0. A discussion of the data is presented in this section.

4.1 Method and Project Specific Analytical Service Request

Air samples were collected and analyzed for VOCs by EPA Method TO-15 SIM.

4.2 Deliverables

The data package and electronic deliverable for the SDG are complete.

4.3 Chain of Custody and Sample Receipt

The samples were received by Eurofins under appropriate chain of custody and in good condition.

4.4 Holding Times

The samples were extracted and analyzed within the method-specific holding time (30 days).

4.5 Gas Chromatograph/Mass Spectrometer Instrument Performance Check

The ion abundance criteria were met for the bromofluorobenzene GC/MS performance checks.

4.6 Calibration Criteria

The calibrations for the target analytes were within the control criteria as specified for the method with no exceptions.

4.7 Blank Detections

Laboratory method blank samples were prepared and analyzed with each analytical method batch in addition to project samples.

Analytical data were qualified based on method blank contamination as noted below. Due to the sensitivity of the TO-15 SIM method, several low-level VOC detections were reported in the method blank samples that resulted in the qualification of low-level sample detections as estimated non-detect data (UJ).

- Sample 1603470-01A─1,2-dibromoethane and 1,4-dichlorobenzene were UJ-qualified
- Sample 1603470-02A─1,2-dibromoethane, 1,2-dichloroethane and 1,4-dichlorobenzene were UJ-qualified
- Sample 1603470-03A─1,2-dibromoethane, 1,4-dichlorobenzene and benzene were UJ-qualified
- Sample 1603470-04A─1,2-dibromoethane and 1,4-dichlorobenzene were UJ-qualified
- Sample 1603470-05A─1,1,2,2-tetrachloroethane, 1,2-dibromoethane, 1,4-dichlorobenzene and cis-1,2-dichloroethene were UJ-qualified
- Sample 1603470-06A─1,2-dibromoethane and 1,4-dichlorobenzene were UJ-qualified.

4.8 Surrogate Recovery

The surrogate recoveries were within acceptable limits for the project samples.

4.9 Internal Standards

Internal standard recoveries were within the method-specific control criteria.

4.10 Laboratory Control Samples

The laboratory control samples (LCS) were prepared and analyzed as recommended by the

analytical method and project requirements. The percent recoveries (%R) were within the method control limits for all methods and no data required qualification.

4.11 Field and Laboratory Duplicate Samples

A field duplicate sample was collected for 1603470-03A/-04A (SG-01). Field duplicate analyte relative percent differences were within the 50 percent control criteria with the exception of chloroethane and chloromethane. The low-level detections of chloroethane are already J-qualified, the detects for chloromethane will be J-qualified to signify estimated data values.

4.12 Sample Quantitation and Reported Detection Limits

Project samples were analyzed at the appropriate concentrations to achieve the project-required reporting limits.

4.13 Target Compound Identification

Target compound identification was performed for the method TO-15. Mass spectra criteria were within acceptance limits for the detected target analytes.

4.14 Overall Assessment of Data

Project deliverables were reviewed for completeness and compliance with the Sampling and Analysis Plan (EA 2016). Based on the data review, the completeness of deliverables is 100 percent. No analytical data were R-qualified signifying rejected or unusable data. The analytical data achieve greater than the 90 percent data completeness objective and the project DQOs. The March 2016 sample data are usable to support the site RA.

REFERENCES

EA Engineering, Science, and Technology, Inc., PBC (EA). 2016. "Sampling and Analysis Plan for Petro-Chemical Systems, Inc. (Turtle Bayou) Site. Liberty County, Texas."

U.S. Environmental Protection Agency (EPA). 1999. "Compendium Method TO-15, Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)." Center for Environmental Research Information, Office of Research and Development. January.

—2014. "National Functional Guidelines for Superfund Organic Methods Data Review." EPA-540-R-014-002. August.

Appendix E

Laboratory Analytical Reports

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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15 SIM

INVENTORY SHEET

Work Order #: 1603470

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Comments:

Completed by:

Vera Belitsky Vera Belitsky / Document Control 4/7/16

(Signature) (Print Name & Title) (Date)

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WORK ORDER #: 1603470

Work Order Summary

CLIENT:	Ms. Pamela Moss EA Engineering 7995 E. Prentice Ave Suite 206E Greenwood Village, CO 80111	**BILL TO:**	Accounts Payable - Lewisville EA Engineering 405 S. Highway 121 Suite C-100 Lewisville, TX 75067
PHONE:	303-590-9143	**P.O. #**	15048
FAX:		**PROJECT #**	14342134 Petro Chem
DATE RECEIVED:	03/24/2016	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	04/02/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	IA-01	Modified TO-15 SIM	5.3 "Hg	3 psi
02A	OA-01	Modified TO-15 SIM	5.7 "Hg	3.1 psi
03A	SG-01	Modified TO-15 SIM	6.1 "Hg	2.9 psi
04A	SG-01-Dup	Modified TO-15 SIM	5.5 "Hg	3 psi
05A	IA-02	Modified TO-15 SIM	4.7 "Hg	3.2 psi
06A	SG-02	Modified TO-15 SIM	5.5 "Hg	3.2 psi
07A	Lab Blank	Modified TO-15 SIM	NA	NA
07B	Lab Blank	Modified TO-15 SIM	NA	NA
08A	CCV	Modified TO-15 SIM	NA	NA
08B	CCV	Modified TO-15 SIM	NA	NA
09A	LCS	Modified TO-15 SIM	NA	NA
09AA	LCSD	Modified TO-15 SIM	NA	NA
09B	LCS	Modified TO-15 SIM	NA	NA
09BB	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 04/02/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
EA Engineering
Workorder# 1603470

Six 6 Liter Summa Canister (SIM Certified) samples were received on March 24, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. All the canisters used for this project have been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

Dilution was performed on sample IA-02 due to the presence of high level non-target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Table 1

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample Holding Time (Days)	Sample Extract Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
IA-01	1603470-01A	3/23/2016	3/24/2016	NA	2	3/25/2016	NA	Good
OA-01	1603470-02A	3/23/2016	3/24/2016	NA	2	3/25/2016	NA	Good
SG-01	1603470-03A	3/23/2016	3/24/2016	NA	2	3/25/2016	NA	Good
SG-01-Dup	1603470-04A	3/23/2016	3/24/2016	NA	3	3/26/2016	NA	Good
IA-02	1603470-05A	3/23/2016	3/24/2016	NA	5	3/28/2016	NA	Good
SG-02	1603470-06A	3/23/2016	3/24/2016	NA	3	3/26/2016	NA	Good
Lab Blank	1603470-07A	NA	NA	NA	NA	3/25/2016	NA	Good
Lab Blank	1603470-07B	NA	NA	NA	NA	3/28/2016	NA	Good
CCV	1603470-08A	NA	NA	NA	NA	3/25/2016	NA	Good
CCV	1603470-08B	NA	NA	NA	NA	3/28/2016	NA	Good
LCS	1603470-09A	NA	NA	NA	NA	3/25/2016	NA	Good
LCSD	1603470-09AA	NA	NA	NA	NA	3/25/2016	NA	Good
LCS	1603470-09B	NA	NA	NA	NA	3/28/2016	NA	Good
LCSD	1603470-09BB	NA	NA	NA	NA	3/28/2016	NA	Good

Sample Results and Raw Data

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

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Client ID:	IA-01		
Lab ID:	1603470-01A	**Date/Time Analyzed:**	3/25/16 08:49 PM
Date/Time Collecte	3/23/16 02:00 PM	**Dilution Factor:**	1.46
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032515sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0082	0.048	0.16	0.023 J
1,1,2,2-Tetrachloroethane	79-34-5	0.014	0.060	0.20	Not Detected
1,1,2-Trichloroethane	79-00-5	0.015	0.048	0.16	Not Detected
1,1-Dichloroethane	75-34-3	0.0092	0.035	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.014	0.035	0.058	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.012	0.067	0.22	0.055 J
1,2-Dichloroethane	107-06-2	0.0042	0.035	0.12	2.0
1,4-Dichlorobenzene	106-46-7	0.015	0.053	0.18	0.22
Benzene	71-43-2	0.025	0.093	0.23	1.3
Carbon Tetrachloride	56-23-5	0.0084	0.055	0.18	0.37
Chloroethane	75-00-3	0.027	0.077	0.19	0.048 J
Chloroform	67-66-3	0.012	0.043	0.14	0.12 J
Chloromethane	74-87-3	0.037	0.060	0.15	1.1
cis-1,2-Dichloroethene	156-59-2	0.010	0.035	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0089	0.038	0.13	1.0
Freon 114	76-14-2	0.012	0.061	0.20	0.094 J
Freon 12	75-71-8	0.018	0.043	0.14	1.9
m,p-Xylene	108-38-3	0.0053	0.038	0.25	2.9
Methyl tert-butyl ether	1634-04-4	0.012	0.032	0.53	Not Detected
Naphthalene	91-20-3	0.10	0.15	0.38	0.46
o-Xylene	95-47-6	0.0079	0.038	0.13	1.0
Tetrachloroethene	127-18-4	0.0085	0.059	0.20	2.7
Toluene	108-88-3	0.0061	0.033	0.11	8.0
trans-1,2-Dichloroethene	156-60-5	0.019	0.035	0.58	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	IA-01		
Lab ID:	1603470-01A	**Date/Time Analyzed:**	3/25/16 08:49 PM
Date/Time Collecte	3/23/16 02:00 PM	**Dilution Factor:**	1.46
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032515sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.020	0.047	0.16	0.25
Vinyl Chloride	75-01-4	0.0058	0.022	0.037	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	106
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	101

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032515sim.d
Lab Smp Id: 1603470-01A
Inj Date : 25-MAR-2016 20:49
Operator : ea Inst ID: msde.i
Smp Info : 250mL#6L0026
Misc Info : 5.3"Hg->3.0psi
Comment : SIM - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 25-Mar-2016 15:18 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1
Dil Factor: 1.46000
Integrator: HP RTE Compound Sublist: EAE21143.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.46000	Dilution Factor

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
1 Freon 12						CAS #: 75-71-8	
5.493	5.469 (0.352)	85	44844	0.26728	0.3902	80.00- 120.00	100.00
5.493	5.469 (0.352)	87	14702			2.41- 62.41	32.79
2 Freon 114						CAS #: 76-14-2	
6.867	6.819 (0.440)	135	1128	0.00927	0.01353	80.00- 120.00	100.00(a)
6.843	6.819 (0.439)	137	390			2.22- 62.22	34.62
3 Chloromethane						CAS #: 74-87-3	
7.204	7.180 (0.462)	50	12966	0.37919	0.5536	80.00- 120.00	100.00
7.204	7.180 (0.462)	52	5857			2.41- 62.41	45.17
5 Chloroethane						CAS #: 75-00-3	
10.190	10.190 (0.653)	64	275	0.01236	0.01804	80.00- 120.00	100.00(a)
10.190	10.190 (0.653)	66	481			3.01- 63.01	174.90
* 13 Bromochloromethane						CAS #: 74-97-5	
15.593	15.594 (1.000)	130	178123	5.00000		80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
* 13 Bromochloromethane (continued)							
15.593	15.594 (1.000)	128	136234			46.88- 106.88	76.48
15.562	15.594 (1.000)	49	149188			79.48- 139.48	83.76
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	2345	0.01630	0.02380	80.00- 120.00	100.00(a)
15.686	15.655 (1.006)	85	14677			35.71- 95.71	625.89
15 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.871	15.871 (1.018)	97	447	0.00285	0.004154	80.00- 120.00	100.00(a)
15.871	15.871 (1.018)	99	299			35.33- 95.33	66.94
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.087	16.087 (1.032)	117	6293	0.04064	0.05934	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	6169			67.29- 127.29	98.03
17 Benzene					CAS #: 71-43-2		
16.399	16.423 (0.967)	78	52846	0.27301	0.3986	80.00- 120.00	100.00
16.399	16.423 (0.967)	77	14371			0.00- 52.97	27.20
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	294846	5.28618	5.286	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	144934			21.84- 81.84	49.16
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	32410	0.33472	0.4887	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	10956			3.73- 63.73	33.80
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	762412	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	113281			0.00- 44.79	14.86
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	3133	0.03205	0.04679	80.00- 120.00	100.00
17.362	17.362 (1.024)	95	4242			65.34- 125.34	135.39
17.362	17.362 (1.024)	97	1977			32.10- 92.10	63.13
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	703062	5.04415	5.044	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	75376			0.00- 40.53	10.72
19.570	19.570 (1.154)	100	462108			35.79- 95.79	65.73
23 Toluene					CAS #: 108-88-3		
19.727	19.727 (1.164)	91	315679	1.45211	2.120	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	185886			29.49- 89.49	58.88

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
26 Tetrachloroethene						CAS #: 127-18-4	
20.867	20.867 (0.932)	166	36028	0.27601	0.4030	80.00- 120.00	100.00
20.867	20.867 (0.932)	129	25798			41.88- 101.88	71.61
20.867	20.867 (0.932)	131	25284			40.10- 100.10	70.18
27 1,2-Dibromoethane (EDB)						CAS #: 106-93-4	
21.691	21.691 (0.969)	107	656	0.00493	0.007196	80.00- 120.00	100.00(a)
21.691	21.691 (0.969)	109	545			65.18- 125.18	83.06
* 28 Chlorobenzene-d5						CAS #: 3114-55-4	
22.379	22.379 (1.000)	117	714508	5.00000		80.00- 120.00	100.00
22.358	22.379 (1.000)	82	349921			19.34- 79.34	48.97
30 Ethyl Benzene						CAS #: 100-41-4	
22.483	22.483 (1.005)	106	14794	0.16470	0.2405	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	46777			278.88- 338.88	316.18
31 m,p-Xylene						CAS #: 108-38-3	
22.669	22.670 (1.013)	106	48642	0.45747	0.6679	80.00- 120.00	100.00
22.669	22.670 (1.013)	91	99034			169.32- 229.32	203.60
32 o-Xylene						CAS #: 95-47-6	
23.271	23.271 (1.040)	106	16204	0.15996	0.2335	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	34731			179.11- 239.11	214.33
$ 33 4-Bromofluorobenzene						CAS #: 460-00-4	
24.034	24.034 (1.074)	174	480978	5.07333	5.073	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	512819			77.34- 137.34	106.62
24.034	24.034 (1.074)	176	469612			67.97- 127.97	97.64
36 1,4-Dichlorobenzene						CAS #: 106-46-7	
25.424	25.424 (1.136)	146	4597	0.02539	0.03707	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	2863			35.15- 95.15	62.29
25.424	25.424 (1.136)	111	3575			6.91- 66.91	77.76
38 Naphthalene						CAS #: 91-20-3	
27.935	27.935 (1.248)	128	6551	0.05982	0.08734	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	1140			0.00- 42.33	17.41

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032515sim.d
Lab Smp Id: 1603470-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.3"Hg->3.0psi

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	200624	120374	280874	178123	-11.22
20 1,4-Difluorobenze	838688	503213	1174163	762412	-9.09
28 Chlorobenzene-d5	748894	449336	1048452	714508	-4.59

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 02-Apr-2016 09:12

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1603470-01A
Level: LOW Operator: ea
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: EAE21143.sub
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.3"Hg->3.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18 1,2-Dichloroethane	5.000	5.286	105.72	70-130
$ 22 Toluene-d8	5.000	5.044	100.88	70-130
$ 33 4-Bromofluorobenze	5.000	5.073	101.47	70-130

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

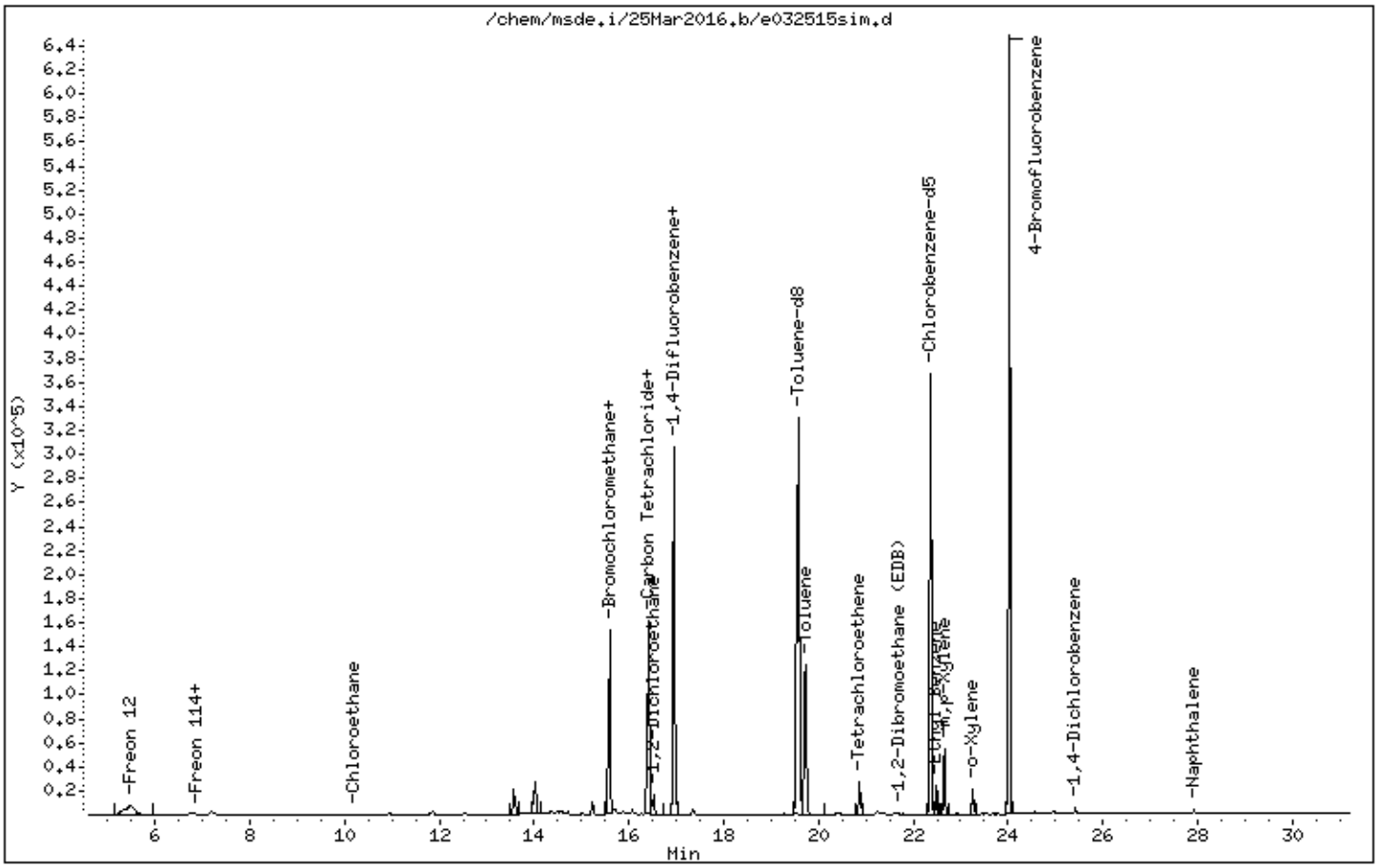
Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

1 Freon 12

Concentration: 0.3902 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

2 Freon 114

Concentration: 0.01353 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

3 Chloromethane

Concentration: 0.5536 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

5 Chloroethane

Concentration: 0.01804 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

14 Chloroform

Concentration: 0.02380 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

15 1,1,1-Trichloroethane

Concentration: 0.004154 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

16 Carbon Tetrachloride

Concentration: 0.05934 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

17 Benzene

Concentration: 0.3986 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

19 1,2-Dichloroethane

Concentration: 0.4887 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

21 Trichloroethene

Concentration: 0.04679 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

23 Toluene

Concentration: 2.120 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

26 Tetrachloroethene

Concentration: 0.4030 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

27 1,2-Dibromoethane (EDB)

Concentration: 0.007196 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

30 Ethyl Benzene

Concentration: 0.2405 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

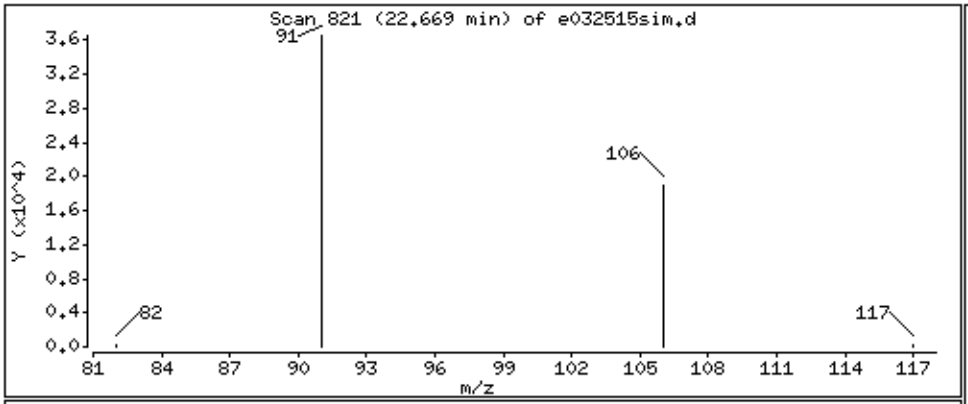
Operator: ea

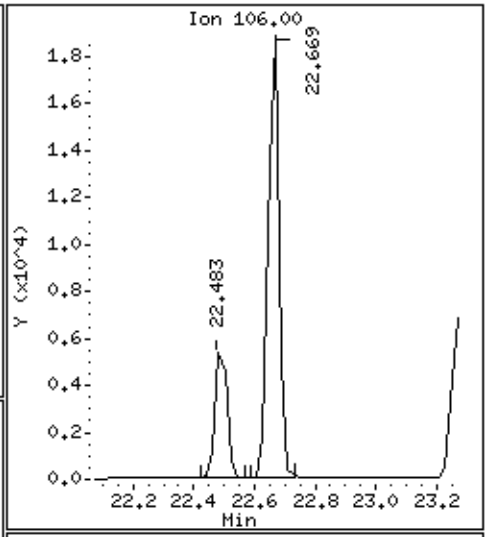
Column phase: RTX-624

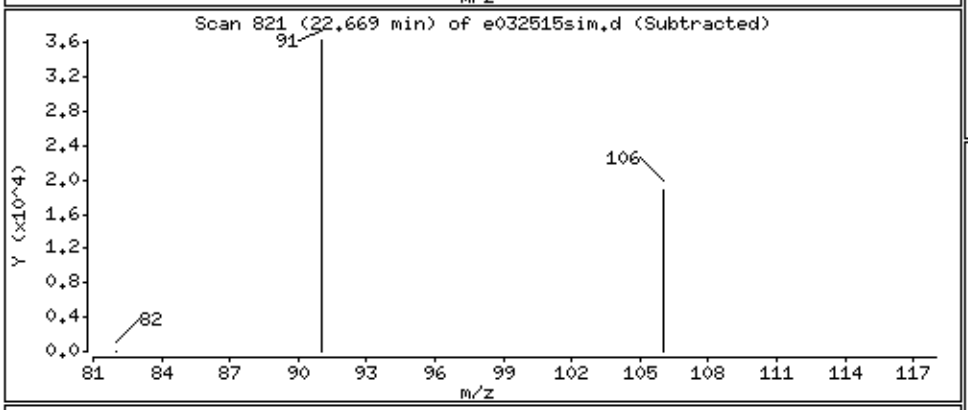
Column diameter: 0.32

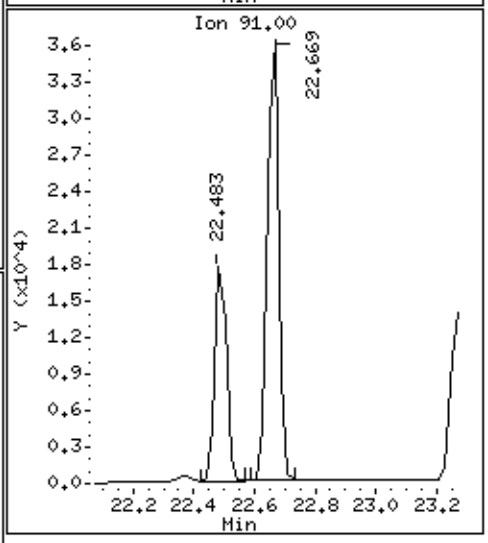
31 m,p-Xylene

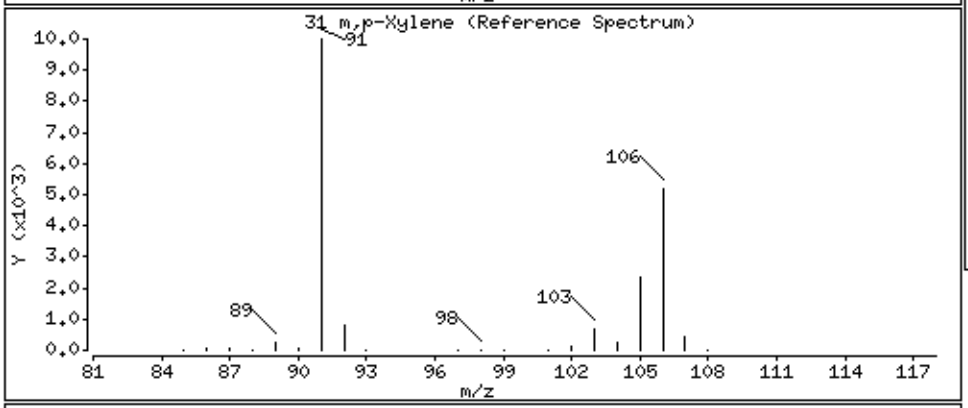
Concentration: 0.6679 PPBV

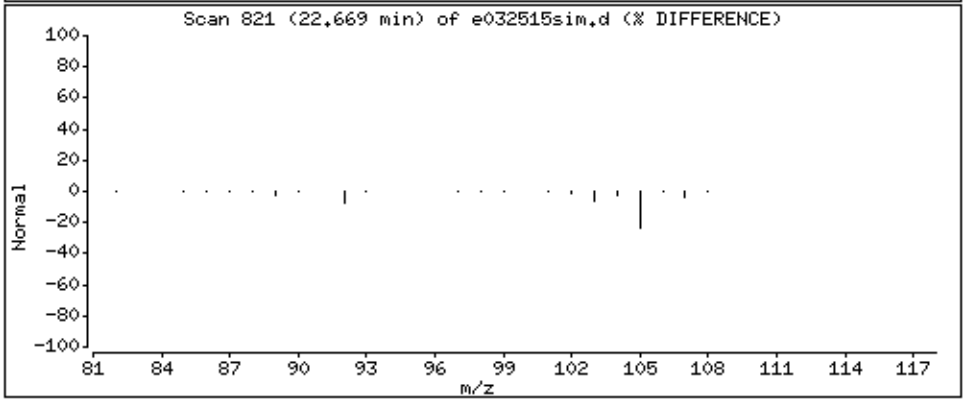












Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

32 o-Xylene

Concentration: 0.2335 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

36 1,4-Dichlorobenzene

Concentration: 0.03707 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032515sim.d

Date : 25-MAR-2016 20:49

Client ID:

Instrument: msde.i

Sample Info: 250mL#6L0026

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

38 Naphthalene

Concentration: 0.08734 PPBV

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	OA-01		
Lab ID:	1603470-02A	**Date/Time Analyzed:**	3/25/16 09:40 PM
Date/Time Collecte	3/23/16 03:25 PM	**Dilution Factor:**	1.50
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032516sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0084	0.049	0.16	0.026 J
1,1,2,2-Tetrachloroethane	79-34-5	0.014	0.062	0.20	Not Detected
1,1,2-Trichloroethane	79-00-5	0.015	0.049	0.16	Not Detected
1,1-Dichloroethane	75-34-3	0.0095	0.036	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.015	0.036	0.059	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.012	0.069	0.23	0.046 J
1,2-Dichloroethane	107-06-2	0.0043	0.036	0.12	0.057 J
1,4-Dichlorobenzene	106-46-7	0.016	0.054	0.18	0.074 J
Benzene	71-43-2	0.026	0.096	0.24	0.41
Carbon Tetrachloride	56-23-5	0.0086	0.057	0.19	0.37
Chloroethane	75-00-3	0.028	0.079	0.20	0.050 J
Chloroform	67-66-3	0.012	0.044	0.15	0.072 J
Chloromethane	74-87-3	0.038	0.062	0.15	1.2
cis-1,2-Dichloroethene	156-59-2	0.011	0.036	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0091	0.039	0.13	0.064 J
Freon 114	76-14-2	0.013	0.063	0.21	0.11 J
Freon 12	75-71-8	0.018	0.044	0.15	1.9
m,p-Xylene	108-38-3	0.0054	0.039	0.26	0.20 J
Methyl tert-butyl ether	1634-04-4	0.012	0.032	0.54	Not Detected
Naphthalene	91-20-3	0.11	0.16	0.39	Not Detected
o-Xylene	95-47-6	0.0081	0.039	0.13	0.068 J
Tetrachloroethene	127-18-4	0.0088	0.061	0.20	0.040 J
Toluene	108-88-3	0.0063	0.034	0.11	0.56
trans-1,2-Dichloroethene	156-60-5	0.020	0.036	0.59	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	OA-01		
Lab ID:	1603470-02A	**Date/Time Analyzed:**	3/25/16 09:40 PM
Date/Time Collecte	3/23/16 03:25 PM	**Dilution Factor:**	1.50
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032516sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.020	0.048	0.16	0.026 J
Vinyl Chloride	75-01-4	0.0060	0.023	0.038	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	105
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	102

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032516sim.d
Lab Smp Id: 1603470-02A
Inj Date : 25-MAR-2016 21:40
Operator : ea Inst ID: msde.i
Smp Info : 250mL#9569
Misc Info : 5.7"Hg->3.1psi
Comment : SIM - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 25-Mar-2016 15:18 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1
Dil Factor: 1.50000
Integrator: HP RTE Compound Sublist: EAE21143.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.50000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.493	5.469 (0.352)	85	43642	0.26213	0.3932	80.00- 120.00	100.00
5.517	5.469 (0.354)	87	14225			2.41- 62.41	32.59
2 Freon 114					CAS #: 76-14-2		
6.867	6.819 (0.440)	135	1288	0.01067	0.01600	80.00- 120.00	100.00(a)
6.891	6.819 (0.442)	137	438			2.22- 62.22	34.01
3 Chloromethane					CAS #: 74-87-3		
7.204	7.180 (0.462)	50	13353	0.39353	0.5903	80.00- 120.00	100.00
7.204	7.180 (0.462)	52	5296			2.41- 62.41	39.66
5 Chloroethane					CAS #: 75-00-3		
10.209	10.190 (0.655)	64	278	0.01259	0.01888	80.00- 120.00	100.00(a)
0.000	10.190 (0.000)	66	0			3.01- 63.01	0.00
* 13 Bromochloromethane					CAS #: 74-97-5		
15.593	15.594 (1.000)	130	176757	5.00000		80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
* 13 Bromochloromethane (continued)							
15.593	15.594 (1.000)	128	136719			46.88- 106.88	77.35
15.593	15.594 (1.000)	49	149494			79.48- 139.48	84.58
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	1405	0.00984	0.01476	80.00- 120.00	100.00(a)
15.655	15.655 (1.004)	85	1631			35.71- 95.71	116.05
15 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.871	15.871 (1.018)	97	490	0.00314	0.004714	80.00- 120.00	100.00(a)
15.871	15.871 (1.018)	99	170			35.33- 95.33	34.72
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.087	16.087 (1.032)	117	6086	0.03961	0.05941	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	5973			67.29- 127.29	98.15
17 Benzene					CAS #: 71-43-2		
16.423	16.423 (0.969)	78	16399	0.08592	0.1289	80.00- 120.00	100.00
16.423	16.423 (0.969)	77	4606			0.00- 52.97	28.09
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	291424	5.26520	5.265	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	144342			21.84- 81.84	49.53
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	894	0.00936	0.01405	80.00- 120.00	100.00(a)
16.519	16.519 (0.974)	64	398			3.73- 63.73	44.59
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	751742	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	111026			0.00- 44.79	14.77
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	315	0.00327	0.004902	80.00- 120.00	100.00(a)
17.362	17.362 (1.024)	95	400			65.34- 125.34	127.06
17.362	17.362 (1.024)	97	238			32.10- 92.10	75.70
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	697969	5.07869	5.079	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	73728			0.00- 40.53	10.56
19.570	19.570 (1.154)	100	459185			35.79- 95.79	65.79
23 Toluene					CAS #: 108-88-3		
19.727	19.727 (1.164)	91	21416	0.09991	0.1499	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	12712			29.49- 89.49	59.36

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
26 Tetrachloroethene						CAS #: 127-18-4	
20.867	20.867 (0.932)	166	515	0.00398	0.005970	80.00- 120.00	100.00(a)
20.867	20.867 (0.932)	129	359			41.88- 101.88	69.65
20.867	20.867 (0.932)	131	553			40.10- 100.10	107.36
27 1,2-Dibromoethane (EDB)						CAS #: 106-93-4	
21.691	21.691 (0.969)	107	522	0.00396	0.005934	80.00- 120.00	100.00(a)
21.691	21.691 (0.969)	109	777			65.18- 125.18	148.90
* 28 Chlorobenzene-d5						CAS #: 3114-55-4	
22.379	22.379 (1.000)	117	708361	5.00000		80.00- 120.00	100.00
22.358	22.379 (1.000)	82	345911			19.34- 79.34	48.83
30 Ethyl Benzene						CAS #: 100-41-4	
22.483	22.483 (1.005)	106	878	0.00986	0.01479	80.00- 120.00	100.00(a)
22.483	22.483 (1.005)	91	2924			278.88- 338.88	332.93
31 m,p-Xylene						CAS #: 108-38-3	
22.669	22.670 (1.013)	106	3247	0.03080	0.04620	80.00- 120.00	100.00(a)
22.669	22.670 (1.013)	91	6838			169.32- 229.32	210.56
32 o-Xylene						CAS #: 95-47-6	
23.271	23.271 (1.040)	106	1042	0.01038	0.01556	80.00- 120.00	100.00(a)
23.271	23.271 (1.040)	91	2293			179.11- 239.11	220.04
$ 33 4-Bromofluorobenzene						CAS #: 460-00-4	
24.034	24.034 (1.074)	174	476686	5.07169	5.072	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	505748			77.34- 137.34	106.10
24.034	24.034 (1.074)	176	465537			67.97- 127.97	97.66
36 1,4-Dichlorobenzene						CAS #: 106-46-7	
25.424	25.424 (1.136)	146	1482	0.00826	0.01238	80.00- 120.00	100.00(a)
25.424	25.424 (1.136)	148	878			35.15- 95.15	59.26
25.424	25.424 (1.136)	111	582			6.91- 66.91	39.29

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032516sim.d
Lab Smp Id: 1603470-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.7"Hg->3.1psi

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	200624	120374	280874	176757	-11.90
20 1,4-Difluorobenze	838688	503213	1174163	751742	-10.37
28 Chlorobenzene-d5	748894	449336	1048452	708361	-5.41

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 02-Apr-2016 09:13

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1603470-02A
Level: LOW Operator: ea
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: EAE21143.sub
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.7"Hg->3.1psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18 1,2-Dichloroethane	5.000	5.265	105.30	70-130
$ 22 Toluene-d8	5.000	5.079	101.57	70-130
$ 33 4-Bromofluorobenze	5.000	5.072	101.43	70-130

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

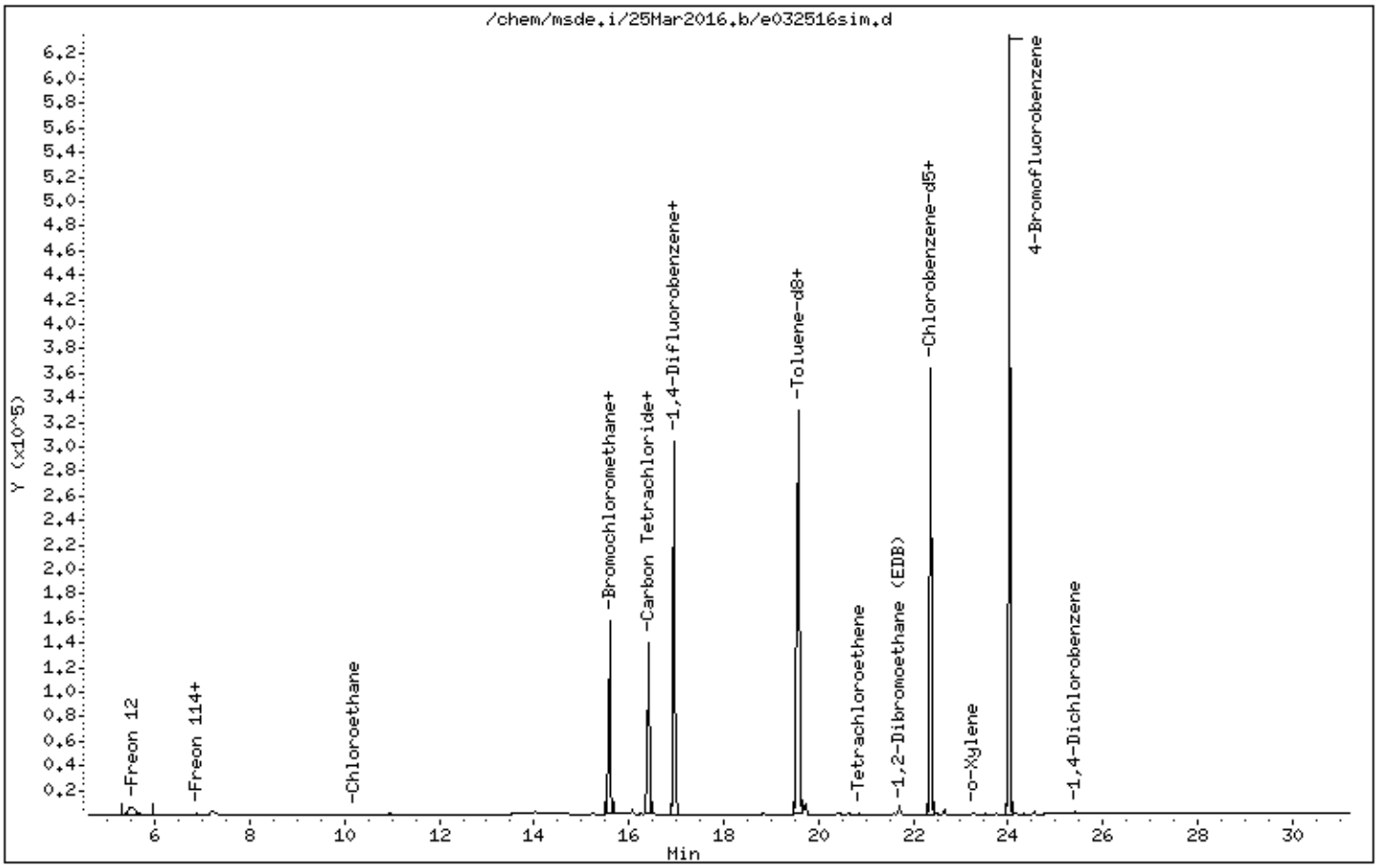
Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

1 Freon 12

Concentration: 0.3932 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

2 Freon 114

Concentration: 0.01600 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

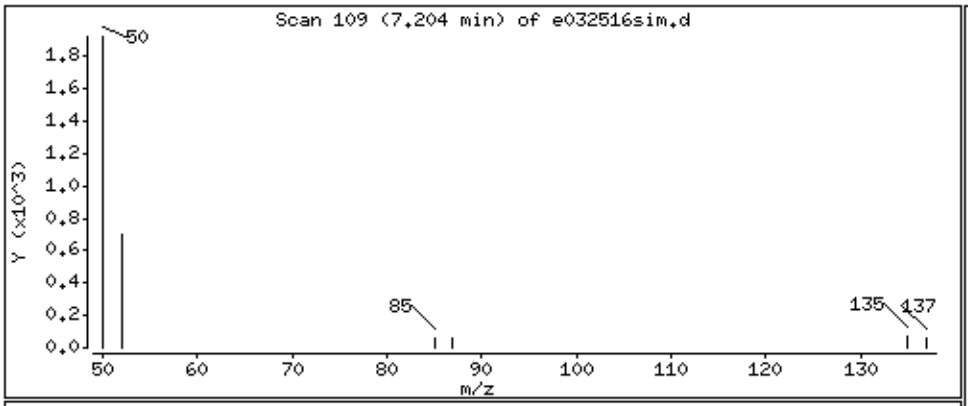
Operator: ea

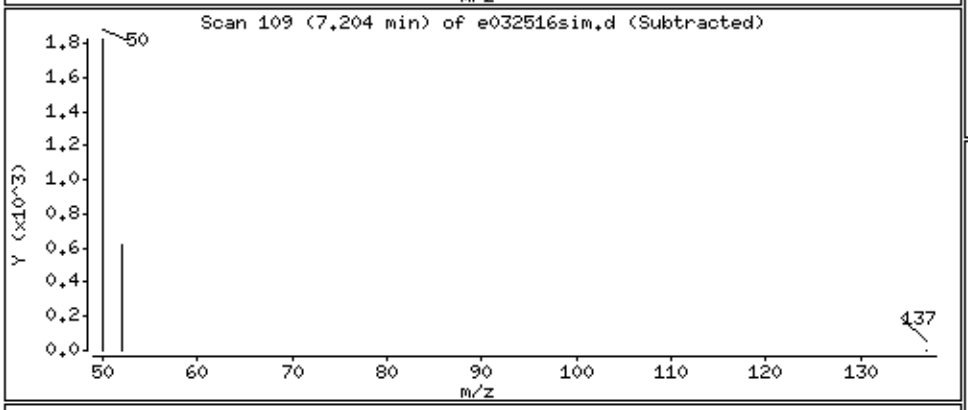
Column phase: RTX-624

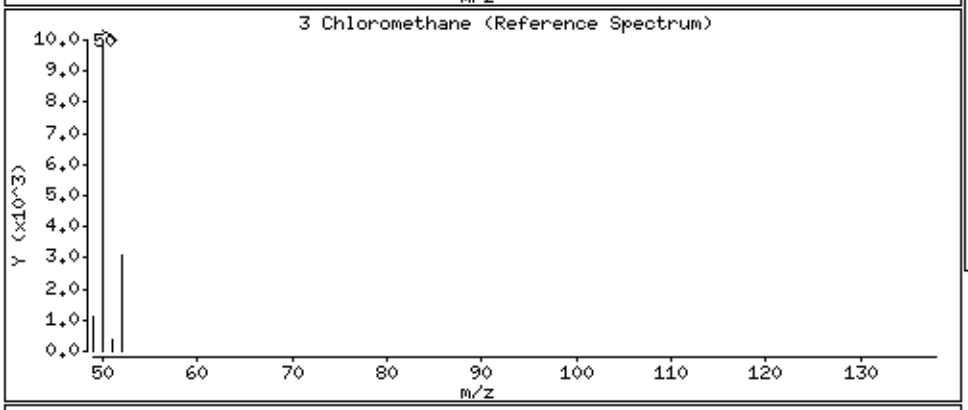
Column diameter: 0.32

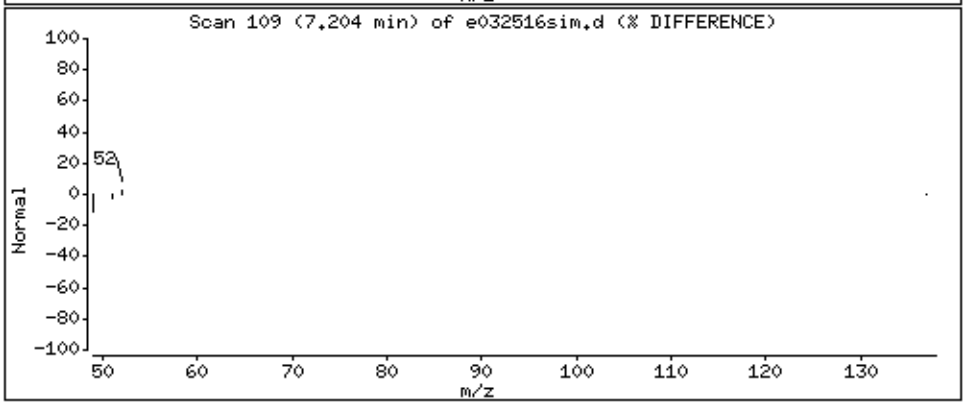
3 Chloromethane

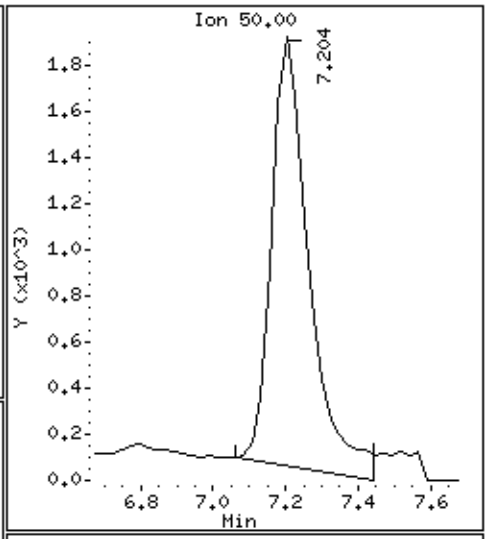
Concentration: 0.5903 PPBV

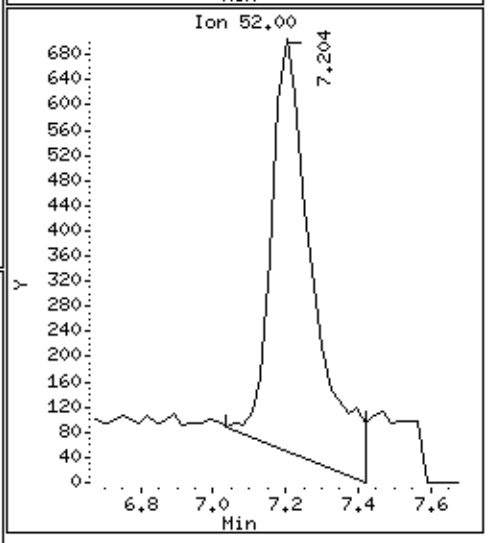












Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

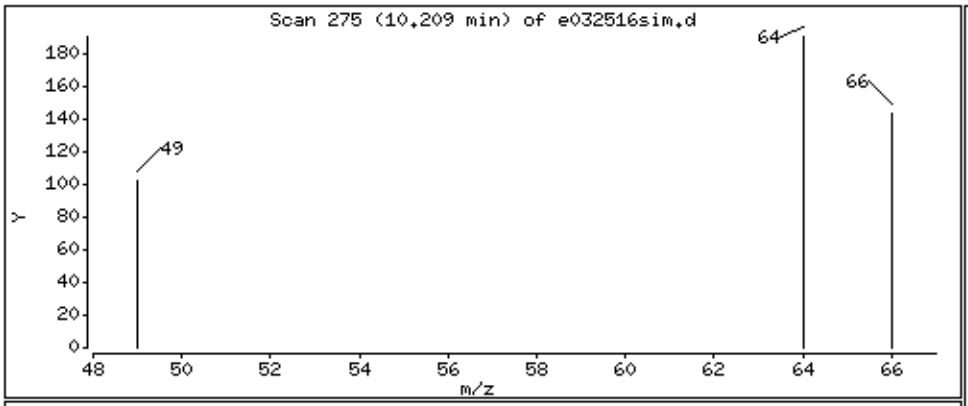
Operator: ea

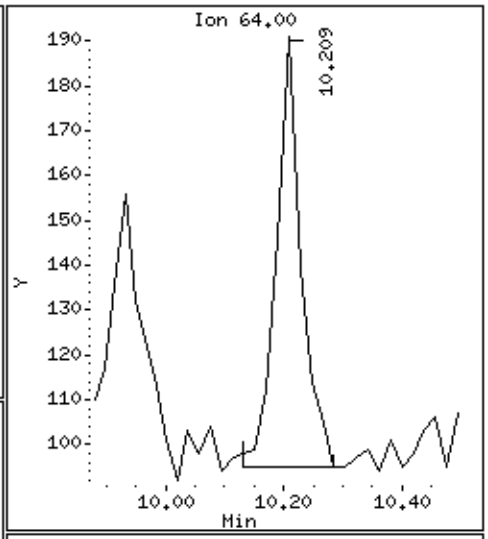
Column phase: RTX-624

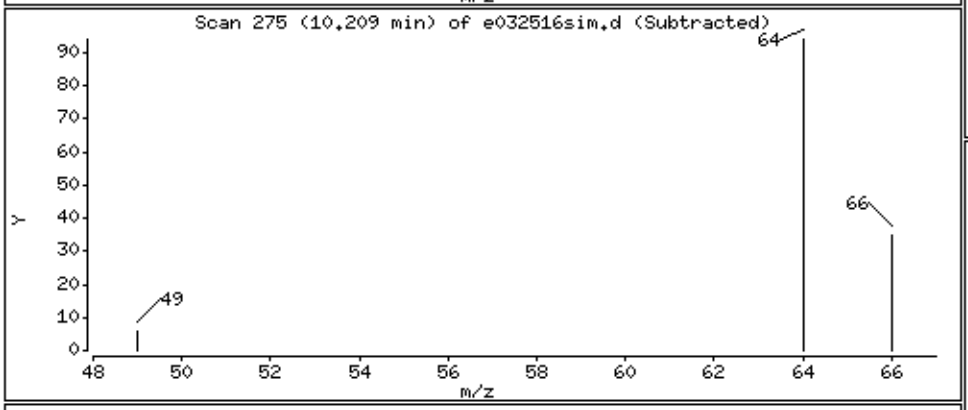
Column diameter: 0.32

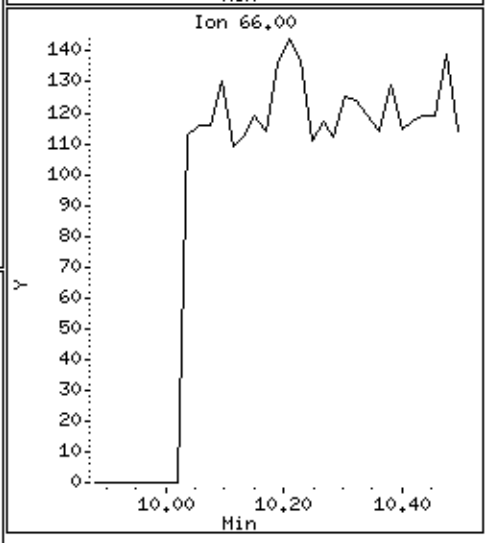
5 Chloroethane

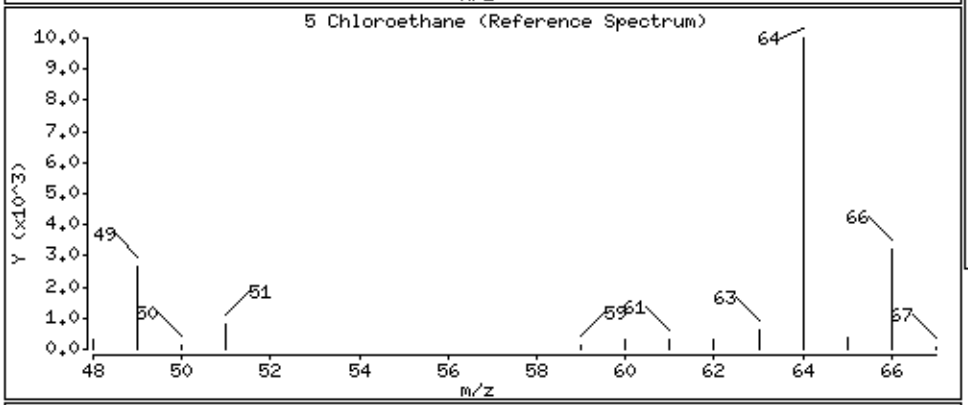
Concentration: 0.01888 PPBV

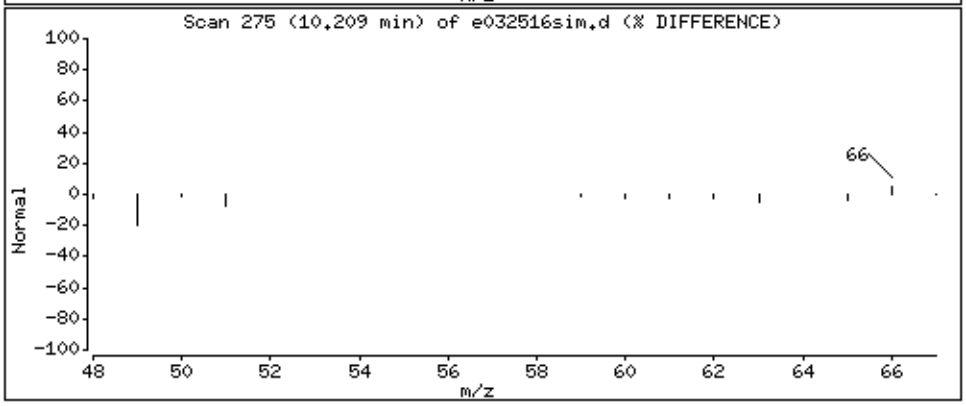












Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

14 Chloroform

Concentration: 0.01476 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

15 1,1,1-Trichloroethane

Concentration: 0.004714 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

16 Carbon Tetrachloride

Concentration: 0.05941 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

17 Benzene

Concentration: 0.1289 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

19 1,2-Dichloroethane

Concentration: 0.01405 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

21 Trichloroethene

Concentration: 0.004902 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

23 Toluene

Concentration: 0.1499 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

26 Tetrachloroethene

Concentration: 0.005970 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

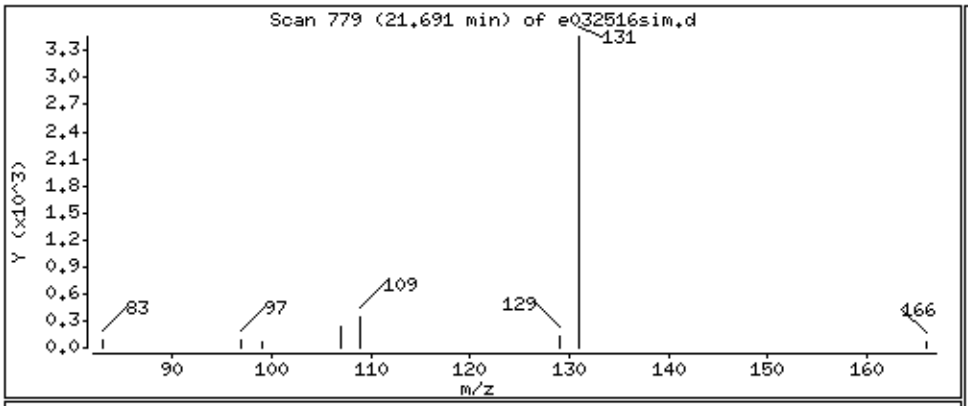
Operator: ea

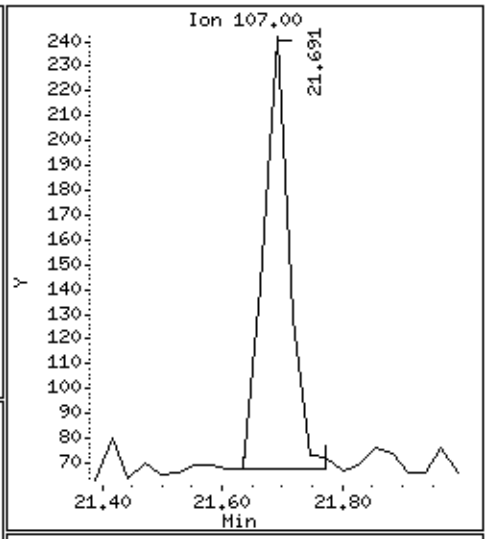
Column phase: RTX-624

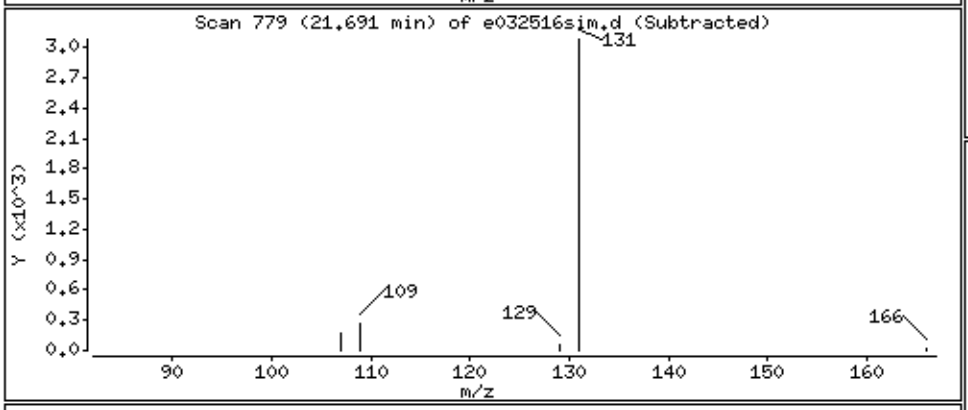
Column diameter: 0.32

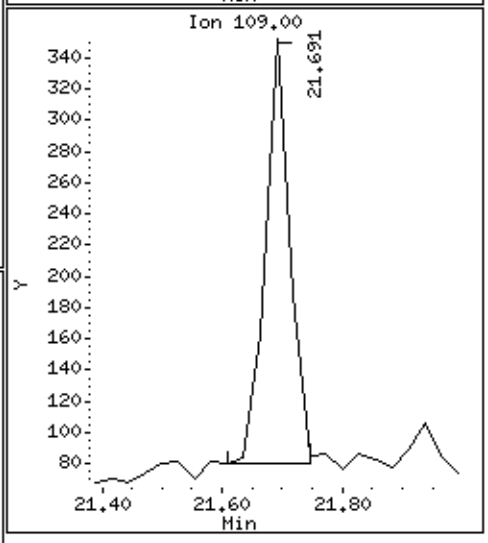
27 1,2-Dibromoethane (EDB)

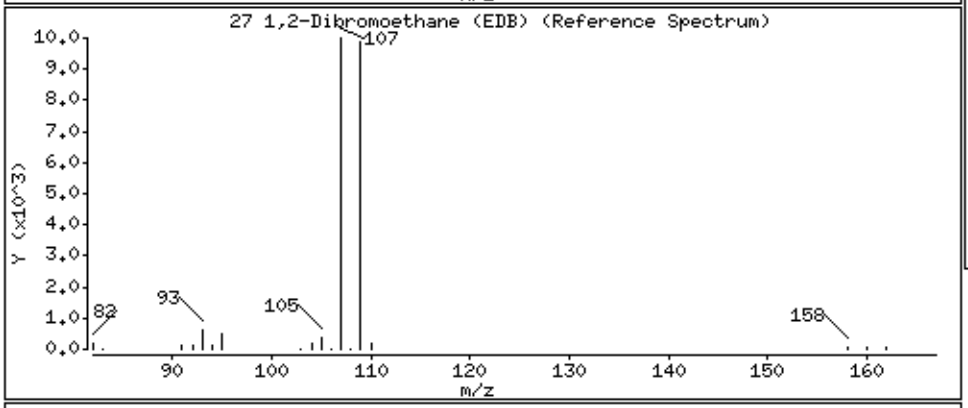
Concentration: 0.005934 PPBV

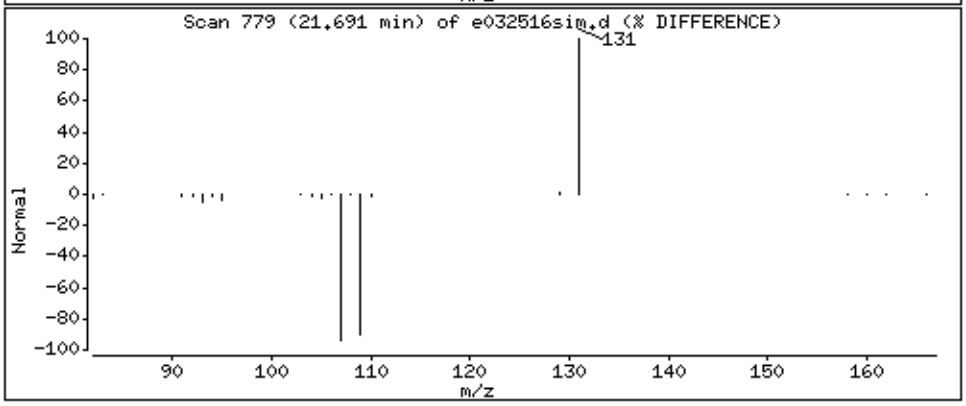












Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

30 Ethyl Benzene

Concentration: 0.01479 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

31 m,p-Xylene

Concentration: 0.04620 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

32 o-Xylene

Concentration: 0.01556 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032516sim.d

Date : 25-MAR-2016 21:40

Client ID:

Instrument: msde.i

Sample Info: 250mL#9569

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

36 1,4-Dichlorobenzene

Concentration: 0.01238 PPBV

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	SG-01		
Lab ID:	1603470-03A	**Date/Time Analyzed:**	3/25/16 10:35 PM
Date/Time Collecte	3/23/16 03:23 PM	**Dilution Factor:**	1.50
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032517sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0084	0.049	0.16	0.010 J
1,1,2,2-Tetrachloroethane	79-34-5	0.014	0.062	0.20	Not Detected
1,1,2-Trichloroethane	79-00-5	0.015	0.049	0.16	Not Detected
1,1-Dichloroethane	75-34-3	0.0095	0.036	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.015	0.036	0.059	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.012	0.069	0.23	0.040 J
1,2-Dichloroethane	107-06-2	0.0043	0.036	0.12	0.17
1,4-Dichlorobenzene	106-46-7	0.016	0.054	0.18	0.10 J
Benzene	71-43-2	0.026	0.096	0.24	0.33
Carbon Tetrachloride	56-23-5	0.0086	0.057	0.19	0.25
Chloroethane	75-00-3	0.028	0.079	0.20	0.036 J
Chloroform	67-66-3	0.012	0.044	0.15	0.057 J
Chloromethane	74-87-3	0.038	0.062	0.15	0.26
cis-1,2-Dichloroethene	156-59-2	0.011	0.036	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0091	0.039	0.13	0.23
Freon 114	76-14-2	0.013	0.063	0.21	0.11 J
Freon 12	75-71-8	0.018	0.044	0.15	1.7
m,p-Xylene	108-38-3	0.0054	0.039	0.26	0.91
Methyl tert-butyl ether	1634-04-4	0.012	0.032	0.54	Not Detected
Naphthalene	91-20-3	0.11	0.16	0.39	0.25 J
o-Xylene	95-47-6	0.0081	0.039	0.13	0.48
Tetrachloroethene	127-18-4	0.0088	0.061	0.20	17
Toluene	108-88-3	0.0063	0.034	0.11	1.2
trans-1,2-Dichloroethene	156-60-5	0.020	0.036	0.59	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	SG-01		
Lab ID:	1603470-03A	**Date/Time Analyzed:**	3/25/16 10:35 PM
Date/Time Collecte	3/23/16 03:23 PM	**Dilution Factor:**	1.50
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032517sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.020	0.048	0.16	0.063 J
Vinyl Chloride	75-01-4	0.0060	0.023	0.038	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	103
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	100

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032517sim.d
Lab Smp Id: 1603470-03A
Inj Date : 25-MAR-2016 22:35
Operator : ea Inst ID: msde.i
Smp Info : 250mL#21006
Misc Info : 6.1"Hg->2.9psi
Comment : SIM - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 25-Mar-2016 15:18 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1
Dil Factor: 1.50000
Integrator: HP RTE Compound Sublist: EAE21143.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.50000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
	1 Freon 12				CAS #: 75-71-8		
5.469	5.469 (0.351)	85	40819	0.22483	0.3372	80.00- 120.00	100.00
5.469	5.469 (0.351)	87	13224			2.41- 62.41	32.40
	2 Freon 114				CAS #: 76-14-2		
6.843	6.819 (0.439)	135	1342	0.01019	0.01529	80.00- 120.00	100.00(a)
6.819	6.819 (0.437)	137	376			2.22- 62.22	28.02
	3 Chloromethane				CAS #: 74-87-3		
7.180	7.180 (0.460)	50	3118	0.08429	0.1264	80.00- 120.00	100.00(M)
7.156	7.180 (0.459)	52	856			2.41- 62.41	27.45
	5 Chloroethane				CAS #: 75-00-3		
10.209	10.190 (0.655)	64	217	0.00901	0.01352	80.00- 120.00	100.00(a)
10.056	10.190 (0.645)	66	507			3.01- 63.01	233.67
*	13 Bromochloromethane				CAS #: 74-97-5		
15.593	15.594 (1.000)	130	192748	5.00000		80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
* 13 Bromochloromethane (continued)							
15.593	15.594 (1.000)	128	148479			46.88- 106.88	77.03
15.562	15.594 (1.000)	49	161757			79.48- 139.48	83.92
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	1211	0.00778	0.01167	80.00- 120.00	100.00(a)
15.686	15.655 (1.006)	85	1684			35.71- 95.71	139.08
15 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.871	15.871 (1.018)	97	207	0.00122	0.001826	80.00- 120.00	100.00(a)
15.871	15.871 (1.018)	99	170			35.33- 95.33	82.14
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.086	16.087 (1.032)	117	4449	0.02655	0.03983	80.00- 120.00	100.00
16.086	16.087 (1.032)	119	4264			67.29- 127.29	95.84
17 Benzene					CAS #: 71-43-2		
16.423	16.423 (0.969)	78	13980	0.06896	0.1034	80.00- 120.00	100.00
16.423	16.423 (0.969)	77	3514			0.00- 52.97	25.14
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	311280	5.15736	5.157	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	154375			21.84- 81.84	49.59
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	2773	0.02734	0.04102	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	1151			3.73- 63.73	41.51
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	798519	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	118136			0.00- 44.79	14.79
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	799	0.00780	0.01170	80.00- 120.00	100.00(a)
17.362	17.362 (1.024)	95	981			65.34- 125.34	122.78
17.362	17.362 (1.024)	97	482			32.10- 92.10	60.39
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	730131	5.00150	5.001	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	78605			0.00- 40.53	10.77
19.570	19.570 (1.154)	100	480678			35.79- 95.79	65.83
23 Toluene					CAS #: 108-88-3		
19.727	19.727 (1.164)	91	49836	0.21888	0.3283	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	29112			29.49- 89.49	58.42

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
26 Tetrachloroethene						CAS #: 127-18-4	
20.867	20.867 (0.932)	166	226952	1.69607	2.544	80.00- 120.00	100.00
20.867	20.867 (0.932)	129	164042			41.88- 101.88	72.28
20.867	20.867 (0.932)	131	159968			40.10- 100.10	70.49
27 1,2-Dibromoethane (EDB)						CAS #: 106-93-4	
21.691	21.691 (0.969)	107	471	0.00345	0.005178	80.00- 120.00	100.00(a)
21.691	21.691 (0.969)	109	875			65.18- 125.18	185.68
* 28 Chlorobenzene-d5						CAS #: 3114-55-4	
22.379	22.379 (1.000)	117	732467	5.00000		80.00- 120.00	100.00
22.358	22.379 (1.000)	82	357066			19.34- 79.34	48.75
30 Ethyl Benzene						CAS #: 100-41-4	
22.503	22.483 (1.006)	106	3321	0.03607	0.05410	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	10554			278.88- 338.88	317.79
31 m,p-Xylene						CAS #: 108-38-3	
22.669	22.670 (1.013)	106	15286	0.14024	0.2104	80.00- 120.00	100.00
22.669	22.670 (1.013)	91	31351			169.32- 229.32	205.09
32 o-Xylene						CAS #: 95-47-6	
23.271	23.271 (1.040)	106	7663	0.07379	0.1107	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	16785			179.11- 239.11	219.04
$ 33 4-Bromofluorobenzene						CAS #: 460-00-4	
24.034	24.034 (1.074)	174	481171	4.95093	4.951	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	512036			77.34- 137.34	106.41
24.034	24.034 (1.074)	176	470334			67.97- 127.97	97.75
36 1,4-Dichlorobenzene						CAS #: 106-46-7	
25.424	25.424 (1.136)	146	2128	0.01147	0.01720	80.00- 120.00	100.00(a)
25.424	25.424 (1.136)	148	1321			35.15- 95.15	62.08
25.424	25.424 (1.136)	111	1307			6.91- 66.91	61.44
38 Naphthalene						CAS #: 91-20-3	
27.935	27.935 (1.248)	128	3540	0.03153	0.04730	80.00- 120.00	100.00(a)
27.935	27.935 (1.248)	127	535			0.00- 42.33	15.12

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032517sim.d
Lab Smp Id: 1603470-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 6.1"Hg->2.9psi

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	200624	120374	280874	192748	-3.93
20 1,4-Difluorobenze	838688	503213	1174163	798519	-4.79
28 Chlorobenzene-d5	748894	449336	1048452	732467	-2.19

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 02-Apr-2016 09:15

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1603470-03A
Level: LOW Operator: ea
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: EAE21143.sub
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 6.1"Hg->2.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18 1,2-Dichloroethane	5.000	5.157	103.15	70-130
$ 22 Toluene-d8	5.000	5.001	100.03	70-130
$ 33 4-Bromofluorobenze	5.000	4.951	99.02	70-130

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

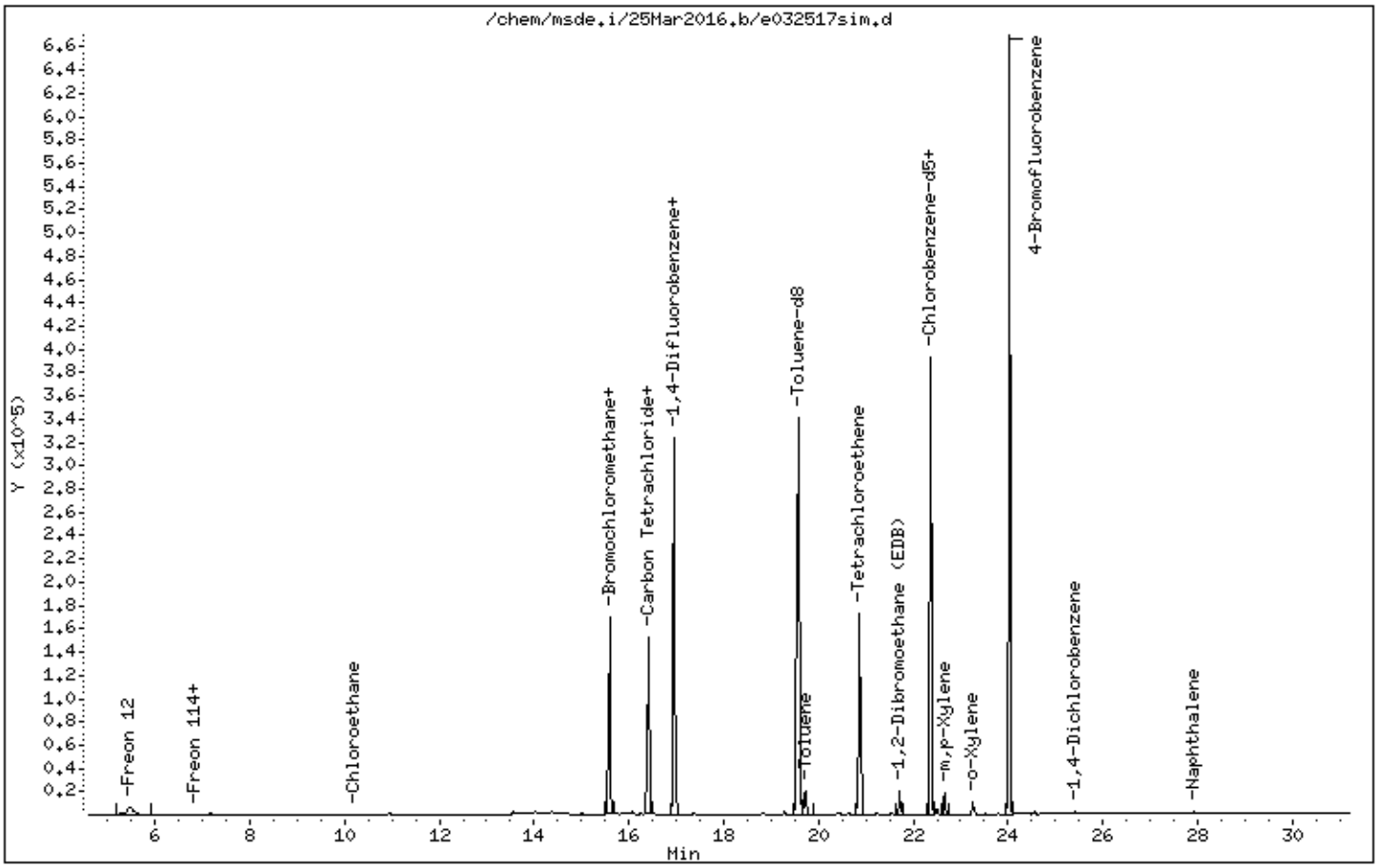
Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

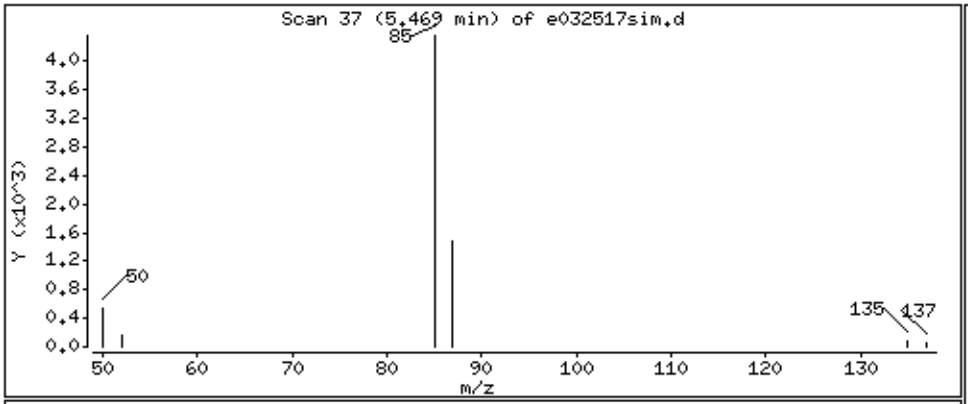
Operator: ea

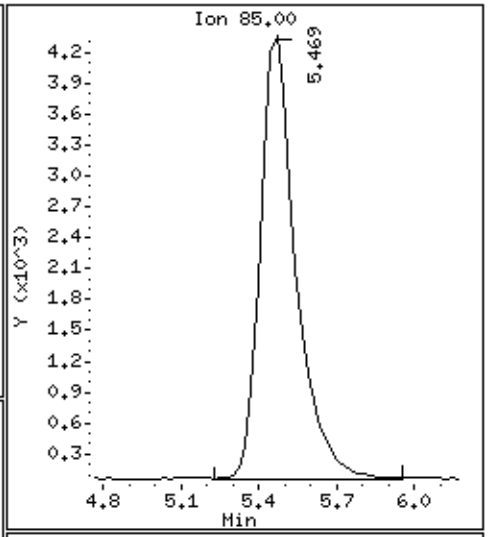
Column phase: RTX-624

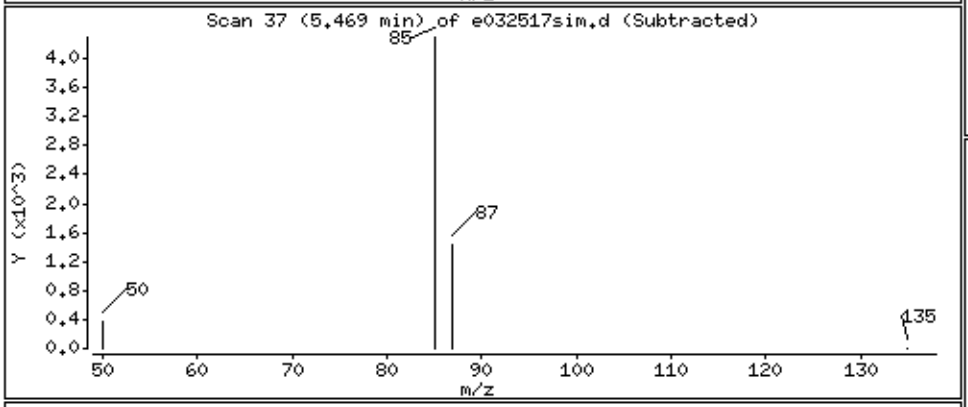
Column diameter: 0.32

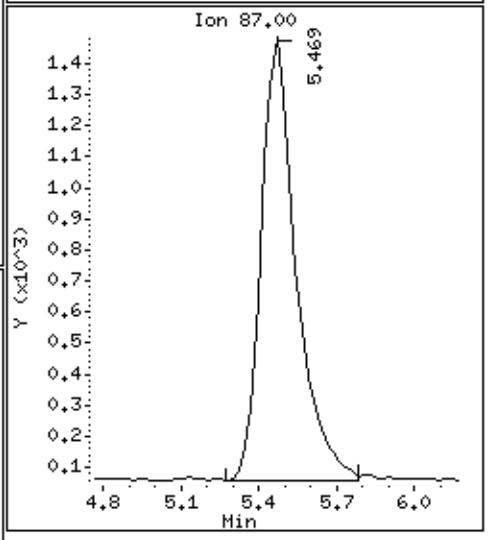
1 Freon 12

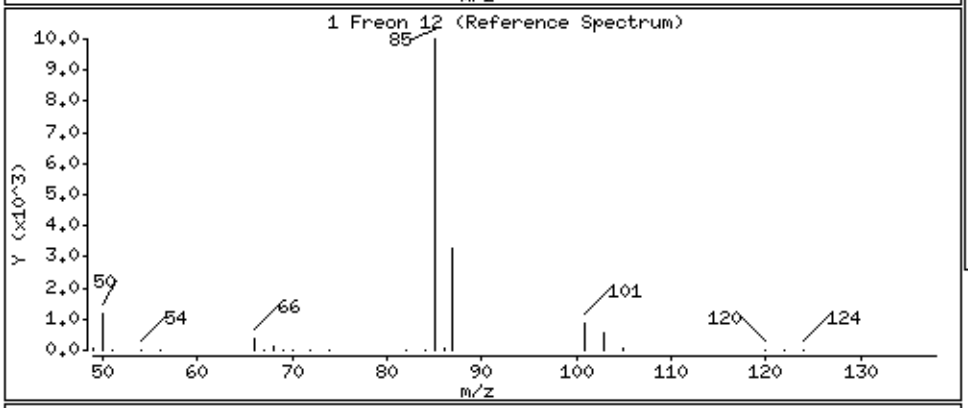
Concentration: 0.3372 PPBV

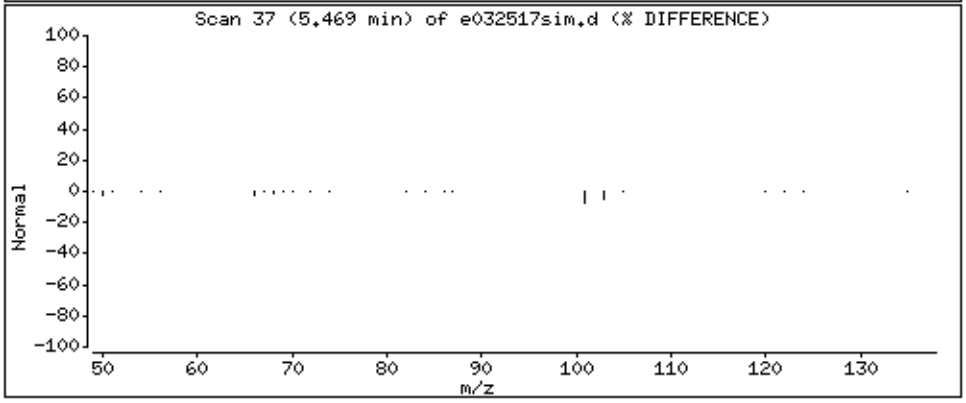












Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

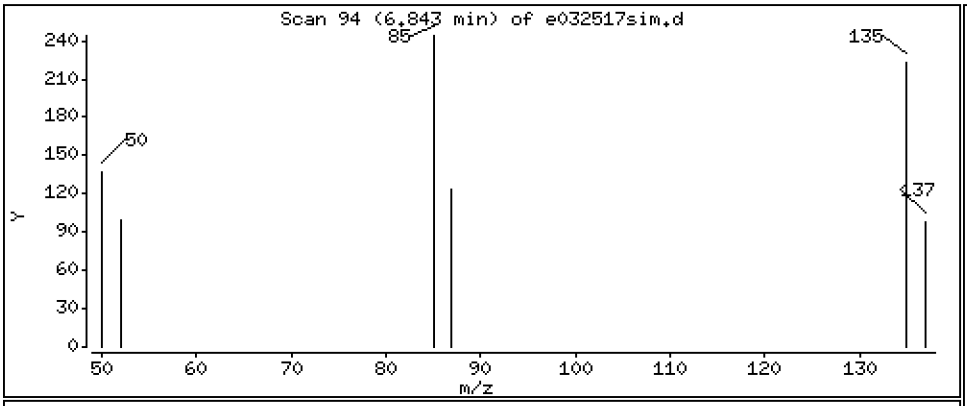
Operator: ea

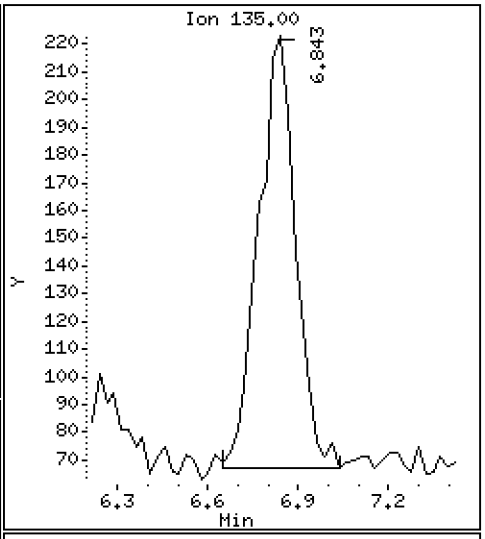
Column phase: RTX-624

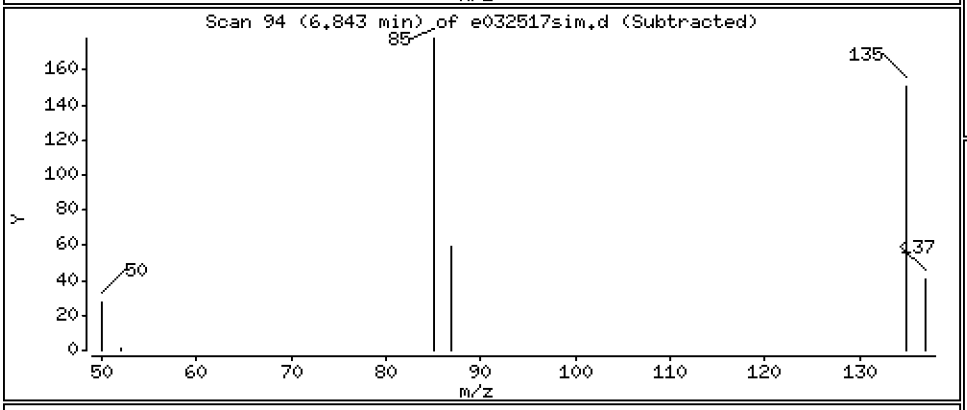
Column diameter: 0.32

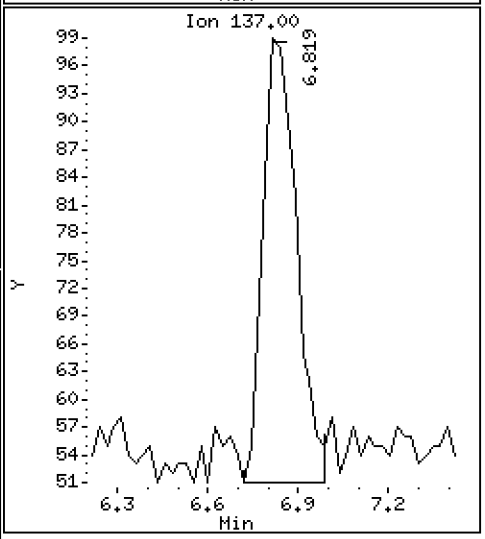
2 Freon 114

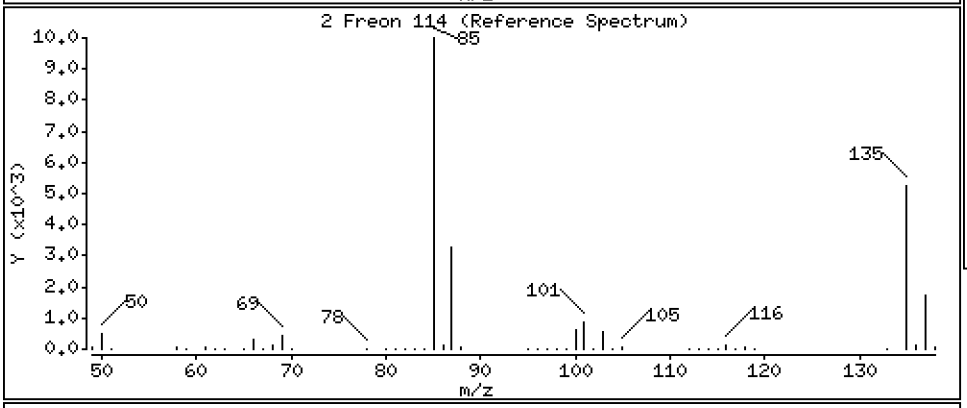
Concentration: 0.01529 PPBV

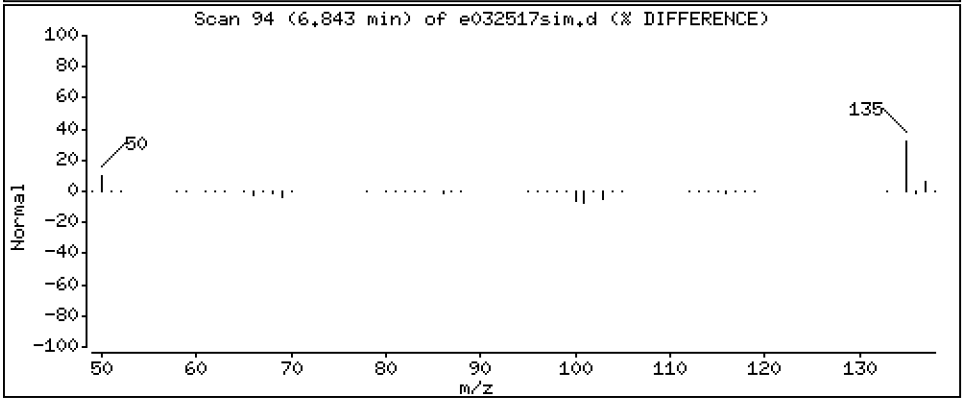












Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

3 Chloromethane

Concentration: 0.1264 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

5 Chloroethane

Concentration: 0.01352 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

14 Chloroform

Concentration: 0.01167 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

15 1,1,1-Trichloroethane

Concentration: 0.001826 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

16 Carbon Tetrachloride

Concentration: 0.03983 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

17 Benzene

Concentration: 0.1034 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

19 1,2-Dichloroethane

Concentration: 0.04102 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

21 Trichloroethene

Concentration: 0.01170 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

23 Toluene

Concentration: 0.3283 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

26 Tetrachloroethene

Concentration: 2.544 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

27 1,2-Dibromoethane (EDB)

Concentration: 0.005178 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

30 Ethyl Benzene

Concentration: 0.05410 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

31 m,p-Xylene

Concentration: 0.2104 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

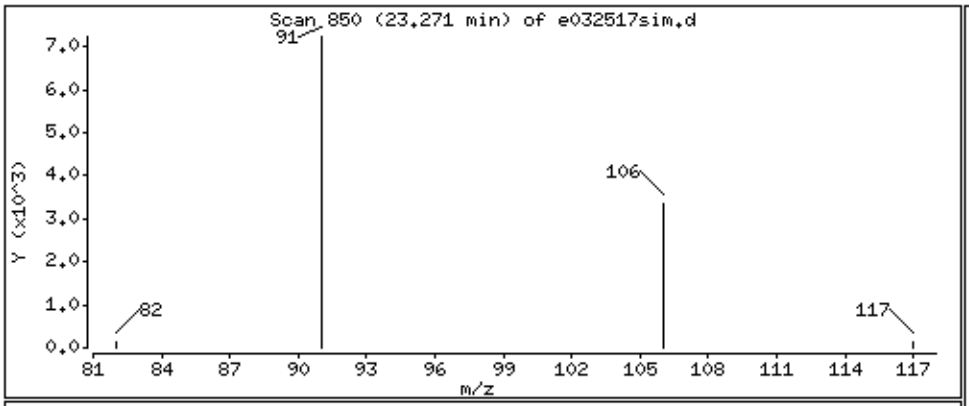
Operator: ea

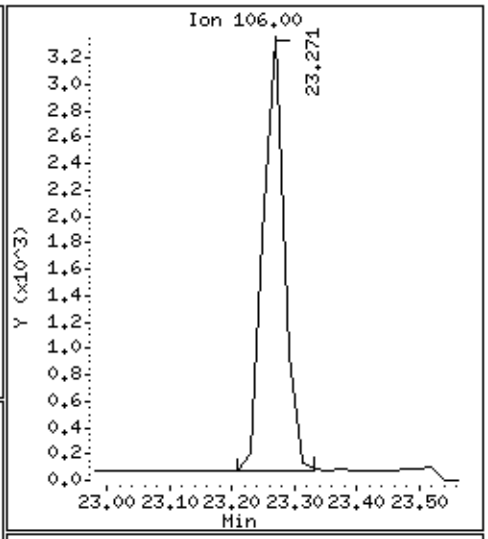
Column phase: RTX-624

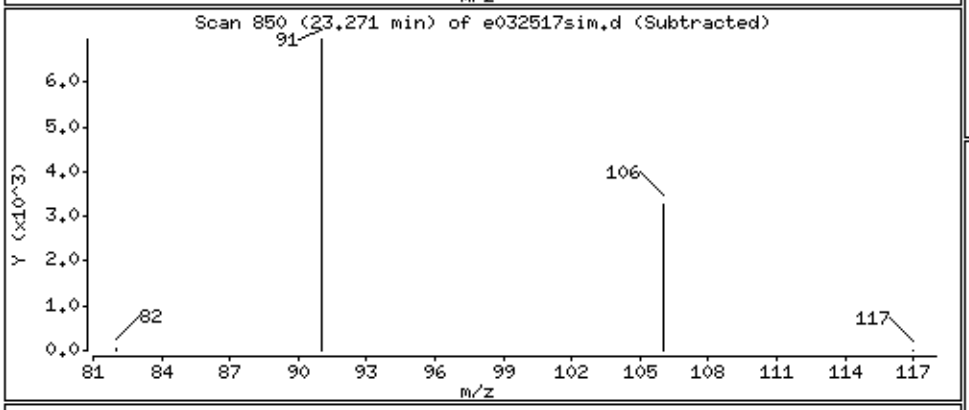
Column diameter: 0.32

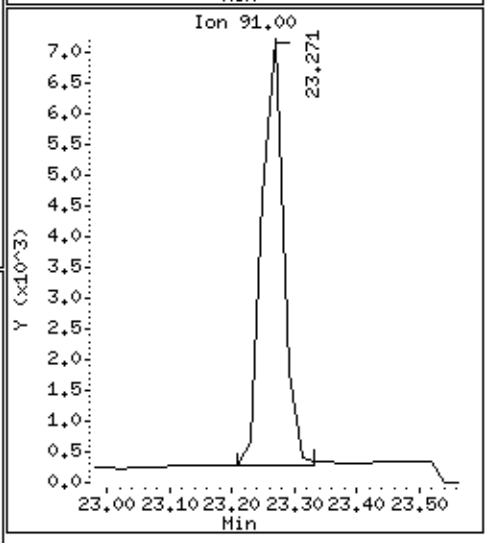
32 o-Xylene

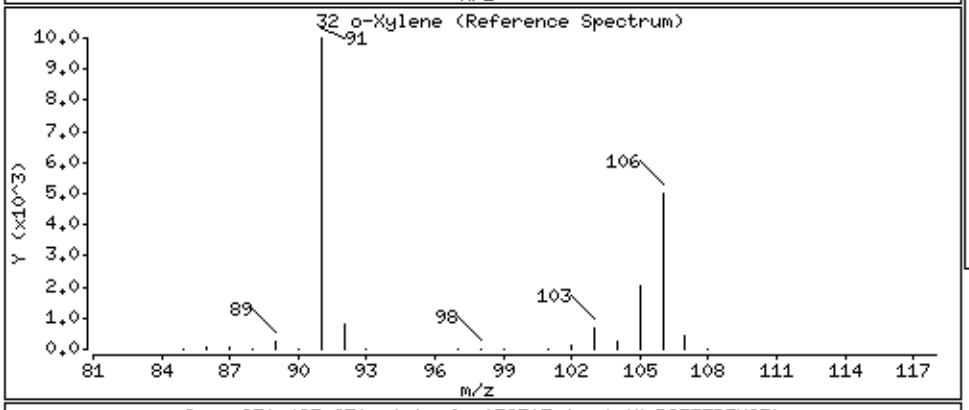
Concentration: 0.1107 PPBV

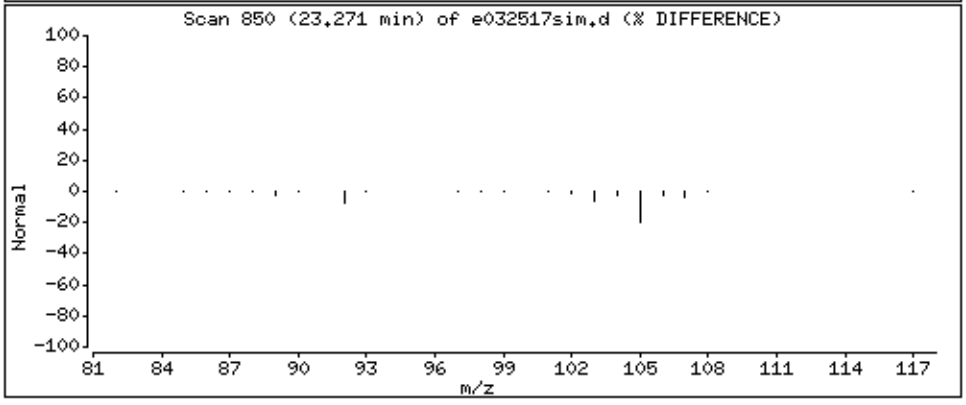












Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

Operator: ea

Column phase: RTX-624

Column diameter: 0.32

36 1,4-Dichlorobenzene

Concentration: 0.01720 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032517sim.d

Date : 25-MAR-2016 22:35

Client ID:

Instrument: msde.i

Sample Info: 250mL#21006

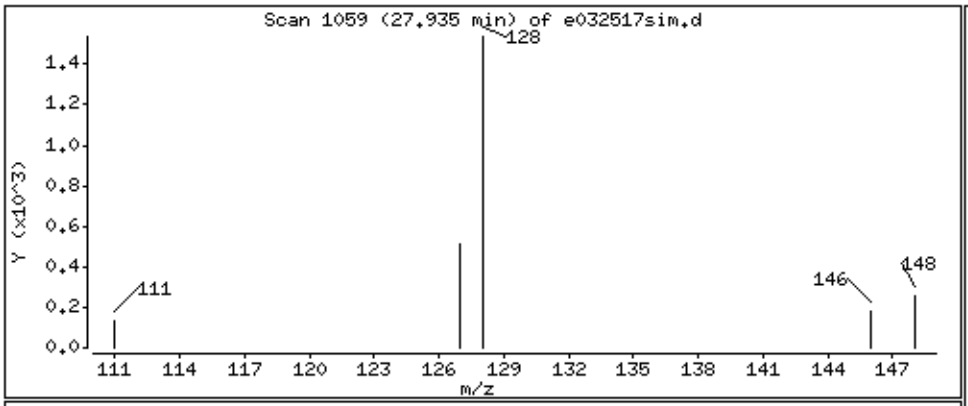
Operator: ea

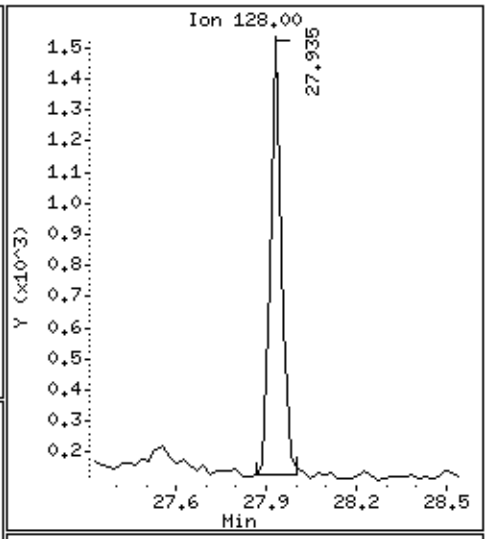
Column phase: RTX-624

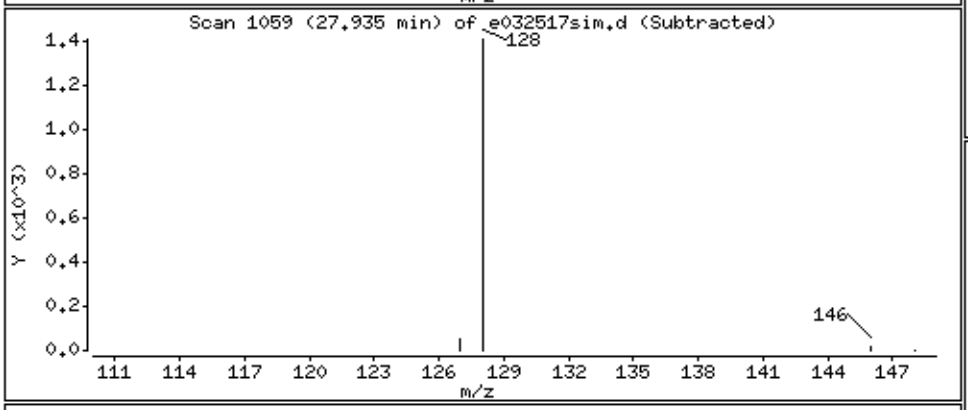
Column diameter: 0.32

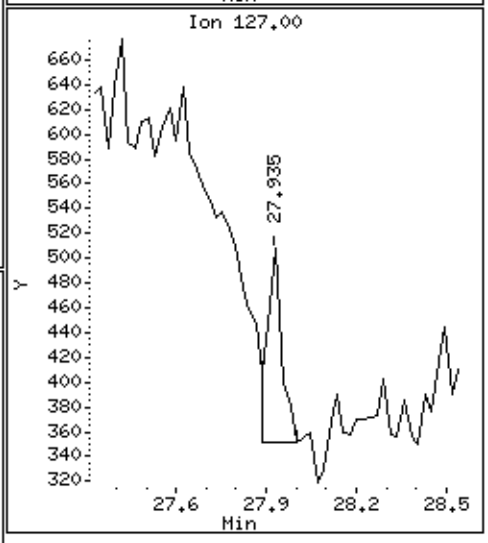
38 Naphthalene

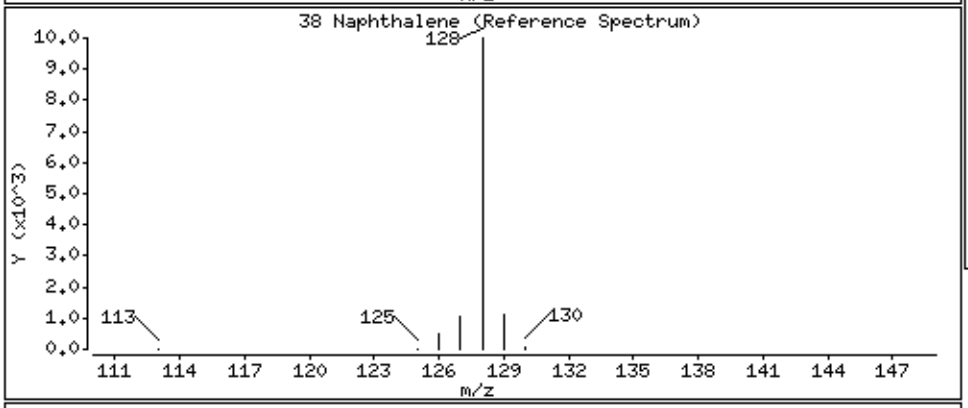
Concentration: 0.04730 PPBV

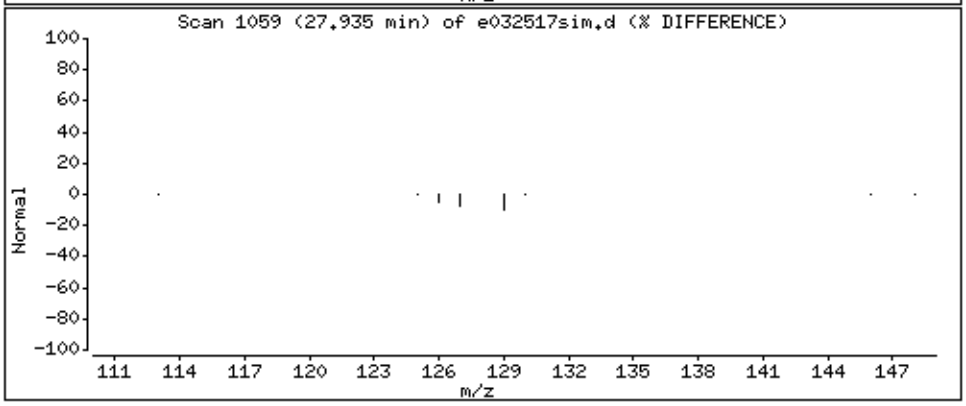












MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	SG-01-Dup		
Lab ID:	1603470-04A	**Date/Time Analyzed:**	3/26/16 08:10 AM
Date/Time Collecte	3/23/16 05:23 AM	**Dilution Factor:**	1.48
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032518sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0083	0.048	0.16	0.014 J
1,1,2,2-Tetrachloroethane	79-34-5	0.014	0.061	0.20	Not Detected
1,1,2-Trichloroethane	79-00-5	0.015	0.048	0.16	Not Detected
1,1-Dichloroethane	75-34-3	0.0093	0.036	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.015	0.035	0.059	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.012	0.068	0.23	0.026 J
1,2-Dichloroethane	107-06-2	0.0042	0.036	0.12	0.18
1,4-Dichlorobenzene	106-46-7	0.015	0.053	0.18	0.10 J
Benzene	71-43-2	0.026	0.094	0.24	0.40
Carbon Tetrachloride	56-23-5	0.0085	0.056	0.19	0.27
Chloroethane	75-00-3	0.027	0.078	0.20	0.071 J
Chloroform	67-66-3	0.012	0.043	0.14	0.052 J
Chloromethane	74-87-3	0.038	0.061	0.15	0.44
cis-1,2-Dichloroethene	156-59-2	0.011	0.035	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0090	0.038	0.13	0.26
Freon 114	76-14-2	0.012	0.062	0.21	0.11 J
Freon 12	75-71-8	0.018	0.044	0.15	1.8
m,p-Xylene	108-38-3	0.0053	0.038	0.26	1.0
Methyl tert-butyl ether	1634-04-4	0.012	0.032	0.53	0.016 J
Naphthalene	91-20-3	0.10	0.16	0.39	0.26 J
o-Xylene	95-47-6	0.0080	0.038	0.13	0.52
Tetrachloroethene	127-18-4	0.0086	0.060	0.20	18
Toluene	108-88-3	0.0062	0.033	0.11	1.6
trans-1,2-Dichloroethene	156-60-5	0.020	0.035	0.59	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	SG-01-Dup		
Lab ID:	1603470-04A	**Date/Time Analyzed:**	3/26/16 08:10 AM
Date/Time Collecte	3/23/16 05:23 AM	**Dilution Factor:**	1.48
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032518sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.020	0.048	0.16	0.097 J
Vinyl Chloride	75-01-4	0.0059	0.023	0.038	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	109
4-Bromofluorobenzene	460-00-4	70-130	102
Toluene-d8	2037-26-5	70-130	100

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032518sim.d
Lab Smp Id: 1603470-04A
Inj Date : 26-MAR-2016 08:10
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 24492
Misc Info : 5.5"Hg -> 3.0psi
Comment : SIM - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 25-Mar-2016 15:18 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1
Dil Factor: 1.48000
Integrator: HP RTE Compound Sublist: EAE21143.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.48000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.469	5.469 (0.351)	85	42549	0.25110	0.3716	80.00- 120.00	100.00
5.469	5.469 (0.351)	87	14002			2.41- 62.41	32.91
2 Freon 114					CAS #: 76-14-2		
6.843	6.819 (0.439)	135	1268	0.01032	0.01527	80.00- 120.00	100.00(a)
6.843	6.819 (0.439)	137	410			2.22- 62.22	32.38
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	5021	0.14539	0.2152	80.00- 120.00	100.00(M)
7.180	7.180 (0.460)	52	1483			2.41- 62.41	29.54
5 Chloroethane					CAS #: 75-00-3		
10.190	10.190 (0.653)	64	410	0.01824	0.02700	80.00- 120.00	100.00(a)
10.209	10.190 (0.655)	66	200			3.01- 63.01	48.88
9 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.687	13.660 (0.878)	73	480	0.00309	0.004578	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
9 Methyl tert-butyl ether (continued)							
13.578	13.660 (0.871)	57	6167			0.00- 47.74	1282.23
13.578	13.660 (0.871)	41	5077			0.00- 45.64	1055.61
* 13 Bromochloromethane					CAS #: 74-97-5		
15.594	15.594 (1.000)	130	179899	5.00000		80.00- 120.00	100.00
15.594	15.594 (1.000)	128	139097			46.88- 106.88	77.32
15.594	15.594 (1.000)	49	151284			79.48- 139.48	84.09
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	1057	0.00727	0.01076	80.00- 120.00	100.00(a)
15.686	15.655 (1.006)	85	2080			35.71- 95.71	196.68
15 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.871	15.871 (1.018)	97	275	0.00173	0.002565	80.00- 120.00	100.00(a)
15.871	15.871 (1.018)	99	157			35.33- 95.33	57.05
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.087	16.087 (1.032)	117	4566	0.02920	0.04321	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	4301			67.29- 127.29	94.20
17 Benzene					CAS #: 71-43-2		
16.423	16.423 (0.969)	78	17277	0.08510	0.1259	80.00- 120.00	100.00
16.423	16.423 (0.969)	77	4307			0.00- 52.97	24.93
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	307319	5.45541	5.455	80.00- 120.00	100.00
16.423	16.399 (1.053)	67	151222			21.84- 81.84	49.21
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	3000	0.02954	0.04372	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	1005			3.73- 63.73	33.53
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	799624	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	117715			0.00- 44.79	14.72
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	1247	0.01216	0.01800	80.00- 120.00	100.00(a)
17.362	17.362 (1.024)	95	1474			65.34- 125.34	118.19
17.362	17.362 (1.024)	97	847			32.10- 92.10	67.90
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	727790	4.97857	4.978	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	78976			0.00- 40.53	10.85
19.570	19.570 (1.154)	100	480969			35.79- 95.79	66.09

	RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
	23 Toluene					CAS #: 108-88-3		
	19.727	19.727 (1.164)	91	66891	0.29338	0.4342	80.00- 120.00	100.00
	19.727	19.727 (1.164)	92	39461			29.49- 89.49	58.99
	26 Tetrachloroethene					CAS #: 127-18-4		
	20.867	20.867 (0.932)	166	240975	1.80573	2.672	80.00- 120.00	100.00
	20.867	20.867 (0.932)	129	174408			41.88- 101.88	72.38
	20.867	20.867 (0.932)	131	168031			40.10- 100.10	69.73
	27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
	21.691	21.691 (0.969)	107	313	0.00230	0.003404	80.00- 120.00	100.00(a)
	21.691	21.691 (0.969)	109	822			65.18- 125.18	262.63
*	28 Chlorobenzene-d5					CAS #: 3114-55-4		
	22.379	22.379 (1.000)	117	730495	5.00000		80.00- 120.00	100.00
	22.379	22.379 (1.000)	82	357647			19.34- 79.34	48.96
	30 Ethyl Benzene					CAS #: 100-41-4		
	22.504	22.483 (1.006)	106	3746	0.04079	0.06037	80.00- 120.00	100.00
	22.483	22.483 (1.005)	91	12059			278.88- 338.88	321.88
	31 m,p-Xylene					CAS #: 108-38-3		
	22.670	22.670 (1.013)	106	16965	0.15606	0.2310	80.00- 120.00	100.00
	22.670	22.670 (1.013)	91	34455			169.32- 229.32	203.09
	32 o-Xylene					CAS #: 95-47-6		
	23.271	23.271 (1.040)	106	8430	0.08140	0.1205	80.00- 120.00	100.00
	23.271	23.271 (1.040)	91	18215			179.11- 239.11	216.07
$	33 4-Bromofluorobenzene					CAS #: 460-00-4		
	24.034	24.034 (1.074)	174	492744	5.08369	5.084	80.00- 120.00	100.00
	24.034	24.034 (1.074)	95	522904			77.34- 137.34	106.12
	24.034	24.034 (1.074)	176	481756			67.97- 127.97	97.77
	36 1,4-Dichlorobenzene					CAS #: 106-46-7		
	25.424	25.424 (1.136)	146	2107	0.01138	0.01685	80.00- 120.00	100.00(a)
	25.446	25.424 (1.137)	148	1374			35.15- 95.15	65.22
	25.424	25.424 (1.136)	111	1299			6.91- 66.91	61.65
	38 Naphthalene					CAS #: 91-20-3		
	27.935	27.935 (1.248)	128	3782	0.03378	0.04999	80.00- 120.00	100.00(a)
	27.935	27.935 (1.248)	127	558			0.00- 42.33	14.76

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032518sim.d
Lab Smp Id: 1603470-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.5"Hg -> 3.0psi

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	200624	120374	280874	179899	-10.33
20 1,4-Difluorobenze	838688	503213	1174163	799624	-4.66
28 Chlorobenzene-d5	748894	449336	1048452	730495	-2.46

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 02-Apr-2016 09:17

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 26Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1603470-04A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: EAE21143.sub
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.5"Hg -> 3.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18 1,2-Dichloroethane	5.000	5.455	109.11	70-130
$ 22 Toluene-d8	5.000	4.978	99.57	70-130
$ 33 4-Bromofluorobenze	5.000	5.084	101.67	70-130

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

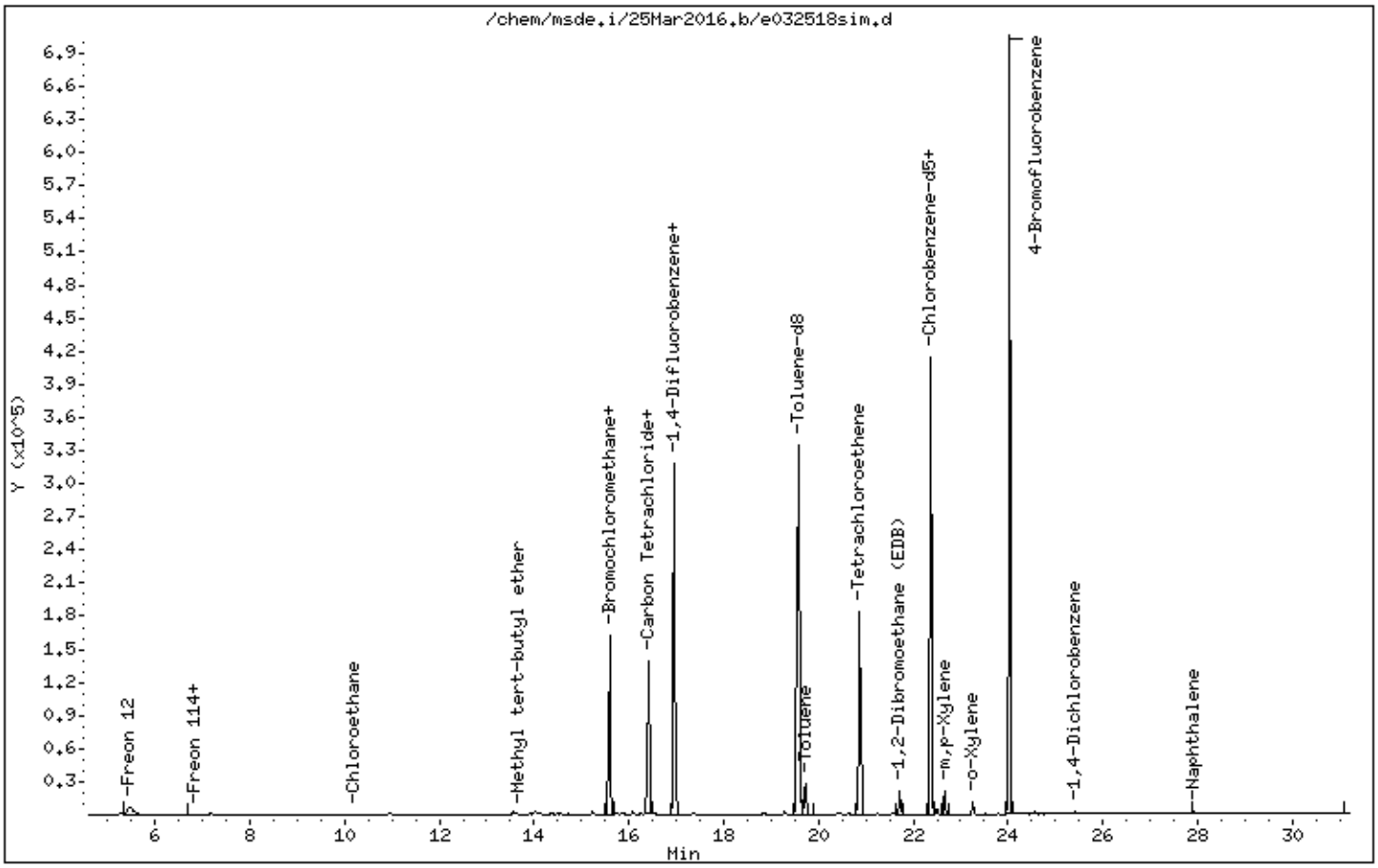
Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

1 Freon 12

Concentration: 0.3716 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

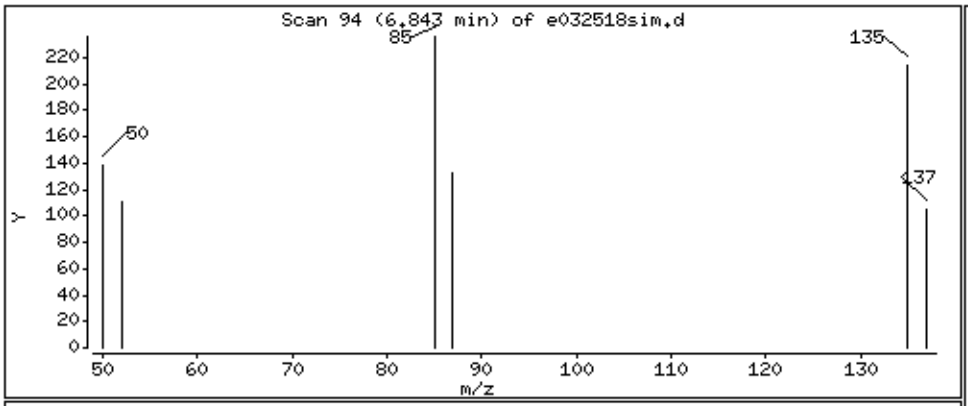
Operator: ef

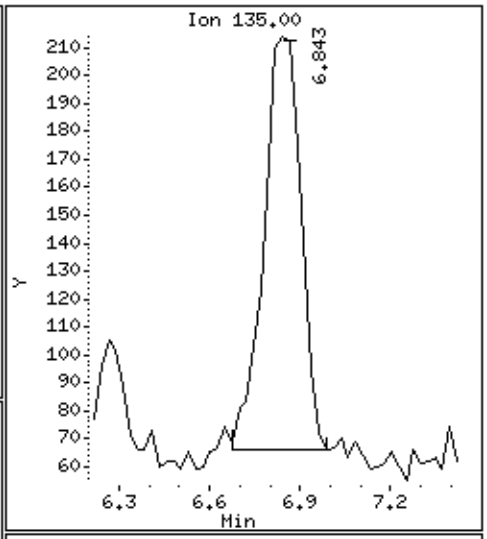
Column phase: RTX-624

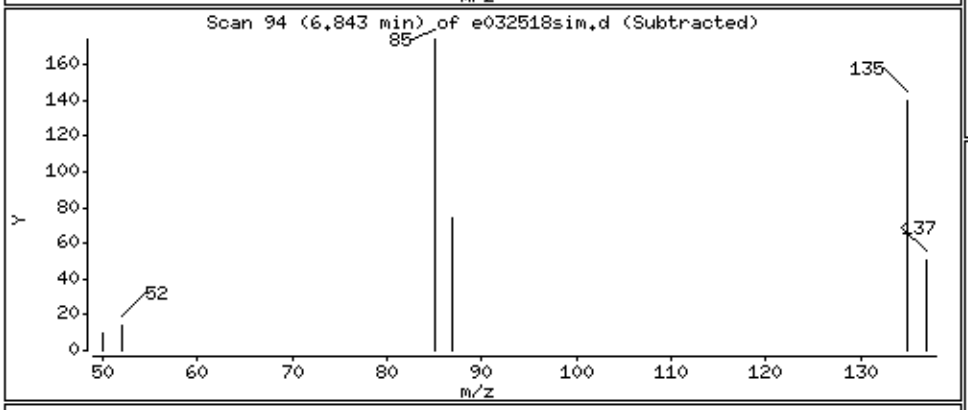
Column diameter: 0.32

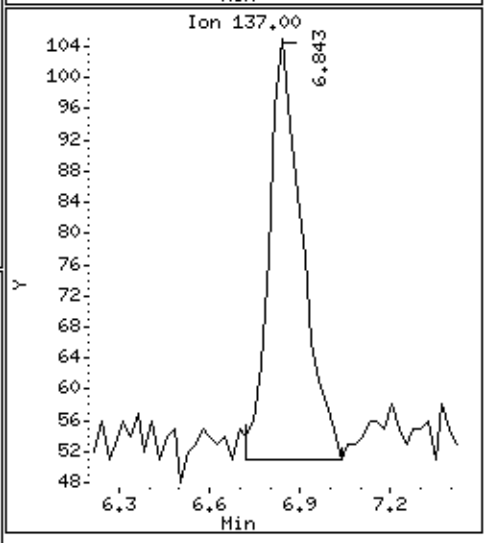
2 Freon 114

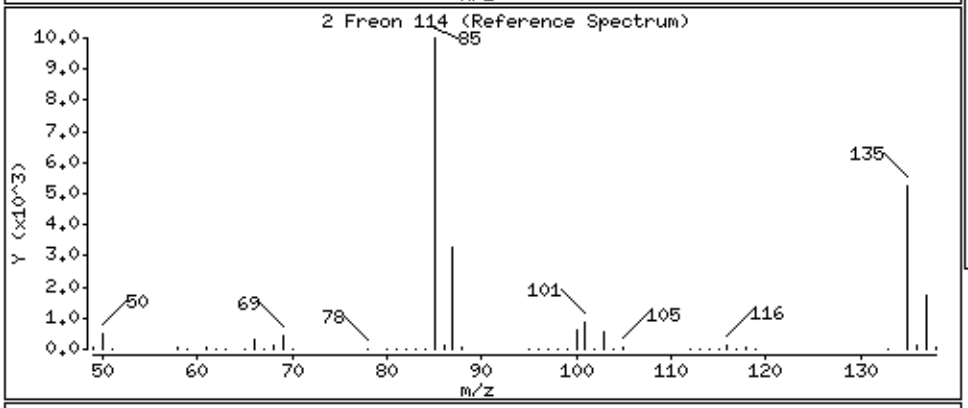
Concentration: 0.01527 PPBV

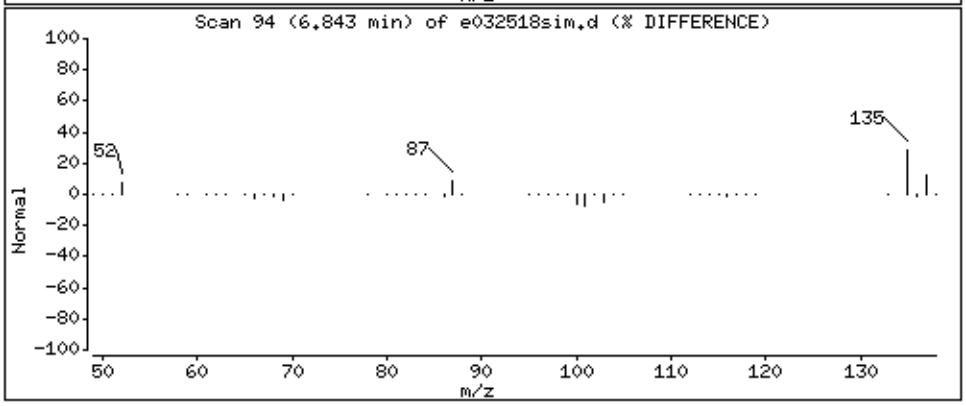












Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

3 Chloromethane

Concentration: 0.2152 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

5 Chloroethane

Concentration: 0.02700 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

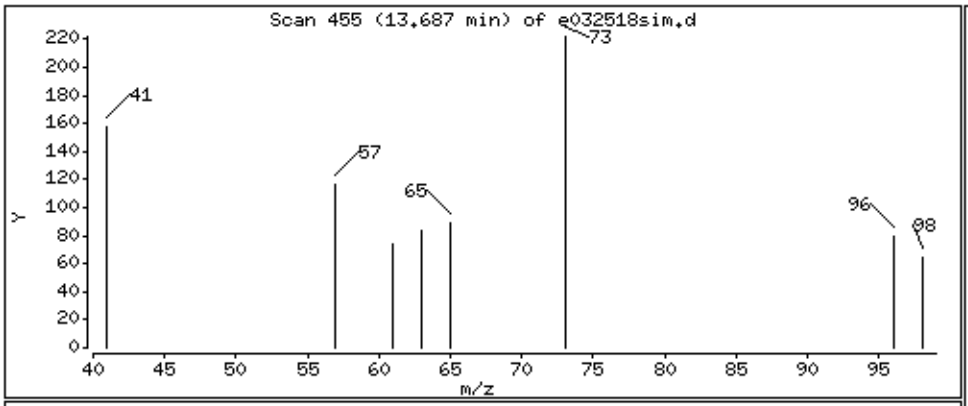
Operator: ef

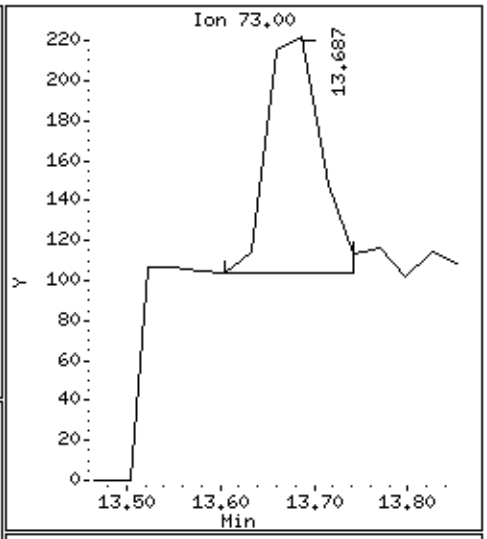
Column phase: RTX-624

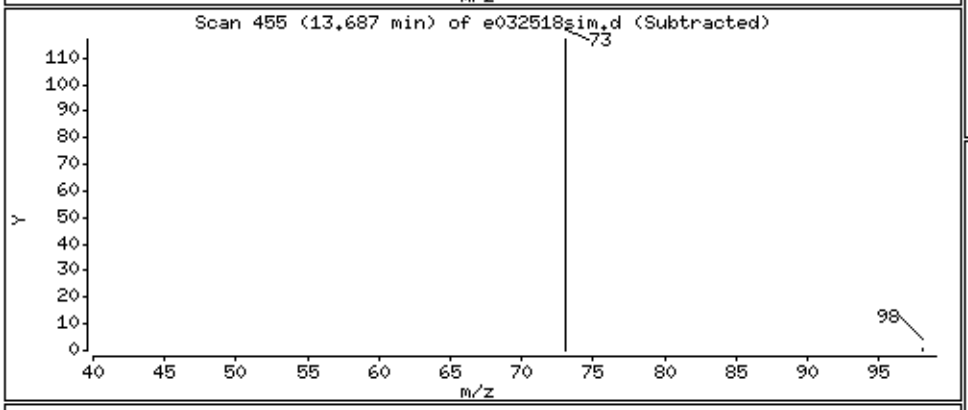
Column diameter: 0.32

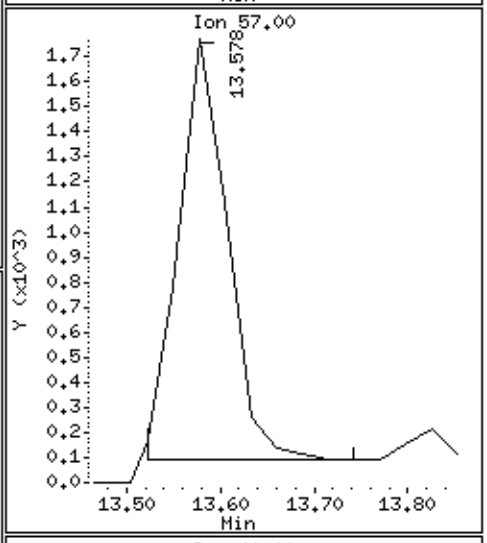
9 Methyl tert-butyl ether

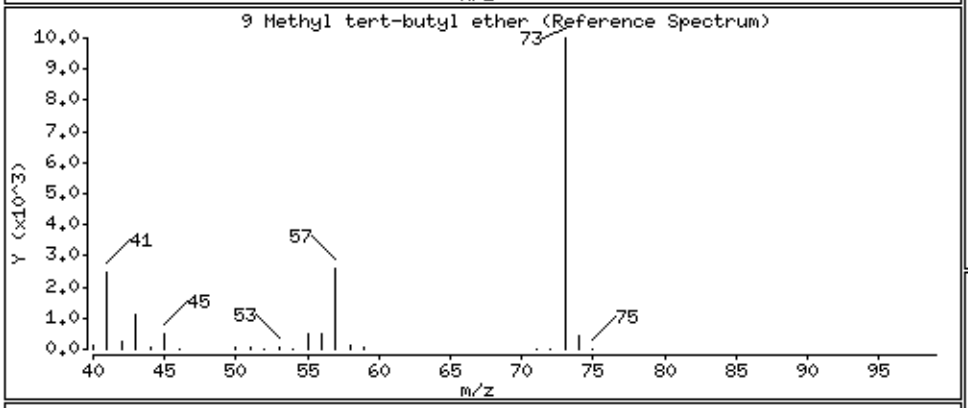
Concentration: 0.004578 PPBV

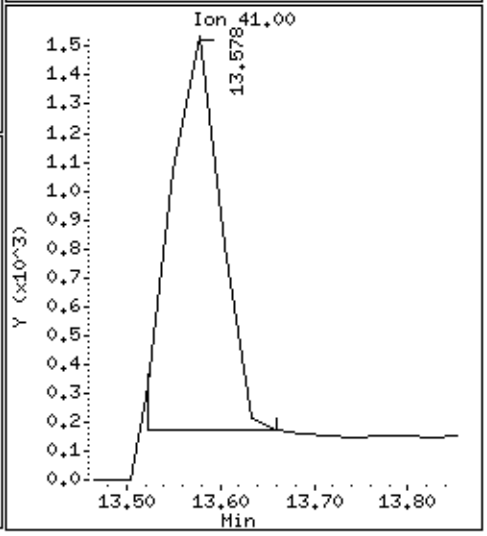


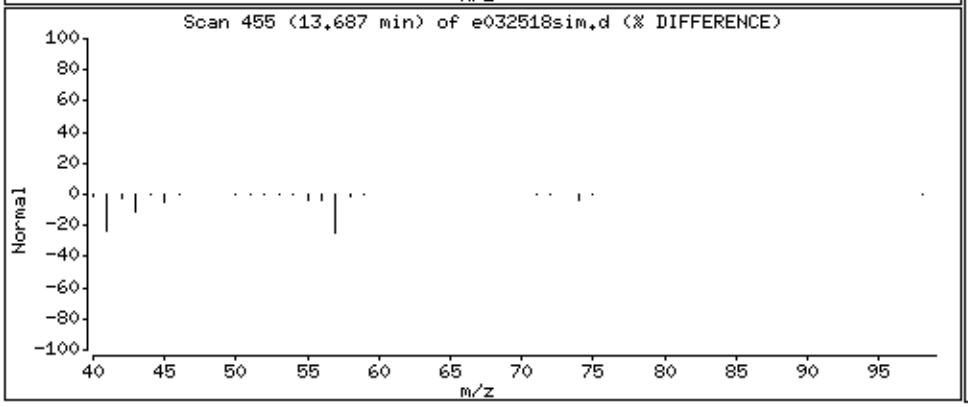












Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

14 Chloroform

Concentration: 0.01076 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

15 1,1,1-Trichloroethane

Concentration: 0.002565 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

16 Carbon Tetrachloride

Concentration: 0.04321 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

17 Benzene

Concentration: 0.1259 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

19 1,2-Dichloroethane

Concentration: 0.04372 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

21 Trichloroethene

Concentration: 0.01800 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

23 Toluene

Concentration: 0.4342 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

26 Tetrachloroethene

Concentration: 2.672 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

27 1,2-Dibromoethane (EDB)

Concentration: 0.003404 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

30 Ethyl Benzene

Concentration: 0.06037 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

31 m,p-Xylene

Concentration: 0.2310 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

32 o-Xylene

Concentration: 0.1205 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

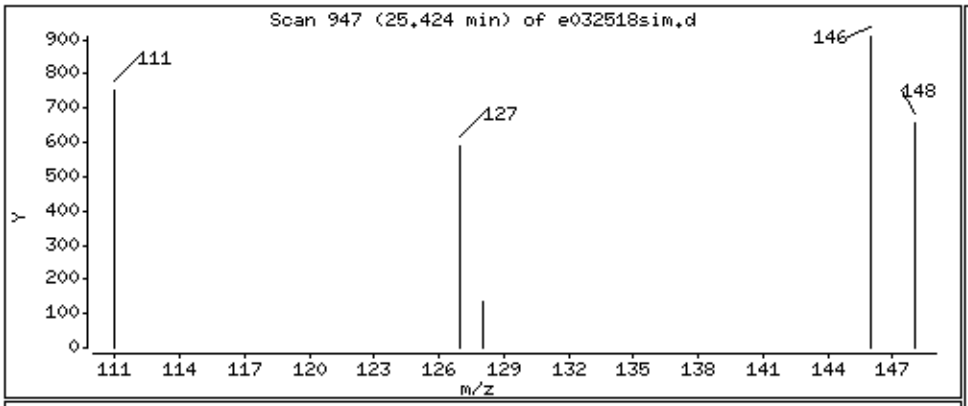
Operator: ef

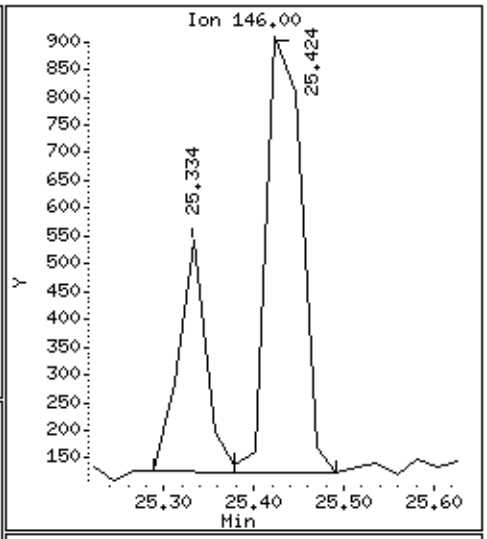
Column phase: RTX-624

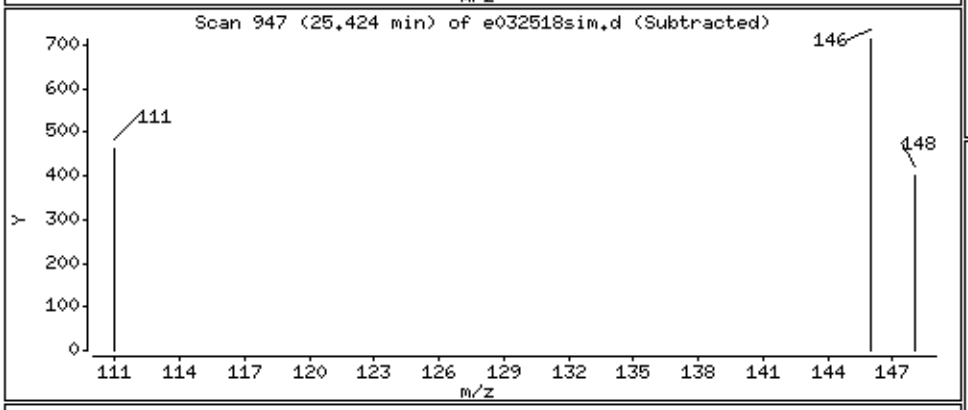
Column diameter: 0.32

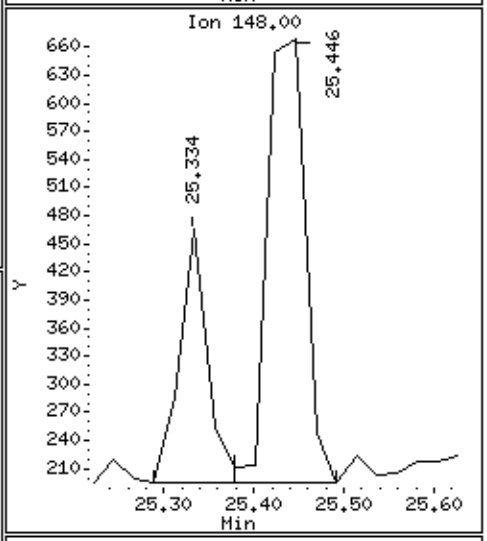
36 1,4-Dichlorobenzene

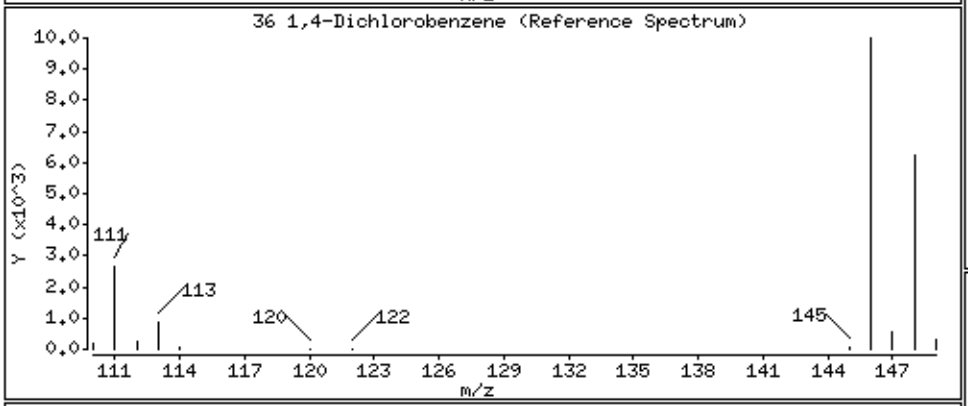
Concentration: 0.01685 PPBV

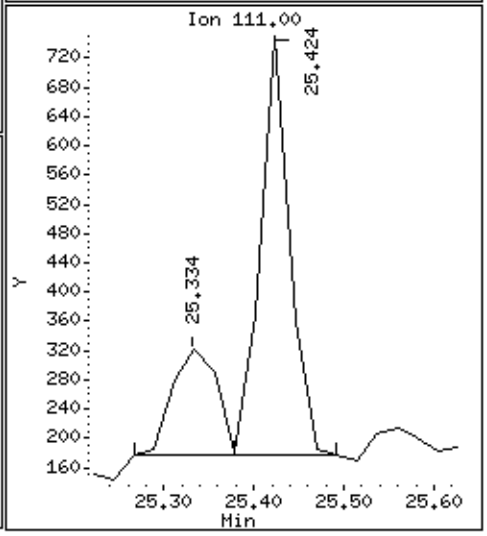


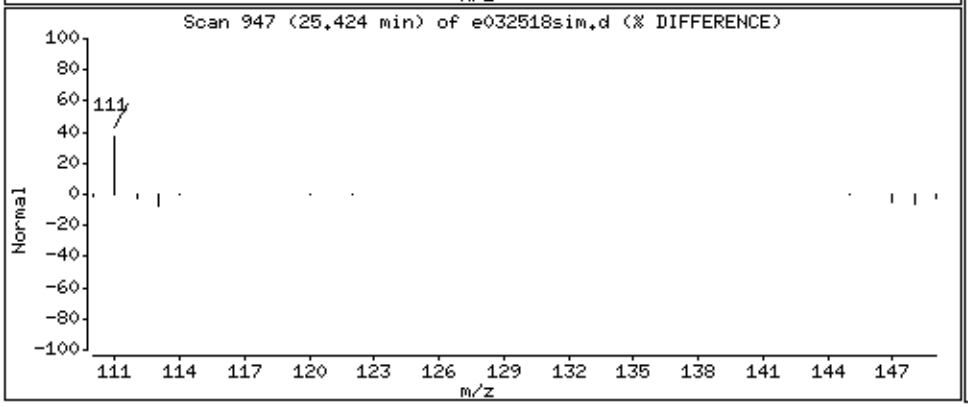












Data File: /chem/msde.i/25Mar2016.b/e032518sim.d

Date : 26-MAR-2016 08:10

Client ID:

Instrument: msde.i

Sample Info: 250mL# 24492

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

38 Naphthalene

Concentration: 0.04999 PPBV

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	IA-02		
Lab ID:	1603470-05A	**Date/Time Analyzed:**	3/28/16 04:14 PM
Date/Time Collecte	3/23/16 03:24 PM	**Dilution Factor:**	2.88
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032811sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.016	0.094	0.31	0.028 J
1,1,2,2-Tetrachloroethane	79-34-5	0.027	0.12	0.40	0.089 J
1,1,2-Trichloroethane	79-00-5	0.029	0.094	0.31	Not Detected
1,1-Dichloroethane	75-34-3	0.018	0.070	0.23	Not Detected
1,1-Dichloroethene	75-35-4	0.028	0.068	0.11	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.024	0.13	0.44	0.13 J
1,2-Dichloroethane	107-06-2	0.0083	0.070	0.23	2.0
1,4-Dichlorobenzene	106-46-7	0.030	0.10	0.35	0.32 J
Benzene	71-43-2	0.050	0.18	0.46	1.4
Carbon Tetrachloride	56-23-5	0.016	0.11	0.36	0.38
Chloroethane	75-00-3	0.053	0.15	0.38	0.060 J
Chloroform	67-66-3	0.024	0.084	0.28	0.11 J
Chloromethane	74-87-3	0.074	0.12	0.30	1.2
cis-1,2-Dichloroethene	156-59-2	0.021	0.068	0.23	0.033 J
Ethyl Benzene	100-41-4	0.018	0.075	0.25	1.0
Freon 114	76-14-2	0.024	0.12	0.40	0.10 J
Freon 12	75-71-8	0.035	0.085	0.28	1.8
m,p-Xylene	108-38-3	0.010	0.075	0.50	2.8
Methyl tert-butyl ether	1634-04-4	0.024	0.062	1.0	Not Detected
Naphthalene	91-20-3	0.20	0.30	0.75	0.54 J
o-Xylene	95-47-6	0.016	0.075	0.25	1.0
Tetrachloroethene	127-18-4	0.017	0.12	0.39	2.7
Toluene	108-88-3	0.012	0.065	0.22	7.3
trans-1,2-Dichloroethene	156-60-5	0.038	0.068	1.1	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	IA-02		
Lab ID:	1603470-05A	**Date/Time Analyzed:**	3/28/16 04:14 PM
Date/Time Collecte	3/23/16 03:24 PM	**Dilution Factor:**	2.88
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032811sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.038	0.093	0.31	0.13 J
Vinyl Chloride	75-01-4	0.011	0.044	0.074	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	99
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	100

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/28Mar2016.b/e032811sim.d
Lab Smp Id: 1603470-05A
Inj Date : 28-MAR-2016 16:14
Operator : ef Inst ID: msde.i
Smp Info : 125mL# 35973
Misc Info : 4.7"Hg -> 3.2psi
Comment : SIM - GC/MS
Method : /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 28-Mar-2016 11:48 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1
Dil Factor: 2.88000
Integrator: HP RTE Compound Sublist: EAE21143.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	2.88000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.493	5.469 (0.352)	85	23809	0.13033	0.3753	80.00- 120.00	100.00
5.493	5.493 (0.352)	87	7802			2.41- 62.41	32.77
2 Freon 114					CAS #: 76-14-2		
6.867	6.843 (0.440)	135	691	0.00521	0.01502	80.00- 120.00	100.00(a)
6.843	6.843 (0.439)	137	120			2.22- 62.22	17.47
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	7341	0.19716	0.5678	80.00- 120.00	100.00
7.180	7.180 (0.460)	52	3689			2.41- 62.41	50.26
5 Chloroethane					CAS #: 75-00-3		
10.209	10.209 (0.655)	64	193	0.00796	0.02294	80.00- 120.00	100.00(a)
10.038	10.209 (0.644)	66	243			3.01- 63.01	126.13
12 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.253	15.253 (0.978)	98	133	0.00291	0.008381	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
12 cis-1,2-Dichloroethene (continued)							
15.234	15.253 (0.977)	61	22770			146.50- 206.50	17030.38
15.253	15.253 (0.978)	96	311			124.34- 184.34	233.34
* 13 Bromochloromethane					CAS #: 74-97-5		
15.593	15.593 (1.000)	130	193956	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	148601			46.88- 106.88	76.62
15.563	15.562 (1.000)	49	163638			79.48- 139.48	84.37
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	1252	0.00799	0.02302	80.00- 120.00	100.00(a)
15.686	15.655 (1.006)	85	6904			35.71- 95.71	551.40
15 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.871	15.871 (1.018)	97	305	0.00178	0.005134	80.00- 120.00	100.00(a)
15.871	15.871 (1.018)	99	183			35.33- 95.33	60.00
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.087	16.087 (1.032)	117	3514	0.02084	0.06002	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	3325			67.29- 127.29	94.63
17 Benzene					CAS #: 71-43-2		
16.423	16.399 (0.969)	78	30741	0.14981	0.4314	80.00- 120.00	100.00
16.399	16.399 (0.967)	77	6792			0.00- 52.97	22.09
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	299721	4.93492	4.935	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	149151			21.84- 81.84	49.76
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	17392	0.16944	0.4880	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	5932			3.73- 63.73	34.11
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	808246	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	118944			0.00- 44.79	14.72
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	868	0.00838	0.02412	80.00- 120.00	100.00(a)
17.338	17.362 (1.023)	95	1474			65.34- 125.34	169.72
17.362	17.362 (1.024)	97	595			32.10- 92.10	68.55
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	738866	5.00042	5.000	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	77679			0.00- 40.53	10.51
19.570	19.570 (1.154)	100	485611			35.79- 95.79	65.72

	RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
	23 Toluene					CAS #: 108-88-3		
	19.727	19.727 (1.164)	91	154225	0.66920	1.927	80.00- 120.00	100.00
	19.727	19.727 (1.164)	92	90362			29.49- 89.49	58.59
	26 Tetrachloroethene					CAS #: 127-18-4		
	20.867	20.867 (0.932)	166	19062	0.14036	0.4042	80.00- 120.00	100.00
	20.867	20.867 (0.932)	129	13854			41.88- 101.88	72.68
	20.867	20.867 (0.932)	131	13358			40.10- 100.10	70.08
	27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
	21.691	21.691 (0.969)	107	825	0.00596	0.01716	80.00- 120.00	100.00(a)
	21.691	21.691 (0.969)	109	718			65.18- 125.18	87.02
*	28 Chlorobenzene-d5					CAS #: 3114-55-4		
	22.379	22.379 (1.000)	117	743392	5.00000		80.00- 120.00	100.00
	22.358	22.358 (1.000)	82	359717			19.34- 79.34	48.39
	30 Ethyl Benzene					CAS #: 100-41-4		
	22.483	22.483 (1.005)	106	7560	0.08090	0.2330	80.00- 120.00	100.00
	22.483	22.483 (1.005)	91	23686			278.88- 338.88	313.31
	31 m,p-Xylene					CAS #: 108-38-3		
	22.669	22.669 (1.013)	106	24921	0.22527	0.6488	80.00- 120.00	100.00
	22.669	22.669 (1.013)	91	49860			169.32- 229.32	200.07
	32 o-Xylene					CAS #: 95-47-6		
	23.271	23.271 (1.040)	106	8417	0.07986	0.2300	80.00- 120.00	100.00
	23.271	23.271 (1.040)	91	18237			179.11- 239.11	216.68
$	33 4-Bromofluorobenzene					CAS #: 460-00-4		
	24.034	24.034 (1.074)	174	489440	4.96200	4.962	80.00- 120.00	100.00
	24.034	24.034 (1.074)	95	520609			77.34- 137.34	106.37
	24.034	24.034 (1.074)	176	477703			67.97- 127.97	97.60
	34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
	24.191	24.213 (1.081)	83	757	0.00451	0.01298	80.00- 120.00	100.00(a)
	24.213	24.213 (1.082)	85	514			35.73- 95.73	67.85
	36 1,4-Dichlorobenzene					CAS #: 106-46-7		
	25.424	25.424 (1.136)	146	3536	0.01877	0.05406	80.00- 120.00	100.00(a)
	25.424	25.424 (1.136)	148	2285			35.15- 95.15	64.63
	25.424	25.424 (1.136)	111	2266			6.91- 66.91	64.10
	38 Naphthalene					CAS #: 91-20-3		
	27.935	27.935 (1.248)	128	4078	0.03579	0.1031	80.00- 120.00	100.00(a)
	27.935	27.935 (1.248)	127	809			0.00- 42.33	19.86

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032811sim.d
Lab Smp Id: 1603470-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 4.7"Hg -> 3.2psi

Calibration Date: 28-MAR-2016
Calibration Time: 10:19
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	190819	114491	267147	193956	1.64
20 1,4-Difluorobenze	801879	481127	1122631	808246	0.79
28 Chlorobenzene-d5	718505	431103	1005907	743392	3.46

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 02-Apr-2016 09:23

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 28Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1603470-05A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: EAE21143.sub
Method File: /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 4.7"Hg -> 3.2psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18 1,2-Dichloroethane	5.000	4.935	98.70	70-130
$ 22 Toluene-d8	5.000	5.000	100.01	70-130
$ 33 4-Bromofluorobenze	5.000	4.962	99.24	70-130

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

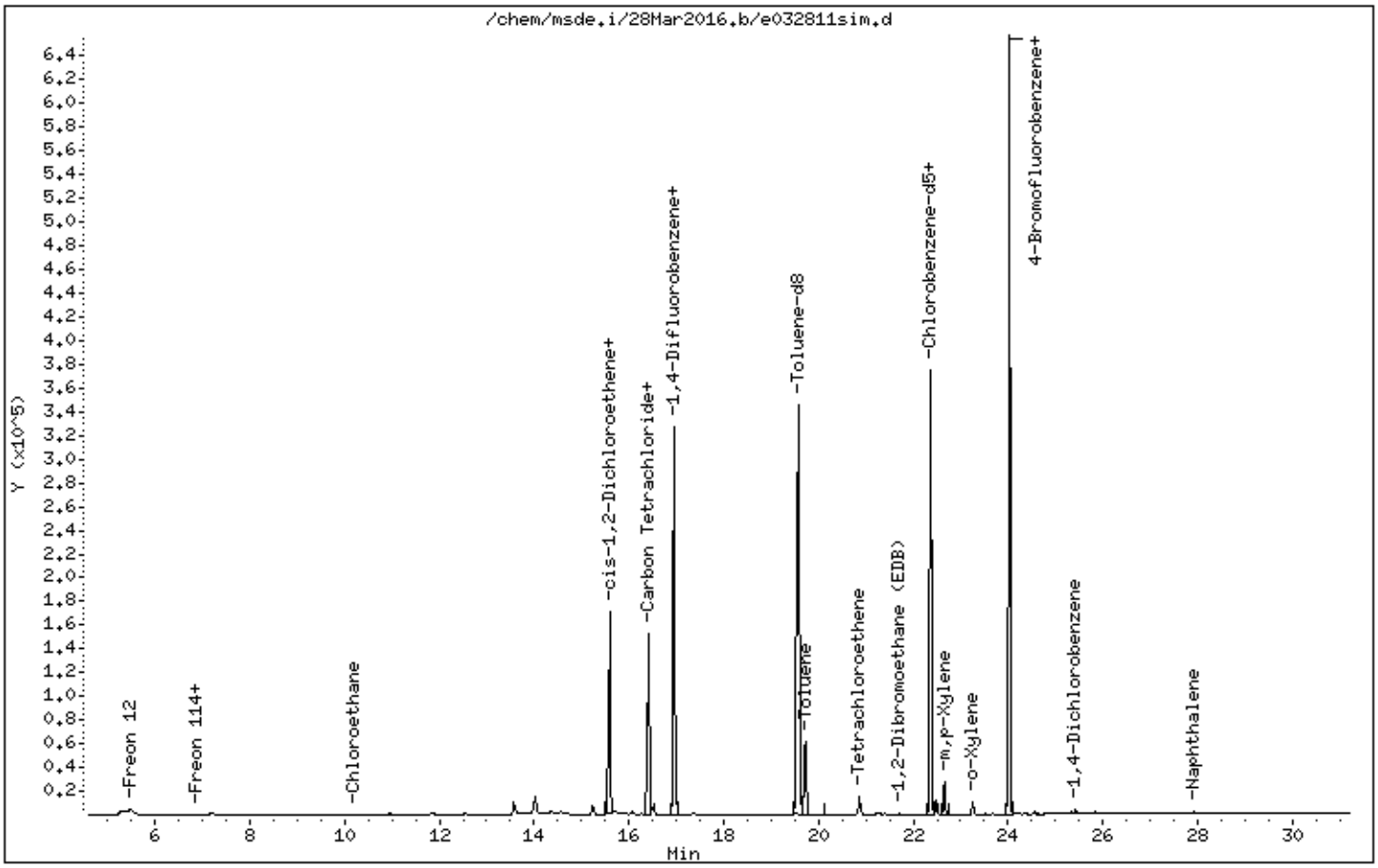
Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

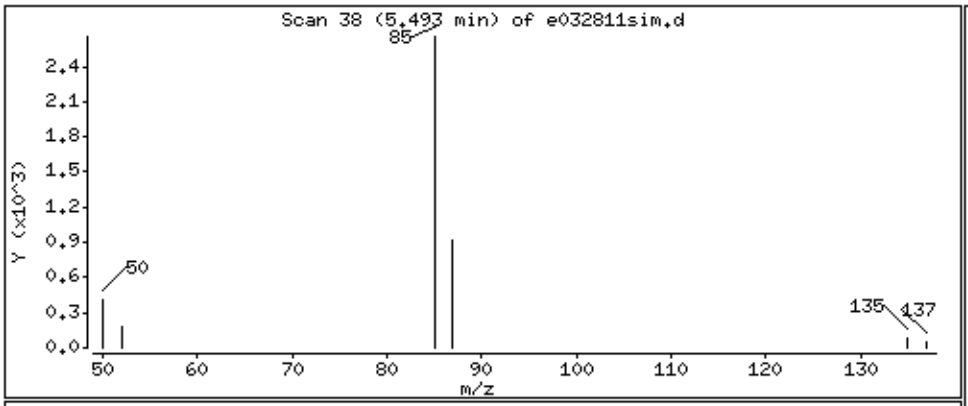
Operator: ef

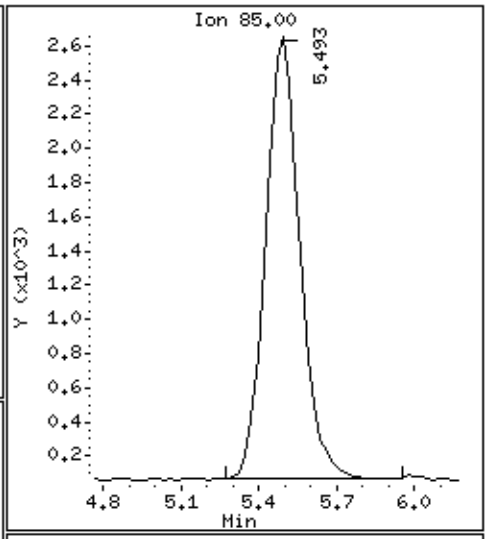
Column phase: RTX-624

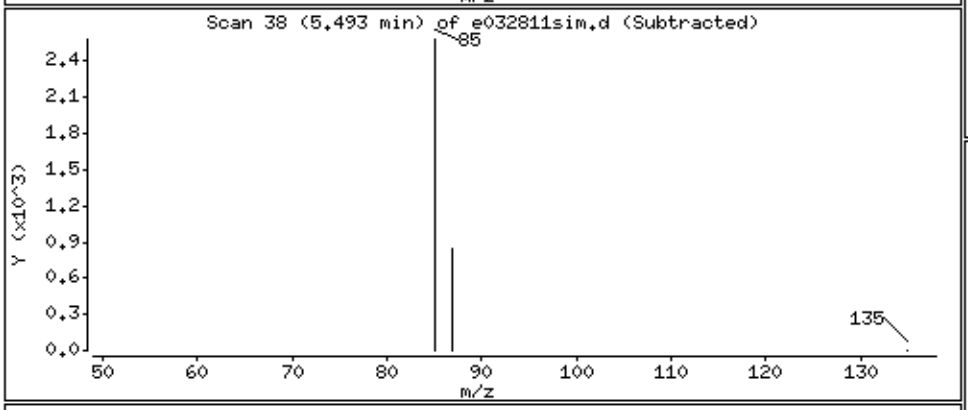
Column diameter: 0.32

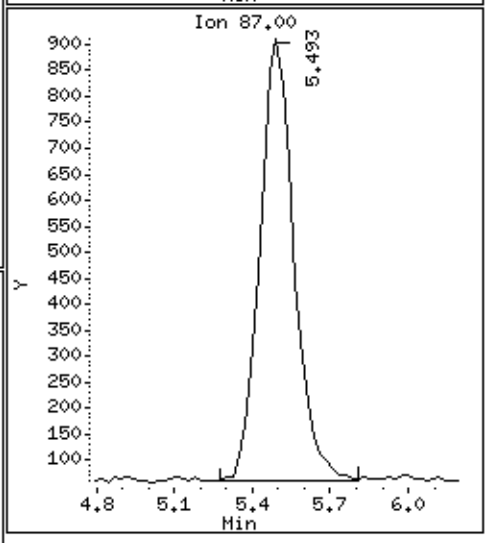
1 Freon 12

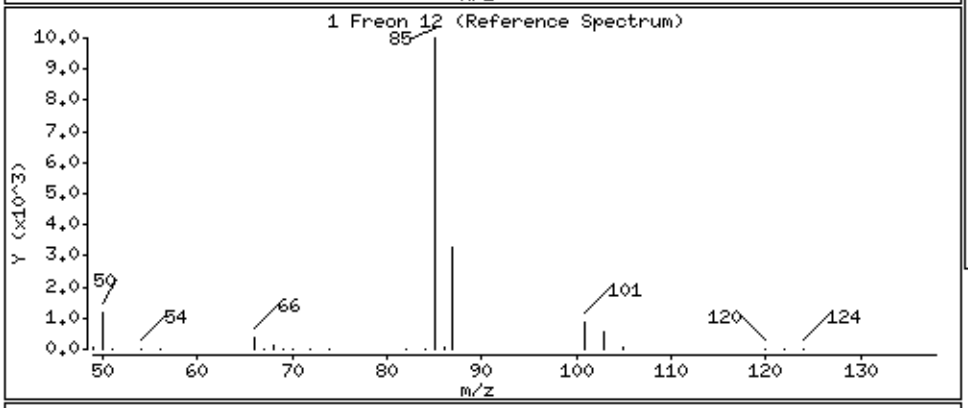
Concentration: 0.3753 PPBV

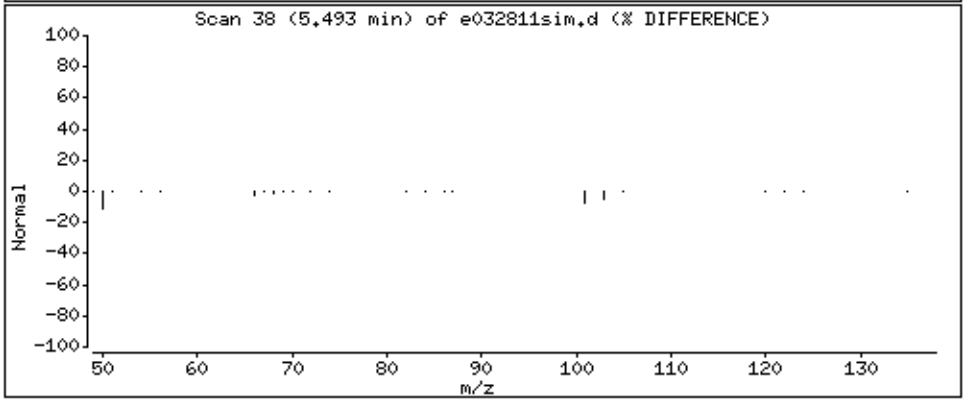












Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

2 Freon 114

Concentration: 0.01502 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

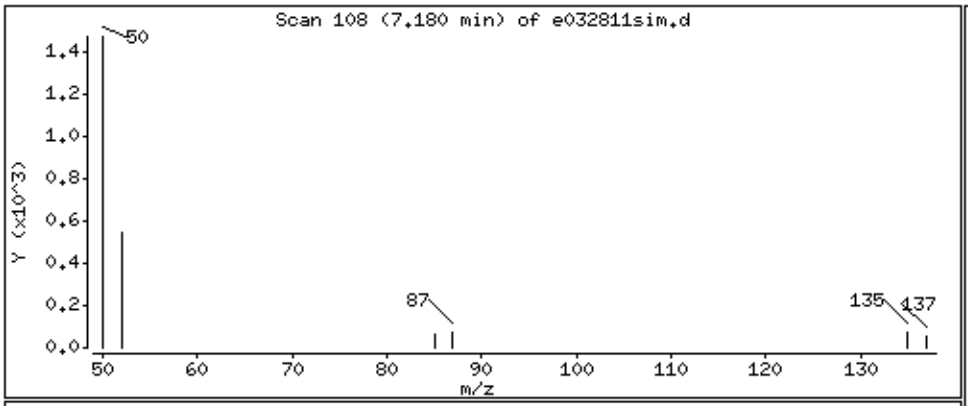
Operator: ef

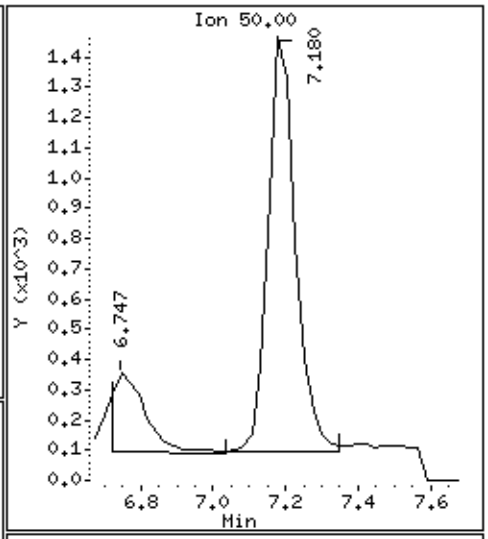
Column phase: RTX-624

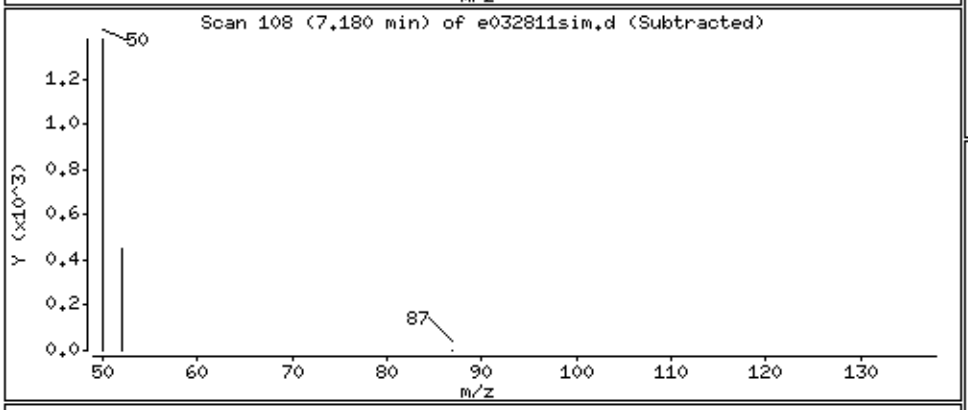
Column diameter: 0.32

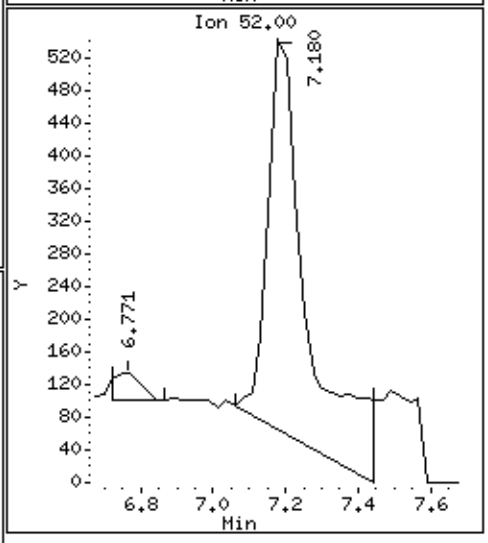
3 Chloromethane

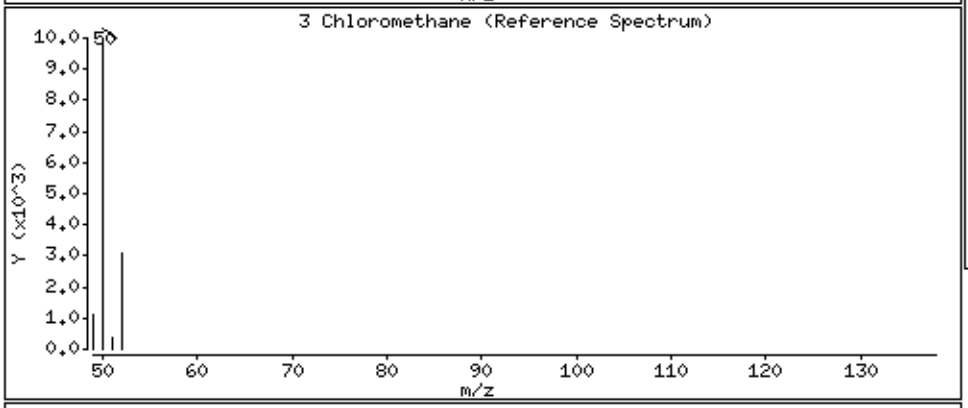
Concentration: 0.5678 PPBV

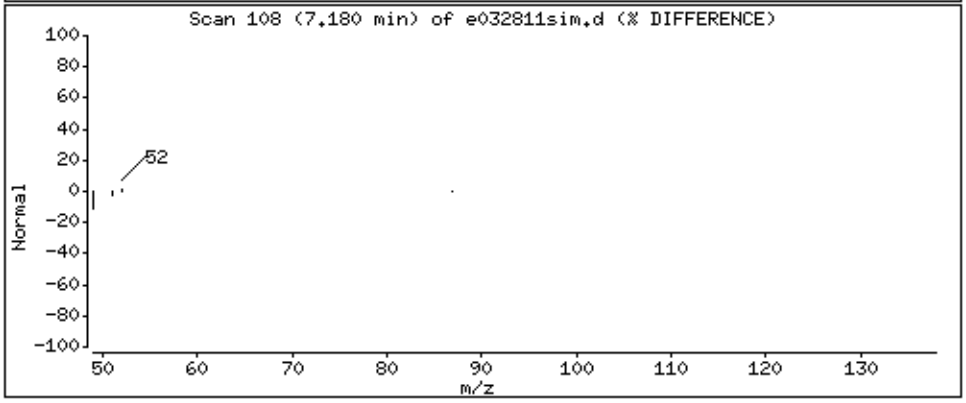












Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

5 Chloroethane

Concentration: 0.02294 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

12 cis-1,2-Dichloroethene

Concentration: 0.008381 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

14 Chloroform

Concentration: 0.02302 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

15 1,1,1-Trichloroethane

Concentration: 0.005134 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

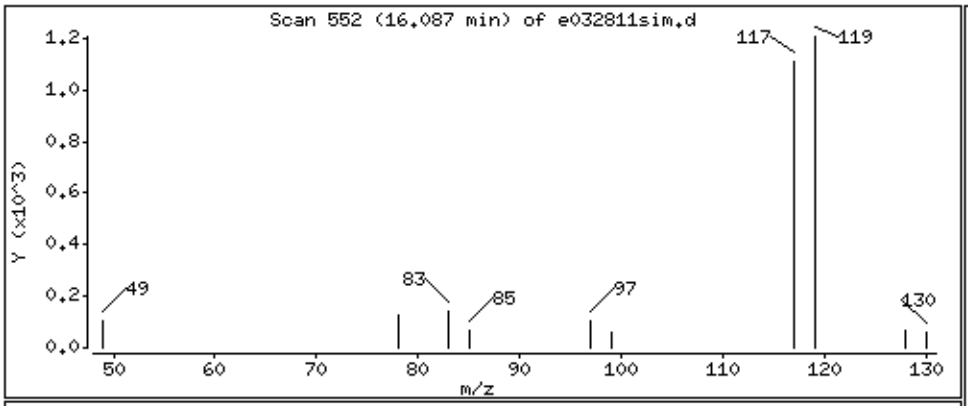
Operator: ef

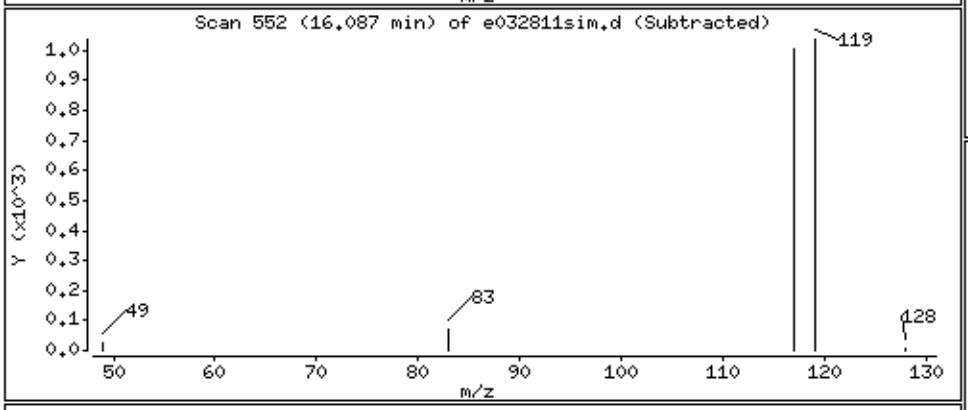
Column phase: RTX-624

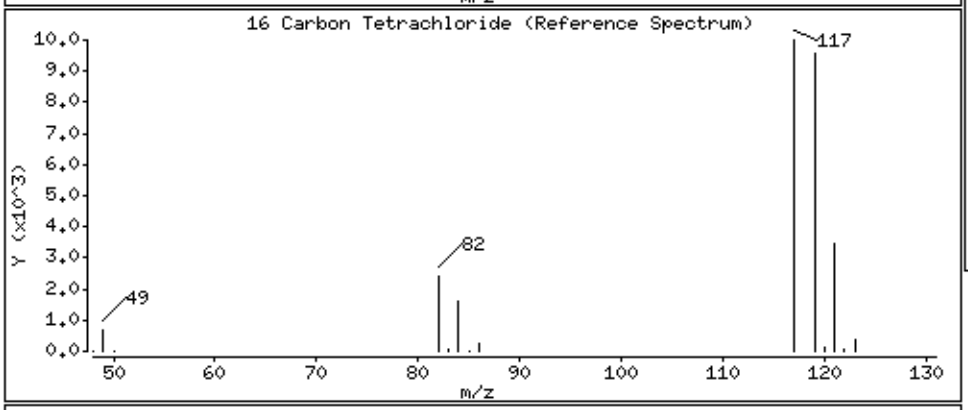
Column diameter: 0.32

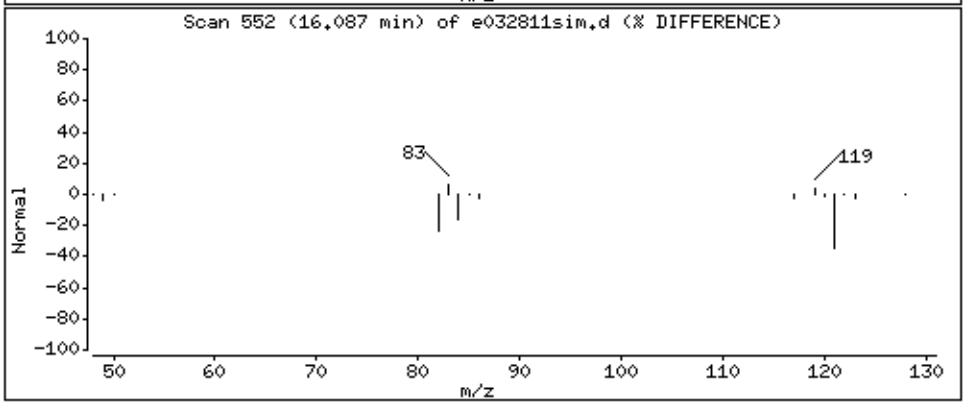
16 Carbon Tetrachloride

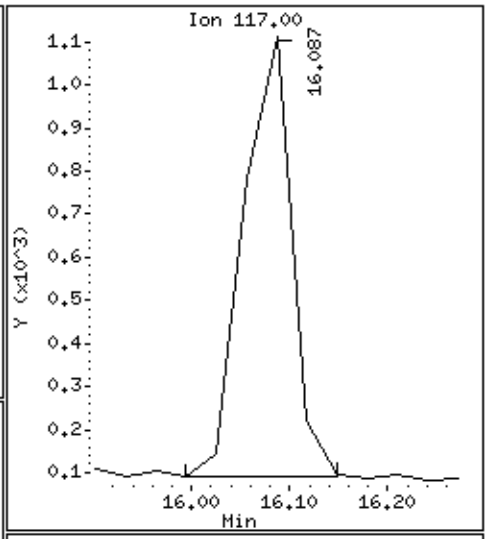
Concentration: 0.06002 PPBV

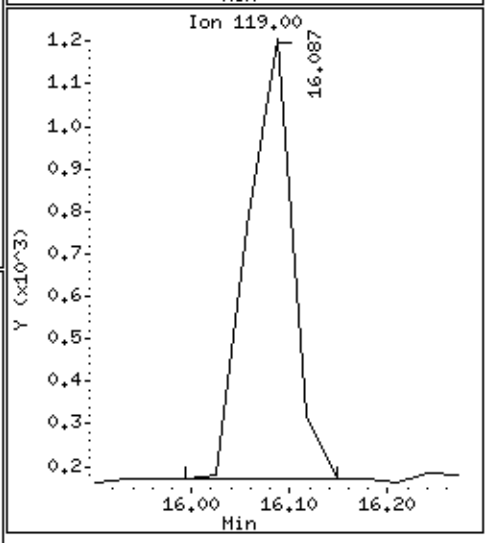












Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

17 Benzene

Concentration: 0.4314 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

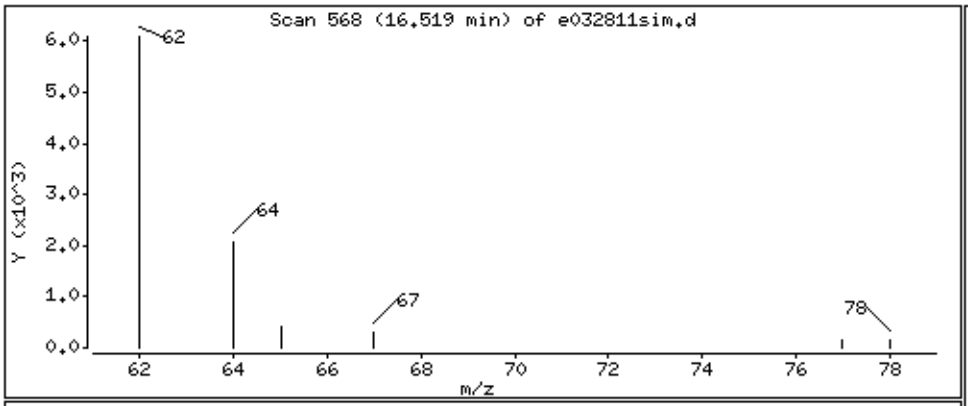
Operator: ef

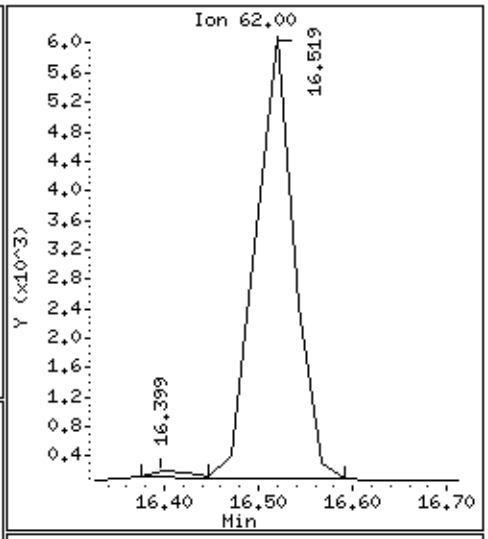
Column phase: RTX-624

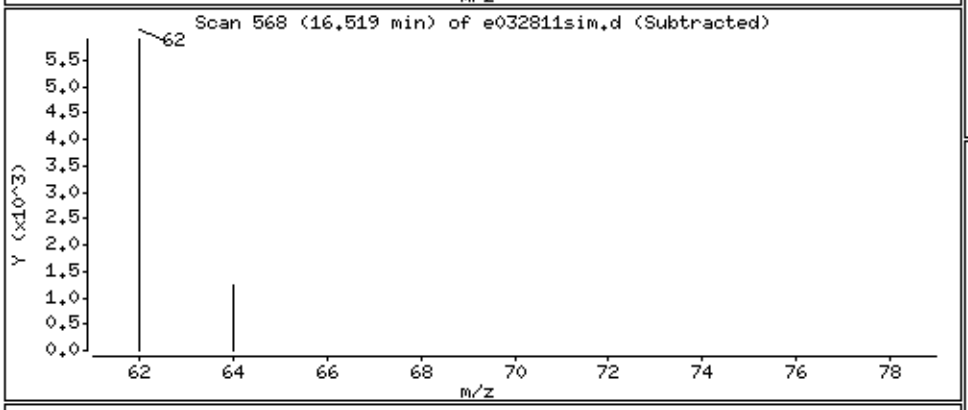
Column diameter: 0.32

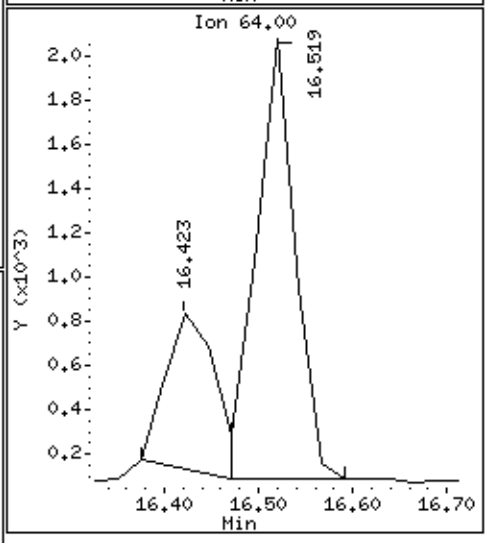
19 1,2-Dichloroethane

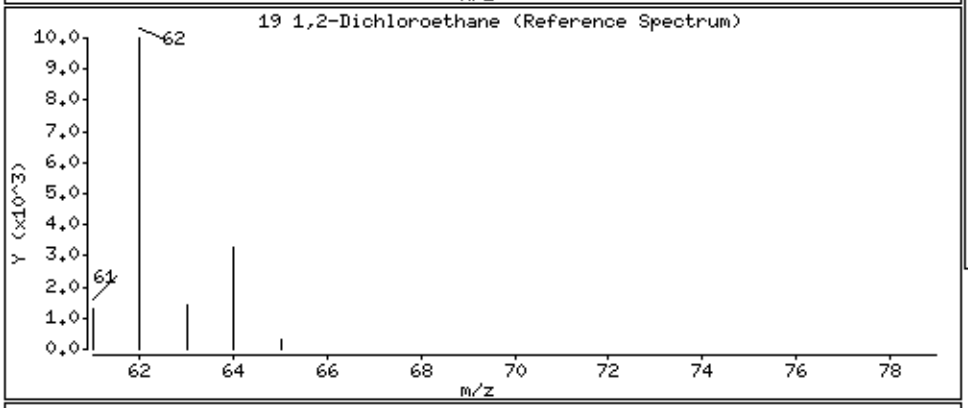
Concentration: 0.4880 PPBV

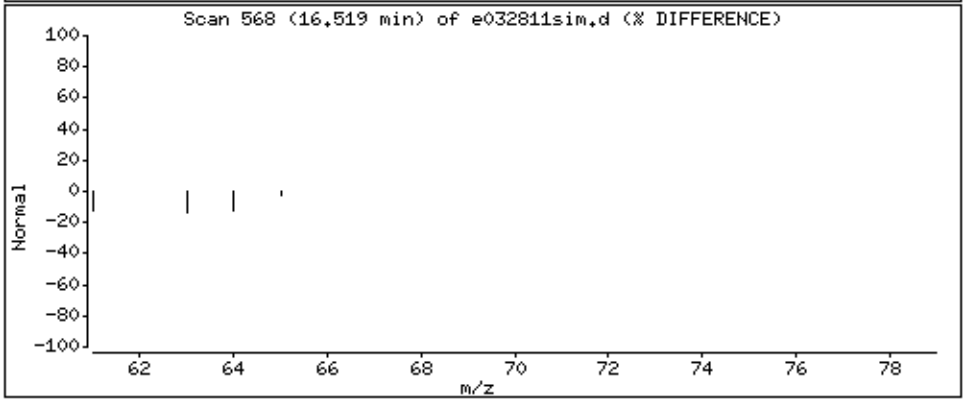












Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

21 Trichloroethene

Concentration: 0.02412 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

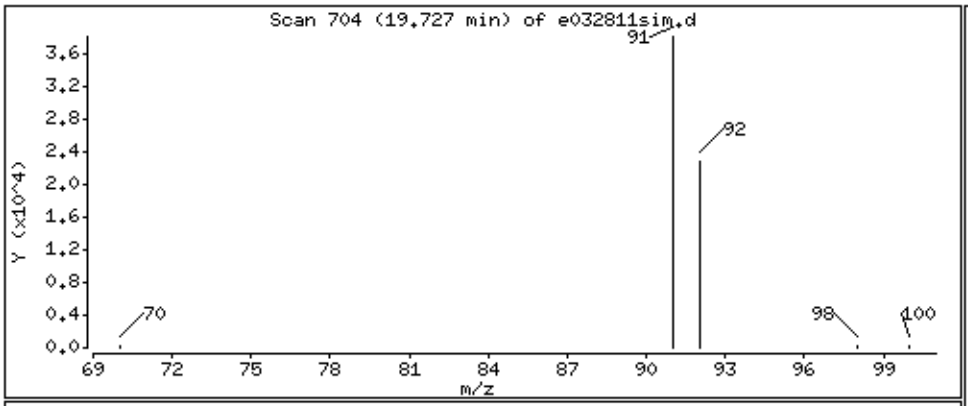
Operator: ef

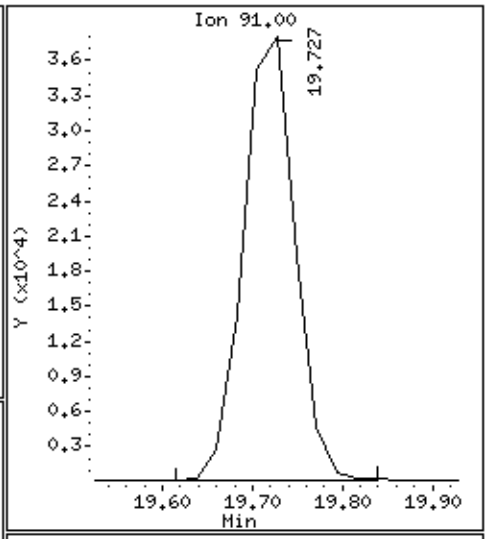
Column phase: RTX-624

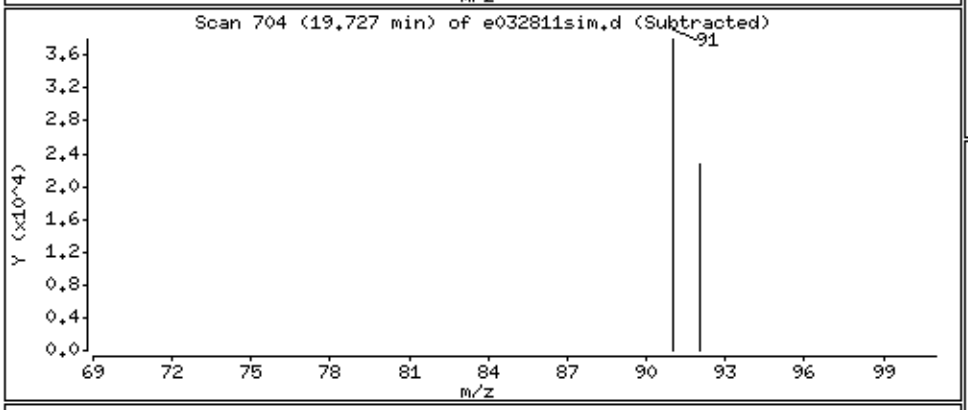
Column diameter: 0.32

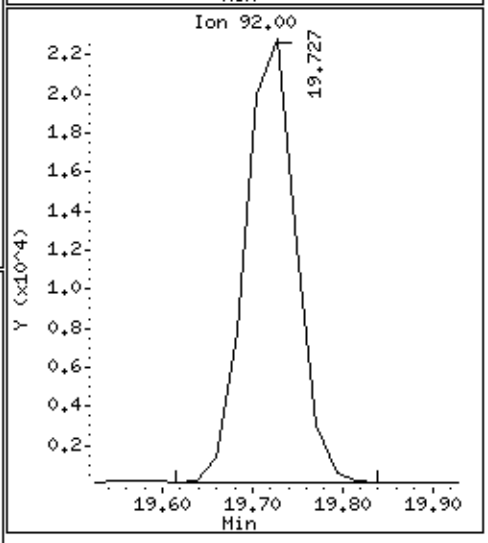
23 Toluene

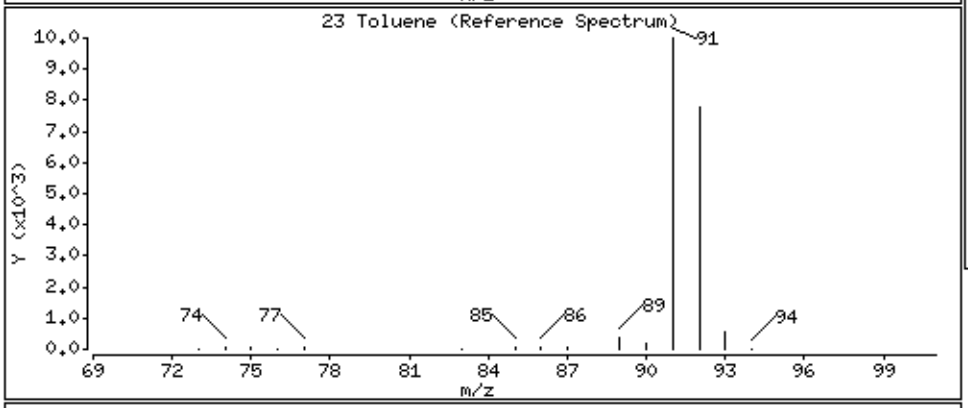
Concentration: 1.927 PPBV

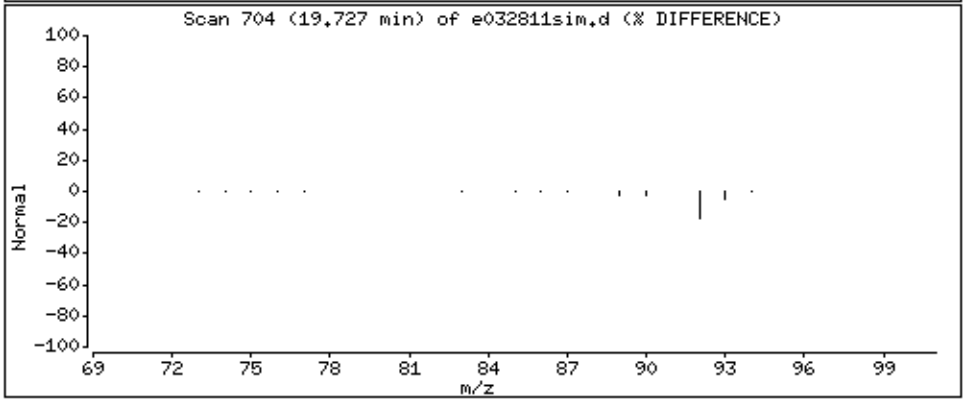












Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

26 Tetrachloroethene

Concentration: 0.4042 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

27 1,2-Dibromoethane (EDB)

Concentration: 0.01716 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

30 Ethyl Benzene

Concentration: 0.2330 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

31 m,p-Xylene

Concentration: 0.6488 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

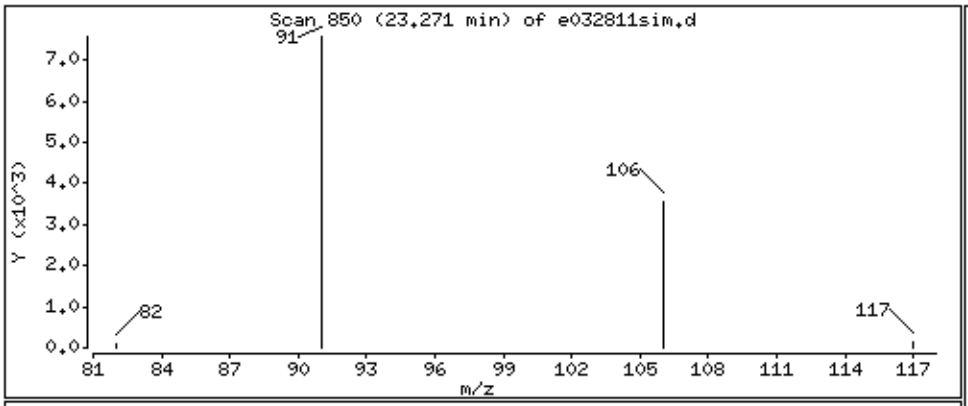
Operator: ef

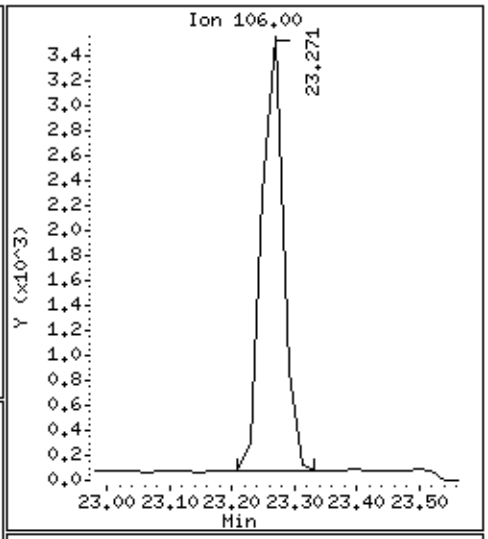
Column phase: RTX-624

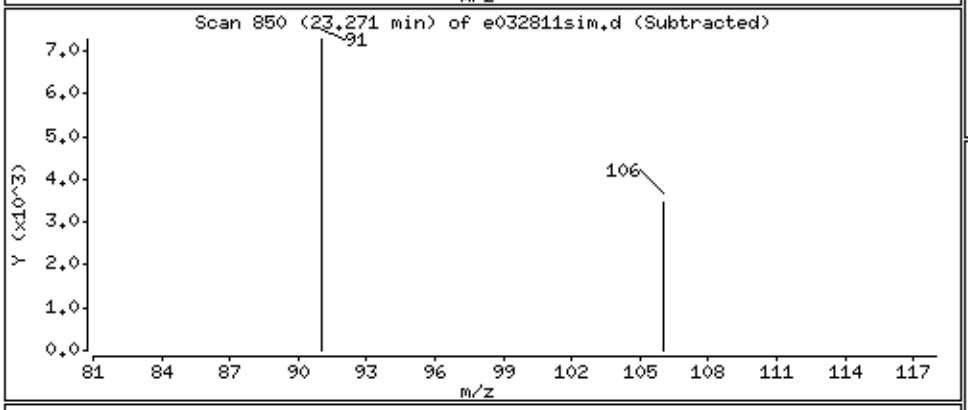
Column diameter: 0.32

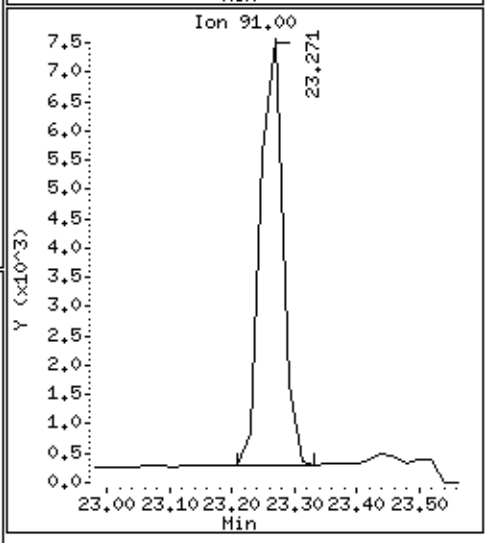
32 o-Xylene

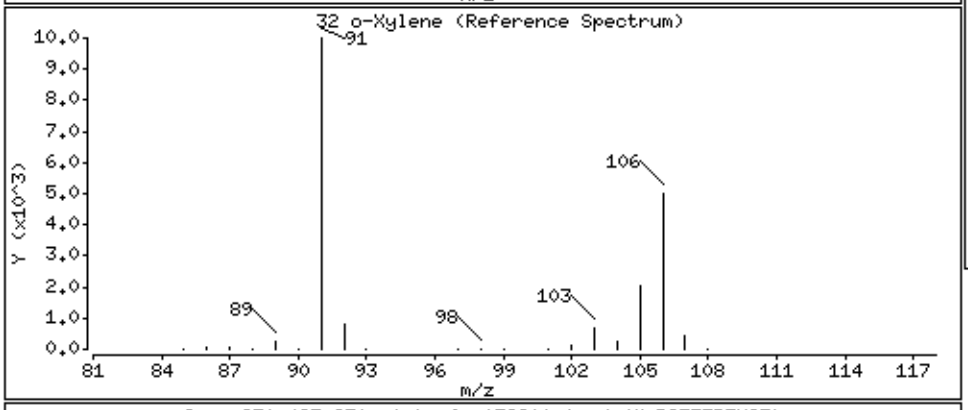
Concentration: 0.2300 PPBV

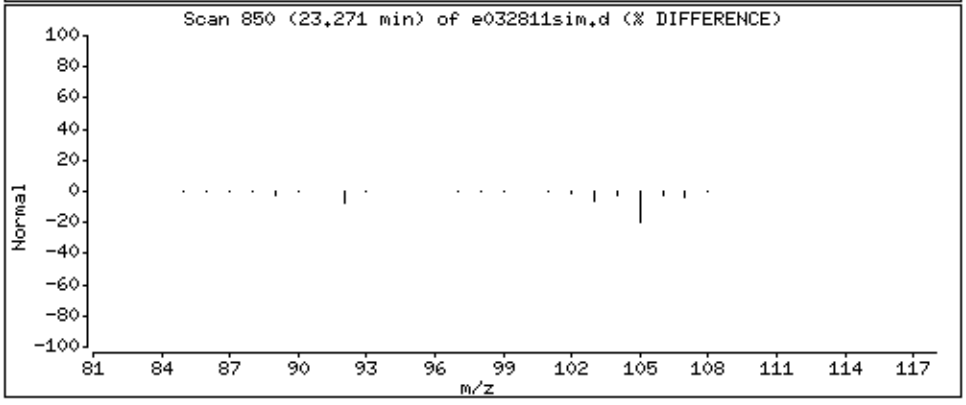












Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

34 1,1,2,2-Tetrachloroethane

Concentration: 0.01298 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

36 1,4-Dichlorobenzene

Concentration: 0.05406 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032811sim.d

Date : 28-MAR-2016 16:14

Client ID:

Instrument: msde.i

Sample Info: 125mL# 35973

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

38 Naphthalene

Concentration: 0.1031 PPBV

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

eurofins | Air Toxics

Client ID:	SG-02		
Lab ID:	1603470-06A	**Date/Time Analyzed:**	3/26/16 08:52 AM
Date/Time Collecte	3/23/16 02:26 PM	**Dilution Factor:**	1.49
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032519sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0084	0.049	0.16	0.046 J
1,1,2,2-Tetrachloroethane	79-34-5	0.014	0.061	0.20	Not Detected
1,1,2-Trichloroethane	79-00-5	0.015	0.049	0.16	Not Detected
1,1-Dichloroethane	75-34-3	0.0094	0.036	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.015	0.035	0.059	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.012	0.069	0.23	0.049 J
1,2-Dichloroethane	107-06-2	0.0043	0.036	0.12	0.36
1,4-Dichlorobenzene	106-46-7	0.015	0.054	0.18	0.062 J
Benzene	71-43-2	0.026	0.095	0.24	3.0
Carbon Tetrachloride	56-23-5	0.0085	0.056	0.19	0.25
Chloroethane	75-00-3	0.028	0.079	0.20	0.097 J
Chloroform	67-66-3	0.012	0.044	0.14	Not Detected
Chloromethane	74-87-3	0.038	0.062	0.15	0.92
cis-1,2-Dichloroethene	156-59-2	0.011	0.035	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0090	0.039	0.13	1.3
Freon 114	76-14-2	0.013	0.062	0.21	0.13 J
Freon 12	75-71-8	0.018	0.044	0.15	1.7
m,p-Xylene	108-38-3	0.0054	0.039	0.26	2.1
Methyl tert-butyl ether	1634-04-4	0.012	0.032	0.54	0.037 J
Naphthalene	91-20-3	0.10	0.16	0.39	0.30 J
o-Xylene	95-47-6	0.0080	0.039	0.13	0.96
Tetrachloroethene	127-18-4	0.0087	0.061	0.20	33
Toluene	108-88-3	0.0062	0.034	0.11	5.8
trans-1,2-Dichloroethene	156-60-5	0.020	0.035	0.59	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	SG-02		
Lab ID:	1603470-06A	**Date/Time Analyzed:**	3/26/16 08:52 AM
Date/Time Collecte	3/23/16 02:26 PM	**Dilution Factor:**	1.49
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032519sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.020	0.048	0.16	0.10 J
Vinyl Chloride	75-01-4	0.0059	0.023	0.038	0.036 J

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	105
4-Bromofluorobenzene	460-00-4	70-130	102
Toluene-d8	2037-26-5	70-130	101

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032519sim.d
Lab Smp Id: 1603470-06A
Inj Date : 26-MAR-2016 08:52
Operator : ef Inst ID: msde.i
Smp Info : 250mL# R-14
Misc Info : 5.5"Hg -> 3.2psi
Comment : SIM - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 25-Mar-2016 15:18 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1
Dil Factor: 1.49000
Integrator: HP RTE Compound Sublist: EAE21143.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.49000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.493	5.469 (0.352)	85	41215	0.23417	0.3489	80.00- 120.00	100.00
5.493	5.469 (0.352)	87	13575			2.41- 62.41	32.94
2 Freon 114					CAS #: 76-14-2		
6.843	6.819 (0.439)	135	1566	0.01227	0.01828	80.00- 120.00	100.00(a)
6.867	6.819 (0.440)	137	426			2.22- 62.22	27.24
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	10764	0.30009	0.4471	80.00- 120.00	100.00(M)
7.204	7.180 (0.462)	52	3538			2.41- 62.41	32.88
4 Vinyl Chloride					CAS #: 75-01-4		
8.007	8.007 (0.513)	62	445	0.00961	0.01431	80.00- 120.00	100.00(a)
8.180	8.007 (0.525)	64	164			4.08- 64.08	36.91
5 Chloroethane					CAS #: 75-00-3		
10.209	10.190 (0.655)	64	574	0.02459	0.03664	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
	5 Chloroethane (continued)						
10.209	10.190 (0.655)	66	177			3.01- 63.01	30.82
	9 Methyl tert-butyl ether				CAS #: 1634-04-4		
13.687	13.660 (0.878)	73	1113	0.00691	0.01029	80.00- 120.00	100.00(a)
13.605	13.660 (0.872)	57	117466			0.00- 47.74	10548.87
13.577	13.660 (0.871)	41	80655			0.00- 45.64	7243.12
*	13 Bromochloromethane				CAS #: 74-97-5		
15.593	15.594 (1.000)	130	186856	5.00000		80.00- 120.00	100.00
15.593	15.594 (1.000)	128	143630			46.88- 106.88	76.87
15.593	15.594 (1.000)	49	154648			79.48- 139.48	82.76
	15 1,1,1-Trichloroethane				CAS #: 71-55-6		
15.840	15.871 (1.016)	97	924	0.00561	0.008353	80.00- 120.00	100.00(a)
15.840	15.871 (1.016)	99	1161			35.33- 95.33	125.60
	16 Carbon Tetrachloride				CAS #: 56-23-5		
16.087	16.087 (1.032)	117	4399	0.02708	0.04035	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	4324			67.29- 127.29	98.28
	17 Benzene				CAS #: 71-43-2		
16.423	16.423 (0.969)	78	129939	0.62837	0.9363	80.00- 120.00	100.00
16.423	16.423 (0.969)	77	48089			0.00- 52.97	37.01
$	18 1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.423	16.399 (1.053)	65	307016	5.24711	5.247	80.00- 120.00	100.00
16.423	16.399 (1.053)	67	160095			21.84- 81.84	52.15
	19 1,2-Dichloroethane				CAS #: 107-06-2		
16.519	16.519 (0.974)	62	6162	0.05957	0.08876	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	2271			3.73- 63.73	36.86
*	20 1,4-Difluorobenzene				CAS #: 540-36-3		
16.953	16.953 (1.000)	114	814472	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	120757			0.00- 44.79	14.83
	21 Trichloroethene				CAS #: 79-01-6		
17.362	17.362 (1.024)	130	1344	0.01287	0.01918	80.00- 120.00	100.00(a)
17.362	17.362 (1.024)	95	2157			65.34- 125.34	160.44
17.362	17.362 (1.024)	97	669			32.10- 92.10	49.79
$	22 Toluene-d8				CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	749737	5.03521	5.035	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	88382			0.00- 40.53	11.79
19.570	19.570 (1.154)	100	493934			35.79- 95.79	65.88

	RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
	23 Toluene					CAS #: 108-88-3		
	19.727	19.727 (1.164)	91	241890	1.04156	1.552	80.00- 120.00	100.00
	19.727	19.727 (1.164)	92	137738			29.49- 89.49	56.94
	26 Tetrachloroethene					CAS #: 127-18-4		
	20.867	20.867 (0.932)	166	447191	3.29952	4.916	80.00- 120.00	100.00
	20.867	20.867 (0.932)	129	325112			41.88- 101.88	72.70
	20.867	20.867 (0.932)	131	312612			40.10- 100.10	69.91
	27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
	21.691	21.691 (0.969)	107	594	0.00430	0.006404	80.00- 120.00	100.00(a)
	21.691	21.691 (0.969)	109	1343			65.18- 125.18	226.04
*	28 Chlorobenzene-d5					CAS #: 3114-55-4		
	22.379	22.379 (1.000)	117	741894	5.00000		80.00- 120.00	100.00
	22.379	22.379 (1.000)	82	367181			19.34- 79.34	49.49
	30 Ethyl Benzene					CAS #: 100-41-4		
	22.503	22.483 (1.006)	106	19410	0.20812	0.3101	80.00- 120.00	100.00
	22.483	22.483 (1.005)	91	60085			278.88- 338.88	309.56
	31 m,p-Xylene					CAS #: 108-38-3		
	22.669	22.670 (1.013)	106	35522	0.32175	0.4794	80.00- 120.00	100.00
	22.669	22.670 (1.013)	91	72252			169.32- 229.32	203.40
	32 o-Xylene					CAS #: 95-47-6		
	23.271	23.271 (1.040)	106	15682	0.14910	0.2222	80.00- 120.00	100.00
	23.271	23.271 (1.040)	91	34411			179.11- 239.11	219.43
$	33 4-Bromofluorobenzene					CAS #: 460-00-4		
	24.034	24.034 (1.074)	174	499730	5.07655	5.076	80.00- 120.00	100.00
	24.034	24.034 (1.074)	95	529417			77.34- 137.34	105.94
	24.034	24.034 (1.074)	176	488707			67.97- 127.97	97.79
	36 1,4-Dichlorobenzene					CAS #: 106-46-7		
	25.424	25.424 (1.136)	146	1303	0.00693	0.01033	80.00- 120.00	100.00(a)
	25.446	25.424 (1.137)	148	893			35.15- 95.15	68.52
	25.424	25.424 (1.136)	111	1160			6.91- 66.91	89.06
	38 Naphthalene					CAS #: 91-20-3		
	27.935	27.935 (1.248)	128	4320	0.03799	0.05661	80.00- 120.00	100.00(a)
	27.935	27.935 (1.248)	127	858			0.00- 42.33	19.86

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032519sim.d
Lab Smp Id: 1603470-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.5"Hg -> 3.2psi

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	200624	120374	280874	186856	-6.86
20 1,4-Difluorobenze	838688	503213	1174163	814472	-2.89
28 Chlorobenzene-d5	748894	449336	1048452	741894	-0.93

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 02-Apr-2016 09:19

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 26Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1603470-06A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: EAE21143.sub
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.5"Hg -> 3.2psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18 1,2-Dichloroethane	5.000	5.247	104.94	70-130
$ 22 Toluene-d8	5.000	5.035	100.70	70-130
$ 33 4-Bromofluorobenze	5.000	5.076	101.53	70-130

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

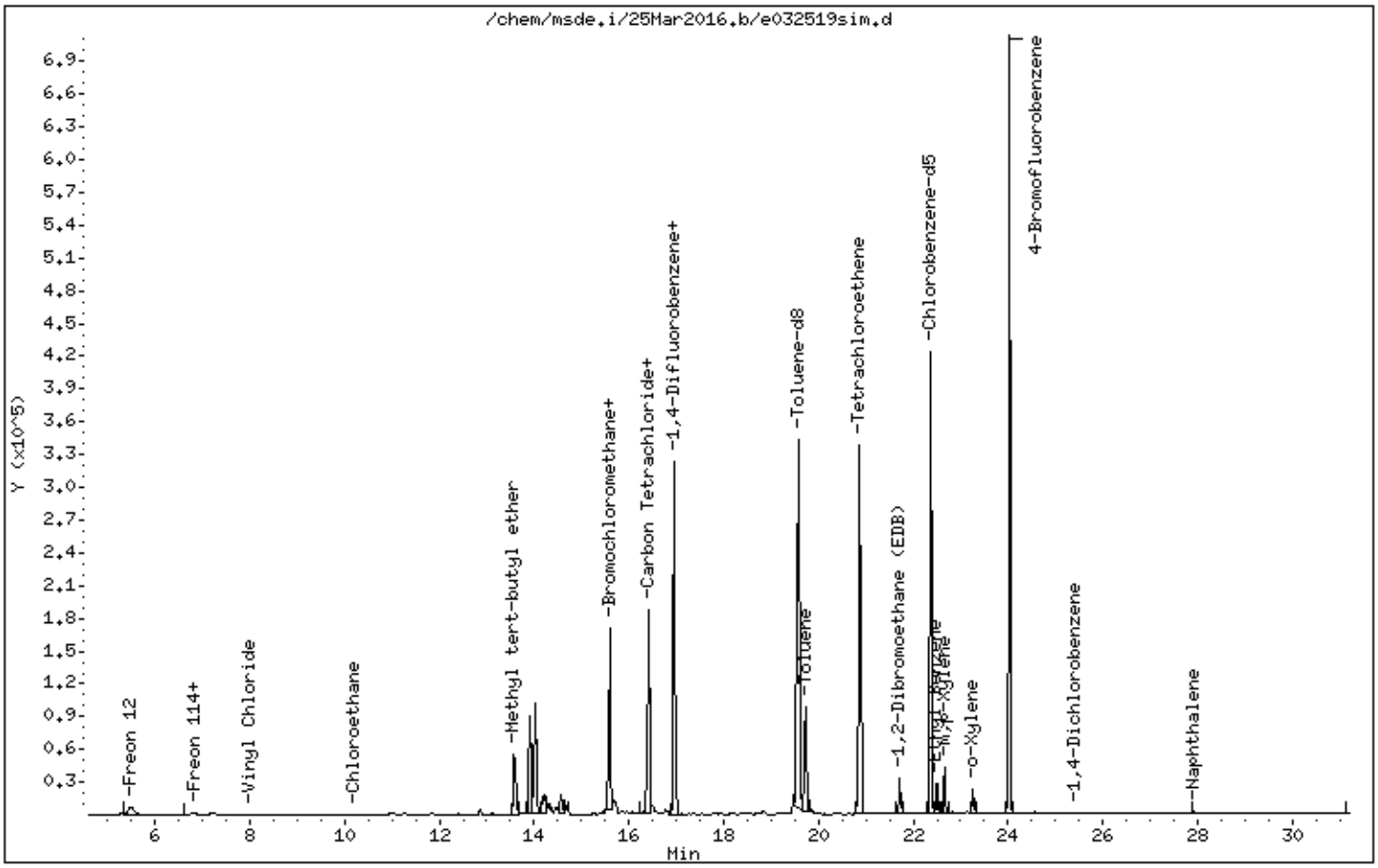
Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

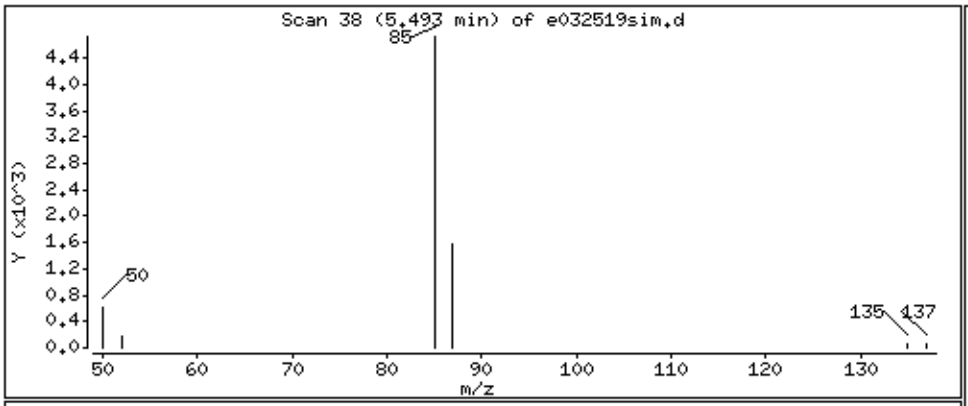
Operator: ef

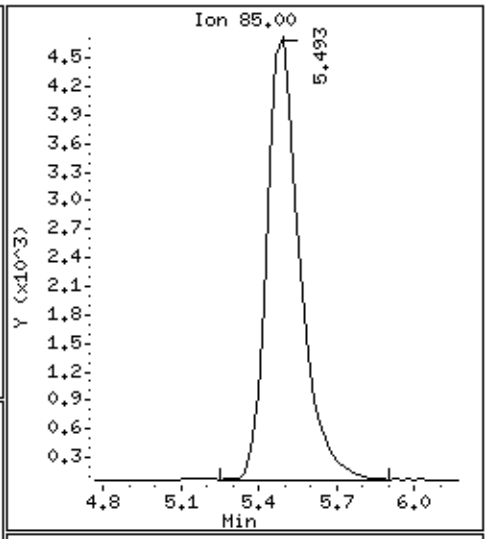
Column phase: RTX-624

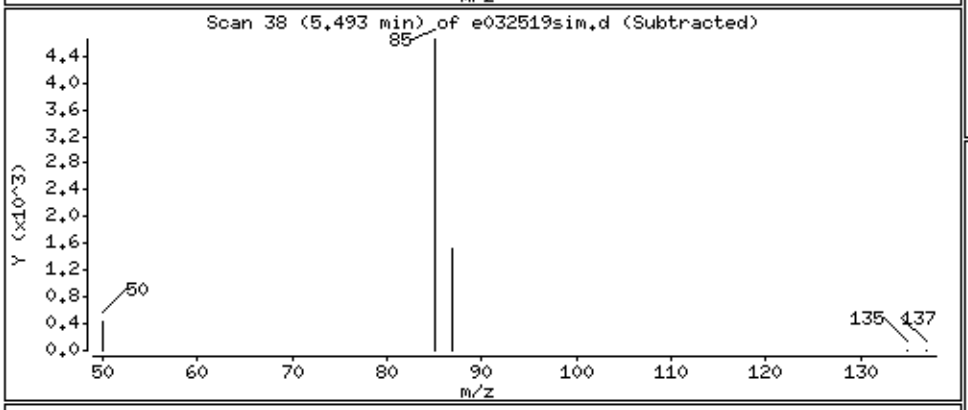
Column diameter: 0.32

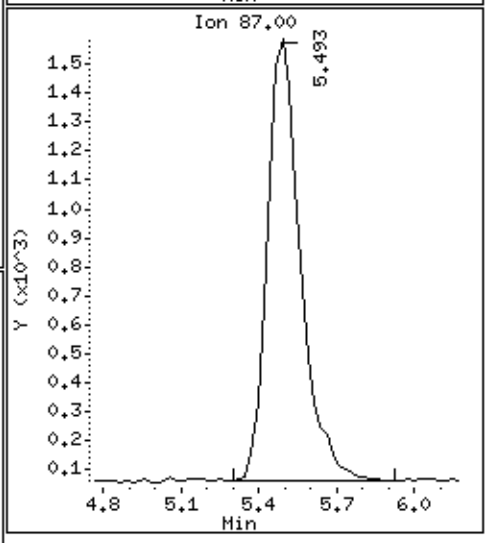
1 Freon 12

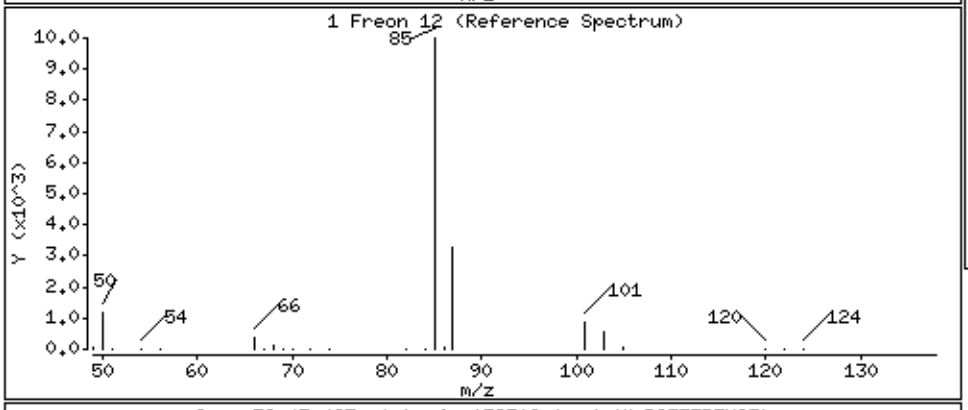
Concentration: 0.3489 PPBV

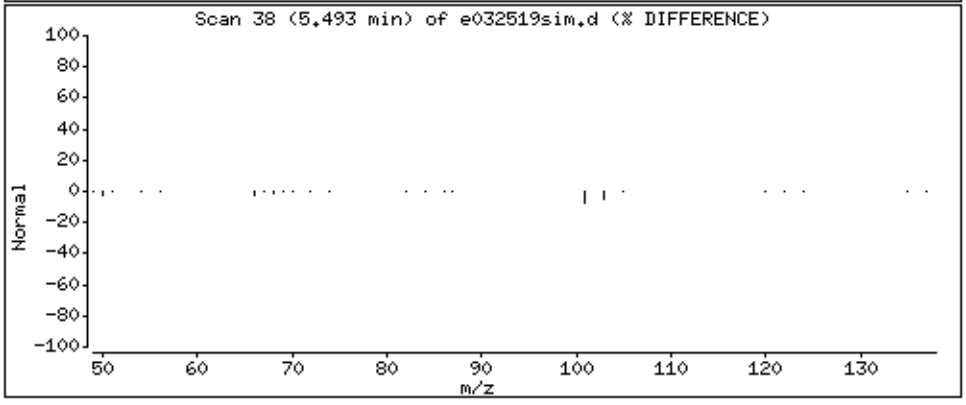












Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

2 Freon 114

Concentration: 0.01828 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

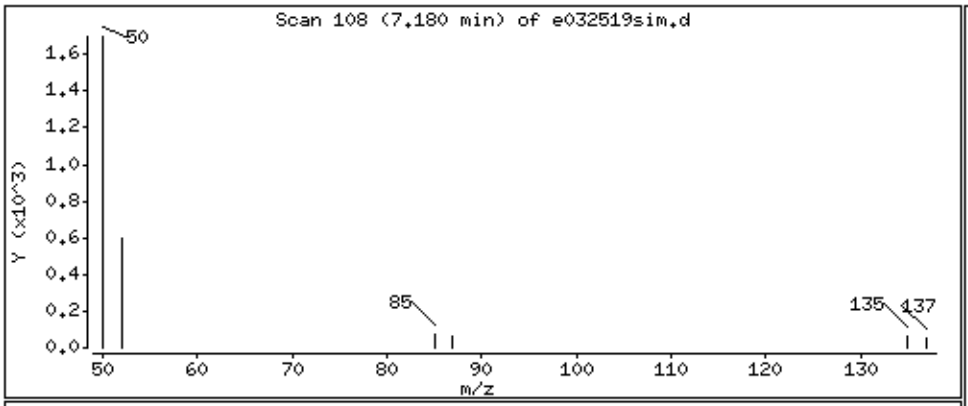
Operator: ef

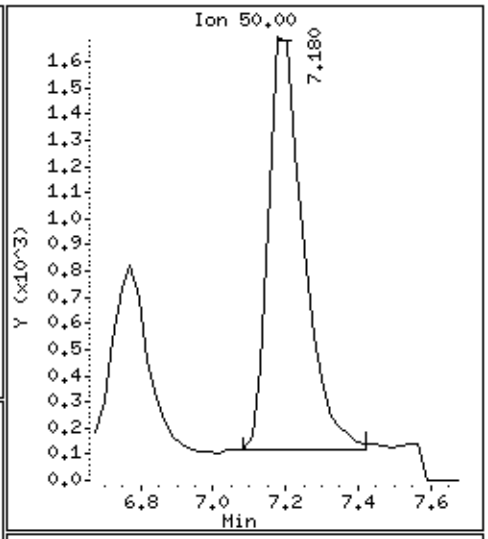
Column phase: RTX-624

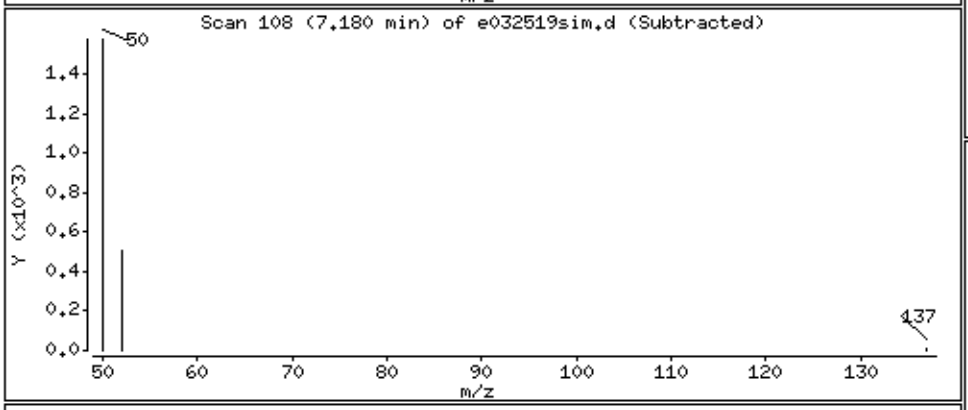
Column diameter: 0.32

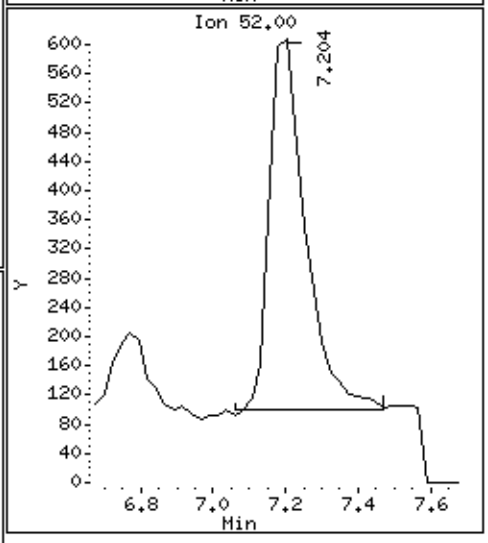
3 Chloromethane

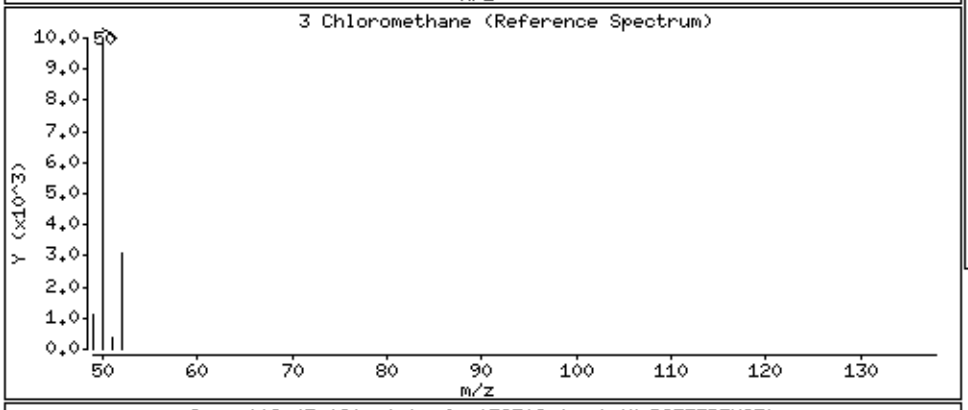
Concentration: 0.4471 PPBV

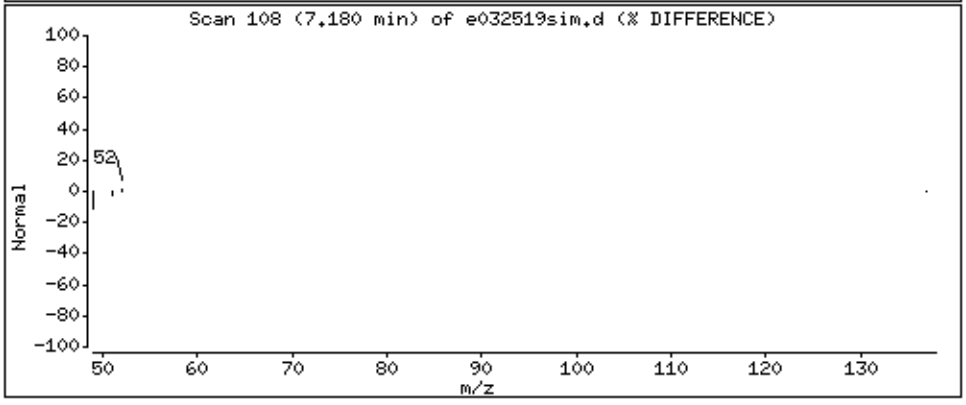












Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

4 Vinyl Chloride

Concentration: 0.01431 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

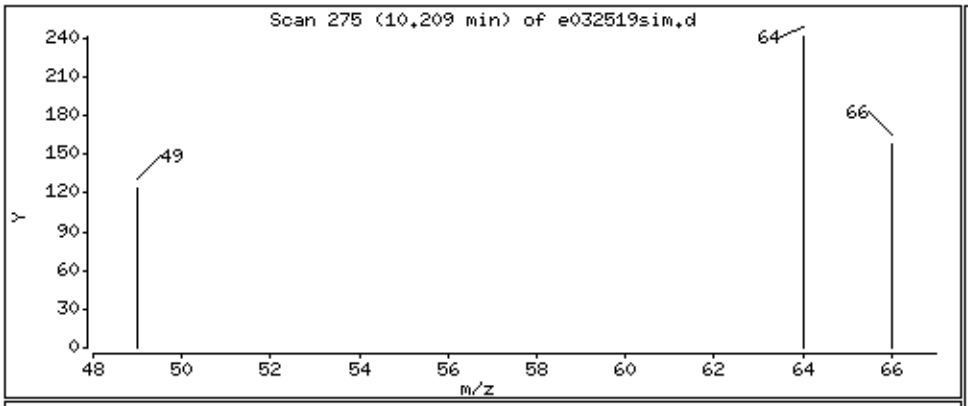
Operator: ef

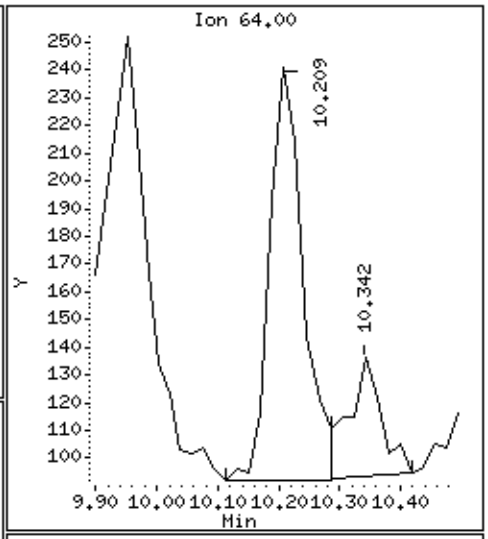
Column phase: RTX-624

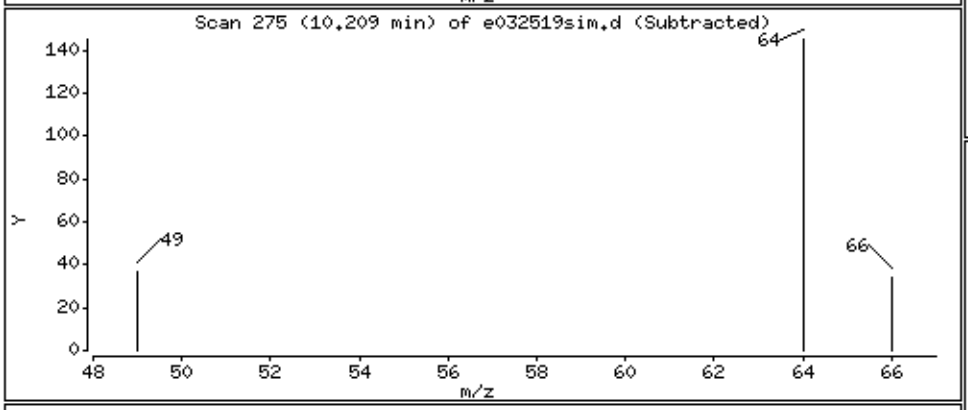
Column diameter: 0.32

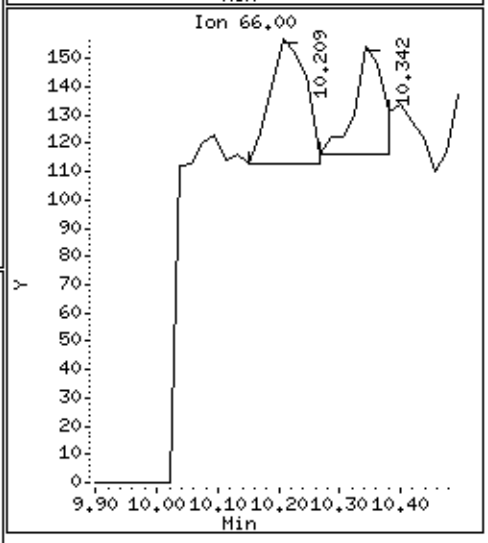
5 Chloroethane

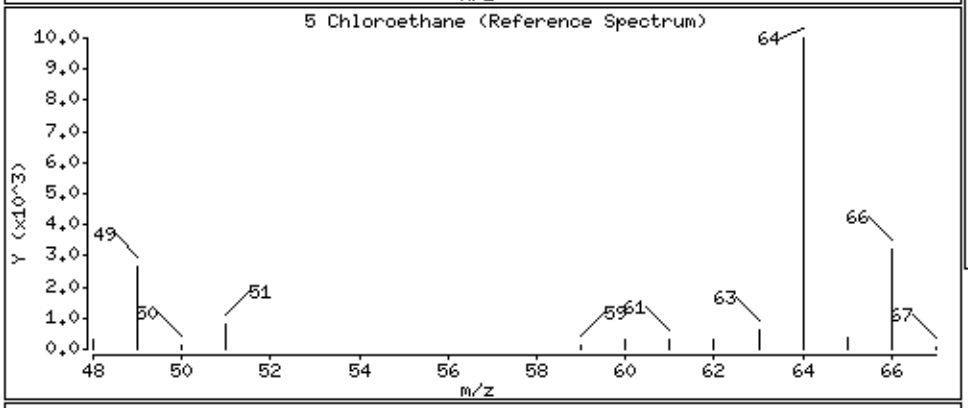
Concentration: 0.03664 PPBV

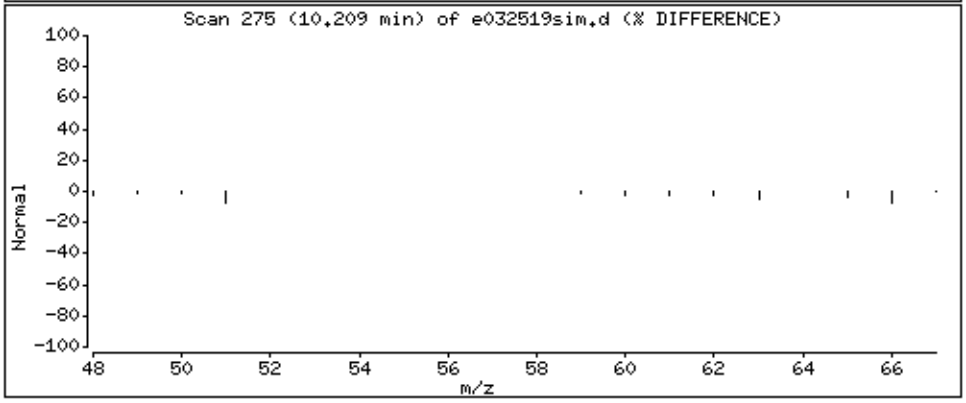












Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

9 Methyl tert-butyl ether

Concentration: 0.01029 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

15 1,1,1-Trichloroethane

Concentration: 0.008353 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

16 Carbon Tetrachloride

Concentration: 0.04035 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

17 Benzene

Concentration: 0.9363 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

19 1,2-Dichloroethane

Concentration: 0.08876 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

21 Trichloroethene

Concentration: 0.01918 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

23 Toluene

Concentration: 1.552 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

26 Tetrachloroethene

Concentration: 4.916 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

27 1,2-Dibromoethane (EDB)

Concentration: 0.006404 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

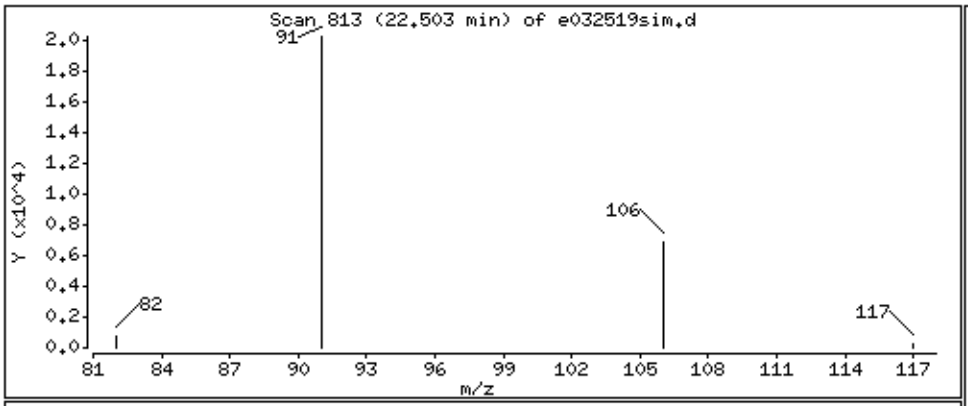
Operator: ef

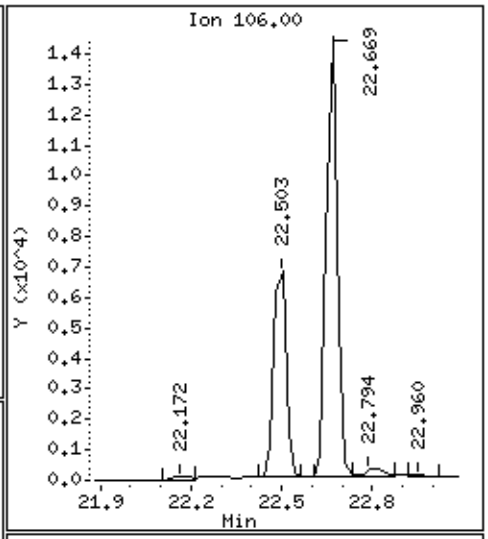
Column phase: RTX-624

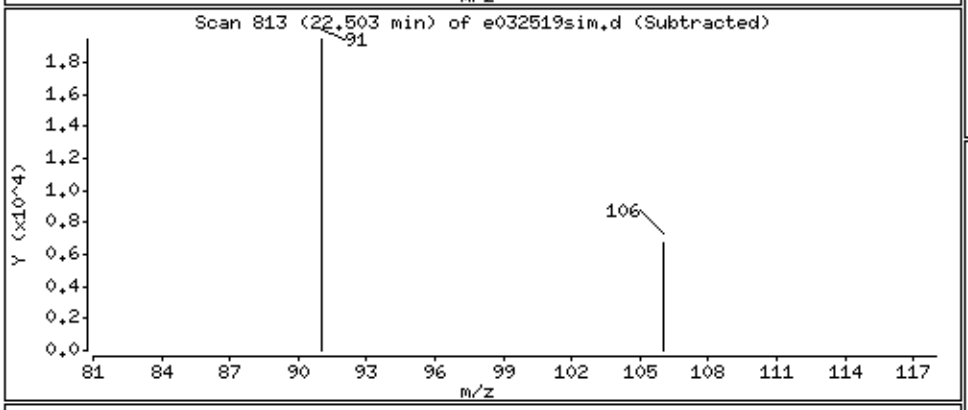
Column diameter: 0.32

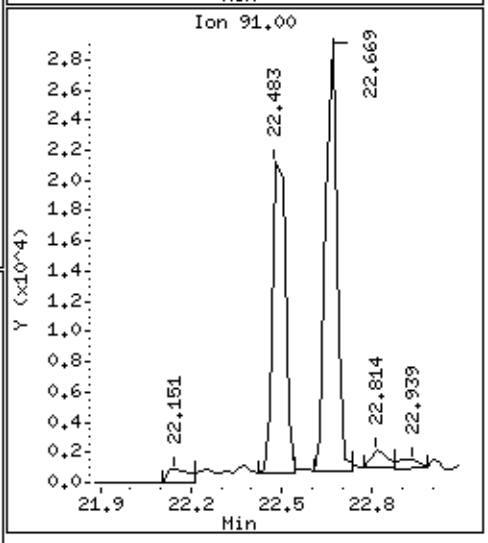
30 Ethyl Benzene

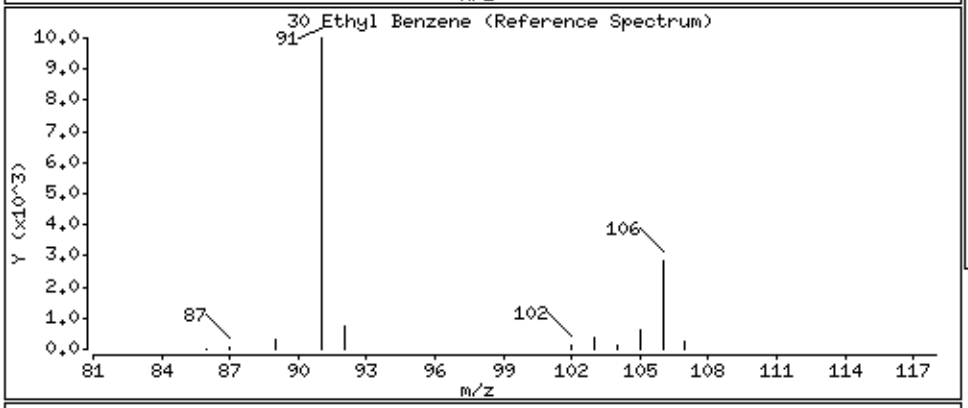
Concentration: 0.3101 PPBV

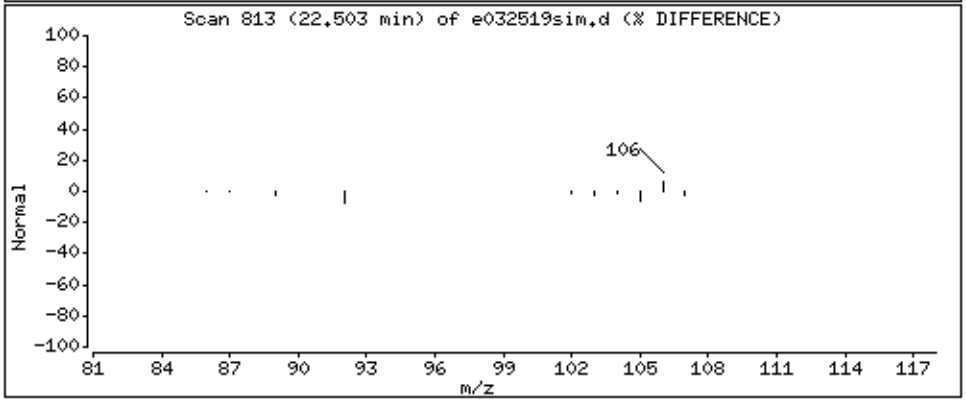












Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

31 m,p-Xylene

Concentration: 0.4794 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Page 18

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

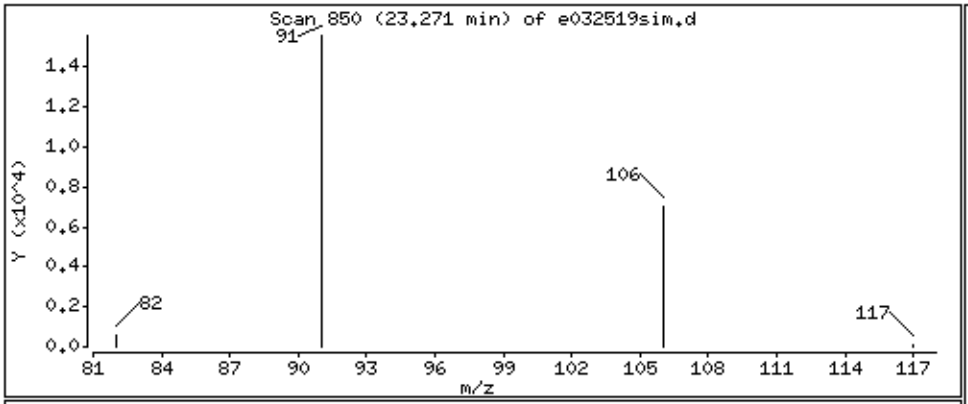
Operator: ef

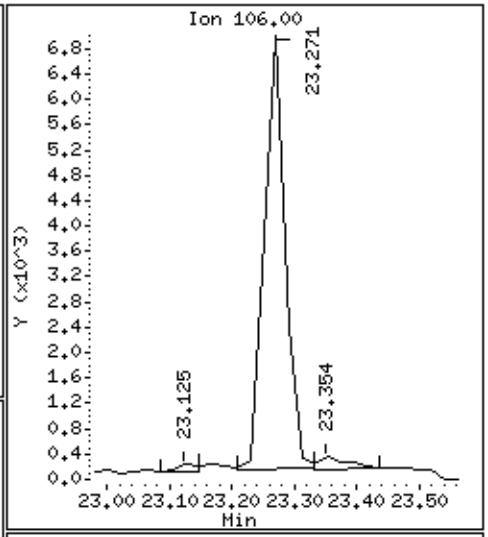
Column phase: RTX-624

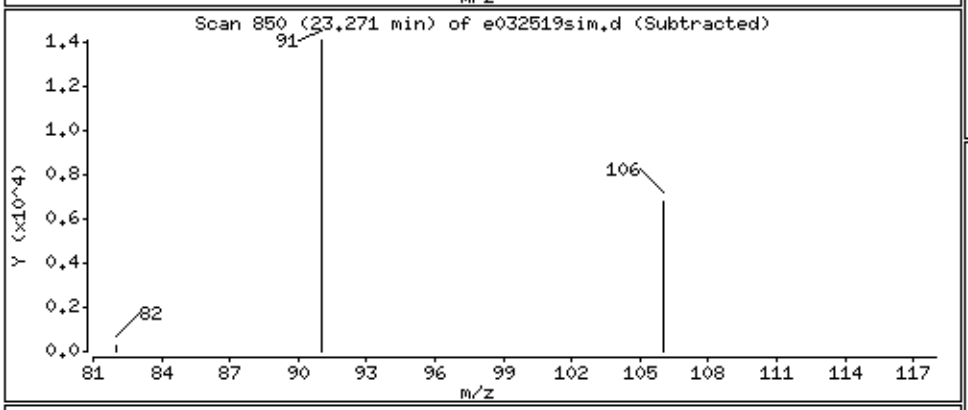
Column diameter: 0.32

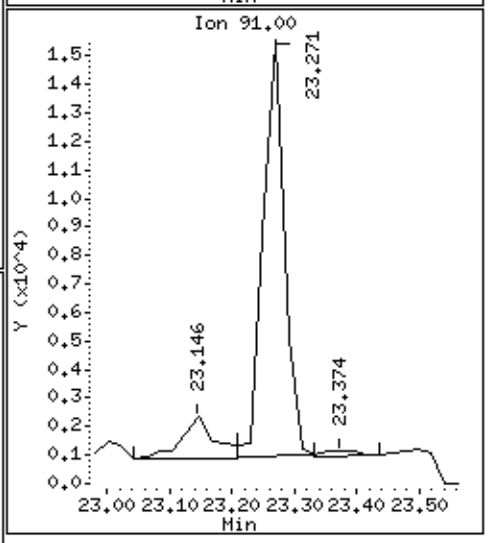
32 o-Xylene

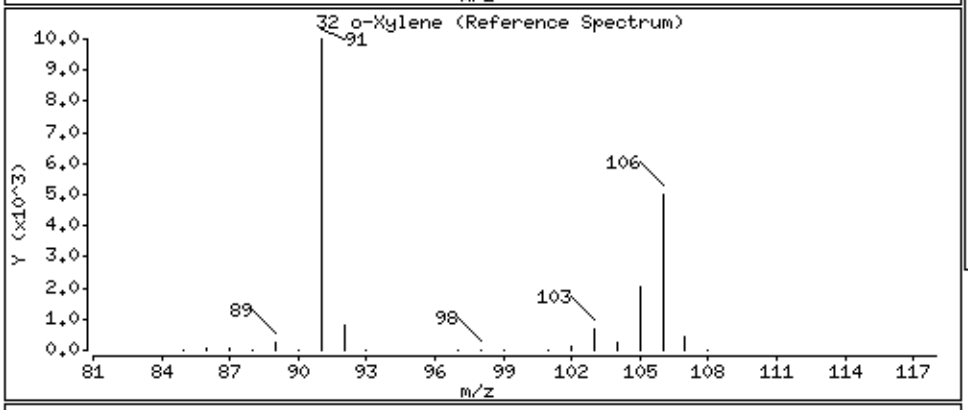
Concentration: 0.2222 PPBV

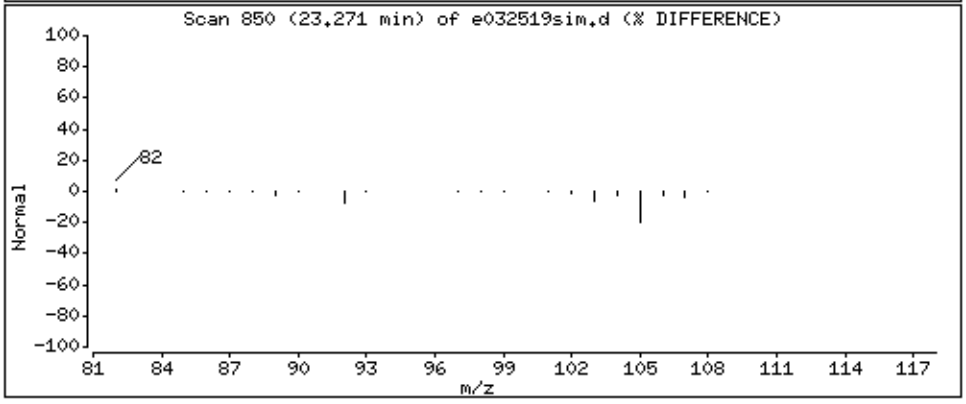












Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

36 1,4-Dichlorobenzene

Concentration: 0.01033 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032519sim.d

Date : 26-MAR-2016 08:52

Client ID:

Instrument: msde.i

Sample Info: 250mL# R-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

38 Naphthalene

Concentration: 0.05661 PPBV

QC Results and Raw Data

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	Lab Blank		
Lab ID:	1603470-07A	**Date/Time Analyzed:**	3/25/16 02:48 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032508sima

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0056	0.033	0.11	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.0093	0.041	0.14	0.018 J
1,1,2-Trichloroethane	79-00-5	0.010	0.033	0.11	Not Detected
1,1-Dichloroethane	75-34-3	0.0063	0.024	0.081	Not Detected
1,1-Dichloroethene	75-35-4	0.0099	0.024	0.040	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0083	0.046	0.15	0.044 J
1,2-Dichloroethane	107-06-2	0.0029	0.024	0.081	0.010 J
1,4-Dichlorobenzene	106-46-7	0.010	0.036	0.12	0.056 J
Benzene	71-43-2	0.017	0.064	0.16	0.073 J
Carbon Tetrachloride	56-23-5	0.0057	0.038	0.12	Not Detected
Chloroethane	75-00-3	0.018	0.053	0.13	Not Detected
Chloroform	67-66-3	0.0084	0.029	0.098	Not Detected
Chloromethane	74-87-3	0.026	0.041	0.10	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.0072	0.024	0.079	Not Detected
Ethyl Benzene	100-41-4	0.0061	0.026	0.087	0.010 J
Freon 114	76-14-2	0.0084	0.042	0.14	Not Detected
Freon 12	75-71-8	0.012	0.030	0.099	Not Detected
m,p-Xylene	108-38-3	0.0036	0.026	0.17	0.012 J
Methyl tert-butyl ether	1634-04-4	0.0083	0.022	0.36	Not Detected
Naphthalene	91-20-3	0.071	0.10	0.26	Not Detected
o-Xylene	95-47-6	0.0054	0.026	0.087	0.0094 J
Tetrachloroethene	127-18-4	0.0058	0.041	0.14	Not Detected
Toluene	108-88-3	0.0042	0.023	0.075	0.017 J
trans-1,2-Dichloroethene	156-60-5	0.013	0.024	0.40	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	Lab Blank		
Lab ID:	1603470-07A	**Date/Time Analyzed:**	3/25/16 02:48 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032508sima

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.013	0.032	0.11	Not Detected
Vinyl Chloride	75-01-4	0.0040	0.015	0.026	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	101
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	101

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032508sima.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 25-MAR-2016 14:48
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 34764
Misc Info : Humid
Comment : SIM - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 02-Apr-2016 09:34 dbailey Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: EAE21143.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

				CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
* 13 Bromochloromethane					CAS #: 74-97-5		
15.593	15.594 (1.000)	130	185375	5.00000		80.00- 120.00	100.00
15.593	15.594 (1.000)	128	141714			46.88- 106.88	76.45
15.562	15.594 (1.000)	49	156993			79.48- 139.48	84.69
17 Benzene					CAS #: 71-43-2		
16.423	16.423 (0.969)	78	4446	0.02280	0.02280	80.00- 120.00	100.00(a)
16.423	16.423 (0.969)	77	1393			0.00- 52.97	31.33
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	292309	5.03567	5.036	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	145957			21.84- 81.84	49.93
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	252	0.00258	0.002583	80.00- 120.00	100.00(a)
16.423	16.519 (0.969)	64	2714			3.73- 63.73	1076.98

	RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
*	20 1,4-Difluorobenzene					CAS #: 540-36-3		
	16.953	16.953 (1.000)	114	768094	5.00000		80.00- 120.00	100.00
	16.953	16.953 (1.000)	88	113703			0.00- 44.79	14.80
$	22 Toluene-d8					CAS #: 2037-26-5		
	19.570	19.570 (1.154)	98	709993	5.05620	5.056	80.00- 120.00	100.00
	19.570	19.570 (1.154)	70	74950			0.00- 40.53	10.56
	19.570	19.570 (1.154)	100	467508			35.79- 95.79	65.85
	23 Toluene					CAS #: 108-88-3		
	19.704	19.727 (1.162)	91	974	0.00445	0.004447	80.00- 120.00	100.00(a)
	19.727	19.727 (1.164)	92	590			29.49- 89.49	60.57
	27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
	21.691	21.691 (0.969)	107	759	0.00568	0.005680	80.00- 120.00	100.00(a)
	21.691	21.691 (0.969)	109	769			65.18- 125.18	101.32
*	28 Chlorobenzene-d5					CAS #: 3114-55-4		
	22.379	22.379 (1.000)	117	717410	5.00000		80.00- 120.00	100.00
	22.358	22.379 (1.000)	82	348378			19.34- 79.34	48.56
	30 Ethyl Benzene					CAS #: 100-41-4		
	22.483	22.483 (1.005)	106	210	0.00233	0.002328	80.00- 120.00	100.00(a)
	22.483	22.483 (1.005)	91	596			278.88- 338.88	283.81
	31 m,p-Xylene					CAS #: 108-38-3		
	22.669	22.670 (1.013)	106	301	0.00282	0.002819	80.00- 120.00	100.00(a)
	22.669	22.670 (1.013)	91	854			169.32- 229.32	283.72
	32 o-Xylene					CAS #: 95-47-6		
	23.271	23.271 (1.040)	106	221	0.00217	0.002173	80.00- 120.00	100.00(a)
	23.271	23.271 (1.040)	91	366			179.11- 239.11	165.61
$	33 4-Bromofluorobenzene					CAS #: 460-00-4		
	24.034	24.034 (1.074)	174	473474	4.97398	4.974	80.00- 120.00	100.00
	24.034	24.034 (1.074)	95	501996			77.34- 137.34	106.02
	24.034	24.034 (1.074)	176	462934			67.97- 127.97	97.77
	34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
	24.213	24.213 (1.082)	83	419	0.00259	0.002586	80.00- 120.00	100.00(a)
	24.213	24.213 (1.082)	85	231			35.73- 95.73	55.13
	36 1,4-Dichlorobenzene					CAS #: 106-46-7		
	25.424	25.424 (1.136)	146	1702	0.00936	0.009363	80.00- 120.00	100.00(a)
	25.424	25.424 (1.136)	148	1078			35.15- 95.15	63.34
	25.424	25.424 (1.136)	111	614			6.91- 66.91	36.08

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032508sima.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: Humid

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	200624	120374	280874	185375	-7.60
20 1,4-Difluorobenze	838688	503213	1174163	768094	-8.42
28 Chlorobenzene-d5	748894	449336	1048452	717410	-4.20

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Report Date: 02-Apr-2016 09:34

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: EAE21143.sub
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18 1,2-Dichloroethane	5.000	5.036	100.71	70-130
$ 22 Toluene-d8	5.000	5.056	101.12	70-130
$ 33 4-Bromofluorobenze	5.000	4.974	99.48	70-130

Data File: /chem/msde.i/25Mar2016.b/e032508sima.d

Date : 25-MAR-2016 14:48

Client ID: Lab Blank

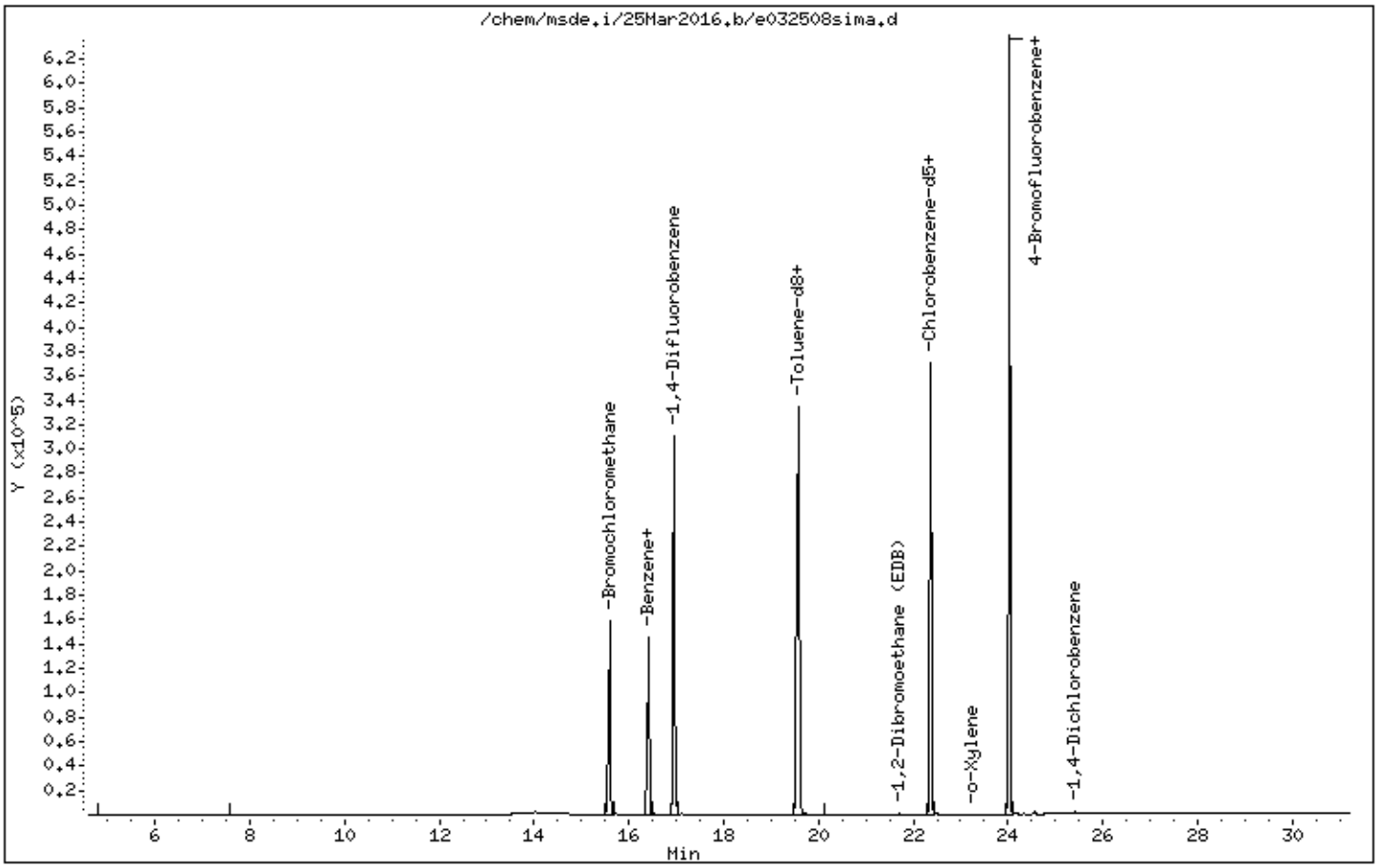
Instrument: msde.i

Sample Info: 250mL# 34764

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/25Mar2016.b/e032508sima.d

Date : 25-MAR-2016 14:48

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

17 Benzene

Concentration: 0.02280 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032508sima.d

Date : 25-MAR-2016 14:48

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

19 1,2-Dichloroethane

Concentration: 0.002583 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032508sima.d

Date : 25-MAR-2016 14:48

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

23 Toluene

Concentration: 0.004447 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032508sima.d

Date : 25-MAR-2016 14:48

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

27 1,2-Dibromoethane (EDB)

Concentration: 0.005680 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032508sima.d

Date : 25-MAR-2016 14:48

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

30 Ethyl Benzene

Concentration: 0.002328 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032508sima.d

Date : 25-MAR-2016 14:48

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

31 m,p-Xylene

Concentration: 0.002819 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032508sima.d

Date : 25-MAR-2016 14:48

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

32 o-Xylene

Concentration: 0.002173 PPBV

Data File: /chem/msde.i/25Mar2016.b/e032508sima.d

Date : 25-MAR-2016 14:48

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

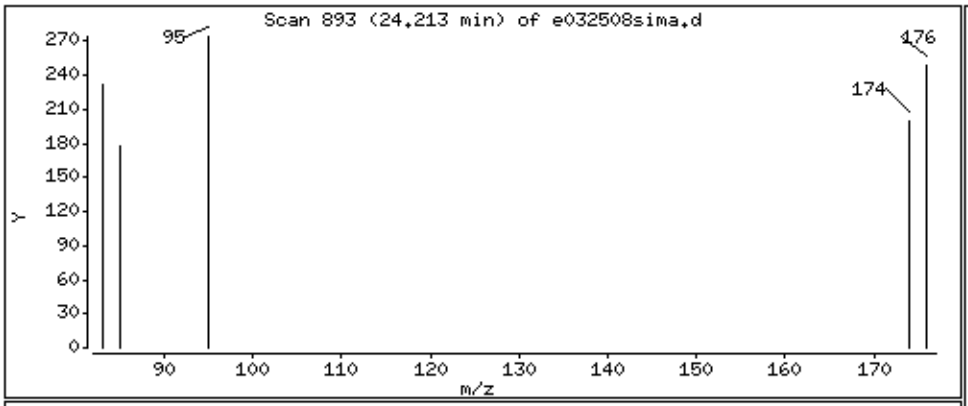
Operator: ef

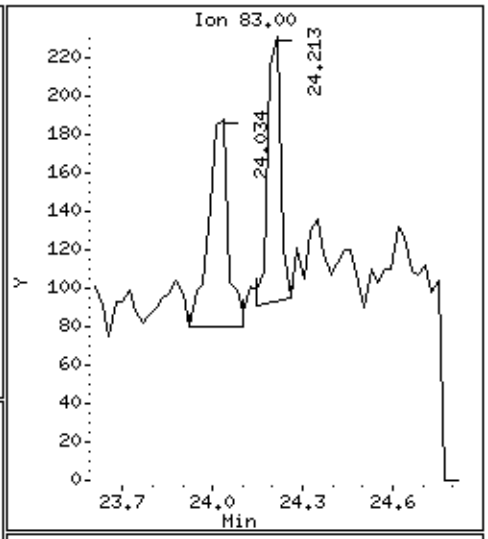
Column phase: RTX-624

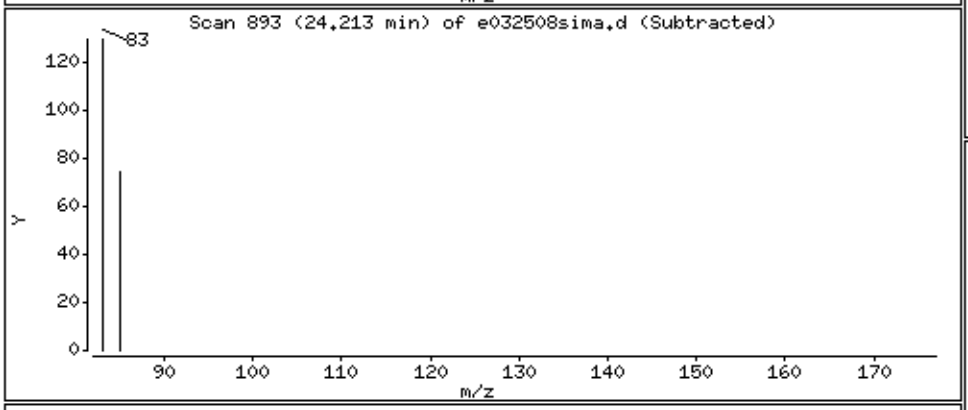
Column diameter: 0.32

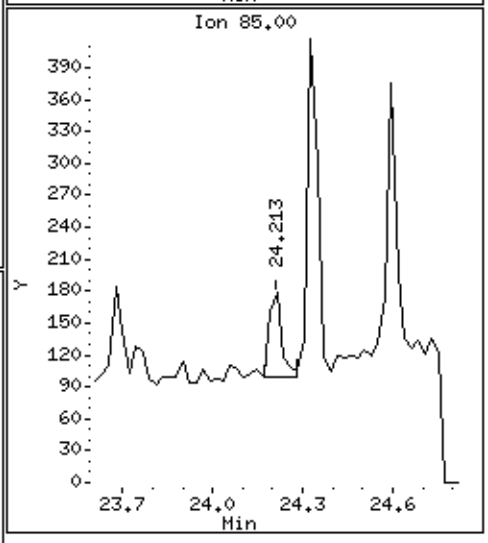
34 1,1,2,2-Tetrachloroethane

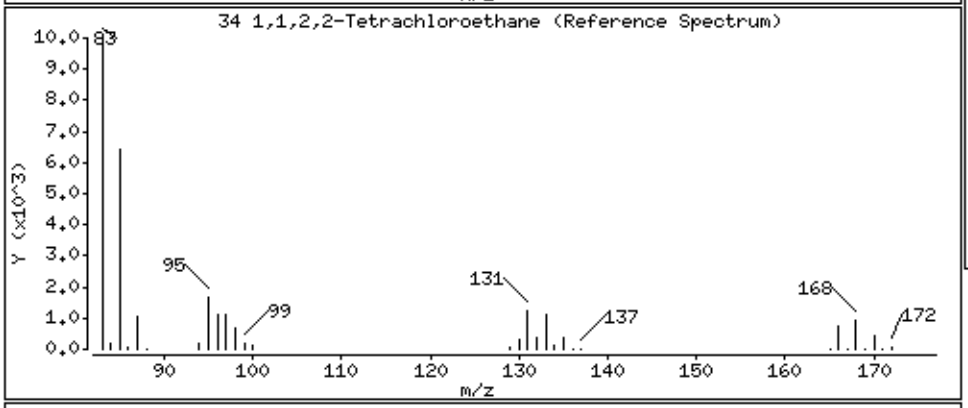
Concentration: 0.002586 PPBV

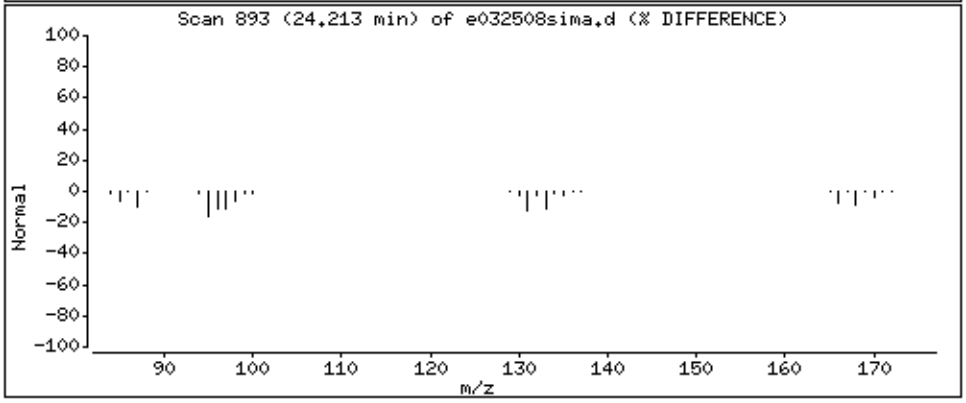












Data File: /chem/msde.i/25Mar2016.b/e032508sima.d

Date : 25-MAR-2016 14:48

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 34764

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

36 1,4-Dichlorobenzene

Concentration: 0.009363 PPBV

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	Lab Blank		
Lab ID:	1603470-07B	**Date/Time Analyzed:**	3/28/16 03:30 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032810sima

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0056	0.033	0.11	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.0093	0.041	0.14	0.026 J
1,1,2-Trichloroethane	79-00-5	0.010	0.033	0.11	Not Detected
1,1-Dichloroethane	75-34-3	0.0063	0.024	0.081	Not Detected
1,1-Dichloroethene	75-35-4	0.0099	0.024	0.040	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0083	0.046	0.15	0.086 J
1,2-Dichloroethane	107-06-2	0.0029	0.024	0.081	0.020 J
1,4-Dichlorobenzene	106-46-7	0.010	0.036	0.12	0.091 J
Benzene	71-43-2	0.017	0.064	0.16	0.075 J
Carbon Tetrachloride	56-23-5	0.0057	0.038	0.12	Not Detected
Chloroethane	75-00-3	0.018	0.053	0.13	Not Detected
Chloroform	67-66-3	0.0084	0.029	0.098	Not Detected
Chloromethane	74-87-3	0.026	0.041	0.10	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.0072	0.024	0.079	0.018 J
Ethyl Benzene	100-41-4	0.0061	0.026	0.087	0.0084 J
Freon 114	76-14-2	0.0084	0.042	0.14	Not Detected
Freon 12	75-71-8	0.012	0.030	0.099	Not Detected
m,p-Xylene	108-38-3	0.0036	0.026	0.17	0.016 J
Methyl tert-butyl ether	1634-04-4	0.0083	0.022	0.36	Not Detected
Naphthalene	91-20-3	0.071	0.10	0.26	Not Detected
o-Xylene	95-47-6	0.0054	0.026	0.087	0.0076 J
Tetrachloroethene	127-18-4	0.0058	0.041	0.14	0.0060 J
Toluene	108-88-3	0.0042	0.023	0.075	0.013 J
trans-1,2-Dichloroethene	156-60-5	0.013	0.024	0.40	0.018 J

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	Lab Blank		
Lab ID:	1603470-07B	**Date/Time Analyzed:**	3/28/16 03:30 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032810sima

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.013	0.032	0.11	0.017 J
Vinyl Chloride	75-01-4	0.0040	0.015	0.026	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	103
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	101

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/28Mar2016.b/e032810sima.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 28-MAR-2016 15:30
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 35248
Misc Info : Humid
Comment : SIM - GC/MS
Method : /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 02-Apr-2016 09:32 dbailey Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: EAE21143.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

					CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE					
10 trans-1,2-Dichloroethene						CAS #: 156-60-5		
13.742	13.742 (0.881)	98	171	0.00446	0.004460	80.00- 120.00	100.00(a)	
13.715	13.742 (0.880)	61	360			165.66- 225.66	210.53	
13.742	13.742 (0.881)	96	438			126.47- 186.47	256.14	
12 cis-1,2-Dichloroethene						CAS #: 156-59-2		
15.253	15.253 (0.978)	98	190	0.00455	0.004547	80.00- 120.00	100.00(a)	
15.253	15.253 (0.978)	61	470			146.50- 206.50	247.37	
15.253	15.253 (0.978)	96	346			124.34- 184.34	182.11	
* 13 Bromochloromethane						CAS #: 74-97-5		
15.593	15.593 (1.000)	130	177331	5.00000		80.00- 120.00	100.00	
15.593	15.593 (1.000)	128	136698			46.88- 106.88	77.09	
15.563	15.593 (1.000)	49	150337			79.48- 139.48	84.78	
17 Benzene						CAS #: 71-43-2		
16.423	16.399 (0.969)	78	4470	0.02347	0.02347	80.00- 120.00	100.00(a)	

				CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
17 Benzene (continued)							
16.423	16.399 (0.969)	77	1054			0.00- 52.97	23.58
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	285162	5.13539	5.135	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	142188			21.84- 81.84	49.86
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	484	0.00508	0.005080	80.00- 120.00	100.00(a)
16.519	16.519 (0.974)	64	147			3.73- 63.73	30.37
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	750182	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	110997			0.00- 44.79	14.80
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	309	0.00321	0.003212	80.00- 120.00	100.00(a)
17.362	17.362 (1.024)	95	384			65.34- 125.34	124.27
17.362	17.362 (1.024)	97	244			32.10- 92.10	78.96
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	694284	5.06238	5.062	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	72399			0.00- 40.53	10.43
19.570	19.570 (1.154)	100	456503			35.79- 95.79	65.75
23 Toluene					CAS #: 108-88-3		
19.727	19.727 (1.164)	91	756	0.00353	0.003534	80.00- 120.00	100.00(a)
19.704	19.727 (1.162)	92	535			29.49- 89.49	70.77
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	113	0.000882	0.0008822	80.00- 120.00	100.00(a)
0.000	20.867 (0.000)	129	0			41.88- 101.88	0.00
20.867	20.867 (0.932)	131	112			40.10- 100.10	99.12
27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.691	21.691 (0.969)	107	1460	0.01118	0.01118	80.00- 120.00	100.00(a)
21.691	21.691 (0.969)	109	1351			65.18- 125.18	92.53
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	701115	5.00000		80.00- 120.00	100.00
22.358	22.379 (1.000)	82	339732			19.34- 79.34	48.46
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	170	0.00193	0.001929	80.00- 120.00	100.00(a)
22.483	22.483 (1.005)	91	689			278.88- 338.88	405.29

				CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
==	====== ========	====	========	=======	=======	==========	=====
31 m,p-Xylene						CAS #: 108-38-3	
22.669	22.669 (1.013)	106	398	0.00381	0.003815	80.00- 120.00	100.00(a)
22.669	22.669 (1.013)	91	776			169.32- 229.32	194.97
32 o-Xylene						CAS #: 95-47-6	
23.271	23.271 (1.040)	106	174	0.00175	0.001750	80.00- 120.00	100.00(a)
23.271	23.271 (1.040)	91	386			179.11- 239.11	221.84
$ 33 4-Bromofluorobenzene						CAS #: 460-00-4	
24.034	24.034 (1.074)	174	463683	4.98433	4.984	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	492011			77.34- 137.34	106.11
24.034	24.034 (1.074)	176	452306			67.97- 127.97	97.55
34 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5	
24.213	24.213 (1.082)	83	613	0.00387	0.003870	80.00- 120.00	100.00(a)
24.213	24.213 (1.082)	85	423			35.73- 95.73	69.00
36 1,4-Dichlorobenzene						CAS #: 106-46-7	
25.424	25.424 (1.136)	146	2697	0.01518	0.01518	80.00- 120.00	100.00(a)
25.424	25.424 (1.136)	148	1703			35.15- 95.15	63.14
25.424	25.424 (1.136)	111	930			6.91- 66.91	34.48

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032810sima.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: Humid

Calibration Date: 28-MAR-2016
Calibration Time: 10:19
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	190819	114491	267147	177331	-7.07
20 1,4-Difluorobenze	801879	481127	1122631	750182	-6.45
28 Chlorobenzene-d5	718505	431103	1005907	701115	-2.42

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 28Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: EAE21143.sub
Method File: /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18 1,2-Dichloroethane	5.000	5.135	102.71	70-130
$ 22 Toluene-d8	5.000	5.062	101.25	70-130
$ 33 4-Bromofluorobenze	5.000	4.984	99.69	70-130

Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

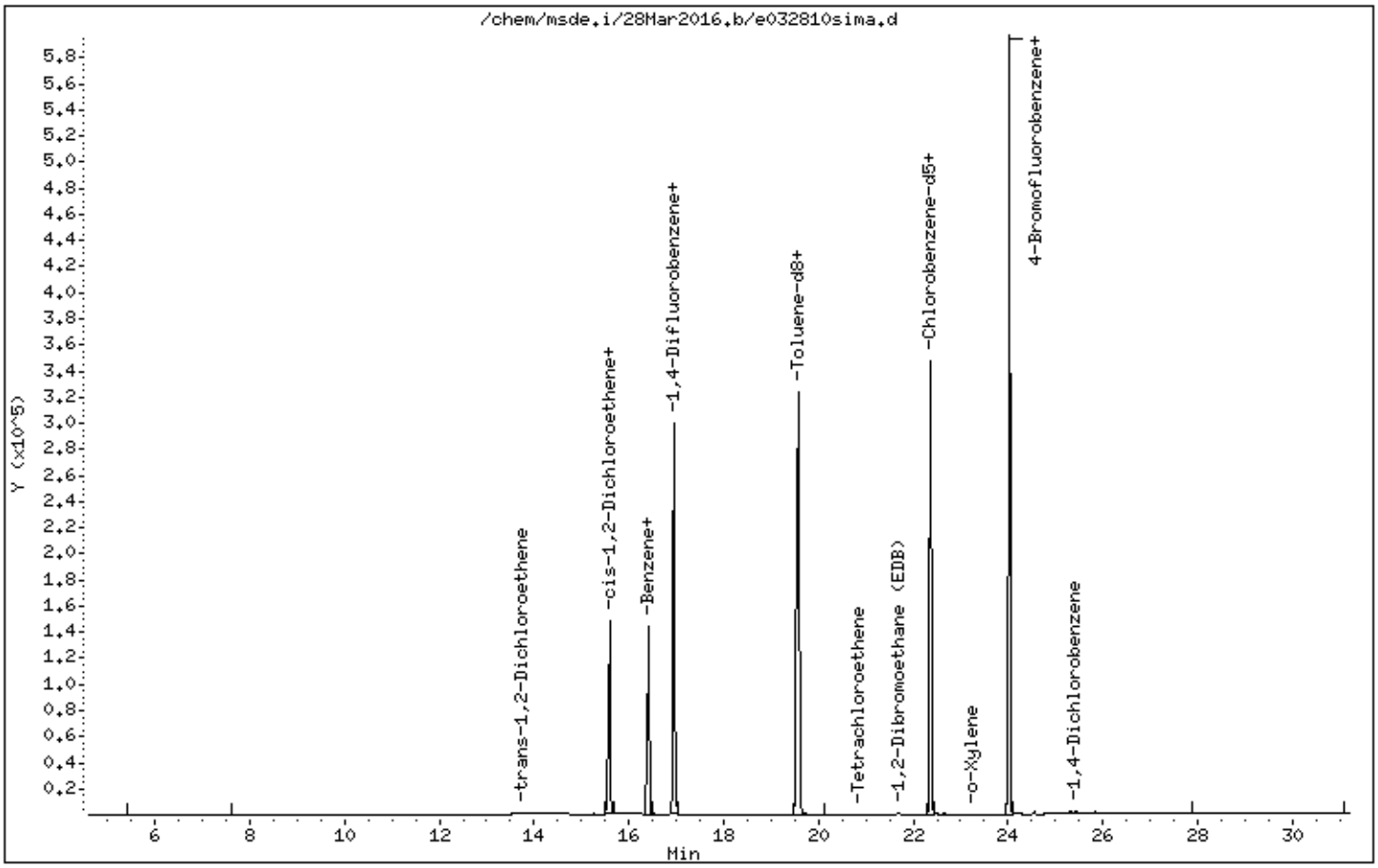
Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

10 trans-1,2-Dichloroethene

Concentration: 0.004460 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

12 cis-1,2-Dichloroethene

Concentration: 0.004547 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

17 Benzene

Concentration: 0.02347 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624 Column diameter: 0.32

19 1,2-Dichloroethane Concentration: 0.005080 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624 Column diameter: 0.32

21 Trichloroethene Concentration: 0.003212 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

23 Toluene

Concentration: 0.003534 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

26 Tetrachloroethene

Concentration: 0.0008822 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

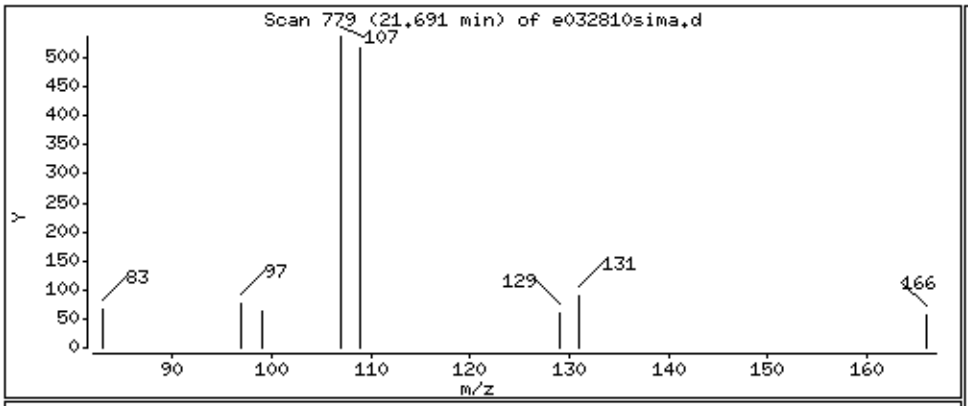
Operator: ef

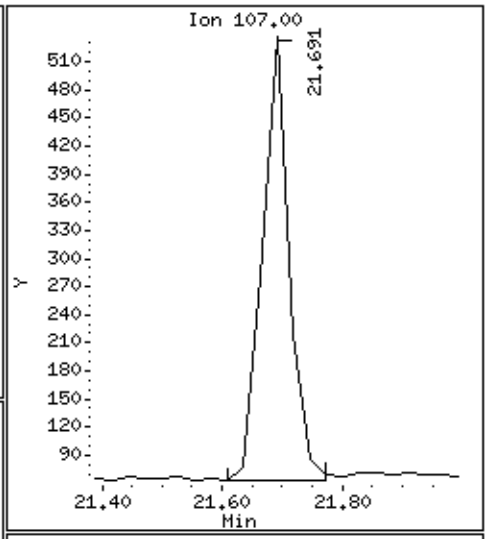
Column phase: RTX-624

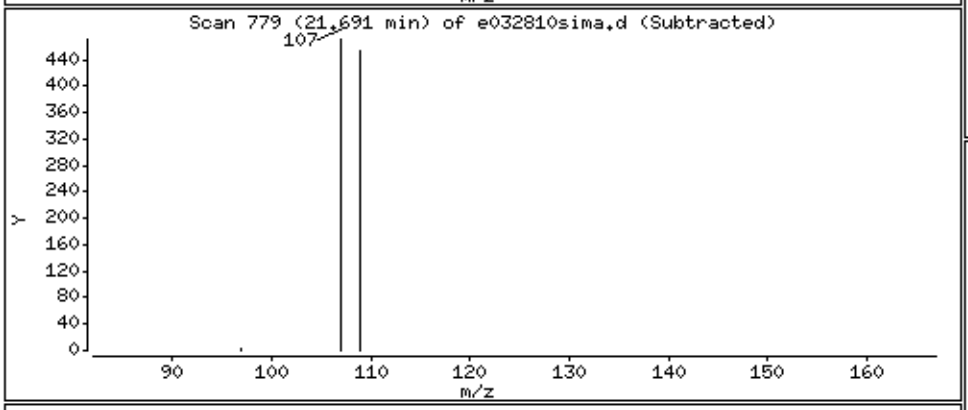
Column diameter: 0.32

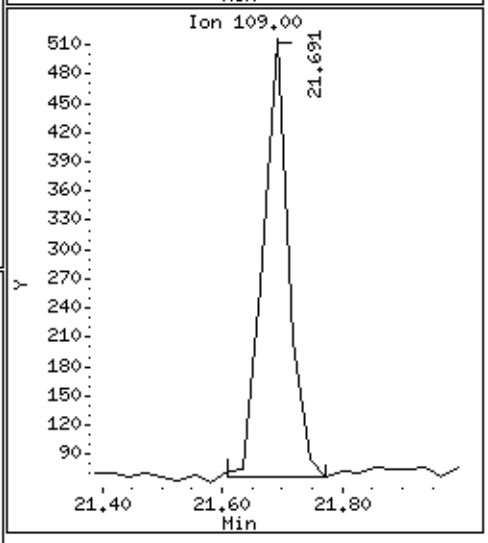
27 1,2-Dibromoethane (EDB)

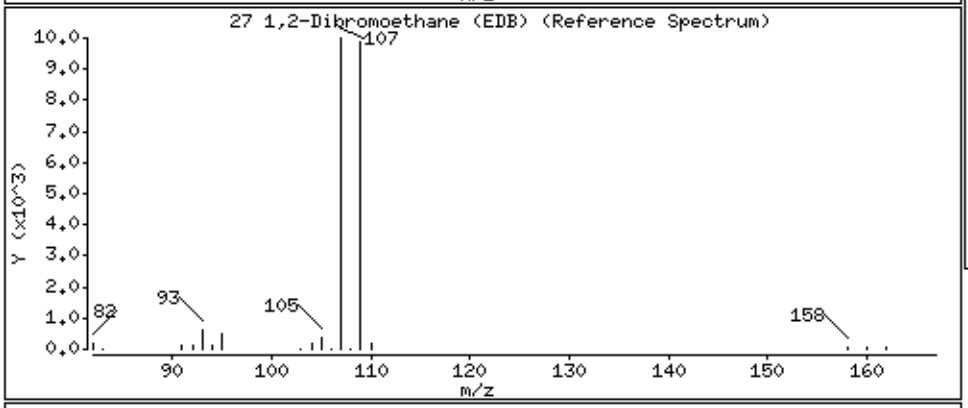
Concentration: 0.01118 PPBV

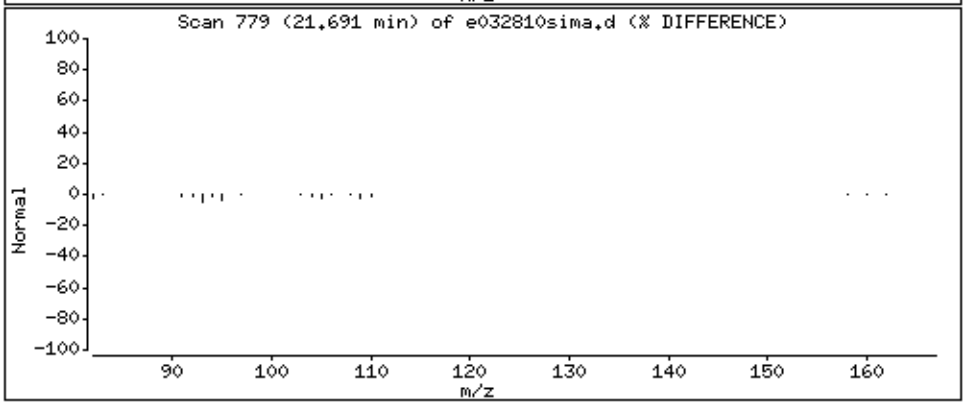












Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

30 Ethyl Benzene

Concentration: 0.001929 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

31 m,p-Xylene

Concentration: 0.003815 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

32 o-Xylene

Concentration: 0.001750 PPBV

Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

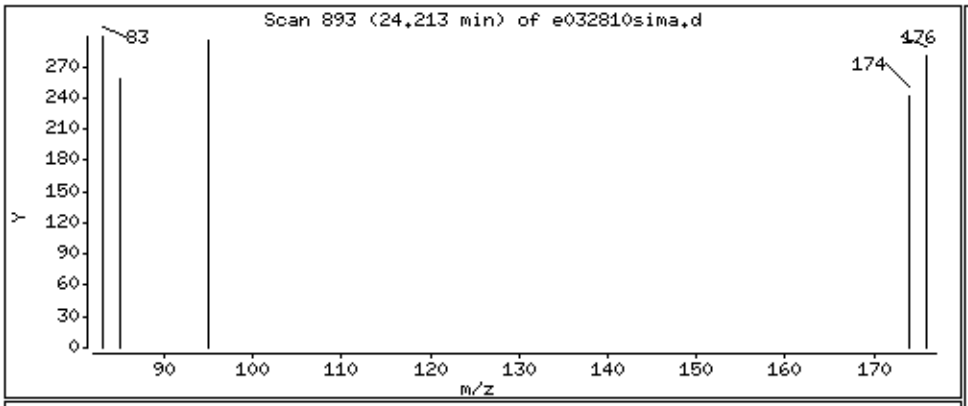
Operator: ef

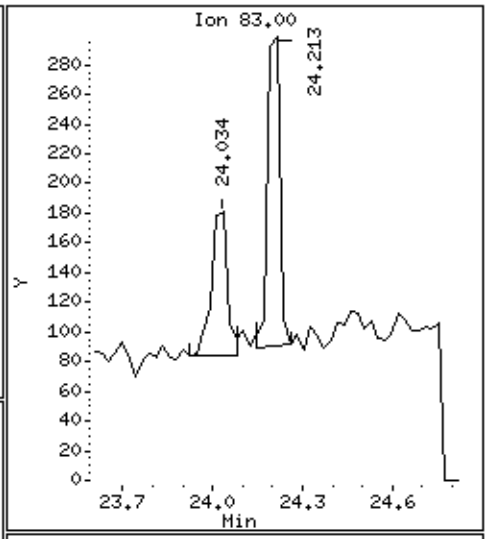
Column phase: RTX-624

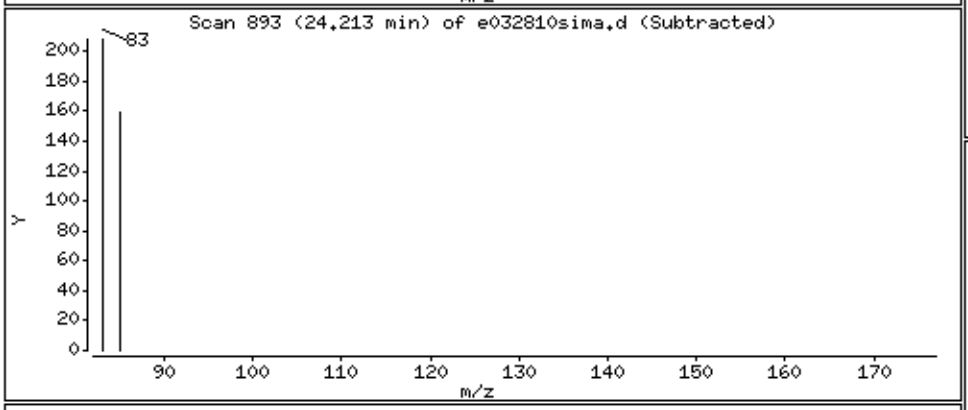
Column diameter: 0.32

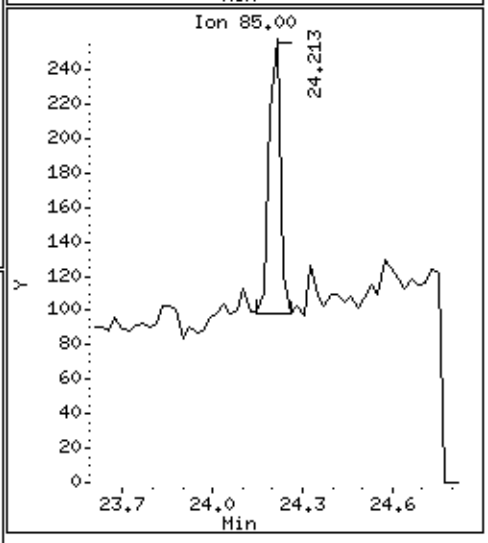
34 1,1,2,2-Tetrachloroethane

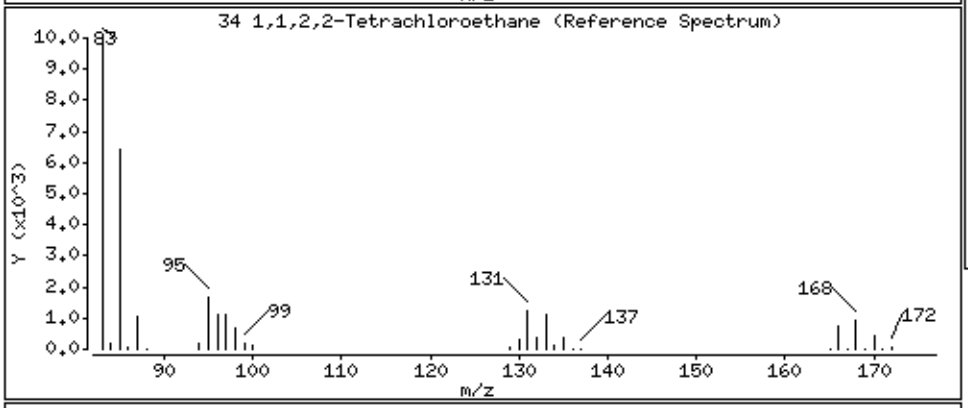
Concentration: 0.003870 PPBV

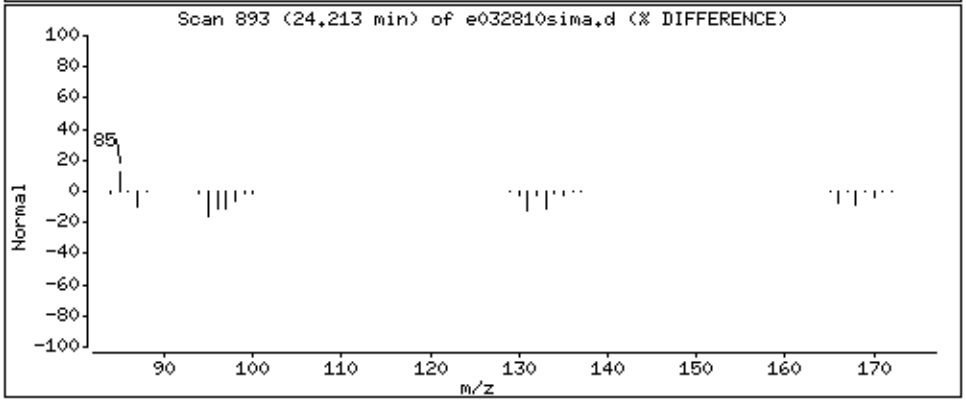












Data File: /chem/msde.i/28Mar2016.b/e032810sima.d

Date : 28-MAR-2016 15:30

Client ID: Lab Blank

Instrument: msde.i

Sample Info: 250mL# 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32

36 1,4-Dichlorobenzene

Concentration: 0.01518 PPBV

LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS SIM

SURROGATE RECOVERY FORM

Lab Name: AIR TOXICS LIMITED. SDG No.: 1603470

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#		#	TOTAL OUT
01	IA-01	106		101		101				0
02	OA-01	105		102		101				0
03	SG-01	103		100		99				0
04	SG-01-Dup	109		100		102				0
05	IA-02	99		100		99				0
06	SG-02	105		101		102				0
07	Lab Blank	101		101		99				0
08	Lab Blank	103		101		100				0
09	CCV	93		99		100				0
10	CCV	94		100		101				0
11	LCS	94		100		99				0
12	LCSD	93		99		100				0
13	LCS	94		100		101				0
14	LCSD	94		100		101				0
15										0
16										0
17										0
18										0
19										0
20										0
21										0
22										0
23										0
24										0

Surrogate Recovery Limits

1,2-Dichloroethane-d4 70 - 130
Toluene-d8 70 - 130
4-Bromofluorobenzene 70 - 130

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS SIM

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD | SDG No: 1603470

Lab File ID: e032502sim.d | Date Analyzed: 03/25/2016

Instrument ID: msde.i | Time Analyzed: 09:25 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	748894		22.38		838688		16.95		200624		15.59	
	UPPER LIMIT	1048452		22.71		1174163		17.28		280874		15.92	
	LOWER LIMIT	449336		22.05		503213		16.62		120374		15.26	
	CLIENT SAMPLE NO												
01	IA-01	714508		22.38		762412		16.95		178123		15.59	
02	OA-01	708361		22.38		751742		16.95		176757		15.59	
03	SG-01	732467		22.38		798519		16.95		192748		15.59	
04	SG-01-Dup	730495		22.38		799624		16.95		179899		15.59	
05	SG-02	741894		22.38		814472		16.95		186856		15.59	
06	Lab Blank	717410		22.38		768094		16.95		185375		15.59	
07	CCV	748894		22.38		838688		16.95		200624		15.59	
08	LCS	687488		22.38		760263		16.95		178661		15.59	
09	LCSD	663770		22.38		732811		16.95		174753		15.59	
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

'Area Upper Limit=+40% of internal standard area'

'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT

RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS SIM

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AIR TOXICS, LTD | SDG No: 1603470

Lab File ID: e032803sim.d | Date Analyzed: 03/28/2016

Instrument ID: msde.i | Time Analyzed: 10:19 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	718505		22.38		801879		16.95		190819		15.59	
	UPPER LIMIT	1005907		22.71		1122631		17.28		267147		15.92	
	LOWER LIMIT	431103		22.05		481127		16.62		114491		15.26	
	CLIENT SAMPLE NO												
01	IA-02	743392		22.38		808246		16.95		193956		15.59	
02	Lab Blank	701115		22.38		750182		16.95		177331		15.59	
03	CCV	718505		22.38		801879		16.95		190819		15.59	
04	LCS	649819		22.38		718197		16.95		171766		15.59	
05	LCSD	652523		22.38		722419		16.95		171694		15.59	
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

'Area Upper Limit=+40% of internal standard area'

'Area Lower Limit=-40% of internal standard area'

RT Upper Limit=+0.33 minutes of internal standard RT

RT Lower Limit=-0.33 minutes of internal standard RT

* Designates values outside of QC limits

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: e032504sim.d & e032503sim.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 3/25/16 & 3/25/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	110		110		0	
79-34-5	1,1,2,2-Tetrachloroethane	106		107		0.94	
79-00-5	1,1,2-Trichloroethane	111		110		0.90	
75-34-3	1,1-Dichloroethane	113		112		0.89	
75-35-4	1,1-Dichloroethene	106		106		0	
106-93-4	1,2-Dibromoethane (EDB)	110		109		0.91	
107-06-2	1,2-Dichloroethane	102		103		0.98	
106-46-7	1,4-Dichlorobenzene	102		109		6.6	
71-43-2	Benzene	100		100		0	
56-23-5	Carbon Tetrachloride	116		114		1.7	
75-00-3	Chloroethane	119		115		3.4	
67-66-3	Chloroform	104		103		0.97	
74-87-3	Chloromethane	110		106		3.7	
156-59-2	cis-1,2-Dichloroethene	120		119		0.84	
100-41-4	Ethyl Benzene	115		116		0.86	
76-14-2	Freon 114	117		116		0.86	
75-71-8	Freon 12	113		109		3.6	
108-38-3	m,p-Xylene	115		118		2.6	
1634-04-4	Methyl tert-butyl ether	116		115		0.86	
91-20-3	Naphthalene	69		80		15	
95-47-6	o-Xylene	115		118		2.6	
127-18-4	Tetrachloroethene	104		104		0	
108-88-3	Toluene	109		109		0	
156-60-5	trans-1,2-Dichloroethene	96		95		1.0	
79-01-6	Trichloroethene	102		101		0.98	
75-01-4	Vinyl Chloride	119		116		2.6	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: e032806sim.d & e032805sim.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 3/28/16 & 3/28/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	109		110		0.91	
79-34-5	1,1,2,2-Tetrachloroethane	106		107		0.94	
79-00-5	1,1,2-Trichloroethane	110		111		0.90	
75-34-3	1,1-Dichloroethane	111		111		0	
75-35-4	1,1-Dichloroethene	104		104		0	
106-93-4	1,2-Dibromoethane (EDB)	109		109		0	
107-06-2	1,2-Dichloroethane	103		102		0.98	
106-46-7	1,4-Dichlorobenzene	107		108		0.93	
71-43-2	Benzene	99		99		0	
56-23-5	Carbon Tetrachloride	114		115		0.87	
75-00-3	Chloroethane	114		115		0.87	
67-66-3	Chloroform	103		103		0	
74-87-3	Chloromethane	105		106		0.95	
156-59-2	cis-1,2-Dichloroethene	118		118		0	
100-41-4	Ethyl Benzene	116		116		0	
76-14-2	Freon 114	115		115		0	
75-71-8	Freon 12	110		110		0	
108-38-3	m,p-Xylene	117		118		0.85	
1634-04-4	Methyl tert-butyl ether	114		114		0	
91-20-3	Naphthalene	75		84		11	
95-47-6	o-Xylene	118		118		0	
127-18-4	Tetrachloroethene	104		104		0	
108-88-3	Toluene	109		108		0.92	
156-60-5	trans-1,2-Dichloroethene	94		94		0	
79-01-6	Trichloroethene	101		101		0	
75-01-4	Vinyl Chloride	114		115		0.87	

Note: The results appearing in the Amount columns are the raw, unrounded numbers acquired from the instrument.

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 11:11
End Cal Date : 17-MAR-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Cal Date : 22-Mar-2016 12:07 efinn
Curve Type : Average

Calibration File Names:
Level 1: /chem/msde.i/17Mar2016.b/e031702sim.d
Level 2: /chem/msde.i/17Mar2016.b/e031703sim.d
Level 3: /chem/msde.i/17Mar2016.b/e031704sim.d
Level 4: /chem/msde.i/17Mar2016.b/e031705sim.d
Level 5: /chem/msde.i/17Mar2016.b/e031706sim.d
Level 6: /chem/msde.i/17Mar2016.b/e031707sim.d
Level 7: /chem/msde.i/17Mar2016.b/e031708sim.d
Level 8: /chem/msde.i/17Mar2016.b/e031709sim.d
Level 12: /chem/msde.i/17Mar2016.b/e031710sim.d
Level 13: /chem/msde.i/17Mar2016.b/e031711sim.d
Level 15: /chem/msde.i/17Mar2016.b/e031712sim.d

Compound	0.00300 Level 1	0.00500 Level 2	0.01000 Level 3	0.02000 Level 4	0.05000 Level 5	0.10000 Level 6	___ RRF	% RSD
	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	20.000 Level 15			
1 Freon 12	+++++	+++++	+++++	5.07605	4.85174	5.32644		
	4.57733	4.51987	4.76365	4.40491	4.15645		4.70956	7.986
2 Freon 114	+++++	+++++	+++++	3.67172	3.29510	3.96278		
	3.35913	3.28222	3.43696	3.21571	3.10434		3.41599	8.114
3 Chloromethane	+++++	+++++	+++++	1.17128	1.16781	1.02157		
	0.84547	0.90766	0.90832	0.84223	0.81428		0.95983	15.007
4 Vinyl Chloride	+++++	+++++	1.45597	1.24646	1.16069	1.38067		
	1.18053	1.17692	1.24304	1.17753	1.13500		1.23965	8.800
5 Chloroethane	+++++	+++++	+++++	+++++	0.65022	0.73113		
	0.60283	0.60363	0.63165	0.59091	0.56229		0.62467	8.765
6 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++	+++++		+++++	+++++

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 11:11
End Cal Date : 17-MAR-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Cal Date : 22-Mar-2016 12:07 efinn
Curve Type : Average

Compound	0.00300 Level 1 / 0.50000 Level 7	0.00500 Level 2 / 1.000 Level 8	0.01000 Level 3 / 5.000 Level 12	0.02000 Level 4 / 10.000 Level 13	0.05000 Level 5 / 20.000 Level 15	0.10000 Level 6	___ RRF	% RSD
7 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	+++++	+++++	+++++	+++++	+++++			
8 1,1-Dichloroethene	+++++	1.33319	1.21945	1.01190	1.03518	1.24427		
	0.99401	0.98696	1.02681	0.95500	0.92689		1.07337	12.980
9 Methyl tert-butyl ether	+++++	+++++	+++++	4.16038	4.24875	4.74273		
	4.18621	4.21030	4.59803	4.27780	4.07538		4.31245	5.386
10 trans-1,2-Dichloroethene	+++++	1.12012	1.26246	1.12317	1.00477	1.19765		
	1.03411	1.03243	1.07422	0.99622	0.96453		1.08097	8.777
11 1,1-Dichloroethane	+++++	+++++	+++++	2.72597	2.70569	3.12329		
	2.74938	2.73981	2.82979	2.58171	2.45642		2.73901	7.062
12 cis-1,2-Dichloroethene	+++++	1.60713	1.18874	1.13068	1.14646	1.24900		
	1.10370	1.09296	1.15715	1.07017	1.03624		1.17822	13.786
14 Chloroform	+++++	5.52755	4.24197	3.80102	3.84309	4.39654		
	3.83431	3.85072	3.90658	3.57405	3.41135		4.03872	14.729
15 1,1,1-Trichloroethane	+++++	+++++	+++++	4.38140	4.35874	5.04829		
	4.38981	4.41377	4.57817	4.17054	3.94216		4.41036	7.250
16 Carbon Tetrachloride	+++++	4.98575	4.60443	4.20097	4.04689	4.67280		
	4.06554	4.00141	4.63595	4.24659	4.00362		4.34640	8.051
17 Benzene	+++++	+++++	+++++	+++++	1.73088	1.56302		
	1.18639	1.13412	1.17743	1.07828	1.01609		1.26946	21.174

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 11:11
End Cal Date : 17-MAR-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Cal Date : 22-Mar-2016 12:07 efinn
Curve Type : Average

Compound	0.00300 Level 1	0.00500 Level 2	0.01000 Level 3	0.02000 Level 4	0.05000 Level 5	0.10000 Level 6	RRF	% RSD
	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	20.000 Level 15			
19 1,2-Dichloroethane	+++++	0.73616	0.63524	0.64471	0.64199	0.70032		
	0.61561	0.60312	0.63207	0.58220	0.55856		0.63500	8.246
21 Trichloroethene	0.97033	0.67032	0.66708	0.62694	0.58897	0.68314		
	0.58665	0.57336	0.60331	0.55591	0.52632		0.64112	18.718
23 Toluene	+++++	+++++	+++++	1.55922	1.46751	1.59277		
	1.37922	1.36471	1.44490	1.32739	1.26980		1.42569	7.851
24 trans-1,3-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++	+++++		+++++	+++++
25 1,1,2-Trichloroethane	+++++	+++++	0.65832	0.57387	0.54381	0.63587		
	0.55476	0.53646	0.59676	0.55288	0.51452		0.57414	8.292
26 Tetrachloroethene	1.22121	1.09071	0.87361	0.88416	0.82515	0.98207		
	0.85248	0.82148	0.89455	0.82655	0.77565		0.91342	14.695
27 1,2-Dibromoethane (EDB)	+++++	1.06114	0.98582	0.93493	0.89089	1.02888		
	0.89165	0.85507	0.95752	0.87930	0.82862		0.93138	8.186
29 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++	+++++		+++++	+++++
30 Ethyl Benzene	+++++	+++++	+++++	0.62058	0.57213	0.69343		
	0.60829	0.60827	0.67961	0.63693	0.60929		0.62856	6.399
31 m,p-Xylene	+++++	+++++	+++++	0.73105	0.69889	0.79447		
	0.70743	0.71623	0.81441	0.76117	0.72884		0.74406	5.643

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 11:11
End Cal Date : 17-MAR-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Cal Date : 22-Mar-2016 12:07 efinn
Curve Type : Average

	0.00300	0.00500	0.01000	0.02000	0.05000	0.10000	___	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
	0.50000	1.000	5.000	10.000	20.000			
	Level 7	Level 8	Level 12	Level 13	Level 15			
32 o-Xylene	+++++	+++++	+++++	0.73267	0.67478	0.76267		
	0.67217	0.67392	0.76272	0.70918	0.68278		0.70886	5.534
34 1,1,2,2-Tetrachloroethane	+++++	1.42088	1.23435	1.11810	1.08997	1.18860		
	1.05984	1.03156	1.12245	1.03390	0.99475		1.12944	11.156
35 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++	+++++		+++++	+++++
36 1,4-Dichlorobenzene	+++++	1.49151	1.34241	1.22695	1.29175	1.27822		
	1.19155	1.20853	1.27983	1.20121	1.15682		1.26688	7.634
37 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++	+++++		+++++	+++++
38 Naphthalene	+++++	+++++	+++++	+++++	+++++	0.64550		
	0.81391	0.79592	0.74953	0.80183	0.79128		0.76633	8.233
M 39 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++	+++++	+++++		+++++	+++++
$ 18 1,2-Dichloroethane-d4	1.56910	1.57059	1.58034	1.57594	1.61899	1.57252		
	1.57565	1.60283	1.50783	1.51928	1.52942		1.56568	2.170
$ 22 Toluene-d8	0.90214	0.90419	0.90735	0.90556	0.92662	0.91041		
	0.91275	0.92388	0.91561	0.91950	0.92690		0.91408	0.992
$ 33 4-Bromofluorobenzene	0.63916	0.65205	0.66373	0.65939	0.67093	0.65680		
	0.66142	0.67551	0.66741	0.67167	0.67966		0.66343	1.740

Calibration History

Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Start Cal Date: 17-MAR-2016 11:11
End Cal Date : 17-MAR-2016 19:01

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.00300		
17-MAR-2016 11:11	Level1	/chem/msde.i/17Mar2016.b/e031702sim.d
Cal Level: 2 , Cal Amount: 0.00500		
17-MAR-2016 11:55	Level2	/chem/msde.i/17Mar2016.b/e031703sim.d
Cal Level: 3 , Cal Amount: 0.01000		
17-MAR-2016 12:36	Level3	/chem/msde.i/17Mar2016.b/e031704sim.d
Cal Level: 4 , Cal Amount: 0.02000		
17-MAR-2016 13:18	Level4	/chem/msde.i/17Mar2016.b/e031705sim.d
Cal Level: 5 , Cal Amount: 0.05000		
17-MAR-2016 14:00	HILOcrvFULL	/chem/msde.i/17Mar2016.b/e031706sim.d
Cal Level: 6 , Cal Amount: 0.10000		
17-MAR-2016 15:07	HILOcrvFULL	/chem/msde.i/17Mar2016.b/e031707sim.d
Cal Level: 7 , Cal Amount: 0.50000		
17-MAR-2016 15:49	HILOcrvFULL	/chem/msde.i/17Mar2016.b/e031708sim.d
Cal Level: 8 , Cal Amount: 1.00000		

|17-MAR-2016 16:31 |HILOcrvFULL |/chem/msde.i/17Mar2016.b/e031709sim.d |

Cal Level: 12, Cal Amount: 5.00000
17-MAR-2016 17:24 |HILOcrvFULL |/chem/msde.i/17Mar2016.b/e031710sim.d

Cal Level: 13, Cal Amount: 10.00000
17-MAR-2016 18:10 |HILOcrvFULL |/chem/msde.i/17Mar2016.b/e031711sim.d

Cal Level: 15, Cal Amount: 20.00000
17-MAR-2016 19:01 |HILOcrvFULL |/chem/msde.i/17Mar2016.b/e031712sim.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 12

Ccal Level: 12, Ccal Amount: 5.000
17-MAR-2016 17:24 |HILOcrvFULL |/chem/msde.i/17Mar2016.b/e031710sim.d

Ccal Level: 12, Ccal Amount: 5.000
17-MAR-2016 17:24 |AT09 |/chem/msde.i/17Mar2016.b/e031710sima.d

Curve Name: E16$_S$0317a

Initial Calibration Narrative

An initial calibration curve was analyzed on 03/17/16 on MSD-E.
The instrument was set up to do full scan and selective ion monitoring (SIM) simultaneously.
Tune File: E031701.
ICAL: Zero (0) out.
ICV: Zero (0) out.
In-house control limits: Zero (0) out.
DOD Control limits: Zero (0) out.

Naphthalene was calibrated from 0.01ppbv-2.0ppbv**.
Benzene was calibrated from 0.05ppbv-20ppbv.

The following compounds are good for special RL of 0.003ppbv:

Trichloroethene
Tetrachloroethene

The following compounds are good for special RL of 0.005ppbv:

1,1-Dichloroethene	Chloroform	1,1,2,2-Tetrachloroethene
~~1,1-Dichloroethane~~	Carbon Tetrachloride	1,4-Dichlorobenzene
trans-1,2-Dichloroethene	1,2-Dichloroethane*	
cis-1,2-Dichloroethene	1,2-Dibromomethane (EDB)	

*The quantitation ion peak (62 amu) is sufficiently resolved for accurate quantification of 1,2-Dichloroethane (1,2-DCA) at the SIM reporting limit of 0.005 ppbv. However, the confirmation mass ion peak (64 amu) for 1,2-DCA is not baseline-resolved from the surrogate 1,2-Dichloroethane-d4 peak. Identification of 1,2-DCA based on the presence and abundance ratio of confirmation ion is less reliable at the lowest concentrations due to this interference with the surrogate's mass ion 64 peak.

**The quantitation ion peak (128 amu) is sufficiently resolved for accurate quantification of Naphthalene at the special reporting limit of 0.01ppbv. However, the secondary mass ion peak (127 amu) for Naphthalene is not completely baseline-resolved. Identification of Naphthalene based on the presence and abundance ratio of confirmation ion is reliable at the lowest concentrations even when insufficient baseline resolution of the secondary mass ion peak (127 amu). The spectrum of Naphthalene in this ICAL point will be used as the reference to determine the ion ratio target in the samples for this ICAL.

The following compounds were not included in the ICAL:

- Freon 11
- Freon 113
- trans-1,3-Dichloropropene
- Chlorobenzene
- 1,3-Dichlorobenzene
- 1,2-Dichlorobenzene

MDL was analyzed October 20-23th 2015.

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 17-MAR-2016 11:11
End Cal Date : 17-MAR-2016 19:01
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Cal Date : 22-Mar-2016 11:57 efinn
Curve Type : Average

Calibration File Names:
Level 1: /chem/msde.i/17Mar2016.b/e031702sim.d
Level 2: /chem/msde.i/17Mar2016.b/e031703sim.d
Level 3: /chem/msde.i/17Mar2016.b/e031704sim.d
Level 4: /chem/msde.i/17Mar2016.b/e031705sim.d
Level 5: /chem/msde.i/17Mar2016.b/e031706sim.d
Level 6: /chem/msde.i/17Mar2016.b/e031707sim.d
Level 7: /chem/msde.i/17Mar2016.b/e031708sim.d
Level 8: /chem/msde.i/17Mar2016.b/e031709sim.d
Level 12: /chem/msde.i/17Mar2016.b/e031710sim.d
Level 13: /chem/msde.i/17Mar2016.b/e031711sim.d
Level 15: /chem/msde.i/17Mar2016.b/e031712sim.d

Compound	0.00300 Level 1	0.00500 Level 2	0.01000 Level 3	0.02000 Level 4	0.05000 Level 5	0.10000 Level 6	RRF	% RSD
	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	20.000 Level 15			
1 Freon 12	*****	*****	*****	5.07605	4.85174	5.32644		
	4.57733	4.51987	4.76365	4.40491	4.15645		4.70956	7.986
2 Freon 114	*****	*****	*****	3.67172	3.29510	3.96278		
	3.35913	3.28222	3.43696	3.21571	3.10434		3.41599	8.114
3 Chloromethane	*****	*****	*****	1.17128	1.16781	1.02157		
	0.84547	0.90766	0.90832	0.84223	0.81428		0.95983	15.007
4 Vinyl Chloride	*****	*****	1.45597	1.24648	1.16069	1.38067		
	1.18053	1.17692	1.24304	1.17753	1.13500		1.23965	8.800
5 Chloroethane	*****	*****	*****	*****	0.65022	0.73113		
	0.60283	0.60363	0.63165	0.59091	0.56229		0.62467	8.765
8 1,1-Dichloroethene	*****	1.33319	1.21945	1.01190	1.03518	1.24427		
	0.99401	0.98696	1.02681	0.95500	0.92689		1.07337	12.980

Eurofins Air Toxics, Inc. MSD-E Logbook #2755

BFB Verification of 176/174 m/z Ratio: (622456/6-19716) x100 96.65	
Tekmar Purge Flow:	
Vacuum:	3/17/16

IS/S Std. #: 2787-17		Exp. Date: 3/17/16 6/17/16
BCM	LL: 1649946	170470
1,4-DFB	626935	700553
CB-d5	567678	628356

Verified CCV IS vs ICAL mid-point (-40%D):

File ID:	E031710
Compound:	Tetrachloride
Initials:	

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (623703) x (5.000) = 5.066

(~~626935~~) (0.98199)

3/23/16 626935

SOP# (Circle one): 6 / 83 / 88 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 5.066

Method Name: E16L0317A / E16S0317A

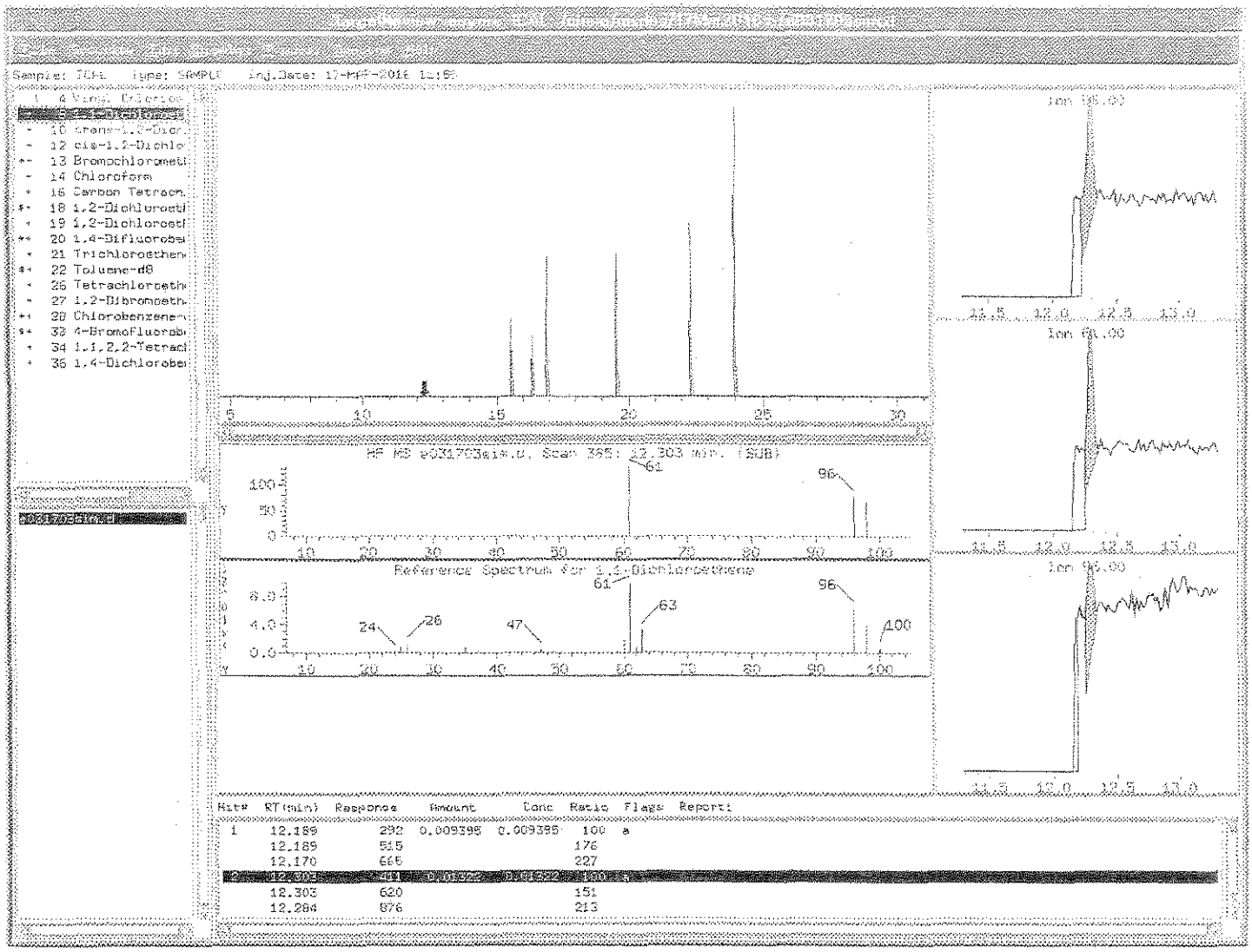
	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	E031701	BFB Tune check	2789-1484	50 ng	2.0 ml		1.00		3/17/16	1044		
2	✓	02	ICAL level 1	2789-13	0.003 ppbv	15 ml		1.00			1111		Exp 4/6/16
3	✓	03	2		0.005 ppbv	25 ml		1.00			1155		
4	✓	04	3		0.01 ppbv	50 ml		1.00			1236		
5	✓	05	4		0.02 ppbv	100 ml		1.00			1318		
6	✓	06	5		0.05 ppbv	250 ml		1.00			1400		
7	✓	07	6	2789-14	0.1 ppbv	25 ml		1.00			1507		Exp 4/6/16
8	✓	08	7		0.5 ppbv	125 ml		1.00			1549	EA	
9	✓	09	8		1.0 ppbv	250 ml		1.00			1631	EA	
10	✓	10	12	2789-223	5.0 ppbv	25 ml	EA	1.00	EA		1724	EA	Exp 4/6/16
11	✓	11	13		10 ppbv	50 ml	EA	1.00	EA		1810	EA	
12	✓	12	15		20 ppbv	100 ml	EA	1.00	EA		1901	EA	
13	✓	13	16		40 ppbv	200 ml	EA	1.00	EA		1949	EA	
14	X	14	System Blank	35248	Humid	250 ml		1.00	EA		2034	EA	

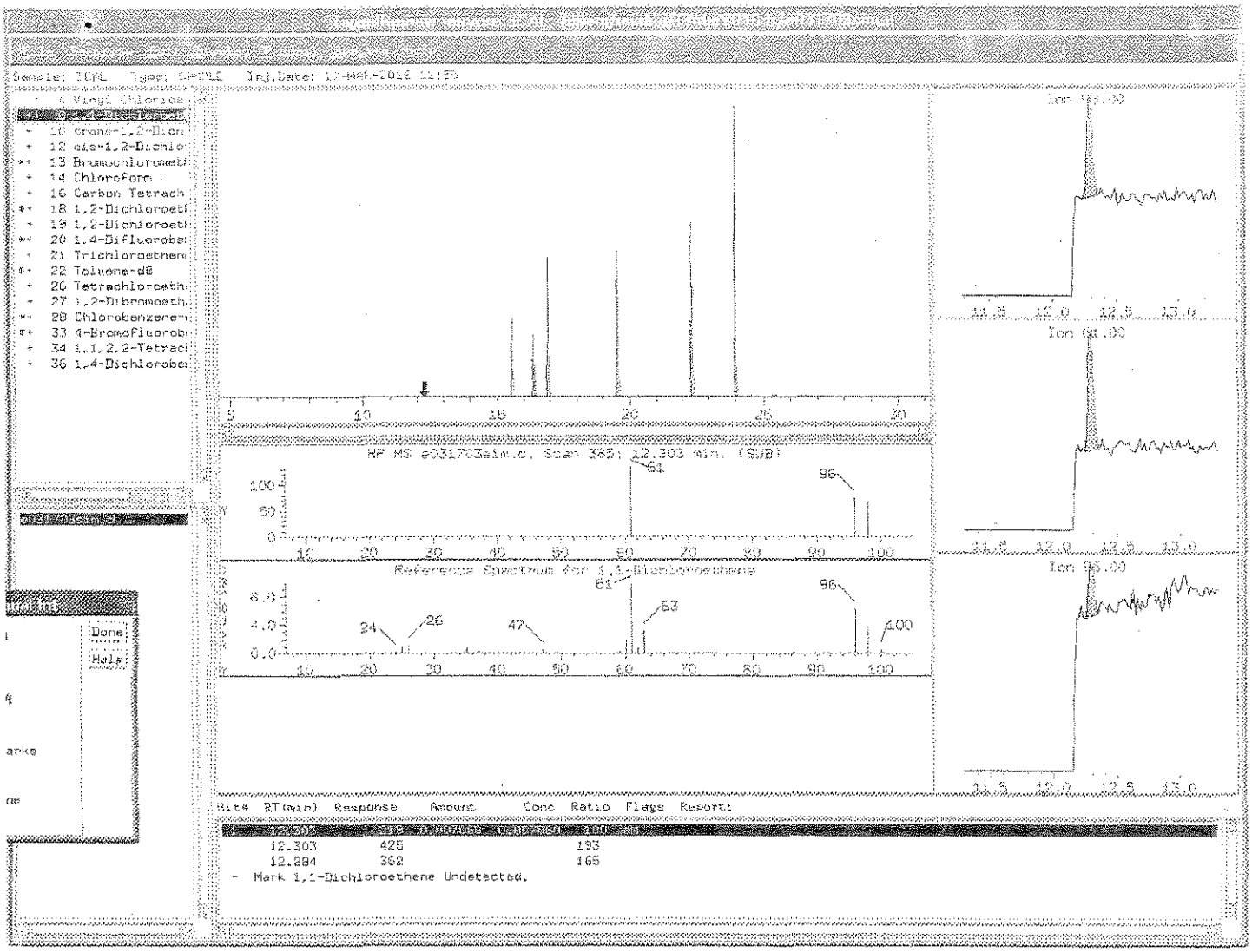
Reviewed 3/23/16 Date

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
15	X	E03171165 (E03/17/16)	system blank	35248	Humid	250ml	EA	1.00	EA	3/17/16	2118	EA	
16	✓	1176	IW (50ppbv)	2789-6	5.0ppbv	25ml		1.00	EA	3/17/16	2208	EA	6/11/16
17	/	17	System Blank	House Line	Dry	250ml	[illegible]	1.00	[illegible]	3/22/16	0843	[illegible]	
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35											[illegible] 3/22/16		
36													

[signature] Reviewed

3/22/16 Date

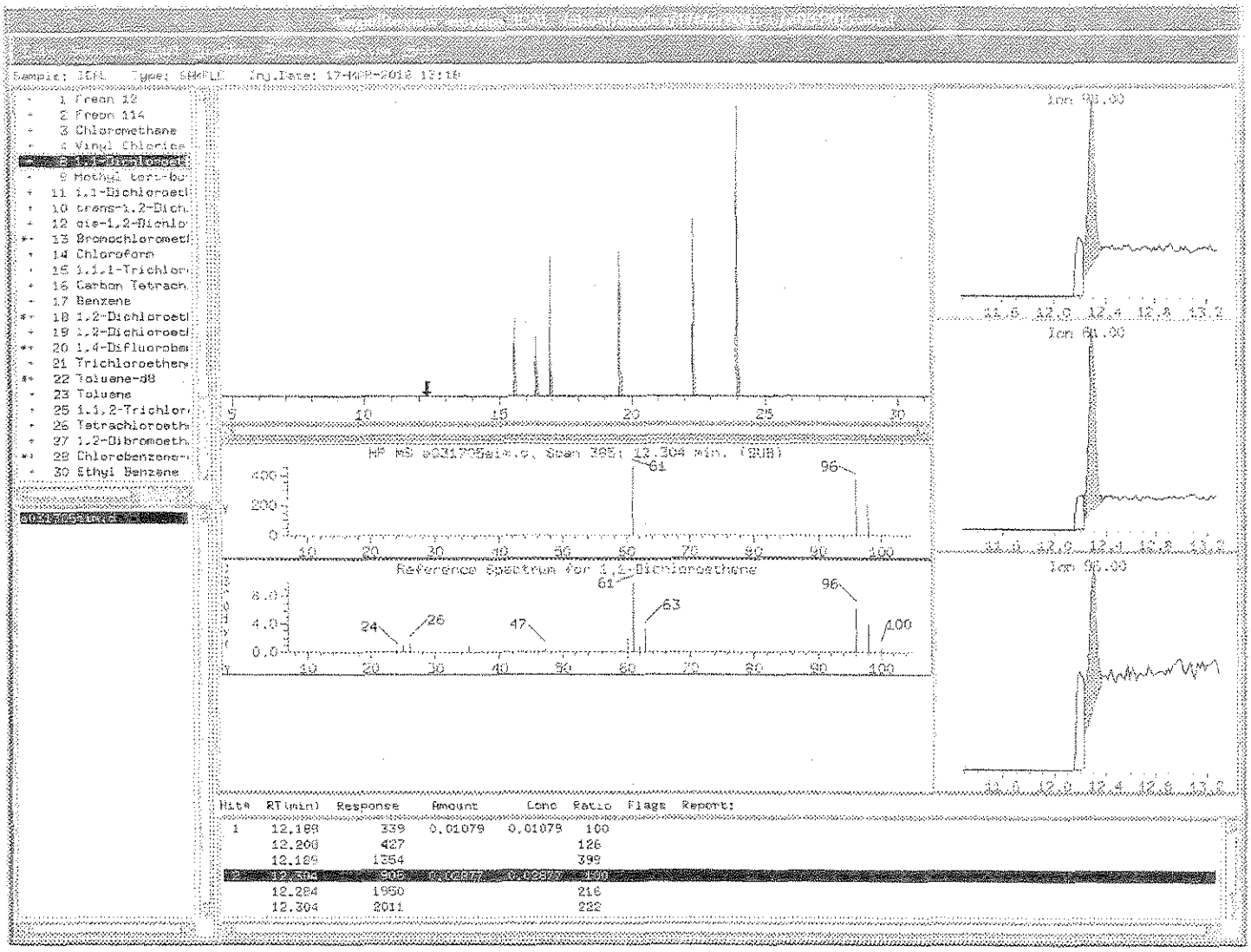

Sample: ICAL Type: SAMPLE Inj.Date: 17-MAR-2016 11:55
1 4 Vinyl Chloride
5 1,1-Dichloroe
10 trans-1,2-Dicr
12 cis-1,2-Dichlo
13 Bromochlorometh
14 Chloroform
16 Carbon Tetrach
18 1,2-Dichloroeth
19 1,2-Dichloroeth
20 1,4-Difluorobe
21 Trichloroethen
22 Toluene-d8
26 Tetrachloroeth
27 1,2-Dibromoeth
28 Chlorobenzene-
33 4-Bromofluorob
34 1,1,2,2-Tetrach
36 1,4-Dichlorobe
HF MS e031703sis.u, Scan 385: 12.303 min. (SUB)
Reference Spectrum for 1,1-Dichloroethene
Ion 96.00
Ion 61.00
Ion 96.00
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 12.189 292 0.009395 0.009395 100 a
12.189 515 176
12.170 665 227
2 12.303 401 0.00922 0.00922 100 a
12.303 620 151
12.284 876 213



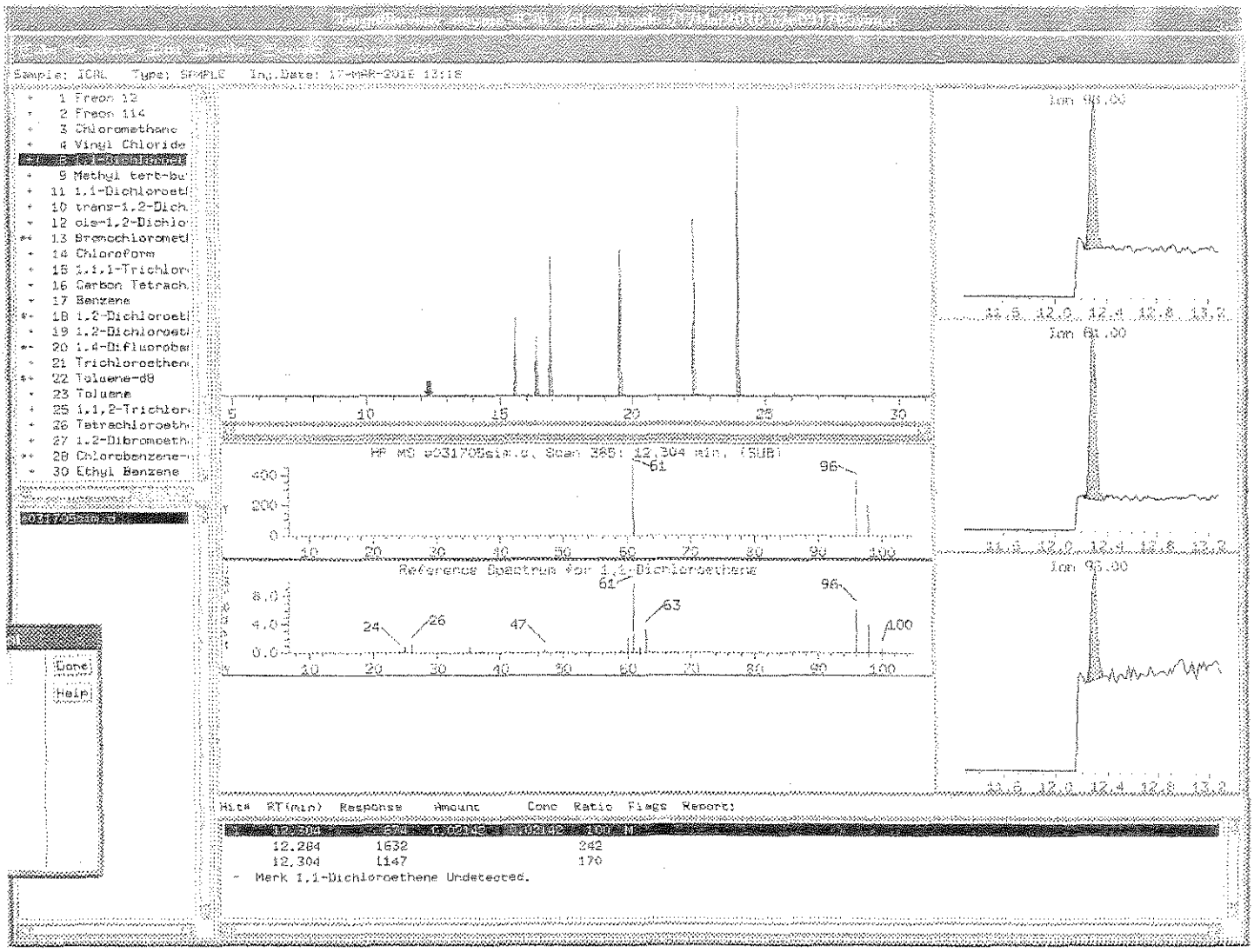
3/17/16

After

Correct Baseline	X
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	


Sample: ICAL Type: SAMPLE Inj.Date: 17-MAR-2018 13:18
1 Freon 12
2 Freon 114
3 Chloromethane
4 Vinyl Chlorida
9 Methyl tert-bu
11 1,1-Dichloroet
10 trans-1,2-Dich
12 cis-1,2-Dichlo
13 Bromochloromet
14 Chloroform
15 1,1,1-Trichlor
16 Carbon Tetrach
17 Benzene
18 1,2-Dichloroet
19 1,2-Dichloroet
20 1,4-Difluorobe
21 Trichloroethen
22 Toluene-d8
23 Toluene
25 1,1,2-Trichlor
26 Tetrachloroeth
27 1,2-Dibromoeth
28 Chlorobenzene-
30 Ethyl Benzene
HP MS e031705aim.d, Span 385: 12.304 min. (SUB)
Reference Spectrum for 1,1-Dichloroethene
Ion 98.00
Ion 61.00
Ion 96.00
Hits RT(min) Response Amount Conc Ratio Flags Report:
1 12.189 339 0.01079 0.01079 100
12.208 427 126
12.189 1354 399
12.304 905 0.02877 0.02877 100
12.284 1950 216
12.304 2011 222

Bofori



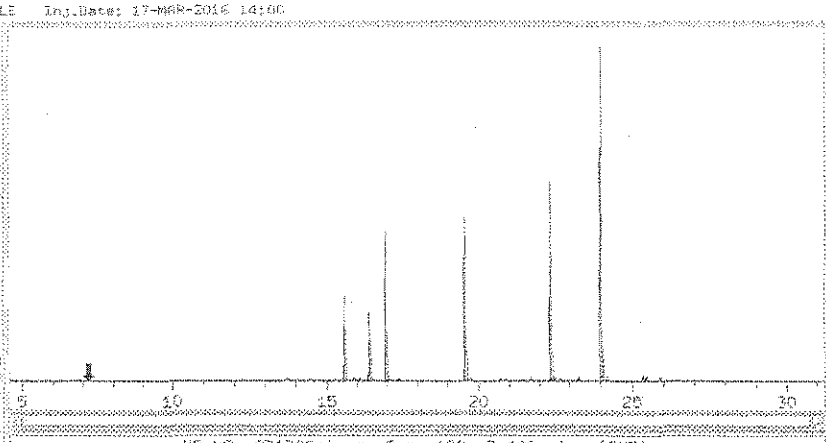
3/17/16

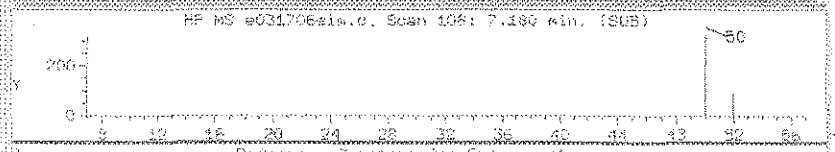
After

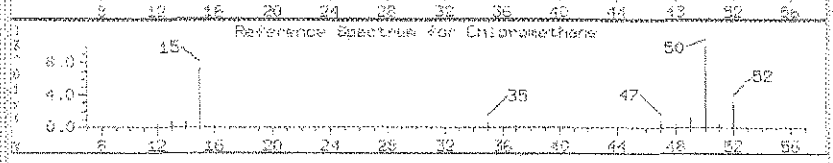
Correct Baseline	X
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

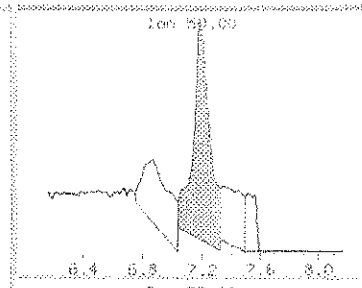
Sample: ICv1 Type: SAMPLE Inj.Date: 17-MAR-2016 14:00

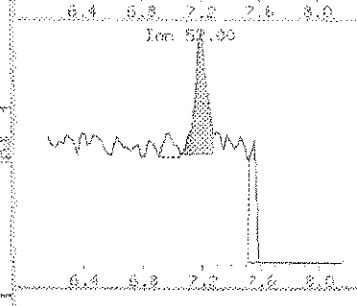
- 1 Freon 12
- 2 Freon 114
- 3 Chloromethane
- 4 Vinyl Chloride
- 5 Chloroethane
- 8 1,1-Dichloroeth
- 9 Methyl tert-bu
- 10 trans-1,2-Dich
- 11 1,1-Dichloroeth
- 12 cis-1,2-Dichlo
- 13 Bromochlorometh
- 14 Chloroform
- 15 1,1,1-Trichlor
- 16 Carbon Tetrach
- 17 Benzene
- 18 1,2-Dichloroeth
- 19 1,2-Dichloroeth
- 20 1,4-Difluorobe
- 21 Trichloroethen
- 22 Toluene-d8
- 23 Toluene
- 25 1,1,2-Trichlor
- 26 Tetrachloroeth
- 27 1,2-Dibromoeth
- 28 Chlorobenzene-



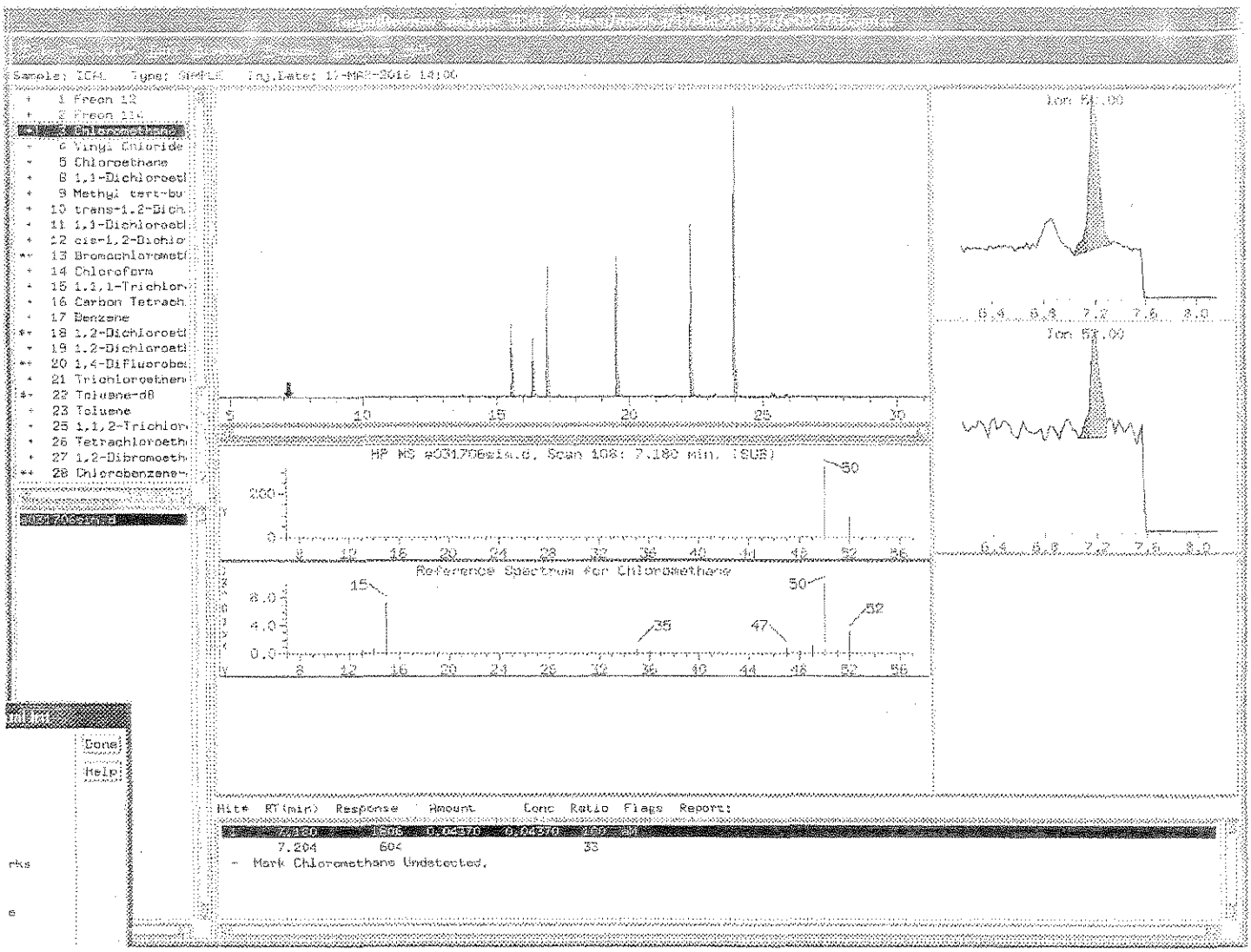








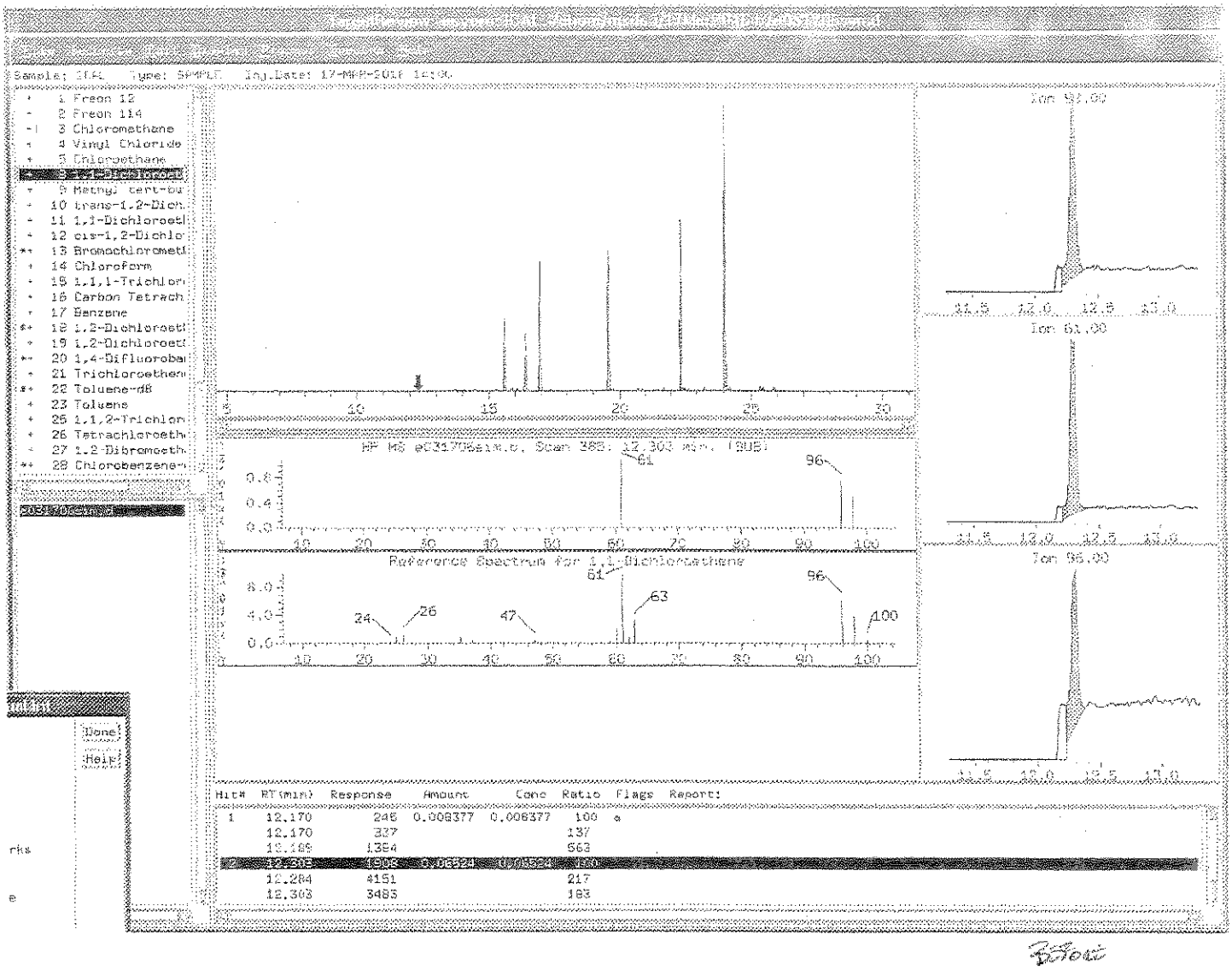
Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	6.867	1561	0.03778	0.03778	100	a	
	6.967	112			7		
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
	7.204	604			18		
3	7.349	1152	0.02790	0.02790	100	a	
	7.204	604			52		



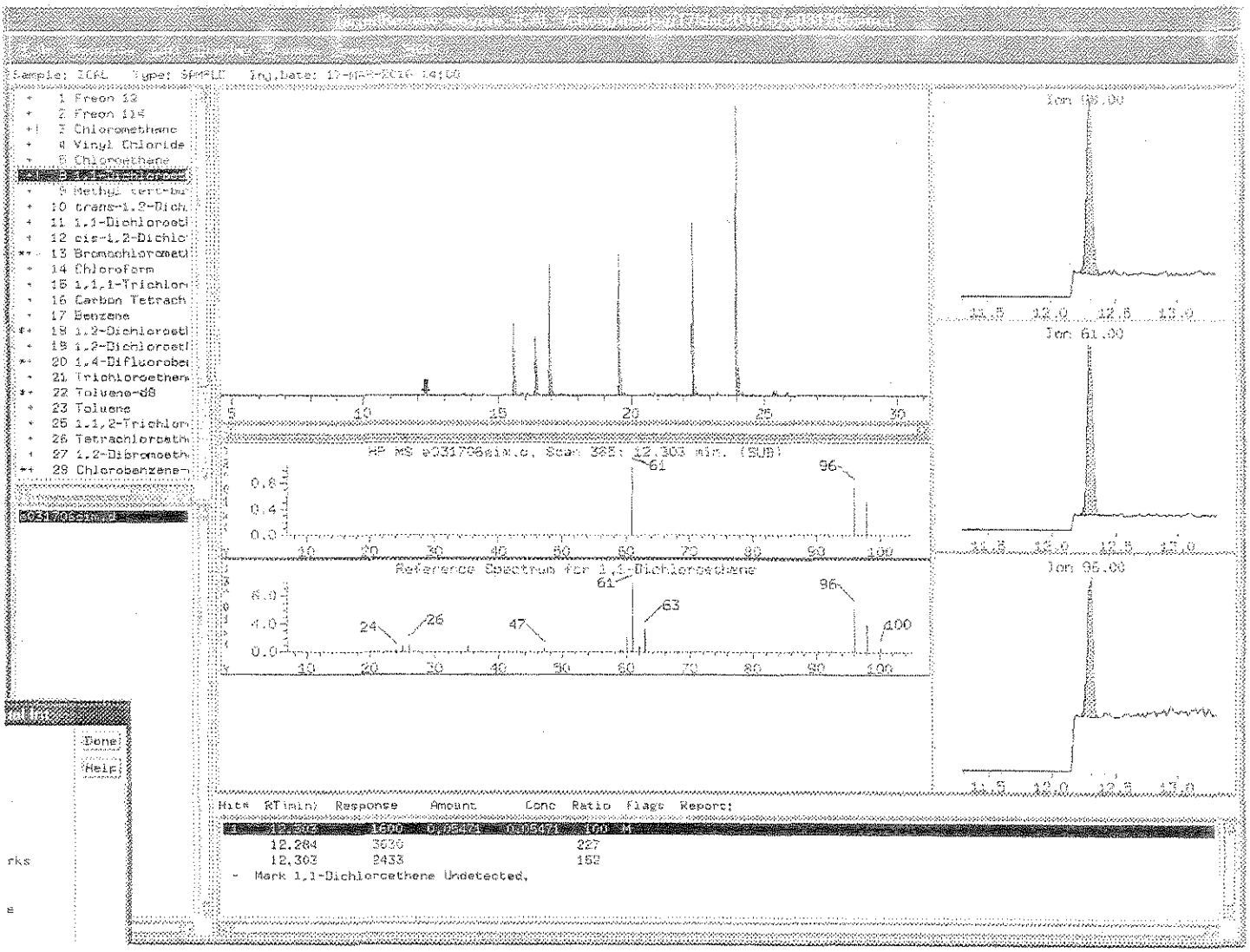
3/17/16

After 3/17/16

Correct Baseline	✓
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	


Sample: ICAL Type: SAMPLE Inj.Date: 17-MAR-2016 14:06
1 Freon 12
2 Freon 114
3 Chloromethane
4 Vinyl Chloride
5 Chloroethane
9 Methyl tert-bu
10 trans-1,2-Dich
11 1,1-Dichloroet
12 cis-1,2-Dichlo
13 Bromochlorometh
14 Chloroform
15 1,1,1-Trichlor
16 Carbon Tetrach
17 Benzene
18 1,2-Dichloroet
19 1,2-Dichloroet
20 1,4-Difluoroba
21 Trichloroethen
22 Toluene-d8
23 Toluene
25 1,1,2-Trichlor
26 Tetrachloroeth
27 1,2-Dibromoeth
28 Chlorobenzene-
Ion 92.00
Ion 61.00
Ion 96.00
HP MS e031706sim.c, Scan 385: 12.303 min. (SUB)
Reference Spectrum for 1,1-Dichloroethene
Done
Help
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 12.170 245 0.008377 0.008377 100 a
12.170 337 137
12.189 1384 563
12.284 4151 217
12.303 3483 183

Before



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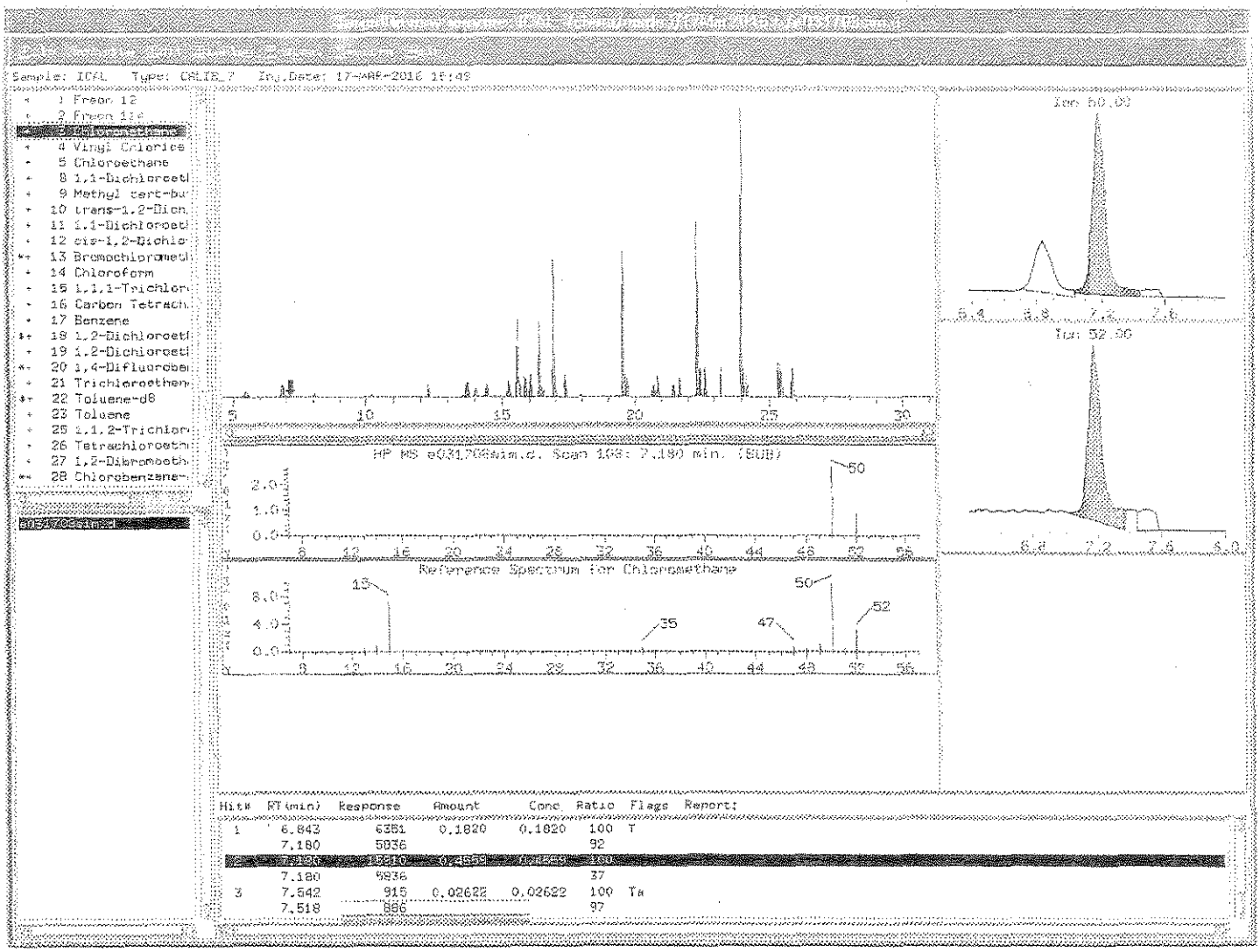
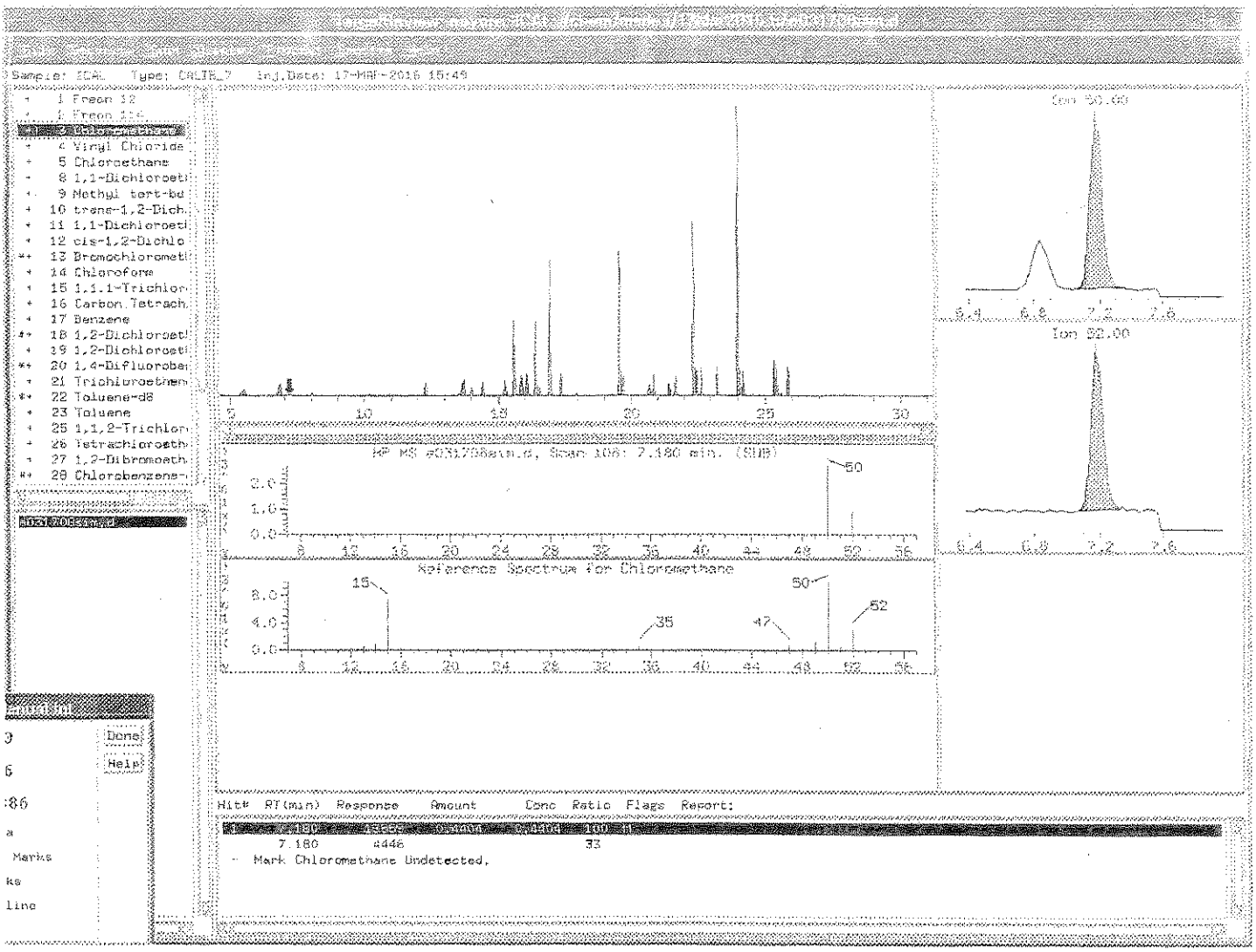
AS 3/17/16

After AS 3/17/16

Correct Baseline	X
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	


Sample: ICAL Type: CALIB_7 Inj.Date: 17-MAR-2016 18:48
1 Freon 12
2 Freon 114
3 Chloromethane
4 Vinyl Chloride
5 Chloroethane
8 1,1-Dichloroeth
9 Methyl tert-bu
10 trans-1,2-Dich
11 1,1-Dichloroeth
12 cis-1,2-Dichlo
13 Bromochloromeths
14 Chloroform
15 1,1,1-Trichlor
16 Carbon Tetrach
17 Benzene
18 1,2-Dichloroeth
19 1,2-Dichloroeth
20 1,4-Difluorobe
21 Trichloroethene
22 Toluene-d8
23 Toluene
25 1,1,2-Trichlor
26 Tetrachloroeth
27 1,2-Dibromoeth
28 Chlorobenzene-
Ion 50.00
Ion 52.00
HP MS e031709sim.d, Scan 108: 7.180 min. (SUB)
Reference Spectrum for Chloromethane
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.843 6381 0.1820 0.1820 100 T
7.180 5036 92
2 7.180 10910 0.3652 0.3652 100
7.180 9936 37
3 7.542 915 0.02622 0.02622 100 Ta
7.518 886 97



50 3/22/16

After 3/22/16

Correct Baseline	X
Split Peak	
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak integration	

Modified EPA Methods TO-14A/TO-15 SIM
Internal Standard and Associated Target Compounds and Surrogates

Bromochloromethane
Target Compounds:
Dichlorodifluoromethane (Fr12)
Freon 114
Chloromethane
Vinyl Chloride
Chloroethane
1,1-Dichloroethene
trans-1,2-Dichloroethene
Methyl tert-butyl ether
1,1-Dichloroethane
cis-1,2-Dichloroethene
Chloroform
1,1,1-Trichloroethane
Carbon Tetrachloride
Surrogates:
1,2-Dichloroethane-d4

1,4-Difluorobenzene
Target Compounds:
Benzene
1,2-Dichloroethane
Trichloroethene
Toluene
Surrogates:
Toluene-d8

Chlorobenzene-d5
Target Compounds:
1,1,2-Trichloroethane
Tetrachloroethene
1,2-Dibromoethane
Ethyl Benzene
m,p-Xylene
o-Xylene
1,1,2,2-Tetrachloroethane
1,4-Dichlorobenzene
Naphthalene
Surrogates:
Bromofluorobenzene

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031716sim.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 17-MAR-2016 22:08
Operator : ea Inst ID: msde.i
Smp Info : 25mL#2789-6
Misc Info : 5.0ppbv(50ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 23-Mar-2016 08:09 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.469	5.493 (0.351)	85	850802	5.15449	5.154	80.00- 120.00	100.00
5.469	5.493 (0.351)	87	275975			2.41- 62.41	32.44
2 Freon 114					CAS #: 76-14-2		
6.843	6.819 (0.439)	135	636687	5.31797	5.318	80.00- 120.00	100.00
6.843	6.819 (0.439)	137	205739			2.22- 62.22	32.31
3 Chloromethane					CAS #: 74-87-3		
7.180	7.156 (0.460)	50	162875	4.84170	4.842	80.00- 120.00	100.00
7.180	7.156 (0.460)	52	54656			2.41- 62.41	33.56
4 Vinyl Chloride					CAS #: 75-01-4		
8.024	8.007 (0.515)	62	227909	5.24567	5.246	80.00- 120.00	100.00
8.024	8.007 (0.515)	64	78028			4.08- 64.08	34.24
5 Chloroethane					CAS #: 75-00-3		
10.209	10.190 (0.655)	64	116881	5.33868	5.339	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
	5 Chloroethane (continued)						
10.209	10.190 (0.655)	66	37727			3.01- 63.01	32.28
	8 1,1-Dichloroethene				CAS #: 75-35-4		
12.303	12.284 (0.789)	98	182979	4.86397	4.864	80.00- 120.00	100.00
12.284	12.284 (0.788)	61	427056			204.04- 264.04	233.39
12.284	12.284 (0.788)	96	285727			125.89- 185.89	156.15
	9 Methyl tert-butyl ether				CAS #: 1634-04-4		
13.687	13.660 (0.878)	73	800169	5.29413	5.294	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	140736			0.00- 47.74	17.59
13.660	13.660 (0.876)	41	123042			0.00- 45.64	15.38
	10 trans-1,2-Dichloroethene				CAS #: 156-60-5		
13.742	13.715 (0.881)	98	166018	4.38208	4.382	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	322088			165.66- 225.66	194.01
13.742	13.715 (0.881)	96	257977			126.47- 186.47	155.39
	11 1,1-Dichloroethane				CAS #: 75-34-3		
14.429	14.428 (0.925)	63	500622	5.21500	5.215	80.00- 120.00	100.00
14.429	14.428 (0.925)	65	162064			2.13- 62.13	32.37
	12 cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.253	15.253 (0.978)	98	226836	5.49315	5.493	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	399339			146.50- 206.50	176.05
15.253	15.253 (0.978)	96	349491			124.34- 184.34	154.07
*	13 Bromochloromethane				CAS #: 74-97-5		
15.593	15.593 (1.000)	130	175240	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	133581			46.88- 106.88	76.23
15.593	15.593 (1.000)	49	191334			79.48- 139.48	109.18
	14 Chloroform				CAS #: 67-66-3		
15.655	15.655 (1.004)	83	683874	4.83136	4.831	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	449831			35.71- 95.71	65.78
	15 1,1,1-Trichloroethane				CAS #: 71-55-6		
15.871	15.871 (1.018)	97	791260	5.11896	5.119	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	515401			35.33- 95.33	65.14
	16 Carbon Tetrachloride				CAS #: 56-23-5		
16.087	16.086 (1.032)	117	811243	5.32547	5.325	80.00- 120.00	100.00
16.087	16.086 (1.032)	119	789701			67.29- 127.29	97.34
	17 Benzene				CAS #: 71-43-2		
16.423	16.399 (0.969)	78	857785	4.67410	4.674	80.00- 120.00	100.00

	RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
		17 Benzene (continued)						
	16.423	16.399 (0.969)	77	196395			0.00- 52.97	22.90
$	18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
	16.399	16.399 (1.052)	65	260095	4.73987	4.740	80.00- 120.00	100.00
	16.423	16.399 (1.053)	67	132946			21.84- 81.84	51.11
		19 1,2-Dichloroethane				CAS #: 107-06-2		
	16.519	16.519 (0.974)	62	451701	4.92058	4.920	80.00- 120.00	100.00
	16.519	16.519 (0.974)	64	151910			3.73- 63.73	33.63
*	20 1,4-Difluorobenzene					CAS #: 540-36-3		
	16.953	16.953 (1.000)	114	722824	5.00000		80.00- 120.00	100.00
	16.953	16.953 (1.000)	88	107318			0.00- 44.79	14.85
		21 Trichloroethene				CAS #: 79-01-6		
	17.362	17.362 (1.024)	130	440390	4.75155	4.752	80.00- 120.00	100.00
	17.362	17.362 (1.024)	95	421001			65.34- 125.34	95.60
	17.362	17.362 (1.024)	97	274092			32.10- 92.10	62.24
$	22 Toluene-d8					CAS #: 2037-26-5		
	19.570	19.570 (1.154)	98	659470	4.99054	4.990	80.00- 120.00	100.00
	19.570	19.570 (1.154)	70	68753			0.00- 40.53	10.43
	19.570	19.570 (1.154)	100	432124			35.79- 95.79	65.53
		23 Toluene				CAS #: 108-88-3		
	19.727	19.704 (1.164)	91	1045293	5.07166	5.072	80.00- 120.00	100.00
	19.727	19.704 (1.164)	92	624860			29.49- 89.49	59.78
		25 1,1,2-Trichloroethane				CAS #: 79-00-5		
	20.702	20.674 (0.925)	97	387677	5.25460	5.254	80.00- 120.00	100.00
	20.702	20.674 (0.925)	99	245472			33.26- 93.26	63.32
	20.675	20.674 (0.924)	83	312596			49.93- 109.93	80.63
		26 Tetrachloroethene				CAS #: 127-18-4		
	20.867	20.867 (0.932)	166	586364	4.99554	4.996	80.00- 120.00	100.00
	20.867	20.867 (0.932)	129	420387			41.88- 101.88	71.69
	20.867	20.867 (0.932)	131	408073			40.10- 100.10	69.59
		27 1,2-Dibromoethane (EDB)				CAS #: 106-93-4		
	21.691	21.691 (0.969)	107	618922	5.17122	5.171	80.00- 120.00	100.00
	21.691	21.691 (0.969)	109	593516			65.18- 125.18	95.90
*	28 Chlorobenzene-d5					CAS #: 3114-55-4		
	22.379	22.379 (1.000)	117	642516	5.00000		80.00- 120.00	100.00
	22.379	22.379 (1.000)	82	316189			19.34- 79.34	49.21

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	441512	5.46610	5.466	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	1363360			278.88- 338.88	308.79
31 m,p-Xylene					CAS #: 108-38-3		
22.669	22.669 (1.013)	106	528069	5.52290	5.523	80.00- 120.00	100.00
22.669	22.669 (1.013)	91	1051305			169.32- 229.32	199.08
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	505732	5.55193	5.552	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	1055622			179.11- 239.11	208.73
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	430591	5.05075	5.051	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	457214			77.34- 137.34	106.18
24.034	24.034 (1.074)	176	420186			67.97- 127.97	97.58
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.191 (1.082)	83	731263	5.03844	5.038	80.00- 120.00	100.00
24.213	24.191 (1.082)	85	481972			35.73- 95.73	65.91
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	823294	5.05715	5.057	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	533513			35.15- 95.15	64.80
25.424	25.424 (1.136)	111	304996			6.91- 66.91	37.05
38 Naphthalene					CAS #: 91-20-3		
27.935	27.935 (1.248)	128	33713	0.34236	0.3424	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	4212			0.00- 42.33	12.50

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031716sim.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 5.0ppbv(50ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: ICV
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	175240	2.80
20 1,4-Difluorobenze	700553	420332	980774	722824	3.18
28 Chlorobenzene-d5	628356	377014	879698	642516	2.25

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 17Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: ICV Client Smp ID: ICV
Level: LOW Operator: ea
Data Type: MS DATA SampleType: LCS
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 5.0ppbv(50ppbv)

	SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
1	Freon 12	5.000	5.154	103.09	70-130
2	Freon 114	5.000	5.318	106.36	70-130
3	Chloromethane	5.000	4.842	96.83	70-130
4	Vinyl Chloride	5.000	5.246	104.91	70-130
5	Chloroethane	5.000	5.339	106.77	70-130
8	1,1-Dichloroethene	5.000	4.864	97.28	70-130
9	Methyl tert-butyl	5.000	5.294	105.88	70-130
10	trans-1,2-Dichloro	5.000	4.382	87.64	70-130
11	1,1-Dichloroethane	5.000	5.215	104.30	70-130
12	cis-1,2-Dichloroet	5.000	5.493	109.86	70-130
14	Chloroform	5.000	4.831	96.63	70-130
15	1,1,1-Trichloroeth	5.000	5.119	102.38	70-130
16	Carbon Tetrachlori	5.000	5.325	106.51	60-140
17	Benzene	5.000	4.674	93.48	70-130
19	1,2-Dichloroethane	5.000	4.920	98.41	70-130
21	Trichloroethene	5.000	4.752	95.03	70-130
23	Toluene	5.000	5.072	101.43	70-130
25	1,1,2-Trichloroeth	5.000	5.254	105.09	70-130
26	Tetrachloroethene	5.000	4.996	99.91	70-130
27	1,2-Dibromoethane	5.000	5.171	103.42	70-130
30	Ethyl Benzene	5.000	5.466	109.32	70-130
31	m,p-Xylene	5.000	5.523	110.46	70-130
32	o-Xylene	5.000	5.552	111.04	70-130
34	1,1,2,2-Tetrachlor	5.000	5.038	100.77	70-130
36	1,4-Dichlorobenzen	5.000	5.057	101.14	70-130
38	Naphthalene	0.5000	0.3424	68.47	60-140

	SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18	1,2-Dichloroethane	5.000	4.740	94.80	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 22 Toluene-d8	5.000	4.990	99.81	70-130
$ 33 4-Bromofluorobenze	5.000	5.051	101.02	70-130

Data File: /chem/msde.i/17Mar2016.b/e031716sim.d

Date : 17-MAR-2016 22:08

Client ID: ICV

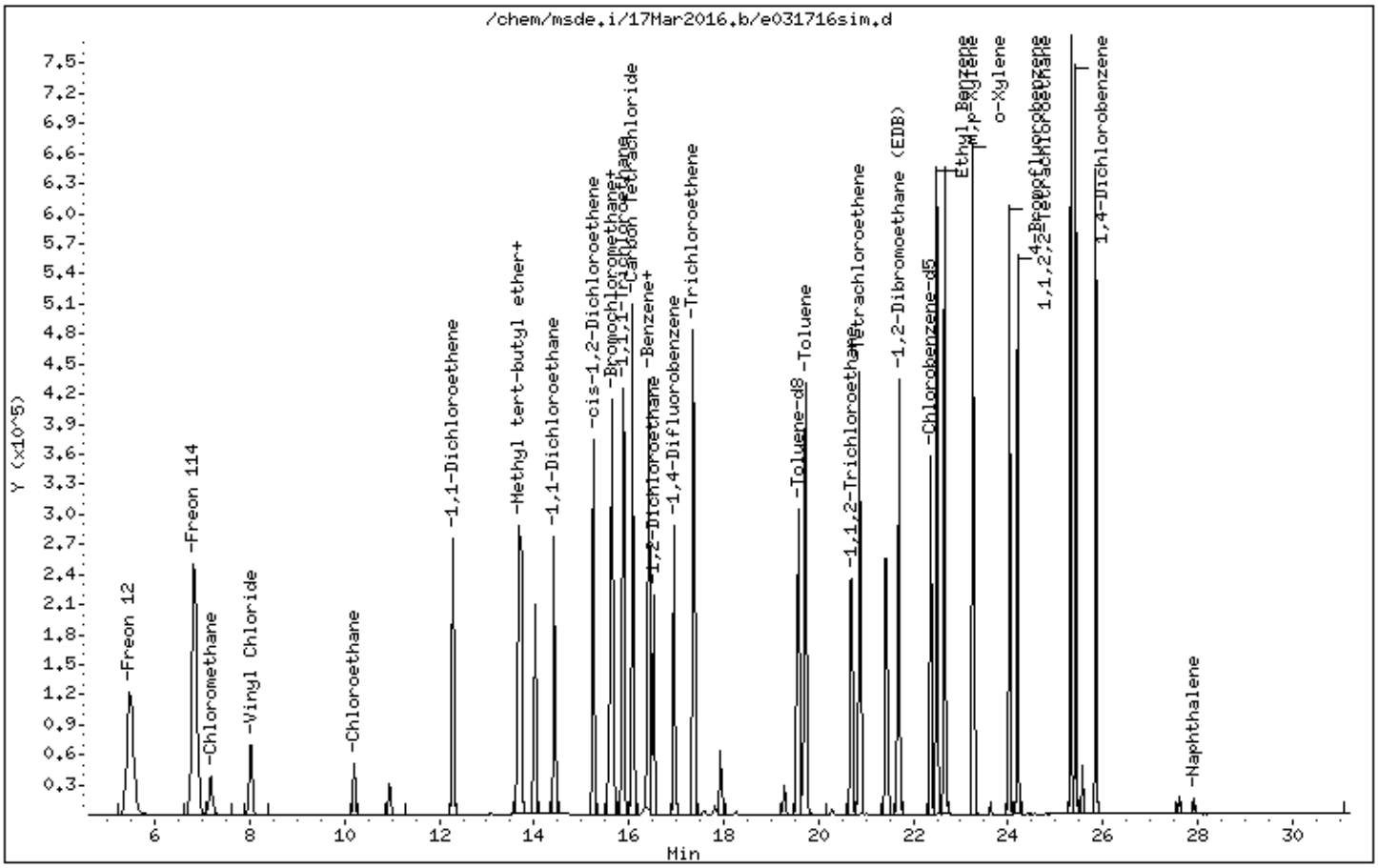
Instrument: msde.i

Sample Info: 25mL#2789-6

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031702sim.d
Lab Smp Id: ICAL Client Smp ID: Level 1
Inj Date : 17-MAR-2016 11:11
Operator : ef Inst ID: msde.i
Smp Info : 15mL# 2789-13
Misc Info : 0.003ppbv (0.05ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 22-Mar-2016 12:00 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 11:11 Cal File: e031702sim.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level1.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
*	13 Bromochloromethane				CAS #: 74-97-5		
15.594	15.594 (1.000)	130	164838	5.00000		80.00- 120.00	100.00
15.594	15.594 (1.000)	128	126662			46.88- 106.88	76.84
15.594	15.594 (1.000)	49	140169			79.48- 139.48	85.03
$	18 1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	258648	5.00000	5.011	80.00- 120.00	100.00
16.423	16.423 (1.053)	67	127513			21.84- 81.84	49.30
*	20 1,4-Difluorobenzene				CAS #: 540-36-3		
16.953	16.953 (1.000)	114	680182	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	100444			0.00- 44.79	14.77
	21 Trichloroethene				CAS #: 79-01-6		
17.362	17.362 (1.024)	130	396	0.00300	0.004540	80.00- 120.00	100.00(a)
17.362	17.362 (1.024)	95	357			65.34- 125.34	90.15
17.362	17.362 (1.024)	97	221			32.10- 92.10	55.81

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	613617	5.00000	4.935	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	64226			0.00- 40.53	10.47
19.570	19.570 (1.154)	100	402293			35.79- 95.79	65.56
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	448	0.00300	0.004011	80.00- 120.00	100.00(a)
20.867	20.867 (0.932)	129	354			41.88- 101.88	79.02
20.867	20.867 (0.932)	131	403			40.10- 100.10	89.96
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	611417	5.00000		80.00- 120.00	100.00
22.379	22.379 (1.000)	82	300311			19.34- 79.34	49.12
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	390792	5.00000	4.817	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	416219			77.34- 137.34	106.51
24.034	24.034 (1.074)	176	379130			67.97- 127.97	97.02

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031702sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 0.003ppbv (0.05ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 1
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	164838	-3.30
20 1,4-Difluorobenze	700553	420332	980774	680182	-2.91
28 Chlorobenzene-d5	628356	377014	879698	611417	-2.70

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031702sim.d

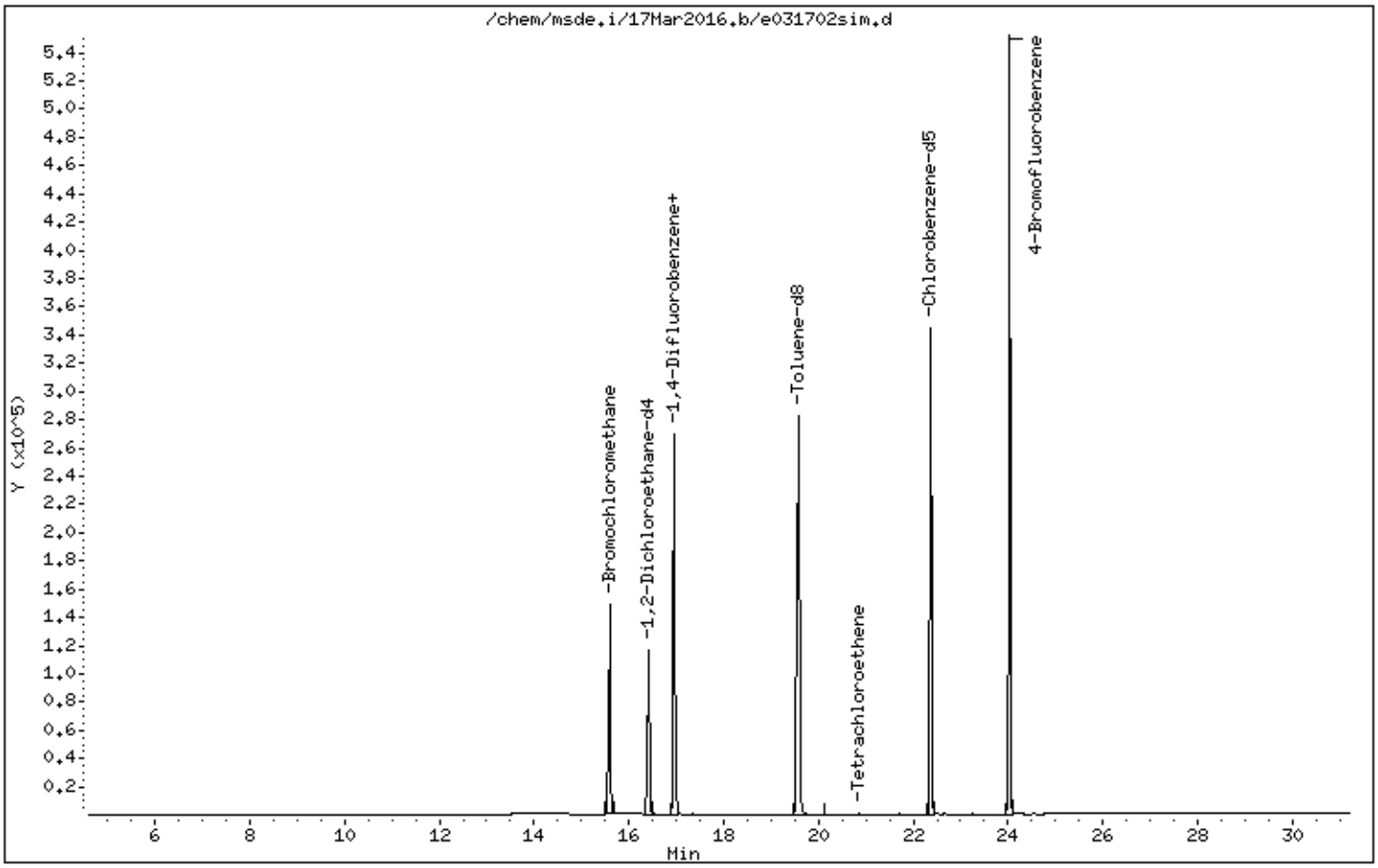
Date : 17-MAR-2016 11:11

Client ID: Level 1 Instrument: msde.i

Sample Info: 15mL# 2789-13

Operator: ef

Column phase: RTX-624 Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031703sim.d
Lab Smp Id: ICAL Client Smp ID: Level 2
Inj Date : 17-MAR-2016 11:55
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-13
Misc Info : 0.005ppbv (0.05ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 22-Mar-2016 12:00 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 11:55 Cal File: e031703sim.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level2.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
	8 1,1-Dichloroethene				CAS #: 75-35-4		
12.303	12.303 (0.789)	98	219	0.00500	0.006210	80.00- 120.00	100.00(aM)
12.303	12.303 (0.789)	61	424			204.04- 264.04	193.61
12.284	12.284 (0.788)	96	362			125.89- 185.89	165.30
	10 trans-1,2-Dichloroethene				CAS #: 156-60-5		
13.742	13.742 (0.881)	98	184	0.00500	0.005181	80.00- 120.00	100.00(a)
13.715	13.715 (0.880)	61	388			165.66- 225.66	210.87
13.742	13.742 (0.881)	96	485			126.47- 186.47	263.59
	12 cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.253	15.253 (0.978)	98	264	0.00500	0.006820	80.00- 120.00	100.00(a)
15.253	15.253 (0.978)	61	450			146.50- 206.50	170.45
15.253	15.253 (0.978)	96	485			124.34- 184.34	183.71
*	**13 Bromochloromethane**				CAS #: 74-97-5		
15.593	15.593 (1.000)	130	164268	5.00000		80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 13 Bromochloromethane (continued)							
15.593	15.593 (1.000)	128	126847			46.88- 106.88	77.22
15.593	15.593 (1.000)	49	138684			79.48- 139.48	84.43
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	908	0.00500	0.006843	80.00- 120.00	100.00(a)
15.655	15.655 (1.004)	85	467			35.71- 95.71	51.43
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.087	16.087 (1.032)	117	819	0.00500	0.005736	80.00- 120.00	100.00(a)
16.087	16.087 (1.032)	119	761			67.29- 127.29	92.92
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	257998	5.00000	5.016	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	127008			21.84- 81.84	49.23
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	492	0.00500	0.005796	80.00- 120.00	100.00(a)
16.519	16.519 (0.974)	64	183			3.73- 63.73	37.20
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	668337	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	98670			0.00- 44.79	14.76
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	448	0.00500	0.005228	80.00- 120.00	100.00(a)
17.362	17.362 (1.024)	95	497			65.34- 125.34	110.94
17.362	17.362 (1.024)	97	388			32.10- 92.10	86.61
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	604305	5.00000	4.946	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	63705			0.00- 40.53	10.54
19.570	19.570 (1.154)	100	398040			35.79- 95.79	65.87
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	664	0.00500	0.005970	80.00- 120.00	100.00(a)
20.867	20.867 (0.932)	129	468			41.88- 101.88	70.48
20.867	20.867 (0.932)	131	420			40.10- 100.10	63.25
27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.691	21.691 (0.969)	107	646	0.00500	0.005697	80.00- 120.00	100.00(a)
21.691	21.691 (0.969)	109	636			65.18- 125.18	98.45
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	608777	5.00000		80.00- 120.00	100.00
22.379	22.379 (1.000)	82	299153			19.34- 79.34	49.14

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	396952	5.00000	4.914	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	424101			77.34- 137.34	106.84
24.034	24.034 (1.074)	176	388768			67.97- 127.97	97.94
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	865	0.00500	0.006290	80.00- 120.00	100.00(a)
24.213	24.213 (1.082)	85	519			35.73- 95.73	60.00
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.446	25.446 (1.137)	146	908	0.00500	0.005886	80.00- 120.00	100.00(a)
25.446	25.446 (1.137)	148	789			35.15- 95.15	86.89
25.424	25.424 (1.136)	111	312			6.91- 66.91	34.36

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031703sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 0.005ppbv (0.05ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 2
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	164268	-3.64
20 1,4-Difluorobenze	700553	420332	980774	668337	-4.60
28 Chlorobenzene-d5	628356	377014	879698	608777	-3.12

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031703sim.d

Date : 17-MAR-2016 11:55

Client ID: Level 2

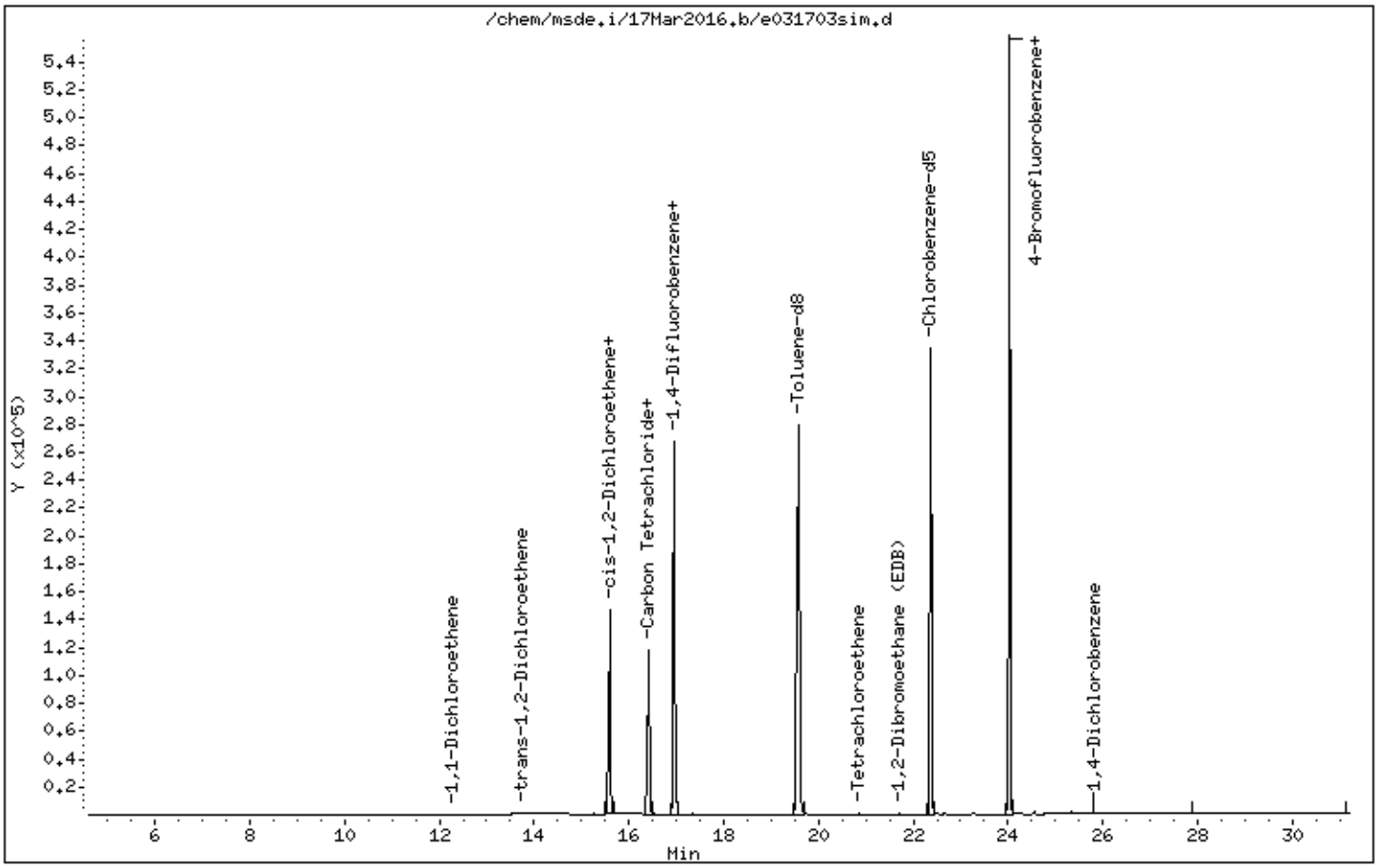
Instrument: msde.i

Sample Info: 25mL# 2789-13

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031704sim.d
Lab Smp Id: ICAL Client Smp ID: Level 3
Inj Date : 17-MAR-2016 12:36
Operator : ef Inst ID: msde.i
Smp Info : 50mL# 2789-13
Misc Info : 0.01ppbv (0.05ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 22-Mar-2016 12:00 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 12:36 Cal File: e031704sim.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level3.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
4 Vinyl Chloride					CAS #: 75-01-4		
8.042	8.042 (0.516)	62	474	0.01000	0.01174	80.00- 120.00	100.00
8.042	8.042 (0.516)	64	190			4.08- 64.08	40.08
8 1,1-Dichloroethene					CAS #: 75-35-4		
12.304	12.304 (0.789)	98	397	0.01000	0.01136	80.00- 120.00	100.00
12.304	12.304 (0.789)	61	1232			204.04- 264.04	310.33
12.304	12.304 (0.789)	96	1862			125.89- 185.89	469.02
10 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.742	13.742 (0.881)	98	411	0.01000	0.01168	80.00- 120.00	100.00(a)
13.742	13.742 (0.881)	61	668			165.66- 225.66	162.53
13.742	13.742 (0.881)	96	780			126.47- 186.47	189.78
12 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.253	15.253 (0.978)	98	387	0.01000	0.01009	80.00- 120.00	100.00(a)
15.253	15.253 (0.978)	61	756			146.50- 206.50	195.35

				AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)		
RT	EXP RT (REL RT)	MASS	RESPONSE			TARGET RANGE	RATIO
12 cis-1,2-Dichloroethene (continued)							
15.253	15.253 (0.978)	96	662			124.34- 184.34	171.06
* 13 Bromochloromethane					CAS #: 74-97-5		
15.594	15.594 (1.000)	130	162778	5.00000		80.00- 120.00	100.00
15.594	15.594 (1.000)	128	125740			46.88- 106.88	77.25
15.594	15.594 (1.000)	49	138653			79.48- 139.48	85.18
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	1381	0.01000	0.01050	80.00- 120.00	100.00(a)
15.655	15.655 (1.004)	85	904			35.71- 95.71	65.46
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.087	16.087 (1.032)	117	1499	0.01000	0.01059	80.00- 120.00	100.00(a)
16.087	16.087 (1.032)	119	1479			67.29- 127.29	98.67
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.423	16.423 (1.053)	65	257244	5.00000	5.047	80.00- 120.00	100.00
16.423	16.423 (1.053)	67	126583			21.84- 81.84	49.21
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	838	0.01000	0.01000	80.00- 120.00	100.00(a)
16.519	16.519 (0.974)	64	313			3.73- 63.73	37.35
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	659591	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	97394			0.00- 44.79	14.77
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	880	0.01000	0.01040	80.00- 120.00	100.00(a)
17.362	17.362 (1.024)	95	840			65.34- 125.34	95.45
17.362	17.362 (1.024)	97	597			32.10- 92.10	67.84
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	598477	5.00000	4.963	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	63286			0.00- 40.53	10.57
19.570	19.570 (1.154)	100	392218			35.79- 95.79	65.54
25 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.702	20.702 (0.925)	97	792	0.01000	0.01147	80.00- 120.00	100.00(a)
20.702	20.702 (0.925)	99	515			33.26- 93.26	65.03
20.702	20.702 (0.925)	83	609			49.93- 109.93	76.89
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	1051	0.01000	0.009564	80.00- 120.00	100.00(a)
20.867	20.867 (0.932)	129	784			41.88- 101.88	74.60

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
26 Tetrachloroethene (continued)							
20.867	20.867 (0.932)	131	763			40.10- 100.10	72.60
27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.691	21.691 (0.969)	107	1186	0.01000	0.01058	80.00- 120.00	100.00(a)
21.691	21.691 (0.969)	109	1115			65.18- 125.18	94.01
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	601529	5.00000		80.00- 120.00	100.00
22.379	22.379 (1.000)	82	297003			19.34- 79.34	49.37
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	399251	5.00000	5.002	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	426749			77.34- 137.34	106.89
24.034	24.034 (1.074)	176	389667			67.97- 127.97	97.60
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	1485	0.01000	0.01093	80.00- 120.00	100.00(a)
24.213	24.213 (1.082)	85	884			35.73- 95.73	59.53
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	1615	0.01000	0.01060	80.00- 120.00	100.00(a)
25.446	25.446 (1.137)	148	1081			35.15- 95.15	66.93
25.424	25.424 (1.136)	111	625			6.91- 66.91	38.70

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031704sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 0.01ppbv (0.05ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 3
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	162778	-4.51
20 1,4-Difluorobenze	700553	420332	980774	659591	-5.85
28 Chlorobenzene-d5	628356	377014	879698	601529	-4.27

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031704sim.d

Date : 17-MAR-2016 12:36

Client ID: Level 3

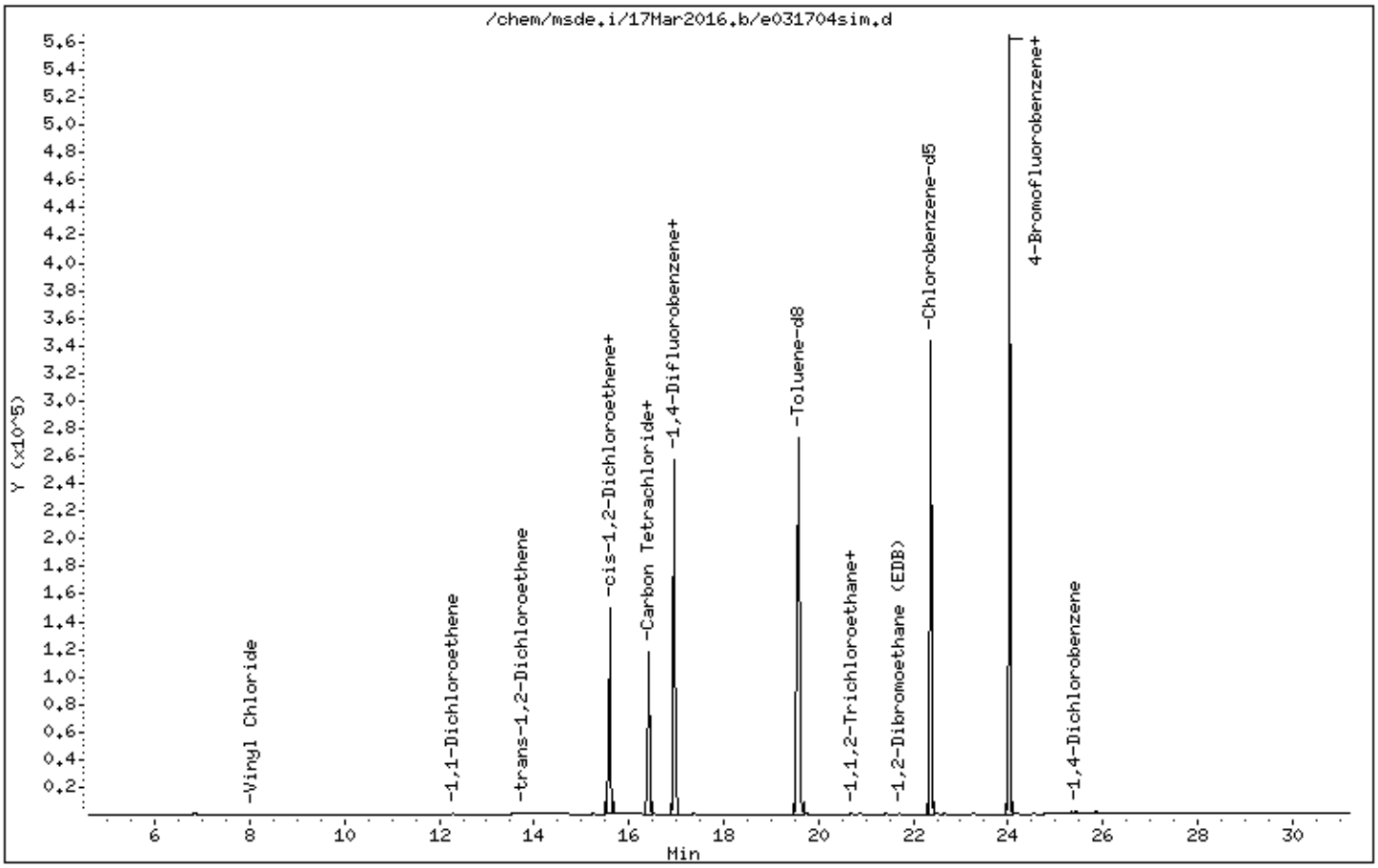
Instrument: msde.i

Sample Info: 50mL# 2789-13

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031705sim.d
Lab Smp Id: ICAL Client Smp ID: Level 4
Inj Date : 17-MAR-2016 13:18
Operator : ef Inst ID: msde.i
Smp Info : 100mL# 2789-13
Misc Info : 0.02ppbv (0.05ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 22-Mar-2016 12:00 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 13:18 Cal File: e031705sim.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level4.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.493	5.493 (0.352)	85	3376	0.02000	0.02156	80.00- 120.00	100.00
5.493	5.493 (0.352)	87	1120			2.41- 62.41	33.18
2 Freon 114					CAS #: 76-14-2		
6.867	6.867 (0.440)	135	2442	0.02000	0.02150	80.00- 120.00	100.00
6.843	6.843 (0.439)	137	731			2.22- 62.22	29.93
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	779	0.02000	0.02441	80.00- 120.00	100.00(a)
7.180	7.180 (0.460)	52	352			2.41- 62.41	45.19
4 Vinyl Chloride					CAS #: 75-01-4		
8.024	8.024 (0.515)	62	829	0.02000	0.02011	80.00- 120.00	100.00
8.024	8.024 (0.515)	64	229			4.08- 64.08	27.62
8 1,1-Dichloroethene					CAS #: 75-35-4		
12.304	12.304 (0.789)	98	673	0.02000	0.01885	80.00- 120.00	100.00(M)

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
	8 1,1-Dichloroethene (continued)						
12.284	12.284 (0.788)	61	1632			204.04- 264.04	242.50
12.304	12.304 (0.789)	96	1147			125.89- 185.89	170.43
	9 Methyl tert-butyl ether				CAS #: 1634-04-4		
13.687	13.687 (0.878)	73	2767	0.02000	0.01929	80.00- 120.00	100.00(a)
13.687	13.687 (0.878)	57	459			0.00- 47.74	16.59
13.660	13.660 (0.876)	41	472			0.00- 45.64	17.06
	11 1,1-Dichloroethane				CAS #: 75-34-3		
14.429	14.429 (0.925)	63	1813	0.02000	0.01990	80.00- 120.00	100.00(a)
14.429	14.429 (0.925)	65	642			2.13- 62.13	35.41
	10 trans-1,2-Dichloroethene				CAS #: 156-60-5		
13.742	13.742 (0.881)	98	747	0.02000	0.02078	80.00- 120.00	100.00(a)
13.715	13.715 (0.880)	61	1373			165.66- 225.66	183.80
13.742	13.742 (0.881)	96	1279			126.47- 186.47	171.22
	12 cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.253	15.253 (0.978)	98	752	0.02000	0.01919	80.00- 120.00	100.00(a)
15.253	15.253 (0.978)	61	1304			146.50- 206.50	173.40
15.253	15.253 (0.978)	96	1219			124.34- 184.34	162.10
*	13 Bromochloromethane				CAS #: 74-97-5		
15.593	15.593 (1.000)	130	166271	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	128587			46.88- 106.88	77.34
15.593	15.593 (1.000)	49	141368			79.48- 139.48	85.02
	14 Chloroform				CAS #: 67-66-3		
15.655	15.655 (1.004)	83	2528	0.02000	0.01882	80.00- 120.00	100.00(a)
15.655	15.655 (1.004)	85	1666			35.71- 95.71	65.90
	15 1,1,1-Trichloroethane				CAS #: 71-55-6		
15.871	15.871 (1.018)	97	2914	0.02000	0.01987	80.00- 120.00	100.00(a)
15.871	15.871 (1.018)	99	1853			35.33- 95.33	63.59
	16 Carbon Tetrachloride				CAS #: 56-23-5		
16.087	16.087 (1.032)	117	2794	0.02000	0.01933	80.00- 120.00	100.00(a)
16.087	16.087 (1.032)	119	2557			67.29- 127.29	91.52
$	18 1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	262033	5.00000	5.033	80.00- 120.00	100.00
16.423	16.423 (1.053)	67	128373			21.84- 81.84	48.99
	19 1,2-Dichloroethane				CAS #: 107-06-2		
16.519	16.519 (0.974)	62	1742	0.02000	0.02030	80.00- 120.00	100.00

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
==	====== ========	====	========	=======	=======	==========	=====
19 1,2-Dichloroethane (continued)							
16.519	16.519 (0.974)	64	632			3.73- 63.73	36.28
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	675500	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	99441			0.00- 44.79	14.72
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	1694	0.02000	0.01956	80.00- 120.00	100.00(a)
17.362	17.362 (1.024)	95	1593			65.34- 125.34	94.04
17.362	17.362 (1.024)	97	1100			32.10- 92.10	64.94
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	611705	5.00000	4.953	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	64939			0.00- 40.53	10.62
19.570	19.570 (1.154)	100	400742			35.79- 95.79	65.51
23 Toluene					CAS #: 108-88-3		
19.727	19.727 (1.164)	91	4213	0.02000	0.02187	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	2551			29.49- 89.49	60.55
25 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.702	20.702 (0.925)	97	1413	0.02000	0.01999	80.00- 120.00	100.00(a)
20.702	20.702 (0.925)	99	993			33.26- 93.26	70.28
20.702	20.702 (0.925)	83	1148			49.93- 109.93	81.25
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	2177	0.02000	0.01936	80.00- 120.00	100.00(a)
20.867	20.867 (0.932)	129	1569			41.88- 101.88	72.07
20.867	20.867 (0.932)	131	1533			40.10- 100.10	70.42
27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.691	21.691 (0.969)	107	2302	0.02000	0.02008	80.00- 120.00	100.00
21.691	21.691 (0.969)	109	2292			65.18- 125.18	99.57
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	615553	5.00000		80.00- 120.00	100.00
22.379	22.379 (1.000)	82	300630			19.34- 79.34	48.84
30 Ethyl Benzene					CAS #: 100-41-4		
22.504	22.504 (1.006)	106	1528	0.02000	0.01974	80.00- 120.00	100.00(a)
22.483	22.483 (1.005)	91	5239			278.88- 338.88	342.87
31 m,p-Xylene					CAS #: 108-38-3		
22.669	22.669 (1.013)	106	1800	0.02000	0.01965	80.00- 120.00	100.00(a)
22.669	22.669 (1.013)	91	3610			169.32- 229.32	200.56

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	1804	0.02000	0.02067	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	3607			179.11- 239.11	199.94
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	405892	5.00000	4.970	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	432661			77.34- 137.34	106.60
24.034	24.034 (1.074)	176	393051			67.97- 127.97	96.84
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	2753	0.02000	0.01980	80.00- 120.00	100.00(a)
24.213	24.213 (1.082)	85	1851			35.73- 95.73	67.24
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	3021	0.02000	0.01937	80.00- 120.00	100.00(a)
25.446	25.446 (1.137)	148	1944			35.15- 95.15	64.35
25.424	25.424 (1.136)	111	1174			6.91- 66.91	38.86

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031705sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 0.02ppbv (0.05ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 4
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	166271	-2.46
20 1,4-Difluorobenze	700553	420332	980774	675500	-3.58
28 Chlorobenzene-d5	628356	377014	879698	615553	-2.04

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031705sim.d

Date : 17-MAR-2016 13:18

Client ID: Level 4

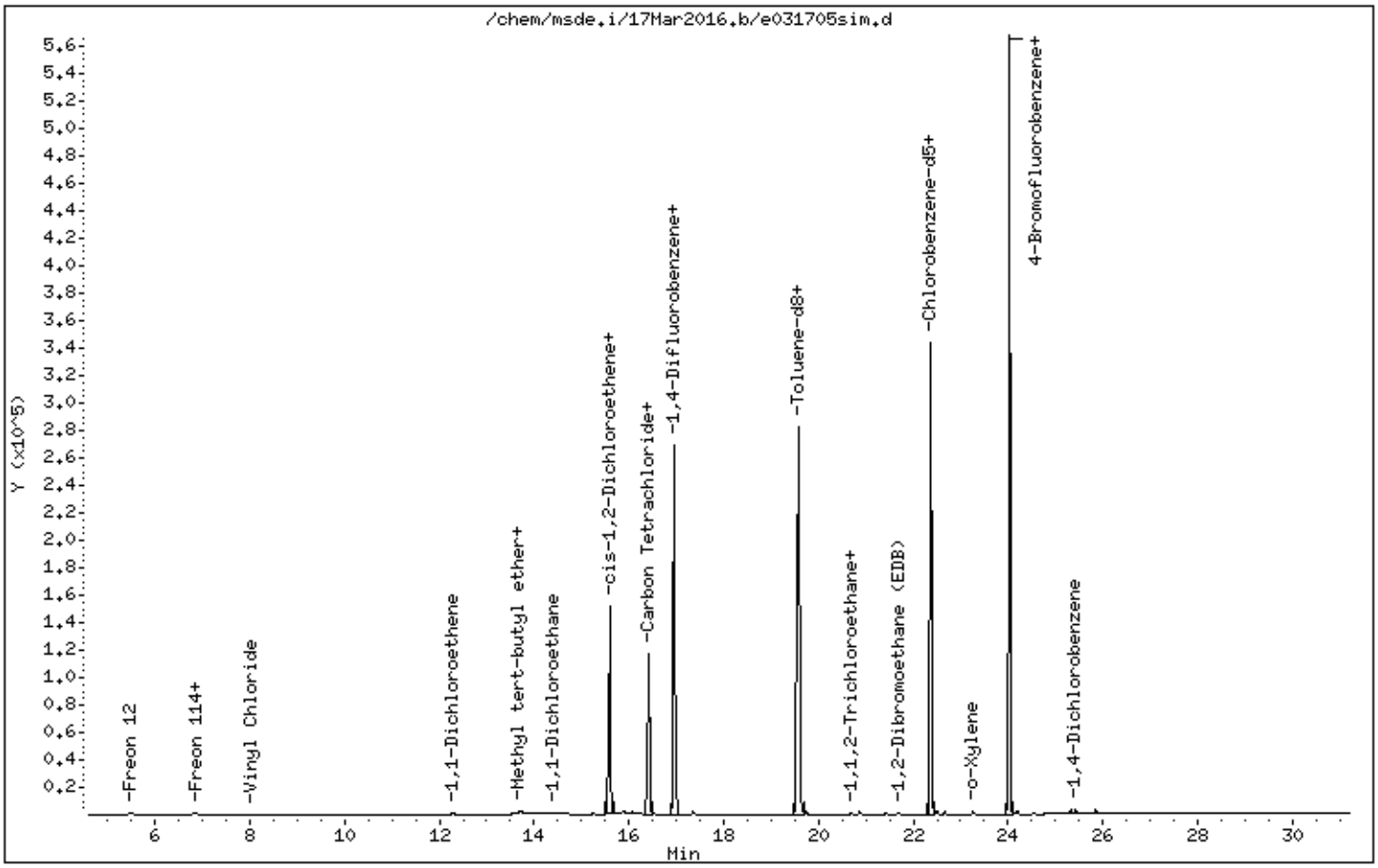
Instrument: msde.i

Sample Info: 100mL# 2789-13

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031706sim.d
Lab Smp Id: ICAL Client Smp ID: Level 5
Inj Date : 17-MAR-2016 14:00
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 2789-13
Misc Info : 0.05ppbv (0.05ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 22-Mar-2016 12:00 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 14:00 Cal File: e031706sim.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.517	5.517 (0.354)	85	7499	0.05000	0.05151	80.00- 120.00	100.00
5.517	5.517 (0.354)	87	2532			2.41- 62.41	33.76
2 Freon 114					CAS #: 76-14-2		
6.867	6.867 (0.440)	135	5093	0.05000	0.04823	80.00- 120.00	100.00(a)
6.867	6.867 (0.440)	137	1612			2.22- 62.22	31.65
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	1805	0.05000	0.06083	80.00- 120.00	100.00(M)
7.204	7.204 (0.462)	52	604			2.41- 62.41	33.46
4 Vinyl Chloride					CAS #: 75-01-4		
8.024	8.024 (0.515)	62	1794	0.05000	0.04682	80.00- 120.00	100.00(a)
8.041	8.041 (0.516)	64	726			4.08- 64.08	40.47
5 Chloroethane					CAS #: 75-00-3		
10.209	10.209 (0.655)	64	1005	0.05000	0.05204	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
	5 Chloroethane (continued)						
10.209	10.209 (0.655)	66	624			3.01- 63.01	62.09
	8 1,1-Dichloroethene				CAS #: 75-35-4		
12.303	12.303 (0.789)	98	1600	0.05000	0.04822	80.00- 120.00	100.00(aM)
12.284	12.284 (0.788)	61	3629			204.04- 264.04	226.81
12.303	12.303 (0.789)	96	2433			125.89- 185.89	152.06
	9 Methyl tert-butyl ether				CAS #: 1634-04-4		
13.687	13.687 (0.878)	73	6567	0.05000	0.04926	80.00- 120.00	100.00(a)
13.660	13.660 (0.876)	57	1222			0.00- 47.74	18.61
13.660	13.660 (0.876)	41	1222			0.00- 45.64	18.61
	10 trans-1,2-Dichloroethene				CAS #: 156-60-5		
13.742	13.742 (0.881)	98	1553	0.05000	0.04648	80.00- 120.00	100.00(a)
13.715	13.715 (0.880)	61	3261			165.66- 225.66	209.98
13.742	13.742 (0.881)	96	2553			126.47- 186.47	164.39
	11 1,1-Dichloroethane				CAS #: 75-34-3		
14.429	14.429 (0.925)	63	4182	0.05000	0.04939	80.00- 120.00	100.00(a)
14.429	14.429 (0.925)	65	1365			2.13- 62.13	32.64
	12 cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.253	15.253 (0.978)	98	1772	0.05000	0.04865	80.00- 120.00	100.00(a)
15.253	15.253 (0.978)	61	3125			146.50- 206.50	176.35
15.253	15.253 (0.978)	96	2897			124.34- 184.34	163.49
*	13 Bromochloromethane				CAS #: 74-97-5		
15.593	15.593 (1.000)	130	154563	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	119128			46.88- 106.88	77.07
15.593	15.593 (1.000)	49	130687			79.48- 139.48	84.55
	14 Chloroform				CAS #: 67-66-3		
15.655	15.655 (1.004)	83	5940	0.05000	0.04758	80.00- 120.00	100.00(a)
15.655	15.655 (1.004)	85	3928			35.71- 95.71	66.13
	15 1,1,1-Trichloroethane				CAS #: 71-55-6		
15.871	15.871 (1.018)	97	6737	0.05000	0.04941	80.00- 120.00	100.00(a)
15.871	15.871 (1.018)	99	4212			35.33- 95.33	62.52
	16 Carbon Tetrachloride				CAS #: 56-23-5		
16.087	16.087 (1.032)	117	6255	0.05000	0.04655	80.00- 120.00	100.00(a)
16.087	16.087 (1.032)	119	5855			67.29- 127.29	93.61
	17 Benzene				CAS #: 71-43-2		
16.423	16.423 (0.969)	78	10903	0.05000	0.06817	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
	17 Benzene (continued)						
16.423	16.423 (0.969)	77	2927			0.00- 52.97	26.85
$	18 1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	250236	5.00000	5.170	80.00- 120.00	100.00
16.423	16.423 (1.053)	67	122795			21.84- 81.84	49.07
	19 1,2-Dichloroethane				CAS #: 107-06-2		
16.519	16.519 (0.974)	62	4044	0.05000	0.05055	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	1498			3.73- 63.73	37.04
*	20 1,4-Difluorobenzene				CAS #: 540-36-3		
16.953	16.953 (1.000)	114	629912	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	93541			0.00- 44.79	14.85
	21 Trichloroethene				CAS #: 79-01-6		
17.362	17.362 (1.024)	130	3710	0.05000	0.04593	80.00- 120.00	100.00(a)
17.362	17.362 (1.024)	95	3510			65.34- 125.34	94.61
17.362	17.362 (1.024)	97	2340			32.10- 92.10	63.07
$	22 Toluene-d8				CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	583689	5.00000	5.068	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	62254			0.00- 40.53	10.67
19.570	19.570 (1.154)	100	382688			35.79- 95.79	65.56
	23 Toluene				CAS #: 108-88-3		
19.727	19.727 (1.164)	91	9244	0.05000	0.05147	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	5633			29.49- 89.49	60.94
	25 1,1,2-Trichloroethane				CAS #: 79-00-5		
20.702	20.702 (0.925)	97	3226	0.05000	0.04736	80.00- 120.00	100.00(a)
20.702	20.702 (0.925)	99	1929			33.26- 93.26	59.80
20.675	20.675 (0.924)	83	2536			49.93- 109.93	78.61
	26 Tetrachloroethene				CAS #: 127-18-4		
20.867	20.867 (0.932)	166	4895	0.05000	0.04517	80.00- 120.00	100.00(a)
20.867	20.867 (0.932)	129	3617			41.88- 101.88	73.89
20.867	20.867 (0.932)	131	3499			40.10- 100.10	71.48
	27 1,2-Dibromoethane (EDB)				CAS #: 106-93-4		
21.691	21.691 (0.969)	107	5285	0.05000	0.04783	80.00- 120.00	100.00(a)
21.691	21.691 (0.969)	109	4850			65.18- 125.18	91.77
*	28 Chlorobenzene-d5				CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	593227	5.00000		80.00- 120.00	100.00
22.379	22.379 (1.000)	82	291944			19.34- 79.34	49.21

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
30 Ethyl Benzene					CAS #: 100-41-4		
22.504	22.504 (1.006)	106	3394	0.05000	0.04551	80.00- 120.00	100.00(a)
22.483	22.483 (1.005)	91	11044			278.88- 338.88	325.40
31 m,p-Xylene					CAS #: 108-38-3		
22.669	22.669 (1.013)	106	4146	0.05000	0.04696	80.00- 120.00	100.00(a)
22.669	22.669 (1.013)	91	8298			169.32- 229.32	200.14
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	4003	0.05000	0.04760	80.00- 120.00	100.00(a)
23.271	23.271 (1.040)	91	8594			179.11- 239.11	214.69
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	398016	5.00000	5.056	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	422513			77.34- 137.34	106.15
24.034	24.034 (1.074)	176	387987			67.97- 127.97	97.48
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	6466	0.05000	0.04825	80.00- 120.00	100.00(a)
24.213	24.213 (1.082)	85	4278			35.73- 95.73	66.16
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	7663	0.05000	0.05098	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	4934			35.15- 95.15	64.39
25.424	25.424 (1.136)	111	2892			6.91- 66.91	37.74

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031706sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 0.05ppbv (0.05ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 5
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	154563	-9.33
20 1,4-Difluorobenze	700553	420332	980774	629912	-10.08
28 Chlorobenzene-d5	628356	377014	879698	593227	-5.59

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031706sim.d

Date : 17-MAR-2016 14:00

Client ID: Level 5

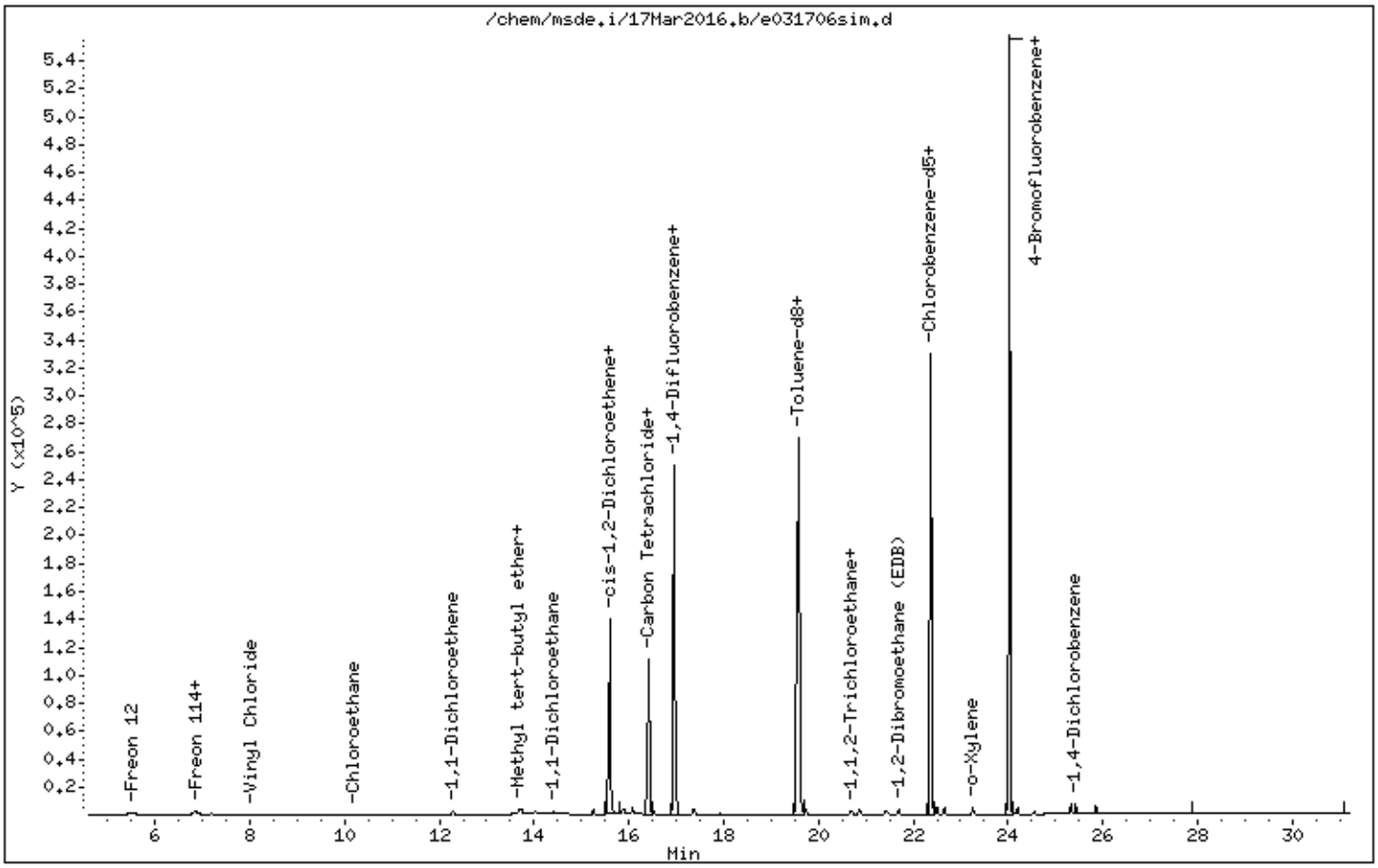
Instrument: msde.i

Sample Info: 250mL# 2789-13

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031707sim.d
Lab Smp Id: ICAL Client Smp ID: Level 6
Inj Date : 17-MAR-2016 15:07
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-14
Misc Info : 0.1ppbv (1.0ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 22-Mar-2016 12:00 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 15:07 Cal File: e031707sim.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.469	5.469 (0.351)	85	16909	0.10000	0.1131	80.00- 120.00	100.00
5.469	5.469 (0.351)	87	5521			2.41- 62.41	32.65
2 Freon 114					CAS #: 76-14-2		
6.843	6.843 (0.439)	135	12580	0.10000	0.1160	80.00- 120.00	100.00
6.843	6.843 (0.439)	137	4010			2.22- 62.22	31.88
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	3243	0.10000	0.1064	80.00- 120.00	100.00
7.180	7.180 (0.460)	52	1243			2.41- 62.41	38.33
4 Vinyl Chloride					CAS #: 75-01-4		
8.024	8.024 (0.515)	62	4383	0.10000	0.1114	80.00- 120.00	100.00
8.024	8.024 (0.515)	64	1507			4.08- 64.08	34.38
5 Chloroethane					CAS #: 75-00-3		
10.209	10.209 (0.655)	64	2321	0.10000	0.1170	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
5 Chloroethane (continued)							
10.209	10.209 (0.655)	66	1015			3.01- 63.01	43.73
8 1,1-Dichloroethene					CAS #: 75-35-4		
12.303	12.303 (0.789)	98	3950	0.10000	0.1159	80.00- 120.00	100.00
12.303	12.303 (0.789)	61	8777			204.04- 264.04	222.20
12.303	12.303 (0.789)	96	6388			125.89- 185.89	161.72
9 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.687	13.687 (0.878)	73	15056	0.10000	0.1100	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	2749			0.00- 47.74	18.26
13.660	13.660 (0.876)	41	2582			0.00- 45.64	17.15
10 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.742	13.742 (0.881)	98	3802	0.10000	0.1108	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	7301			165.66- 225.66	192.03
13.742	13.742 (0.881)	96	6142			126.47- 186.47	161.55
11 1,1-Dichloroethane					CAS #: 75-34-3		
14.429	14.429 (0.925)	63	9915	0.10000	0.1140	80.00- 120.00	100.00
14.429	14.429 (0.925)	65	3231			2.13- 62.13	32.59
12 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.253	15.253 (0.978)	98	3965	0.10000	0.1060	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	6993			146.50- 206.50	176.37
15.253	15.253 (0.978)	96	6189			124.34- 184.34	156.09
* 13 Bromochloromethane					CAS #: 74-97-5		
15.593	15.593 (1.000)	130	158727	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	122224			46.88- 106.88	77.00
15.593	15.593 (1.000)	49	135002			79.48- 139.48	85.05
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	13957	0.10000	0.1088	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	9021			35.71- 95.71	64.63
15 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.871	15.871 (1.018)	97	16026	0.10000	0.1145	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	10476			35.33- 95.33	65.37
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.087	16.087 (1.032)	117	14834	0.10000	0.1075	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	14062			67.29- 127.29	94.80
17 Benzene					CAS #: 71-43-2		
16.423	16.423 (0.969)	78	20013	0.10000	0.1231	80.00- 120.00	100.00

	RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
	17 Benzene (continued)							
	16.423	16.423 (0.969)	77	4789			0.00- 52.97	23.93
$	18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
	16.399	16.399 (1.052)	65	249602	5.00000	5.022	80.00- 120.00	100.00
	16.399	16.399 (1.052)	67	122287			21.84- 81.84	48.99
	19 1,2-Dichloroethane					CAS #: 107-06-2		
	16.519	16.519 (0.974)	62	8967	0.10000	0.1103	80.00- 120.00	100.00
	16.519	16.519 (0.974)	64	3229			3.73- 63.73	36.01
*	20 1,4-Difluorobenzene					CAS #: 540-36-3		
	16.953	16.953 (1.000)	114	640204	5.00000		80.00- 120.00	100.00
	16.953	16.953 (1.000)	88	94172			0.00- 44.79	14.71
	21 Trichloroethene					CAS #: 79-01-6		
	17.362	17.362 (1.024)	130	8747	0.10000	0.1066	80.00- 120.00	100.00
	17.362	17.362 (1.024)	95	8245			65.34- 125.34	94.26
	17.362	17.362 (1.024)	97	5505			32.10- 92.10	62.94
$	22 Toluene-d8					CAS #: 2037-26-5		
	19.570	19.570 (1.154)	98	582851	5.00000	4.980	80.00- 120.00	100.00
	19.570	19.570 (1.154)	70	62127			0.00- 40.53	10.66
	19.570	19.570 (1.154)	100	382577			35.79- 95.79	65.64
	23 Toluene					CAS #: 108-88-3		
	19.727	19.727 (1.164)	91	20394	0.10000	0.1117	80.00- 120.00	100.00
	19.727	19.727 (1.164)	92	11864			29.49- 89.49	58.17
	25 1,1,2-Trichloroethane					CAS #: 79-00-5		
	20.702	20.702 (0.925)	97	7457	0.10000	0.1108	80.00- 120.00	100.00
	20.702	20.702 (0.925)	99	4721			33.26- 93.26	63.31
	20.675	20.675 (0.924)	83	6050			49.93- 109.93	81.13
	26 Tetrachloroethene					CAS #: 127-18-4		
	20.867	20.867 (0.932)	166	11517	0.10000	0.1075	80.00- 120.00	100.00
	20.867	20.867 (0.932)	129	8296			41.88- 101.88	72.03
	20.867	20.867 (0.932)	131	8074			40.10- 100.10	70.11
	27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
	21.691	21.691 (0.969)	107	12066	0.10000	0.1105	80.00- 120.00	100.00
	21.691	21.691 (0.969)	109	11268			65.18- 125.18	93.39
*	28 Chlorobenzene-d5					CAS #: 3114-55-4		
	22.379	22.379 (1.000)	117	586363	5.00000		80.00- 120.00	100.00
	22.379	22.379 (1.000)	82	288258			19.34- 79.34	49.16

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	8132	0.10000	0.1103	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	25572			278.88- 338.88	314.46
31 m,p-Xylene					CAS #: 108-38-3		
22.669	22.669 (1.013)	106	9317	0.10000	0.1068	80.00- 120.00	100.00
22.669	22.669 (1.013)	91	18863			169.32- 229.32	202.46
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	8944	0.10000	0.1076	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	18951			179.11- 239.11	211.89
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	385121	5.00000	4.950	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	411930			77.34- 137.34	106.96
24.034	24.034 (1.074)	176	376602			67.97- 127.97	97.79
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	13939	0.10000	0.1052	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	9044			35.73- 95.73	64.88
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	14990	0.10000	0.1009	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	9654			35.15- 95.15	64.40
25.424	25.424 (1.136)	111	5557			6.91- 66.91	37.07
38 Naphthalene					CAS #: 91-20-3		
27.935	27.935 (1.248)	128	757	0.01000	0.008423	80.00- 120.00	100.00(a)
27.935	27.935 (1.248)	127	312			0.00- 42.33	41.22

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031707sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 0.1ppbv (1.0ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 6
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	158727	-6.89
20 1,4-Difluorobenze	700553	420332	980774	640204	-8.61
28 Chlorobenzene-d5	628356	377014	879698	586363	-6.68

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031707sim.d

Date : 17-MAR-2016 15:07

Client ID: Level 6

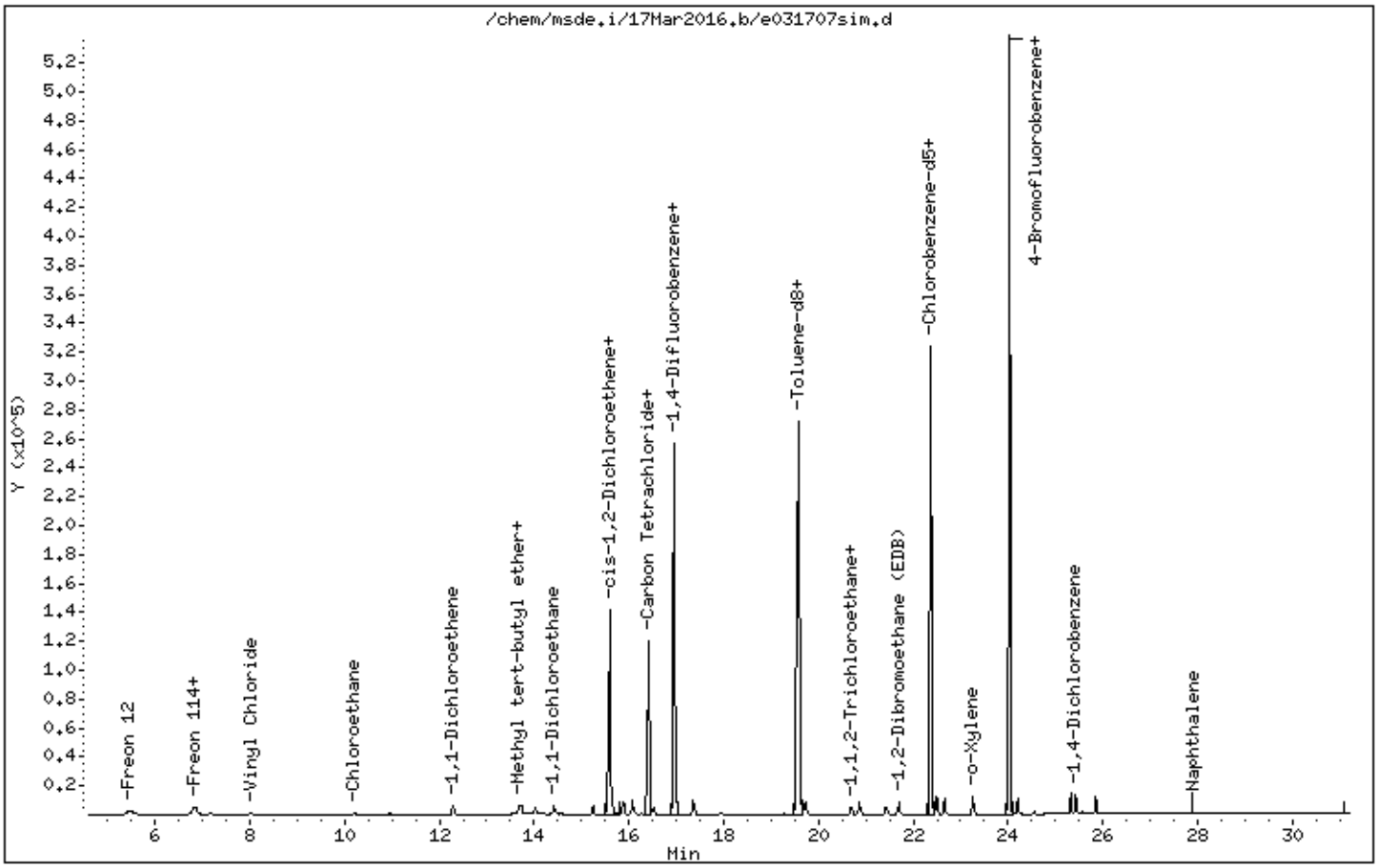
Instrument: msde.i

Sample Info: 25mL# 2789-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031708sim.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 17-MAR-2016 15:49
Operator : ef Inst ID: msde.i
Smp Info : 125mL# 2789-14
Misc Info : 0.5ppbv (1.0ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 22-Mar-2016 12:00 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 15:49 Cal File: e031708sim.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.493	5.493 (0.352)	85	73402	0.50000	0.4860	80.00- 120.00	100.00
5.493	5.493 (0.352)	87	23852			2.41- 62.41	32.50
2 Freon 114					CAS #: 76-14-2		
6.843	6.843 (0.439)	135	53867	0.50000	0.4917	80.00- 120.00	100.00
6.843	6.843 (0.439)	137	17269			2.22- 62.22	32.06
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	13558	0.50000	0.4404	80.00- 120.00	100.00(M)
7.180	7.180 (0.460)	52	4446			2.41- 62.41	32.79
4 Vinyl Chloride					CAS #: 75-01-4		
8.024	8.024 (0.515)	62	18931	0.50000	0.4762	80.00- 120.00	100.00
8.024	8.024 (0.515)	64	6361			4.08- 64.08	33.60
5 Chloroethane					CAS #: 75-00-3		
10.209	10.209 (0.655)	64	9667	0.50000	0.4825	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
5 Chloroethane (continued)							
10.209	10.209 (0.655)	66	3782			3.01- 63.01	39.12
8 1,1-Dichloroethene					CAS #: 75-35-4		
12.303	12.303 (0.789)	98	15940	0.50000	0.4630	80.00- 120.00	100.00
12.284	12.284 (0.788)	61	38423			204.04- 264.04	241.05
12.284	12.284 (0.788)	96	26608			125.89- 185.89	166.93
9 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.687	13.687 (0.878)	73	67130	0.50000	0.4854	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	12243			0.00- 47.74	18.24
13.660	13.660 (0.876)	41	11318			0.00- 45.64	16.86
10 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.742	13.742 (0.881)	98	16583	0.50000	0.4783	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	32193			165.66- 225.66	194.13
13.742	13.742 (0.881)	96	25831			126.47- 186.47	155.77
11 1,1-Dichloroethane					CAS #: 75-34-3		
14.428	14.428 (0.925)	63	44089	0.50000	0.5019	80.00- 120.00	100.00
14.428	14.428 (0.925)	65	14213			2.13- 62.13	32.24
12 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.253	15.253 (0.978)	98	17699	0.50000	0.4684	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	31489			146.50- 206.50	177.91
15.253	15.253 (0.978)	96	27106			124.34- 184.34	153.15
* 13 Bromochloromethane					CAS #: 74-97-5		
15.593	15.593 (1.000)	130	160360	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	123052			46.88- 106.88	76.73
15.593	15.593 (1.000)	49	139459			79.48- 139.48	86.97
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	61487	0.50000	0.4747	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	39800			35.71- 95.71	64.73
15 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.871	15.871 (1.018)	97	70395	0.50000	0.4977	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	45958			35.33- 95.33	65.29
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.086	16.086 (1.032)	117	65195	0.50000	0.4677	80.00- 120.00	100.00
16.086	16.086 (1.032)	119	62169			67.29- 127.29	95.36
17 Benzene					CAS #: 71-43-2		
16.423	16.423 (0.969)	78	77070	0.50000	0.4673	80.00- 120.00	100.00

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
17 Benzene (continued)							
16.423	16.423 (0.969)	77	17874			0.00- 52.97	23.19
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	252671	5.00000	5.032	80.00- 120.00	100.00
16.423	16.423 (1.053)	67	123950			21.84- 81.84	49.06
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	39991	0.50000	0.4847	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	13419			3.73- 63.73	33.56
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	649620	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	96166			0.00- 44.79	14.80
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	38110	0.50000	0.4575	80.00- 120.00	100.00
17.362	17.362 (1.024)	95	37010			65.34- 125.34	97.11
17.362	17.362 (1.024)	97	23544			32.10- 92.10	61.78
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	592943	5.00000	4.993	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	62636			0.00- 40.53	10.56
19.570	19.570 (1.154)	100	388700			35.79- 95.79	65.55
23 Toluene					CAS #: 108-88-3		
19.727	19.727 (1.164)	91	89597	0.50000	0.4837	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	52171			29.49- 89.49	58.23
25 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.702	20.702 (0.925)	97	32819	0.50000	0.4831	80.00- 120.00	100.00
20.702	20.702 (0.925)	99	20244			33.26- 93.26	61.68
20.702	20.702 (0.925)	83	26836			49.93- 109.93	81.77
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	50432	0.50000	0.4666	80.00- 120.00	100.00
20.867	20.867 (0.932)	129	36439			41.88- 101.88	72.25
20.867	20.867 (0.932)	131	35433			40.10- 100.10	70.26
27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.691	21.691 (0.969)	107	52749	0.50000	0.4787	80.00- 120.00	100.00
21.691	21.691 (0.969)	109	49327			65.18- 125.18	93.51
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	591589	5.00000		80.00- 120.00	100.00
22.379	22.379 (1.000)	82	289992			19.34- 79.34	49.02

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
30 Ethyl Benzene						CAS #: 100-41-4	
22.503	22.503 (1.006)	106	35986	0.50000	0.4839	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	114248			278.88- 338.88	317.48
31 m,p-Xylene						CAS #: 108-38-3	
22.669	22.669 (1.013)	106	41851	0.50000	0.4754	80.00- 120.00	100.00
22.669	22.669 (1.013)	91	84330			169.32- 229.32	201.50
32 o-Xylene						CAS #: 95-47-6	
23.271	23.271 (1.040)	106	39765	0.50000	0.4741	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	85400			179.11- 239.11	214.76
$ 33 4-Bromofluorobenzene						CAS #: 460-00-4	
24.034	24.034 (1.074)	174	391287	5.00000	4.985	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	418843			77.34- 137.34	107.04
24.034	24.034 (1.074)	176	380394			67.97- 127.97	97.22
34 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5	
24.213	24.213 (1.082)	83	62699	0.50000	0.4692	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	40701			35.73- 95.73	64.91
36 1,4-Dichlorobenzene						CAS #: 106-46-7	
25.424	25.424 (1.136)	146	70491	0.50000	0.4703	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	44830			35.15- 95.15	63.60
25.424	25.424 (1.136)	111	26021			6.91- 66.91	36.91
38 Naphthalene						CAS #: 91-20-3	
27.935	27.935 (1.248)	128	4815	0.05000	0.05310	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	589			0.00- 42.33	12.23

QC Flag Legend

M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031708sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 0.5ppbv (1.0ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	160360	-5.93
20 1,4-Difluorobenze	700553	420332	980774	649620	-7.27
28 Chlorobenzene-d5	628356	377014	879698	591589	-5.85

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031708sim.d

Date : 17-MAR-2016 15:49

Client ID: Level 7

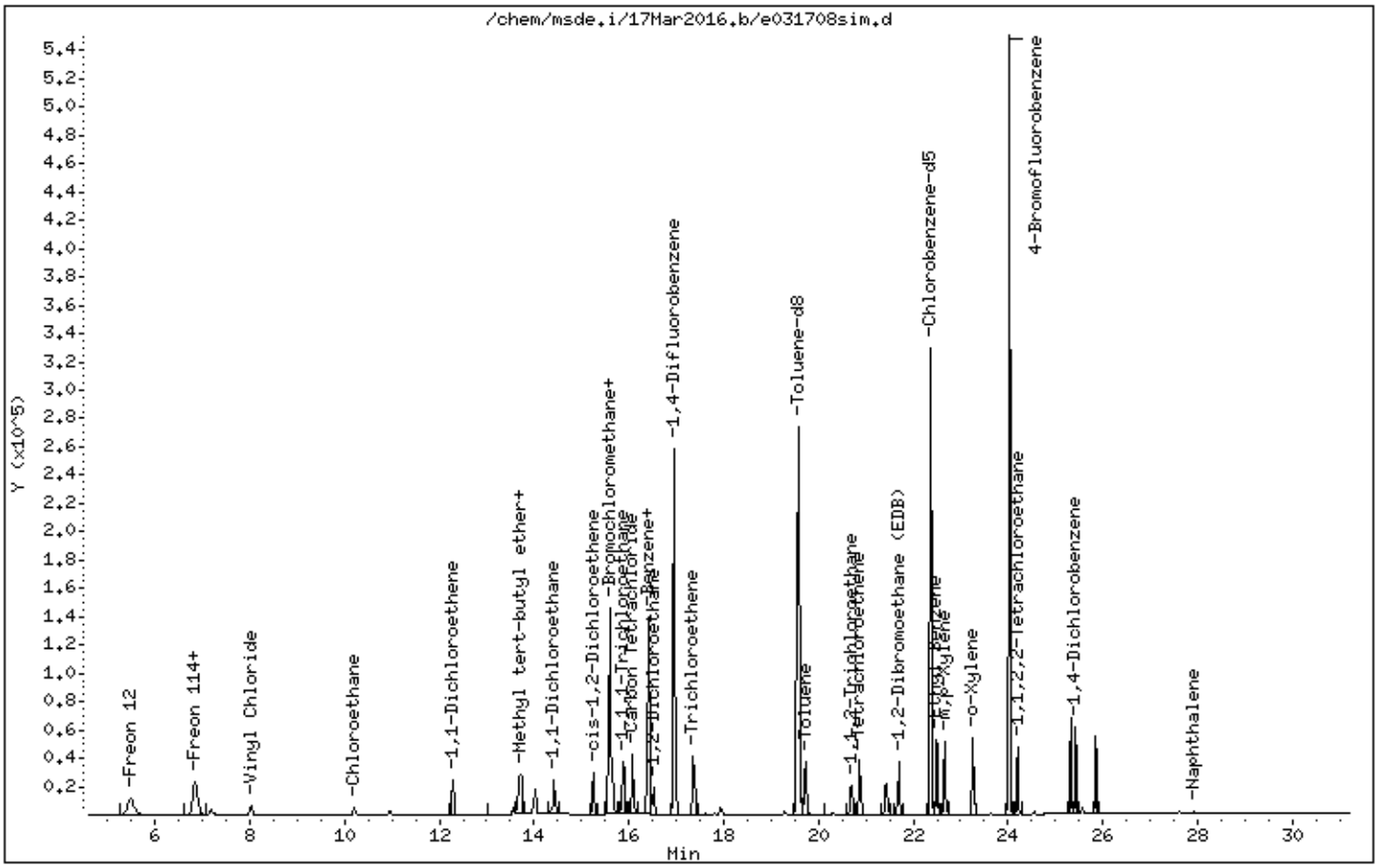
Instrument: msde.i

Sample Info: 125mL# 2789-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031709sim.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 17-MAR-2016 16:31
Operator : ef Inst ID: msde.i
Smp Info : 250mL# 2789-14
Misc Info : 1.0ppbv (1.0ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 22-Mar-2016 12:00 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 16:31 Cal File: e031709sim.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.493	5.493 (0.352)	85	139476	1.00000	0.9597	80.00- 120.00	100.00
5.493	5.493 (0.352)	87	45396			2.41- 62.41	32.55
2 Freon 114					CAS #: 76-14-2		
6.867	6.867 (0.440)	135	101284	1.00000	0.9608	80.00- 120.00	100.00
6.867	6.867 (0.440)	137	32507			2.22- 62.22	32.09
3 Chloromethane					CAS #: 74-87-3		
7.204	7.204 (0.462)	50	28009	1.00000	0.9456	80.00- 120.00	100.00
7.204	7.204 (0.462)	52	8726			2.41- 62.41	31.15
4 Vinyl Chloride					CAS #: 75-01-4		
8.024	8.024 (0.515)	62	36318	1.00000	0.9494	80.00- 120.00	100.00
8.041	8.041 (0.516)	64	12357			4.08- 64.08	34.02
5 Chloroethane					CAS #: 75-00-3		
10.209	10.209 (0.655)	64	18627	1.00000	0.9663	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
	5 Chloroethane (continued)						
10.209	10.209 (0.655)	66	6862			3.01- 63.01	36.84
	8 1,1-Dichloroethene				CAS #: 75-35-4		
12.303	12.303 (0.789)	98	30456	1.00000	0.9195	80.00- 120.00	100.00
12.303	12.303 (0.789)	61	73466			204.04- 264.04	241.22
12.303	12.303 (0.789)	96	47921			125.89- 185.89	157.35
	9 Methyl tert-butyl ether				CAS #: 1634-04-4		
13.687	13.687 (0.878)	73	129923	1.00000	0.9763	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	23848			0.00- 47.74	18.36
13.660	13.660 (0.876)	41	21818			0.00- 45.64	16.79
	10 trans-1,2-Dichloroethene				CAS #: 156-60-5		
13.742	13.742 (0.881)	98	31859	1.00000	0.9551	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	62413			165.66- 225.66	195.90
13.742	13.742 (0.881)	96	49866			126.47- 186.47	156.52
	11 1,1-Dichloroethane				CAS #: 75-34-3		
14.429	14.429 (0.925)	63	84546	1.00000	1.000	80.00- 120.00	100.00
14.429	14.429 (0.925)	65	26920			2.13- 62.13	31.84
	12 cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.253	15.253 (0.978)	98	33727	1.00000	0.9276	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	60851			146.50- 206.50	180.42
15.253	15.253 (0.978)	96	52824			124.34- 184.34	156.62
*	13 Bromochloromethane				CAS #: 74-97-5		
15.593	15.593 (1.000)	130	154292	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	118776			46.88- 106.88	76.98
15.593	15.593 (1.000)	49	137120			79.48- 139.48	88.87
	14 Chloroform				CAS #: 67-66-3		
15.655	15.655 (1.004)	83	118827	1.00000	0.9534	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	77057			35.71- 95.71	64.85
	15 1,1,1-Trichloroethane				CAS #: 71-55-6		
15.871	15.871 (1.018)	97	136202	1.00000	1.001	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	87877			35.33- 95.33	64.52
	16 Carbon Tetrachloride				CAS #: 56-23-5		
16.087	16.087 (1.032)	117	123477	1.00000	0.9206	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	119406			67.29- 127.29	96.70
	17 Benzene				CAS #: 71-43-2		
16.423	16.423 (0.969)	78	144404	1.00000	0.8934	80.00- 120.00	100.00

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
	17 Benzene (continued)						
16.423	16.423 (0.969)	77	33068			0.00- 52.97	22.90
$	18 1,2-Dichloroethane-d4				CAS #: 17060-07-0		
16.423	16.423 (1.053)	65	247304	5.00000	5.119	80.00- 120.00	100.00
16.423	16.423 (1.053)	67	122184			21.84- 81.84	49.41
	19 1,2-Dichloroethane				CAS #: 107-06-2		
16.519	16.519 (0.974)	62	76793	1.00000	0.9498	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	26161			3.73- 63.73	34.07
*	20 1,4-Difluorobenzene				CAS #: 540-36-3		
16.953	16.953 (1.000)	114	636632	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	94232			0.00- 44.79	14.80
	21 Trichloroethene				CAS #: 79-01-6		
17.362	17.362 (1.024)	130	73004	1.00000	0.8943	80.00- 120.00	100.00
17.362	17.362 (1.024)	95	69985			65.34- 125.34	95.86
17.362	17.362 (1.024)	97	45321			32.10- 92.10	62.08
$	22 Toluene-d8				CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	588174	5.00000	5.054	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	62271			0.00- 40.53	10.59
19.570	19.570 (1.154)	100	386257			35.79- 95.79	65.67
	23 Toluene				CAS #: 108-88-3		
19.727	19.727 (1.164)	91	173764	1.00000	0.9572	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	101585			29.49- 89.49	58.46
	25 1,1,2-Trichloroethane				CAS #: 79-00-5		
20.702	20.702 (0.925)	97	63095	1.00000	0.9344	80.00- 120.00	100.00
20.702	20.702 (0.925)	99	39497			33.26- 93.26	62.60
20.702	20.702 (0.925)	83	51272			49.93- 109.93	81.26
	26 Tetrachloroethene				CAS #: 127-18-4		
20.867	20.867 (0.932)	166	96617	1.00000	0.8993	80.00- 120.00	100.00
20.867	20.867 (0.932)	129	69963			41.88- 101.88	72.41
20.867	20.867 (0.932)	131	67916			40.10- 100.10	70.29
	27 1,2-Dibromoethane (EDB)				CAS #: 106-93-4		
21.691	21.691 (0.969)	107	100567	1.00000	0.9181	80.00- 120.00	100.00
21.691	21.691 (0.969)	109	95573			65.18- 125.18	95.03
*	28 Chlorobenzene-d5				CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	588065	5.00000		80.00- 120.00	100.00
22.379	22.379 (1.000)	82	289690			19.34- 79.34	49.26

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
30 Ethyl Benzene						CAS #: 100-41-4	
22.504	22.504 (1.006)	106	71540	1.00000	0.9677	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	223981			278.88- 338.88	313.08
31 m,p-Xylene						CAS #: 108-38-3	
22.669	22.669 (1.013)	106	84238	1.00000	0.9626	80.00- 120.00	100.00
22.669	22.669 (1.013)	91	169265			169.32- 229.32	200.94
32 o-Xylene						CAS #: 95-47-6	
23.271	23.271 (1.040)	106	79262	1.00000	0.9507	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	167959			179.11- 239.11	211.90
$ 33 4-Bromofluorobenzene						CAS #: 460-00-4	
24.034	24.034 (1.074)	174	397244	5.00000	5.091	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	426147			77.34- 137.34	107.28
24.034	24.034 (1.074)	176	389215			67.97- 127.97	97.98
34 1,1,2,2-Tetrachloroethane						CAS #: 79-34-5	
24.213	24.213 (1.082)	83	121325	1.00000	0.9133	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	79134			35.73- 95.73	65.22
36 1,4-Dichlorobenzene						CAS #: 106-46-7	
25.424	25.424 (1.136)	146	142139	1.00000	0.9539	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	91212			35.15- 95.15	64.17
25.424	25.424 (1.136)	111	51746			6.91- 66.91	36.41
38 Naphthalene						CAS #: 91-20-3	
27.935	27.935 (1.248)	128	9361	0.10000	0.1039	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	1244			0.00- 42.33	13.29

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031709sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 1.0ppbv (1.0ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	154292	-9.49
20 1,4-Difluorobenze	700553	420332	980774	636632	-9.12
28 Chlorobenzene-d5	628356	377014	879698	588065	-6.41

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031709sim.d

Date : 17-MAR-2016 16:31

Client ID: Level 8

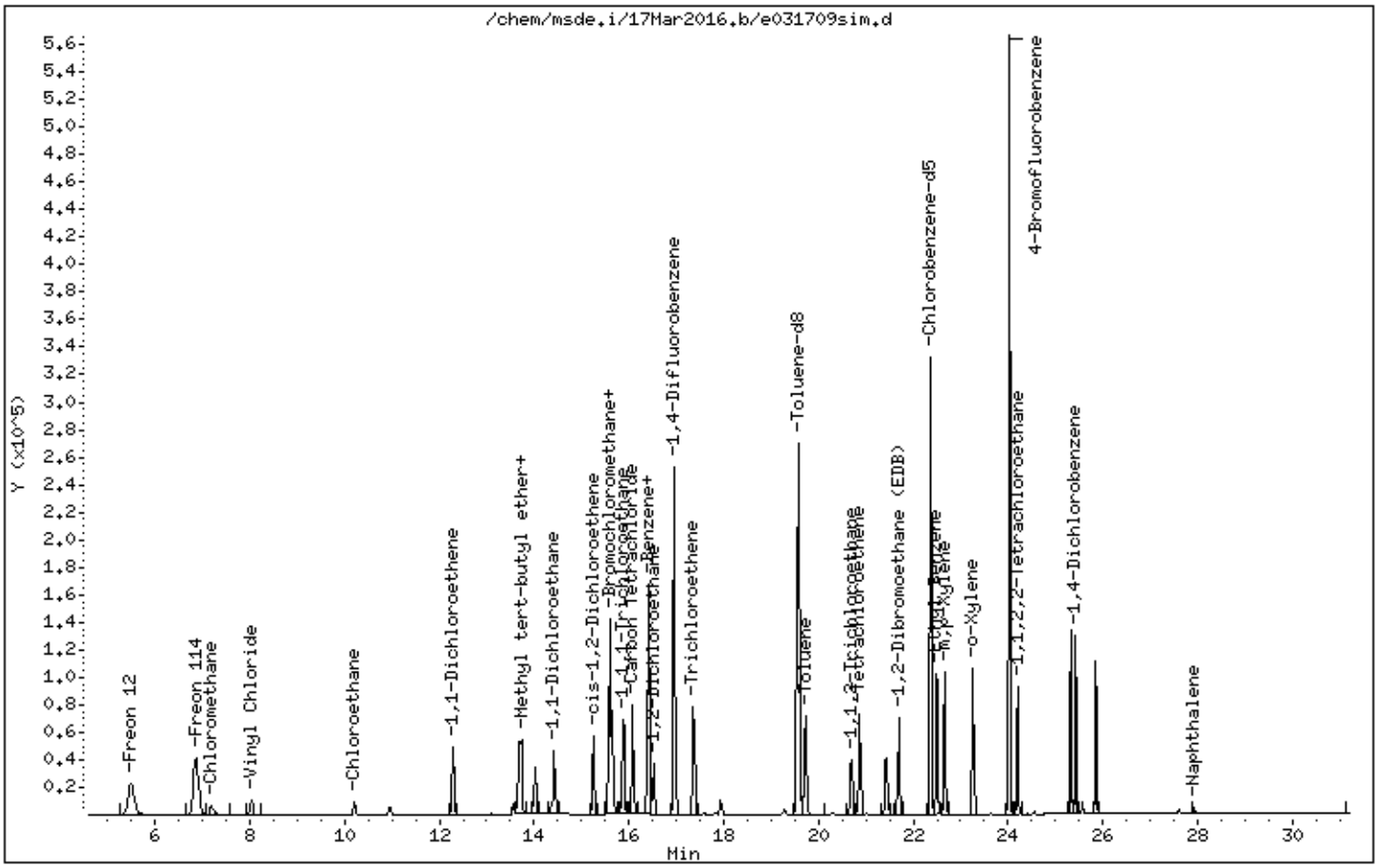
Instrument: msde.i

Sample Info: 250mL# 2789-14

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031710sim.d
Lab Smp Id: ICAL Client Smp ID: Level 12
Inj Date : 17-MAR-2016 17:24
Operator : ea Inst ID: msde.i
Smp Info : 25mL# 2759-223
Misc Info : 5.0ppbv (50ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 22-Mar-2016 12:00 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 17:24 Cal File: e031710sim.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.469	5.469 (0.351)	85	812059	5.00000	5.057	80.00- 120.00	100.00
5.469	5.469 (0.351)	87	263152			2.41- 62.41	32.41
2 Freon 114					CAS #: 76-14-2		
6.819	6.819 (0.437)	135	585898	5.00000	5.031	80.00- 120.00	100.00
6.819	6.819 (0.437)	137	188792			2.22- 62.22	32.22
3 Chloromethane					CAS #: 74-87-3		
7.156	7.156 (0.459)	50	154842	5.00000	4.732	80.00- 120.00	100.00
7.156	7.156 (0.459)	52	50178			2.41- 62.41	32.41
4 Vinyl Chloride					CAS #: 75-01-4		
8.007	8.007 (0.513)	62	211901	5.00000	5.014	80.00- 120.00	100.00
8.007	8.007 (0.513)	64	72213			4.08- 64.08	34.08
5 Chloroethane					CAS #: 75-00-3		
10.190	10.190 (0.653)	64	107678	5.00000	5.056	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
5 Chloroethane (continued)							
10.190	10.190 (0.653)	66	35549			3.01- 63.01	33.01
8 1,1-Dichloroethene					CAS #: 75-35-4		
12.284	12.284 (0.788)	98	175040	5.00000	4.783	80.00- 120.00	100.00
12.284	12.284 (0.788)	61	409660			204.04- 264.04	234.04
12.284	12.284 (0.788)	96	272866			125.89- 185.89	155.89
9 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.660	13.660 (0.876)	73	783826	5.00000	5.331	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	139055			0.00- 47.74	17.74
13.660	13.660 (0.876)	41	122581			0.00- 45.64	15.64
10 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.742	13.742 (0.881)	98	183122	5.00000	4.969	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	358304			165.66- 225.66	195.66
13.742	13.742 (0.881)	96	286528			126.47- 186.47	156.47
11 1,1-Dichloroethane					CAS #: 75-34-3		
14.429	14.429 (0.925)	63	482394	5.00000	5.166	80.00- 120.00	100.00
14.429	14.429 (0.925)	65	154983			2.13- 62.13	32.13
12 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.253	15.253 (0.978)	98	197260	5.00000	4.910	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	348171			146.50- 206.50	176.50
15.253	15.253 (0.978)	96	304460			124.34- 184.34	154.34
* 13 Bromochloromethane					CAS #: 74-97-5		
15.593	15.593 (1.000)	130	170470	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	131057			46.88- 106.88	76.88
15.563	15.563 (1.000)	49	186629			79.48- 139.48	109.48
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	665954	5.00000	4.836	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	437580			35.71- 95.71	65.71
15 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.871	15.871 (1.018)	97	780440	5.00000	5.190	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	509862			35.33- 95.33	65.33
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.087	16.087 (1.032)	117	790291	5.00000	5.333	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	768913			67.29- 127.29	97.29
17 Benzene					CAS #: 71-43-2		
16.423	16.423 (0.969)	78	824849	5.00000	4.638	80.00- 120.00	100.00

	RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
	17 Benzene (continued)							
	16.399	16.399 (0.967)	77	189452			0.00- 52.97	22.97
$	18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
	16.399	16.399 (1.052)	65	257040	5.00000	4.815	80.00- 120.00	100.00
	16.399	16.399 (1.052)	67	133249			21.84- 81.84	51.84
	19 1,2-Dichloroethane					CAS #: 107-06-2		
	16.519	16.519 (0.974)	62	442798	5.00000	4.977	80.00- 120.00	100.00
	16.519	16.519 (0.974)	64	149369			3.73- 63.73	33.73
*	20 1,4-Difluorobenzene					CAS #: 540-36-3		
	16.953	16.953 (1.000)	114	700553	5.00000		80.00- 120.00	100.00
	16.953	16.953 (1.000)	88	103579			0.00- 44.79	14.79
	21 Trichloroethene					CAS #: 79-01-6		
	17.362	17.362 (1.024)	130	422648	5.00000	4.705	80.00- 120.00	100.00
	17.362	17.362 (1.024)	95	402950			65.34- 125.34	95.34
	17.362	17.362 (1.024)	97	262450			32.10- 92.10	62.10
$	22 Toluene-d8					CAS #: 2037-26-5		
	19.570	19.570 (1.154)	98	641433	5.00000	5.008	80.00- 120.00	100.00
	19.570	19.570 (1.154)	70	67538			0.00- 40.53	10.53
	19.570	19.570 (1.154)	100	421975			35.79- 95.79	65.79
	23 Toluene					CAS #: 108-88-3		
	19.727	19.727 (1.164)	91	1012231	5.00000	5.067	80.00- 120.00	100.00
	19.727	19.727 (1.164)	92	602219			29.49- 89.49	59.49
	25 1,1,2-Trichloroethane					CAS #: 79-00-5		
	20.675	20.675 (0.924)	97	374977	5.00000	5.197	80.00- 120.00	100.00
	20.702	20.702 (0.925)	99	237207			33.26- 93.26	63.26
	20.675	20.675 (0.924)	83	299726			49.93- 109.93	79.93
	26 Tetrachloroethene					CAS #: 127-18-4		
	20.867	20.867 (0.932)	166	562098	5.00000	4.897	80.00- 120.00	100.00
	20.867	20.867 (0.932)	129	404040			41.88- 101.88	71.88
	20.867	20.867 (0.932)	131	394031			40.10- 100.10	70.10
	27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
	21.691	21.691 (0.969)	107	601666	5.00000	5.140	80.00- 120.00	100.00
	21.691	21.691 (0.969)	109	572657			65.18- 125.18	95.18
*	28 Chlorobenzene-d5					CAS #: 3114-55-4		
	22.379	22.379 (1.000)	117	628356	5.00000		80.00- 120.00	100.00
	22.359	22.359 (1.000)	82	310017			19.34- 79.34	49.34

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	427034	5.00000	5.406	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	1319023			278.88- 338.88	308.88
31 m,p-Xylene					CAS #: 108-38-3		
22.669	22.669 (1.013)	106	511737	5.00000	5.473	80.00- 120.00	100.00
22.669	22.669 (1.013)	91	1020009			169.32- 229.32	199.32
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	479262	5.00000	5.380	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	1002192			179.11- 239.11	209.11
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	419371	5.00000	5.030	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	450171			77.34- 137.34	107.34
24.034	24.034 (1.074)	176	410846			67.97- 127.97	97.97
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	705298	5.00000	4.969	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	463603			35.73- 95.73	65.73
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	804190	5.00000	5.051	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	523921			35.15- 95.15	65.15
25.424	25.424 (1.136)	111	296806			6.91- 66.91	36.91
38 Naphthalene					CAS #: 91-20-3		
27.935	27.935 (1.248)	128	47097	0.50000	0.4890	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	5806			0.00- 42.33	12.33

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031710sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	170470	0.00
20 1,4-Difluorobenze	700553	420332	980774	700553	0.00
28 Chlorobenzene-d5	628356	377014	879698	628356	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031710sim.d

Date : 17-MAR-2016 17:24

Client ID: Level 12

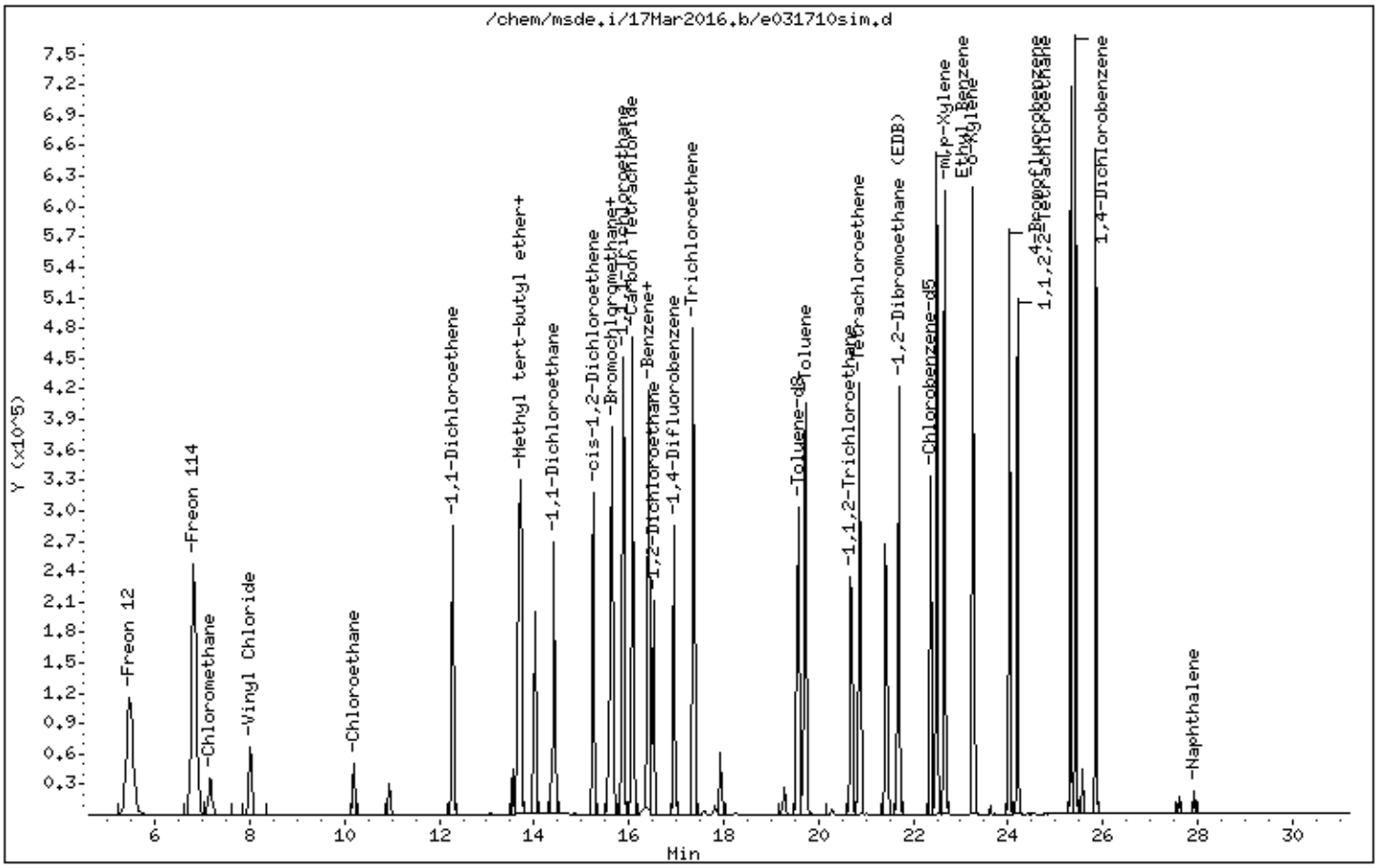
Instrument: msde.i

Sample Info: 25mL# 2759-223

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031711sim.d
Lab Smp Id: ICAL Client Smp ID: Level 13
Inj Date : 17-MAR-2016 18:10
Operator : ea Inst ID: msde.i
Smp Info : 50mL# 2759-223
Misc Info : 10ppbv (50ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 22-Mar-2016 12:00 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 18:10 Cal File: e031711sim.d
Als bottle: 1 Calibration Sample, Level: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.469	5.469 (0.351)	85	1526610	10.0000	9.353	80.00- 120.00	100.00
5.469	5.469 (0.351)	87	498279			2.41- 62.41	32.64
2 Freon 114					CAS #: 76-14-2		
6.819	6.819 (0.437)	135	1114467	10.0000	9.414	80.00- 120.00	100.00
6.819	6.819 (0.437)	137	361062			2.22- 62.22	32.40
3 Chloromethane					CAS #: 74-87-3		
7.156	7.156 (0.459)	50	291893	10.0000	8.775	80.00- 120.00	100.00
7.180	7.180 (0.460)	52	98179			2.41- 62.41	33.64
4 Vinyl Chloride					CAS #: 75-01-4		
8.007	8.007 (0.513)	62	408096	10.0000	9.499	80.00- 120.00	100.00
8.007	8.007 (0.513)	64	139025			4.08- 64.08	34.07
5 Chloroethane					CAS #: 75-00-3		
10.190	10.190 (0.653)	64	204791	10.0000	9.460	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
	5 Chloroethane (continued)						
10.190	10.190 (0.653)	66	65964			3.01- 63.01	32.21
	8 1,1-Dichloroethene				CAS #: 75-35-4		
12.285	12.285 (0.788)	98	330975	10.0000	8.897	80.00- 120.00	100.00
12.285	12.285 (0.788)	61	771311			204.04- 264.04	233.04
12.285	12.285 (0.788)	96	513732			125.89- 185.89	155.22
	9 Methyl tert-butyl ether				CAS #: 1634-04-4		
13.660	13.660 (0.876)	73	1482558	10.0000	9.920	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	263651			0.00- 47.74	17.78
13.660	13.660 (0.876)	41	229115			0.00- 45.64	15.45
	10 trans-1,2-Dichloroethene				CAS #: 156-60-5		
13.742	13.742 (0.881)	98	345259	10.0000	9.216	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	668276			165.66- 225.66	193.56
13.715	13.715 (0.880)	96	534529			126.47- 186.47	154.82
	11 1,1-Dichloroethane				CAS #: 75-34-3		
14.429	14.429 (0.925)	63	894744	10.0000	9.426	80.00- 120.00	100.00
14.429	14.429 (0.925)	65	290581			2.13- 62.13	32.48
	12 cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.253	15.253 (0.978)	98	370890	10.0000	9.083	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	649808			146.50- 206.50	175.20
15.253	15.253 (0.978)	96	568834			124.34- 184.34	153.37
*	13 Bromochloromethane				CAS #: 74-97-5		
15.594	15.594 (1.000)	130	173285	5.00000		80.00- 120.00	100.00
15.594	15.594 (1.000)	128	133003			46.88- 106.88	76.75
15.594	15.594 (1.000)	49	227651			79.48- 139.48	131.37
	14 Chloroform				CAS #: 67-66-3		
15.655	15.655 (1.004)	83	1238657	10.0000	8.849	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	818993			35.71- 95.71	66.12
	15 1,1,1-Trichloroethane				CAS #: 71-55-6		
15.871	15.871 (1.018)	97	1445385	10.0000	9.456	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	952207			35.33- 95.33	65.88
	16 Carbon Tetrachloride				CAS #: 56-23-5		
16.087	16.087 (1.032)	117	1471739	10.0000	9.770	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	1441228			67.29- 127.29	97.93
	17 Benzene				CAS #: 71-43-2		
16.423	16.423 (0.969)	78	1533321	10.0000	8.494	80.00- 120.00	100.00

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
17 Benzene (continued)							
16.399	16.399 (0.967)	77	349882			0.00- 52.97	22.82
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	263268	5.00000	4.852	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	138462			21.84- 81.84	52.59
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	827889	10.0000	9.168	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	280363			3.73- 63.73	33.86
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	711003	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	104950			0.00- 44.79	14.76
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	790512	10.0000	8.671	80.00- 120.00	100.00
17.362	17.362 (1.024)	95	755549			65.34- 125.34	95.58
17.362	17.362 (1.024)	97	493790			32.10- 92.10	62.46
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	653765	5.00000	5.030	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	69216			0.00- 40.53	10.59
19.570	19.570 (1.154)	100	428419			35.79- 95.79	65.53
23 Toluene					CAS #: 108-88-3		
19.727	19.727 (1.164)	91	1887558	10.0000	9.310	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	1134917			29.49- 89.49	60.13
25 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.675	20.675 (0.924)	97	707176	10.0000	9.630	80.00- 120.00	100.00
20.702	20.702 (0.925)	99	446211			33.26- 93.26	63.10
20.675	20.675 (0.924)	83	564907			49.93- 109.93	79.88
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	1057224	10.0000	9.049	80.00- 120.00	100.00
20.867	20.867 (0.932)	129	756123			41.88- 101.88	71.52
20.867	20.867 (0.932)	131	739036			40.10- 100.10	69.90
27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.691	21.691 (0.969)	107	1124700	10.0000	9.441	80.00- 120.00	100.00
21.691	21.691 (0.969)	109	1084396			65.18- 125.18	96.42
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	639541	5.00000		80.00- 120.00	100.00
22.359	22.359 (1.000)	82	314312			19.34- 79.34	49.15

				AMOUNTS CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	814690	10.0000	10.133	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	2489342			278.88- 338.88	305.56
31 m,p-Xylene					CAS #: 108-38-3		
22.670	22.670 (1.013)	106	973604	10.0000	10.230	80.00- 120.00	100.00
22.670	22.670 (1.013)	91	1923846			169.32- 229.32	197.60
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	907099	10.0000	10.004	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	1896816			179.11- 239.11	209.11
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	429563	5.00000	5.062	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	458595			77.34- 137.34	106.76
24.034	24.034 (1.074)	176	420395			67.97- 127.97	97.87
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	1322438	10.0000	9.154	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	878703			35.73- 95.73	66.45
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	1536451	10.0000	9.482	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	1005039			35.15- 95.15	65.41
25.424	25.424 (1.136)	111	572080			6.91- 66.91	37.23
38 Naphthalene					CAS #: 91-20-3		
27.935	27.935 (1.248)	128	102560	1.00000	1.046	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	12750			0.00- 42.33	12.43

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031711sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 13
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	173285	1.65
20 1,4-Difluorobenze	700553	420332	980774	711003	1.49
28 Chlorobenzene-d5	628356	377014	879698	639541	1.78

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031711sim.d

Date : 17-MAR-2016 18:10

Client ID: Level 13

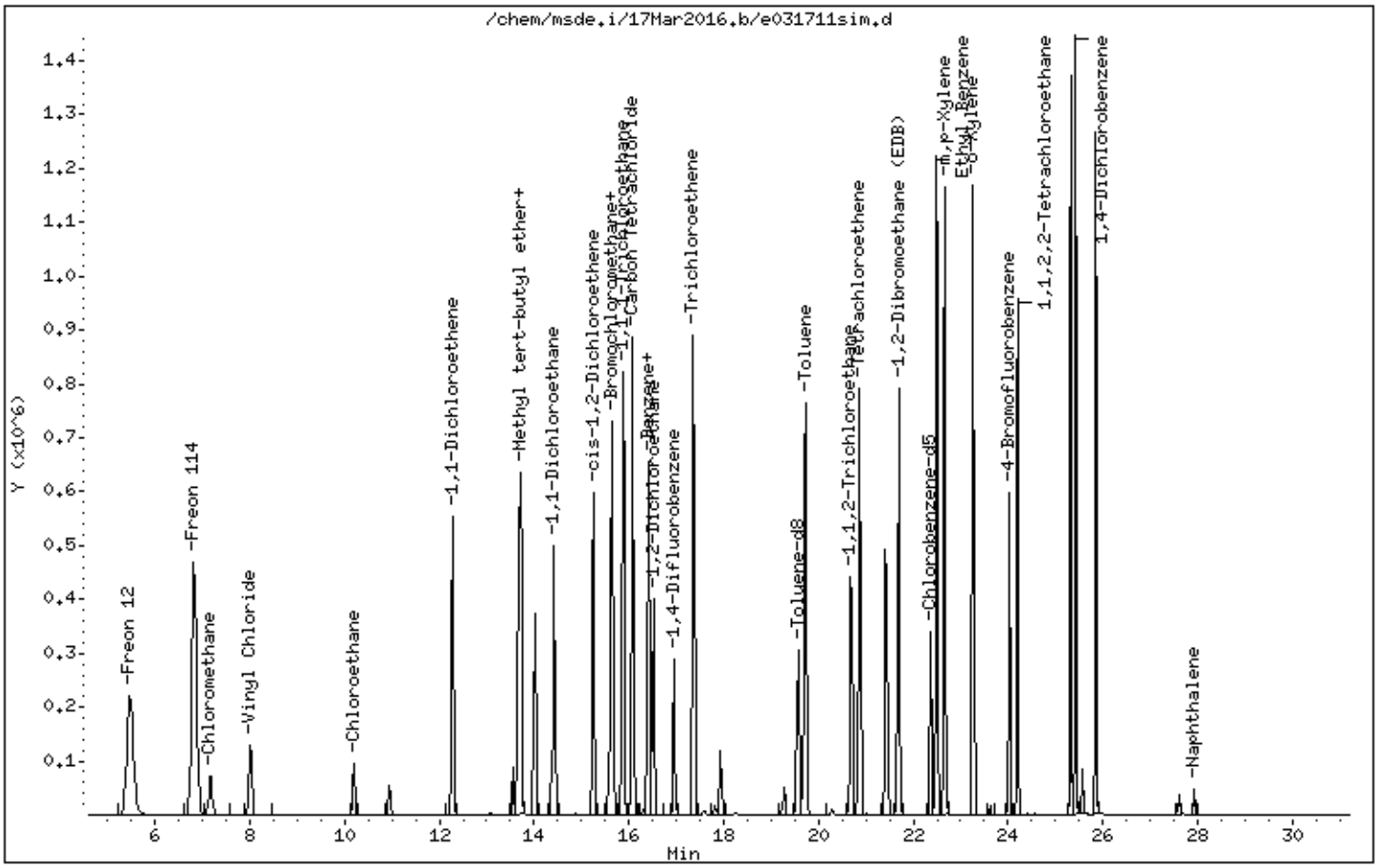
Instrument: msde.i

Sample Info: 50mL# 2759-223

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/17Mar2016.b/e031712sim.d
Lab Smp Id: ICAL Client Smp ID: Level 15
Inj Date : 17-MAR-2016 19:01
Operator : ea Inst ID: msde.i
Smp Info : 100mL# 2759-223
Misc Info : 20ppbv (50ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Meth Date : 22-Mar-2016 12:00 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1 Calibration Sample, Level: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.493	5.493 (0.352)	85	2888187	20.0000	17.651	80.00- 120.00	100.00
5.493	5.493 (0.352)	87	951371			2.41- 62.41	32.94
2 Freon 114					CAS #: 76-14-2		
6.819	6.819 (0.437)	135	2157105	20.0000	18.175	80.00- 120.00	100.00
6.819	6.819 (0.437)	137	702462			2.22- 62.22	32.57
3 Chloromethane					CAS #: 74-87-3		
7.156	7.156 (0.459)	50	565815	20.0000	16.967	80.00- 120.00	100.00
7.180	7.180 (0.460)	52	188127			2.41- 62.41	33.25
4 Vinyl Chloride					CAS #: 75-01-4		
8.007	8.007 (0.513)	62	788678	20.0000	18.312	80.00- 120.00	100.00
8.007	8.007 (0.513)	64	270985			4.08- 64.08	34.36
5 Chloroethane					CAS #: 75-00-3		
10.190	10.190 (0.653)	64	390715	20.0000	18.003	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
	5 Chloroethane (continued)						
10.190	10.190 (0.653)	66	126863			3.01- 63.01	32.47
	8 1,1-Dichloroethene				CAS #: 75-35-4		
12.284	12.284 (0.788)	98	644063	20.0000	17.271	80.00- 120.00	100.00
12.284	12.284 (0.788)	61	1485816			204.04- 264.04	230.69
12.284	12.284 (0.788)	96	993087			125.89- 185.89	154.19
	9 Methyl tert-butyl ether				CAS #: 1634-04-4		
13.660	13.660 (0.876)	73	2831850	20.0000	18.900	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	509141			0.00- 47.74	17.98
13.660	13.660 (0.876)	41	434964			0.00- 45.64	15.36
	10 trans-1,2-Dichloroethene				CAS #: 156-60-5		
13.715	13.715 (0.880)	98	670221	20.0000	17.846	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	1286672			165.66- 225.66	191.98
13.715	13.715 (0.880)	96	1025397			126.47- 186.47	152.99
	11 1,1-Dichloroethane				CAS #: 75-34-3		
14.428	14.428 (0.925)	63	1706886	20.0000	17.936	80.00- 120.00	100.00
14.428	14.428 (0.925)	65	560808			2.13- 62.13	32.86
	12 cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.253	15.253 (0.978)	98	720051	20.0000	17.590	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	1253125			146.50- 206.50	174.03
15.253	15.253 (0.978)	96	1097645			124.34- 184.34	152.44
*	13 Bromochloromethane				CAS #: 74-97-5		
15.593	15.593 (1.000)	130	173717	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	133500			46.88- 106.88	76.85
15.562	15.562 (1.000)	49	149338			79.48- 139.48	85.97
	14 Chloroform				CAS #: 67-66-3		
15.655	15.655 (1.004)	83	2370437	20.0000	16.893	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	1581900			35.71- 95.71	66.73
	15 1,1,1-Trichloroethane				CAS #: 71-55-6		
15.871	15.871 (1.018)	97	2739279	20.0000	17.877	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	1810795			35.33- 95.33	66.10
	16 Carbon Tetrachloride				CAS #: 56-23-5		
16.086	16.086 (1.032)	117	2781987	20.0000	18.423	80.00- 120.00	100.00
16.086	16.086 (1.032)	119	2741295			67.29- 127.29	98.54
	17 Benzene				CAS #: 71-43-2		
16.399	16.399 (0.967)	78	2902620	20.0000	16.008	80.00- 120.00	100.00

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
17 Benzene (continued)							
16.399	16.399 (0.967)	77	669284			0.00- 52.97	23.06
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	265687	5.00000	4.884	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	147215			21.84- 81.84	55.41
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	1595631	20.0000	17.593	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	545230			3.73- 63.73	34.17
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	714166	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	106699			0.00- 44.79	14.94
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	1503516	20.0000	16.419	80.00- 120.00	100.00
17.362	17.362 (1.024)	95	1448864			65.34- 125.34	96.37
17.362	17.362 (1.024)	97	947577			32.10- 92.10	63.02
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	661960	5.00000	5.070	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	69205			0.00- 40.53	10.45
19.570	19.570 (1.154)	100	432601			35.79- 95.79	65.35
23 Toluene					CAS #: 108-88-3		
19.704	19.704 (1.162)	91	3627406	20.0000	17.813	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	2196238			29.49- 89.49	60.55
25 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.674	20.674 (0.924)	97	1337332	20.0000	17.923	80.00- 120.00	100.00
20.674	20.674 (0.924)	99	852068			33.26- 93.26	63.71
20.674	20.674 (0.924)	83	1070008			49.93- 109.93	80.01
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	2016060	20.0000	16.983	80.00- 120.00	100.00
20.867	20.867 (0.932)	129	1452730			41.88- 101.88	72.06
20.867	20.867 (0.932)	131	1409435			40.10- 100.10	69.91
27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.691	21.691 (0.969)	107	2153730	20.0000	17.793	80.00- 120.00	100.00
21.691	21.691 (0.969)	109	2087150			65.18- 125.18	96.91
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	649794	5.00000		80.00- 120.00	100.00
22.358	22.358 (1.000)	82	317798			19.34- 79.34	48.91

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	1583648	20.0000	19.387	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	4801634			278.88- 338.88	303.20
31 m,p-Xylene					CAS #: 108-38-3		
22.669	22.669 (1.013)	106	1894394	20.0000	19.591	80.00- 120.00	100.00
22.669	22.669 (1.013)	91	3725954			169.32- 229.32	196.68
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	1774661	20.0000	19.264	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	3676173			179.11- 239.11	207.15
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	441636	5.00000	5.122	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	471666			77.34- 137.34	106.80
24.034	24.034 (1.074)	176	431216			67.97- 127.97	97.64
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.191	24.191 (1.081)	83	2585529	20.0000	17.615	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	1715896			35.73- 95.73	66.37
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	3006789	20.0000	18.262	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	1978408			35.15- 95.15	65.80
25.424	25.424 (1.136)	111	1130235			6.91- 66.91	37.59
38 Naphthalene					CAS #: 91-20-3		
27.935	27.935 (1.248)	128	205667	2.00000	2.065	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	25446			0.00- 42.33	12.37

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e031712sim.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ea
Method File: /chem/msde.i/17Mar2016.b/e16l0317a.m/e16s0317a.m
Misc Info: 20ppbv (50ppbv)

Calibration Date: 17-MAR-2016
Calibration Time: 17:24
Client Smp ID: Level 15
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	170470	102282	238658	173717	1.90
20 1,4-Difluorobenze	700553	420332	980774	714166	1.94
28 Chlorobenzene-d5	628356	377014	879698	649794	3.41

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/17Mar2016.b/e031712sim.d

Date : 17-MAR-2016 19:01

Client ID: Level 15

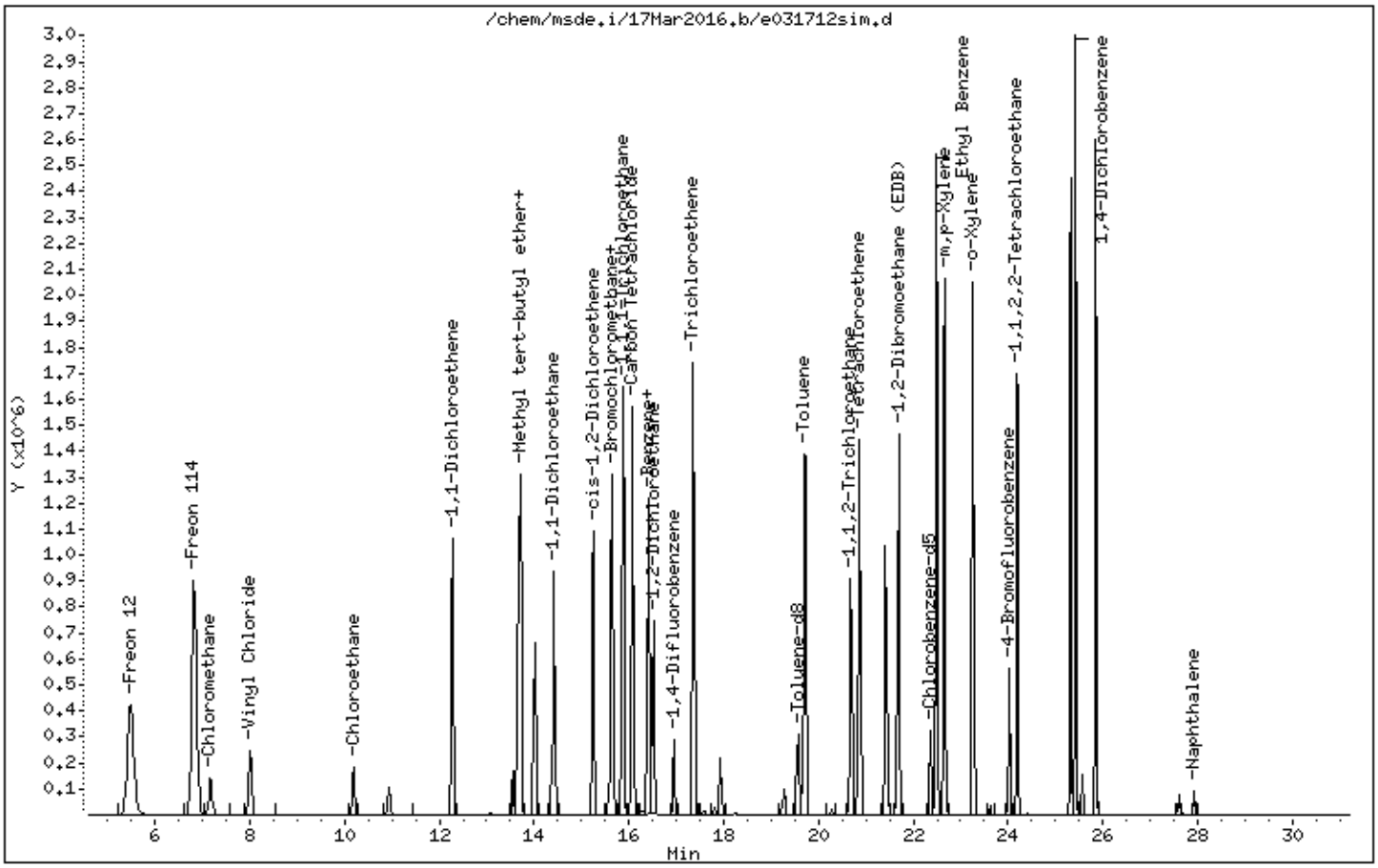
Instrument: msde.i

Sample Info: 100mL# 2759-223

Operator: ea

Column phase: RTX-624

Column diameter: 0.32



0.01ppbv SIM MDL:
2759-23 (0.05ppbv); 50mL LOAD.

Report Date : 21-Oct-2015 10:05

0.05ppbv SIM MDL:
2759-23 (0.05ppbv); 250mL LOAD.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/20Oct2015.b/e15l1016a.m/e15s1016a.m
Batch File: /chem/msde.i/20Oct2015.b
Inst ID: msde.i

NAPHTHALENE 0.05ppbv SIM MDL:
#2759-22 (1.0ppbv, 0.1ppbv FOR NAPHTHALENE); 125mL LOAD.

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	e102009sim	e102010sim	e102011sim	e102012sim	e102013sim	e102014sim	e102015sim	e102016sim
INJ.DATE:	20-OCT-2015	20-OCT-2015	20-OCT-2015	20-OCT-2015	20-OCT-2015	20-OCT-2015	20-OCT-2015	21-OCT-2015
INJ.TIME:	17:41	18:48	19:40	20:25	21:12	21:59	22:45	08:24

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	RL (PPTV)
1 Freon 12	10.33	11.38	9.67	10.71	9.85	11.56	10.70	12.02	10.78	0.83	2.49	20
2 Freon 114	11.40	10.68	10.48	10.24	10.90	10.33	10.31	10.26	10.57	0.40	1.21	20
3 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Vinyl Chloride	10.95	10.96	9.60	10.63	10.02	9.99	10.36	9.79	10.29	0.52	1.56	10
5 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 1,1-Dichloroethene	9.10	9.11	9.52	8.73	10.34	9.75	11.36	9.90	9.72	0.84	2.50	100
9 Methyl tert-butyl ethe	9.05	10.55	9.72	8.27	9.18	8.68	8.96	8.23	9.08	0.77	2.30	100
10 trans-1,2-Dichloroethe	12.22	9.56	10.35	9.88	9.90	8.43	9.68	8.99	9.87	1.12	3.35	100
11 1,1-Dichloroethane	9.47	9.36	9.47	8.79	9.06	9.46	8.53	8.07	9.03	0.52	1.56	20
12 cis-1,2-Dichloroethene	8.92	8.79	9.37	9.48	8.29	8.81	9.67	7.89	8.90	0.61	1.82	20
* 13 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	[illegible]
14 Chloroform	10.88	12.08	10.38	10.87	11.41	10.84	10.44	10.48	10.92	0.57	1.72	20
15 1,1,1-Trichloroethane	9.86	10.06	10.73	9.79	9.94	10.53	10.34	10.39	10.21	0.34	1.03	20
16 Carbon Tetrachloride	9.46	9.58	9.15	9.46	9.24	9.30	8.64	9.01	9.23	0.30	0.91	20
17 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

MDL VERIFICATION:

0.01ppbv: 2759-23 (0.05ppbv); 30mL LOAD (0.006ppbv).

0.05ppbv: 2759-23 (0.05ppbv) 100mL LOAD (0.02ppbv).

0.05ppbv FOR NAPHTHALENE: ~~26~~ 2759-41 (0.1ppbv); 50mL LOAD (0.02ppbv).

Reviewer 1 [signature] Date: 10/23/15
Reviewer 2 [signature] Date: 10/27/15

$\bar{x}$ = 0.0018
$2\bar{x}$ = 0.0036
$3\bar{x}$ = 0.0054
$4\bar{x}$ = 0.0073

ALL 0.01ppbv COMPOUNDS: THE RATIO OF THE MEAN RECOVERED CONCENTRATION AND THE MDL VALUE IS BETWEEN 1 AND 20.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/20Oct2015.b/e15l1016a.m/e15s1016a.m
Batch File: /chem/msde.i/20Oct2015.b
Inst ID: msde.i

	Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
$	18 1,2-Dichloroethane-d4	5613.78	5596.66	5582.17	5549.72	5559.02	5585.86	5638.33	5716.05	5605.20	52.98	158.83	
	19 1,2-Dichloroethane	10.43	10.56	10.14	10.22	10.38	9.95	10.68	10.23	10.32	0.24	0.71	
*	20 1,4-Difluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
	21 Trichloroethene	10.06	9.10	9.41	9.06	9.35	8.60	8.94	11.23	9.47	0.83	2.49	
$	22 Toluene-d8	4879.14	4848.83	4843.99	4837.65	4847.48	4844.17	4832.55	4900.37	4854.27	23.22	69.62	
	23 Toluene	10.60	10.11	10.61	10.44	10.68	10.61	10.23	11.34	10.58	0.37	1.11	
	24 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	25 1,1,2-Trichloroethane	9.97	9.43	9.51	8.86	10.13	10.03	10.32	8.73	9.50	0.61	1.84	
	26 Tetrachloroethene	9.34	8.71	9.10	9.05	8.90	8.74	8.62	8.45	8.86	0.29	0.86	
	27 1,2-Dibromoethane (EDB	9.37	9.17	9.29	9.10	8.93	9.29	9.19	8.25	9.07	0.36	1.08	
*	28 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
	29 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	30 Ethyl Benzene	12.30	11.83	11.82	11.46	10.82	11.21	11.36	11.19	11.50	0.47	1.40	
	31 m,p-Xylene	11.16	11.52	11.44	10.98	10.82	10.95	10.76	11.17	11.10	0.28	0.83	
	32 o-Xylene	11.22	11.39	11.08	10.49	10.81	10.44	10.26	10.53	10.78	0.41	1.24	
$	33 4-Bromofluorobenzene	5185.73	5227.38	5211.67	5161.03	5157.63	5146.57	5182.74	5124.57	5174.66	34.04	102.05	
	34 1,1,2,2-Tetrachloroeth	10.57	9.71	9.91	9.55	9.69	9.67	9.69	8.92	9.71	0.45	1.35	
	35 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	36 1,4-Dichlorobenzene	10.42	10.17	10.26	9.83	9.54	9.03	9.82	8.83	9.74	0.57	1.72	
	37 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
	38 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
M	39 Total Xylene	43.52	41.26	42.24	40.83	39.81	38.63	40.38	38.57	40.66	1.71	5.11	

0.05 ppbv MDL.

Report Date : 22-Oct-2015 10:34

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/21Oct2015.b/e1511016a.m/e15s1016a.m
Batch File: /chem/msde.i/21Oct2015.b
Inst ID: msde.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	e102107sim	e102108sim	e102109sim	e102110sim	e102111sim	e102112sim	e102113sim	e102114sim
INJ.DATE:	21-OCT-2015	21-OCT-2015	21-OCT-2015	21-OCT-2015	21-OCT-2015	21-OCT-2015	21-OCT-2015	21-OCT-2015
INJ.TIME:	14:58	15:41	16:26	17:09	17:54	18:39	19:29	20:13

Dv (ppbv)

	Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1	Freon 12	******	******	******	******	******	******	******	******	******	******	******	
2	Freon 114	******	******	******	******	******	******	******	******	******	******	******	
3	Chloromethane	53.04	47.34	47.35	40.22	47.29	41.78	43.49	42.94	45.43	4.13	12.38	50
4	Vinyl Chloride	******	******	******	******	******	******	******	******	******	******	******	
5	Chloroethane	✓42.08	✓39.60	✓44.90	✓42.91	✓37.52	✓40.22	✓41.23	✓39.15	✓40.95	✓2.33	✓7.00	50
6	Freon 11	******	******	******	******	******	******	******	******	******	******	******	
7	Freon 113	******	******	******	******	******	******	******	******	******	******	******	
8	1,1-Dichloroethene	******	******	******	******	******	******	******	******	******	******	******	
9	Methyl tert-butyl ethe	******	******	******	******	******	******	******	******	******	******	******	
10	trans-1,2-Dichloroethe	******	******	******	******	******	******	******	******	******	******	******	
11	1,1-Dichloroethane	******	******	******	******	******	******	******	******	******	******	******	
12	cis-1,2-Dichloroethene	******	******	******	******	******	******	******	******	******	******	******	
* 13	Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
14	Chloroform	******	******	******	******	******	******	******	******	******	******	******	
15	1,1,1-Trichloroethane	******	******	******	******	******	******	******	******	******	******	******	
16	Carbon Tetrachloride	******	******	******	******	******	******	******	******	******	******	******	
17	Benzene	53.65	52.39	51.63	49.98	50.38	48.40	49.34	48.95	50.59	1.82	5.46	50

Avg 10/27/15

Reviewer 1 _____ Date: 10/23/15
Reviewer 2 _____ Date: 10/27/15

$\bar{x}$ = 0.008
2x = 0.016
3x = 0.024
4x = 0.032

All 0.05ppbv compounds: The ratio of the mean recovered concentration and the MDL value is between 1 and 20.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/21Oct2015.b/e15l1016a.m/e15s1016a.m
Batch File: /chem/msde.i/21Oct2015.b
Inst ID: msde.i

	Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
$	18 1,2-Dichloroethane-d4	5695.66	5762.36	5751.29	5783.73	5779.65	5770.74	5865.09	5850.33	5781.13	51.99	155.87
	19 1,2-Dichloroethane	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
*	20 1,4-Difluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00
	21 Trichloroethene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
$	22 Toluene-d8	4901.16	4900.80	4890.43	4914.01	4878.98	4903.57	4901.50	4884.46	4896.99	11.18	33.52
	23 Toluene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	24 trans-1,3-Dichloroprop	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	25 1,1,2-Trichloroethane	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	26 Tetrachloroethene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	27 1,2-Dibromoethane (EDB	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
*	28 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00
	29 Chlorobenzene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	30 Ethyl Benzene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	31 m,p-Xylene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	32 o-Xylene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
$	33 4-Bromofluorobenzene	5194.21	5201.56	5214.14	5206.02	5162.91	5212.46	5179.16	5244.22	5201.84	24.39	73.13
	34 1,1,2,2-Tetrachloroeth	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	35 1,3-Dichlorobenzene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	36 1,4-Dichlorobenzene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	37 1,2-Dichlorobenzene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	38 Naphthalene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++
M	39 Total Xylene	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++	++++++

NAPHTHALENE SIM MDL

Report Date : 22-Oct-2015 12:09

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/21Oct2015.b/e15l1016a.m/e15s1016a.m
Batch File: /chem/msde.i/21Oct2015.b
Inst ID: msde.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	e102115sim	e102116sim	e102117sim	e102118sim	e102119sim	e102120sim	e102122sim	e102123sim
INJ.DATE:	21-OCT-2015	21-OCT-2015	21-OCT-2015	21-OCT-2015	22-OCT-2015	22-OCT-2015	22-OCT-2015	22-OCT-2015
INJ.TIME:	20:54	21:34	22:15	22:57	06:23	07:06	08:25	09:07

RL(PPTV)

	Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
1	Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2	Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3	Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4	Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5	Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
6	Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7	Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8	1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
9	Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10	trans-1,2-Dichloroethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
11	1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
12	cis-1,2-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 13	Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00
14	Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
15	1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16	Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
17	Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

Reviewer 1 VL Date: 10/28/15
Reviewer 2 Date: 10/27/15

$\bar{x}$ = 0.0135
$1\bar{x}$ = 0.027
$3\bar{x}$ = 0.041

THE RATIO OF NAPHTHALENES MEAN RECOVERED CONCENTRATION AND THE MDL VALUE IS BETWEEN 1 AND 2.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msde.i/21Oct2015.b/e1511016a.m/e15s1016a.m
Batch File: /chem/msde.i/21Oct2015.b

Inst ID: msde.i

	Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
$	18 1,2-Dichloroethane-d4	5588.80	5567.66	5594.20	5574.88	5508.18	5517.97	5642.76	5498.26	5561.59	49.82	149.35
	19 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
*	20 1,4-Difluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00
	21 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	22 Toluene-d8	4842.11	4856.08	4854.63	4847.06	4915.96	4854.99	4903.87	4805.04	4859.97	35.12	105.29
	23 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	24 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	25 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	26 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	27 1,2-Dibromoethane (EDB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
*	28 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00
	29 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	30 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	31 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	32 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$	33 4-Bromofluorobenzene	5138.61	5166.51	5167.44	5116.18	4976.30	5088.66	5199.61	5054.95	5113.28	72.45	217.21
	34 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	35 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	36 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	37 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	38 Naphthalene	35.86	35.69	35.98	34.46	28.97	31.50	43.74	30.98	34.65	4.51	13.53
M	39 Total Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

eurofins | Air Toxics

Client ID:	CCV		
Lab ID:	1603470-08A	**Date/Time Analyzed:**	3/25/16 09:25 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032502sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	90
1,1,2,2-Tetrachloroethane	79-34-5	87
1,1,2-Trichloroethane	79-00-5	92
1,1-Dichloroethane	75-34-3	92
1,1-Dichloroethene	75-35-4	87
1,2-Dibromoethane (EDB)	106-93-4	90
1,2-Dichloroethane	107-06-2	84
1,4-Dichlorobenzene	106-46-7	88
Benzene	71-43-2	81
Carbon Tetrachloride	56-23-5	92
Chloroethane	75-00-3	91
Chloroform	67-66-3	85
Chloromethane	74-87-3	86
cis-1,2-Dichloroethene	156-59-2	89
Ethyl Benzene	100-41-4	96
Freon 114	76-14-2	91
Freon 12	75-71-8	88
m,p-Xylene	108-38-3	97
Methyl tert-butyl ether	1634-04-4	95
Naphthalene	91-20-3	78
o-Xylene	95-47-6	95
Tetrachloroethene	127-18-4	87
Toluene	108-88-3	89
trans-1,2-Dichloroethene	156-60-5	90

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	CCV		
Lab ID:	1603470-08A	**Date/Time Analyzed:**	3/25/16 09:25 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032502sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	84
Vinyl Chloride	75-01-4	93

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	93
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	99

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msde.i Injection Date: 25-MAR-2016 09:25
Lab File ID: e032502sim.d Init. Cal. Date(s): 17-MAR-2016 17-MAR-2016
Analysis Type: AIR Init. Cal. Times: 11:11 19:01
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m

	COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Freon 12	4.70956	4.14484	0.010	11.99089	30.00000	Averaged
	2 Freon 114	3.41599	3.11619	0.010	8.77651	30.00000	Averaged
	3 Chloromethane	0.95983	0.82855	0.010	13.67725	30.00000	Averaged
	4 Vinyl Chloride	1.23965	1.15201	0.010	7.06944	30.00000	Averaged
	5 Chloroethane	0.62467	0.56800	0.010	9.07166	30.00000	Averaged
	8 1,1-Dichloroethene	1.07337	0.92982	0.010	13.37356	30.00000	Averaged
	9 Methyl tert-butyl ether	4.31245	4.09086	0.010	5.13828	30.00000	Averaged
	10 trans-1,2-Dichloroethene	1.08097	0.97315	0.010	9.97421	30.00000	Averaged
	11 1,1-Dichloroethane	2.73901	2.52184	0.010	7.92859	30.00000	Averaged
	12 cis-1,2-Dichloroethene	1.17822	1.04400	0.010	11.39226	30.00000	Averaged
	14 Chloroform	4.03872	3.44363	0.010	14.73469	30.00000	Averaged
	15 1,1,1-Trichloroethane	4.41036	3.95685	0.010	10.28285	30.00000	Averaged
	16 Carbon Tetrachloride	4.34640	3.98811	0.010	8.24324	30.00000	Averaged
	17 Benzene	1.26946	1.03350	0.010	18.58723	30.00000	Averaged
$	18 1,2-Dichloroethane-d4	1.56568	1.45186	0.010	7.26977	30.00000	Averaged
	19 1,2-Dichloroethane	0.63500	0.53626	0.010	15.54894	30.00000	Averaged
	21 Trichloroethene	0.64112	0.53919	0.010	15.89877	30.00000	Averaged
$	22 Toluene-d8	0.91408	0.90394	0.010	1.10956	30.00000	Averaged
	23 Toluene	1.42569	1.27410	0.010	10.63310	30.00000	Averaged
	25 1,1,2-Trichloroethane	0.57414	0.52608	0.010	8.37091	30.00000	Averaged
	26 Tetrachloroethene	0.91342	0.79222	0.010	13.26931	30.00000	Averaged
	27 1,2-Dibromoethane (EDB)	0.93138	0.84026	0.010	9.78348	30.00000	Averaged
	30 Ethyl Benzene	0.62856	0.60177	0.010	4.26307	30.00000	Averaged
	31 m,p-Xylene	0.74406	0.71936	0.010	3.31968	30.00000	Averaged
	32 o-Xylene	0.70886	0.67459	0.010	4.83479	30.00000	Averaged
$	33 4-Bromofluorobenzene	0.66343	0.66326	0.010	0.02542	30.00000	Averaged
	34 1,1,2,2-Tetrachloroethane	1.12944	0.98147	0.010	13.10096	30.00000	Averaged
	36 1,4-Dichlorobenzene	1.26688	1.10912	0.010	12.45253	30.00000	Averaged
	38 Naphthalene	0.76633	0.60165	0.010	21.48945	40.00000	Averaged

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032502sim.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 25-MAR-2016 09:25
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2759-225
Misc Info : 5.0ppbv (50ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 25-Mar-2016 15:03 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.469	5.469 (0.351)	85	831554	5.00000	4.400	80.00- 120.00	100.00
5.469	5.469 (0.351)	87	269859			2.41- 62.41	32.45
2 Freon 114					CAS #: 76-14-2		
6.819	6.819 (0.437)	135	625182	5.00000	4.561	80.00- 120.00	100.00
6.819	6.819 (0.437)	137	201908			2.22- 62.22	32.30
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	166227	5.00000	4.316	80.00- 120.00	100.00
7.180	7.180 (0.460)	52	56415			2.41- 62.41	33.94
4 Vinyl Chloride					CAS #: 75-01-4		
8.007	8.007 (0.513)	62	231121	5.00000	4.646	80.00- 120.00	100.00
8.007	8.007 (0.513)	64	78828			4.08- 64.08	34.11
5 Chloroethane					CAS #: 75-00-3		
10.190	10.190 (0.653)	64	113954	5.00000	4.546	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
5 Chloroethane (continued)							
10.190	10.190 (0.653)	66	36945			3.01- 63.01	32.42
8 1,1-Dichloroethene					CAS #: 75-35-4		
12.285	12.285 (0.788)	98	186544	5.00000	4.331	80.00- 120.00	100.00
12.285	12.285 (0.788)	61	430770			204.04- 264.04	230.92
12.285	12.285 (0.788)	96	290895			125.89- 185.89	155.94
9 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.660	13.660 (0.876)	73	820725	5.00000	4.743	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	146096			0.00- 47.74	17.80
13.660	13.660 (0.876)	41	125998			0.00- 45.64	15.35
10 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.742	13.742 (0.881)	98	195237	5.00000	4.501	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	373332			165.66- 225.66	191.22
13.742	13.742 (0.881)	96	302982			126.47- 186.47	155.19
11 1,1-Dichloroethane					CAS #: 75-34-3		
14.429	14.429 (0.925)	63	505942	5.00000	4.604	80.00- 120.00	100.00
14.429	14.429 (0.925)	65	163608			2.13- 62.13	32.34
12 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.253	15.253 (0.978)	98	209451	5.00000	4.430	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	366161			146.50- 206.50	174.82
15.253	15.253 (0.978)	96	323239			124.34- 184.34	154.33
* 13 Bromochloromethane					CAS #: 74-97-5		
15.594	15.594 (1.000)	130	200624	5.00000		80.00- 120.00	100.00
15.594	15.594 (1.000)	128	154502			46.88- 106.88	77.01
15.563	15.563 (1.000)	49	214537			79.48- 139.48	106.93
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	690874	5.00000	4.263	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	455460			35.71- 95.71	65.93
15 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.871	15.871 (1.018)	97	793839	5.00000	4.486	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	519736			35.33- 95.33	65.47
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.087	16.087 (1.032)	117	800111	5.00000	4.588	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	780454			67.29- 127.29	97.54
17 Benzene					CAS #: 71-43-2		
16.423	16.423 (0.969)	78	866784	5.00000	4.071	80.00- 120.00	100.00

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
17 Benzene (continued)							
16.399	16.399 (0.967)	77	198255			0.00- 52.97	22.87
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	291278	5.00000	4.636	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	151881			21.84- 81.84	52.14
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	449757	5.00000	4.222	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	152512			3.73- 63.73	33.91
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	838688	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	123602			0.00- 44.79	14.74
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	452213	5.00000	4.205	80.00- 120.00	100.00
17.362	17.362 (1.024)	95	430369			65.34- 125.34	95.17
17.362	17.362 (1.024)	97	280318			32.10- 92.10	61.99
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	758124	5.00000	4.944	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	78824			0.00- 40.53	10.40
19.570	19.570 (1.154)	100	499654			35.79- 95.79	65.91
23 Toluene					CAS #: 108-88-3		
19.727	19.727 (1.164)	91	1068569	5.00000	4.468	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	641045			29.49- 89.49	59.99
25 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.675	20.675 (0.924)	97	393977	5.00000	4.581	80.00- 120.00	100.00
20.702	20.702 (0.925)	99	249227			33.26- 93.26	63.26
20.675	20.675 (0.924)	83	316079			49.93- 109.93	80.23
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	593286	5.00000	4.336	80.00- 120.00	100.00
20.867	20.867 (0.932)	129	426291			41.88- 101.88	71.85
20.867	20.867 (0.932)	131	415155			40.10- 100.10	69.98
27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.691	21.691 (0.969)	107	629267	5.00000	4.511	80.00- 120.00	100.00
21.691	21.691 (0.969)	109	602958			65.18- 125.18	95.82
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	748894	5.00000		80.00- 120.00	100.00
22.359	22.359 (1.000)	82	360694			19.34- 79.34	48.16

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	450661	5.00000	4.787	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	1387056			278.88- 338.88	307.78
31 m,p-Xylene					CAS #: 108-38-3		
22.670	22.670 (1.013)	106	538726	5.00000	4.834	80.00- 120.00	100.00
22.670	22.670 (1.013)	91	1067026			169.32- 229.32	198.06
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	505197	5.00000	4.758	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	1050524			179.11- 239.11	207.94
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	496712	5.00000	4.999	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	528344			77.34- 137.34	106.37
24.034	24.034 (1.074)	176	485080			67.97- 127.97	97.66
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	735019	5.00000	4.345	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	484224			35.73- 95.73	65.88
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	830614	5.00000	4.377	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	539478			35.15- 95.15	64.95
25.424	25.424 (1.136)	111	302806			6.91- 66.91	36.46
38 Naphthalene					CAS #: 91-20-3		
27.935	27.935 (1.248)	128	45057	0.50000	0.3926	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	5819			0.00- 42.33	12.91

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032502sim.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	200624	120374	280874	200624	0.00
20 1,4-Difluorobenze	838688	503213	1174163	838688	0.00
28 Chlorobenzene-d5	748894	449336	1048452	748894	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/25Mar2016.b/e032502sim.d

Date : 25-MAR-2016 09:25

Client ID: CCV

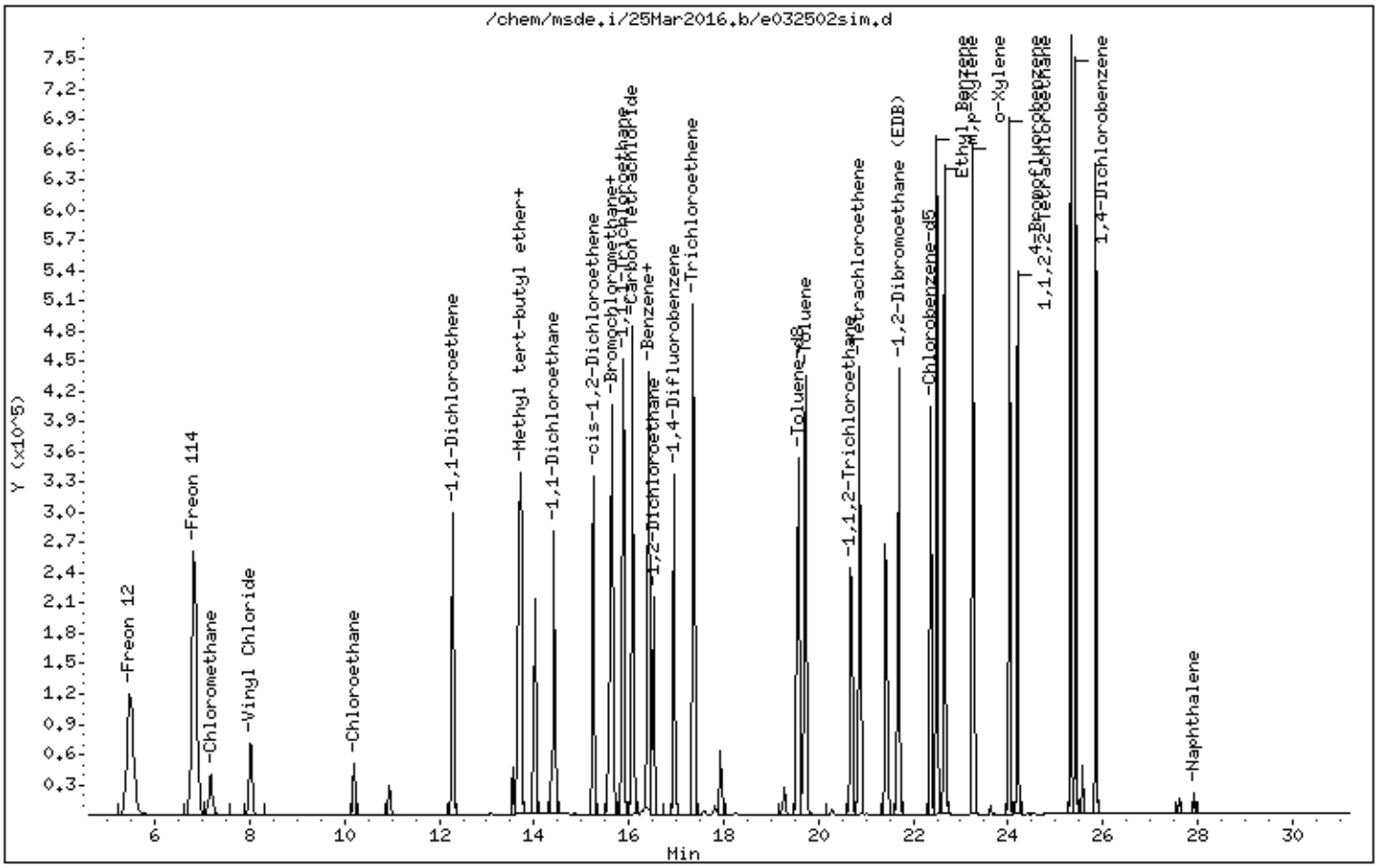
Instrument: msde.i

Sample Info: 25mL# 2759-225

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	CCV		
Lab ID:	1603470-08B	**Date/Time Analyzed:**	3/28/16 10:19 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032803sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	92
1,1,2,2-Tetrachloroethane	79-34-5	87
1,1,2-Trichloroethane	79-00-5	92
1,1-Dichloroethane	75-34-3	92
1,1-Dichloroethene	75-35-4	86
1,2-Dibromoethane (EDB)	106-93-4	91
1,2-Dichloroethane	107-06-2	86
1,4-Dichlorobenzene	106-46-7	90
Benzene	71-43-2	82
Carbon Tetrachloride	56-23-5	94
Chloroethane	75-00-3	92
Chloroform	67-66-3	86
Chloromethane	74-87-3	87
cis-1,2-Dichloroethene	156-59-2	89
Ethyl Benzene	100-41-4	97
Freon 114	76-14-2	91
Freon 12	75-71-8	89
m,p-Xylene	108-38-3	98
Methyl tert-butyl ether	1634-04-4	96
Naphthalene	91-20-3	87
o-Xylene	95-47-6	96
Tetrachloroethene	127-18-4	87
Toluene	108-88-3	90
trans-1,2-Dichloroethene	156-60-5	90

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	CCV		
Lab ID:	1603470-08B	**Date/Time Analyzed:**	3/28/16 10:19 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032803sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	84
Vinyl Chloride	75-01-4	92

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	100

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msde.i Injection Date: 28-MAR-2016 10:19
Lab File ID: e032803sim.d Init. Cal. Date(s): 17-MAR-2016 17-MAR-2016
Analysis Type: AIR Init. Cal. Times: 11:11 19:01
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m

	COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
	1 Freon 12	4.70956	4.19620	0.010	10.90038	30.00000	Averaged
	2 Freon 114	3.41599	3.12213	0.010	8.60266	30.00000	Averaged
	3 Chloromethane	0.95983	0.83965	0.010	12.52088	30.00000	Averaged
	4 Vinyl Chloride	1.23965	1.14095	0.010	7.96167	30.00000	Averaged
	5 Chloroethane	0.62467	0.57179	0.010	8.46492	30.00000	Averaged
	8 1,1-Dichloroethene	1.07337	0.92503	0.010	13.81986	30.00000	Averaged
	9 Methyl tert-butyl ether	4.31245	4.12132	0.010	4.43188	30.00000	Averaged
	10 trans-1,2-Dichloroethene	1.08097	0.97418	0.010	9.87835	30.00000	Averaged
	11 1,1-Dichloroethane	2.73901	2.52432	0.010	7.83815	30.00000	Averaged
	12 cis-1,2-Dichloroethene	1.17822	1.04401	0.010	11.39164	30.00000	Averaged
	14 Chloroform	4.03872	3.46821	0.010	14.12602	30.00000	Averaged
	15 1,1,1-Trichloroethane	4.41036	4.04535	0.010	8.27628	30.00000	Averaged
	16 Carbon Tetrachloride	4.34640	4.07073	0.010	6.34248	30.00000	Averaged
	17 Benzene	1.26946	1.03519	0.010	18.45411	30.00000	Averaged
$	18 1,2-Dichloroethane-d4	1.56568	1.47501	0.010	5.79151	30.00000	Averaged
	19 1,2-Dichloroethane	0.63500	0.54403	0.010	14.32576	30.00000	Averaged
	21 Trichloroethene	0.64112	0.53924	0.010	15.89175	30.00000	Averaged
$	22 Toluene-d8	0.91408	0.91272	0.010	0.14936	30.00000	Averaged
	23 Toluene	1.42569	1.28251	0.010	10.04318	30.00000	Averaged
	25 1,1,2-Trichloroethane	0.57414	0.52725	0.010	8.16680	30.00000	Averaged
	26 Tetrachloroethene	0.91342	0.79389	0.010	13.08606	30.00000	Averaged
	27 1,2-Dibromoethane (EDB)	0.93138	0.84634	0.010	9.13081	30.00000	Averaged
	30 Ethyl Benzene	0.62856	0.61045	0.010	2.88181	30.00000	Averaged
	31 m,p-Xylene	0.74406	0.72867	0.010	2.06874	30.00000	Averaged
	32 o-Xylene	0.70886	0.68468	0.010	3.41208	30.00000	Averaged
$	33 4-Bromofluorobenzene	0.66343	0.67180	0.010	-1.26158	30.00000	Averaged
	34 1,1,2,2-Tetrachloroethane	1.12944	0.98277	0.010	12.98587	30.00000	Averaged
	36 1,4-Dichlorobenzene	1.26688	1.14410	0.010	9.69133	30.00000	Averaged
	38 Naphthalene	0.76633	0.66548	0.010	13.15987	40.00000	Averaged

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/28Mar2016.b/e032803sim.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 28-MAR-2016 10:19
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2759-225
Misc Info : 5.0ppbv (50ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 28-Mar-2016 11:48 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.469	5.469 (0.351)	85	800714	5.00000	4.455	80.00- 120.00	100.00
5.493	5.493 (0.352)	87	259919			2.41- 62.41	32.46
2 Freon 114					CAS #: 76-14-2		
6.843	6.843 (0.439)	135	595761	5.00000	4.570	80.00- 120.00	100.00
6.843	6.843 (0.439)	137	191725			2.22- 62.22	32.18
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	160221	5.00000	4.374	80.00- 120.00	100.00
7.180	7.180 (0.460)	52	52669			2.41- 62.41	32.87
4 Vinyl Chloride					CAS #: 75-01-4		
8.024	8.024 (0.515)	62	217715	5.00000	4.602	80.00- 120.00	100.00
8.024	8.024 (0.515)	64	74119			4.08- 64.08	34.04
5 Chloroethane					CAS #: 75-00-3		
10.209	10.209 (0.655)	64	109108	5.00000	4.577	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
5 Chloroethane (continued)							
10.209	10.209 (0.655)	66	35346			3.01- 63.01	32.40
8 1,1-Dichloroethene					CAS #: 75-35-4		
12.303	12.303 (0.789)	98	176513	5.00000	4.309	80.00- 120.00	100.00
12.303	12.303 (0.789)	61	412036			204.04- 264.04	233.43
12.303	12.303 (0.789)	96	276076			125.89- 185.89	156.41
9 Methyl tert-butyl ether					CAS #: 1634-04-4		
13.660	13.660 (0.876)	73	786427	5.00000	4.778	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	138941			0.00- 47.74	17.67
13.660	13.660 (0.876)	41	119856			0.00- 45.64	15.24
10 trans-1,2-Dichloroethene					CAS #: 156-60-5		
13.742	13.742 (0.881)	98	185893	5.00000	4.506	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	356796			165.66- 225.66	191.94
13.742	13.742 (0.881)	96	288610			126.47- 186.47	155.26
11 1,1-Dichloroethane					CAS #: 75-34-3		
14.428	14.428 (0.925)	63	481688	5.00000	4.608	80.00- 120.00	100.00
14.428	14.428 (0.925)	65	155796			2.13- 62.13	32.34
12 cis-1,2-Dichloroethene					CAS #: 156-59-2		
15.253	15.253 (0.978)	98	199216	5.00000	4.430	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	349206			146.50- 206.50	175.29
15.253	15.253 (0.978)	96	307736			124.34- 184.34	154.47
* 13 Bromochloromethane					CAS #: 74-97-5		
15.593	15.593 (1.000)	130	190819	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	146672			46.88- 106.88	76.86
15.562	15.562 (1.000)	49	203204			79.48- 139.48	106.49
14 Chloroform					CAS #: 67-66-3		
15.655	15.655 (1.004)	83	661800	5.00000	4.294	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	435113			35.71- 95.71	65.75
15 1,1,1-Trichloroethane					CAS #: 71-55-6		
15.871	15.871 (1.018)	97	771929	5.00000	4.586	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	505544			35.33- 95.33	65.49
16 Carbon Tetrachloride					CAS #: 56-23-5		
16.087	16.087 (1.032)	117	776772	5.00000	4.683	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	755093			67.29- 127.29	97.21
17 Benzene					CAS #: 71-43-2		
16.399	16.399 (0.967)	78	830097	5.00000	4.077	80.00- 120.00	100.00

				AMOUNTS CAL-AMT (PPBV)	ON-COL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
17 Benzene (continued)							
16.399	16.399 (0.967)	77	190157			0.00- 52.97	22.91
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	281459	5.00000	4.710	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	146117			21.84- 81.84	51.91
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	436246	5.00000	4.284	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	146471			3.73- 63.73	33.58
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	801879	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	119265			0.00- 44.79	14.87
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	432402	5.00000	4.205	80.00- 120.00	100.00
17.362	17.362 (1.024)	95	414226			65.34- 125.34	95.80
17.362	17.362 (1.024)	97	268498			32.10- 92.10	62.09
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	731889	5.00000	4.992	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	75926			0.00- 40.53	10.37
19.570	19.570 (1.154)	100	480806			35.79- 95.79	65.69
23 Toluene					CAS #: 108-88-3		
19.727	19.727 (1.164)	91	1028415	5.00000	4.498	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	615239			29.49- 89.49	59.82
25 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.674	20.674 (0.924)	97	378832	5.00000	4.592	80.00- 120.00	100.00
20.674	20.674 (0.924)	99	238028			33.26- 93.26	62.83
20.674	20.674 (0.924)	83	302930			49.93- 109.93	79.96
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	570414	5.00000	4.346	80.00- 120.00	100.00
20.867	20.867 (0.932)	129	409223			41.88- 101.88	71.74
20.867	20.867 (0.932)	131	396831			40.10- 100.10	69.57
27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.691	21.691 (0.969)	107	608100	5.00000	4.543	80.00- 120.00	100.00
21.691	21.691 (0.969)	109	584481			65.18- 125.18	96.12
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	718505	5.00000		80.00- 120.00	100.00
22.358	22.358 (1.000)	82	352603			19.34- 79.34	49.07

				AMOUNTS CAL-AMT	ON-COL		
RT	EXP RT (REL RT)	MASS	RESPONSE	(PPBV)	(PPBV)	TARGET RANGE	RATIO
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	438612	5.00000	4.856	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	1350359			278.88- 338.88	307.87
31 m,p-Xylene					CAS #: 108-38-3		
22.669	22.669 (1.013)	106	523553	5.00000	4.896	80.00- 120.00	100.00
22.669	22.669 (1.013)	91	1041027			169.32- 229.32	198.84
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	491943	5.00000	4.829	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	1024845			179.11- 239.11	208.33
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	482691	5.00000	5.063	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	511136			77.34- 137.34	105.89
24.034	24.034 (1.074)	176	472585			67.97- 127.97	97.91
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	706127	5.00000	4.351	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	466634			35.73- 95.73	66.08
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	822043	5.00000	4.515	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	533752			35.15- 95.15	64.93
25.424	25.424 (1.136)	111	302010			6.91- 66.91	36.74
38 Naphthalene					CAS #: 91-20-3		
27.935	27.935 (1.248)	128	47815	0.50000	0.4342	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	6256			0.00- 42.33	13.08

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032803sim.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 28-MAR-2016
Calibration Time: 09:30
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	192114	115268	268960	190819	-0.67
20 1,4-Difluorobenze	805031	483019	1127043	801879	-0.39
28 Chlorobenzene-d5	717060	430236	1003884	718505	0.20

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/28Mar2016.b/e032803sim.d

Date : 28-MAR-2016 10:19

Client ID: CCV

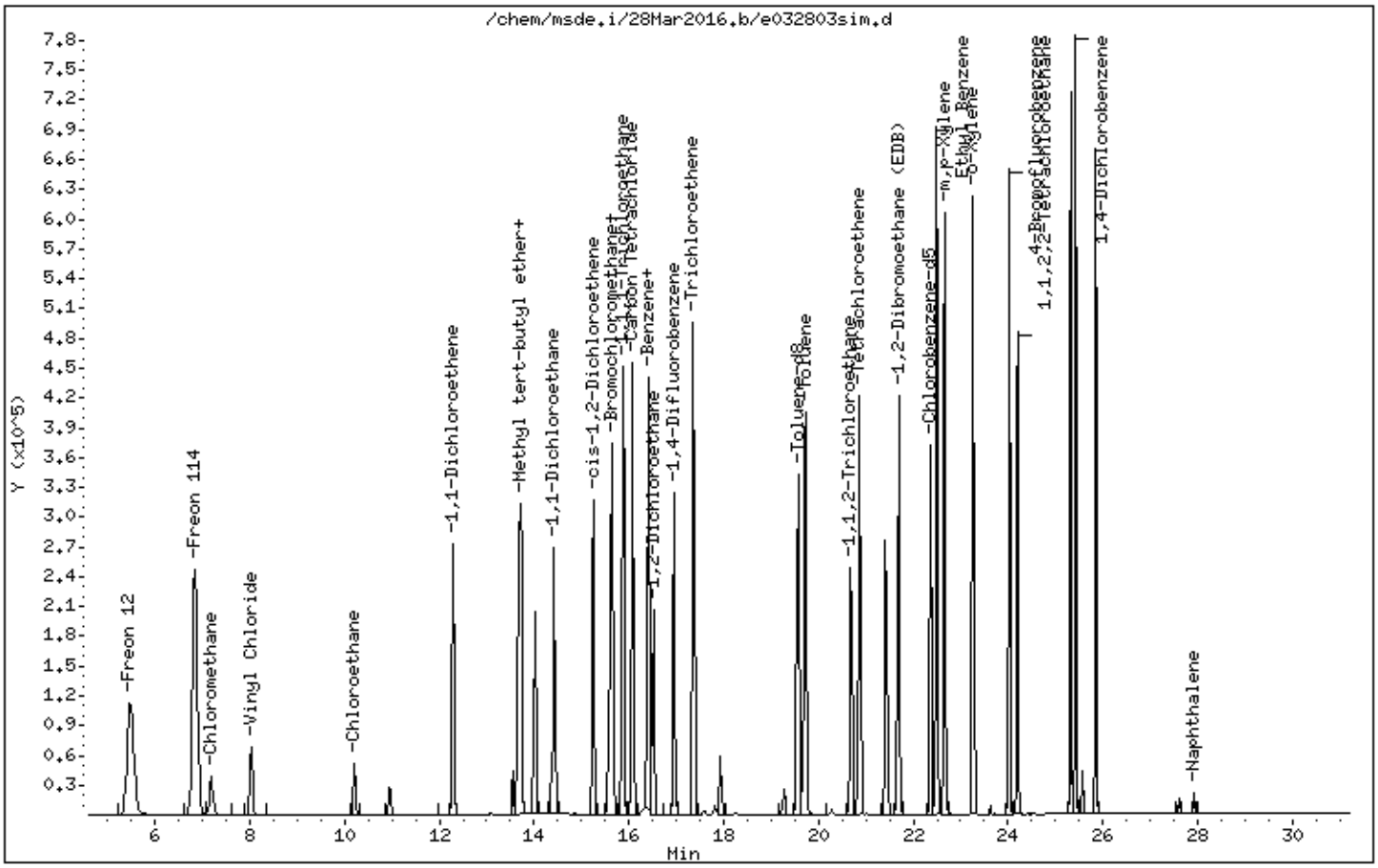
Instrument: msde.i

Sample Info: 25mL# 2759-225

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCS		
Lab ID:	1603470-09A	**Date/Time Analyzed:**	3/25/16 10:29 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032503sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	110
1,1,2,2-Tetrachloroethane	79-34-5	106
1,1,2-Trichloroethane	79-00-5	111
1,1-Dichloroethane	75-34-3	113
1,1-Dichloroethene	75-35-4	106
1,2-Dibromoethane (EDB)	106-93-4	110
1,2-Dichloroethane	107-06-2	102
1,4-Dichlorobenzene	106-46-7	102
Benzene	71-43-2	100
Carbon Tetrachloride	56-23-5	116
Chloroethane	75-00-3	119
Chloroform	67-66-3	104
Chloromethane	74-87-3	110
cis-1,2-Dichloroethene	156-59-2	120
Ethyl Benzene	100-41-4	115
Freon 114	76-14-2	117
Freon 12	75-71-8	113
m,p-Xylene	108-38-3	115
Methyl tert-butyl ether	1634-04-4	116
Naphthalene	91-20-3	69
o-Xylene	95-47-6	115
Tetrachloroethene	127-18-4	104
Toluene	108-88-3	109
trans-1,2-Dichloroethene	156-60-5	96

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCS		
Lab ID:	1603470-09A	**Date/Time Analyzed:**	3/25/16 10:29 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032503sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	102
Vinyl Chloride	75-01-4	119

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	100

* % Recovery is calculated using unrounded analytical results.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: ef
Data Type: MS DATA SampleType: LCS
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.0ppbv (50ppbv)

	SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
1	Freon 12	5.000	5.646	112.93	70-130
2	Freon 114	5.000	5.837	116.75	70-130
3	Chloromethane	5.000	5.486	109.72	70-130
4	Vinyl Chloride	5.000	5.936	118.72	70-130
5	Chloroethane	5.000	5.934	118.67	70-130
8	1,1-Dichloroethene	5.000	5.296	105.91	70-130
9	Methyl tert-butyl	5.000	5.818	116.37	70-130
10	trans-1,2-Dichloro	5.000	4.777	95.55	70-130
11	1,1-Dichloroethane	5.000	5.650	112.99	70-130
12	cis-1,2-Dichloroet	5.000	6.003	120.06	70-130
14	Chloroform	5.000	5.191	103.81	70-130
15	1,1,1-Trichloroeth	5.000	5.521	110.42	70-130
16	Carbon Tetrachlori	5.000	5.803	116.06	60-140
17	Benzene	5.000	4.994	99.88	70-130
19	1,2-Dichloroethane	5.000	5.107	102.14	70-130
21	Trichloroethene	5.000	5.097	101.93	70-130
23	Toluene	5.000	5.447	108.95	70-130
25	1,1,2-Trichloroeth	5.000	5.563	111.26	70-130
26	Tetrachloroethene	5.000	5.228	104.57	70-130
27	1,2-Dibromoethane	5.000	5.520	110.40	70-130
30	Ethyl Benzene	5.000	5.764	115.28	70-130
31	m,p-Xylene	5.000	5.772	115.44	70-130
32	o-Xylene	5.000	5.771	115.41	70-130
34	1,1,2,2-Tetrachlor	5.000	5.292	105.85	70-130
36	1,4-Dichlorobenzen	5.000	5.113	102.27	70-130
38	Naphthalene	0.5000	0.3436	68.73	60-140

	SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18	1,2-Dichloroethane	5.000	4.695	93.89	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 22 Toluene-d8	5.000	4.984	99.68	70-130
$ 33 4-Bromofluorobenze	5.000	4.948	98.96	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032503sim.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 25-MAR-2016 10:29
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-8
Misc Info : 5.0ppbv (50ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 25-Mar-2016 15:03 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.493	5.469 (0.352)	85	950222	5.64658	5.646	80.00- 120.00	100.00
5.493	5.469 (0.352)	87	309189			2.41- 62.41	32.54
2 Freon 114					CAS #: 76-14-2		
6.843	6.819 (0.439)	135	712525	5.83745	5.837	80.00- 120.00	100.00
6.843	6.819 (0.439)	137	231279			2.22- 62.22	32.46
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	188155	5.48609	5.486	80.00- 120.00	100.00
7.180	7.180 (0.460)	52	63810			2.41- 62.41	33.91
4 Vinyl Chloride					CAS #: 75-01-4		
8.024	8.007 (0.515)	62	262932	5.93589	5.936	80.00- 120.00	100.00
8.024	8.007 (0.515)	64	89495			4.08- 64.08	34.04
5 Chloroethane					CAS #: 75-00-3		
10.209	10.190 (0.655)	64	132443	5.93365	5.934	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
	5 Chloroethane (continued)						
10.209	10.190 (0.655)	66	43181			3.01- 63.01	32.60
	8 1,1-Dichloroethene				CAS #: 75-35-4		
12.304	12.285 (0.789)	98	203106	5.29560	5.296	80.00- 120.00	100.00
12.304	12.285 (0.789)	61	470382			204.04- 264.04	231.59
12.304	12.285 (0.789)	96	316672			125.89- 185.89	155.91
	9 Methyl tert-butyl ether				CAS #: 1634-04-4		
13.687	13.660 (0.878)	73	896578	5.81841	5.818	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	158562			0.00- 47.74	17.69
13.660	13.660 (0.876)	41	136675			0.00- 45.64	15.24
	10 trans-1,2-Dichloroethene				CAS #: 156-60-5		
13.742	13.742 (0.881)	98	184525	4.77731	4.777	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	353602			165.66- 225.66	191.63
13.742	13.742 (0.881)	96	284926			126.47- 186.47	154.41
	11 1,1-Dichloroethane				CAS #: 75-34-3		
14.429	14.429 (0.925)	63	552932	5.64962	5.650	80.00- 120.00	100.00
14.429	14.429 (0.925)	65	179340			2.13- 62.13	32.43
	12 cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.253	15.253 (0.978)	98	252723	6.00285	6.003	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	439628			146.50- 206.50	173.96
15.253	15.253 (0.978)	96	388865			124.34- 184.34	153.87
*	13 Bromochloromethane				CAS #: 74-97-5		
15.594	15.594 (1.000)	130	178661	5.00000		80.00- 120.00	100.00
15.594	15.594 (1.000)	128	137432			46.88- 106.88	76.92
15.594	15.563 (1.000)	49	200884			79.48- 139.48	112.44
	14 Chloroform				CAS #: 67-66-3		
15.655	15.655 (1.004)	83	749082	5.19070	5.191	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	493081			35.71- 95.71	65.82
	15 1,1,1-Trichloroethane				CAS #: 71-55-6		
15.871	15.871 (1.018)	97	870044	5.52087	5.521	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	571469			35.33- 95.33	65.68
	16 Carbon Tetrachloride				CAS #: 56-23-5		
16.087	16.087 (1.032)	117	901223	5.80288	5.803	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	879766			67.29- 127.29	97.62
	17 Benzene				CAS #: 71-43-2		
16.423	16.423 (0.969)	78	963920	4.99378	4.994	80.00- 120.00	100.00

				CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
17 Benzene (continued)							
16.423	16.399 (0.969)	77	220305			0.00- 52.97	22.86
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	262647	4.69471	4.695	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	136145			21.84- 81.84	51.84
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	493112	5.10716	5.107	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	166014			3.73- 63.73	33.67
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	760263	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	111788			0.00- 44.79	14.70
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	496851	5.09674	5.097	80.00- 120.00	100.00
17.362	17.362 (1.024)	95	471674			65.34- 125.34	94.93
17.362	17.362 (1.024)	97	306575			32.10- 92.10	61.70
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	692736	4.98412	4.984	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	71925			0.00- 40.53	10.38
19.570	19.570 (1.154)	100	457304			35.79- 95.79	66.01
23 Toluene					CAS #: 108-88-3		
19.727	19.727 (1.164)	91	1180899	5.44745	5.447	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	708715			29.49- 89.49	60.01
25 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.675	20.675 (0.924)	97	439152	5.56292	5.563	80.00- 120.00	100.00
20.702	20.702 (0.925)	99	278513			33.26- 93.26	63.42
20.675	20.675 (0.924)	83	351459			49.93- 109.93	80.03
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	656665	5.22851	5.228	80.00- 120.00	100.00
20.867	20.867 (0.932)	129	470849			41.88- 101.88	71.70
20.867	20.867 (0.932)	131	457644			40.10- 100.10	69.69
27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.691	21.691 (0.969)	107	706925	5.52013	5.520	80.00- 120.00	100.00
21.691	21.691 (0.969)	109	678452			65.18- 125.18	95.97
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	687488	5.00000		80.00- 120.00	100.00
22.379	22.359 (1.000)	82	335282			19.34- 79.34	48.77

				CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	498153	5.76391	5.764	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	1531747			278.88- 338.88	307.49
31 m,p-Xylene					CAS #: 108-38-3		
22.670	22.670 (1.013)	106	590494	5.77179	5.772	80.00- 120.00	100.00
22.670	22.670 (1.013)	91	1166954			169.32- 229.32	197.62
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	562448	5.77065	5.771	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	1169017			179.11- 239.11	207.84
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	451358	4.94802	4.948	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	480642			77.34- 137.34	106.49
24.034	24.034 (1.074)	176	441472			67.97- 127.97	97.81
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	821896	5.29247	5.292	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	540431			35.73- 95.73	65.75
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	890706	5.11333	5.113	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	576387			35.15- 95.15	64.71
25.424	25.424 (1.136)	111	328188			6.91- 66.91	36.85
38 Naphthalene					CAS #: 91-20-3		
27.935	27.935 (1.248)	128	36210	0.34365	0.3436	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	4544			0.00- 42.33	12.55

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032503sim.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	200624	120374	280874	178661	-10.95
20 1,4-Difluorobenze	838688	503213	1174163	760263	-9.35
28 Chlorobenzene-d5	748894	449336	1048452	687488	-8.20

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/25Mar2016.b/e032503sim.d

Date : 25-MAR-2016 10:29

Client ID: LCS

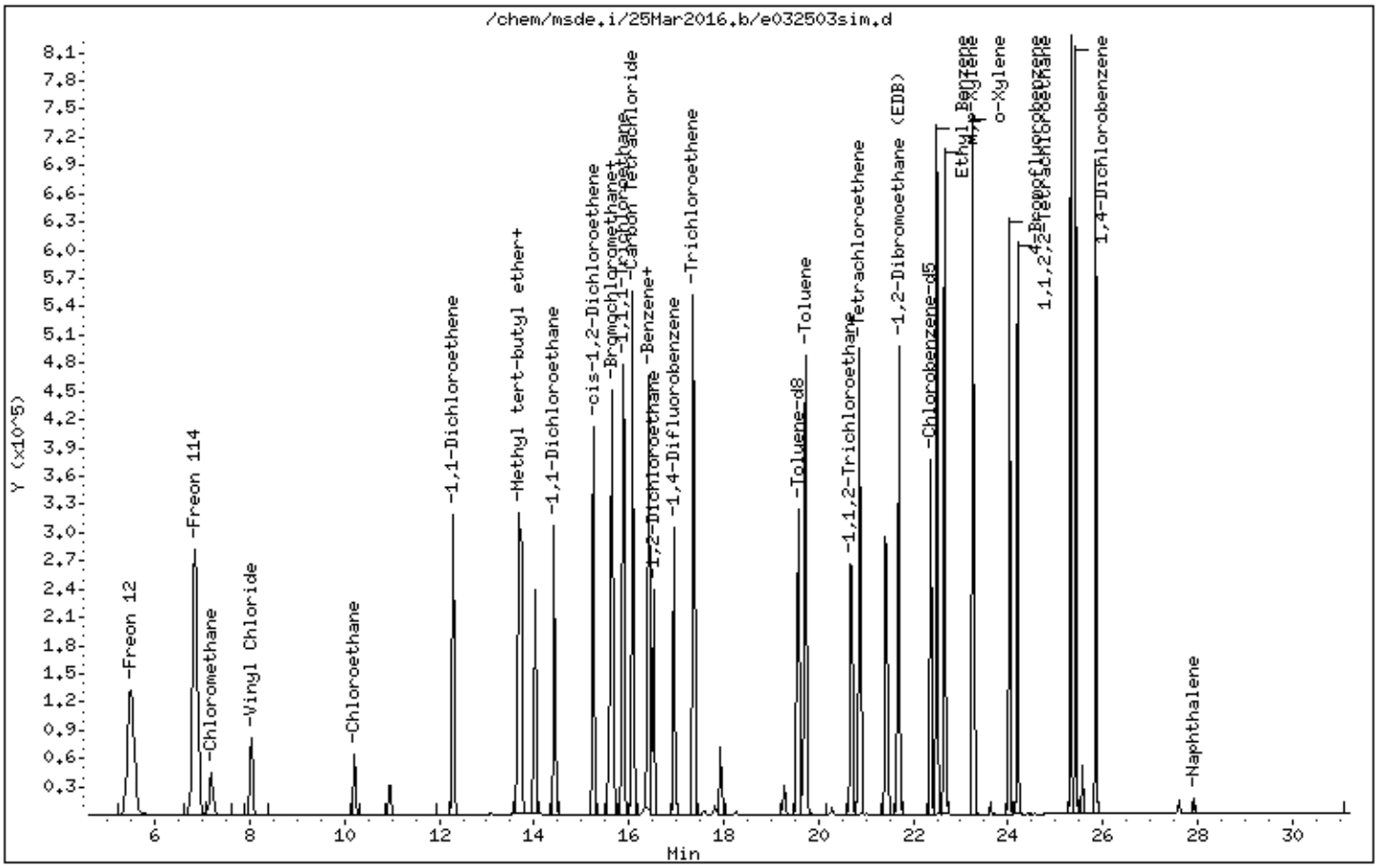
Instrument: msde.i

Sample Info: 25mL# 2789-8

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCSD		
Lab ID:	1603470-09AA	**Date/Time Analyzed:**	3/25/16 11:14 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032504sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	110
1,1,2,2-Tetrachloroethane	79-34-5	107
1,1,2-Trichloroethane	79-00-5	110
1,1-Dichloroethane	75-34-3	112
1,1-Dichloroethene	75-35-4	106
1,2-Dibromoethane (EDB)	106-93-4	109
1,2-Dichloroethane	107-06-2	103
1,4-Dichlorobenzene	106-46-7	109
Benzene	71-43-2	100
Carbon Tetrachloride	56-23-5	114
Chloroethane	75-00-3	115
Chloroform	67-66-3	103
Chloromethane	74-87-3	106
cis-1,2-Dichloroethene	156-59-2	119
Ethyl Benzene	100-41-4	116
Freon 114	76-14-2	116
Freon 12	75-71-8	109
m,p-Xylene	108-38-3	118
Methyl tert-butyl ether	1634-04-4	115
Naphthalene	91-20-3	80
o-Xylene	95-47-6	118
Tetrachloroethene	127-18-4	104
Toluene	108-88-3	109
trans-1,2-Dichloroethene	156-60-5	95

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCSD		
Lab ID:	1603470-09AA	**Date/Time Analyzed:**	3/25/16 11:14 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032504sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	101
Vinyl Chloride	75-01-4	116

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	93
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	99

* % Recovery is calculated using unrounded analytical results.

Report Date: 25-Mar-2016 15:04

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 25Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCSD Client Smp ID: LCSD
Level: LOW Operator: ef
Data Type: MS DATA SampleType: LCSD
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.0ppbv (50ppbv)

	SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
1	Freon 12	5.000	5.474	109.49	70-130
2	Freon 114	5.000	5.785	115.69	70-130
3	Chloromethane	5.000	5.310	106.19	70-130
4	Vinyl Chloride	5.000	5.783	115.66	70-130
5	Chloroethane	5.000	5.760	115.20	70-130
8	1,1-Dichloroethene	5.000	5.316	106.32	70-130
9	Methyl tert-butyl	5.000	5.761	115.21	70-130
10	trans-1,2-Dichloro	5.000	4.758	95.17	70-130
11	1,1-Dichloroethane	5.000	5.610	112.20	70-130
12	cis-1,2-Dichloroet	5.000	5.963	119.27	70-130
14	Chloroform	5.000	5.161	103.22	70-130
15	1,1,1-Trichloroeth	5.000	5.475	109.51	70-130
16	Carbon Tetrachlori	5.000	5.716	114.32	60-140
17	Benzene	5.000	4.990	99.81	70-130
19	1,2-Dichloroethane	5.000	5.144	102.89	70-130
21	Trichloroethene	5.000	5.064	101.28	70-130
23	Toluene	5.000	5.455	109.10	70-130
25	1,1,2-Trichloroeth	5.000	5.527	110.55	70-130
26	Tetrachloroethene	5.000	5.212	104.24	70-130
27	1,2-Dibromoethane	5.000	5.470	109.41	70-130
30	Ethyl Benzene	5.000	5.823	116.47	70-130
31	m,p-Xylene	5.000	5.876	117.53	70-130
32	o-Xylene	5.000	5.895	117.89	70-130
34	1,1,2,2-Tetrachlor	5.000	5.374	107.49	70-130
36	1,4-Dichlorobenzen	5.000	5.442	108.85	70-130
38	Naphthalene	0.5000	0.4002	80.04	60-140

	SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18	1,2-Dichloroethane	5.000	4.660	93.19	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 22 Toluene-d8	5.000	4.968	99.35	70-130
$ 33 4-Bromofluorobenze	5.000	5.027	100.54	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/25Mar2016.b/e032504sim.d
Lab Smp Id: LCSD Client Smp ID: LCSD
Inj Date : 25-MAR-2016 11:14
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-8
Misc Info : 5.0ppbv (50ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 25-Mar-2016 15:03 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.469	5.469 (0.351)	85	901085	5.47433	5.474	80.00- 120.00	100.00
5.469	5.469 (0.351)	87	292481			2.41- 62.41	32.46
2 Freon 114					CAS #: 76-14-2		
6.819	6.819 (0.437)	135	690637	5.78467	5.785	80.00- 120.00	100.00
6.819	6.819 (0.437)	137	223589			2.22- 62.22	32.37
3 Chloromethane					CAS #: 74-87-3		
7.156	7.180 (0.459)	50	178123	5.30972	5.310	80.00- 120.00	100.00
7.180	7.180 (0.460)	52	58750			2.41- 62.41	32.98
4 Vinyl Chloride					CAS #: 75-01-4		
8.007	8.007 (0.513)	62	250550	5.78285	5.783	80.00- 120.00	100.00
8.007	8.007 (0.513)	64	85527			4.08- 64.08	34.14
5 Chloroethane					CAS #: 75-00-3		
10.190	10.190 (0.653)	64	125752	5.75987	5.760	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
	5 Chloroethane (continued)						
10.190	10.190 (0.653)	66	40913			3.01- 63.01	32.53
	8 1,1-Dichloroethene				CAS #: 75-35-4		
12.284	12.285 (0.788)	98	199436	5.31620	5.316	80.00- 120.00	100.00
12.284	12.285 (0.788)	61	458491			204.04- 264.04	229.89
12.284	12.285 (0.788)	96	309680			125.89- 185.89	155.28
	9 Methyl tert-butyl ether				CAS #: 1634-04-4		
13.660	13.660 (0.876)	73	868272	5.76073	5.761	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	155208			0.00- 47.74	17.88
13.660	13.660 (0.876)	41	132448			0.00- 45.64	15.25
	10 trans-1,2-Dichloroethene				CAS #: 156-60-5		
13.742	13.742 (0.881)	98	179775	4.75842	4.758	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	347159			165.66- 225.66	193.11
13.715	13.742 (0.880)	96	278278			126.47- 186.47	154.79
	11 1,1-Dichloroethane				CAS #: 75-34-3		
14.429	14.429 (0.925)	63	537068	5.61024	5.610	80.00- 120.00	100.00
14.429	14.429 (0.925)	65	174180			2.13- 62.13	32.43
	12 cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.253	15.253 (0.978)	98	245571	5.96341	5.963	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	428316			146.50- 206.50	174.42
15.253	15.253 (0.978)	96	377394			124.34- 184.34	153.68
*	13 Bromochloromethane				CAS #: 74-97-5		
15.593	15.594 (1.000)	130	174753	5.00000		80.00- 120.00	100.00
15.593	15.594 (1.000)	128	134384			46.88- 106.88	76.90
15.563	15.563 (1.000)	49	195408			79.48- 139.48	111.82
	14 Chloroform				CAS #: 67-66-3		
15.655	15.655 (1.004)	83	728499	5.16096	5.161	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	479235			35.71- 95.71	65.78
	15 1,1,1-Trichloroethane				CAS #: 71-55-6		
15.871	15.871 (1.018)	97	844006	5.47541	5.475	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	549697			35.33- 95.33	65.13
	16 Carbon Tetrachloride				CAS #: 56-23-5		
16.087	16.087 (1.032)	117	868293	5.71587	5.716	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	845362			67.29- 127.29	97.36
	17 Benzene				CAS #: 71-43-2		
16.399	16.423 (0.967)	78	928517	4.99057	4.990	80.00- 120.00	100.00

	RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
	17 Benzene (continued)							
	16.399	16.399 (0.967)	77	212234			0.00- 52.97	22.86
$	18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
	16.399	16.399 (1.052)	65	254981	4.65961	4.660	80.00- 120.00	100.00
	16.399	16.399 (1.052)	67	131078			21.84- 81.84	51.41
	19 1,2-Dichloroethane					CAS #: 107-06-2		
	16.519	16.519 (0.974)	62	478771	5.14439	5.144	80.00- 120.00	100.00
	16.519	16.519 (0.974)	64	161033			3.73- 63.73	33.63
*	20 1,4-Difluorobenzene					CAS #: 540-36-3		
	16.953	16.953 (1.000)	114	732811	5.00000		80.00- 120.00	100.00
	16.953	16.953 (1.000)	88	108393			0.00- 44.79	14.79
	21 Trichloroethene					CAS #: 79-01-6		
	17.362	17.362 (1.024)	130	475848	5.06414	5.064	80.00- 120.00	100.00
	17.362	17.362 (1.024)	95	455987			65.34- 125.34	95.83
	17.362	17.362 (1.024)	97	295211			32.10- 92.10	62.04
$	22 Toluene-d8					CAS #: 2037-26-5		
	19.570	19.570 (1.154)	98	665511	4.96761	4.968	80.00- 120.00	100.00
	19.570	19.570 (1.154)	70	68405			0.00- 40.53	10.28
	19.570	19.570 (1.154)	100	439836			35.79- 95.79	66.09
	23 Toluene					CAS #: 108-88-3		
	19.727	19.727 (1.164)	91	1139873	5.45518	5.455	80.00- 120.00	100.00
	19.727	19.727 (1.164)	92	683648			29.49- 89.49	59.98
	25 1,1,2-Trichloroethane					CAS #: 79-00-5		
	20.675	20.675 (0.924)	97	421299	5.52746	5.527	80.00- 120.00	100.00
	20.675	20.702 (0.924)	99	265687			33.26- 93.26	63.06
	20.675	20.675 (0.924)	83	339524			49.93- 109.93	80.59
	26 Tetrachloroethene					CAS #: 127-18-4		
	20.867	20.867 (0.932)	166	632005	5.21197	5.212	80.00- 120.00	100.00
	20.867	20.867 (0.932)	129	452400			41.88- 101.88	71.58
	20.867	20.867 (0.932)	131	441002			40.10- 100.10	69.78
	27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
	21.691	21.691 (0.969)	107	676386	5.47039	5.470	80.00- 120.00	100.00
	21.691	21.691 (0.969)	109	648047			65.18- 125.18	95.81
*	28 Chlorobenzene-d5					CAS #: 3114-55-4		
	22.379	22.379 (1.000)	117	663770	5.00000		80.00- 120.00	100.00
	22.358	22.359 (1.000)	82	323248			19.34- 79.34	48.70

				CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	485937	5.82347	5.823	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	1493181			278.88- 338.88	307.28
31 m,p-Xylene					CAS #: 108-38-3		
22.669	22.670 (1.013)	106	580467	5.87652	5.876	80.00- 120.00	100.00
22.669	22.670 (1.013)	91	1145761			169.32- 229.32	197.39
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	554718	5.89471	5.895	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	1156672			179.11- 239.11	208.52
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	442736	5.02693	5.027	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	471984			77.34- 137.34	106.61
24.034	24.034 (1.074)	176	432879			67.97- 127.97	97.77
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	805840	5.37450	5.374	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	530729			35.73- 95.73	65.86
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	915339	5.44251	5.442	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	594280			35.15- 95.15	64.92
25.424	25.424 (1.136)	111	335305			6.91- 66.91	36.63
38 Naphthalene					CAS #: 91-20-3		
27.935	27.935 (1.248)	128	40713	0.40019	0.4002	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	5462			0.00- 42.33	13.42

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032504sim.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/25Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 25-MAR-2016
Calibration Time: 09:25
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	200624	120374	280874	174753	-12.90
20 1,4-Difluorobenze	838688	503213	1174163	732811	-12.62
28 Chlorobenzene-d5	748894	449336	1048452	663770	-11.37

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/25Mar2016.b/e032504sim.d

Date : 25-MAR-2016 11:14

Client ID: LCSD

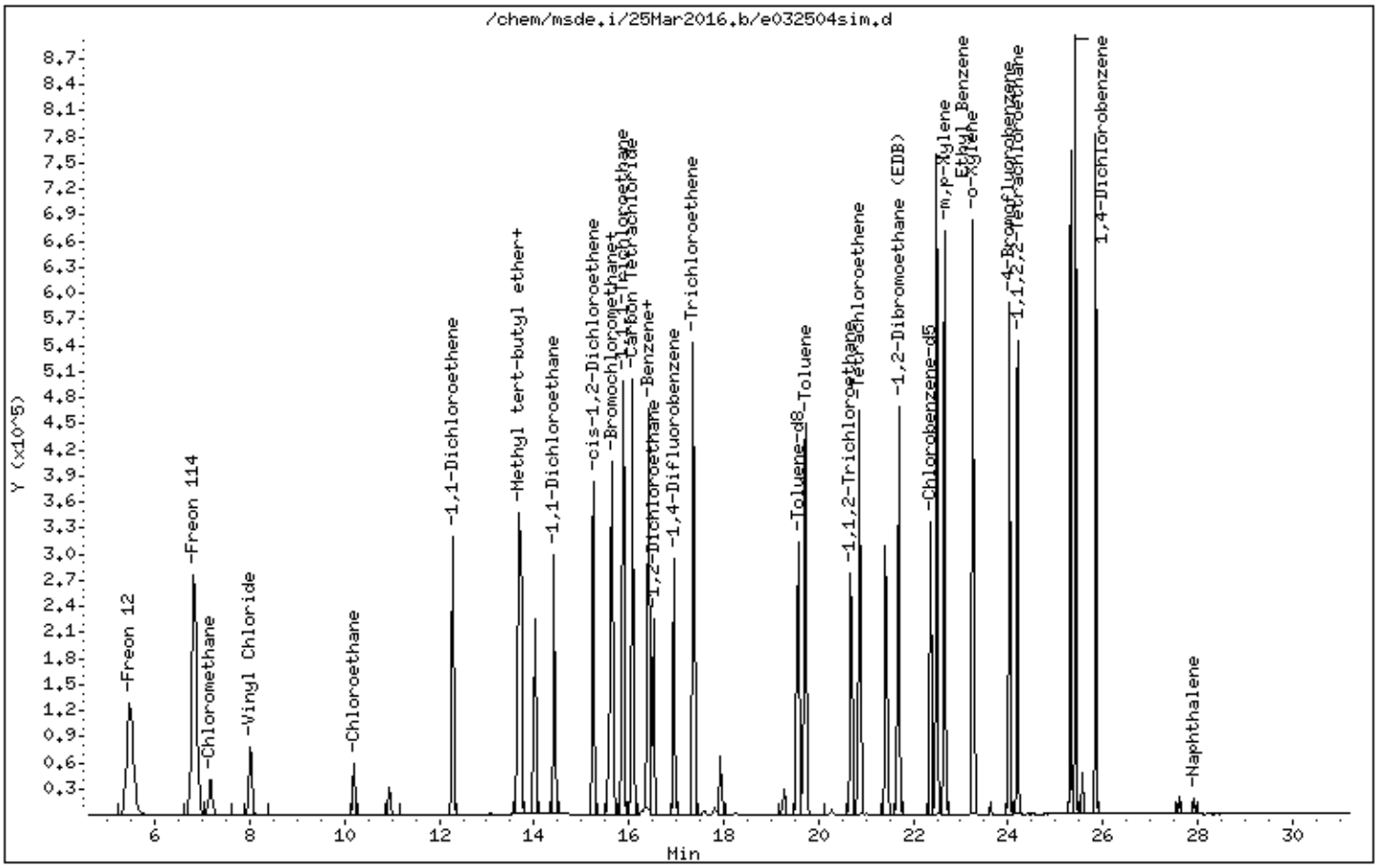
Instrument: msde.i

Sample Info: 25mL# 2789-8

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCS		
Lab ID:	1603470-09B	**Date/Time Analyzed:**	3/28/16 11:50 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032805sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	109
1,1,2,2-Tetrachloroethane	79-34-5	106
1,1,2-Trichloroethane	79-00-5	110
1,1-Dichloroethane	75-34-3	111
1,1-Dichloroethene	75-35-4	104
1,2-Dibromoethane (EDB)	106-93-4	109
1,2-Dichloroethane	107-06-2	103
1,4-Dichlorobenzene	106-46-7	107
Benzene	71-43-2	99
Carbon Tetrachloride	56-23-5	114
Chloroethane	75-00-3	114
Chloroform	67-66-3	103
Chloromethane	74-87-3	105
cis-1,2-Dichloroethene	156-59-2	118
Ethyl Benzene	100-41-4	116
Freon 114	76-14-2	115
Freon 12	75-71-8	110
m,p-Xylene	108-38-3	117
Methyl tert-butyl ether	1634-04-4	114
Naphthalene	91-20-3	75
o-Xylene	95-47-6	118
Tetrachloroethene	127-18-4	104
Toluene	108-88-3	109
trans-1,2-Dichloroethene	156-60-5	94

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCS		
Lab ID:	1603470-09B	**Date/Time Analyzed:**	3/28/16 11:50 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032805sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	101
Vinyl Chloride	75-01-4	114

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	100

* % Recovery is calculated using unrounded analytical results.

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 28Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCS Client Smp ID: LCS
Level: LOW Operator: ef
Data Type: MS DATA SampleType: LCS
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
1 Freon 12	5.000	5.478	109.56	70-130
2 Freon 114	5.000	5.765	115.30	70-130
3 Chloromethane	5.000	5.273	105.46	70-130
4 Vinyl Chloride	5.000	5.694	113.89	70-130
5 Chloroethane	5.000	5.710	114.21	70-130
8 1,1-Dichloroethene	5.000	5.222	104.45	70-130
9 Methyl tert-butyl	5.000	5.692	113.85	70-130
10 trans-1,2-Dichloro	5.000	4.711	94.22	70-130
11 1,1-Dichloroethane	5.000	5.564	111.28	70-130
12 cis-1,2-Dichloroet	5.000	5.902	118.04	70-130
14 Chloroform	5.000	5.170	103.41	70-130
15 1,1,1-Trichloroeth	5.000	5.457	109.14	70-130
16 Carbon Tetrachlori	5.000	5.718	114.35	60-140
17 Benzene	5.000	4.974	99.48	70-130
19 1,2-Dichloroethane	5.000	5.173	103.46	70-130
21 Trichloroethene	5.000	5.063	101.27	70-130
23 Toluene	5.000	5.439	108.78	70-130
25 1,1,2-Trichloroeth	5.000	5.498	109.96	70-130
26 Tetrachloroethene	5.000	5.228	104.57	70-130
27 1,2-Dibromoethane	5.000	5.470	109.40	70-130
30 Ethyl Benzene	5.000	5.797	115.94	70-130
31 m,p-Xylene	5.000	5.861	117.22	70-130
32 o-Xylene	5.000	5.876	117.51	70-130
34 1,1,2,2-Tetrachlor	5.000	5.317	106.34	70-130
36 1,4-Dichlorobenzen	5.000	5.353	107.07	70-130
38 Naphthalene	0.5000	0.3758	75.15	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18 1,2-Dichloroethane	5.000	4.688	93.76	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 22 Toluene-d8	5.000	4.998	99.95	70-130
$ 33 4-Bromofluorobenze	5.000	5.066	101.33	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/28Mar2016.b/e032805sim.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 28-MAR-2016 11:50
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-8
Misc Info : 5.0ppbv (50ppbv)
Comment : SIM - GC/MS
Method : /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 28-Mar-2016 11:48 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.469	5.469 (0.351)	85	886264	5.47792	5.478	80.00- 120.00	100.00
5.469	5.493 (0.351)	87	288002			2.41- 62.41	32.50
2 Freon 114					CAS #: 76-14-2		
6.843	6.843 (0.439)	135	676519	5.76495	5.765	80.00- 120.00	100.00
6.843	6.843 (0.439)	137	218840			2.22- 62.22	32.35
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	173871	5.27311	5.273	80.00- 120.00	100.00
7.180	7.180 (0.460)	52	58189			2.41- 62.41	33.47
4 Vinyl Chloride					CAS #: 75-01-4		
8.024	8.024 (0.515)	62	242495	5.69426	5.694	80.00- 120.00	100.00
8.024	8.024 (0.515)	64	82633			4.08- 64.08	34.08
5 Chloroethane					CAS #: 75-00-3		
10.209	10.209 (0.655)	64	122541	5.71040	5.710	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
	5 Chloroethane (continued)						
10.209	10.209 (0.655)	66	39643			3.01- 63.01	32.35
	8 1,1-Dichloroethene				CAS #: 75-35-4		
12.303	12.303 (0.789)	98	192571	5.22247	5.222	80.00- 120.00	100.00
12.284	12.303 (0.788)	61	448369			204.04- 264.04	232.83
12.303	12.303 (0.789)	96	302763			125.89- 185.89	157.22
	9 Methyl tert-butyl ether				CAS #: 1634-04-4		
13.660	13.660 (0.876)	73	843289	5.69227	5.692	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	149190			0.00- 47.74	17.69
13.660	13.660 (0.876)	41	127914			0.00- 45.64	15.17
	10 trans-1,2-Dichloroethene				CAS #: 156-60-5		
13.742	13.742 (0.881)	98	174939	4.71094	4.711	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	336366			165.66- 225.66	192.28
13.742	13.742 (0.881)	96	272196			126.47- 186.47	155.59
	11 1,1-Dichloroethane				CAS #: 75-34-3		
14.428	14.428 (0.925)	63	523515	5.56377	5.564	80.00- 120.00	100.00
14.428	14.428 (0.925)	65	169637			2.13- 62.13	32.40
	12 cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.253	15.253 (0.978)	98	238878	5.90175	5.902	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	419159			146.50- 206.50	175.47
15.253	15.253 (0.978)	96	369456			124.34- 184.34	154.66
*	13 Bromochloromethane				CAS #: 74-97-5		
15.593	15.593 (1.000)	130	171766	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	131823			46.88- 106.88	76.75
15.562	15.562 (1.000)	49	189799			79.48- 139.48	110.50
	14 Chloroform				CAS #: 67-66-3		
15.655	15.655 (1.004)	83	717345	5.17032	5.170	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	471622			35.71- 95.71	65.75
	15 1,1,1-Trichloroethane				CAS #: 71-55-6		
15.871	15.871 (1.018)	97	826809	5.45713	5.457	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	541300			35.33- 95.33	65.47
	16 Carbon Tetrachloride				CAS #: 56-23-5		
16.087	16.087 (1.032)	117	853705	5.71757	5.718	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	832782			67.29- 127.29	97.55
	17 Benzene				CAS #: 71-43-2		
16.423	16.399 (0.969)	78	906936	4.97376	4.974	80.00- 120.00	100.00

				CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
17 Benzene (continued)							
16.399	16.399 (0.967)	77	208048			0.00- 52.97	22.94
$ 18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
16.399	16.399 (1.052)	65	252139	4.68780	4.688	80.00- 120.00	100.00
16.399	16.399 (1.052)	67	128768			21.84- 81.84	51.07
19 1,2-Dichloroethane					CAS #: 107-06-2		
16.519	16.519 (0.974)	62	471843	5.17311	5.173	80.00- 120.00	100.00
16.519	16.519 (0.974)	64	159306			3.73- 63.73	33.76
* 20 1,4-Difluorobenzene					CAS #: 540-36-3		
16.953	16.953 (1.000)	114	718197	5.00000		80.00- 120.00	100.00
16.953	16.953 (1.000)	88	106041			0.00- 44.79	14.76
21 Trichloroethene					CAS #: 79-01-6		
17.362	17.362 (1.024)	130	466278	5.06327	5.063	80.00- 120.00	100.00
17.362	17.362 (1.024)	95	442005			65.34- 125.34	94.79
17.362	17.362 (1.024)	97	287982			32.10- 92.10	61.76
$ 22 Toluene-d8					CAS #: 2037-26-5		
19.570	19.570 (1.154)	98	656191	4.99771	4.998	80.00- 120.00	100.00
19.570	19.570 (1.154)	70	67700			0.00- 40.53	10.32
19.570	19.570 (1.154)	100	429670			35.79- 95.79	65.48
23 Toluene					CAS #: 108-88-3		
19.727	19.727 (1.164)	91	1113780	5.43877	5.439	80.00- 120.00	100.00
19.727	19.727 (1.164)	92	667581			29.49- 89.49	59.94
25 1,1,2-Trichloroethane					CAS #: 79-00-5		
20.674	20.674 (0.924)	97	410257	5.49815	5.498	80.00- 120.00	100.00
20.674	20.674 (0.924)	99	258684			33.26- 93.26	63.05
20.674	20.674 (0.924)	83	328970			49.93- 109.93	80.19
26 Tetrachloroethene					CAS #: 127-18-4		
20.867	20.867 (0.932)	166	620663	5.22832	5.228	80.00- 120.00	100.00
20.867	20.867 (0.932)	129	448445			41.88- 101.88	72.25
20.867	20.867 (0.932)	131	434905			40.10- 100.10	70.07
27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
21.691	21.691 (0.969)	107	662139	5.47014	5.470	80.00- 120.00	100.00
21.691	21.691 (0.969)	109	636246			65.18- 125.18	96.09
* 28 Chlorobenzene-d5					CAS #: 3114-55-4		
22.379	22.379 (1.000)	117	649819	5.00000		80.00- 120.00	100.00
22.358	22.358 (1.000)	82	316940			19.34- 79.34	48.77

				CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
RT	EXP RT (REL RT)	MASS	RESPONSE				
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	473571	5.79712	5.797	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	1460585			278.88- 338.88	308.42
31 m,p-Xylene					CAS #: 108-38-3		
22.669	22.669 (1.013)	106	566763	5.86097	5.861	80.00- 120.00	100.00
22.669	22.669 (1.013)	91	1125033			169.32- 229.32	198.50
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	541294	5.87555	5.876	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	1128728			179.11- 239.11	208.52
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	436841	5.06648	5.066	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	464677			77.34- 137.34	106.37
24.034	24.034 (1.074)	176	427216			67.97- 127.97	97.80
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	780450	5.31691	5.317	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	513647			35.73- 95.73	65.81
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	881406	5.35326	5.353	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	575057			35.15- 95.15	65.24
25.424	25.424 (1.136)	111	322896			6.91- 66.91	36.63
38 Naphthalene					CAS #: 91-20-3		
27.935	27.935 (1.248)	128	37424	0.37576	0.3758	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	5025			0.00- 42.33	13.43

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032805sim.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 28-MAR-2016
Calibration Time: 10:19
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	190819	114491	267147	171766	-9.98
20 1,4-Difluorobenze	801879	481127	1122631	718197	-10.44
28 Chlorobenzene-d5	718505	431103	1005907	649819	-9.56

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/28Mar2016.b/e032805sim.d

Date : 28-MAR-2016 11:50

Client ID: LCS

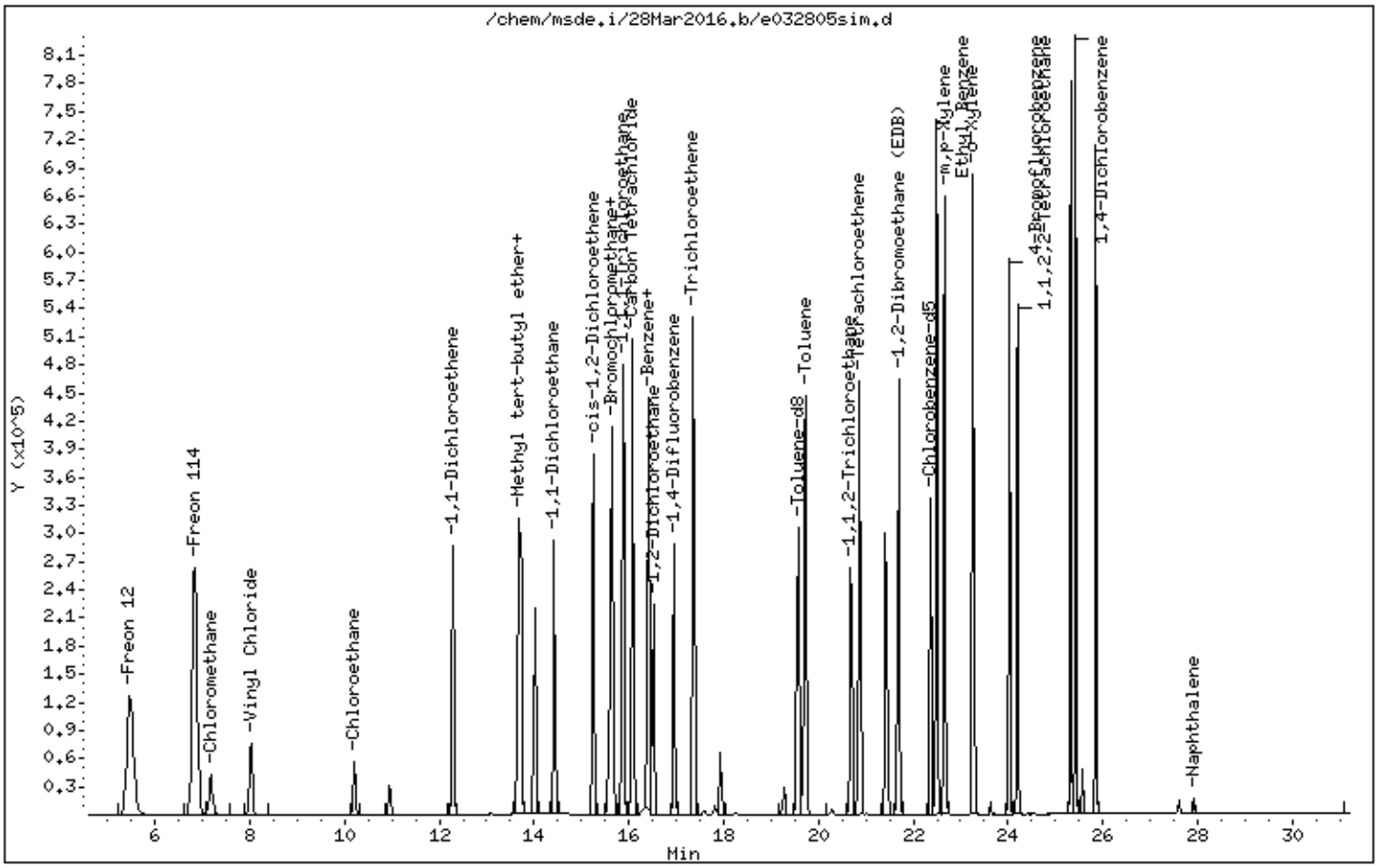
Instrument: msde.i

Sample Info: 25mL# 2789-8

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCSD		
Lab ID:	1603470-09BB	**Date/Time Analyzed:**	3/28/16 12:33 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032806sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	110
1,1,2,2-Tetrachloroethane	79-34-5	107
1,1,2-Trichloroethane	79-00-5	111
1,1-Dichloroethane	75-34-3	111
1,1-Dichloroethene	75-35-4	104
1,2-Dibromoethane (EDB)	106-93-4	109
1,2-Dichloroethane	107-06-2	102
1,4-Dichlorobenzene	106-46-7	108
Benzene	71-43-2	99
Carbon Tetrachloride	56-23-5	115
Chloroethane	75-00-3	115
Chloroform	67-66-3	103
Chloromethane	74-87-3	106
cis-1,2-Dichloroethene	156-59-2	118
Ethyl Benzene	100-41-4	116
Freon 114	76-14-2	115
Freon 12	75-71-8	110
m,p-Xylene	108-38-3	118
Methyl tert-butyl ether	1634-04-4	114
Naphthalene	91-20-3	84
o-Xylene	95-47-6	118
Tetrachloroethene	127-18-4	104
Toluene	108-88-3	108
trans-1,2-Dichloroethene	156-60-5	94

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCSD		
Lab ID:	1603470-09BB	**Date/Time Analyzed:**	3/28/16 12:33 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032806sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	101
Vinyl Chloride	75-01-4	115

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	100

* % Recovery is calculated using unrounded analytical results.

Report Date: 28-Mar-2016 13:12

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 28Mar2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: LCSD Client Smp ID: LCSD
Level: LOW Operator: ef
Data Type: MS DATA SampleType: LCSD
SpikeList File: AT09Bromo.spk Quant Type: ISTD
Sublist File: AT09.sub
Method File: /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
1 Freon 12	5.000	5.510	110.20	70-130
2 Freon 114	5.000	5.750	115.00	70-130
3 Chloromethane	5.000	5.288	105.76	70-130
4 Vinyl Chloride	5.000	5.731	114.62	70-130
5 Chloroethane	5.000	5.760	115.20	70-130
8 1,1-Dichloroethene	5.000	5.219	104.37	70-130
9 Methyl tert-butyl	5.000	5.690	113.79	70-130
10 trans-1,2-Dichloro	5.000	4.710	94.20	70-130
11 1,1-Dichloroethane	5.000	5.563	111.26	70-130
12 cis-1,2-Dichloroet	5.000	5.916	118.32	70-130
14 Chloroform	5.000	5.146	102.91	70-130
15 1,1,1-Trichloroeth	5.000	5.490	109.81	70-130
16 Carbon Tetrachlori	5.000	5.736	114.72	60-140
17 Benzene	5.000	4.947	98.95	70-130
19 1,2-Dichloroethane	5.000	5.111	102.22	70-130
21 Trichloroethene	5.000	5.051	101.02	70-130
23 Toluene	5.000	5.425	108.49	70-130
25 1,1,2-Trichloroeth	5.000	5.563	111.25	70-130
26 Tetrachloroethene	5.000	5.193	103.87	70-130
27 1,2-Dibromoethane	5.000	5.454	109.07	70-130
30 Ethyl Benzene	5.000	5.782	115.65	70-130
31 m,p-Xylene	5.000	5.904	118.08	70-130
32 o-Xylene	5.000	5.883	117.65	70-130
34 1,1,2,2-Tetrachlor	5.000	5.373	107.47	70-130
36 1,4-Dichlorobenzen	5.000	5.405	108.09	70-130
38 Naphthalene	0.5000	0.4198	83.95	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 18 1,2-Dichloroethane	5.000	4.701	94.02	70-130

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 22 Toluene-d8	5.000	4.985	99.71	70-130
$ 33 4-Bromofluorobenze	5.000	5.045	100.90	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msde.i/28Mar2016.b/e032806sim.d
Lab Smp Id: LCSD Client Smp ID: LCSD
Inj Date : 28-MAR-2016 12:33
Operator : ef Inst ID: msde.i
Smp Info : 25mL# 2789-8
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Meth Date : 28-Mar-2016 11:48 efinn Quant Type: ISTD
Cal Date : 17-MAR-2016 19:01 Cal File: e031712sim.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT09.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
1 Freon 12					CAS #: 75-71-8		
5.469	5.469 (0.351)	85	891104	5.51013	5.510	80.00- 120.00	100.00
5.469	5.493 (0.351)	87	289588			2.41- 62.41	32.50
2 Freon 114					CAS #: 76-14-2		
6.843	6.843 (0.439)	135	674499	5.75013	5.750	80.00- 120.00	100.00
6.843	6.843 (0.439)	137	217630			2.22- 62.22	32.27
3 Chloromethane					CAS #: 74-87-3		
7.180	7.180 (0.460)	50	174283	5.28780	5.288	80.00- 120.00	100.00
7.180	7.180 (0.460)	52	58564			2.41- 62.41	33.60
4 Vinyl Chloride					CAS #: 75-01-4		
8.024	8.024 (0.515)	62	243949	5.73080	5.731	80.00- 120.00	100.00
8.024	8.024 (0.515)	64	83324			4.08- 64.08	34.16
5 Chloroethane					CAS #: 75-00-3		
10.209	10.209 (0.655)	64	123554	5.76003	5.760	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
	5 Chloroethane (continued)						
10.209	10.209 (0.655)	66	40350			3.01- 63.01	32.66
	8 1,1-Dichloroethene				CAS #: 75-35-4		
12.303	12.303 (0.789)	98	192348	5.21861	5.219	80.00- 120.00	100.00
12.284	12.303 (0.788)	61	446677			204.04- 264.04	232.22
12.303	12.303 (0.789)	96	302002			125.89- 185.89	157.01
	9 Methyl tert-butyl ether				CAS #: 1634-04-4		
13.660	13.660 (0.876)	73	842555	5.68968	5.690	80.00- 120.00	100.00
13.660	13.660 (0.876)	57	149276			0.00- 47.74	17.72
13.660	13.660 (0.876)	41	129073			0.00- 45.64	15.32
	10 trans-1,2-Dichloroethene				CAS #: 156-60-5		
13.742	13.742 (0.881)	98	174837	4.71015	4.710	80.00- 120.00	100.00
13.715	13.715 (0.880)	61	335918			165.66- 225.66	192.13
13.742	13.742 (0.881)	96	271593			126.47- 186.47	155.34
	11 1,1-Dichloroethane				CAS #: 75-34-3		
14.429	14.428 (0.925)	63	523229	5.56304	5.563	80.00- 120.00	100.00
14.429	14.428 (0.925)	65	169688			2.13- 62.13	32.43
	12 cis-1,2-Dichloroethene				CAS #: 156-59-2		
15.253	15.253 (0.978)	98	239345	5.91576	5.916	80.00- 120.00	100.00
15.253	15.253 (0.978)	61	417780			146.50- 206.50	174.55
15.253	15.253 (0.978)	96	369458			124.34- 184.34	154.36
*	13 Bromochloromethane				CAS #: 74-97-5		
15.593	15.593 (1.000)	130	171694	5.00000		80.00- 120.00	100.00
15.593	15.593 (1.000)	128	131930			46.88- 106.88	76.84
15.563	15.562 (1.000)	49	190907			79.48- 139.48	111.19
	14 Chloroform				CAS #: 67-66-3		
15.655	15.655 (1.004)	83	713633	5.14571	5.146	80.00- 120.00	100.00
15.655	15.655 (1.004)	85	469788			35.71- 95.71	65.83
	15 1,1,1-Trichloroethane				CAS #: 71-55-6		
15.871	15.871 (1.018)	97	831502	5.49039	5.490	80.00- 120.00	100.00
15.871	15.871 (1.018)	99	542834			35.33- 95.33	65.28
	16 Carbon Tetrachloride				CAS #: 56-23-5		
16.087	16.087 (1.032)	117	856126	5.73617	5.736	80.00- 120.00	100.00
16.087	16.087 (1.032)	119	832879			67.29- 127.29	97.28
	17 Benzene				CAS #: 71-43-2		
16.423	16.399 (0.969)	78	907449	4.94750	4.947	80.00- 120.00	100.00

	RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
	17 Benzene (continued)							
	16.399	16.399 (0.967)	77	207884			0.00- 52.97	22.91
$	18 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
	16.399	16.399 (1.052)	65	252736	4.70086	4.701	80.00- 120.00	100.00
	16.399	16.399 (1.052)	67	129659			21.84- 81.84	51.30
	19 1,2-Dichloroethane					CAS #: 107-06-2		
	16.519	16.519 (0.974)	62	468906	5.11087	5.111	80.00- 120.00	100.00
	16.519	16.519 (0.974)	64	158948			3.73- 63.73	33.90
*	20 1,4-Difluorobenzene					CAS #: 540-36-3		
	16.953	16.953 (1.000)	114	722419	5.00000		80.00- 120.00	100.00
	16.953	16.953 (1.000)	88	106742			0.00- 44.79	14.78
	21 Trichloroethene					CAS #: 79-01-6		
	17.362	17.362 (1.024)	130	467866	5.05082	5.051	80.00- 120.00	100.00
	17.362	17.362 (1.024)	95	444993			65.34- 125.34	95.11
	17.362	17.362 (1.024)	97	290201			32.10- 92.10	62.03
$	22 Toluene-d8					CAS #: 2037-26-5		
	19.570	19.570 (1.154)	98	658409	4.98530	4.985	80.00- 120.00	100.00
	19.570	19.570 (1.154)	70	68124			0.00- 40.53	10.35
	19.570	19.570 (1.154)	100	434342			35.79- 95.79	65.97
	23 Toluene					CAS #: 108-88-3		
	19.727	19.727 (1.164)	91	1117410	5.42460	5.425	80.00- 120.00	100.00
	19.727	19.727 (1.164)	92	668625			29.49- 89.49	59.84
	25 1,1,2-Trichloroethane					CAS #: 79-00-5		
	20.675	20.674 (0.924)	97	416802	5.56271	5.563	80.00- 120.00	100.00
	20.675	20.674 (0.924)	99	262356			33.26- 93.26	62.95
	20.675	20.674 (0.924)	83	334587			49.93- 109.93	80.27
	26 Tetrachloroethene					CAS #: 127-18-4		
	20.867	20.867 (0.932)	166	619069	5.19329	5.193	80.00- 120.00	100.00
	20.867	20.867 (0.932)	129	447399			41.88- 101.88	72.27
	20.867	20.867 (0.932)	131	435491			40.10- 100.10	70.35
	27 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
	21.691	21.691 (0.969)	107	662895	5.45369	5.454	80.00- 120.00	100.00
	21.691	21.691 (0.969)	109	638112			65.18- 125.18	96.26
*	28 Chlorobenzene-d5					CAS #: 3114-55-4		
	22.379	22.379 (1.000)	117	652523	5.00000		80.00- 120.00	100.00
	22.358	22.358 (1.000)	82	319054			19.34- 79.34	48.90

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	CONCENTRATIONS FINAL (PPBV)	TARGET RANGE	RATIO
30 Ethyl Benzene					CAS #: 100-41-4		
22.483	22.483 (1.005)	106	474345	5.78254	5.782	80.00- 120.00	100.00
22.483	22.483 (1.005)	91	1454201			278.88- 338.88	306.57
31 m,p-Xylene					CAS #: 108-38-3		
22.669	22.669 (1.013)	106	573279	5.90378	5.904	80.00- 120.00	100.00
22.669	22.669 (1.013)	91	1134804			169.32- 229.32	197.95
32 o-Xylene					CAS #: 95-47-6		
23.271	23.271 (1.040)	106	544199	5.88261	5.883	80.00- 120.00	100.00
23.271	23.271 (1.040)	91	1136846			179.11- 239.11	208.90
$ 33 4-Bromofluorobenzene					CAS #: 460-00-4		
24.034	24.034 (1.074)	174	436788	5.04488	5.045	80.00- 120.00	100.00
24.034	24.034 (1.074)	95	464562			77.34- 137.34	106.36
24.034	24.034 (1.074)	176	429178			67.97- 127.97	98.26
34 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
24.213	24.213 (1.082)	83	792034	5.37346	5.373	80.00- 120.00	100.00
24.213	24.213 (1.082)	85	521788			35.73- 95.73	65.88
36 1,4-Dichlorobenzene					CAS #: 106-46-7		
25.424	25.424 (1.136)	146	893580	5.40471	5.405	80.00- 120.00	100.00
25.424	25.424 (1.136)	148	582142			35.15- 95.15	65.15
25.424	25.424 (1.136)	111	327576			6.91- 66.91	36.66
38 Naphthalene					CAS #: 91-20-3		
27.935	27.935 (1.248)	128	41980	0.41976	0.4198	80.00- 120.00	100.00
27.935	27.935 (1.248)	127	5460			0.00- 42.33	13.01

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msde.i
Lab File ID: e032806sim.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msde.i/28Mar2016.b/e16l0317b.m/e16s0317a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 28-MAR-2016
Calibration Time: 10:19
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	190819	114491	267147	171694	-10.02
20 1,4-Difluorobenze	801879	481127	1122631	722419	-9.91
28 Chlorobenzene-d5	718505	431103	1005907	652523	-9.18

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
13 Bromochloromethan	15.59	15.26	15.92	15.59	0.00
20 1,4-Difluorobenze	16.95	16.62	17.28	16.95	0.00
28 Chlorobenzene-d5	22.38	22.05	22.71	22.38	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/msde.i/28Mar2016.b/e032806sim.d

Date : 28-MAR-2016 12:33

Client ID: LCSD

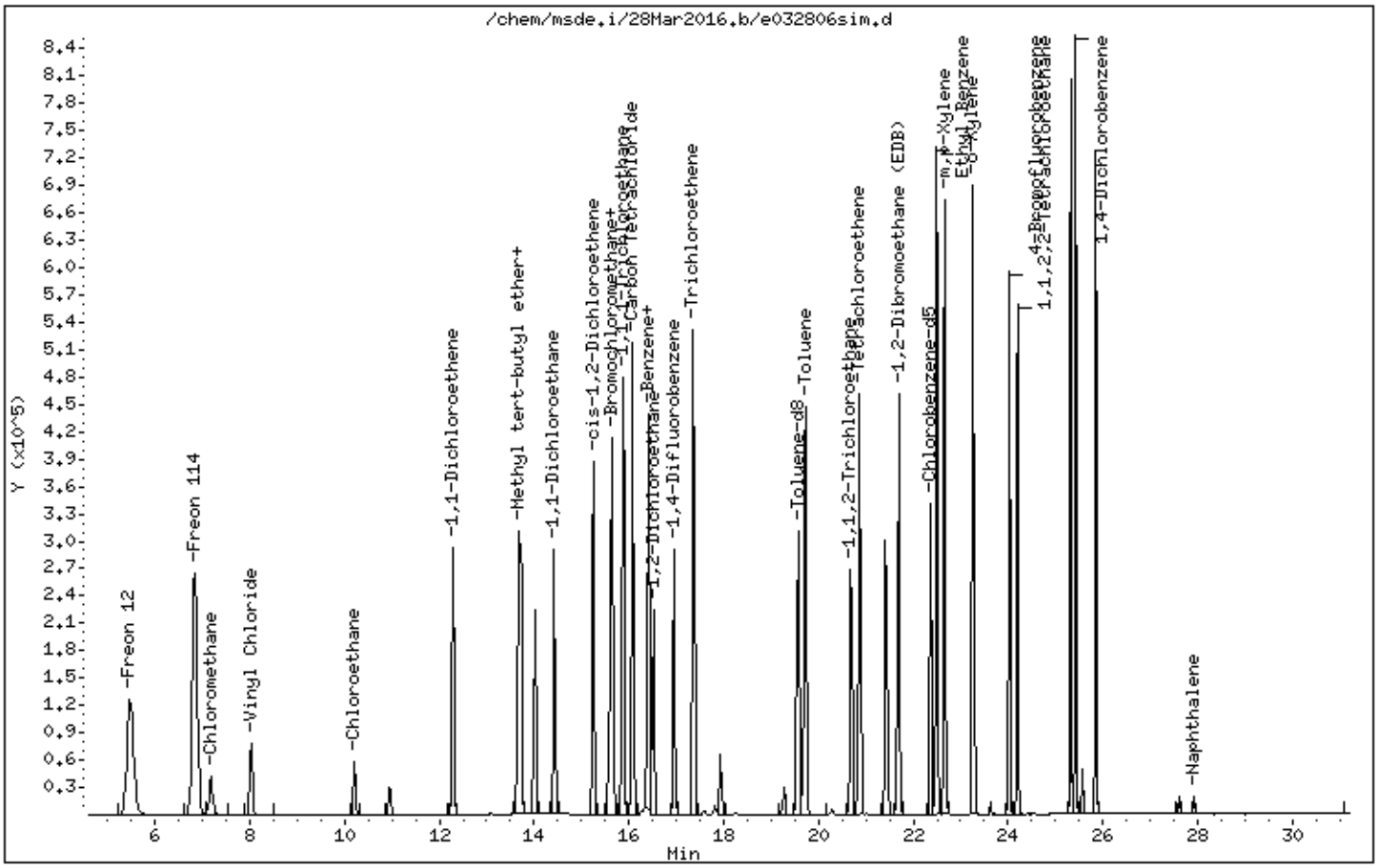
Instrument: msde.i

Sample Info: 25mL# 2789-8

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics, Inc. **MSD-E** **Logbook #2755**

BFB Verification of 176/174 m/z Ratio:	(705088/728064)x100=96.84
Tekmar Purge Flow:	
Vacuum:	EF 3/25/16

IS/S Std. #:	2789-17	Exp. Date:	6/17/16
BCM	LL: 196631	Sim:	200624
1,4-DFB	760212		838688
CB-d5	680500		748894

Verified CCV IS vs ICAL mid-point (-40%D): EF

File ID:	E032502
Compound:	Toluene-d8
Initials:	EF

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (733691) x (5.000) = 4.914
(760212) (0.98198)

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 4.914

Method Name: E16L0317A/E16S0317A

	Use	File	Lab ID# (EF 3/25/16)	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	E032501	BFB Tune Check	2789-1484	50ng	2.0ml	EF	1.00	EF	3/25/16	0902	EF	
2	✓	02	CCV (50ppbv)	2789-225	5.0ppbv	25ML	EF	1.00	EF	3/25/16	0925	EF	Exp. 4/6/16 ∅ out
3	✓	03	LCS (50ppbv)	2789-8	5.0ppbv	25ML	EF	1.00	EF		1029	EF	Exp. 6/11/16 LL: 1 out Sim: ∅ out
4	✓	04	LCSD (50ppbv)	2789-8	5.0ppbv	25ML	EF	1.00	EF		1114	EF	Exp. 6/11/16
5	✓	05	ICAL Level 7	2789-4	0.5ppbv	25ML	EF	1.00	EF		1218	EF	Exp 5/16/16 COMBO
6	✓	06	8		1.0ppbv	50ML	EF	1.00	EF		1352	EF	CCV
7	✓	07	12		5.0ppbv	250ML	EF	1.00	EF		1344	EF	
8	✓	08	LAB BLANK	34764	Humid	250ML	EF	1.00	EF		1448	EF	" "
9	✓	09	1603238-01A	36570	1.6"Hg 14.7psi	250ML	EF	2.12	EF		1540	EF	
10	✓	10	↓ -02A	111658	2.6"Hg 14.8psi	250ML	EF	2.20	EF		1622	EA	
11	✓	11	1603424-01A	34384	13.5"Hg -5psi	250ml	EA	2.43	EA		1712	EA	
12	✓	12	↓ -02A	10800	23.7psi -23.7psi	250ml	EA	1.00	EA		1812	EA	
13	✓	13	1603423-01A	34016	6.7"Hg -5.3psi	250ml	EA	1.75	EA		1903	EA	
14	✓	14	↓ -02A	NOB58	6.9"Hg -5psi	250ml	EA	1.74	EA		1958	EA	

Reviewed 3/25/16 Date

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
15	✓	0325 15	1603470 -01A	6L0026	5.3"Hg-3psi	250ml	ED	1.46	EA	3/25/16	2049	EA	
16	✓	16	-02A	9569	5.7"Hg-3.1psi	250ml	ED	1.50	EA		2140	EA	
17	✓	17	-03A	21006	6.1"Hg-2.9psi	250ml	EA	1.50	EA		2235	~~EA~~	
18	✓	18	-04A	24492	5.5"Hg-3.0psi	250mL	~~EA~~	1.48	~~EA~~	3/26/16	0310	~~EA~~	
19	✓	19	-06A	R-14	5.5"Hg-3.2psi	250mL	~~EA~~	1.49	~~EA~~	1	0352	~~EA~~	"E" MULTIPLE NICs
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36												~~EA~~ 3/26/16	

EA
Reviewed

3/26/16
Date

BFB Verification of 176/174 m/z Ratio: (96777/96704)x100= 96.4	
Tekmar Purge Flow:	
Vacuum:	3/28/16

IS/S Std. #: 2789-17		Exp. Date: 6/17/16
BCM	ID: 193781	5 mL: 190819
1,4-DFB	71350	801879
CB-d5	653716	718505

Verified CCV IS vs ICAL mid-point (-40%D):

File ID:	160328C3
Compound:	Toluene-d8
Initials:	

Calculation Check:

ppbv of compound = $\frac{\text{Area}_{\text{Sample}}}{\text{Area}_{\text{IS}}} \times \frac{\text{Conc}_{\text{IS}}}{\text{RRF}}$ = (69344) x (5.00) = 4.974

(71340) (0.48179)

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 Method (Circle one): TO-14A/TO-15/TO-17 Reported Result: 4.974

Method Name: TO14A 03178 TO15 03177A

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	Verified Vol. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	160328C1 2803	BLD TUNE CHECK	2259-1484	50 psig	2.0 mL	ET	1.00	ET	3/23/16	0857	ET	
2	X	160328C2	CCV (50 ppbv)	2759-216	5.0 ppbv	25 mL	ET	1.00	ET		0930	ET	IS 4 out of limit Exp. 4/6/16 Surr:
3	✓	03	CCV (50 ppbv)	2759-215	5.0 ppbv	25 mL	ET	1.00	ET		1019	ET	Exp. 4/6/16 4 out of limit
4	X	04	LCS (50 ppbv)	2789-8	5.0 ppbv	25 mL	ET	1.00	ET		1106	ET	Exp. 6/17/16 3 out of limit
5	✓	05	LCSD (50 ppbv)	2789-8	5.0 ppbv	25 mL	ET	1.00	ET		1147	ET	Exp. 6/17/16 1 out of limit Surr: 4 out
6	✓	06	MB (50 ppbv)	2789-8	5.0 ppbv	25 mL	ET	1.00	ET		1233	ET	Exp. 6/17/16
7	✓	07	CCV ppb (5.0 ppbv)	2751-4	5.0 ppbv	50 mL	ET	1.00	ET		1316	ET	Exp. 7/6/16 Combo
8	✓	08	TPH ref CCV (2500 ppbv)	2789-17	125 ppbv	12.5 mL	ET	1.00	ET		1400	ET	Exp. 6/17/16 Cal 3
9	X	09	LAB BLANK	~~347604~~ ~~35478~~ 35478	Humid	250 mL	ET	1.00	ET		1442	ET	
10	✓	10	LAB BLANK	35478	Humid	250 mL	ET	1.00	ET		1532	ET	" " a
11	✓	1603316-05A	26973	4.7" Hg - 3.2 psig	25 mL	ET	2.33	ET		1614	EA	dil NTC "E" 07644
12	X	160331G - 01A	27720	1.9" Hg - 14.7 psig	250 mL	EA	2.13	EA		1614	EA	RR 40 out Flt Working
13		13 ~~01A~~	33703	0.5" Hg - 14.7 psig			2.00	ET				Not loaded
14	✓	13	System blank	347614	Humid	250 mL	ET	1.00	EA		1826	ET	

Reviewed

3/28/16
Date

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/17Mar2016.b/e031701.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 17-MAR-2016 10:47
Operator : ef Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/17Mar2016.b/bfb60.m
Meth Date : 17-Mar-2016 11:03 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.204	6.235	-0.031	95	703018			100.00- 100.00	100.00
6.204	6.235	-0.031	50	113232			8.00- 40.00	16.11
6.204	6.235	-0.031	75	351481			30.00- 66.00	50.00
6.204	6.235	-0.031	96	46382			5.00- 9.00	6.60
6.204	6.235	-0.031	173	4154			0.00- 1.99	0.64
6.204	6.235	-0.031	174	649216			50.00- 120.00	92.35
6.204	6.235	-0.031	175	48733			4.00- 9.00	7.51
6.204	6.235	-0.031	176	627466			93.00- 101.00	96.65
6.204	6.235	-0.031	177	40597			5.00- 9.00	6.47

Data File: /var/chem/msde.i/17Mar2016.b/e031701.d

Date : 17-MAR-2016 10:47

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

Data File: /var/chem/msde.i/17Mar2016.b/e031701.d

Date : 17-MAR-2016 10:47

Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

1 bfb

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	16.11
75	30.00 - 66.00% of mass 95	50.00
96	5.00 - 9.00% of mass 95	6.60
173	Less than 1.99% of mass 174	0.59 (0.64)
174	50.00 - 120.00% of mass 95	92.35
175	4.00 - 9.00% of mass 174	6.93 (7.51)
176	93.00 - 101.00% of mass 174	89.25 (96.65)
177	5.00 - 9.00% of mass 176	5.77 (6.47)

Data File: /var/chem/msde.i/17Mar2016.b/e031701.d

Date : 17-MAR-2016 10:47

Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

Data File: e031701.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 128
Location of Maximum: 95.00
Number of points: 193

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	41	85.00	549	137.00	1190	220.00	59
36.00	4253	86.00	563	138.00	193	221.00	149
37.00	26736	87.00	20696	139.00	322	222.00	106
38.00	23192	88.00	19648	140.00	602	226.00	52
39.00	8791	90.00	61	141.00	8559	232.00	663
40.00	82	91.00	2353	142.00	1116	233.00	215
41.00	298	92.00	20304	143.00	8906	234.00	254
42.00	392	93.00	30728	144.00	696	235.00	245
43.00	717	94.00	85000	145.00	1387	237.00	145
44.00	2676	95.00	702976	146.00	707	238.00	176
45.00	5031	96.00	46376	147.00	293	240.00	45
46.00	531	97.00	1640	148.00	2237	248.00	155
47.00	4560	98.00	135	149.00	178	249.00	214
48.00	3475	99.00	246	150.00	1028	251.00	46
49.00	25368	100.00	44	152.00	536	256.00	5
50.00	113232	101.00	217	153.00	611	257.00	99
51.00	36000	102.00	190	154.00	646	259.00	45
52.00	1438	103.00	677	155.00	1917	260.00	776
54.00	195	104.00	2695	156.00	85	261.00	28
55.00	1716	105.00	590	157.00	1591	262.00	132
56.00	9255	106.00	2892	158.00	267	264.00	44
57.00	18064	107.00	922	159.00	799	269.00	37
58.00	733	109.00	464	160.00	178	272.00	3
59.00	322	110.00	603	161.00	1203	280.00	43
60.00	5505	111.00	513	166.00	121	281.00	599
61.00	29368	112.00	536	167.00	86	282.00	149
62.00	29112	113.00	413	168.00	50	283.00	129
63.00	23232	114.00	154	169.00	46	284.00	58
64.00	2007	115.00	990	170.00	499	294.00	39
65.00	901	116.00	2391	171.00	602	295.00	185
66.00	46	117.00	4315	172.00	997	296.00	44
67.00	1454	118.00	2681	173.00	4154	297.00	233
68.00	68856	119.00	3451	174.00	649216	303.00	44
69.00	71408	120.00	325	175.00	48728	305.00	50
70.00	5417	121.00	178	176.00	627456	306.00	97

Date : 17-MAR-2016 10:47

Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

Data File: e031701.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 128
Location of Maximum: 95.00
Number of points: 193

m/z	Y	m/z	Y	m/z	Y	m/z	Y
71.00	575	122.00	380	177.00	40592	307.00	88
72.00	3739	123.00	369	178.00	976	315.00	18
73.00	28920	124.00	734	180.00	19	324.00	74
74.00	117080	125.00	508	182.00	38	325.00	219
75.00	351424	126.00	740	183.00	61	326.00	60
76.00	30496	128.00	3148	187.00	54	328.00	3
77.00	3650	129.00	1205	188.00	176	331.00	6
78.00	2210	130.00	2821	194.00	57	334.00	30
79.00	17272	131.00	999	197.00	37	337.00	92
80.00	4999	132.00	252	205.00	49	341.00	48
81.00	16976	133.00	152	208.00	37	344.00	265
82.00	3403	134.00	309	209.00	919		
83.00	645	135.00	1548	210.00	39		
84.00	242	136.00	203	217.00	107		

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/25Mar2016.b/e032501.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 25-MAR-2016 09:02
Operator : ef Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/25Mar2016.b/bfb60.m
Meth Date : 25-Mar-2016 09:18 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

					CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.204	6.235	-0.031	95	747861			100.00- 100.00	100.00
6.204	6.235	-0.031	50	114889			8.00- 40.00	15.36
6.204	6.235	-0.031	75	366501			30.00- 66.00	49.01
6.204	6.235	-0.031	96	49258			5.00- 9.00	6.59
6.204	6.235	-0.031	173	7075			0.00- 1.99	0.97
6.204	6.235	-0.031	174	728106			50.00- 120.00	97.36
6.204	6.235	-0.031	175	56144			4.00- 9.00	7.71
6.204	6.235	-0.031	176	705132			93.00- 101.00	96.84
6.204	6.235	-0.031	177	46645			5.00- 9.00	6.62

Data File: /chem/msde.i/25Mar2016.b/e032501.d

Date : 25-MAR-2016 09:02

Client ID: BFB

Instrument: msde.i

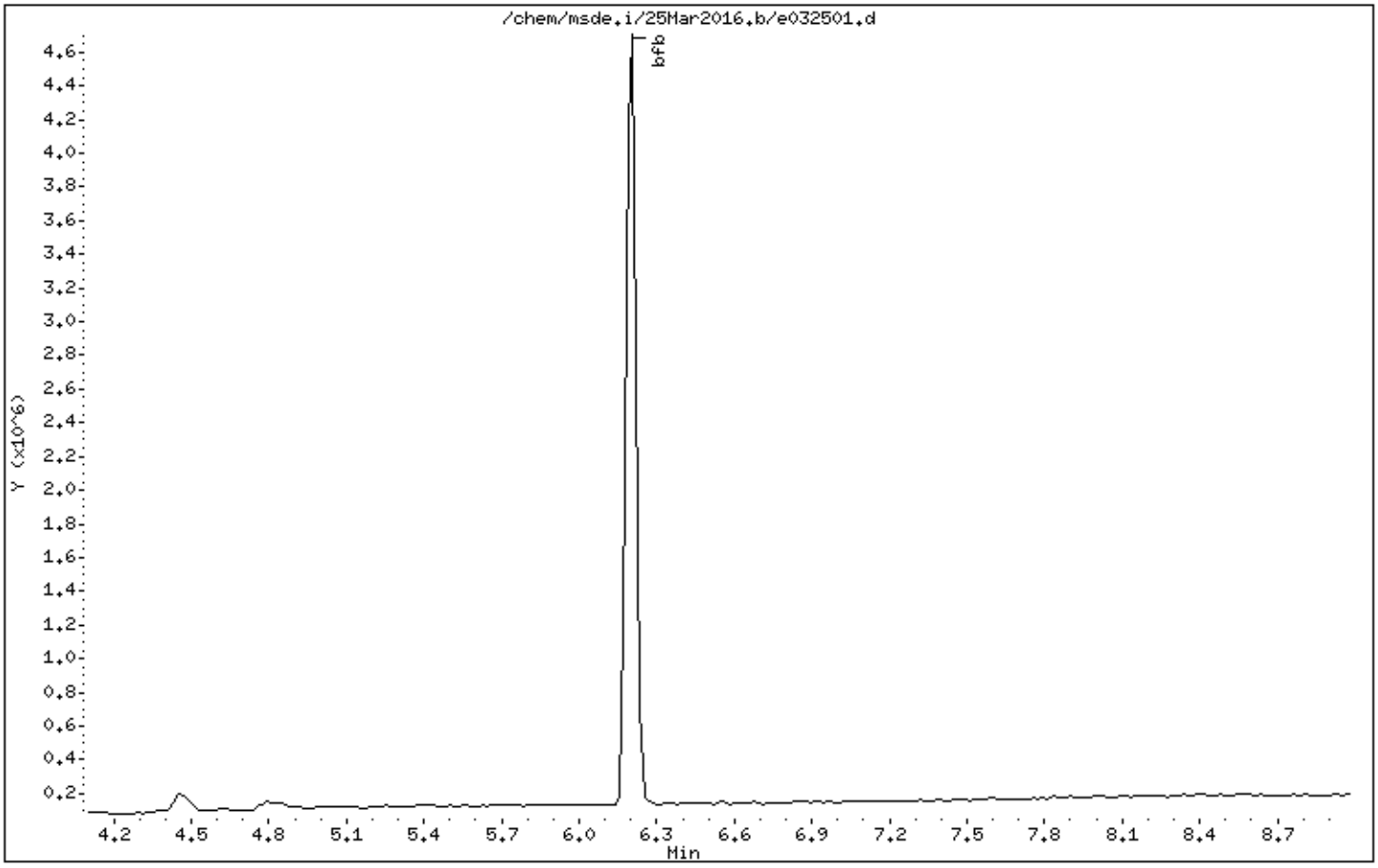
Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/25Mar2016.b/e032501.d

Date : 25-MAR-2016 09:02

Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

1 bfb

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	15.36
75	30.00 - 66.00% of mass 95	49.01
96	5.00 - 9.00% of mass 95	6.59
173	Less than 1.99% of mass 174	0.95 (0.97)
174	50.00 - 120.00% of mass 95	97.36
175	4.00 - 9.00% of mass 174	7.51 (7.71)
176	93.00 - 101.00% of mass 174	94.29 (96.84)
177	5.00 - 9.00% of mass 176	6.24 (6.62)

Data File: /chem/msde.i/25Mar2016.b/e032501.d

Date : 25-MAR-2016 09:02

Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

Data File: e032501.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 124
Location of Maximum: 95.00
Number of points: 199

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5323	89.00	40	142.00	1138	218.00	156
37.00	26432	90.00	110	143.00	8689	219.00	183
38.00	23064	91.00	2642	144.00	597	225.00	84
39.00	8546	92.00	21680	145.00	789	232.00	868
41.00	642	93.00	31384	146.00	1577	233.00	35
42.00	130	94.00	86296	147.00	368	235.00	67
43.00	714	95.00	747840	148.00	1508	247.00	73
44.00	2571	96.00	49256	149.00	700	248.00	149
45.00	4676	97.00	1106	150.00	622	253.00	802
46.00	528	98.00	64	152.00	732	255.00	90
47.00	4846	99.00	118	153.00	688	257.00	42
48.00	3888	101.00	250	154.00	588	260.00	442
49.00	24176	102.00	99	155.00	2393	261.00	29
50.00	114888	103.00	613	156.00	367	262.00	181
51.00	36136	104.00	3044	157.00	1454	263.00	102
52.00	1525	105.00	1157	158.00	369	264.00	138
55.00	1572	106.00	2849	159.00	1162	265.00	84
56.00	8138	107.00	815	161.00	728	267.00	302
57.00	18816	108.00	93	164.00	814	269.00	411
58.00	371	109.00	25	165.00	84	270.00	238
59.00	390	110.00	347	166.00	13	271.00	391
60.00	6128	111.00	550	167.00	51	272.00	162
61.00	29280	112.00	479	169.00	207	278.00	51
62.00	30560	113.00	811	170.00	344	281.00	232
63.00	21616	115.00	494	171.00	572	283.00	338
64.00	2304	116.00	2169	172.00	390	284.00	15
65.00	540	117.00	4467	173.00	7075	293.00	201
66.00	171	118.00	3277	174.00	728064	294.00	321
67.00	1897	119.00	3962	175.00	56144	295.00	87
68.00	70376	120.00	130	176.00	705088	306.00	33
69.00	74480	121.00	91	177.00	46640	307.00	148
70.00	5510	122.00	504	178.00	1390	309.00	41
71.00	388	123.00	166	179.00	134	313.00	18
72.00	4214	124.00	656	180.00	215	314.00	85
73.00	28616	125.00	273	187.00	216	315.00	203

Data File: /chem/msde.i/25Mar2016.b/e032501.d

Date : 25-MAR-2016 09:02

Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

Data File: e032501.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 124
Location of Maximum: 95.00
Number of points: 199

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	120280	127.00	362	188.00	56	322.00	261
75.00	366464	128.00	3362	190.00	33	323.00	132
76.00	30824	129.00	1247	192.00	256	324.00	181
77.00	3053	130.00	3431	193.00	321	325.00	262
78.00	2578	131.00	1021	195.00	250	326.00	72
79.00	16416	132.00	209	196.00	256	327.00	359
80.00	5185	133.00	27	198.00	33	328.00	31
81.00	17920	134.00	627	203.00	64	329.00	93
82.00	3370	135.00	2077	204.00	41	332.00	33
83.00	451	136.00	252	205.00	54	335.00	44
84.00	80	137.00	1282	207.00	1681	341.00	224
85.00	640	138.00	194	208.00	138	343.00	78
86.00	826	139.00	258	209.00	177	344.00	212
87.00	23608	140.00	574	211.00	287	346.00	36
88.00	22752	141.00	8243	216.00	82		

Eurofins Air Toxics Inc.

Data file : /var/chem/msde.i/28Mar2016.b/e032801.d
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 28-MAR-2016 08:57
Operator : ef Inst ID: msde.i
Smp Info : 2.0uL #2299-1484; BFB; BFB
Misc Info : 50ng
Comment :
Method : /var/chem/msde.i/28Mar2016.b/bfb60.m
Meth Date : 28-Mar-2016 09:13 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
6.204	6.235	-0.031	95	1039701			100.00- 100.00	100.00
6.204	6.235	-0.031	50	162409			8.00- 40.00	15.62
6.204	6.235	-0.031	75	522261			30.00- 66.00	50.23
6.204	6.235	-0.031	96	70231			5.00- 9.00	6.75
6.204	6.235	-0.031	173	9113			0.00- 1.99	0.95
6.204	6.235	-0.031	174	960746			50.00- 120.00	92.41
6.204	6.235	-0.031	175	71240			4.00- 9.00	7.42
6.204	6.235	-0.031	176	926292			93.00- 101.00	96.41
6.204	6.235	-0.031	177	59844			5.00- 9.00	6.46

Data File: /chem/msde.i/28Mar2016.b/e032801.d

Date : 28-MAR-2016 08:57

Client ID: BFB

Instrument: msde.i

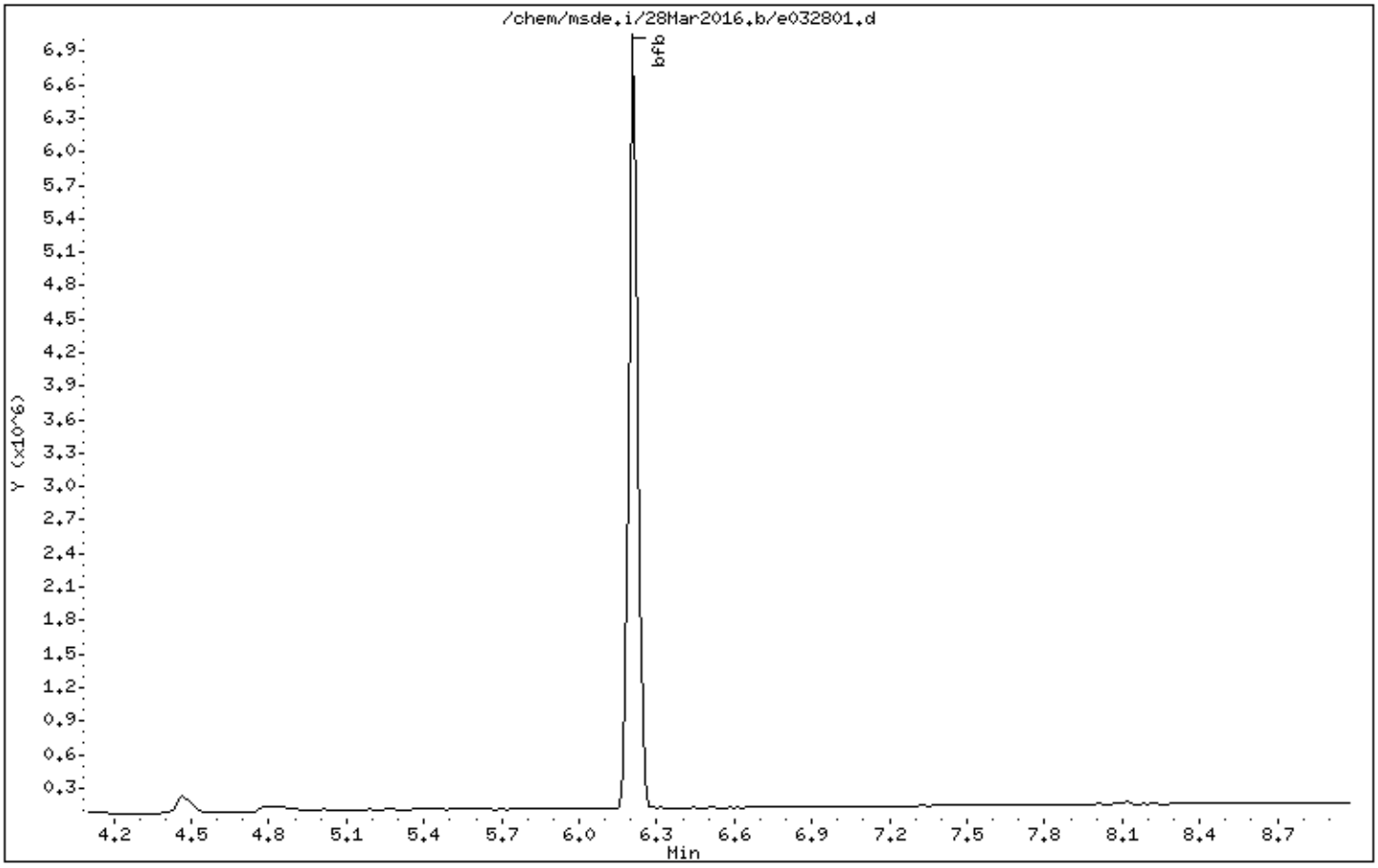
Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00



Data File: /chem/msde.i/28Mar2016.b/e032801.d

Date : 28-MAR-2016 08:57

Client ID: BFB

Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

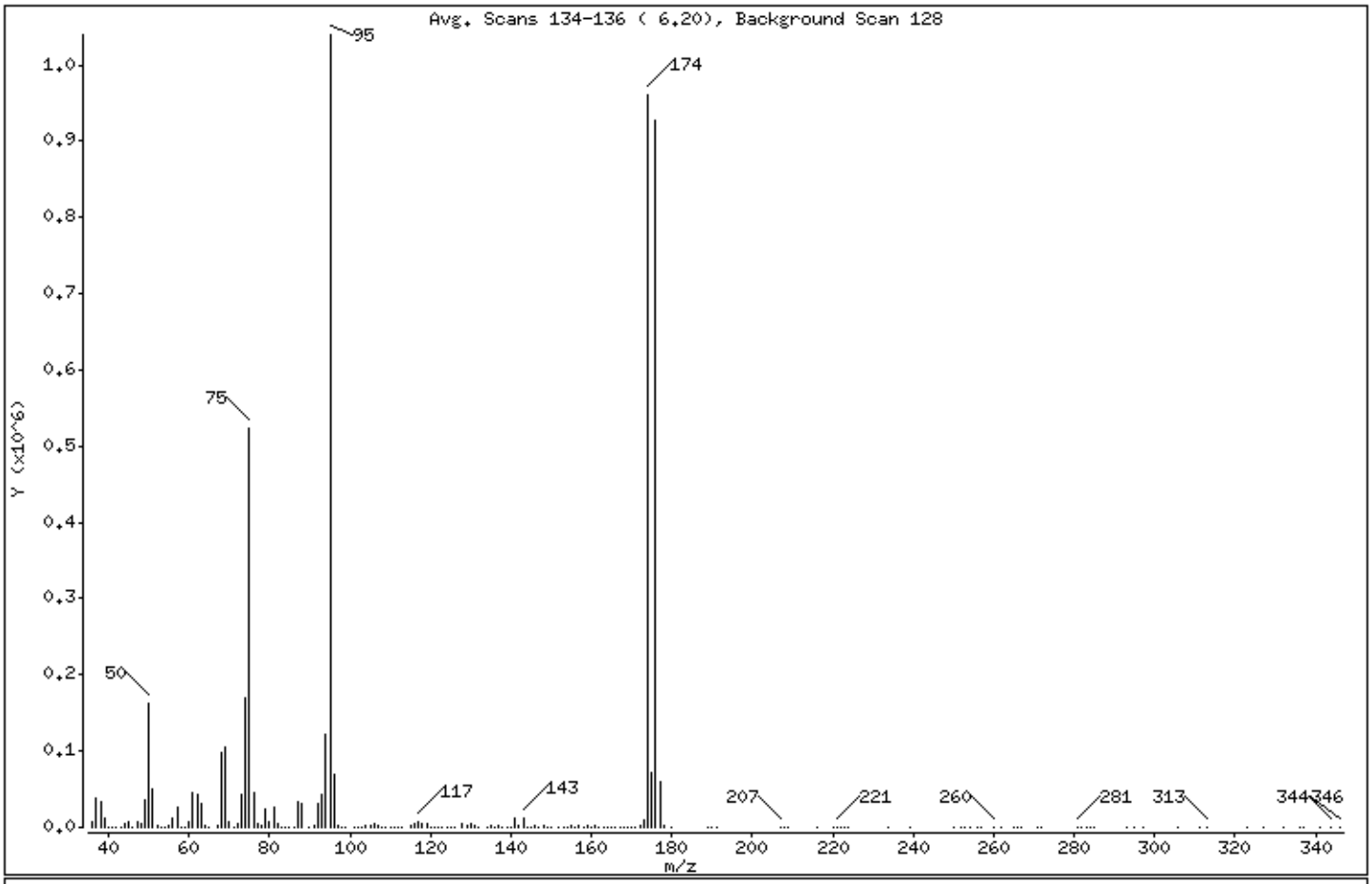
Volume Injected (uL): 1.0

Operator: ef

Column phase: Rtx-624

Column diameter: 2.00

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	15.62
75	30.00 - 66.00% of mass 95	50.23
96	5.00 - 9.00% of mass 95	6.75
173	Less than 1.99% of mass 174	0.88 (0.95)
174	50.00 - 120.00% of mass 95	92.41
175	4.00 - 9.00% of mass 174	6.85 (7.42)
176	93.00 - 101.00% of mass 174	89.09 (96.41)
177	5.00 - 9.00% of mass 176	5.76 (6.46)

Data File: /chem/msde.i/28Mar2016.b/e032801.d

Date : 28-MAR-2016 08:57

Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

Data File: e032801.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 128
Location of Maximum: 95.00
Number of points: 183

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	6863	83.00	771	134.00	164	190.00	78
37.00	37256	84.00	293	135.00	1334	191.00	476
38.00	34288	85.00	580	136.00	186	207.00	901
39.00	12997	86.00	923	137.00	1646	208.00	360
40.00	512	87.00	33288	138.00	357	209.00	317
41.00	709	88.00	31248	139.00	410	216.00	137
42.00	482	90.00	67	140.00	882	220.00	58
43.00	1008	91.00	3248	141.00	11662	221.00	108
44.00	4924	92.00	30584	142.00	1653	222.00	51
45.00	7247	93.00	43344	143.00	11747	223.00	26
46.00	536	94.00	123064	144.00	915	224.00	90
47.00	6292	95.00	1039680	145.00	1117	234.00	29
48.00	4741	96.00	70224	146.00	1813	239.00	52
49.00	36208	97.00	1712	147.00	340	250.00	199
50.00	162368	98.00	82	148.00	2883	252.00	27
51.00	50704	99.00	223	149.00	1001	253.00	275
52.00	2341	101.00	107	150.00	1011	254.00	368
53.00	197	102.00	5	152.00	587	256.00	71
54.00	111	103.00	525	153.00	853	257.00	84
55.00	2357	104.00	3555	154.00	681	260.00	466
56.00	12917	105.00	1291	155.00	2897	262.00	220
57.00	25152	106.00	4355	156.00	355	265.00	110
58.00	1080	107.00	1276	157.00	2195	266.00	38
59.00	172	108.00	414	158.00	523	267.00	85
60.00	8355	109.00	442	159.00	1497	271.00	311
61.00	45584	110.00	520	160.00	208	272.00	159
62.00	43688	111.00	986	161.00	1356	281.00	522
63.00	32192	112.00	547	162.00	15	282.00	97
64.00	3117	113.00	925	163.00	52	283.00	251
65.00	327	115.00	1319	164.00	209	284.00	271
67.00	2496	116.00	4619	165.00	77	285.00	69
68.00	98344	117.00	6446	166.00	83	293.00	94
69.00	105296	118.00	3902	167.00	246	295.00	77
70.00	8096	119.00	5584	168.00	120	297.00	36
71.00	739	120.00	7	169.00	176	306.00	125

Data File: /chem/msde.i/28Mar2016.b/e032801.d

Date : 28-MAR-2016 08:57

Client ID: BFB Instrument: msde.i

Sample Info: 2.0uL #2299-1484; BFB; BFB

Volume Injected (uL): 1.0 Operator: ef

Column phase: Rtx-624 Column diameter: 2.00

Data File: e032801.d
Spectrum: Avg. Scans 134-136 (6.20), Background Scan 128
Location of Maximum: 95.00
Number of points: 183

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	5041	121.00	369	170.00	536	311.00	74
73.00	43256	122.00	381	171.00	474	313.00	285
74.00	170816	123.00	309	172.00	2051	323.00	9
75.00	522240	124.00	612	173.00	9113	327.00	261
76.00	45224	125.00	61	174.00	960704	332.00	226
77.00	4472	126.00	811	175.00	71240	336.00	78
78.00	3431	128.00	4052	176.00	926272	337.00	35
79.00	24640	129.00	1853	177.00	59840	341.00	36
80.00	7153	130.00	4066	178.00	1750	344.00	427
81.00	25280	131.00	1638	180.00	224	346.00	103
82.00	4885	132.00	357	189.00	220		

Shipping/ Receiving Documents

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Eurofins Air Toxics, Inc. Sample Receipt Confirmation Cover Page

Thank you for choosing Eurofins Air Toxics, Inc. (EATL). We have received your samples and have listed any Sample Receipt Descrepancies below.

In order to expedite analysis and reporting, please review the attached information for accuracy.

For corrections call: **Brian Whittaker at 916-985-1000**

EATL will proceed with the analysis as specified on the Chain of Custody (COC) and Sample Receipt Summary page.

Please note : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the COC will be provided with the final report.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 6:30 A.M to 5:30 P.M. PST

eurofins | Air Toxics

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager April Ballweg

Collected by: (Print and Sign) Jason Strong

Company EA Engineering, Science, & Technology Email aballweg@eaest.com

Address 4055 S. Hwy 121 BYP, C-100 City Lewisville, State Tx Zip 75067

Phone 972-315-9922 Fax 972-315-5191

Project Info:
P.O. #
Project # 14342134
Project Name PetroChem

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	IA-01	6L0026	3/23/2016	1400	TO-15 SIM	-29	-4		
02A	OA-01	9569	3/23/2016	1525	TO-15 SIM	-30	-6.5		
03A	SG-01	21006	3/23/2016	1523	TO-15 SIM	-29.5	-7.5		
04A	SG-01-Dup	21492	3/23/2016	1523	TO-15 SIM	-30	-7.0		
05A	IA-02	35973	3/23/2016	1524	TO-15 SIM	-30	-6.0		
06A	SG-02	R-14	3/23/2016	1426	TO-15 SIM	-30	-5		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
	3/23/2016 1730	Fed Ex	3/23/2016 1730
Fed Ex		IL IL EATL	3/24/16 0955

Notes:
Prescreen Samples

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fedex		N/A	Good	Yes No None	1603470

Form 1293 rev.11

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SAMPLE RECEIPT SUMMARY

WORKORDER 1603470

Client

Ms. Pamela Moss
EA Engineering
7995 E. Prentice Ave
Suite 206E
Greenwood Village, CO 80111

Sales Rep: DV

Phone

303-590-9143

Fax

Date Promised: 04/04/16 3:00 pm
Date Completed: 4/2/16
Date Received: 3/24/16
PO#: 15048
Project#: 14342134 Petro Chem

Total $: $ 1,200.00
Logged By: MH

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	IA-01	Modified TO-15 SIM	3/23/2016	5.3 "Hg	$200.00
02A	OA-01	Modified TO-15 SIM	3/23/2016	5.7 "Hg	$200.00
03A	SG-01	Modified TO-15 SIM	3/23/2016	6.1 "Hg	$200.00
04A	SG-01-Dup	Modified TO-15 SIM	3/23/2016	5.5 "Hg	$200.00
05A	IA-02	Modified TO-15 SIM	3/23/2016	4.7 "Hg	$200.00
06A	SG-02	Modified TO-15 SIM	3/23/2016	5.5 "Hg	$200.00
07A	Lab Blank	Modified TO-15 SIM	NA	NA	$0.00
07B	Lab Blank	Modified TO-15 SIM	NA	NA	$0.00
08A	CCV	Modified TO-15 SIM	NA	NA	$0.00
08B	CCV	Modified TO-15 SIM	NA	NA	$0.00
09A	LCS	Modified TO-15 SIM	NA	NA	$0.00
09AA	LCSD	Modified TO-15 SIM	NA	NA	$0.00
09B	LCS	Modified TO-15 SIM	NA	NA	$0.00
09BB	LCSD	Modified TO-15 SIM	NA	NA	$0.00

Note: Samples received after 3 P.M. PST are considered to be received on the following work day.
Atlas Project Name/Profile#: Petro-Chem/21143

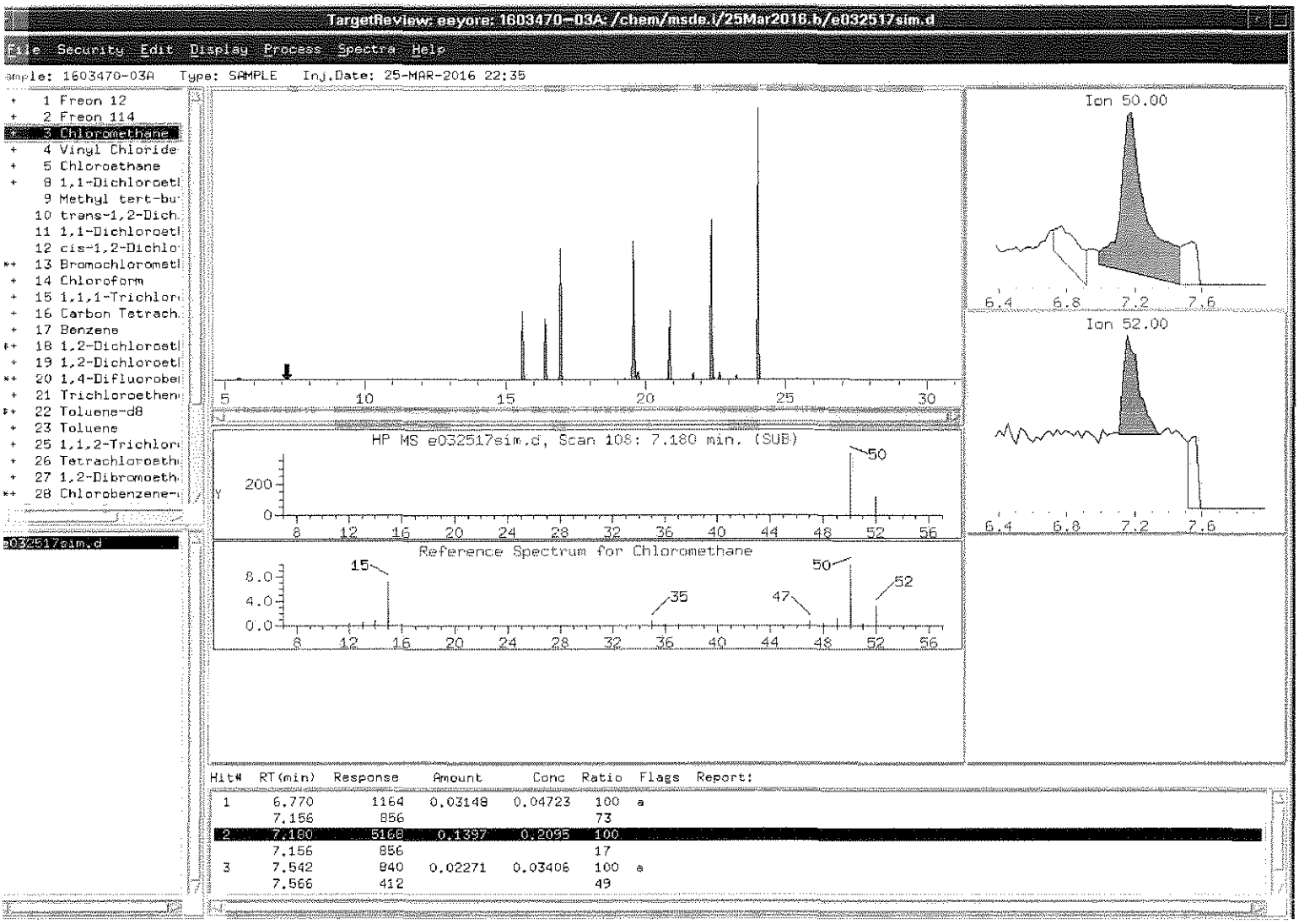
BILL TO: Accounts Payable - Lewisville
EA Engineering
405 S. Highway 121
Suite C-100
Lewisville, TX 75067

Analysis Code: pptv

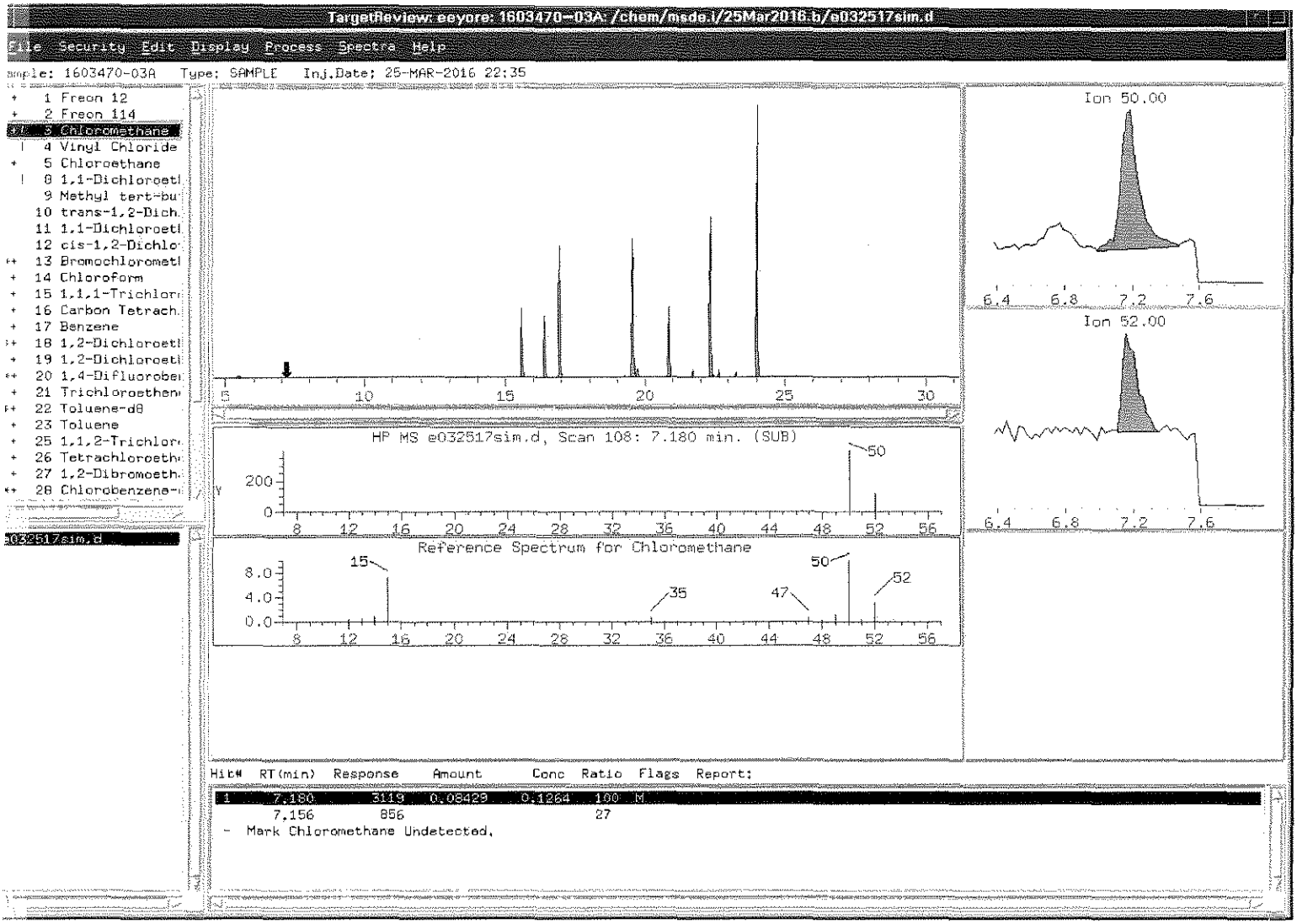
TERMS: PWP

Reporting Method: _Modified TO-15 SIM Std 25 + Naphthalene

Other Records



before HAB 4/2/16



after HRB 4/2/16
baseline correction

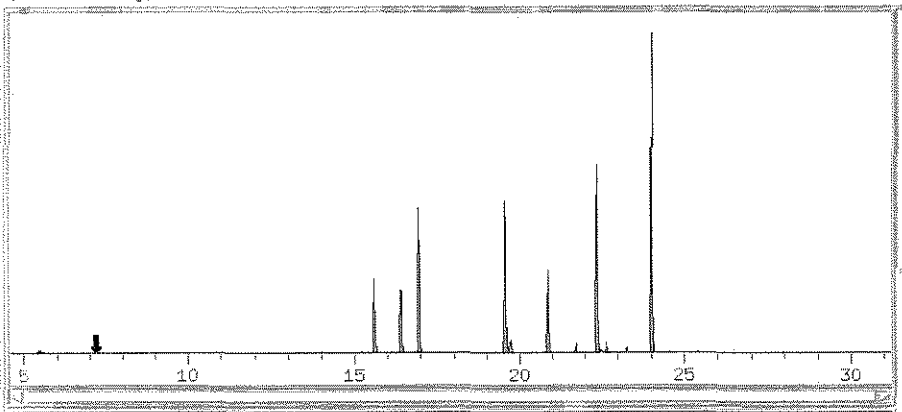
TargetReview: eeyore: 1603470-04A: /chem/msde.i/25Mar2016.b/e032518sim.d

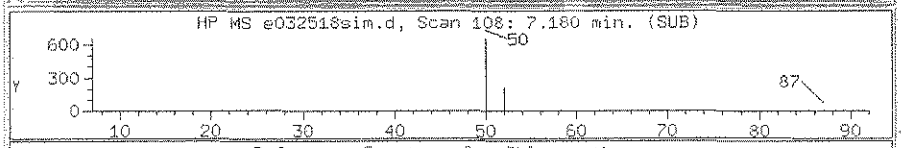
File Security Edit Display Process Spectra Help

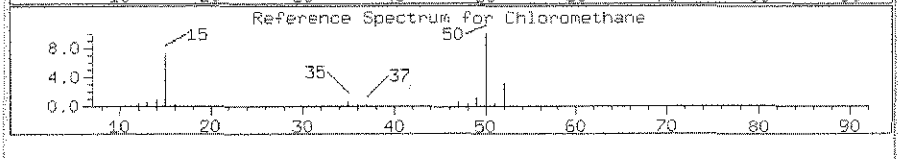
Sample: 1603470-04A Type: SAMPLE Inj.Date: 26-MAR-2016 08:10

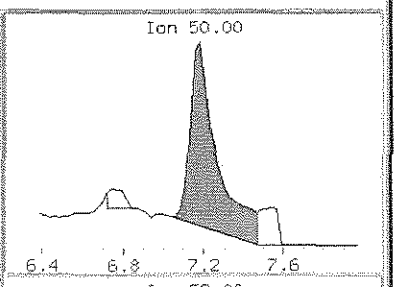
+	1	Freon 12
+	2	Freon 114
*	3	Chloromethane
+	4	Vinyl Chloride
+	5	Chloroethane
+	8	1,1-Dichloroetl
+	9	Methyl tert-bu
	10	trans-1,2-Dich.
	11	1,1-Dichloroetl
	12	cis-1,2-Dichlo
*+	13	Bromochlorometl
+	14	Chloroform
+	15	1,1,1-Trichlor
+	16	Carbon Tetrach.
+	17	Benzene
$+	18	1,2-Dichloroetl
+	19	1,2-Dichloroetl
*+	20	1,4-Difluorobe
+	21	Trichloroethen
$+	22	Toluene-d8
+	23	Toluene
+	25	1,1,2-Trichlor
+	26	Tetrachloroeth
+	27	1,2-Dibromoeth.
*+	28	Chlorobenzene-d

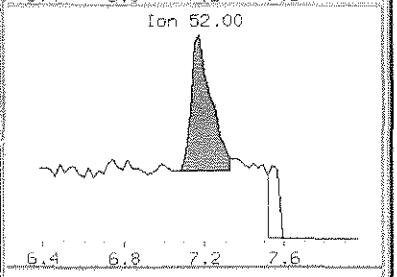
e032518sim.d





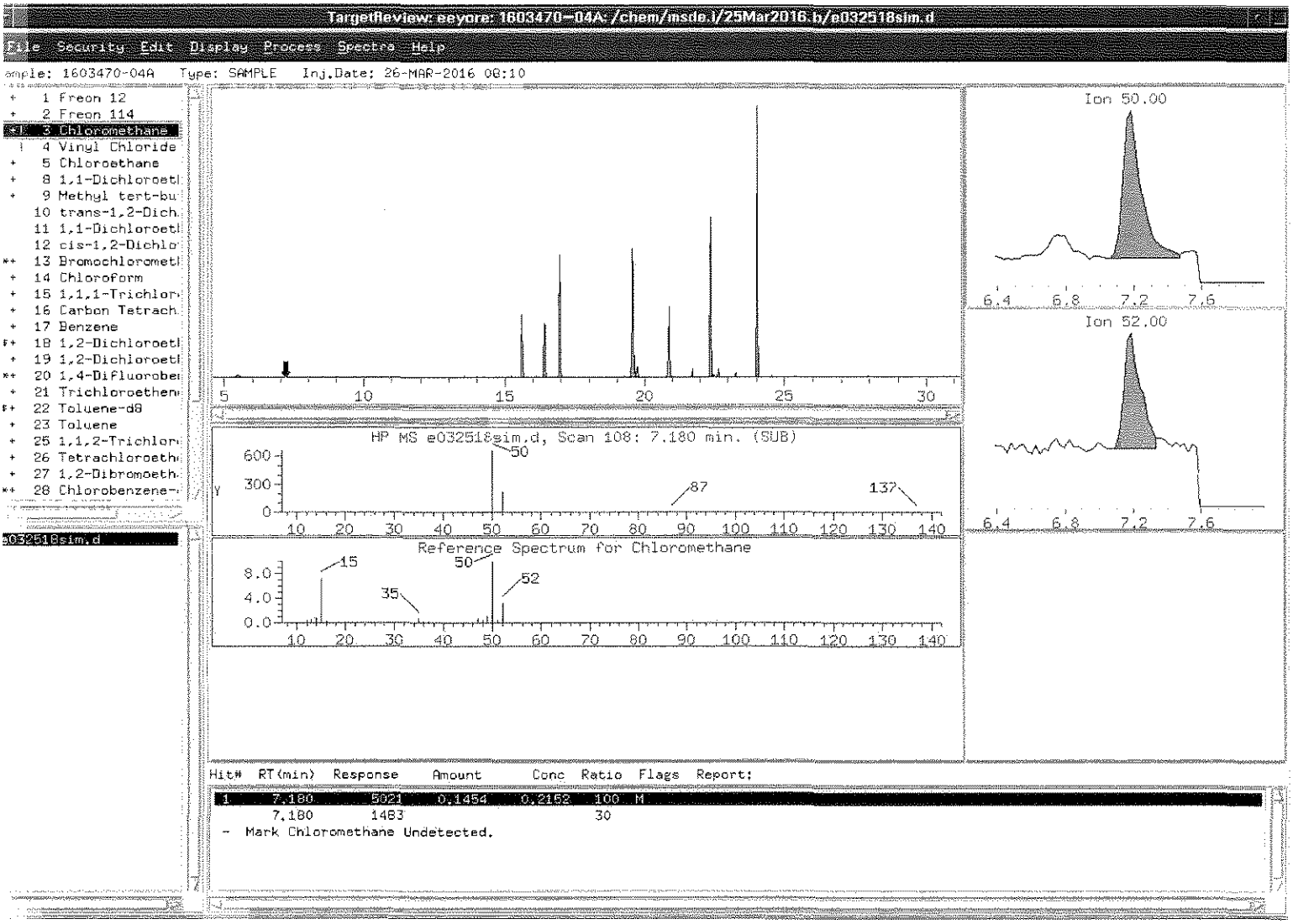




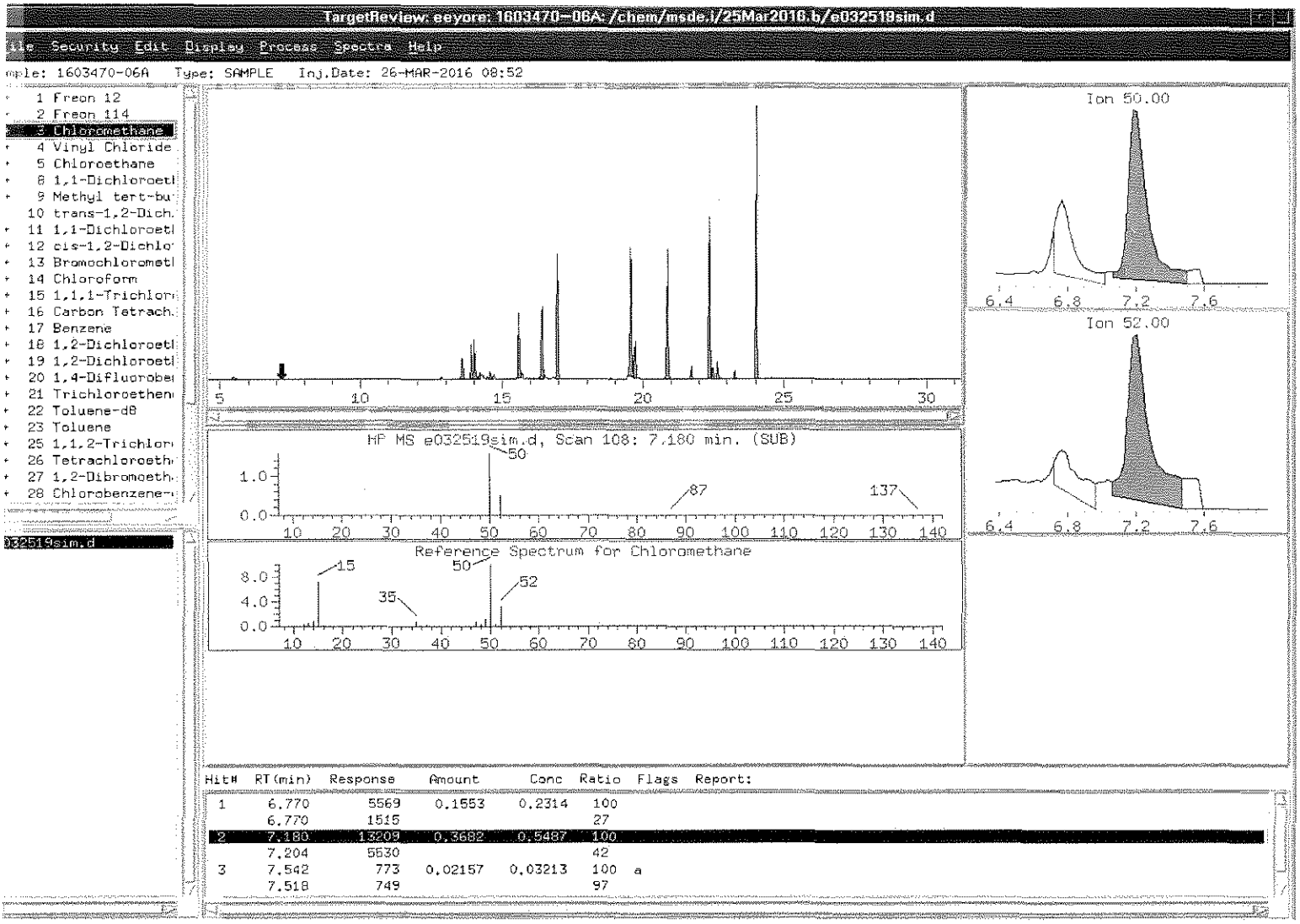


Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	6.747	446	0.01294	0.01915	100	a	
	7.180	1483			332		
2	7.180	6532	0.1892	0.2800	100		
	7.180	1483			23		
3	7.542	970	0.02810	0.04159	100	a	
	7.542	465			48		

before HAB 7/12/16



after HOB 4/2/16
baseline correction



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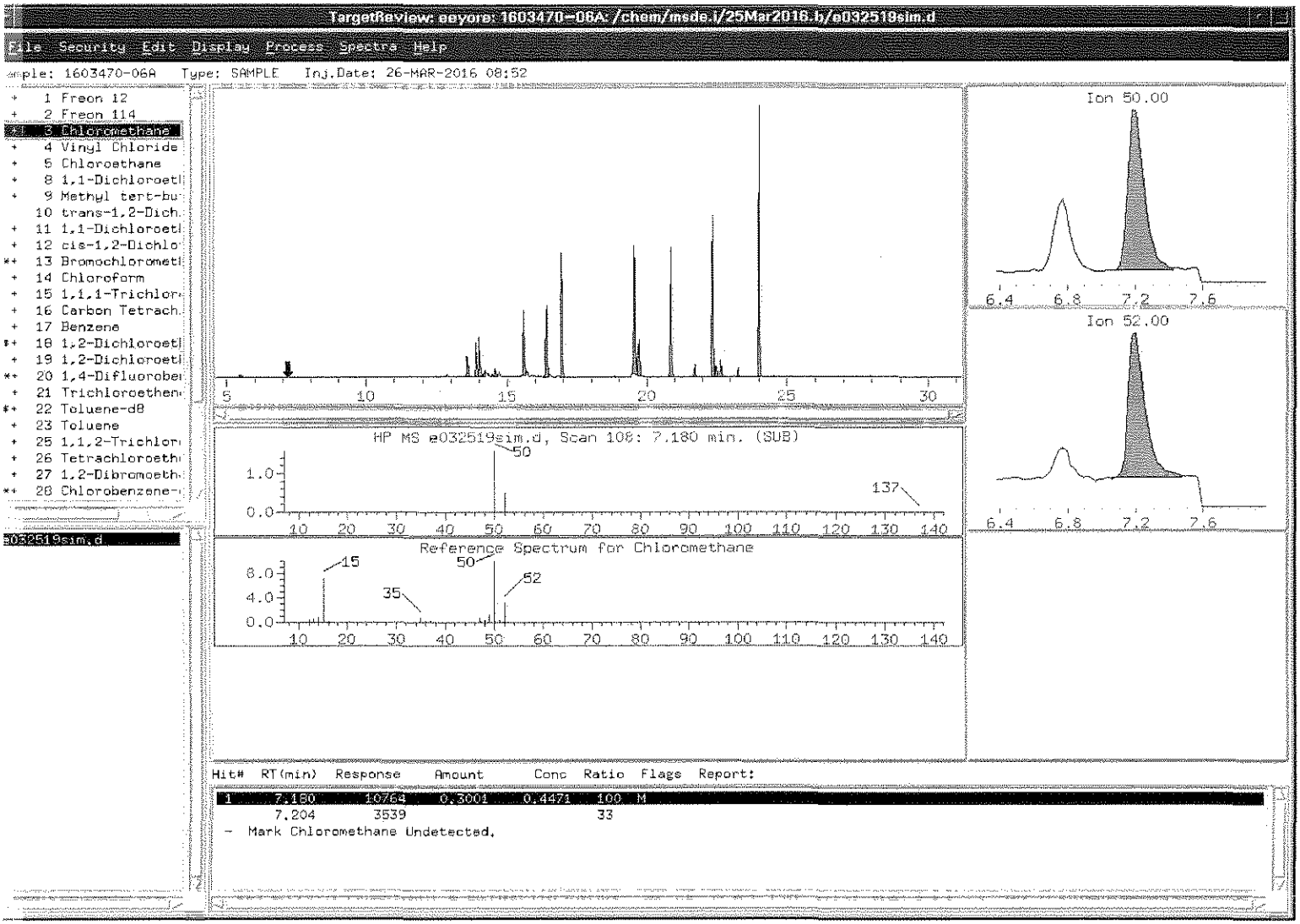

after NOB 4/2/16

baseline correction

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Vacuum}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} - [\text{Init. Pressure (“Hg)})*(14.7\text{psi}/30\text{”Hg})]}$$

$$\text{Dilution Factor} = \frac{\text{Final Pressure}}{\text{Initial Pressure}} = \frac{14.7\text{psi} + \text{Final Pressure (psi)}}{14.7\text{psi} + \text{Initial Pressure (psi)}}$$

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
0.0	1.34	2.02
0.2	1.35	2.03
0.4	1.36	2.05
0.5	1.36	2.05
0.6	1.37	2.06
0.8	1.38	2.08
1.0	1.39	2.09
1.2	1.40	2.10
1.4	1.40	2.12
1.5	1.41	2.13
1.6	1.42	2.13
1.8	1.42	2.15
2.0	1.44	2.16
2.2	1.45	2.18
2.4	1.46	2.20
2.5	1.46	2.20
2.6	1.47	2.21
2.8	1.48	2.23
3.0	1.49	2.24
3.2	1.50	2.26
3.4	1.51	2.28
3.5	1.52	2.29
3.6	1.52	2.30
3.8	1.53	2.31
4.0	1.55	2.33
4.2	1.56	2.35
4.4	1.57	2.37
4.5	1.58	2.38
4.6	1.58	2.39
4.8	1.60	2.40
5.0	1.61	2.42
5.2	1.62	2.44
5.4	1.63	2.46
5.5	1.64	2.47
5.6	1.65	2.48
5.8	1.66	2.50
6.0	1.68	2.52
6.2	1.69	2.55
6.4	1.70	2.57
6.5	1.71	2.58
6.6	1.72	2.59
6.8	1.73	2.61
7.0	1.75	2.64
7.2	1.76	2.66
7.4	1.78	2.68
7.5	1.79	2.69
7.6	1.79	2.70

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
7.7	1.80	2.72
7.8	1.81	2.73
8.0	1.83	2.76
8.2	1.84	2.78
8.4	1.86	2.81
8.5	1.87	2.82
8.6	1.88	2.83
8.8	1.90	2.86
9.0	1.91	2.89
9.2	1.93	2.91
9.4	1.95	2.94
9.5	1.96	2.96
9.6	1.97	2.97
9.8	1.99	3.00
10.0	2.01	3.03
10.2	2.03	3.06
10.4	2.05	3.09
10.5	2.06	3.11
10.6	2.07	3.12
10.8	2.09	3.16
11.0	2.12	3.19
11.2	2.14	3.22
11.4	2.16	3.26
11.5	2.17	3.28
11.6	2.18	3.29
11.8	2.21	3.33
12.0	2.23	3.37
12.2	2.26	3.40
12.4	2.28	3.44
12.5	2.30	3.46
12.6	2.31	3.48
12.8	2.34	3.52
13.0	2.36	3.56
13.2	2.39	3.61
13.4	2.42	3.65
13.5	2.44	3.67
13.6	2.45	3.70
13.8	2.48	3.74
14.0	2.51	3.79
14.2	2.54	3.84
14.4	2.58	3.88
14.5	2.59	3.91
14.6	2.61	3.94
14.8	2.64	3.99
15.0	2.68	4.04
15.2	2.72	4.10
15.4	2.75	4.15

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
15.5	2.77	4.18
15.6	2.79	4.21
15.8	2.83	4.27
16.0	2.87	4.33
16.2	2.91	4.39
16.4	2.96	4.46
16.5	2.98	4.49
16.6	3.00	4.52
16.8	3.05	4.59
17.0	3.09	4.66
17.2	3.14	4.74
17.4	3.19	4.81
17.5	3.22	4.85
17.6	3.24	4.89
17.8	3.30	4.97
18.0	3.35	5.05
18.2	3.41	5.14
18.4	3.47	5.22
18.5	3.50	5.27
18.6	3.53	5.32
18.8	3.59	5.41
19.0	3.65	5.51
19.2	3.72	5.61
19.4	3.79	5.72
19.5	3.83	5.77
19.6	3.87	5.83
19.8	3.94	5.94
20.0	4.02	6.06
20.2	4.10	6.18
20.4	4.19	6.31
20.5	4.23	6.38
20.6	4.28	6.45
20.8	4.37	6.59
21.0	4.47	6.73
21.2	4.57	6.89
21.4	4.67	7.05
21.5	4.73	7.13
21.6	4.79	7.22
21.8	4.90	7.39
22.0	5.03	7.58
22.4	5.29	7.98

Initial Vacuum (" of Hg)	5 psi Final Pressure Dilution Factor	15 psi Final Pressure Dilution Factor
22.5	5.36	8.08
22.6	5.43	8.19
22.8	5.58	8.42
23.0	5.74	8.66
23.2	5.91	8.91
23.4	6.09	9.18
23.5	6.19	9.32
23.6	6.28	9.47
23.8	6.48	9.78
24.0	6.70	10.10
24.2	6.93	10.45
24.4	7.18	10.82
24.5	7.31	11.02
24.6	7.45	11.22
24.8	7.73	11.66
25.0	8.04	12.12
25.2	8.38	12.63
25.4	8.74	13.18
25.5	8.93	13.47
25.6	9.14	13.78
25.8	9.57	14.43
26.0	10.05	15.15
26.2	10.58	15.95
26.4	11.17	16.84
26.5	11.49	17.32
26.6	11.82	17.83
26.8	12.56	18.94
27.0	13.40	20.20
27.2	14.36	21.65
27.4	15.46	23.31
27.5	16.08	24.24
27.6	16.75	25.26
27.8	18.27	27.55
28.0	20.10	30.31
28.2	22.34	33.67
28.4	25.13	37.88
28.5	26.80	40.41
28.6	28.72	43.29
28.8	33.50	50.51
29.0	40.20	60.61

Compound List

_Modified TO-15 SIM Std 25 + Naphthalene

CAS Number	Compound	Detection Limit ppbv	Type
75-01-4	Vinyl Chloride	0.010	
75-35-4	1,1-Dichloroethene	0.010	
75-71-8	Freon 12	0.020	
76-14-2	Freon 114	0.020	
74-87-3	Chloromethane	0.050	
75-00-3	Chloroethane	0.050	
67-66-3	Chloroform	0.020	
56-23-5	Carbon Tetrachloride	0.020	
106-93-4	1,2-Dibromoethane (EDB)	0.020	
106-46-7	1,4-Dichlorobenzene	0.020	
91-20-3	Naphthalene	0.050	
75-34-3	1,1-Dichloroethane	0.020	
156-59-2	cis-1,2-Dichloroethene	0.020	
71-55-6	1,1,1-Trichloroethane	0.020	
71-43-2	Benzene	0.050	
107-06-2	1,2-Dichloroethane	0.020	
79-01-6	Trichloroethene	0.020	
108-88-3	Toluene	0.020	
79-00-5	1,1,2-Trichloroethane	0.020	
127-18-4	Tetrachloroethene	0.020	
100-41-4	Ethyl Benzene	0.020	
108-38-3	m,p-Xylene	0.040	
95-47-6	o-Xylene	0.020	
79-34-5	1,1,2,2-Tetrachloroethane	0.020	
156-60-5	trans-1,2-Dichloroethene	0.10	
1634-04-4	Methyl tert-butyl ether	0.10	
17060-07-0	1,2-Dichloroethane-d4		
2037-26-5	Toluene-d8		
460-00-4	4-Bromofluorobenzene		

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Media Certification Report

Canister Number: 6L# 6L0026
Can#: 106305-6L0026
Date : 03/16/16 2:57
Data File: d031532.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.020	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.020	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.020	ND	ppbv
1,1-Dichloroethane	75-34-3	0.020	ND	ppbv
1,1-Dichloroethene	75-35-4	0.010	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.020	ND	ppbv
1,2-Dichloroethane	107-06-2	0.020	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.020	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.020	ND	ppbv
Chloroethane	75-00-3	0.050	ND	ppbv
Chloroform	67-66-3	0.020	ND	ppbv
Chloromethane	74-87-3	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.020	ND	ppbv
Ethyl Benzene	100-41-4	0.020	ND	ppbv
Freon 114	76-14-2	0.020	ND	ppbv
Freon 12	75-71-8	0.020	ND	ppbv
m,p-Xylene	108-38-3	0.040	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.100	ND	ppbv
Naphthalene	91-20-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.020	ND	ppbv
Tetrachloroethene	127-18-4	0.020	ND	ppbv
Toluene	108-88-3	0.020	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.100	ND	ppbv
Trichloroethene	79-01-6	0.020	ND	ppbv
Vinyl Chloride	75-01-4	0.010	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.500	97.00	% Recovery
Toluene-d8	2037-26-5	0.500	101.00	% Recovery

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Media Certification Report

Canister Number: 6L# 9569
Can#: 106305-9569
Date : 03/15/16 20:19
Data File: d031521.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc	Units
1,1,1-Trichloroethane	71-55-6	0.020	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.020	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.020	ND	ppbv
1,1-Dichloroethane	75-34-3	0.020	ND	ppbv
1,1-Dichloroethene	75-35-4	0.010	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.020	ND	ppbv
1,2-Dichloroethane	107-06-2	0.020	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.020	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.020	ND	ppbv
Chloroethane	75-00-3	0.050	ND	ppbv
Chloroform	67-66-3	0.020	ND	ppbv
Chloromethane	74-87-3	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.020	ND	ppbv
Ethyl Benzene	100-41-4	0.020	ND	ppbv
Freon 114	76-14-2	0.020	ND	ppbv
Freon 12	75-71-8	0.020	ND	ppbv
m,p-Xylene	108-38-3	0.040	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.100	ND	ppbv
Naphthalene	91-20-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.020	ND	ppbv
Tetrachloroethene	127-18-4	0.020	ND	ppbv
Toluene	108-88-3	0.020	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.100	ND	ppbv
Trichloroethene	79-01-6	0.020	ND	ppbv
Vinyl Chloride	75-01-4	0.010	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		102.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.500	96.00	% Recovery
Toluene-d8	2037-26-5	0.500	102.00	% Recovery

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Media Certification Report

Canister Number: 6L# 21006
Can#: 106305-21006
Date : 03/16/16 3:34
Data File: d031533.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.020	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.020	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.020	ND	ppbv
1,1-Dichloroethane	75-34-3	0.020	ND	ppbv
1,1-Dichloroethene	75-35-4	0.010	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.020	ND	ppbv
1,2-Dichloroethane	107-06-2	0.020	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.020	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.020	ND	ppbv
Chloroethane	75-00-3	0.050	ND	ppbv
Chloroform	67-66-3	0.020	ND	ppbv
Chloromethane	74-87-3	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.020	ND	ppbv
Ethyl Benzene	100-41-4	0.020	ND	ppbv
Freon 114	76-14-2	0.020	ND	ppbv
Freon 12	75-71-8	0.020	ND	ppbv
m,p-Xylene	108-38-3	0.040	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.100	ND	ppbv
Naphthalene	91-20-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.020	ND	ppbv
Tetrachloroethene	127-18-4	0.020	ND	ppbv
Toluene	108-88-3	0.020	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.100	ND	ppbv
Trichloroethene	79-01-6	0.020	ND	ppbv
Vinyl Chloride	75-01-4	0.010	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.500	95.00	% Recovery
Toluene-d8	2037-26-5	0.500	101.00	% Recovery

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Media Certification Report

Canister Number: 6L# 24492
Can#: 106305-24492
Date : 03/11/16 9:26
Data File: d031029.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.020	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.020	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.020	ND	ppbv
1,1-Dichloroethane	75-34-3	0.020	ND	ppbv
1,1-Dichloroethene	75-35-4	0.010	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.020	ND	ppbv
1,2-Dichloroethane	107-06-2	0.020	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.020	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.020	ND	ppbv
Chloroethane	75-00-3	0.050	ND	ppbv
Chloroform	67-66-3	0.020	ND	ppbv
Chloromethane	74-87-3	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.020	ND	ppbv
Ethyl Benzene	100-41-4	0.020	ND	ppbv
Freon 114	76-14-2	0.020	ND	ppbv
Freon 12	75-71-8	0.020	ND	ppbv
m,p-Xylene	108-38-3	0.040	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.100	ND	ppbv
Naphthalene	91-20-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.020	ND	ppbv
Tetrachloroethene	127-18-4	0.020	ND	ppbv
Toluene	108-88-3	0.020	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.100	ND	ppbv
Trichloroethene	79-01-6	0.020	ND	ppbv
Vinyl Chloride	75-01-4	0.010	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		102.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.500	98.00	% Recovery
Toluene-d8	2037-26-5	0.500	99.00	% Recovery

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Media Certification Report

Canister Number: 6L# 35973
Can#: 106305-35973
Date : 03/15/16 18:28
Data File: d031518.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.020	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.020	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.020	ND	ppbv
1,1-Dichloroethane	75-34-3	0.020	ND	ppbv
1,1-Dichloroethene	75-35-4	0.010	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.020	ND	ppbv
1,2-Dichloroethane	107-06-2	0.020	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.020	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.020	ND	ppbv
Chloroethane	75-00-3	0.050	ND	ppbv
Chloroform	67-66-3	0.020	ND	ppbv
Chloromethane	74-87-3	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.020	ND	ppbv
Ethyl Benzene	100-41-4	0.020	ND	ppbv
Freon 114	76-14-2	0.020	ND	ppbv
Freon 12	75-71-8	0.020	ND	ppbv
m,p-Xylene	108-38-3	0.040	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.100	ND	ppbv
Naphthalene	91-20-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.020	ND	ppbv
Tetrachloroethene	127-18-4	0.020	ND	ppbv
Toluene	108-88-3	0.020	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.100	ND	ppbv
Trichloroethene	79-01-6	0.020	ND	ppbv
Vinyl Chloride	75-01-4	0.010	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.500	94.00	% Recovery
Toluene-d8	2037-26-5	0.500	100.00	% Recovery

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www.airtoxics.com
1-800-985-5955

Media Certification Report

Canister Number: 6L# 14
Can#: 106305-14
Date : 03/15/16 20:55
Data File: d031522.d

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.020	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.020	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.020	ND	ppbv
1,1-Dichloroethane	75-34-3	0.020	ND	ppbv
1,1-Dichloroethene	75-35-4	0.010	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.020	ND	ppbv
1,2-Dichloroethane	107-06-2	0.020	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.020	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Carbon Tetrachloride	56-23-5	0.020	ND	ppbv
Chloroethane	75-00-3	0.050	ND	ppbv
Chloroform	67-66-3	0.020	ND	ppbv
Chloromethane	74-87-3	0.050	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.020	ND	ppbv
Ethyl Benzene	100-41-4	0.020	ND	ppbv
Freon 114	76-14-2	0.020	ND	ppbv
Freon 12	75-71-8	0.020	ND	ppbv
m,p-Xylene	108-38-3	0.040	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.100	ND	ppbv
Naphthalene	91-20-3	0.050	ND	ppbv
o-Xylene	95-47-6	0.020	ND	ppbv
Tetrachloroethene	127-18-4	0.020	ND	ppbv
Toluene	108-88-3	0.020	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.100	ND	ppbv
Trichloroethene	79-01-6	0.020	ND	ppbv
Vinyl Chloride	75-01-4	0.010	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		101.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.500	97.00	% Recovery
Toluene-d8	2037-26-5	0.500	101.00	% Recovery

Eurofins Air Toxics, Inc.	Data Package Checklist:		Revision Date: 07/13/15
Workorder #: [illegible]	Form: FL-37	Revision: 5.5	Revision Date: 06/13/16	Page 1 of 2

S1	S2	S3	S4	D	Section 1 – Spec Out Initials/Instrument/Date	S1:	S2:	S3:	S4:
					Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met criteria				
					Larger QC and ICAL evaluation (ref. SOP for level) report initialed and in folder				
					Manual Integrations reviewed and approved				
					Chain of Custody verified for special comments (add comments below)				
					Non-standard Target subset verified (MDL, LOQ, RL, control limits, etc.)				

Profile, analytes, reporting, special notes and unusual circumstances:

[illegible]

A1	A2	A3	A4	D	Section 2 – Sample Analysis Initials/Date	A1:	A2:	A3:	A4:
					TO-Can Receipt, Dilution Factors, Leak Validation, Log-in of Instrument, Initial Pressures and Canister ID Verified				
					a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with analog sequence/log-in of instrument				
					Manual Integrations/Bag or Can Dilution Forms/Recalculation Forms/Bag-Can Transfer Forms present and in all final report				
					QC 24 hr clock time & Hold Time met for all samples				
					Re-analysis of sample(s) has been evaluated for compatibility and/or sample(s) have been checked for trends				
					MDEQ: Field duplicate batches, samples following bad results or CMAs have been verified (system blks, confirmation runs)				
					All runs have been evaluated for potential carry-over (Propylene-Target/Over range compounds, etc.)				

Analytical and special notes: [illegible]

D1	D2	D3	D4	T	S	Section 3 – Target Data Reduction	Technical Review Required? Circle one: Yes/No	T:		
						Initials/Instrument/Date: [illegible]	D1: [illegible]	D2:	D3:	D4:
						CCRF (if applicable)				
						Scanned verified documentation of spectral abilities included if applicable				
						TICs reported, reference spectra, TICs between samples blks, are consistent (if applicable)				
						Lab Narrative is correct				
						The final QC calculations complete and included in folder				

Special notes: [illegible]

A	S	Section 4- Atlas Data Entry T	Lumen verified and included in folder	Circle one: Yes/No
		Initials/Date: [illegible]	2nd Tier: (needed only for DOD or per client request)	
		Sample Discrepancy Report (SDR) complete and approved (if applicable)		
		Manually entered results are checked		
		At least one result per sample is verified against Target report (mass)		
		Appropriate data qualifier flags are applied		
		Final review is complete/ Final PDF report, COC and EDD reviewed and correct		

Special Notes:

Note (1) Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply.
Note (2) 2nd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects.

Workorder # :				Reason for Reissue:
W	T	3T	Q	
				Reissue Request form Present
				Client or QA or Lab contact present with reason for reissue
				Review all affected data
				Report header has correct R1, R2 etc
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)
				Date for Reissue in Report Header matches date in Lab Narrative
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)
				Corrective Action issued - #
				The reissued workorder has been approved by QA Manager or a Technical Director
Additional Comments:				

Write Up (Initials/Date)	Tech Review (Initials/Date)	*3rd Tier Review * 3rd Tier Report Review is for DoD & Client Specific projects only (Initials/Date)	QA Review (Initials/Date)

Workorder # :				Reason for Reissue:
W	T	3T	Q	
				Reissue Request form Present
				Client or QA or Lab contact present with reason for reissue
				Review all affected data
				Report header has correct R1, R2 etc
				The Lab Narrative clearly explains the reissue (Date, Reason and whether client requested)
				Date for Reissue in Report Header matches date in Lab Narrative
				Check Project Profile for correct reporting instructions (multiple clients, # hardcopies, etc)
				Corrective Action issued - #
				The reissued workorder has been approved by QA Manager or a Technical Director
Additional Comments:				

Write Up (Initials/Date)	Tech Review (Initials/Date)	*3rd Tier Review * 3rd Tier Report Review is for DoD & Client Specific projects only (Initials/Date)	QA Review (Initials/Date)

Note (1) *Please check all the appropriate boxes. Indicate "NA" for any statement that doesn't apply*
Note (2) 3rd Tier Report Reviewer and Write Up Reviewer must be separate individuals for DoD & Client Specific Projects

Not Applicable

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4/2/2016
Ms. Pamela Moss
EA Engineering
7995 E. Prentice Ave
Suite 206E
Greenwood Village CO 80111

Project Name: Petro Chem
Project #: 14342134
Workorder #: 1603470

Dear Ms. Pamela Moss

The following report includes the data for the above referenced project for sample(s) received on 3/24/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 SIM are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free the Project Manager: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Brian Whittaker

Project Manager

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WORK ORDER #: 1603470

Work Order Summary

CLIENT:	Ms. Pamela Moss EA Engineering 7995 E. Prentice Ave Suite 206E Greenwood Village, CO 80111	**BILL TO:**	Accounts Payable - Lewisville EA Engineering 405 S. Highway 121 Suite C-100 Lewisville, TX 75067
PHONE:	303-590-9143	**P.O. #**	15048
FAX:		**PROJECT #**	14342134 Petro Chem
DATE RECEIVED:	03/24/2016	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	04/02/2016		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	IA-01	Modified TO-15 SIM	5.3 "Hg	3 psi
02A	OA-01	Modified TO-15 SIM	5.7 "Hg	3.1 psi
03A	SG-01	Modified TO-15 SIM	6.1 "Hg	2.9 psi
04A	SG-01-Dup	Modified TO-15 SIM	5.5 "Hg	3 psi
05A	IA-02	Modified TO-15 SIM	4.7 "Hg	3.2 psi
06A	SG-02	Modified TO-15 SIM	5.5 "Hg	3.2 psi
07A	Lab Blank	Modified TO-15 SIM	NA	NA
07B	Lab Blank	Modified TO-15 SIM	NA	NA
08A	CCV	Modified TO-15 SIM	NA	NA
08B	CCV	Modified TO-15 SIM	NA	NA
09A	LCS	Modified TO-15 SIM	NA	NA
09AA	LCSD	Modified TO-15 SIM	NA	NA
09B	LCS	Modified TO-15 SIM	NA	NA
09BB	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 04/02/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
EA Engineering
Workorder# 1603470

Six 6 Liter Summa Canister (SIM Certified) samples were received on March 24, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. All the canisters used for this project have been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

Dilution was performed on sample IA-02 due to the presence of high level non-target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

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Client ID:	IA-01		
Lab ID:	1603470-01A	**Date/Time Analyzed:**	3/25/16 08:49 PM
Date/Time Collecte	3/23/16 02:00 PM	**Dilution Factor:**	1.46
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032515sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0082	0.048	0.16	0.023 J
1,1,2,2-Tetrachloroethane	79-34-5	0.014	0.060	0.20	Not Detected
1,1,2-Trichloroethane	79-00-5	0.015	0.048	0.16	Not Detected
1,1-Dichloroethane	75-34-3	0.0092	0.035	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.014	0.035	0.058	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.012	0.067	0.22	0.055 J
1,2-Dichloroethane	107-06-2	0.0042	0.035	0.12	2.0
1,4-Dichlorobenzene	106-46-7	0.015	0.053	0.18	0.22
Benzene	71-43-2	0.025	0.093	0.23	1.3
Carbon Tetrachloride	56-23-5	0.0084	0.055	0.18	0.37
Chloroethane	75-00-3	0.027	0.077	0.19	0.048 J
Chloroform	67-66-3	0.012	0.043	0.14	0.12 J
Chloromethane	74-87-3	0.037	0.060	0.15	1.1
cis-1,2-Dichloroethene	156-59-2	0.010	0.035	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0089	0.038	0.13	1.0
Freon 114	76-14-2	0.012	0.061	0.20	0.094 J
Freon 12	75-71-8	0.018	0.043	0.14	1.9
m,p-Xylene	108-38-3	0.0053	0.038	0.25	2.9
Methyl tert-butyl ether	1634-04-4	0.012	0.032	0.53	Not Detected
Naphthalene	91-20-3	0.10	0.15	0.38	0.46
o-Xylene	95-47-6	0.0079	0.038	0.13	1.0
Tetrachloroethene	127-18-4	0.0085	0.059	0.20	2.7
Toluene	108-88-3	0.0061	0.033	0.11	8.0
trans-1,2-Dichloroethene	156-60-5	0.019	0.035	0.58	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	IA-01		
Lab ID:	1603470-01A	**Date/Time Analyzed:**	3/25/16 08:49 PM
Date/Time Collecte	3/23/16 02:00 PM	**Dilution Factor:**	1.46
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032515sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.020	0.047	0.16	0.25
Vinyl Chloride	75-01-4	0.0058	0.022	0.037	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	106
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	101

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	OA-01		
Lab ID:	1603470-02A	**Date/Time Analyzed:**	3/25/16 09:40 PM
Date/Time Collecte	3/23/16 03:25 PM	**Dilution Factor:**	1.50
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032516sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0084	0.049	0.16	0.026 J
1,1,2,2-Tetrachloroethane	79-34-5	0.014	0.062	0.20	Not Detected
1,1,2-Trichloroethane	79-00-5	0.015	0.049	0.16	Not Detected
1,1-Dichloroethane	75-34-3	0.0095	0.036	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.015	0.036	0.059	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.012	0.069	0.23	0.046 J
1,2-Dichloroethane	107-06-2	0.0043	0.036	0.12	0.057 J
1,4-Dichlorobenzene	106-46-7	0.016	0.054	0.18	0.074 J
Benzene	71-43-2	0.026	0.096	0.24	0.41
Carbon Tetrachloride	56-23-5	0.0086	0.057	0.19	0.37
Chloroethane	75-00-3	0.028	0.079	0.20	0.050 J
Chloroform	67-66-3	0.012	0.044	0.15	0.072 J
Chloromethane	74-87-3	0.038	0.062	0.15	1.2
cis-1,2-Dichloroethene	156-59-2	0.011	0.036	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0091	0.039	0.13	0.064 J
Freon 114	76-14-2	0.013	0.063	0.21	0.11 J
Freon 12	75-71-8	0.018	0.044	0.15	1.9
m,p-Xylene	108-38-3	0.0054	0.039	0.26	0.20 J
Methyl tert-butyl ether	1634-04-4	0.012	0.032	0.54	Not Detected
Naphthalene	91-20-3	0.11	0.16	0.39	Not Detected
o-Xylene	95-47-6	0.0081	0.039	0.13	0.068 J
Tetrachloroethene	127-18-4	0.0088	0.061	0.20	0.040 J
Toluene	108-88-3	0.0063	0.034	0.11	0.56
trans-1,2-Dichloroethene	156-60-5	0.020	0.036	0.59	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	OA-01		
Lab ID:	1603470-02A	**Date/Time Analyzed:**	3/25/16 09:40 PM
Date/Time Collecte	3/23/16 03:25 PM	**Dilution Factor:**	1.50
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032516sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.020	0.048	0.16	0.026 J
Vinyl Chloride	75-01-4	0.0060	0.023	0.038	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	105
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	102

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	SG-01		
Lab ID:	1603470-03A	**Date/Time Analyzed:**	3/25/16 10:35 PM
Date/Time Collecte	3/23/16 03:23 PM	**Dilution Factor:**	1.50
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032517sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0084	0.049	0.16	0.010 J
1,1,2,2-Tetrachloroethane	79-34-5	0.014	0.062	0.20	Not Detected
1,1,2-Trichloroethane	79-00-5	0.015	0.049	0.16	Not Detected
1,1-Dichloroethane	75-34-3	0.0095	0.036	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.015	0.036	0.059	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.012	0.069	0.23	0.040 J
1,2-Dichloroethane	107-06-2	0.0043	0.036	0.12	0.17
1,4-Dichlorobenzene	106-46-7	0.016	0.054	0.18	0.10 J
Benzene	71-43-2	0.026	0.096	0.24	0.33
Carbon Tetrachloride	56-23-5	0.0086	0.057	0.19	0.25
Chloroethane	75-00-3	0.028	0.079	0.20	0.036 J
Chloroform	67-66-3	0.012	0.044	0.15	0.057 J
Chloromethane	74-87-3	0.038	0.062	0.15	0.26
cis-1,2-Dichloroethene	156-59-2	0.011	0.036	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0091	0.039	0.13	0.23
Freon 114	76-14-2	0.013	0.063	0.21	0.11 J
Freon 12	75-71-8	0.018	0.044	0.15	1.7
m,p-Xylene	108-38-3	0.0054	0.039	0.26	0.91
Methyl tert-butyl ether	1634-04-4	0.012	0.032	0.54	Not Detected
Naphthalene	91-20-3	0.11	0.16	0.39	0.25 J
o-Xylene	95-47-6	0.0081	0.039	0.13	0.48
Tetrachloroethene	127-18-4	0.0088	0.061	0.20	17
Toluene	108-88-3	0.0063	0.034	0.11	1.2
trans-1,2-Dichloroethene	156-60-5	0.020	0.036	0.59	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	SG-01		
Lab ID:	1603470-03A	**Date/Time Analyzed:**	3/25/16 10:35 PM
Date/Time Collecte	3/23/16 03:23 PM	**Dilution Factor:**	1.50
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032517sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.020	0.048	0.16	0.063 J
Vinyl Chloride	75-01-4	0.0060	0.023	0.038	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	103
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	100

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

eurofins | Air Toxics

Client ID:	SG-01-Dup		
Lab ID:	1603470-04A	**Date/Time Analyzed:**	3/26/16 08:10 AM
Date/Time Collecte	3/23/16 05:23 AM	**Dilution Factor:**	1.48
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032518sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0083	0.048	0.16	0.014 J
1,1,2,2-Tetrachloroethane	79-34-5	0.014	0.061	0.20	Not Detected
1,1,2-Trichloroethane	79-00-5	0.015	0.048	0.16	Not Detected
1,1-Dichloroethane	75-34-3	0.0093	0.036	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.015	0.035	0.059	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.012	0.068	0.23	0.026 J
1,2-Dichloroethane	107-06-2	0.0042	0.036	0.12	0.18
1,4-Dichlorobenzene	106-46-7	0.015	0.053	0.18	0.10 J
Benzene	71-43-2	0.026	0.094	0.24	0.40
Carbon Tetrachloride	56-23-5	0.0085	0.056	0.19	0.27
Chloroethane	75-00-3	0.027	0.078	0.20	0.071 J
Chloroform	67-66-3	0.012	0.043	0.14	0.052 J
Chloromethane	74-87-3	0.038	0.061	0.15	0.44
cis-1,2-Dichloroethene	156-59-2	0.011	0.035	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0090	0.038	0.13	0.26
Freon 114	76-14-2	0.012	0.062	0.21	0.11 J
Freon 12	75-71-8	0.018	0.044	0.15	1.8
m,p-Xylene	108-38-3	0.0053	0.038	0.26	1.0
Methyl tert-butyl ether	1634-04-4	0.012	0.032	0.53	0.016 J
Naphthalene	91-20-3	0.10	0.16	0.39	0.26 J
o-Xylene	95-47-6	0.0080	0.038	0.13	0.52
Tetrachloroethene	127-18-4	0.0086	0.060	0.20	18
Toluene	108-88-3	0.0062	0.033	0.11	1.6
trans-1,2-Dichloroethene	156-60-5	0.020	0.035	0.59	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	SG-01-Dup		
Lab ID:	1603470-04A	**Date/Time Analyzed:**	3/26/16 08:10 AM
Date/Time Collecte	3/23/16 05:23 AM	**Dilution Factor:**	1.48
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032518sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.020	0.048	0.16	0.097 J
Vinyl Chloride	75-01-4	0.0059	0.023	0.038	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	109
4-Bromofluorobenzene	460-00-4	70-130	102
Toluene-d8	2037-26-5	70-130	100

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	IA-02		
Lab ID:	1603470-05A	**Date/Time Analyzed:**	3/28/16 04:14 PM
Date/Time Collecte	3/23/16 03:24 PM	**Dilution Factor:**	2.88
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032811sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.016	0.094	0.31	0.028 J
1,1,2,2-Tetrachloroethane	79-34-5	0.027	0.12	0.40	0.089 J
1,1,2-Trichloroethane	79-00-5	0.029	0.094	0.31	Not Detected
1,1-Dichloroethane	75-34-3	0.018	0.070	0.23	Not Detected
1,1-Dichloroethene	75-35-4	0.028	0.068	0.11	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.024	0.13	0.44	0.13 J
1,2-Dichloroethane	107-06-2	0.0083	0.070	0.23	2.0
1,4-Dichlorobenzene	106-46-7	0.030	0.10	0.35	0.32 J
Benzene	71-43-2	0.050	0.18	0.46	1.4
Carbon Tetrachloride	56-23-5	0.016	0.11	0.36	0.38
Chloroethane	75-00-3	0.053	0.15	0.38	0.060 J
Chloroform	67-66-3	0.024	0.084	0.28	0.11 J
Chloromethane	74-87-3	0.074	0.12	0.30	1.2
cis-1,2-Dichloroethene	156-59-2	0.021	0.068	0.23	0.033 J
Ethyl Benzene	100-41-4	0.018	0.075	0.25	1.0
Freon 114	76-14-2	0.024	0.12	0.40	0.10 J
Freon 12	75-71-8	0.035	0.085	0.28	1.8
m,p-Xylene	108-38-3	0.010	0.075	0.50	2.8
Methyl tert-butyl ether	1634-04-4	0.024	0.062	1.0	Not Detected
Naphthalene	91-20-3	0.20	0.30	0.75	0.54 J
o-Xylene	95-47-6	0.016	0.075	0.25	1.0
Tetrachloroethene	127-18-4	0.017	0.12	0.39	2.7
Toluene	108-88-3	0.012	0.065	0.22	7.3
trans-1,2-Dichloroethene	156-60-5	0.038	0.068	1.1	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	IA-02		
Lab ID:	1603470-05A	**Date/Time Analyzed:**	3/28/16 04:14 PM
Date/Time Collecte	3/23/16 03:24 PM	**Dilution Factor:**	2.88
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032811sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.038	0.093	0.31	0.13 J
Vinyl Chloride	75-01-4	0.011	0.044	0.074	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	99
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	100

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	SG-02		
Lab ID:	1603470-06A	**Date/Time Analyzed:**	3/26/16 08:52 AM
Date/Time Collecte	3/23/16 02:26 PM	**Dilution Factor:**	1.49
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032519sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0084	0.049	0.16	0.046 J
1,1,2,2-Tetrachloroethane	79-34-5	0.014	0.061	0.20	Not Detected
1,1,2-Trichloroethane	79-00-5	0.015	0.049	0.16	Not Detected
1,1-Dichloroethane	75-34-3	0.0094	0.036	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.015	0.035	0.059	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.012	0.069	0.23	0.049 J
1,2-Dichloroethane	107-06-2	0.0043	0.036	0.12	0.36
1,4-Dichlorobenzene	106-46-7	0.015	0.054	0.18	0.062 J
Benzene	71-43-2	0.026	0.095	0.24	3.0
Carbon Tetrachloride	56-23-5	0.0085	0.056	0.19	0.25
Chloroethane	75-00-3	0.028	0.079	0.20	0.097 J
Chloroform	67-66-3	0.012	0.044	0.14	Not Detected
Chloromethane	74-87-3	0.038	0.062	0.15	0.92
cis-1,2-Dichloroethene	156-59-2	0.011	0.035	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0090	0.039	0.13	1.3
Freon 114	76-14-2	0.013	0.062	0.21	0.13 J
Freon 12	75-71-8	0.018	0.044	0.15	1.7
m,p-Xylene	108-38-3	0.0054	0.039	0.26	2.1
Methyl tert-butyl ether	1634-04-4	0.012	0.032	0.54	0.037 J
Naphthalene	91-20-3	0.10	0.16	0.39	0.30 J
o-Xylene	95-47-6	0.0080	0.039	0.13	0.96
Tetrachloroethene	127-18-4	0.0087	0.061	0.20	33
Toluene	108-88-3	0.0062	0.034	0.11	5.8
trans-1,2-Dichloroethene	156-60-5	0.020	0.035	0.59	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	SG-02		
Lab ID:	1603470-06A	**Date/Time Analyzed:**	3/26/16 08:52 AM
Date/Time Collecte	3/23/16 02:26 PM	**Dilution Factor:**	1.49
Media:	6 Liter Summa Canister (SIM Certified)	**Instrument/Filename:**	msde.i / e032519sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.020	0.048	0.16	0.10 J
Vinyl Chloride	75-01-4	0.0059	0.023	0.038	0.036 J

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	105
4-Bromofluorobenzene	460-00-4	70-130	102
Toluene-d8	2037-26-5	70-130	101

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	Lab Blank		
Lab ID:	1603470-07A	**Date/Time Analyzed:**	3/25/16 02:48 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032508sima

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0056	0.033	0.11	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.0093	0.041	0.14	0.018 J
1,1,2-Trichloroethane	79-00-5	0.010	0.033	0.11	Not Detected
1,1-Dichloroethane	75-34-3	0.0063	0.024	0.081	Not Detected
1,1-Dichloroethene	75-35-4	0.0099	0.024	0.040	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0083	0.046	0.15	0.044 J
1,2-Dichloroethane	107-06-2	0.0029	0.024	0.081	0.010 J
1,4-Dichlorobenzene	106-46-7	0.010	0.036	0.12	0.056 J
Benzene	71-43-2	0.017	0.064	0.16	0.073 J
Carbon Tetrachloride	56-23-5	0.0057	0.038	0.12	Not Detected
Chloroethane	75-00-3	0.018	0.053	0.13	Not Detected
Chloroform	67-66-3	0.0084	0.029	0.098	Not Detected
Chloromethane	74-87-3	0.026	0.041	0.10	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.0072	0.024	0.079	Not Detected
Ethyl Benzene	100-41-4	0.0061	0.026	0.087	0.010 J
Freon 114	76-14-2	0.0084	0.042	0.14	Not Detected
Freon 12	75-71-8	0.012	0.030	0.099	Not Detected
m,p-Xylene	108-38-3	0.0036	0.026	0.17	0.012 J
Methyl tert-butyl ether	1634-04-4	0.0083	0.022	0.36	Not Detected
Naphthalene	91-20-3	0.071	0.10	0.26	Not Detected
o-Xylene	95-47-6	0.0054	0.026	0.087	0.0094 J
Tetrachloroethene	127-18-4	0.0058	0.041	0.14	Not Detected
Toluene	108-88-3	0.0042	0.023	0.075	0.017 J
trans-1,2-Dichloroethene	156-60-5	0.013	0.024	0.40	Not Detected

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	Lab Blank		
Lab ID:	1603470-07A	**Date/Time Analyzed:**	3/25/16 02:48 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032508sima

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.013	0.032	0.11	Not Detected
Vinyl Chloride	75-01-4	0.0040	0.015	0.026	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	101
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	101

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	Lab Blank		
Lab ID:	1603470-07B	**Date/Time Analyzed:**	3/28/16 03:30 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032810sima

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0056	0.033	0.11	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.0093	0.041	0.14	0.026 J
1,1,2-Trichloroethane	79-00-5	0.010	0.033	0.11	Not Detected
1,1-Dichloroethane	75-34-3	0.0063	0.024	0.081	Not Detected
1,1-Dichloroethene	75-35-4	0.0099	0.024	0.040	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0083	0.046	0.15	0.086 J
1,2-Dichloroethane	107-06-2	0.0029	0.024	0.081	0.020 J
1,4-Dichlorobenzene	106-46-7	0.010	0.036	0.12	0.091 J
Benzene	71-43-2	0.017	0.064	0.16	0.075 J
Carbon Tetrachloride	56-23-5	0.0057	0.038	0.12	Not Detected
Chloroethane	75-00-3	0.018	0.053	0.13	Not Detected
Chloroform	67-66-3	0.0084	0.029	0.098	Not Detected
Chloromethane	74-87-3	0.026	0.041	0.10	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.0072	0.024	0.079	0.018 J
Ethyl Benzene	100-41-4	0.0061	0.026	0.087	0.0084 J
Freon 114	76-14-2	0.0084	0.042	0.14	Not Detected
Freon 12	75-71-8	0.012	0.030	0.099	Not Detected
m,p-Xylene	108-38-3	0.0036	0.026	0.17	0.016 J
Methyl tert-butyl ether	1634-04-4	0.0083	0.022	0.36	Not Detected
Naphthalene	91-20-3	0.071	0.10	0.26	Not Detected
o-Xylene	95-47-6	0.0054	0.026	0.087	0.0076 J
Tetrachloroethene	127-18-4	0.0058	0.041	0.14	0.0060 J
Toluene	108-88-3	0.0042	0.023	0.075	0.013 J
trans-1,2-Dichloroethene	156-60-5	0.013	0.024	0.40	0.018 J

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	Lab Blank		
Lab ID:	1603470-07B	**Date/Time Analyzed:**	3/28/16 03:30 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032810sima

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.013	0.032	0.11	0.017 J
Vinyl Chloride	75-01-4	0.0040	0.015	0.026	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	103
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	101

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	CCV		
Lab ID:	1603470-08A	**Date/Time Analyzed:**	3/25/16 09:25 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032502sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	90
1,1,2,2-Tetrachloroethane	79-34-5	87
1,1,2-Trichloroethane	79-00-5	92
1,1-Dichloroethane	75-34-3	92
1,1-Dichloroethene	75-35-4	87
1,2-Dibromoethane (EDB)	106-93-4	90
1,2-Dichloroethane	107-06-2	84
1,4-Dichlorobenzene	106-46-7	88
Benzene	71-43-2	81
Carbon Tetrachloride	56-23-5	92
Chloroethane	75-00-3	91
Chloroform	67-66-3	85
Chloromethane	74-87-3	86
cis-1,2-Dichloroethene	156-59-2	89
Ethyl Benzene	100-41-4	96
Freon 114	76-14-2	91
Freon 12	75-71-8	88
m,p-Xylene	108-38-3	97
Methyl tert-butyl ether	1634-04-4	95
Naphthalene	91-20-3	78
o-Xylene	95-47-6	95
Tetrachloroethene	127-18-4	87
Toluene	108-88-3	89
trans-1,2-Dichloroethene	156-60-5	90

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	CCV		
Lab ID:	1603470-08A	**Date/Time Analyzed:**	3/25/16 09:25 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032502sim

Compound	**CAS#**	**%Recovery**
Trichloroethene	79-01-6	84
Vinyl Chloride	75-01-4	93

D: Analyte not within the DoD scope of accreditation.

Surrogates	**CAS#**	**Limits**	**%Recovery**
1,2-Dichloroethane-d4	17060-07-0	70-130	93
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	99

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	CCV		
Lab ID:	1603470-08B	**Date/Time Analyzed:**	3/28/16 10:19 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032803sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	92
1,1,2,2-Tetrachloroethane	79-34-5	87
1,1,2-Trichloroethane	79-00-5	92
1,1-Dichloroethane	75-34-3	92
1,1-Dichloroethene	75-35-4	86
1,2-Dibromoethane (EDB)	106-93-4	91
1,2-Dichloroethane	107-06-2	86
1,4-Dichlorobenzene	106-46-7	90
Benzene	71-43-2	82
Carbon Tetrachloride	56-23-5	94
Chloroethane	75-00-3	92
Chloroform	67-66-3	86
Chloromethane	74-87-3	87
cis-1,2-Dichloroethene	156-59-2	89
Ethyl Benzene	100-41-4	97
Freon 114	76-14-2	91
Freon 12	75-71-8	89
m,p-Xylene	108-38-3	98
Methyl tert-butyl ether	1634-04-4	96
Naphthalene	91-20-3	87
o-Xylene	95-47-6	96
Tetrachloroethene	127-18-4	87
Toluene	108-88-3	90
trans-1,2-Dichloroethene	156-60-5	90

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	CCV		
Lab ID:	1603470-08B	**Date/Time Analyzed:**	3/28/16 10:19 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032803sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	84
Vinyl Chloride	75-01-4	92

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	100

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCS		
Lab ID:	1603470-09A	**Date/Time Analyzed:**	3/25/16 10:29 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032503sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	110
1,1,2,2-Tetrachloroethane	79-34-5	106
1,1,2-Trichloroethane	79-00-5	111
1,1-Dichloroethane	75-34-3	113
1,1-Dichloroethene	75-35-4	106
1,2-Dibromoethane (EDB)	106-93-4	110
1,2-Dichloroethane	107-06-2	102
1,4-Dichlorobenzene	106-46-7	102
Benzene	71-43-2	100
Carbon Tetrachloride	56-23-5	116
Chloroethane	75-00-3	119
Chloroform	67-66-3	104
Chloromethane	74-87-3	110
cis-1,2-Dichloroethene	156-59-2	120
Ethyl Benzene	100-41-4	115
Freon 114	76-14-2	117
Freon 12	75-71-8	113
m,p-Xylene	108-38-3	115
Methyl tert-butyl ether	1634-04-4	116
Naphthalene	91-20-3	69
o-Xylene	95-47-6	115
Tetrachloroethene	127-18-4	104
Toluene	108-88-3	109
trans-1,2-Dichloroethene	156-60-5	96

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCS		
Lab ID:	1603470-09A	**Date/Time Analyzed:**	3/25/16 10:29 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032503sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	102
Vinyl Chloride	75-01-4	119

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	100

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCSD		
Lab ID:	1603470-09AA	**Date/Time Analyzed:**	3/25/16 11:14 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032504sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	110
1,1,2,2-Tetrachloroethane	79-34-5	107
1,1,2-Trichloroethane	79-00-5	110
1,1-Dichloroethane	75-34-3	112
1,1-Dichloroethene	75-35-4	106
1,2-Dibromoethane (EDB)	106-93-4	109
1,2-Dichloroethane	107-06-2	103
1,4-Dichlorobenzene	106-46-7	109
Benzene	71-43-2	100
Carbon Tetrachloride	56-23-5	114
Chloroethane	75-00-3	115
Chloroform	67-66-3	103
Chloromethane	74-87-3	106
cis-1,2-Dichloroethene	156-59-2	119
Ethyl Benzene	100-41-4	116
Freon 114	76-14-2	116
Freon 12	75-71-8	109
m,p-Xylene	108-38-3	118
Methyl tert-butyl ether	1634-04-4	115
Naphthalene	91-20-3	80
o-Xylene	95-47-6	118
Tetrachloroethene	127-18-4	104
Toluene	108-88-3	109
trans-1,2-Dichloroethene	156-60-5	95

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCSD		
Lab ID:	1603470-09AA	**Date/Time Analyzed:**	3/25/16 11:14 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032504sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	101
Vinyl Chloride	75-01-4	116

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	93
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	99

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCS		
Lab ID:	1603470-09B	**Date/Time Analyzed:**	3/28/16 11:50 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032805sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	109
1,1,2,2-Tetrachloroethane	79-34-5	106
1,1,2-Trichloroethane	79-00-5	110
1,1-Dichloroethane	75-34-3	111
1,1-Dichloroethene	75-35-4	104
1,2-Dibromoethane (EDB)	106-93-4	109
1,2-Dichloroethane	107-06-2	103
1,4-Dichlorobenzene	106-46-7	107
Benzene	71-43-2	99
Carbon Tetrachloride	56-23-5	114
Chloroethane	75-00-3	114
Chloroform	67-66-3	103
Chloromethane	74-87-3	105
cis-1,2-Dichloroethene	156-59-2	118
Ethyl Benzene	100-41-4	116
Freon 114	76-14-2	115
Freon 12	75-71-8	110
m,p-Xylene	108-38-3	117
Methyl tert-butyl ether	1634-04-4	114
Naphthalene	91-20-3	75
o-Xylene	95-47-6	118
Tetrachloroethene	127-18-4	104
Toluene	108-88-3	109
trans-1,2-Dichloroethene	156-60-5	94

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCS		
Lab ID:	1603470-09B	**Date/Time Analyzed:**	3/28/16 11:50 AM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032805sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	101
Vinyl Chloride	75-01-4	114

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	100

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCSD		
Lab ID:	1603470-09BB	**Date/Time Analyzed:**	3/28/16 12:33 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032806sim

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	110
1,1,2,2-Tetrachloroethane	79-34-5	107
1,1,2-Trichloroethane	79-00-5	111
1,1-Dichloroethane	75-34-3	111
1,1-Dichloroethene	75-35-4	104
1,2-Dibromoethane (EDB)	106-93-4	109
1,2-Dichloroethane	107-06-2	102
1,4-Dichlorobenzene	106-46-7	108
Benzene	71-43-2	99
Carbon Tetrachloride	56-23-5	115
Chloroethane	75-00-3	115
Chloroform	67-66-3	103
Chloromethane	74-87-3	106
cis-1,2-Dichloroethene	156-59-2	118
Ethyl Benzene	100-41-4	116
Freon 114	76-14-2	115
Freon 12	75-71-8	110
m,p-Xylene	108-38-3	118
Methyl tert-butyl ether	1634-04-4	114
Naphthalene	91-20-3	84
o-Xylene	95-47-6	118
Tetrachloroethene	127-18-4	104
Toluene	108-88-3	108
trans-1,2-Dichloroethene	156-60-5	94

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Petro Chem

Client ID:	LCSD		
Lab ID:	1603470-09BB	**Date/Time Analyzed:**	3/28/16 12:33 PM
Date/Time Collecte	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msde.i / e032806sim

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	101
Vinyl Chloride	75-01-4	115

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	100

* % Recovery is calculated using unrounded analytical results.

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ATTACHMENT 2

FIELD NOTES AND FIELD FORMS

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Rite in the Rain®

ALL-WEATHER

ENVIRONMENTAL FIELD BOOK

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PetroChem RA

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ALL-WEATHER

ENVIRONMENTAL FIELD BOOK

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Project Petro-Chemical Systems, Inc. (Turtle Bayou) Site
EPA Region 6 Superfund RAC II

W

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Location Liberty, Liberty Co, TX Date 3/21/2016

Project / Client Petro Chem / EPA 6

Install subslab ports

1000 arrive @ Hotel in Winnie, TX to pickup supplies. Jason Strup & Jack Sharte

1030 call Donnie Smith to confirm installing ports today (ph 713-705-0583) cell phone

1100 arrive @ 300 CR 126 to install ports talk to Donnie Smith about locations. (Health & Safety Review)

1120 start drilling first port @ SG-01 slab was ≈4" thick in area; port tubing installed to 1" below slab

~~12~~ 1150 start drilling second port @ SG-02 slab was ≈5" 4.5" thick both locations installed into bedroom closets at opposite JAS opposite ends of the living area.

1220 finish installing ports.

1230 drive to Liberty, TX to search for

1430 USGS control points ~~could not~~ JAS

~~1445~~ 1515 depart Liberty ~~could~~ JAS return to site to locate monitor wells and recon location for RTK GPS station.

1515 depart site [signature] 3/21/2016

Rite in the Rain

Location Liberty, Liberty Co, TX Date 3/22/2016

Project / Client PetroChem / EPA 6

Set up RTK, gauge, survey, Leak Test VI

~~0745 depart hotel JAS~~

0815 onsite, Jason Stroup (JAS) and Jack Schwartz (JFS) with EA onsite, Health and Safety Review

0820 Set up RTK GPS near road on Donnie Smith's property.

0830 slant of 4.97' for RTK setup turn on RTK for downloading

0903 Setup to Survey Monitor wells and gauging; see gauging information on following page.

-MW-191 well cap and top of casing was split and damaged upon arrival

1000 depart site to pick up WD-40 for well locks, locks are rusted and cannot open all wells. only able to open MW-110, 193 and 191, also pick up helium regulator for helium canister, hotel supplier sent different canister and regulator sent did not work.

JS 3/22/2016

Location Liberty, Liberty Co, TX Date 3/22/2016

Project / Client PetroChem / EPA

gauging, survey Leak test

Well ID	PSH (ft)	DTW (ft btoc)
MW-109A	0	18.17
MW-191	0	16.09
MW-192	0	17.63
MW-193	0	17.79
MW-33	0	18.69
MW-108	0	18.07
MW-110	0	19.67

~~0~~ 1215 onsite JAS & JFS to start leak testing subslab ports

1230 Setup subslab canisters with sample trash and check initial pressure

1315 initial leak test @ SG-01 failed had to reseal port and fittings with beeswax for temporary seal port will need to be redrilled if used as permanent port

1416 leak test passed @ SG-02

1515 leak test the seal at SG-01 again and port passed

1520 turn on samplers see data sheet for more information

JS 3/22/2016

Rite in the Rain

6

Location Liberty Co, Liberty, TX Date 3/22/2016

Project / Client Petrochem / EPA 6

Gaugeing, survey & LeakTest, start VI samples

1524	all samplers ~~are~~ were on.
1530	finish gaugeing and surveying remaining monitor wells
1648	start for rover 4.98'
	start gps monitor wells with rover
1700	finish gps & survey
1715	check shimma Canisters, gauges Seem to be operating correctly
1735	depart site

3/22/2016

7

Location Liberty Co, Liberty, TX Date 3/23/2016

Project / Client Petrochem / EPA 6

RTK download & VI Samples

0825	onsite JAS & JFS
0830	Health and Safety Review
0839	Setup RTK ; RTK did not download and save data correctly on 3/22/2016 ; re-start and run again
	Start 5.22' for RTK
0845	Mark Kelly (MK) and Jay Synder (JS) on-site EA onsite
0905	TCEQ representative onsite in preparation for site walk for pre-bid meeting to Do additional drilling for MW installation
	~~To~~ TCEQ Sherell Heldt (SH)
0930	EPA PM onsite
0940	Jorge with Trustar representative Jorge Guzman, consultant for Lynuldell
1000	JAS & JFS depart site for hotel to pick up supplies
1115	JAS & JFS onsite

3/23/2016

Rite in the Rain

Location Liberty Co, Liberty, TX Date 3/23/2016

Project / Client PetroChem / EPA 6
RTK + VI Sampling

1130	show EPA + TCEQ VI sampling
1145	EPA + TCEQ depart Mr Smith's Residence
1145	JAS + JFS depart
1300	onsite to talk down RTK and check summa
1335	Outdoor Air sample was collected on the South side of House up wind of during the sampling event. Wind from the SE @ 10-15mph with gusts up to 20.
1410	pshutdown first canisters reading -5 inches of Hg
1510	off site. JAS + JFS to ~~dec~~ return RTK and ship samples

3/23/2016

Location Liberty Co. Texas Date 4-26-2016 9

Project / Client PetroChem / EPA Region VI

0630 leave hotel (24918)
0700 @ site (24944)
Igmini (Environ) + Daniel (CREW - trackhoe operator) @ site
~0715 Safety Meeting
~0730 Move trackhoe to area south of MW-109A to begin clearing trees + brush, mow thick. Cleared area along fenceline dry - sl moist, good + firm.
0815 Stop ~ 100 ft south of fence, clearing path ~ 20 ft wide. Go to truck to get tape measure.
0900 Have cleared ~ 200 ft to south @ ~ 100 ft south getting very soft/wet (low spot) and standing water. @ ~ 220' south creek ~ 10 ft wide + ~ 2 ft deep. will NOT be able to cross w Geoprobe.
0908 send April Ballweg + Jay Snyder txt's w photos of area cleared so far.

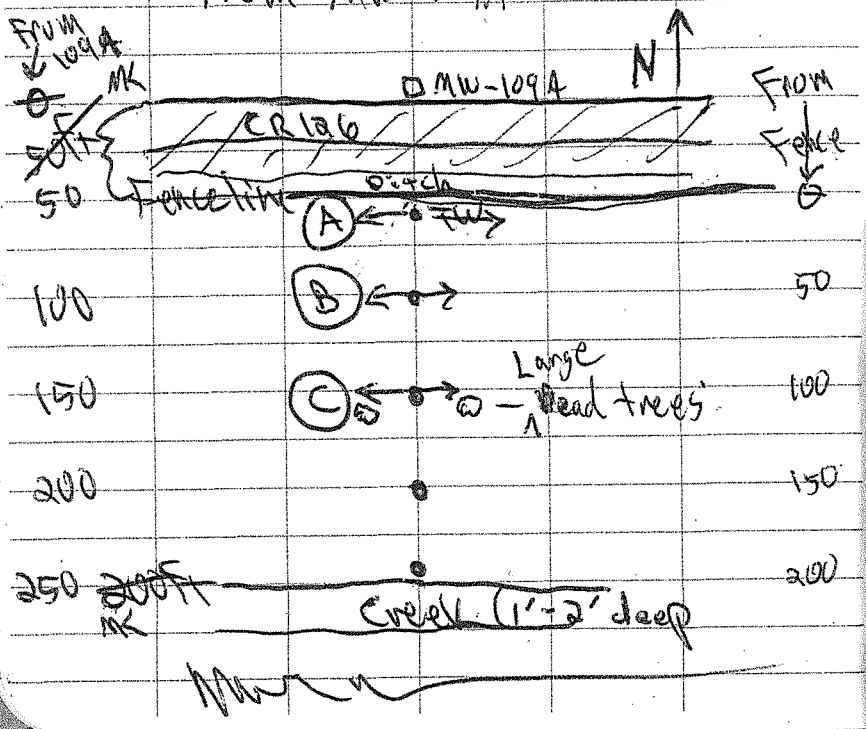
Rite in the Rain

Location Liberty Co., TX Date 4-26-2016

Project / Client Petro Chem / EPA Region VI

with tape meas. creek ~196' from fence (~250' from MW-109A). Will have to stop @ that point.

0920 MK calls Jay S to discuss. He is good w/ distance south. Side transects (E-W): ① One @ fence line / 50' from 109A. ② One @ 50' from fence / 100' from well. ③ One @ 100' from fence / 150' from MW-109A.



Location Liberty Co., TX Date 4-26-2016

Project / Client Petrochem / EPA Region VI

@ 100' South / C transect. go west ~50 ft. standing water. Line v wet / soft.

@ 100' S / C line. go east ~100'. Use trackhoe bucket to smooth + compact Ruts as much as possible.

1045 @ 50' from fence / B line. Go east 100'

1145 @ 100' west on B line. Will smooth Ruts as back out.

1200 Trackhoe back @ front gate. Crew / Yamini leave for lunch.

1215 leave site (24945)

Travel to EA-Lewisville (Fly HOU-Hobby to DAL-Love Field)

Rite in the Rain

Location Liberty Co, TX Date 5-2-2016

Project / Client Petro-Chemical Site / EPA Region VI

0530	Finish loading truck / EA (Raining).
0610	Leave EA - Lewisville (338663)
0905	Rest Stop / N of Huntsville (340499)
	Return call to United Rental driver delivering Bobcat to site for driller.
0940	Call Pine Environmental to see if Field QC is Ready; they just got it + need ~1 hour to run calibration.
0950	Call Kevin McKeage (EA - Abq.) he landed @ Hobby ~0930. Tell him I will go to airport first + then we will meet driver from Pine somewhere near airport
1030	Call from Pine, meet driver @ Target on Monroe + Sam Houston Pkwy.
1050	Pick up Kevin Mc @ Hobby
~1115	Get equipment from Pine
1135	Call Mario / driller, they are in Cleveland headed for site. We are leaving Houston now.
1320	@ site
1345	Drill crew arrives

Location Liberty Co, TX Date 5-2-2016

Project / Client Petro-Chem / EPA Region VI

Temp Well (TW) Installation + Sampling

Safety Meeting: Mark Kelly (MK), Kevin McKeage (KMc) - EA
Quails Drilling: Mario Robles (driller), Phillip Schmidt, Nathan Garnett
MK + Mario / driller walk to area cleared for TW locations. Area along fenceline fairly stable; areas further from fence (main N-S line + 50' and 100' E-W lines) are very soft/wet; standing water. Area cleared last March after clearing activities last week.
1330 MK + KMc go to Liberty (Wal-Mart) for supplies while crew unloading + prepping to drill. (341992) Very hard Rain.
~1430 Back @ site; crew has set up @ TW-1 location (South of MW-109A, 50').
1510 Start push / Hammer sampler. See field boring log for descriptions.
24'-28' becoming very Sandy (Sandy Clay) @ ~27.5'.

Rite in the Rain

Location Liberty Co, TX Date 5-2-2016

Project / Client Petro Chem / EPA Region VI

Drilling TWs

TW-01

@~29' $CaCO_3$ nod / sandy (calc deposits)

▽ 28-30' ~~wet~~ MK moist. No free water.

1548 MK calls Jay Snyder (EA-Abq) to discuss drilling. No obvious sign of water. stiff plastic clay thru-out; becoming sandy ~ v sandy @~28'. $CaCO_3$ @~29'. Will leave this hole open + move to side (E+W) to install other wells. along fence line

Crew pull sample Rods.

* NOTE: Sample Rods = outer casing left in hole to keep hole open. Center Rods w/ Plastic liners (5 ft) used to collect soil samples.

1600 Bottom ~~S~~ MK Rod wet. 25' tape measure wet. water in hole. Move to next location (west). MK goes to truck (@ main gate) to get interface probe to gauge water, will then set well. (TD = 35'). DTW ~29.5 ft bgs. Hole open to ~34.5'

MK

Location Liberty Co, TX Date 5-2-2016

Project / Client Petro Chem / EPA Region VI

Driling TWs

TW-02 (25' west of TW-01, along fence).

1609 Begin probing / sampling. See field boring log for details. Similar to TW-01 few inches topsoil, then stiff plastic clay, @~28', wet sand. TD @ 30 ft.

~1640 Set wells:

TW-01 (TD = 35') 20' Riser (~~1/2~~ MK 3/4" PVC)

15' screen (20'-35').

0.020" slots. 16/30 Sand to 5' ↑ screen.

Bentonite Granules.

TW-02 (TD = 30') 15' Riser / 15' screen.

other details same as above (SAA).

1700 Gauge Depth To Water (DTW)

TW-01 = 24.6' dtw toc/bgs

TW-02 = 17.1' dtw toc/bgs.

1705 Begin prob / sampl TW-03 (25' east of TW-1) See field boring log. (toward MW-33).

~~1740~~ MK Becoming sandy ~26.5'. Thin wet zone 27.1'. TD @ 30'. Set well. 15' Riser / 15' Screen.

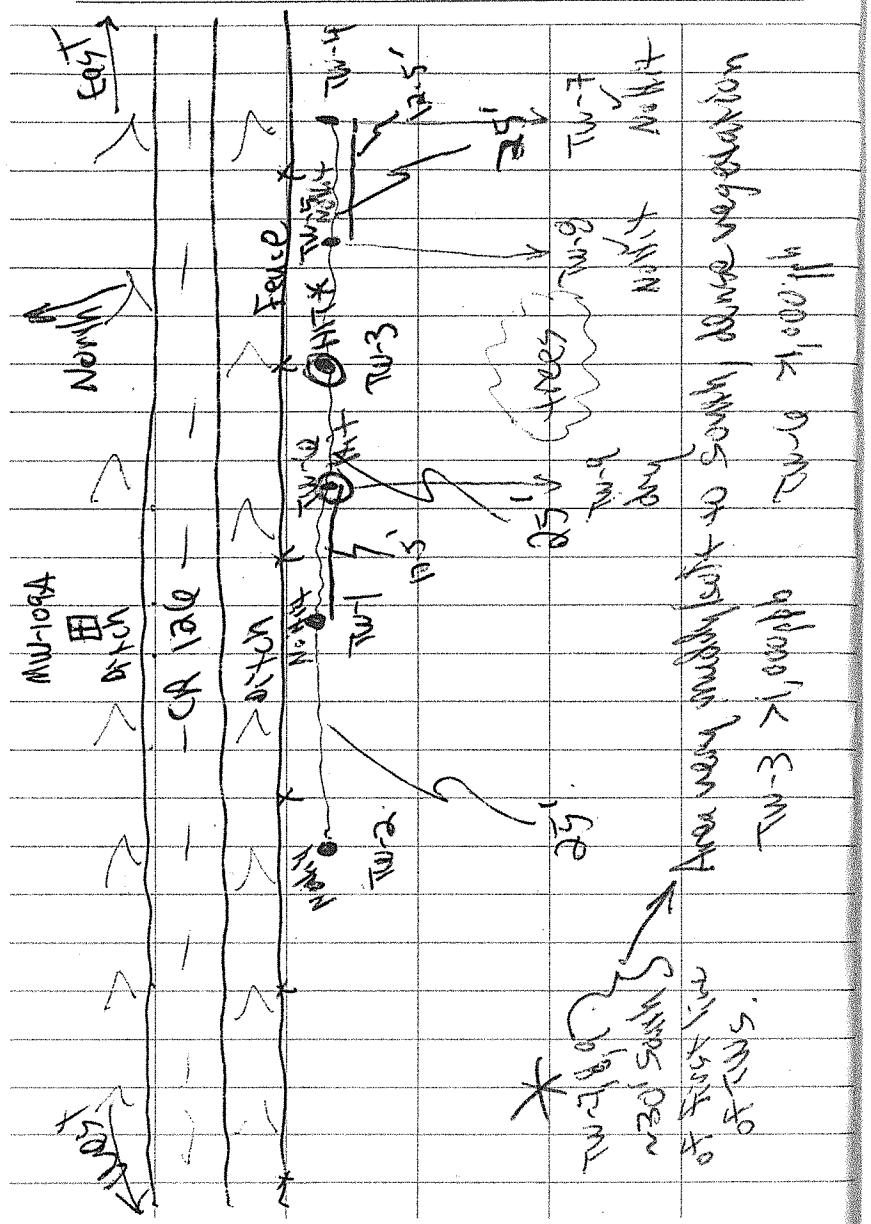
1740 Setting TW-03 hole / Rods not clear to TD. Pull PVC + sample Rods; Reset well (SAA) to 30 ft bgs.

MK

Rite in the Rain

Location Liberty Co., TX Date 5-2-2016

Project / Client PetroChem / EPA Region VI



Location Liberty Co., TX Date 5-3-2016

Project / Client Petro Chem/EPA Region VI

TWs

0735	leave hotel	(342(66.3)
0800	@ site	(34291.0)
	drillers @ site	
0815	Safety Mtg: M Kelly, K McGeuge (EA) Mario Robles, Philip Schmidt, Nathan Carnes (Qualls Drilling).	
	Weather: ~60°F. Wind ~5mph from N. expected hi ~ 75°. ~ 40% chance Rain	
0830	Move equip. to well locations. Note: KMc waiting on calibration file from Defiant Tech. had not recieved it @ hotel by the time we left.	
	Gauge depth to water	
0856	TW-1 dtw = 20.42' bgs	screen 20'-35'
0854	TW-2 dtw = 16.91' bgs	screen 15'-30'
0858	TW-3 dtw = 17.09' bgs	screen 15'-30'
0912	Call from April Ballweg (Ex PM): update on dtw, site conditions (still very wet), Cal. file, etc.	
	Begin pumping TW-1 w/ peristaltic pump to remove muddy water.	

Location Liberty Co., TX Date 5-3-2016

Project / Client PetroChem / EPA Region VI

Developing/Sampling TWs

TW-01: able to pump from ~10/35' (start shallow + work down). Drk brown clay/silt.

0935 Stop pumping + let recover (getting air bubbles in tubing) water still muddy

0940 Pumping, alot air in line, water clearing

0950 Text from A. Ballweg ~ meeting w/ Mr. Dennie Smith + access to yard. ? too wet? septic lines!

1000 developing TW-2 starts very muddy clearing. (see field development sheet)

1103 Txt from AB; Mr Smith ok'd meeting after lunch.

1110 Calibrate Horiba: use solution provided by Pine Rental.

1127 TW-2: begin Recording Readings (pre-sample).

1145 w/ tubing set @ 23.5' (midpoint of water column) collect sample for field DC - Freq 4000 (F4K)

4 VOAs: 2-HCl, 2-unpreserved

KMc takes samples to analyze

Rite in the Rain

Location Liberty Co. TX Date 5-3-2016

Project / Client Petro Chem / EPA Region VI

1150. MK collects post sample Readings w/ Horiba
1200 Developing TW-3 (east).
1210 Pumping
1220 Well dry; Recharging. Wait ~ 5 minutes, pump dry, Repeat.
1245 Collect sample; 4 VOAs
1240 - pre sample Readings; see field data sheets.
1314 Collect 3rd unpreserved VOA for TW-3; high Benzene Readings. KMc wants to Re-Run.
1330 TW-3 Post-Sample parameters
1405 Pumping / Developing TW-1
1420 Collect sample.
1405 - Recorded pre-sample Readings; see field data sheet.
TW-3 F4K Results;
>40 ppb @ 25X dilution = >1,000 ppb.
TW-4; 25' east of TW-3 (toward MW-33). (50' east of TW-1).
1445 Begin probing w/ Geoprobe; see field boring log.

[signature]

Location Liberty, Liberty Co, TX Date 5-3-2016

Project / Client Petro Chem / EPA Region VI

1537 MK calls Jay Snyder (EA/ABQ):
TW-1 + TW-2 (west) - No Hits
Hit on TW-3 (25' east of TW-1)
just installed TW-4 (25' east of TW-2, 50' east of TW-1).
Step back w/ TW-5; between 3 + 4; TW-6, between 1 + 3.
1553 Begin probing TW-5; see field ~~data sheet~~ MK boring log.
~1630 DTW:
TW-4 = 15.28' bgs
TW-5 = dry.
Kevin Mc begins developing TW-4
1636 Begin installing TW-6 (between TW-3 + TW-1). See field boring log.
1730 ~~170~~ MK TW-6 DTW = 19.58' bgs + Rising
1745 Drillers leave site
1840 MK, KMc leave site (34296.0)
stop @ supermarket; Tractor Supply
1935 @ hotel (34323.5)

[signature]

5-3-2016

Rite in the Rain

Location Liberty Co, TX Date 5-4-2016

Project / Client Petro Chem / EPA Region VI

0700 leave hotel (34324.0)

0730 @ site. Safety Mtg.

Unload. Kevin McKeage sets up F4K (5C) @ main gate area.

MK gauges TWs + collects samples.

~~0751 TW-4 MK~~

		dtW	TD	tubing/sample
0751	TW-4	17.86'	30'	23.93/24'
0755	TW-5	30.06'	30'	DRY
0758	TW-6	17.55	30'	23.78'

0800 Calibrate Horiba - water Quality meter

0820 TW-4 pre sample Readings; see field data sheet.

0830 Collect TW-4 sample (2-VOAs) w/HCl

* Not enough water for post sample parameters

0850 TW-6: presample Readings (see field data sheet).

0855 Collect TW-6 Sample (2-VOAs w/ HCl)

0900 TW-6 post-sample Readings

0910 Take TW-6 to KMc for 5C analysis.

- No Hit of ~~TW-4~~ TW-4 (TW-5 dry). [signature]

Location Liberty Co. TX Date 5-4-2016

Project / Client Petro Chem / EPA Region VI

0934: MK texts A Ballweg + J Snyder. Hits @ 3 + 6' 5 dry. Others No Hits. Presently installing TW-7 (send sketch of locs - photo w/ phone, pdf-txt).

-0922 Started probing TW-7 (south of TW-4 ~30'). Area south of fence line gets progressively softer, wet + muddy. Difficult to get Rig to locations. Use plywood after clearing some brush w/ Bobcat (unable to use path cleared previously). * Cleared area yesterday, PM. See field boring log, TW-7.

1010 Install TW-7 water in hole. Move Rig, Pivot to west/SW for next hole

1028 Begin installing TW-8 (south of TW-5 ~ 30 ft. See field boring log.

~1100 Kevin Mc gauges + begins developing TW-7 (fairly clear). dtW = 17.33' bgs

1140 TW-7 pres-sample Readings; data sheet

[signature]

Rite in the Rain

1116 Began installing TW-9 (south of TW-6 ~ 30 ft). See field boring log.
1215 Set TW-6: 15' Riser, 15' screen (0.020" slots) (same as others, except TW-1 was 10 @ 35' w/ 20' Riser). #10/30 sand
1220 TW-7 Results: No Hit.
1206 TW-8 dtw = 28.14' bgs
[1155 TW-7 Sample collected.
1200 TW-7 Post Sample Readings: see field data sheet.)
Kevin McKeage Running TW-7 sample after sampling.
1226 TW-8: will try to collect sample after developing. <2 ft water in hole. w/ minimal
TW-5: dtw = 30.03' (still too dry to sample).
1236 Text A Ballweg & J Snyder: TW-7 No Hit
1245 Collect TW-8 sample w/ pre-sample Readings. KMc takes sample to analyze. MK will let well recharge & attempt to collect water quality Readings (post-sample).

1253 Collect TW-8 post sample Readings, see field data sheet.
1255 MK calls Jay Snyder, update on status. Waiting on TW-8 Results.
1305 Gauge TW-9 — DRY (No Response w/ interface probe).
1314 Text AB & JS: TW-8, No Hit. TW-9, dry.
Drill crew — lunch.
1400 Drillers back
~1440 MK on phone w/ Jay S.:
— No more TWs (except E.D. Smith),
— 1 30 ft MW in line w/ 109 & TW-3 (higher) → would be ~TW-8 loc.
— 1 30 ft MW between TW-3 & TW-6,
— 1 60 ft MW @ same location?, move over ~5 ft.
MK Relates plans to drillers:
2 - 30 ft / shallow 1 - 60 ft / deep.
1500 KMc leaves site for hotel; standards shipped for DC.
1517 MK on phone w/ A Ballweg, ~~working~~ discussing plans.

Rite in the Rain

Location Liberty Co. TX Date 5-4-2016

Project / Client PetroChem / EPA Region VI

(MK + AB - phone)
- Plans for last TW + MWs.
- weekend off / Back Monday for pads + bollards
? OR?
- Finish on Saturday (Rain forecast for next week).
- MK Fly OR drive (?) (Drive)
- IDW Samples → Houston lab?
OR take back to EA late Mon / Tues.

1540 MK @ D Smith - recon next location. Call driller to bring plywood, can move Rig along fenceline (solid), but one spot w/ standing water; + turning corner w/ Rig would create Ruts.

1545 Kevin Mc back @ site.
Move Rig to next location w/ minimal ground disturbance. Locate TW-10 between corner of septic field + trees to west: ~~~25' North of 109A~~ MK ~~25ft ~ 50ft North of 109A~~ MK. MK 50' Feet North-NW of MW-109A

Mark [signature]

Location Liberty Co. TX Date 5-4-2016

Project / Client PetroChem / EPA Region VI

1603 Begin probing TW-10 (50 ft N-NW of MW-109A; D. Smith yard). See field boring log.

1645 Pull Rods + set well TW-10. TD = 30 ft. 15 ft Riser + 15' screen, 0.020" slots 16/30 Sand

1715 Develop TW-10 (dtw = 19.25' ↑ bgs)

1735 Pre-Sample Water Quality Parameters recorded; see Field data sheet

1740 TW-10 Sampled

1744 Post-Sample readings

1754 Text from A Ballweg: Figure w/ 3rd shallow well location, west of TW-03 (15' @ least).

* TW-10: low levels of Benzene (< 5 ppb).

1800 Call A Ballweg; update on results.

1805 Call Mario Ri / driller; installing 4 wells.

1900 leave site (34402.4)

1910 - on phone w/ A Ballweg; need another temp well upgradient of TW-10.

1915 - on phone w/ J. Snyder: ~~wants~~ needs a clean sample upgrad of MW-109A / + TW-10. Discuss possible location;

Mark Kelly

Rite in the Rain

Location Liberty Co., TX Date 5-4-2016

Project / Client EPA Region VI

(TW-11 location)
Can go off driveway, farther than 50 ft. Otherwise, dealing w/ soft soil in + next to septic field + trees to West. Jay is ok w/ location. Comments that if TW-11 is clean, may not need upgradient permanent well.

1930 @ hotel (34428).

1934 Text AB ~ discussion w/ Jay S ~ TW-11.

MK Note: Drillers helper ~~arrived ~ 1400~~ left to get ~~w/~~ trailer ~~off~~ w/ Monitor Well materials in FW. Will begin installing permanent monitor wells tomorrow / Thursday.

[signature]
5-4-2016

Location Liberty Co., TX Date 5-5-2016

Project / Client Petrochem / EPA Region VI

0730 leave hotel (34430.8)

0800 @ site (34455.8)

Safety Mtg: MKelly, Kevin McKeage (EA) Mario Robles, Nathan Carrett (Qualls Drlg). Prep to install TW-11 @ Smith residence. MK discussed w/ Mr. Smith; ok w/ location off driveway. This will put TW-11 75' N - slightly NW of TW-10; TW-10 50' N-NW of MW-109A.

0857 Begin probing TW-11 w/ Geoprobe. See Field boring logs

0923 Pull Rods; set well. TD = 30'; 15' screen (0.020" slots) + 15' Riser. 16/30 sand

0940 Hole collapsed ~2 ft; 2.4' Stickup. actual TD of well 27.6' bgs

0942 TW-11 dtw = 15.80' toc = 13.40' bgs

1000 MK + KMc developing TW-11. Calibrate Horiba Water Quality meter. Low volume + recharge; No pre-sample Readings.

Collect TW-11 Sample - KMc analyzes

1105 Record Post-Sample Readings; see Field data sheets

[signature]

Rite in the Rain

Location Liberty Co., TX Date 5-5-2016

Project / Client PetroChem / EPA Region VI

1112 Text to A Ballweg + J Snyder; TW-11 No Hit.

1145 leave site; MC takes Kevin McKeage to airport (HOU-Hobby) for flight back to ABQ.

1157 Call A Ballweg } Discuss idea of
1200 Call J Snyder } installing perm. MWs in same locations as TWs if possible;
- Know it will make water (2 of 9 TWs south of CR126 did not make water; abt variability is subsurface).
- Already logged, will save time installing.

AB + JS okay w/ plans. Will install shallow cross-gradient @ TW-02; shallow in-plume @ TW-03; and ~~1K~~ shallow down-grad. @ TW-08. (30') (shallow = 30' TD). Deep well (60') will be installed next to TW-03.

1238 @ Hou-Hobby

1350 Back @ site!

1405 Quails Delg trailer back w/ well materials

Mark Kelly

Location Liberty Co., TX Date 5-5-2016

Project / Client PetroChem / EPA Region VI

1435 Begin installing MW-204 @ TW-08 location, downgradient of TW-03 (In line w/ MW-109 + TW-03). Will be 30 ft TD w/ 20' Riser + 10' screen (0.020" slots). 16/30 Sand. Previously logged as TW-08. Working on plywood area still wet/muddy (soft).

1500 @ TD (30 ft). Augers out last 5', some wet mud above (on augers). Install 2 inch PVC; 20' Riser, 10' screen

1525 Decon equipment/augers.

1530 Txt from AB, procured lab for IDW: test America - Houston.

1555 Begin installing MW-203 @ TW-03 location, TW w/ highest Benzene Reading (>1,000 ppb), area of ~~peak~~ max peak from analysis. Results larger than TW-04, which was also >1,000 ppb. Previously logged as TW-03.

1605 15'-20' noticeable odors from cuttings.

1620 Set Well; TD = 30' 20' Riser, 2" 10' screen (0.020" slots), 16/30 Sand. PVC

1630 Well set; Decon augers

Mark Kelly

Rite in the Rain

Location Liberty Co, TX Date 5-5-2016

Project / Client PetroChem/EPA Region VI

1650	MW-204 (TW-08) dtw = 23.34' toc = 18.34' bgs * Rising slowly
1655	MW-203 (TW-03) dtw = 23.63' toc/bgs * Rising FAST
1700	" " dtw = 23.00' toc
	(* From 23.5 to 23.0 in ~3.5 minutes *)
1715	Drillers leave site
1730	MK leaves site (34568.0)
1755	@ hotel (34592.9)
~1840	MK calls Jays to discuss wells' West - cross gradient; convert TW-2 (to 201) (clean/makes water) For deep well; don't leave open over weekend (don't want upper S1 sand + lower S2 sand communicating). Probe/sample - then grant, install well next to probe hole (if don't have time to drill + install well completely).

Mark Kelly
5-5-2016

Location Liberty Co, TX Date 5-6-2016

Project / Client PetroChem/EPA Region VI

0709 leave hotel/checkout (34637.5)
0732 @ site (34662.6)
0735 Drillers arrive
Safety Mtg: MKelly (EA), Mario Robles, Phillip Schmidt, Nathan Cornett (Quails). Weather: ~60°F. Hi expected 80s-85° F. wind calm.
Move to TW-02 location, convert to MW-201
0805 Begin augering MW-201 (previously logged as TW-02).
0830 Pull augers.
0835 ~10 ft augers wet
Set well: 2" PVC sch40; 20' Riser, 10' screen, 0.020" slots 16/30 Sand
0850 Move soil drums/move augers to deep
0905 Begin working for MW-202 (deep). NOT installed in previous TW location; new borehole. See field boring log.
0956 @ 40'; Driller says getting very difficult to advance sampler; very high friction w/ predom. clay soil. (Breaking plastic liners/samplers). Needs to pull rods + auger out to 40', then

Mark Kelly

Rite in the Rain

Location Liberty Co., TX Date 5-6-2016

Project / Client PetroChem / EPA Region VI

(MW-202)

Resume probing/sampling @ 40' bgs (Auger out hole ~~to~~ will Remove friction).

May not have time to finish today (travel).

MK: - Stop @ 40' (NOT in lower sand yet)

- Do NOT auger out til Monday.

- Plug bottom of hole w/ Bent. chips (SI @ ~ 26'-28').

1005 MK calls Jay S. w/ plans for today; he agrees w/ plan.

1010 MK calls A Ballweg w/ update.

Crew pulling Rods from hole.

MK gauges new MWs

1028 MW-201 = 17.48' toc/bgs DTW 17.48

1040 MW-204 = 21.73' toc / 16.73' bgs DTW

1045 MW-203 = 16.42' toc/bgs dtw

Drillers leave location; securing site for weekend.

1105 MW-21 = 17.14' toc/bgs

1200 Drillers leave site for Ft Worth; back Monday.

1210 MK to Liberty - Tractor Supply (locks + chains).

1230 @ TSCo (34678.7)

1305 Back @ site; lock gates @ MW-109 area + down Road @ Porta John.

[signature]

Location Liberty Co., TX Date 5-6-2016

Project / Client PetroChem / EPA Region VI

1327 leave site (34693.8)

1435 @ Pine Instruments - Houston (34758.2)

Return F4K + Horiba.

1443 leave Pine

1500 Txt from AB; sample kit for IDW @ my office.

1635 Gas - Madisonville (34862.3) EAT

1710 Driving

1935 @ EA (35027.3)

[signature]

5-6-2016

Rite in the Rain

Location Liberty Co., TX Date 9-9-2015

Project / Client PetroChem/EPA Region VI

0745 leave EA-Lewisville (350274)
1223 @ site (353114)
1245 Safety Meeting - Mark Kelly (EA), Mario Robles, Phillip Schmitt, Nathan Carnett (Allells Drilling).
1300 @ MW-202 (deep) well location. Auger out Geoprobe boring to 40' (where we stopped Friday) with Hollow Stem Augers (HSA). Will then Resume probing.
1325 @ 40 ft bgs w/ HSA. ~~Resume~~ MK Re-install Sample Rods (hollow tubes) to 40 ft to Resume advancing samplers (plastic liners).
1335 Push/Hammer 40'-42.5'; see Field boring log.
* Top of S2-Sand @ 41'; fine, wet sand (1.5') in sampler.
~~As soon~~ MK Driller goes in w/ next sample liner encounters wet sand @ ~25ft bgs; ~17 ft of flowing sand came up in Sample Rods. Will not be able to Recover ~~samples~~ MK any more samples.

Location Liberty Co, TX Date 9-9-2015

Project / Client PetroChem / EPA Region VI

1350 MK calls Jay Snyder (EA-ABQ) to discuss well completion. SOW proposed 70 of 60 ft w/ 10 ft of screen. Jay says if top of Sand (S2) @ 41', drill out to 45 ft & set 5 ft of screen; screen across contact (40'-45'). ~~me~~ MK relates details to driller; will place wooden plug in HSA to keep sand from flowing inside HSAs (S2 seems to be under pressure); will auger to 45' & check HSAs, if clear will set well. If not, may need to advance HSAs for Manhole.
1430 Driller can't find HSA adapter for Rotary Head (HSA Drive Cap). May have been left in Fort Worth.
1439 AB calls; update. EPA may visit site next Wed? Thu?
1500 Drillers leave site; one will be meeting someone from Klein FW shop @ ½ way point. Others going to get cmx, lumber, & tubing (for development, submersible pump).

Rite in the Rain

Location Liberty Co., TX Date 5-9-2016

Project / Client Petrochem / EPA Region VI

MW-202

1646 Call AB & discuss parameters for development. (~1600, Drillers Returned; starting putting* together forms for pads, etc.)

1635 Developing MW-204. Use submersible pump (Mini Monsoon) to surge/swab well. Getting thick muddy water.

1735 MK

1700 Turn off pump, let well Recharge. Well pumps dry; pump has low screened intake, so getting most of water out. Recharges fairly rapidly. Let Recharge ~5 minutes, then pump dry again. Repeat.

1740 Removed ~10 gallons. Clearing, still Reddish. Will continue tomorrow.

1815 MK, drillers leave site (35329.0)

1838 @ hotel (35349.8)

Weather: 70°-84° wind ~11mph; S

Mark Kelly 5-9-2016

Location Liberty Co., TX Date 5-10-2016

Project / Client Petrochem / EPA Region VI

0700 leave hotel (35350.3)

0720 @ site (35375.3)

0745 Safety Meeting: M. Kelly (EA), Mario Robles, Nathan Carwell, Phillip Schmitt (Drillers)

Weather: ~75°F; hi expected 86° wind ~5mph, S

Proceed to MW-202. Begin widening borehole w/ HSA (to 45' bgs).

0848 @ 35' bgs; stop & check inside HSAs w/ tape; open to 35'. Proceed to 40'

0905 @ 40'

0910 @ 45'/TD. Prep well materials. Knock out wooden plug w/ center Rods (Pick-up HSA string & (1st First.)

0916 Set well (5' Screen 40'-45') 2" PVC. 40' Riser. 5' Screen, 0.020" slots 16/30 sand pack

0920 Pouring Sand & pulling HSAs

1000 MK calibrates YSI Water Quality Meter.

1045 MK developing MW-204; see field data sheets. Pump dry, Recharge, Repeat. Crew working on pads

Rite in the Rain

Location Liberty Co. TX Date 5-10-2016

Project / Client PetroChem / EPA Region VI

1145	MK developing MW-201. well pumps dry, let Recharge, Pump dry again. Repeat. Crew has ped forms down, mixing concrete in Bobcat bucket.
~1230	Ramboll-Environ personnel @ site, Jorge, Guzman & Scott —. Discussing locks/chains on gates. They were not aware we were putting our locks in chain w/ their locks. Explain we need access @ later date to sample wells.
1420	Stop developing MW-201. Drum* Full (from 204 & 201) ~50 gal ~~each~~. MK
1500	Developing MW-202 (deep well). See Field data sheets. Recover ~50 gal/1 drum.*
	* Recovered ~25 gal from each well, 1 drum full.
1630	Developing MW-203' see field data sheet. Same as other shallow wells' pump dry, Recover, Repeat. Recover ~50 gal/1 drum.
1800	Stop development', Move drums.
1840	Drillers leave site
1850	MK leaves site for Wal-Mart.

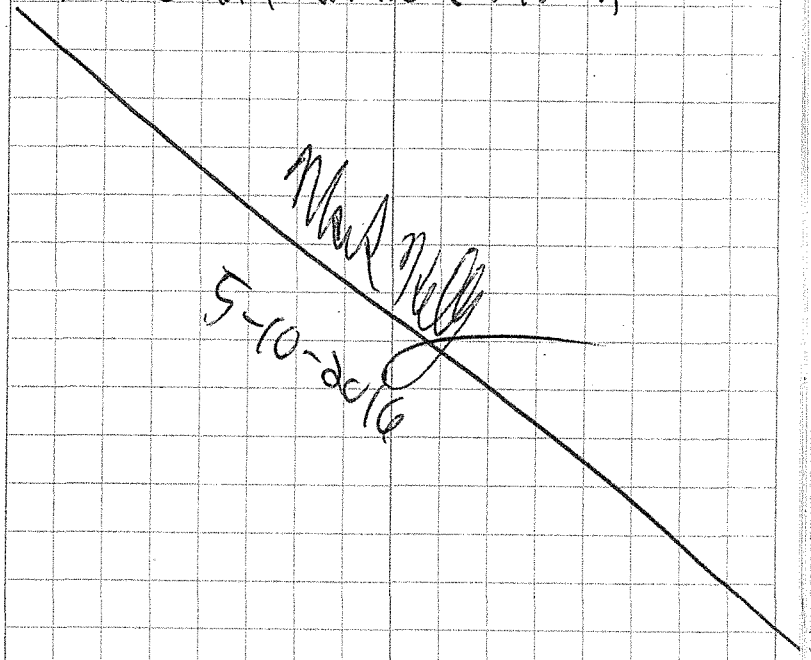
MK

Location Liberty Co, Texas Date 5-10-2016

Project / Client PetroChem / EPA Region VI

well	stickup	screen/TD BGS	DTW BGS	
MW-201	2.67'	20-30	16.48'	From Development Sheets
202	2.60'	40-45	16.76'	
203	2.65'	20-30	17.63'	
204	2.87'	20-30	16.65'	

1910 @ Wal-Mart - Liberty. Buy Locks (for wells), paint & stencils.
~~Return to site~~ MK 1930 leave Wal-Mart
2100 @ hotel - Winnie (35433.7)



Rite in the Rain

Location Liberty Co., Texas Date 5-11-2016

Project / Client PetroChem / EPA Region VI

0745 leave hotel/checkout (35433.7)
Stop for ice
0813 @ site (35458.8)
Set up canopy.
Label drums, organize sample containers.
1000 IDW Sample Collection Time
P-C IDW

MK

~0900 Start collecting water samples from drums using new, clean disposable bailer. Composite from 5 drums.
0948 TCEQ, Shernel Heidt arrives
MK puts sample containers on ice.
1000 EPA TOM, Raji Josiam arrives
Safety Mtg.
MK shows SH + RJ samples from MW-202, showing S1 sandy clay, upper + lower tight clay, + S2 lower sand.
Walk to well locations.
Show SH + RJ new wells, locations of Temp Wells (grout still visible @ surface), and points to approximate locations across street @ Smith residence.

[signature]

Location Liberty Co., Texas Date 5-11-2016

Project / Client PetroChem / EPA Region VI

Describe locations of TW-10 + TW-11 @ Smith Residence.
Also look @ cleared areas to south.
Describe drainage ditch 200 ft South of fence.
~1045 EPA + TCEQ leave MW-109A location.
MK resumes collecting IDW samples (soil + water) from drums. Places samples from MW-202 in drum.
After finish IDW collection, go to MW locations + gauge wells.

time	well	dtw	stickup	dtw BGS
1345	MW-201	19.65' toc	2.67	16.98'
1340	MW-202	19.40' toc	2.60	16.80'
1355	MW-203	19.49' toc	2.65	16.84'
1350	MW-204	19.64' toc	2.87	16.77'

Paint well ids on stickups.
1418 leave MW locations
1430 lock gates. leave site. (35459.3)
1550 @ Pine, drop off equipment (35522.9)
1610 leave " for lab.
1650 @ Test America (35535.3)

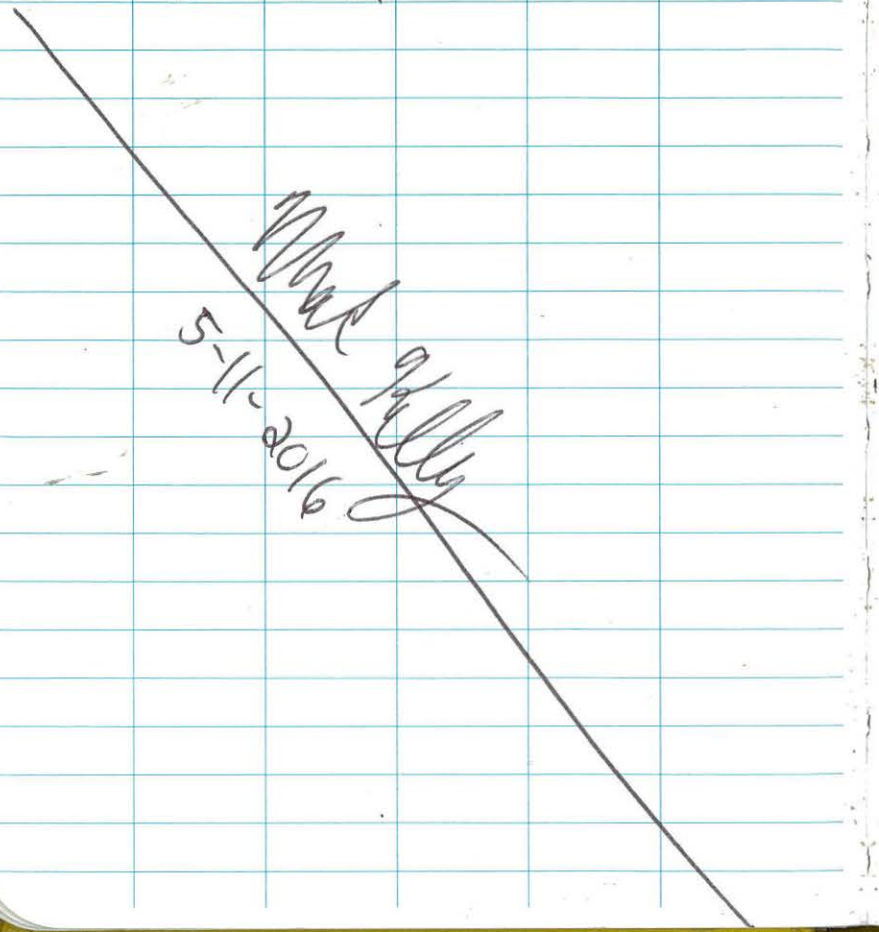
[signature]

Rite in the Rain

Location Liberty Co, Texas Date 5-11-2016

Project / Client PetroChem/EPA Region VI

1705	leave Test America For Lewisville.
1750 } 1820 }	Buc-ees (35565.5)
2002	Gas
2200	@ EA (35801.9) unload truck



Location Liberty Co, Texas Date 6/14/2016

Project / Client PetroChem/EPA Region VI

Sunny humid & hot ≈ 90°F J. Schwartz
J. Bonner

0730	Arrived @ site From hotel J. Bonner was on-site
0740	Health & Safety Review & Signed plan & Planned for sampling event of Day
0900	Arrived @ MW-202 see datasheet
0920	Collected 3-40 ml VOA and 2 1-liter Amber 3 pulls
0935	Knocked @ Smith Residence no-one answered Continued @
0945	Arrived @ MW-201 see datasheet
1000	Collected 3-40ml VOA and 2 1-liter Amber 2 pulls
~~MW-204~~	DTS
1010	Arrived @ MW-204 see datasheet
1030	Collected 3-40ml VOA and 2 1-liter Amber 2 pulls
1040	Arrived @ MW-33 see datasheet
1100	Collected 3-40 ml VOAs and 2 1-liter Ambers 1 pull
1115	Took time to rehydrate after getting to truck, Truck couldn't get beyond fence due to soft ground From rain.

Rite in the Rain

Location Liberty Co, Texas Date 6/14/2016

Project / Client PetroChem/EPA Region VI

J. Schwertz J. Bonner

1140	Arrived @ MW-191 and spoke with Residents: Mr. Smith Pulled hydro sleeve & Found the water with many suspended solids and brown. called PM: April & was ~~overtoo~~ told to continue with other samples
1210	Arrived @ MW-193 see datasheet
1230	Collected 3-40ml VOAs and 2 1-liter Ambers 3 pulls
1250	Took call From April to not collect sample @ MW-191. Planned For adjustment to sampling schedule
1310	Arrived @ MW-108 see datasheet
1340	Collected 9-40ml VOAs and 6 1-liter Amber 3 pulls
1400	Heat is having effect on samplers Hydrating is taking time
1420	Arrived @ MW-110 see datasheet
1440	Collected 3-40ml VOAs and 2 1-liter Amber 1 pull
1452	Arrived @ MW-192 see datasheet
1505	Collected 3-40ml VOAs and 2 1-liter Amber

Location Liberty Co, Texas Date 6/14/2016

Project / Client PetroChem/EPA Region VI

J. Schwertz J. Bonner

1520	Arrived @ MW-203 & MW-203-Dup see datasheet
1550	Collected 6-40ml VOAs and 4 1-liter Ambers 5 pulls Duplicate
1640	Arrived @ MW-109A see datasheet
1655	Collected 3-40ml VOAs and 2 1-liter Ambers 3 pulls
1710	Arrived @ MW-191 to remove hydrosleeve left in well pending decision.
1726	Collected ER-1 3-40ml VOAs 2 1-liter Ambers
1735	Collected FB-1 3-40ml VOAs
1800	Departed site

J. Schwertz 6/14/2016

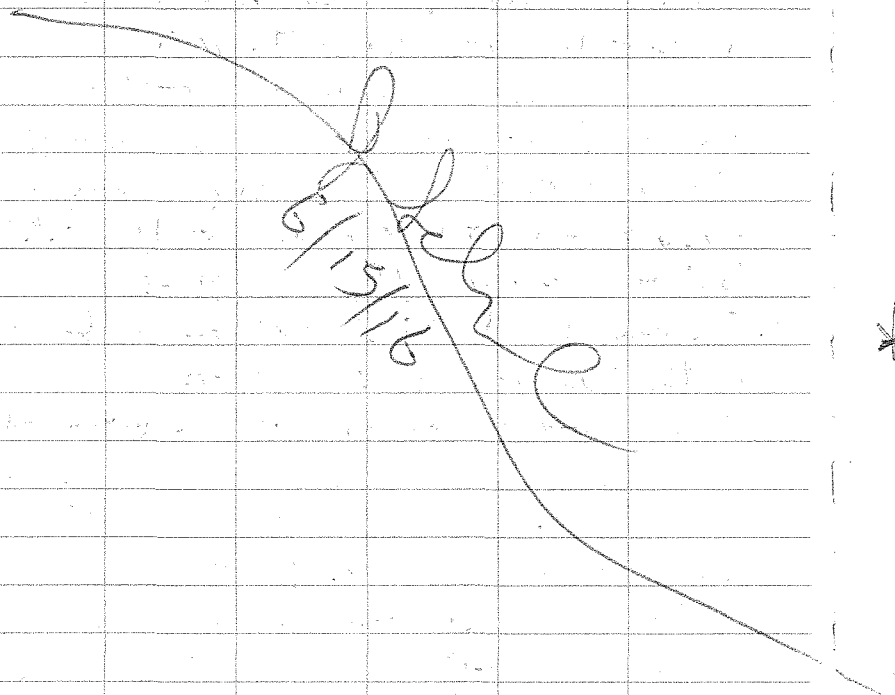
Rite in the Rain

Location Liberty Co, Texas Date 6/15/2016

Project / Client PetroChem / EPA Region VI

E. Bonner J. Schwartz Clear Hot Humid 95°C

1400	Arrival @ site
1410	Health & Safety Briefing
1430	started Survey Level Loop
1612	completed Survey & Disposed of Drum w/ liners + Waste Cleaning water From Sampling
1530	Departed Site



Location Liberty Co, Texas Date 7/5/2016

Project / Client PetroChem / EPA Region VI

Purge / Development of MW-191 - JTB

0900 - Depart office for site
10:30 - Onsite
Weather: Hot / Humid / 90s F / SE wind
Plan for the Day - purge rainwater from MW-191 / Re-develop the well using bailer
10:35 - Ground 55 gallon drum at drum area - next to MW-191 area
10:40 - Met with Army Safety - MW-191 property owners to discuss the activities to be performed
10:55 - install gauge at MW-191 - DTW measured @ 15.28 ft
* Casing is broke just below the well cap placement (photos)
11:14 - AH water is emptied from MW-191 (approx 8 gallons) DTW measured @ 27.04 ft TD of measured @ 28.13 ft
12:30 - DTW measured @ 24.73 and RISING - recharge rate faster than expected - All groundwater brought up in bailer CLEAR WITH No sediment or mud - AH 8 gallons

Rite in the Rain

50

Location Liberty Co, Texas Date 7/5/2016

Project / Client PetroChem / EPA Region VI

MW-191 Purge / Development - JTB

purged from MW-191 very muddy (photos) - Continue to check recharge GW - added to the 8 gallons of purged rain water for a total of approx 10 gallons of recovered water

13:00 - Record water poured into 55 gallon drum pending disposal Drum count: 11 soil drums / 6 water drums

* Spoke with Donny Smith about replacing MW-191 flush-mount pad with stick-up monument - Mr. Smith is ok with stick up

13:30 - locked gate to drum (IDW) storage area and departed site to return to Houston office

JTB 7/5/16

51

Location Liberty Co, TX Date 7/19/2016

Project / Client Petro-Chem / EPA Region VI

IDW Removal Activities

0700 - Depart office for site

0900 - Onsite (JTB - EA) awaiting Lighthouse Environmental Services plan for the day - Removal of IDW from MW install / development in May 2016 - 11 soil / 6 water drums

Weather: Hot / Humid / 90°F - PC with 30% chance of rain

0915 - Lighthouse on site - called me to confirm location - drove to area where IDW is stored (29.20

0935 - Lighthouse setup of equip along road - 2 trucks / 2 trailers 1 trailer - backhoe / 1 flatbed trailer to transport drums - Lighthouse has 4 - man crew - Lead - Jason - All drums labeled

0940 - Begin loading IDW drums with backhoe (photos) 11 soil / 6 water

1035 - All drums loaded (photos)

1040 - Signal manifest - 11 soil / 6 water - 1050 - Lighthouse depart site

1100 - Depart site for office

1300 - Arrive back at office

JTB 7/19/16

Rite in the Rain

Location Liberty Co, TX Date 8-13-2015

Project / Client PetroChem / EPA Region VI

Well Install / PtA

0700 leave EA (28001.4) EA26

1146 @ site (28303.8)

McKelly, April Ballweg (EA)

Raji Josiam (EPA - ON)

Sherell Heidt (TCEQ)

Jon Storm, Michael Warren, Weegon Self (Roddy Quails Drilling - RQ)

1200/1215 Safety Meeting.

Rig set up @ location. A Ballweg + EPA (TCEQ?) discussed location w/ property owner Donny Smith.

* This well will replace MW-19I, which will be PtA tomorrow.

QR - Deidrich D-50 Turbo/HSA

1230 Begin MW-19IR ~~inst~~ nr drilling

* See Field boring log for description + other info. *

NO LAB SAMPLES. NO PID.

5 ft core barrel.

1520 EPA, TCEQ off-site.

1530 TD @ 30 ft.

V Wet Sand 27.75-28.1' 29.15-29.35

Non-wet 27.5-28.6, 29.15-29.35

Silt/Clay 28.6-29.15

Location Liberty Co, TX Date 8-13-2015

Project / Client PetroChem / EPA Region VI

MW-19IR

Install well: 2" PVC

Screen 20'-30' bgs (0.010" slots)

20/40 sand to 18' bgs.

1355 Bentonite chips to ~3' bgs.

will be short (~2 ft) stickup + cover. No Bollards (Mr. Smith request).

4x4 pad.

At present, no access to locked gates to stage soil drums, leave @ location. ~1400: A Ballweg left site for Houston (internet access @ EA-Houston, + pick-up equipment).

1415 Mast down, load HSAs, cuttings in drums.

Pour pad, set ~~stickup~~ steel cover.

1420 A&B calls, will have access to drum staging area tomorrow (Call from Ramball).

1515 Drillers off site.

Label drums.

1600 leave site (28304.0)

~1620 SAS

1645 @ hotel (28330.4)

8-13-2015

Rite in the Rain

Location Liberty Co., TX Date 8-14-2018

Project / Client Petro Chem / EPA Region VI

MW-191 P&A

0730 leave hotel (28331.3)

0800 @ site

Safety Mtg: M Kelly, Jon Storm, Michael Warren, Weston Self.

P&A MW-191.

Driller has rig over well. Use small auger bit to drill thru concrete pad & break up. Break out vault.

Go in w/ drill rod w/ Ridges to drill into 2" PVC. Pull up/ PVC breaks ~10 ft down @ connection (threads). Plug w/ Bent chips & hydrate.

April B. @ site

Move soil drums to 'construction area' ~1 mile east of well location.

MW-191R

0845 dtw = 18.36' toc (stickup ~1.9').

~0900 Begin developing w/ small plastic submersible pump. * See field development sheet for info. *

Calibrate / check YSI & Turbidity Meter.

Location Liberty Co., TX Date 8-14-2018

Project / Client Petro Chem / EPA Region VI

MW-191R development.

Pumps dry after ~5 minutes / ~10 gallons. Let Recharge & Repeat. Pump dry & Recharge 4/5 times (?).

Parameters stable; Turbidity drops from 532 NTU to 40.7.

Removed ~38 gallons total.

Pumped dry 7 times; Recharged 6 times.

1023 Stop development

Move last 2 drums.

~1045 RQ off site.

0925 weather (From Devel. Sheet)

85° clear (93°/80°) 5 mph SSE

74% Humidity 30.03"

1121 dtw = 22.05' ↑ toc MW-191R

~1145 M leaves site / lunch, Wal Mart in Liberty.

Back @ site; send photos of staged drums to AB.

M. Kelly clearing brush @ 191 area (both sides of road) for GW sampling from MWs tomorrow.

Rite in the Rain

Location Liberty Co., TX Date 8-14-2018

Project / Client Petro Chem / EPA Region VI

MK ~~191 Area~~ 109 Area

1515 Finish clearing around well locations:
MW-201, 202, 203, 204, MW-33 (S. of Rd).
MW-110, -108, -192, -193, -109A (N of Road).
* Large dead tree fell near MW-202, -203 pad.
chop branches w/ machete.
Grass + weeds waist/knee high.

MK

1527 dtw = 18.77' to C @ MW-191R
(was 18.36' before developing + pumping dry.)
1545 leave site (28394.7)
1615 @ hotel (28420-)

8-14-2018

Location Liberty Co., TX Date 8-15-18

Project / Client Petrochem / EPA Region VI

GW Sampling

0705 leave hotel (28427.3)
0715 Store: bags + ice (28428.7)
0745 @ site (28454.8)
0750 Safety Meeting: MKelly, A Ballweg.
Prep to sample
0815 check/cal Turbidity meter + YSI

		reads
Turbidity:	0-1000 NTU	656
	0-100 NTU	60.1
	0-10 NTU	5.92

YSI: cal conductivity w/ 1413 µS
check pH w/ 7 + 10 sol'n,
7.00, 9.96
(* @ construction area *)

0835: weather: 82° partly cloudy.
(92°/79°) + wind. 80% humidity.
30.03" ↑ 60% chance ppt.
0840 SAMPLING!
0845 @ MW-202 see field sheet
0905 Sample time MW-202
0950 leave MW-202

Rite in the Rain

Location Liberty Co, TX Date 8-15-18

Project / Client Petrochem / EPA Region VI

0955 @ MW-110; clear brush

1010 Sample time MW-110
DUPLICATE: SVOCs (4-1 Liter)
Regular VOCs (3-40ml w/ HCl)

1050 leave MW-110

MK

1055 @ MW-33

1111 Sample time MW-33
MS/MSD; triple volume

MK

1145 Finish MW-33 / move to MW-204

1155 MW-204 Sample time
2-1L, 3-40ml

MK

1220 MW-201

1226 Sample time MW-201
2-1L, 3-40ml

MK

~1300 Go to const area; drop off full coolers (place in shade)

1315 leave const. area

1325 @ MW-108

1336 Sample time MW-108, DUPLICATE
double volume

MK

Location Liberty Co, TX Date 8-15-18

Project / Client Petrochem / EPA Region VI

1402 leave MW-108

1404 @ MW-192

1415 Sample time MW-192
2-1L, 3-40ml

1438 leave MW-192

MK

1440 @ MW-193

1450 Sample time MW-193
2-1L, 3-40ml

1515 leave MW-193

MK

1540 @ MW-191R

1555 Sample time MW-191R
2-1L, 3-40ml

MK

1626 Field Bank (@ MW-191R/Smith Res.)
3-40ml VOAs filled w/
DI water @ tailgate

MK

1630 Equip Rinseate (off interface probe) @ tailgate
2-1L amber; 3-40ml VOA w/ HCl

1655 leave MW-191R location

MK

Rite in the Rain

Location Petrochem / EPA Reg. VI Date 8-15-18

Project / Client Liberty Co., TX

1700 @ MW-203 - Dup-VOAs

1710 Sample time MW-203
2-1L, 6-40ml

1740 leave MW-203

1750 @ MW-109 A

1800 Sample time MW-109A
Dup-VOAs (6-40ml)
+ 2-1 Liter
* Strong odor, water dark gray-blackish *

1835 leave MW-109A

NK

1840 @ Const. Area
1913 IDW soil
1930 IDW water
Collect IDW samples from drums (5 soil drums, 1 develop. water)
Fill jars, TestAmerica sample kit)
Pack/arrange samples + supplies/equip. in truck.

1955 leave construction area / Petro Chem site).
(28463.6)

2020 @ hotel (28489.1) unload samples
NK - store/ice

2050 Back @ hotel (28492.0)
Pack Samples

[signature] 8-15-18

Location Petrochem / EPA Reg. VI Date 8-16-2018

Project / Client Liberty Co. / TX

NK

0730 leave hotel (28493.5

0755 @ site (28518.4)
M Kelly, A Ballweg gauge wells sampled yesterday (for final level after recharge)

MW-191R		18.45 (ft toc)
MW-110		19.11
MW-108		17.60
MW-192		17.04
MW-193		17.20
MW-33		17.96
MW-201		19.01
MW-204	204	19.06
MW-202		20.33
MW-203	203	18.95
MW-109A		17.68

NK deep ✓

~0930 Pack / Re-arrange coolers + equipment, ice @ store
M Kelly → EPA Lab + Ajax Rental
A. Ballweg → TestAmerica Lab

1010 M Kelly leaves store → EPA Lab (28522.3)

1129 @ lab, drop off samples (28590.5)

1200 @ Ajax return equipment (28603.0)

1325 eat / Hardsville (28675.8) (0.5 hours)

1715 @ EA (28869-)

[signature] 8-16-2018

Rite in the Rain

Location Petrochem / EPA VI Date 9/19/18

Project / Client Liberty Co., TX

0835	Depart	G.B. Airport for Site
1015	Arrive	at Site
1045	Gauging	MW-108
1050	IDW Disposal	Contractor Arrives
1100	Gauging	MW-110
1105	IDW Disposal	Contractor offsite
1110	Gauging	MW-191R
1120	Gauging	MW-192
1125	Gauging	MW-193
1145	Gauging	MW-33
1155	Gauging	MW-204
1200	Gauging	MW-201
1205	Gauging	MW-202
1215	Gauging	MW-203
1230	Gauging	MW-109A
1250	Set up tripod and level to measure elevation of MW-191R	
1345	offsite / transmit data	

9-19-18

Location Liberty Co., TX Date 9/19/18

Project / Client Petrochem / EPA VI

Use sight level to survey MW-191R

Pt ID	BS	HI	FS	Elev. (calc)	Elev. (known)
First Attempt					
MW193	3.62	43.68			40.06
MW109-A	2.62	43.73	avg.		41.11
MW 192	3.50	43.74			40.24
MW 108	3.38	43.69			40.31
		43.71	avg.		
MW191R		43.71	2.45	41.26	
Second Attempt					
MW-191R			2.20	41.25	
MW-108	3.12	43.43			40.31
MW-192	3.24	43.48	avg.		40.24
MW-109A	2.36	43.47			41.11
MW-193	3.37	43.43			40.06
		43.45	avg		

TOC Elevation for MW191R is 41.25

Rite in the Rain

Water Quality Log

Serial # 21365

Project: PetroChem

Analyst: KM

05/03/16 — Date: 05/04/16 - 05/05/16

Well ID	Sample ID	Sample Time	pH	Temp °C	ORP (mV)	Conductivity (µS/cm)	DO (mg/L)	Turbidity (NTU)	Notes
05/03									
STD	Cal	1110	4.01	23.24	279	4.50	10.12	0.1	
TW-02	TW-02 Pre	1127	6.74	23.63	97	3.150	3.56	399	
TW-02	TW-02 Post	1150	6.81	24.42	480	3.32	3.85	134	
TW-03	TW-03 Pre	1240	7.06	24.07	149	1.82	3.89	59.6	
TW-03	TW-03 Post	1330	6.95	22.99	131	1.90	3.60	33.4	
TW-01	TW-01 Pre	1405	7.39	24.20	131	—	6.28	0.0?	Was likely over range for Turbidity?
TW-01	TW-01 Post	—	—	—	—	—	—	—	Not enough Water
05/04									
STD	Cal	0800	4.00	17.87	273	4.56	9.49	0.4	
TW-04	TW-04 Pre	0820	6.87	19.70	149	2.57	8.43	0.0?	
TW-04	TW-04 Post	—	—	—	—	—	—	—	Not enough Water
TW-06	TW-06 Pre	0850	6.99	20.24	23	1.94	8.26	7800	
TW-06	TW-06 Post	0900	6.95	20.70	64	2.13	5.73	7800	
TW-07	TW-07 Pre	1145	7.01	23.89	137	1.61	5.16	7800	
TW-07	TW-07 Post	1200	6.89	23.33	143	1.51	5.55	7800	
TW-08	TW-08 Pre	—	—	—	—	—	—	—	Concerned Not enough Water.
TW-08	TW-08 Post	1253	7.25	23.58	134	1.35	5.98	148	
TW-10	TW-10 Pre	1735	6.76	25.04	180 Km	7.28	4.01	477	
TW-10	TW-10 Post	1744	6.67	24.43	21	2.36	2.86	2.75	
05/05									
TW-11	TW-11 Post	1105	7.07	25.03	-12	2.35	5.14	384	
STD	Cal	1000	~~7.0~~ 4.00	21.07	265	4.49	9.45	0.0	

FROG 4000 Log

Serial # 34092

Project: PetroChem

Analyst: KM

Date: 05/02/16

Well ID	Sample ID	Sample Time	Retention Time	Analyte	Peak Area / Concentration	Recovery
NA	ICBV-0	1656				
NA	ICBV-1	1729				
NA	Peak Test	1741	30.33			
"	~20ppb.	"	29.75			
"	"	"	56.75			
"	"	"	86.58			
"	"	"	177.92			
"	"	"	339.75			
"	"	"	349.08			
"	"	"	367.42			
NA	Blank	1801				

FROG 4000 Log

Serial # 34092

Project: PetroChem

Analyst: KM

Date: 05/03/16

Well ID	Sample ID	Run Sample Time	Retention Time	Analyte	Peak Area / Concentration	Recovery
NA	ICBV	0915	All ND	All ND	All ND	NA
NA	ICV-4ug/L	0927	56.25	MTBE	2.54	63.5%
"	"	"	85.42	Benzene	2.93	73.3%
"	"	"	176.42	Toluene	0	0%
"	"	"	338.58	Ethylbenzene	1.17	29.3%
"	"	"	348.00	pm-Xylene	~~0.08~~ KM 0.09	2.3%
"	"	"	366.67	o-Xylene	2.98	74.5%
Quadratic - NA	ICV-4ug/L	1002	56.08	MTBE	452	113%
"	"	"	85.42	Ben	3.64	91%
"	"	"	175.5	Tol	2.37	59.3%
"	"	"	338.17	Ethyl Ben	0.98	24.5%
"	"	"	347.58	pm-Xyl	1.66	41.5%
"	"	"	366.17	o-Xyl	2.38	59.5%
Due to Quadratic cal. NA	Blank 1	1035	174.92	Tol	4.19	NA
"	"	"	~~Am X~~ 348.25	pm-Xyl	3.64	NA
TW-02	TW-02	1155	55.92	MTBE	132.2	NA
"	"	"	366.75	o-Xyl	2.28	NA
TW-02-RR	TW-02-RR	1211	56.17	MTBE	164.57	NA
"	"	"	349.42	pm-Xyl	3.85	NA
"	"	"	365.58	o-Xyl	2.32	NA
Blank	Blank2	1223	176.92	Tol	4.24	NA
"	"	"	54.67	MTBE	1.08	NA
"	"	"	349.58	pm-Xyl	3.65	NA
TW-03	TW-03	1307	80.67	Benzene	136737	NA
"	"	"	176.17	~~417.54~~ KM Tol	417.54	NA
"	"	"	53.92	MTBE	1.31	NA
Blank-	Blank3	1320	86.67	Benzene	36.18	NA
"	"	"	178.25	Tol	3.14	NA
Blank	Blank4	1333	86.33	Ben	1.68	NA
"	"	"	176.33	Tol	4.22	NA
"	"	"	348.25	pm-Xyl	3.48	NA
"	"	"	365.5	o-Xyl	2.31	NA
TW-03	TW-03-RR	1346	85.92	Ben	399.86 x25	NA
"	"	"	176.83	Tol	4.05	NA
"	"	"	349.17	pm-Xyl	3.45	NA
"	"	"	366.92	o-Xyle	2.31	NA
Blank	Blank5	1400	86	Ben	1.58	NA
"	"	"	176.33	Tol	4.22	NA
"	"	"	348.83	pm-Xyl	3.52	NA
"	"	"	367	o-Xylene	2.28	NA
TW-01	TW-01	1441	176.25	Tol	4.29	NA
"	"	"	349	pm-Xyl	3.59	NA
"	"	"	365.33	o-Xyl	2.25	NA
						KM

FROG 4000 Log

Serial # 34092

Project: PetroChem

Analyst: RM

Date: 05/03/16

Well ID	Sample ID	Sample Time	Retention Time	Analyte	Peak Area / Concentration	Recovery
Blank	Blank 6	1502	176.8	Tol	4.25	NA
"	"	"	349	pm Xyl	3.53	NA
"	"	"	368.42	o-Xyl	2.26	NA
STD	CCV (10 ug/L)	2101	56.33	MTBE	20.99	~~KAM~~ 105%
"	"	"	88.83	Ben	17.46	~~KM 85%~~ 87.3%
"	"	"	176.92	Tol	7.97	40.8%
"	"	"	339.75	Ethyl Ben	3.45	17.2%
"	"	"	349.17	pm-Xyl	1.63	8.15%
"	"	"	367.58	o-Xyl	5.04	25.2%

FROG 4000 Log

Serial # 34092

Project: PetroChem

Analyst: KM

Date: 05/04/16

Well ID	Sample ID	Sample Time	Retention Time	Analyte	Peak Area / Concentration	Recovery
NA IC	Blank V	0801	174.33	Tol	4.05	NA
"	"	"	347.25	pm-Xyl	3.51	"
"	"	"	366.92	o-Xyl	2.24	"
Blank	Blank 1	0813	175.92	Tol	4.00	"
"	"	"	348.17	pm-Xyl	3.50	"
"	"	"	367.58	o-Xyl	2.50	"
STD	ICV(4)	0825	55.58	MTBE	3.92	98%
"	"	"	85.33	Ben	2.18	54.5%
"	"	"	176.25	Tol	2.80	70%
"	"	"	339.08	Ethyl Ben	1.91	47.8%
"	"	"	348.42	pm-Xyl	2.52	63%
"	"	"	366.83	o-Xyl	2.24	56%
Blank	Blank 2	0846	178.08	Tol	3.97	NA
"	"	"	348.38	pm-Xyl	3.49	"
"	"	"	367.83	o-Xyl	2.24	"
TW-04	TW-04	0858	56.08	MTBE	76.57	"
"	"	"	85.25	Ben	1.61	"
				~~Tol~~		
				~~Ethyl Ben~~		
"	"	"	349.28	pm-Xyl	3.74	"
"	"	"	367.75	o-Xyl	2.36	"
Blank	Blank 3	0911	177.25	Tol	3.93	"
"	"	"	348.83	pm-Xyl	3.53	"
"	"	"	368.25	o-Xyl	2.24	"
TW-06	TW-06	0923	55.42	MTBE	1.24	"
"	"	"	84.25	Ben	18142.7	"
"	"	"	176.92	Tol	3.33	"
"	"	"	349.08	pm-Xyl	3.17	"
"	"	"	365.42	o-Xyl	2.28	"
Blank	Blank 4	0938	85.58	Ben	2.35	"
"	"	"	176.42	Tol	3.73	"
"	"	"	347.5	pm-Xyl	3.39	"
"	"	"	366.25	o-Xyl	2.24	"
Blank	Blank 5	0951	85.42	Ben	1.50	"
"	"	"	176.25	Tol	3.84	"
"	"	"	347.58	pm-Xyl	3.47	"
"	"	"	366.5	o-Xyl	2.24	"
TW-06	TW-06 x25	1003	86	Ben	134.59	"
"	"	"	176.67	Tol	3.80	"
"	"	"	348.33	pm-Xyl	3.43	"
"	"	"	366.83	o-Xyl	2.24	"
Blank	Blank 6	1029	175.92	Tol	4.00	"
"	"	"	347.92	pm-Xyl	3.49	"
"	"	"	366.67	o-Xyl	2.24	"

FROG 4000 Log

Serial # 34092

Project: PetroChem

Analyst: KM

Date: 05/04/16

Well ID	Sample ID	Sample Time	Retention Time	Analyte	Peak Area / Concentration	Recovery
TW-07	TW-07	1209	174.5	Tol	4.33	NA
"	"	"	348.53	pm-Xyl	3.63	"
"	"	"	372	o-Xyl	2.30	"
Blank	Blank 7	1222	177.5	Tol	4.22	"
"	"	"	349.17	pm-Xyl	3.54	"
"	"	"	367.83	o-Xyl	2.24	"
TW-08	TW-08	1255	176.33	Tol	4.32	"
"	"	"	348.92	pm-Xyl	3.60	"
"	"	"	367.92	o-Xyl	2.24	"
Blank	Blank 8	1308	177.58	Tol	3.94	"
"	"	"	348.67	pm-Xyl	3.40	"
"	"	"	367.17	o-Xyl	2.24	"
Field Calibration						
Blnk	Blank9	1752	180.17	Tol	3.93	NA
"	"	"	341.75	Ethyl Ben	3.46	"
"	"	"	350.67	pm-Xyl	3.14	"
"	"	"	368.75	o-Xyl	2.32	"
TW-10	TW-10	1804	54.17	MTBE	2.81	"
"	"	"	87	Ben	4.86	"
"	"	"	180	Tol	4.18	"
"	"	"	341.67	Ethyl Ben	3.11	"
"	"	"	350.08	pm-Xyl	3.49	"
"	"	"	368.45	o-Xyl	2.25	"
Blank	Blank10	1816	55.25	MTBE	1.19	"
"	"	"	182.25	Tol	3.65	"
"	"	"	351.42	pm-Xyl	3.39	"
"	"	"	372.17	o-Xyl	5.49	"
TW-10	TW-10 Dup.	1830	54	MTBE	2.67	"
"	"	"	87.42	Ben	4.32	"
"	"	"	181.67	Tol	4.15	"
"	"	"	343.92	Ethyl ben	3.96	"
"	"	"	355.75	pm-Xyl	3.81	"
"	"	"	370.80	o-Xyl	2.38	"
CCV	CCV(20)	1842	57	MTBE	40.15	201.9%
"	"	"	88.25	Ben	14.53	~~201.9%~~ 71.7%
"	"	"	183.08	Tol	5.75	~~71.7%~~ 28.8%
"	"	"	343.83	Ethyl Ben	3.13	15.7%
"	"	"	357.58	pm-Xyl	1.79	9%
"	"	"	371.25	o-Xyl	24.03	120%

FROG 4000 Log

Serial # 34092

Project: PetroChem

Analyst: KM

Date: 05/05/16

Well ID	Sample ID	Sample Time	Retention Time	Analyte	Peak Area / Concentration	Recovery
ICBV	ICBV	0909	174.42	Tol	3.39	NA
"	"	"	367.75	Ethyl Ben	~~3.37~~ 4.08	"
"	"	"	346.83	p/m-Xyl	3.62	"
"	"	"	365.83	o-Xyl	2.39	"
ICV	ICV(80)	0923	56.33	MTBE	17.72	88.6%
"	"	"	85.67	Ben	38.71	194%
"	"	"	176	Tol	18.56	92.8%
"	"	"	338.25	Ethyl Ben	8.13	40.7%
"	"	"	347.83	p/m-Xyl	4.24	21.2%
"	"	"	366.25	o-Xyl	7.78	38.9%
Blank	Blank1	0938	86	Ben	1.56	NA
			177	Tol	3.13	"
			339.25	Ethyl Ben	3.96	"
			348	p/m-Xyl	3.54	"
			366.58	o-Xyl	2.40	"

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 6/14/16

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-202 Sample ID: MW-202 Sample Time: 09:20

Well owner/location/residence:

Street address: Sampling personnel: JS/JTB

Weather: Sunny / HOT

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
44'	09:20	clear water
		3 pulls

Field Parameters:

Time:	917						
Specific Conductance:	1.232						µS/cm or mS/cm
pH:	7.35						
Temperature:	22.64						°F or °C
ORP:	252.8						mV

Notes/Comments:

DTW: 18.31

TURBIDITY 55.3 NTU

DO 54.3

3.45 mg/L

Recorded By: JTB

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 6/14/16

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-201 Sample ID: MW-201 Sample Time: 10:00

Well owner/location/residence:

Street address: Sampling personnel: JS / JTB

Weather: Sunny / HOTTER

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
~~27.70~~ 32.70	10:00	Water clear
		2 pulls
		3-VOA
		2-A

Field Parameters:

Time:	09:55						
Specific Conductance:	3142						µS/cm or mS/cm
pH:	7.12						
Temperature:	24.27						°F or °C
ORP:	179.8						mV

Notes/Comments:

DTW: 19.13

Turb 6e.70 NTU

DO 41.8 %

3.36 mg/L

Recorded By: JTB

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 6/14/16

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW204 **Sample ID:** MW-204 **Sample Time:** 10:30

Well owner/location/residence:

Street address: Sampling personnel: JS / JTB

Weather: Sunny / HOT

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
~~32.87~~ 27.87	10:30	Water clear
		2 Pg Hg

Field Parameters:

Time:	10:22						
Specific Conductance:	2145						(µS/cm) or mS/cm
pH:	7.10						
Temperature:	23.53						°F or (C)
ORP:	377.3						mV
Turbidity:	5.74						(NTU)

Notes/Comments:

DTW: 19.04

~~Turb.~~

DO 55.1 %

4.53 mg/L

Recorded By: JTB

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 6/14/16

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-33 Sample ID: MW-33 Sample Time: 11:00

Well owner/location/residence:

Street address: Sampling personnel: JS/JTB

Weather: Sunny / Hot

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
29	11:00	Water clear
		1 Roll
		3 VOA / 2 A

Field Parameters:

Time:	10:53					
Specific Conductance:	2340					µS/cm or mS/cm
pH:	7.21					
Temperature:	24.40					°F °C
ORP:	543.7					mV

Notes/Comments:

DTW: 17.84

Turb 4.27 NTU

DO 36.4%

3.02 mg/L

Recorded By: JTB

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 6/14/16

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-191 Sample ID: MW191 Sample Time:

Well owner/location/residence:

Street address: Sampling personnel: JS/JTB

Weather: Sunny / HOT

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
~~25~~ 25'		

Field Parameters:

Time:							
Specific Conductance:							µS/cm or mS/cm
pH:							
Temperature:							°F or °C
ORP:							mV

Notes/Comments:

DTW: 8.87 - typical DTW is between 15-17ft

NOT SAMPLED PER

April Ballweg

for Donny Smith (property owner)

~~MW-191~~ was under rain water for days in 2 separate rain events in the past month

MW-191 - water in hydrasleeve very muddy / ~~the~~ side of ~~hydrasleeve~~ muddy

Rain water infiltrated through top of well casing on down side of well casing

Recorded By: JTB

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 6/14/16

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-193 Sample ID: MW-193 Sample Time: 12:30

Well owner/location/residence:

Street address: Sampling personnel: JS / JTB

Weather: Sunny / Hot 95°F

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
22'	12:30	Water Clear -
		1st pull - not full
24 ft		1 ft of column / 16'
bottom of art		*6" short on 2nd pull
		3 pulls

Field Parameters:

Time:	1229						
Specific Conductance:	1714						µS/cm or mS/cm
pH:	6.98						
Temperature:	27.05						°F or °C
ORP:	21.2						mV

Notes/Comments:

DTW: 16.91

Turb - 105 NTU

DO - 34.5 %

2.65 mg/L

Recorded By: JTB

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 6/14/16

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-108 Sample ID: MW-108 Sample Time: 13:40

Well owner/location/residence:

Street address: Sampling personnel:

Weather:

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
25'	13:40	Water clear
		3 pumps
		MS/MSD

Field Parameters:

Time:	13:22						
Specific Conductance:	1141						µS/cm or mS/cm
pH:	7.08						
Temperature:	27.14						°F or °C
ORP:	182.6						mV

Notes/Comments:

DTW: 17.23

Turb 7.53 NTU

DO 51.2 %

4.02 mg/L

Recorded By: JDP

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 4/14/16

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-110 Sample ID: MW-110 Sample Time: 1440

Well owner/location/residence:

Street address: Sampling personnel: JS / JTB

Weather: Sunny / HOT

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
25'	1440	Water was Clear, but bio matter in water - auto

Field Parameters:

Time:	1434					
Specific Conductance:	1149					µS/cm or mS/cm
pH:	6.75					
Temperature:	25.21					°F or °C
ORP:	-101.2					mV

Notes/Comments:

DTW: 18.70

Turb 4.17 NTU

DO 23.1 %

1.88 mg/L

Recorded By: JTB

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 4/14/16

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-192 Sample ID: MW-192 Sample Time: 1505

Well owner/location/residence:

Street address: Sampling personnel: JS / JTB

Weather: Sunny / HOT

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
25'	1505	

Field Parameters:

Time:	1501					
Specific Conductance:	4369					(µS/cm) or mS/cm
pH:	6.67					
Temperature:	25.94					°F or (°C)
ORP:	-9.7					(mV)

Notes/Comments:

DTW: 16.83

Turb 5.79 NTU

DO - 29.5 %

2.24 mg/L

Recorded By: JTB

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 17

Date: 6/14/14

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-203 Sample ID: MW-203 Sample Time: 1550

Well owner/location/residence:

Street address: Sampling personnel: JS / JTB

Weather: Sunny / HOT

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
32'	1550	Water - Clear Sweet Smell
		5 pulls
		DUP

Field Parameters:

Time:	1544						
Specific Conductance:	3127						µS/cm or mS/cm
pH:	6.88						
Temperature:	24.84						°F or °C
ORP:	47.6						mV

Notes/Comments:

DTW - 18.89

Turb 6.52 NTU

DO - 24.3 %

1.91 mg/L

Recorded By: JTB

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 6/14/14

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-109A Sample ID: MW-109A Sample Time: 1655

Well owner/location/residence:

Street address: Sampling personnel: JS / JTB

Weather:

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
25'	1655	

Field Parameters:

Time:	1649					
Specific Conductance:	2870					(uS/cm) or mS/cm
pH:	7.39					
Temperature:	25.38					°F or (°C)
ORP:	-109.1					(mV)

Notes/Comments:

DTW - 17.33

Turb - 11.1 NTU

DO - 22.9 %
1.68 mg/L

ER-1 Sample time 1726

FB-1 Sample time 1735

TB-1 Sample time 1800

Recorded By: JTB

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 8/15/18

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-33 Sample ID: MW-33 Sample Time: 1111

Well owner/location/residence: Petro-Chem Superfund Site / EPA Reg 6

Street address: CR 126, Liberty, TX Sampling personnel: MKelly / ABallweg

Weather: 91°F Partly Cloudy

Initial DTW (ft toc): / time: /

Final DTW (ft toc): ~~17.04~~ 17.96 AB time: /

TD (ft toc): ~32.08 (Measure AFTER sampling.)

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
27.00 ft btoc	1111	6 1-L, 9 40-mL w/HCl
/	/	MS/MSD collected
		/

Field Parameters:

Time:	1127						
Specific Conductance:	2077						µS/cm or mS/cm
pH:	7.02						
Temperature:	22.4						°F or °C
ORP:	151.3						mV
Turbidity:	3.21						NTU

DO ~~22.27 AB 8/15/18~~ 3.62

Notes/Comments:

~~Screen 22-32 ft bgs / AB 8/15/18~~

Screen 19.7-29.7 ft bgs / 22.0-32.0 ft btoc

Midpoint 27.00 ft btoc

3-Pulls

4-inch well

Recorded By: A Ballweg

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 8/15/18

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-108 **Sample ID:** MW-108 & MW-108-DUP **Sample Time:** 1336

Well owner/location/residence: Petro Chem Superfund Site / EPA Reg 6

Street address: CR 126, Liberty, TX Sampling personnel: M Kelly / A Ballweg

Weather: 89°F Partly Cloudy

Initial DTW (ft toc): / time: /

Final DTW (ft toc): 17.60 time: /

TD (ft toc): 30.0 (Measure AFTER sampling.)

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
25.00	1336	4 1-L; 3 40-mL w/HCl + SVOC Duplicate Sample

Field Parameters:

Time:	1348						
Specific Conductance:	1016						µS/cm or mS/cm
pH:	6.57						
Temperature:	24.3						°F or °C
ORP:	139.8						mV
Turbidity:	1.99						NTU

DO 5.04 mg/L

Notes/Comments:

Screen 18-28 ft bgs / 20-30 ft btoc

Mid Screen 25.00 ft btoc

Recorded By: A Ballweg

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 8/15/18

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-109A **Sample ID:** MW-109A **Sample Time:** 1800

Well owner/location/residence: PetroChem Superfund Site, EPA Reg 6

Street address: CR126, Liberty TX Sampling personnel: M Kelly, A. Ballweg

Weather: 90°F Partly Cloudy

Initial DTW (ft toc): / time: /

Final DTW (ft toc): 17.68 time: /

TD (ft toc): _____ (Measure AFTER sampling.)

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
26.15	1800	2 1-L & 6 40-ml w/HCl (+ VOCs Duplicate)

Field Parameters:

Time:	1826						
Specific Conductance:	2085						µS/cm or mS/cm
pH:	6.52						
Temperature:	24.4						°F or °C
ORP:	80.4						mV
Turbidity:	35.6						NTU

DO 1.97

Notes/Comments:

midpoint 26.15 ft btoc
Screen 18-28 ft bgs / 21.15-31.15 ft btoc
Grey Color
Strong Odor
3-Pulls

Recorded By: A Ballweg

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 8/15/18

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-110 Sample ID: MW-110 & MW-110-DUP Sample Time: 1010

Well owner/location/residence: Petro Chem Superfund Site / EPA Reg 6

Street address: CR 126, Liberty TX Sampling personnel: M. Kelly; A. Ballweg

Weather: 85°F Partly Cloudy / Mostly Sunny

Initial DTW (ft toc): / time: /

Final DTW (ft toc): 19.11 time: /

TD (ft toc): 30.0 (Measure AFTER sampling.)

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
25.0 ft	1010	4-1L, 3 40-mL w/HCl Duplicate SVOCs Collected

Field Parameters:

Time:	1025					
Specific Conductance:	1028					µS/cm or mS/cm
pH:	6.38					
Temperature:	22.9					°F or °C
ORP:	138.5					mV
Turbidity:	7.01					NTU

Notes/Comments:

Screen 18-28 ft bgs / 20-30 ft btoc
midpoint 25.00 ft btoc
2-Pulls
Lid to steel cover is not closing
Hinge is pull off center & will not close completely; Wasp Nest in Well Casing Lid (steel Cover)

Recorded By: A Ballweg

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 8/15/18

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-191R **Sample ID:** MW-191R **Sample Time:** 1555

Well owner/location/residence: PetroChem Superfund Site / EPA Reg 6

Street address: 300 CR 126, Liberty TX Sampling personnel: M Kelly / A. Ballweg

Weather: 92°F, Partly Cloudy, Breezy

Initial DTW (ft toc): / time: /

Final DTW (ft toc): 18.45 time: /

TD (ft toc): 31.90 (Measure AFTER sampling.)

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
27	1555	2 1-L, 3 40-ml w/ HCl

Field Parameters:

Time:	1608						
Specific Conductance:	2303						µS/cm or mS/cm
pH:	6.35						
Temperature:	22.9						°F or °C
ORP:	148.5						mV
Turbidity:	~~148.5~~	9.15					NTU

DO 6.82 mg/L

Notes/Comments:

Screen: 20-30 ft bgs / 22-32 ft btoc
Midscreen 27 ft btoc
2-Pulls
New Well

Recorded By: A Ballweg

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 8/15/18

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-192 Sample ID: MW-192 Sample Time: 1415

Well owner/location/residence: PetroChem Superfund Site/EPA Reg 6

Street address: CR 126, Liberty, TX Sampling personnel: M Kelly / A. Ballweg

Weather: 89°F Partly Cloudy

Initial DTW (ft toc): / Final DTW (ft toc): 17.04 TD (ft toc): ~30.25

time: / time: / (Measure AFTER sampling.)

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
25.25	1415	2 1-L, 3 40-ml w/HCl

Field Parameters:

Time:						
Specific Conductance:	4196					µS/cm or mS/cm
pH:	6.30					
Temperature:	23.9					°F or °C
ORP:	139.7					mV
Turbidity:	28.2					NTU
DO	2.80					

Notes/Comments:

Screen 18-28 ft bgs / 20.25-30.25 ft btoc

Midpoint 25.25 ft btoc

3-Pulls

Recorded By: A Ballweg

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 8/15/18

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-193 Sample ID: MW-193 Sample Time: 1450

Well owner/location/residence: PetroChem Superfund Site/EPA Reg 6

Street address: CR 126, Liberty, TX Sampling personnel: M Kelly / A Ballweg

Weather: 92°F Partly Cloudy

Initial DTW (ft toc): / Final DTW (ft toc): 17.20 TD (ft toc): 30.0

time: / time: / (Measure AFTER sampling.)

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
25.00	1450	2 1-L, 3 40-ml w/HCl

Field Parameters:

Time:	1502						
Specific Conductance:	1523						µS/cm or mS/cm
pH:	6.47						
Temperature:	23.2						°F or °C
ORP:	136.0						mV
Turbidity:	45.3						NTU

DO 1.44 mg/L

Notes/Comments:

Screen 18-28 ft bgs / 20-30 ft btoc
Midpoint 25.00 ft btoc
2-Pulls

Recorded By: A Ballweg

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 8/15/18

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-201 Sample ID: MW-201 Sample Time: 1226

Well owner/location/residence: Petro-Chem Superfund Site / EPA Reg 6

Street address: CR 126, Liberty, TX Sampling personnel: M Kelly A Ballweg

Weather: 91°F, Partly Cloudy

Initial DTW (ft toc): / Final DTW (ft toc): 19.01 TD (ft toc): _____

time: / time: / (Measure AFTER sampling.)

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
27.67	1226	2 1-L; 3 40-mL w/HCl

Field Parameters:

Time:	1242						
Specific Conductance:	2855						(µS/cm) or mS/cm
pH:	6.61						
Temperature:	22.8						°F or (°C)
ORP:	142.2						mV
Turbidity:	19.2						NTU
DO	3.32						

Notes/Comments:

Screen 20-30 ft bgs / 22.67 - 32.67 ft btoc
midpoint 27.67 ft btoc
3-Pulls

Recorded By: A Ballweg

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 8-15-18

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-202 **Sample ID:** MW-202 **Sample Time:** 0905

Well owner/location/residence: Petro-Chem Superfund Site, EPA Reg 6

Street address: CR126, Liberty, TX Sampling personnel: MKelly, ABallweg

Weather: 85°F Mostly Sunny

Initial DTW (ft toc): / time: / Final DTW (ft toc): 20.33 time: / TD (ft toc): (Measure AFTER sampling.)

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
41.0	0905	2-1L, 3-40ml w/HCl

Field Parameters:

Time:	0935						
Specific Conductance:	1614						µS/cm or mS/cm
pH:	6.60						
Temperature:	24.1°C						°F or °C
ORP:	19.0						mV
Turbidity:	148 NTU						NTU
DO	4.89						

Notes/Comments:

Screen 40-45 bgs / 42.6-47.6 toc:
midpoint 45.10 toc
2-Pulls
Deep Well

Recorded By: MKelly / A. Ballweg

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 8/15/18

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-203 Sample ID: MW-203 Sample Time: 1710

Well owner/location/residence: PetroChem Superfund Site / EPA Reg 6

Street address: CR 126, Liberty, TX Sampling personnel: M Kelly / A. Ballweg

Weather: 90°F, Partly Cloudy

Initial DTW (ft toc): / Final DTW (ft toc): 18.95 TD (ft toc): _____

time: / time: / (Measure AFTER sampling.)

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
27.65	1710	2 1-L, 6 40-ml w/HCl (+ VOC Duplicate)

Field Parameters:

Time:	1728					
Specific Conductance:	1222					µS/cm or mS/cm
pH:	6.42					
Temperature:	22.9					°F or °C
ORP:	156.5					mV
Turbidity:	~~1.5/1.4~~ 8.09					NTU

DO 2.72 mg/L

Notes/Comments:

Screen 20-30 ft bgs / 22.65-32.65 ft btoc
Midpoint 27.65 ft btoc
3-Pulls

Recorded By: April Ballweg

Petro-Chemical Systems, Inc. (Turtle Bayou) Site, Liberty County, Texas

Sheet 1 of 1

Date: 8/15/18

HydraSleeve™ Sampler Ground Water Sampling Data Sheet

Well ID: MW-204 Sample ID: MW-204 Sample Time: 1155

Well owner/location/residence: PetroChem Superfund Site/EPA Reg 6

Street address: CR 126, Liberty, TX Sampling personnel: M Kelly, A. Ballweg

Weather: 91°F Partly Cloudy

Initial DTW (ft toc): / Final DTW (ft toc): 19.06 TD (ft toc): _____

time: / time: / (Measure AFTER sampling.)

HYDRASLEEVE™ SAMPLER DEPTH (feet)	SAMPLE TIME	NOTES/COMMENTS
26.87	1155	2 1-L; 3 40-ml w/HCl

Field Parameters:

Time:	1210						
Specific Conductance:	2421						(µS/cm) or mS/cm
pH:	6.62						
Temperature:	21.80						°F or (°C)
ORP:	138.3						mV
Turbidity:	13.4						NTU

DO 4.30

Notes/Comments:

Screen 20-30 ft bgs / 22.87-32.87 ft btoc
2-Pulls
Midpoint 26.87 ft btoc

Recorded By: A. Ballweg

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Site Remedial Action			
Date: 3/21/2016	Shift Beginning: 1100 hours		Shift Ending: 1515 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Jason Stroup			Sample Manager: Jason Stroup
Project Geologist: Mark Kelly			SHSO: Jason Stroup
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:			
EA:	Jason Stroup John Schwertz	EA EA	Vapor Intrusion (VI) Sampling and Surveying Monitor Wells.
Subcontractors:			
Other:			

Work Performed

3/21/2016

- Health and Safety meeting conducted
- Install two VI semi-permanent sub-slab sampling ports
- Search for USGS control points near site
- Recon and locate monitor wells to survey
- Recon location to set up RTK GPS base station

Report prepared by (name and date)

Jason Stroup 3/24/2016

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Site Remedial Action			
Date: 3/22/2016	Shift Beginning: 0815 hours		Shift Ending: 17 35 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Jason Stroup			Sample Manager: Jason Stroup
Project Geologist: Mark Kelly			SHSO: Jason Stroup
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:			
EA:	Jason Stroup John Schwertz	EA EA	Vapor Intrusion (VI) Sampling and Surveying Monitor Wells.
Subcontractors:			
Other:			

Work Performed

3/22/2016

- Health and Safety meeting conducted
- Setup RTK GPS base station to start downloading data to establish a control point
- Measure depth to water in monitoring wells
- Survey monitor wells
- Setup summa canisters for sampling
- Leak test sub-slab monitoring ports
- Start summa canisters sampling (24 Hours)
- GPS monitor wells with rover from base station.
- Take down RTK GPS base stataion

Report prepared by (name and date)

Jason Stroup 3/24/2016

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Site Remedial Action			
Date: 3/23/2016	Shift Beginning: 0825 hours		Shift Ending: 1540 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Jason Stroup			Sample Manager: Jason Stroup
Project Geologist: Mark Kelly			SHSO: Jason Stroup
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	Raji Josiam	EPA PM	Site visit
EA:	Jason Stroup John Schwertz Mark Kelly Jay Synder	EA EA	Vapor Intrusion (VI) Sampling and Surveying Monitor Wells. Site walk and pre-bid meeting for additional monitoring wells.
Subcontractors:	Roddy Quallls	Roddy Qualls Drilling	Site information before bidding.
Other:	Sherell Heidt	TCEQ PM	Site visit
Other:	Jorge Guzman	Ramboll Environ	Consultant for Lyondell Environmental Custodial Trust

Work Performed

3/23/2016

- Health and Safety meeting conducted
- Setup RTK GPS base station to start downloading data to confirm previous control point
- Site visit and pre-bid meeting for additional monitor well installation
- Shut down summa canisters sampling (24 Hours)
- Take down RTK GPS base station
- Demobilize and pack sample canisters

Report prepared by (name and date)

Jason Stroup 3/24/2016

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 4-26-2016	Shift Beginning: 0630 hours		Shift Ending: 1400 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: NA
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	Mark Kelly (MK)	EPA subcontractor	Supervise vegetation clearing at proposed temporary well locations
Ramboll-Environ:	Yamini Sadasivam	PRP subcontractor	Oversight of vegetation clearing at existing monitoring wells
Subcontractors: REW Group, LLC	Daniel Ornelas	EA subcontractor	Clearing grass/vegetation
Other:	---	---	---

Work Performed

EA travel to site.

Meet Ramboll-Environ and REW personnel. Attend safety meeting.

Discuss vegetation clearing with Daniel (track-hoe operator). Will clear main path south of MW-109A and two additional east-west paths off of main path. No thick vegetation along fence line; okay as is. Begin clearing activities. Clear north-south line 200 feet (ft) from fence; encountered a 6-ft to 8-ft wide and 1-ft to 2-ft deep drainage channel approximately 200 ft south of fence. Clear one east-west path 50 ft south of fence to 100 ft either side of main path. Clear second east-west path 100 ft from fence in same manner. Check distances with 100 ft tape.

MK lets Yamini know he is leaving site; go to Houston-Hobby to return to EA-Lewisville.

Report prepared by (name and date)

Mark Kelly 4-26-2016

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 5-2-2016	Shift Beginning: 0530 hours		Shift Ending: 1845 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: Kevin McKeage
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	Mark Kelly (MK) Kevin McKeage (KMc)	EPA subcontractor	Oversight of temporary well installation, ground water sampling and field analysis
Roddy Qualls Drilling:	Mario Robles Phillip Schmitt Nathan Carnett	EA subcontractor	Temporary well installation
Subcontractors:	---	---	---
Other:	Pine Environmental	Equipment Rental Company	Met EA at Houston-Hobby to drop off Defiant Frog 4000 unit

Work Performed

EA travels to site; MK drives from EA-Lewisville.
Pine Environmental receives Defiant Frog 4000 (F4K) at Houston office, conducts final calibration.
MK picks-up KMc at Houston-Hobby, then meets Pine Environmental driver to receive rental equipment and head for site.
Arrive at site at approximately 1215 hours; Qualls Drilling arrives at 1245 hours.
MK conducts initial safety meeting.
Drill crew unloads Geoprobe rig and equipment/supplies.
MK and driller walk/recon cleared well location areas. Area along fence line fairly stable; very wet (standing water) and soft ground in areas cleared south of fence.
KMc conducts initial setup of F4K, running calibration standards, etc.
MK supervises installation of initial wells:

- TW-01, 50 feet (ft) south of MW-109A
- TW-02, 25 ft west of TW-01
- TW-03, 25 ft east of TW-01 (toward MW-33).

TW-01 was sampled to 35 ft below ground surface (bgs; there was no obvious indication of water by 30 ft bgs) and completed with ¾-inch polyvinyl chloride (PVC) pipe installed with 20 ft riser, 15 ft screen (0.020-inch slots) and 16/30 silica sand. TW-02 and TW-03 were sampled to 30 ft bgs and completed with ¾-inch PVC installed with 15 ft riser, 15 ft screen (0.020-inch slots) and 16/30 silica sand.
MK measures depth to water inside sample rods before well installation:

- TW-01 = 24.6 ft to approximate ground surface
- TW-02 = 17.1 ft to approximate ground surface
- TW-03 = 26.3 ft to approximate ground surface.

Report prepared by (name and date)

Mark Kelly 5-2-2016

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 5-3-2016	Shift Beginning: 0730 hours		Shift Ending: 1845 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: Kevin McKeage
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	Mark Kelly (MK) Kevin McKeage (KMc)	EPA subcontractor	Oversight of temporary well installation, ground water sampling and field analysis
Qualls Drilling:	Mario Robles Phillip Schmitt Nathan Carnett	EA subcontractor	Temporary well installation
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

EA waiting at hotel for calibration file from Defiant for Frog 4000 (F4K) field Gas Chromatograph (GC).
MK conducts safety meeting.
KMc completes initial set up and QA/QC of F4K.
MK measures depth to water in wells:

- TW-01 = 20.42 feet (ft) top of casing (toc; approximate ground surface)
- TW-02 = 16.91 ft toc (approximate ground surface)
- TW-03 = 17.09 ft toc (approximate ground surface).

MK develops TW-01, TW-02, and TW-03 with peristaltic pump to remove thick muddy water.
Collect ground water samples from TW-01, TW-02, and TW-03 with peristaltic pump. Record water quality parameters before and after sampling. Analyze samples with F4K field GC.
TW-01 and TW-02 exhibit non-detect results for benzene.
TW-03 exhibits readings >1,000 parts per billion (ppb) (>40 ppb at 25x dilution) for benzene.
MK supervises installation of step-out wells:

- TW-04, 25 ft east of TW-03
- TW-05, halfway between TW-03 and TW-04
- TW-06, halfway between TW-01 and TW-03.

All three wells sampled to 30 ft below ground surface and completed with ¾-inch PVC installed with 15 ft riser, 15 ft screen (0.020-inch slots) and 16/30 silica sand.
KMc gauges and develops wells:

- TW-04 = 15.28 ft toc (approximate ground surface)
- TW-05 = dry
- TW-06 = 19.58 ft toc (approximate ground surface) and rising.

Report prepared by (name and date)

Mark Kelly 5-3-2016

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 5-4-2016	Shift Beginning: 0700 hours		Shift Ending: 1900 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: Kevin McKeage
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	Mark Kelly (MK) Kevin McKeage (KMc)	EPA subcontractor	Oversight of temporary well installation, ground water sampling and field analysis
Qualls Drilling:	Mario Robles Phillip Schmitt Nathan Carnett	EA subcontractor	Temporary well installation
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

MK conducts safety meeting.
KMc sets up Frog 4000 field Gas Chromatograph (F4K field GC).
MK measures depth to water in new wells:

- TW-04 = 17.86 feet (ft) top of casing (toc; approximate ground surface)
- TW-05 = dry (response at 30.06 ft toc [approximate ground surface])
- TW-06 = 17.55 ft toc (approximate ground surface).

TW-04 & TW-06 developed were with peristaltic pump yesterday.
Collect ground water samples from TW-04 and TW-06 with peristaltic pump. Record water quality parameters before sampling. Due to low volume no parameters were recorded after sampling TW-04. Parameters were recorded for TW-06 after sampling. Analyze samples with F4K field GC.
TW-04 exhibited non-detect results for benzene.
TW-06 exhibits readings >1,000 parts per billion (ppb) for benzene (the peak area for TW-06 was approximately half of TW-03 peak).
MK supervises installation of step-out wells:

- TW-07, 30 ft south of TW-04
- TW-08, 30 ft south of TW-05
- TW-09, 30 ft south of TW-06.

All three wells sampled to 30 ft below ground surface and completed with ¾-inch PVC installed with 15 ft riser, 15 ft screen (0.020-inch slots) and 16/30 silica sand.
KMc gauges and develops wells:

- TW-07 = 17.33 ft toc (approximate ground surface)
- TW-08 = 28.14 ft toc (approximate ground surface)
- TW-09 = dry (no response with interface probe)
- TW-05 = dry (response at 30.03 ft toc [approximate ground surface]).

Collect ground water samples from TW-07 and TW-08 with peristaltic pump. Parameters were recorded for TW-07 before and after sampling. Due to low volume, water quality parameters were only recorded for TW-08 after sample collection. Analyze samples with F4K field GC.
TW-07 and TW-08 exhibited non-detect results for benzene.
The Geoprobe rig was moved to the residential property north of CR 126 to install TW-10, 50 ft north of MW-109A. Plywood was placed along the fence line to access the well location. The well was sampled to 30 ft below ground surface and completed with ¾-inch PVC installed with 15 ft riser, 15 ft screen (0.020-inch slots) and 16/30 silica sand. MK and KMc gauged, developed, and sampled the well.

- TW-10 = 19.25 ft toc (approximate ground surface) and rising.

Collect ground water sample from TW-10 with peristaltic pump. Parameters were recorded for TW-10 before and after sampling. Analyze samples with F4K field GC. TW-10 exhibited low results for benzene with a reading of 4.86 ppb for the initial field sample and 4.32 ppb for the duplicate field sample.

Report prepared by (name and date)

Mark Kelly 5-4-2016

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 5-5-2016	Shift Beginning: 0730 hours		Shift Ending: 1730 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: Kevin McKeage
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	Mark Kelly (MK) Kevin McKeage (KMc)	EPA subcontractor	Oversight of temporary well installation, ground water sampling and field analysis
Qualls Drilling:	Mario Robles Phillip Schmitt Nathan Carnett	EA subcontractor	Temporary well installation
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

MK conducts safety meeting.
KMc sets up Frog 4000 field Gas Chromatograph (F4K field GC).
TW-11 was installed at the residence near MW-109A Area; the well location (75 feet [ft] north of TW-10) was placed adjacent to the gravel driveway to keep the Geoprobe rig out of soft, grassy areas of the yard. The well was sampled to 30 ft below ground surface and completed with ¾-inch PVC installed with 15 ft riser, 15 ft screen (0.020-inch slots) and 16/30 silica sand. Due to borehole collapse, total depth of TW-11 was 27.6 ft below ground surface (bgs). MK and KMc gauged, developed, and sampled the well:

- TW-11 = 15.80 ft toc / 13.40 ft bgs.

Collect ground water sample from TW-11 with peristaltic pump. Due to low volume, water quality parameters were only collected after sampling. Analyze samples with F4K field GC. TW-11 exhibited non-detect results for benzene.
While waiting for arrival of equipment and supplies for permanent monitoring well installation, the drill crew plugged and abandoned temporary wells by removing PVC piping and grouting boreholes with Portland cement. Soil drums were moved to the main gate area off County Road (CR) 126.
Due to subsurface variability (2 of the 9 temporary wells installed south of CR 126 did not produce water), it was decided to convert TW-03 and TW-08 into permanent monitoring wells since both had encountered a water bearing zone. TW-08 was converted to MW-204 by drilling out with augers to 30 ft below ground surface and completed with 2-inch PVC installed with 20 ft riser, 10 ft screen (0.020-inch slots) and 16/30 silica sand. TW-03 was converted to MW-203 by drilling out with augers to 30 ft below ground surface and completed with 2-inch PVC installed with 20 ft riser, 10 ft screen (0.020-inch slots) and 16/30 silica sand. Augers were moved to the decon pad and pressure washed before drilling each borehole.
After MW-203 was installed, MK gauged depth to water:

- MW-204 = 18.34 ft bgs and rising slowly
- MW-203 = 23.00 ft bgs and rising quickly (from 23.5 ft to 23.0 ft in approximately 3.5 minutes).

Report prepared by (name and date)

Mark Kelly 5-5-2016

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 5-6-2016	Shift Beginning: 0700 hours		Shift Ending: 1930 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: Kevin McKeage
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	Mark Kelly (MK)	EPA subcontractor	Oversight of monitoring well installation activities
Qualls Drilling:	Mario Robles Phillip Schmitt Nathan Carnett	EA subcontractor	Monitoring well installation
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

MK conducts safety meeting.

As mentioned in an earlier daily report, due to subsurface variability (2 of the 9 temporary wells installed south of CR 126 did not produce water) conversion of some temporary wells into permanent monitoring wells was performed to ensure a water bearing zone would be encountered:

- TW-08 = MW-204
- TW-03 = MW-203.

Augers were pressure washed at the decon area before drilling each borehole.

TW-02 was converted to MW-201 by drilling out with augers to 30 feet (ft) below ground surface (bgs) and completed with 2 inch PVC installed with 20 ft riser, 10 ft screen (0.020-inch slots) and 16/30 silica sand.

Installation for a deep (60 ft) permanent monitoring well, MW-202, was initiated by probing and collecting soil samples by direct push for logging purposes. The borehole will then be widened with augers for well installation. The location for MW-202 is approximately 5 ft west of MW-203.

At 40 ft bgs, probing became very difficult due to friction of the stiff, plastic clay soil. The driller's solution was to remove the dual tube sample rods from the borehole and widen the hole with augers to 40 ft bgs and resume probing as before to a total depth of 60 ft bgs. Due to time constraints it was decided to temporarily cease operations at this depth before widening the borehole. The lower sand unit (S2) had not yet been encountered so there would be no communication with the upper sand unit (S1) (25–30 ft bgs) before work resumes Monday (5-9-2016). After sample rods were removed, Bentonite chips were placed in the 1-1/2 inch borehole to seal the S1 sand unit.

MK gauged depth to water:

- MW-201 = 17.14 ft bgs
- MW-203 = 16.42 ft bgs
- MW-204 = 16.73 ft bgs.

The site was secured for the weekend. MK travelled to EA-Lewisville after returning rental equipment in Houston.

Report prepared by (name and date)

Mark Kelly 5-6-2016

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 5-9-2016	Shift Beginning: 0745 hours		Shift Ending: 1815 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: ---
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	Mark Kelly (MK)	EPA subcontractor	Oversight of permanent monitoring well installation, ground water sampling and field parameter collection
Qualls Drilling:	Mario Robles Phillip Schmitt Nathan Carnett	EA subcontractor	Permanent monitoring well installation
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

EA and Qualls Drilling travelled to site.
MK conducts safety meeting.

Monitoring well installation activities were resumed at MW-202, which had been probed and sampled with Direct Push Technology (DPT) to 40 feet (ft) below ground surface (bgs). The borehole was drilled out with augers from surface to 40 ft bgs. DPT sampling was resumed for logging purposes. The 40–42.5 ft sample encountered the S2 (lower sand) unit, a fine grained saturated sand, at 41 ft bgs. As the sampler was lowered inside the outer casing to collect the next interval, it was discovered that approximately 17 ft of sand and water had entered the outer casing. The driller indicated that further sampling attempts would be ineffective due to the flowing sand. Hollow stem augers (HSA) would be used to widen the borehole from surface to total depth (TD) and minimize the amount of flowing sand filling the borehole before well installation. The proposed well construction details called for 10 ft of screen and a maximum depth of 60 ft. After discussions with the Senior Project Geologist, it was decided to set 5 ft of screen from 40 ft to 45 ft bgs. However, the driller was unable to continue at that time due equipment issues.

As a new piece of equipment was being transported from Fort Worth to the site, development was initiated on MW-204. A submersible pump and tubing were installed to TD to remove muddy water from the well. The pump was moved up and down to agitate and suspend the solids in the water. As the well was pumped dry and allowed to recharge several times, the water cleared. Approximately 10 gallons of water was removed from the well before activities were stopped for the day.

Report prepared by (name and date)

Mark Kelly 5-9-2016

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 5-10-2016	Shift Beginning: 0700 hours		Shift Ending: 1900 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: ---
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	Mark Kelly (MK)	EPA subcontractor	Oversight of monitoring well installation, ground water sampling and field analysis
Qualls Drilling:	Mario Robles Phillip Schmitt Nathan Carnett	EA subcontractor	Monitoring well installation
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

MK conducts safety meeting.

Monitoring well installation activities were resumed at MW-202. Hollow stem augers (HSA) were used to widen the borehole from surface to 45 feet (ft) below ground surface (bgs). An expendable wooden plug was placed in the lead auger to keep wet, fine grain, flowing sand from entering the HSAs. At 45 ft bgs, the wooden plug was knocked out of the lead auger and the well was installed with 2-inch Schedule 40 PVC; 40 ft of riser and 5 ft of 0.020-inch slotted screen. A 16/30 silica sand pack was placed to 2 ft above the top of the screen (38 ft bgs).

The new wells (MW-201, -202, -203, and -204) were developed with a "Mini-Monsoon" submersible pump running at approximately 3 gallons per minute. The pump was deconned and new tubing was used at each well. Water quality parameters were recorded after initially removing thick muddy water from the wells. The "shallow" wells (TD=30 ft) would pump dry, but recharge fairly quickly. MW-202, the "deep" well (TD=45 ft) pumped continuously without going dry. All wells were developed until the water was clear and free of sand.

The drill crew constructed 4 ft x 4 ft concrete pads with an upright steel well cover and bollards at the corners of the pads. All drums containing soil or water were moved and staged near the main gate of the area.

Report prepared by (name and date)

Mark Kelly 5-10-2016

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 5-11-2016	Shift Beginning: 0745 hours		Shift Ending: 2200 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: ---
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	Raji Josiam	EPA	Site visit
EA:	Mark Kelly (MK)	EPA subcontractor	Wrap up of field activities and sampling of investigation-derived waste (IDW)
Subcontractors:	---	---	---
Other:	Sherell Heidt	TCEQ	Site visit

Work Performed

MK began collecting soil and water for investigative-derived waste (IDW) samples for laboratory submission to profile wastes for disposal.

Raji Josiam (EPA) and Sherell Height (TCEQ) arrived for a site visit. MK summarized site activities and reviewed soil samples from MW-202, showing examples of subsurface lithology. MK, R. Josiam, and S. Heidt walked to new well locations (south of MW-109A) and viewed the areas that had been cleared for possible well locations, the locations of the (grouted) temporary wells, and the new monitoring wells.

After EPA and TCEQ departed site, MK completed collecting IDW samples. The depth to water for the new monitoring wells was measured. The monitoring wells were completed with upright steel covers, so top of casing (toc) measurements include the PVC "stickup".

- MW-201 = 19.65 ft toc 2.67 ft stickup 16.98 ft below ground surface (bgs)
- MW-202 = 19.40 ft toc 2.60 ft stickup 16.80 ft bgs
- MW-203 = 19.49 ft toc 2.65 ft stickup 16.84 ft bgs
- MW-204 = 19.64 ft toc 2.87 ft stickup 16.77 ft bgs.

Locks were placed on the new well upright covers and wells were labelled using stencils and paint.

MK secured the site and travelled to Houston to return rental equipment to Pine Environmental Services, LLC and deliver IDW samples to TestAmerica Houston laboratory. MK then returned to EA-Lewisville.

Report prepared by (name and date)

Mark Kelly 5-11-2016

DAILY FIELD ACTIVITIES SUMMARY REPORT

PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 6-14-2016	Shift Beginning: 0730 hours		Shift Ending: 1800 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: John Bonner			Data Manager: Jack Schwertz
Project Geologist: ---			SHSO: John Bonner

Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	John Bonner Jack Schwertz	EPA subcontractor	Sampling of monitoring wells
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

J. Schwertz and J. Bonner were on site to sample monitoring wells using HydroSleeves™. A total of 10 monitoring wells were sampled and included nine shallow aquifer wells (MW-33, MW-108, MW-109A, MW-110, MW-192, MW-193, MW-201, MW-203, MW-204) and one deeper aquifer well (MW-202). Monitoring well MW-191 was not sampled due to sediment and mud accumulation in the well casing after recent local flooding in the area. EA collected water quality parameters and sampling data sheets were developed for each well and the data is included in a summary table below.

Well ID	Sample Time (Hours)	Specific Conductance (µS/cm)	Temperature (Celsius)	pH	ORP (mV)	Turbidity (NTU)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	HydroSleeve Sampler Depth (ft)	Depth to Water (ft)
MW-191	NS	--	--	--	--	--	--	--	25.0	8.87
MW-202*	0920	1232	22.64	7.35	252.8	55.3	54.3	3.45	44.0	18.31
MW-201	1000	3142	24.27	7.12	179.8	6.70	41.8	3.36	32.7	19.13
MW-204	1030	2145	23.53	7.10	377.3	5.74	55.1	4.53	27.87	19.04
MW-33	1100	2340	24.40	7.21	563.7	4.27	36.4	3.02	29	17.84
MW-193	1230	1714	27.05	6.98	21.2	105	34.5	2.65	22	16.91
MW-108	1340	1141	27.14	7.08	102.6	7.53	51.2	4.02	25	17.23
MW-110	1440	1149	25.21	6.75	-101.2	4.17	23.1	1.88	25	18.70
MW-192	1505	4369	25.94	6.67	-9.7	5.79	29.5	2.24	25	16.83
MW-203	1550	3127	24.84	6.88	47.6	6.52	24.3	1.91	32	18.89
MW-109A	1655	2870	25.38	7.39	-109.1	11.1	22.9	1.68	25	17.33

Note:
* = Deeper aquifer monitoring well
% = Percent
µS/cm = Microsiemens per centimeter
ft = Foot/feet
mg/L = Milligrams per liter
mV = Millivolts
NS = Not sampled due to mud and sediment in well as a result of recent localized flooding
NTU = Nephelometric turbidity units

In addition, a field blank, an equipment rinsate blank, and temperature blank were collected during the effort. Collected samples are to be analyzed for semivolatile organic compounds and volatile organic compounds. The samples were secured overnight for delivery to the EPA Region 6 Laboratory in Houston, Texas the next day.

Report prepared by (name and date)

Prepared by Brandon Ginn (6/23/16) and Reviewed by John Bonner (6/24/16)

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 6-15-2016	Shift Beginning: 1400 hours		Shift Ending: 1530 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: John Bonner			Data Manager: Jack Schwertz
Project Geologist: ---			SHSO: John Bonner
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:			
EA:	John Bonner Jack Schwertz	EPA subcontractor	Surveying activities
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

J. Schwertz and J. Bonner were on site to survey the well field, including the new monitoring wells (MW-201, MW-202, MW-203, and MW-204) and to clean up the site from sampling activities. After surveying activities and site cleanup was complete, J. Bonner returned to EA's Houston office and J. Schwertz returned to EA's Dallas office.

Report prepared by (name and date)

Prepared by Brandon Ginn (6/23/16) and Reviewed by John Bonner (6/24/16)

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 07-05-2016	Shift Beginning: 1030 hours		Shift Ending: 1330 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: John Bonner			Data Manager: ---
Project Geologist: ---			SHSO: John Bonner
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	John Bonner	EPA subcontractor	MW-191 purging/well development
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

J. Bonner was on site to purge and redevelop monitoring well MW-191 which had an accumulation of sediment and mud in the well casing after recent local flooding in the area. MW-191 was initially gauged for depth to water (15.28 feet [ft] below ground surface [bgs]) before using a hand bailer to evacuate the well of sediment and mud. After evacuating the well of approximately 10 gallons of water, the total depth of the well was measured at 28.13 ft bgs. The well was allowed to recharge for approximately 1 hour and depth to water measured (27.09 ft bgs). The recharged groundwater was observed to be clear and free of sediment.

In addition, EA observed the top of the well casing was cracked which allowed rain water to enter the well. The property owner mentioned that he had mowed over the well recently with a tractor. The property owner stated that he would be in agreement with the installation of a stick-up (monument) well casing to replace the existing flush-mount well pad to prevent the well from being under flood waters during future rain events and potential flooding.

Report prepared by (name and date)

Prepared by John Bonner (6 July 2016) and reviewed by April Ballweg (6 July 2016)

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 07-19-2016	Shift Beginning: 0900 hours		Shift Ending: 1100 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: John Bonner			Data Manager: ---
Project Geologist: ---			SHSO: John Bonner
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	John Bonner	EPA Subcontractor	Investigation-Derived Waste (IDW) Removal
Subcontractors:	Capitol Environmental /Lighthouse Environmental	EA Subcontractor	IDW Removal
Other:	---	---	---

Work Performed

J. Bonner was on site to provide oversight of subcontractors in the removal of IDW generated during monitoring well installation and development that occurred in May 2016. In total, eleven 55-gallon steel drums of soil cuttings and six 55-gallon steel drums of purge/development water were removed from the site by Lighthouse Environmental (subcontractor to Capitol Environmental Services) with final landfill deposition at the Fort Bend Regional Landfill (TCEQ ID #MSW2270). EA staff signed the manifest in the field on behalf of the USEPA.

Report prepared by (name and date)

Prepared by John Bonner (7/19/16) and Reviewed by April Ballweg (7/19/16)

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 8-13-2018	Shift Beginning: 0700 hours		Shift Ending: 1600 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: ---
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	Raji Josiam	EPA	Site visit
EA:	Mark Kelly April Ballweg	EPA subcontractor	Oversight of monitoring well installation, monitoring well plug and abandonment (P&A); ground water sampling
Qualls Drilling:	Jon Storm Michael Warren Weston Self	EA subcontractor	Monitoring well installation, monitoring well P&A
Subcontractors:	---	---	---
Other:	Sherell Heidt	TCEQ	Site visit

Work Performed

U.S. Environmental Protection Agency (EPA), Texas Commission on Environmental Quality (TCEQ), EA Engineering, Science, and Technology, Inc., PBC (EA), and Roddy Qualls Environmental Drilling (RQ Drilling) personnel mobilized to the site. Mark Kelly (EA) conducted a safety meeting attended by representatives from EPA, TCEQ, EA, and RQ Drilling. Previously, EPA, TCEQ, and EA had discussed the replacement monitoring well (MW-191R to replace MW-191) with the property owner, Mr. Donny Smith, and a location had been selected. RQ Drilling used a Deidrich D-50 Turbo drilling rig to install the boring using 8-inch hollow stem augers. Continuous core samples were collected with a 5-ft core barrel for descriptive purposes; no soil samples were collected for laboratory submission.

The boring was advanced to a total depth (TD) of 30 feet (ft) below ground surface (bgs). Moist to wet Sand layers were encountered at 27.50–28.60 ft and 29.15–29.35 ft bgs, with a stiff Clay layer from 28.60–29.15 ft bgs. A monitoring well was installed using 2-inch schedule 40 polyvinyl chloride (PVC) with 10 ft of 0.010-inch slotted screen from 20–30 ft bgs and 2-inch PVC riser from 20 ft bgs to approximately 2 ft above ground surface. A sand pack of 20/40 Silica Sand was installed from TD/30 ft bgs to 18 ft bgs (2 ft above the top of the screen). Bentonite chips were placed from 18 ft bgs to approximately 2 ft below the surface and hydrated. An upright steel well cover was installed in a 4x4 ft concrete pad; concrete was placed in the boring annulus to the top of the bentonite to create a surface seal. As per the property owner's request, the steel monitoring well cover was set approximately 2 ft high (above ground surface), left unpainted, and no bollards were installed.

Drill cuttings were placed in steel drums and temporarily left by the well location. EPA and TCEQ left the site after the soil boring reached TD. As M. Kelly was observing MW-191R drilling and installation, A. Ballweg was communicating with Ramboll (environmental consultants for the Potentially Responsible Party) to gain access to locked areas for the purpose of staging of investigation-derived waste drums consisting of drill cuttings, development water, and decontamination water.

Next Day's Anticipated Activities
Plugging and abandonment of MW-191, development of MW-191R, moving soil and development water drums, clearing well locations for ground water sampling.
Report prepared by (name and date)
Mark Kelly 8-13-2018

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 8-14-2018	Shift Beginning: 0730 hours		Shift Ending: 1615 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: ---
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	Mark Kelly	EPA subcontractor	Oversight of monitoring well installation, monitoring well plug and abandonment (P&A); ground water sampling
Qualls Drilling:	Jon Storm Michael Warren Weston Self	EA subcontractor	Monitoring well installation, monitoring well P&A
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

EA Engineering, Science, and Technology, Inc., PBC (EA), and Roddy Qualls Environmental Drilling (RQ Drilling) personnel mobilized to the site. Mark Kelly (EA) conducted a safety meeting attended by representatives from EA and RQ Drilling. RQ Drilling used a Deidrich D-50 Turbo drilling rig to plug and abandon (P&A) monitoring well MW-191. The concrete pad was broken with a 2-inch drill bit and the vault was removed. A drill rod was pushed and rotated approximately 6-inches into the top of the 2-inch casing. Approximately 10-feet of casing was removed; the casing separated at the first threaded connection. After clearing the area above the casing that remained in the borehole, the well was plugged with bentonite chips and hydrated. The concrete rubble was removed from the location for offsite disposal as construction waste and the area was levelled and smoothed using soil from the surrounding area. Soil drums were moved to a staging area (the "Construction Area"), approximately 0.5 mile east of the location, on County Road 126/Frontier Park Road.

The new replacement monitoring well, MW-191R, was developed using new, clean tubing and a small submersible pump powered by the drill rig battery. Water quality parameters (temperature, conductivity, dissolved oxygen, pH, oxidation-reduction potential, and turbidity) were monitored during development. Water was pumped to a steel drum for containment pending disposal. Depth to water was measured at 18.36-feet (ft) from top of casing (toc) which included a 1.9-ft stickup above ground surface. With a total depth of 31.9-ft from toc, one well volume (13.54 ft of water in a 2-inch well) equaled 2.21 gallons. The pump was used to surge the well by moving the pump up and down in the screen interval to agitate the water and any suspended solids. The well was pumped dry after approximately 10 gallons was removed in 5 minutes. The well was allowed to recharge for approximately 10 minutes, then pumped dry again. The well was pumped dry a total of 7 times, removing 2 to 10 gallons each time in 5 minutes or less, and recharging 6 times for approximately 5 to 15 minutes each time. A total of 38 gallons was removed over approximately 1.5 hours. Water quality parameters were stable, with turbidity dropping from 532 nephelometric turbidity units (NTU) to 40.7 NTU. The 55-gallon drum of development water was staged along with the soil drums in the designated location identified by Ramboll staff at the "Construction Area" within a fenced area with a locked gate. RQ Drilling de-mobilized from the site afterwards.

M. Kelly cleared high weeds, grass, and brush at the 10 existing monitoring well locations scheduled to be sampled the following day. Before leaving the site, depth to water at MW-191R was measured at 8.77 ft toc (approximately 5 hours after being pumped dry).

Next Day's Anticipated Activities

Collect ground water samples from 1 new and 10 existing monitoring wells, and collect samples from soil and development water drums for waste profiling and disposal.

Report prepared by (name and date)

Mark Kelly 8-14-2018

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 8-15-2018	Shift Beginning: 0700 hours		Shift Ending: 2300 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: ---
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	Mark Kelly April Ballweg	EPA subcontractor	Oversight of monitoring well installation, monitoring well plug and abandonment; ground water sampling
---	---	---	---
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

EA Engineering, Science, and Technology, Inc., PBC (EA) personnel mobilized to the site. Mark Kelly (EA) conducted a safety meeting attended by the second representative from EA.

Prior to initiating ground water sampling activities, the turbidity and YSI multi-probe water quality meters were checked and calibrated. Samples were collected using new HydraSleeve sampling devices. These devices allow samples to be collected at specific depths. Samples were collected from the midpoint of the screen interval in each well. Stainless steel weights and clips were deconned before being attached to the samplers. New, calibrated 3/8-inch polyester tether was used to lower the HydraSleeves to the appropriate depths. Water quality parameters were recorded at each well, after filling two 1-liter unpreserved amber jars (for semivolatile organic compounds analysis [SVOCs/ABN]) and three 40-ml VOA containers with hydrochloric acid preservative (for trace volatile organic compounds [VOC] analysis).

Samples were collected from 4-inch monitoring wells MW-33, MW-108, and MW-110, and 2-inch wells MW-109A, MW-191R, MW-192, MW-193, MW-201, MW-202, MW-203, and MW-204. MW-202 has a screen interval of 42.60 to 47.60 feet (ft) below top of casing (btoc); all other wells have screen intervals from approximately 20 to 33 ft btoc. Duplicate samples for SVOCs were collected at MW-110 and MW-108. Duplicate samples for VOCs were collected at MW-203 and MW-109A. Extra sample volume from MW-33 was collected and submitted for matrix spike/matrix spike duplicate analysis for both SVOCs and VOCs. Samples were labeled, placed in bubble wrap and Ziploc baggies, and kept on ice in coolers. At the end of the day, samples were packed on ice in coolers for hand delivery to the EPA Region 6 analytical laboratory in Houston, Texas the following day.

A composite soil sample was collected from the soil drums for analysis of toxicity characteristic leaching procedure (TCLP; Method 6010B, 7470A, 8260B, 8270C), reactive cyanide (CN; Method 1010, 9012, 9034, 9040B), moisture (Method D92), total petroleum hydrocarbons (TPH; Method TX 1005), and VOCs (Method 8260B). A water sample was collected from the development drum for TCLP (6010B, 7470A, 8260B, 8270C), reactive CN (1010, 9012, 9034, 9040B) TPH (TX 1005), and VOCs (8260B). The samples were labeled, placed in bubble wrap and Ziploc baggies and kept on ice in coolers, then packed for hand delivery to Test America Houston laboratory the following day.

Next Day's Anticipated Activities	
Measure depth to water in 11 sampled monitoring wells, deliver samples, return rental equipment, travel from Houston to Lewisville, Texas.	
Report prepared by (name and date)	
Mark Kelly	8-15-2018

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 8-16-2018	Shift Beginning: 0730 hours		Shift Ending: 1715 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Mark Kelly			Data Manager: ---
Project Geologist: Mark Kelly			SHSO: Mark Kelly
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EPA:	---	---	---
EA:	Mark Kelly April Ballweg	EPA subcontractor	Oversight of monitoring well installation, monitoring well plug and abandonment (P&A); ground water sampling
---	---	---	---
Subcontractors:	---	---	---
Other:	---	---	---

Work Performed

EA Engineering, Science, and Technology, Inc., PBC (EA) personnel mobilized to the site. Mark Kelly (EA) conducted a safety meeting attended by representatives from EA.

Ground water levels were measured in MW-33, MW-108, MW-109A, MW-110, MW-191R, MW-192, MW-193, MW-201, MW-202, MW-203, and MW-204. Ice in sample coolers were checked and the coolers were sealed for delivery to the laboratories. M. Kelly and A. Ballweg left the site to hand deliver samples to the analytical laboratories, return rental equipment, and travel from Houston to EA-Lewisville.

Next Day's Anticipated Activities

No activities are planned for the next day.

Report prepared by (name and date)

Mark Kelly 8-16-2018

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: Petro-Chemical Systems, Inc. (Turtle Bayou) Plume Superfund Site			
Date: 9/19/18	Shift Beginning: 1015 hours		Shift Ending: 1345 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0134-RARA-0681
EPA Region 6 TOM: Raji Josiam			Project Manager: April Ballweg
Site Manager: Nick Dobberpuhl			Data Manager: ---
Project Geologist: N/A			SHSO: John Bonner
Personnel on site	**Name**	**Affiliation**	**Reason for being on site**
EA:	Nick Dobberpuhl John Bonner	EPA subcontractor	Monitoring well (MW) gauging and surveying and investigation-derived waste (IDW) disposal coordination
Other:	Kit Carson	Ramboll	Unrelated site activities

Work Performed

EA mobilized to the site and conducted a tailgate safety meeting. EA acquired a key from Ramboll to access various gates and monitoring well covers at the site. EA measured depth to water and total well depth at MW-33, MW-108, MW-109A, MW-110, MW-191R, MW-192, MW-193, MW-201, MW-202, MW-203, and MW-204. EA used a handheld global positioning system unit to record horizontal (x,y) coordinates of monitoring wells. EA set up a sight level and conducted two rounds of measurements to determine the top of casing elevation for MW-191R. EA recorded back sight measurements at MW-108, MW-109A, MW-192, and MW-193 to determine the instrument elevation and conducted a front sight to MW-191R.

EA met the Cleaning Guys Environmental to provide access to and coordinate the pickup of six 55-gallons drums (five soil and one water) of investigation-derived waste. All drums were transported offsite for proper disposal at the Seabreeze Landfill in Angleton, Texas.

EA demobilized from the site at the conclusion of the day's activities.

Next Day's Anticipated Activities

Not applicable

Report prepared by (name and date)

Nick Dobberpuhl 9/19/18

DAILY SAFETY MEETING FORM

Date: 3/21/2016 Time: 1110 Project No.: 14342134

Site Name/Location: Petro-Chemical Systems, Inc. (Turtle Bayou) Superfund Site, Liberty, TX

Site Activities Planned for Today: Install sub slab VI ports

Safety Topics Discussed
Protective clothing and equipment: Level D: hard hats, eye protection, safety vests, steel-toed boots, work gloves (as necessary), hearing protection (as necessary)
Chemical hazard: None expected. Site contaminants of concern: volatile organic compounds, semivolatile organic compounds
Physical hazards: Slips, trips, falls, former fence post holes
Environmental and biohazards: Weather – severe thunderstorm and tornado season, snakes, insects, dogs
Equipment hazards: Pinch points, safety around heavy equipment
Decontamination procedures: Decon heavy equipment arriving/departing site
Other:
Review of emergency procedures and comments: See hospital route in HASP. Call 911.

DAILY SAFETY MEETING FORM (CONTINUED)

Attendees	
Printed Name	**Signature**
Jason Stroup	
Jack Schwartz	

Meeting Conducted by:

Jason Stroup
Name

SC I
Title

Signature

3/21/2016
Date

DAILY SAFETY MEETING FORM

Date: 3/22/2016 Time: 0915 Project No.: 14342134

Site Name/Location: Petro-Chemical Systems, Inc. (Turtle Bayou) Superfund Site, Liberty, TX

Site Activities Planned for Today: Survey, gauging, Test substat posts and start VI sampling

Safety Topics Discussed
Protective clothing and equipment: Level D: hard hats, eye protection, safety vests, steel-toed boots, work gloves (as necessary), hearing protection (as necessary)
Chemical hazard: None expected. Site contaminants of concern: volatile organic compounds, semivolatile organic compounds
Physical hazards: Slips, trips, falls, former fence post holes
Environmental and biohazards: Weather – severe thunderstorm and tornado season, snakes, insects, dogs
Equipment hazards: Pinch points, safety around heavy equipment
Decontamination procedures: Decon heavy equipment arriving/departing site
Other: wash hands
Review of emergency procedures and comments: See hospital route in HASP. Call 911.

DAILY SAFETY MEETING FORM (CONTINUED)

Attendees	
Printed Name	**Signature**
Jason Stroup	
Jack Schwertz	

Meeting Conducted by:

Jason Stroup
Name

SCI
Title

Signature

3/22/2016
Date

DAILY SAFETY MEETING FORM

Date: 3/23/16 Time: 0830 Project No.: 14342134

Site Name/Location: Petro-Chemical Systems, Inc. (Turtle Bayou) Superfund Site, Liberty, TX

Site Activities Planned for Today: RTK, VI Sampling, Site Walk, pre Bid visit

Safety Topics Discussed
Protective clothing and equipment: Level D: hard hats, eye protection, safety vests, steel-toed boots, work gloves (as necessary), hearing protection (as necessary)
Chemical hazard: None expected. Site contaminants of concern: volatile organic compounds, semivolatile organic compounds
Physical hazards: Slips, trips, falls, former fence post holes
Environmental and biohazards: Weather – severe thunderstorm and tornado season, snakes, insects, dogs
Equipment hazards: Pinch points, safety around heavy equipment
Decontamination procedures: Decon heavy equipment arriving/departing site
Other:
Review of emergency procedures and comments: See hospital route in HASP. Call 911.

DAILY SAFETY MEETING FORM (CONTINUED)

Attendees	
Printed Name	**Signature**
Jason Stroup	
Mark Kelly	
Jay Snyder	
Jack Schwartz	
SHERELL HEIDT	

Meeting Conducted by:

Jason Stroup
Name

SCI
Title

Signature

3/23/2016
Date

DAILY SAFETY MEETING FORM

Date: 5-10-2016 Time: 0745 Project No.: 14342134-B-5

Site Name/Location: ~~Well~~ Petro Chemical Systems (Turtle Bayou)

Site Activities Planned for Today: Well Installation & Development, Surface Completions

Safety Topics Discussed	
Protective clothing and equipment:	Level D
Chemical hazards:	BTEX, Naphthalene, Vinyl Chloride
Physical hazards:	Slip/Trip/Fall, Lifting, Overhead Obstacles
Environmental and biohazards:	Weather. Insects, Snakes, Plants (Lightning)
Equipment hazards:	Drill Rig. Skid Steer. Pressure Washer
Decontamination procedures:	Wash Hands. Decon @ lay down area.
Other:	Traffic.
Review of emergency procedures and comments:	Hosp. Route. 911

DAILY SAFETY MEETING FORM (CONTINUED)

Attendees	
Printed Name	**Signature**
Mario Robles	Mario Robles
Phillip Schmitt	
Nathan Cornett	

Meeting Conducted by:

Mark Kelly
Name

Geologist
Title

Mark Kelly
Signature

DAILY SAFETY MEETING FORM

Date: 5-11-2016 Time: 1000 Project No.: 14342134-B-5

Site Name/Location: Petro-Chem

Site Activities Planned for Today: Sampling IDW

Safety Topics Discussed	
Protective clothing and equipment:	Level D
Chemical hazards:	BTEX
Physical hazards:	Slip/Trip/Fall
Environmental and biohazards:	Insects, plants
Equipment hazards:	
Decontamination procedures:	Wash Hands
Other:	
Review of emergency procedures and comments:	911 Hospital

DAILY SAFETY MEETING FORM (CONTINUED)

Attendees	
~~SHERE~~ SH **Printed Name**	**Signature**
SHERELL HEJDT	
RAJI JOSIAM	Raji Josiam

Meeting Conducted by:

Mark Kelly
Name

Geologist
Title

Mark Kelly
Signature

APPENDIX A

DAILY SAFETY MEETING FORM

Date: 8-13-2018 **Time:** 1200 **Project No.:** 14342134-B-5

Site Name/Location: Petro-Chemical Systems, Inc. (Turtle Bayou) Superfund Site / Liberty Co., TX

Site Activities Planned for Today: Monitoring Well Installation / P&A, Groundwater Sampling

Safety Topics Discussed

Protective clothing and equipment:

Level D: eye protection, hearing protection, safety-toe boots, cotton/leather work gloves, reflective vest/clothing.

Chemical hazards:

Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene, Vinyl chloride, Tert-butyl alcohol.

Physical hazards:

Slip/Trip/Fall, Lifting, Climbing (fall protection when needed). Underground/Overhead obstacles/utilities, etc.
Secure borehole/wellhead and equipment when location is unattended.

Environmental and biohazards:

Weather (heat/humidity), sun exposure. Rain, LIGHTNING. Mud, wet ground & work surfaces.
POISON IVY, thorns, vines.
Snakes. Alligators. Dogs. Insects (ants, bees/hornets/wasps, mosquitos), Ticks, Spiders, Scorpions, etc..
DRINK PLENTY OF FLUIDS (2-3 WATER FOR EVERY 1 GATORADE/POWERADE).
SUNSCREEN, HEAD/NECK COVER. INSECT REPELLANT. SNAKE GAURDS.

Equipment hazards:

Drill rig. Skidsteer/Forklift/Backhoe. Backing &/or entering roadways (spotter when needed). NOISE.
Pinch points, Rotating parts. Winch lines. Pumps, Pressure hoses. Electric cords. Cutting tools, hand tools.
Grinder (sparks). Hot work (see below).

Decontamination procedures:

Wash hands before eating. New/Clean gloves when installing well materials.
Decon bit, pipe/rods/augers, downhole tools and any other equipment contacting soil and/or groundwater.

Other: Smoking is not allowed at any time within the work area. Dust (cement, silica).
HOT WORK: WELDER, CUTTING TORCH. SPECIAL CARE, ESPECIALLY WITH DRY/DEAD GRASS & LEAVES, WIND. PLACE FIRE EXTINGUISHER NEAR WORK AREA.
Traffic. Cones/barricades, caution tape where needed (roadways, driveways). Cutting/breaking concrete.

Review of emergency procedures and comments:

Hospital Route (see Figure 2).
911. Site address/location: FM 563 & CR 126, approximately 5.5 miles north of Interstate 10.

DAILY SAFETY MEETING FORM (CONTINUED)

8/13/18

Attendees	
Printed Name	**Signature**
RAJI JOSIAM - USEPA	[signature]
Sherell Heidt - TCEQ	[signature]
April Ballweg - EA Engineering	[signature]
JON M. STORM	[signature]
Michael Warren	[signature]
Weston Self	[signature]

Meeting Conducted by:

Mark Kelly
Name

Geologist
Title

[signature]
Signature

APPENDIX A

DAILY SAFETY MEETING FORM

Date: 8-14-2018 **Time:** 0800 **Project No.:** 14342134-B-5

Site Name/Location: Petro-Chemical Systems, Inc. (Turtle Bayou) Superfund Site / Liberty Co., TX

Site Activities Planned for Today: Monitoring Well Installation / P&A, Groundwater Sampling

Safety Topics Discussed
Protective clothing and equipment: Level D: eye protection, hearing protection, safety-toe boots, cotton/leather work gloves, reflective vest/clothing.
Chemical hazards: Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene, Vinyl chloride, Tert-butyl alcohol.
Physical hazards: Slip/Trip/Fall, Lifting, Climbing (fall protection when needed). Underground/Overhead obstacles/utilities, etc. Secure borehole/wellhead and equipment when location is unattended.
Environmental and biohazards: Weather (heat/humidity), sun exposure. Rain, LIGHTNING. Mud, wet ground & work surfaces. POISON IVY, thorns, vines. *Snakes. Alligators.* Dogs. Insects (ants, bees/hornets/wasps, mosquitos), Ticks, Spiders, Scorpions, etc.. **DRINK PLENTY OF FLUIDS (2-3 WATER FOR EVERY 1 GATORADE/POWERADE).** SUNSCREEN, HEAD/NECK COVER. INSECT REPELLANT. SNAKE GAURDS.
Equipment hazards: Drill rig. Skidsteer/Forklift/Backhoe. Backing &/or entering roadways (spotter when needed). NOISE. Pinch points, Rotating parts. Winch lines. Pumps, Pressure hoses. Electric cords. Cutting tools, hand tools. Grinder (sparks). Hot work (see below).
Decontamination procedures: Wash hands before eating. New/Clean gloves when installing well materials. Decon bit, pipe/rods/augers, downhole tools and any other equipment contacting soil and/or groundwater.
Other: Smoking is not allowed at any time within the work area. Dust (cement, silica). **HOT WORK: WELDER, CUTTING TORCH. SPECIAL CARE, ESPECIALLY WITH DRY/DEAD GRASS & LEAVES, WIND. PLACE FIRE EXTINGUISHER NEAR WORK AREA.** Traffic. Cones/barricades, caution tape where needed (roadways, driveways). Cutting/breaking concrete.
Review of emergency procedures and comments: Hospital Route (see Figure 2). 911. Site address/location: FM 563 & CR 126, approximately 5.5 miles north of Interstate 10.

DAILY SAFETY MEETING FORM (CONTINUED)

8/14/18

Attendees	
Printed Name	**Signature**
Michael Warren	Michael Warren
Weston Selt	Weston Selt
Tom M. Flynn	Tom M. Flynn
April Ballweg	April Ballweg

Meeting Conducted by:

Mark Kelly
Name

Geologist
Title

Mark Kelly
Signature

APPENDIX A

DAILY SAFETY MEETING FORM

Date: 8-15-2018 **Time:** 0750 **Project No.:** 14342134-B-6

Site Name/Location: Petro-Chemical Systems, Inc. (Turtle Bayou) Superfund Site / Liberty Co., TX

Site Activities Planned for Today: Monitoring Well Installation / P&A, Groundwater Sampling

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Safety Topics Discussed
Protective clothing and equipment: Level D: eye protection, hearing protection, safety-toe boots, cotton/leather work gloves, reflective vest/clothing.
Chemical hazards: Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene, Vinyl chloride, Tert-butyl alcohol.
Physical hazards: Slip/Trip/Fall, Lifting, Climbing (fall protection when needed). Underground/Overhead obstacles/utilities, etc. Secure borehole/wellhead and equipment when location is unattended.
Environmental and biohazards: Weather (heat/humidity), sun exposure. Rain, LIGHTNING. Mud, wet ground & work surfaces. POISON IVY, thorns, vines. *Snakes. Alligators.* Dogs. Insects (ants, bees/hornets/wasps, mosquitos), Ticks, Spiders, Scorpions, etc.. **DRINK PLENTY OF FLUIDS (2-3 WATER FOR EVERY 1 GATORADE/POWERADE).** **SUNSCREEN, HEAD/NECK COVER. INSECT REPELLANT. SNAKE GAURDS.**
Equipment hazards: Drill rig. Skidsteer/Forklift/Backhoe. Backing &/or entering roadways (spotter when needed). NOISE. Pinch points, Rotating parts. Winch lines. Pumps, Pressure hoses. Electric cords. Cutting tools, hand tools. Grinder (sparks). Hot work (see below).
Decontamination procedures: Wash hands before eating. New/Clean gloves when installing well materials. Decon bit, pipe/rods/augers, downhole tools and any other equipment contacting soil and/or groundwater.
Other: Smoking is not allowed at any time within the work area. Dust (cement, silica). **HOT WORK: WELDER, CUTTING TORCH. SPECIAL CARE, ESPECIALLY WITH DRY/DEAD GRASS & LEAVES, WIND. PLACE FIRE EXTINGUISHER NEAR WORK AREA.** Traffic. Cones/barricades, caution tape where needed (roadways, driveways). Cutting/breaking concrete.
Review of emergency procedures and comments: Hospital Route (see Figure 2). 911. Site address/location: FM 563 & CR 126, approximately 5.5 miles north of Interstate 10.

DAILY SAFETY MEETING FORM (CONTINUED)

8/15/18

Attendees	
Printed Name	**Signature**
April Ballweg	April Ballweg

Meeting Conducted by:

Mark Kelly
Name

Geologist
Title

Signature

APPENDIX A

DAILY SAFETY MEETING FORM

Date: 8/16/18 **Time:** _____ **Project No.:** 14342134-B-6

Site Name/Location: Petro-Chemical Systems, Inc. (Turtle Bayou) Superfund Site / Liberty Co., TX

Site Activities Planned for Today: Monitoring Well Installation / P&A, Groundwater Sampling

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Safety Topics Discussed

Protective clothing and equipment:

Level D: eye protection, hearing protection, safety-toe boots, cotton/leather work gloves, reflective vest/clothing.

Chemical hazards:

Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene, Vinyl chloride, Tert-butyl alcohol.

Physical hazards:

Slip/Trip/Fall, Lifting, Climbing (fall protection when needed). Underground/Overhead obstacles/utilities, etc.
Secure borehole/wellhead and equipment when location is unattended.

Environmental and biohazards:

Weather (heat/humidity), sun exposure. Rain, LIGHTNING. Mud, wet ground & work surfaces.
POISON IVY, thorns, vines.
Snakes. Alligators. Dogs. Insects (ants, bees/hornets/wasps, mosquitos), Ticks, Spiders, Scorpions, etc..
DRINK PLENTY OF FLUIDS (2-3 WATER FOR EVERY 1 GATORADE/POWERADE).
SUNSCREEN, HEAD/NECK COVER. INSECT REPELLANT. SNAKE GAURDS.

Equipment hazards:

Drill rig. Skidsteer/Forklift/Backhoe. Backing &/or entering roadways (spotter when needed). NOISE.
Pinch points, Rotating parts. Winch lines. Pumps, Pressure hoses. Electric cords. Cutting tools, hand tools.
Grinder (sparks). Hot work (see below).

Decontamination procedures:

Wash hands before eating. New/Clean gloves when installing well materials.
Decon bit, pipe/rods/augers, downhole tools and any other equipment contacting soil and/or groundwater.

Other: Smoking is not allowed at any time within the work area. Dust (cement, silica).

HOT WORK: WELDER, CUTTING TORCH. SPECIAL CARE, ESPECIALLY WITH DRY/DEAD GRASS & LEAVES, WIND. PLACE FIRE EXTINGUISHER NEAR WORK AREA.
Traffic. Cones/barricades, caution tape where needed (roadways, driveways). Cutting/breaking concrete.

Review of emergency procedures and comments:

Hospital Route (see Figure 2).
911. Site address/location: FM 563 & CR 126, approximately 5.5 miles north of Interstate 10.

DAILY SAFETY MEETING FORM (CONTINUED)

8/16/18

Attendees	
Printed Name	**Signature**
April Ballweg	April Ballweg

Meeting Conducted by:

Name

Title

Signature

APPENDIX A

DAILY SAFETY MEETING FORM

Date: 9/19/18 **Time:** 0945 **Project No.:** 14342134-B-5

Site Name/Location: Petro-Chemical Systems, Inc. (Turtle Bayou) Superfund Site / Liberty Co., TX

Site Activities Planned for Today: ~~Monitoring Well Installation / P&A, Groundwater Sampling~~

MW Gauging and Surveying New well locations

Safety Topics Discussed
Protective clothing and equipment: Level D: eye protection, hearing protection, safety-toe boots, cotton/leather work gloves, reflective vest/clothing.
Chemical hazards: Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene, Vinyl chloride, Tert-butyl alcohol.
Physical hazards: Slip/Trip/Fall, Lifting, Climbing (fall protection when needed). Underground/Overhead obstacles/utilities, etc. Secure borehole/wellhead and equipment when location is unattended.
Environmental and biohazards: Weather (heat/humidity), sun exposure. Rain, LIGHTNING. Mud, wet ground & work surfaces. POISON IVY, thorns, vines. *Snakes. Alligators.* Dogs. Insects (ants, bees/hornets/wasps, mosquitos), Ticks, Spiders, Scorpions, etc.. **DRINK PLENTY OF FLUIDS (2-3 WATER FOR EVERY 1 GATORADE/POWERADE).** SUNSCREEN, HEAD/NECK COVER. INSECT REPELLANT. SNAKE GAURDS.
Equipment hazards: Drill rig. Skidsteer/Forklift/Backhoe. Backing &/or entering roadways (spotter when needed). NOISE. Pinch points, Rotating parts. Winch lines. Pumps, Pressure hoses. Electric cords. Cutting tools, hand tools. Grinder (sparks). Hot work (see below).
Decontamination procedures: Wash hands before eating. New/Clean gloves when installing well materials. Decon bit, pipe/rods/augers, downhole tools and any other equipment contacting soil and/or groundwater.
Other: Smoking is not allowed at any time within the work area. Dust (cement, silica). **HOT WORK: WELDER, CUTTING TORCH. SPECIAL CARE, ESPECIALLY WITH DRY/DEAD GRASS & LEAVES, WIND. PLACE FIRE EXTINGUISHER NEAR WORK AREA.** Traffic. Cones/barricades, caution tape where needed (roadways, driveways). Cutting/breaking concrete.
Review of emergency procedures and comments: Hospital Route (see Figure 2). 911. Site address/location: FM 563 & CR 126, approximately 5.5 miles north of Interstate 10.

DAILY SAFETY MEETING FORM (CONTINUED)

Attendees	
Printed Name	**Signature**
Nick Dobberpuhl	
John T Bonner	

Meeting Conducted by:

Nick Dobberpuhl
Name

MEN
Title

Signature

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ATTACHMENT 3

PHOTOGRAPHIC DOCUMENTATION

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Photograph 1 Date: 26 April 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of brush clearing activities south of MW-109A/CR126.



Photograph 2 Date: 3 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of Defiant Technologies Frog 4000™ gas chromatograph.



Photograph 3 Date: 2 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of TW-1 direct push sampling activities.



Photograph 4 Date: 4 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of TW-4 installed; note MW-33 in background.



Photograph 5 Date: 4 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of TW-7 direct push sampling activities.



Photograph 6 Date: 4 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of TW-7 installation activities.



Photograph 7 Date: 4 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of TW-8, sampling with Alexis® Pegasus peristaltic pump.



Photograph 8 Date: 4 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of TW-10, probing location near septic lines.



Photograph 9 Date: 5 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of TW-11 installation activities.



Photograph 10 Date: 5 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of TW-11 Ground water sampling activities.



Photograph 11 Date: 5 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-203 installation activities.



Photograph 12 Date: 11 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-201.



Photograph 13 Date: 11 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-202 (deep) and MW-203 (shallow).



Photograph 14 Date: 11 May 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-204.



Photograph 15 Date: 14 June 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-202 ground water sampling activities.



Photograph 16 Date: 14 June 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-201 ground water sampling activities.



Photograph 17 Date: 14 June 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-204 ground water sampling activities.



Photograph 18 Date: 14 June 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-33 ground water sampling activities.



Photograph 19 Date: 14 June 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-193 ground water sampling activities.



Photograph 20 Date: 14 June 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-108 ground water sampling activities.



Photograph 21 Date: 14 June 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-110 ground water sampling activities.



Photograph 22 Date: 14 June 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-192 ground water sampling activities.



Photograph 23 Date: 14 June 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-109A ground water sampling activities.



Photograph 24 Date: 14 June 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-191 ground water impacted from recent flood water.



Photograph 25 Date: 5 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-191.



Photograph 26 Date: 5 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of crack in MW-191 well casing.



Photograph 27 Date: 5 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of sediment in water from MW-191.



Photograph 28 Date: 5 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of recovered sediment/mud from MW-191.



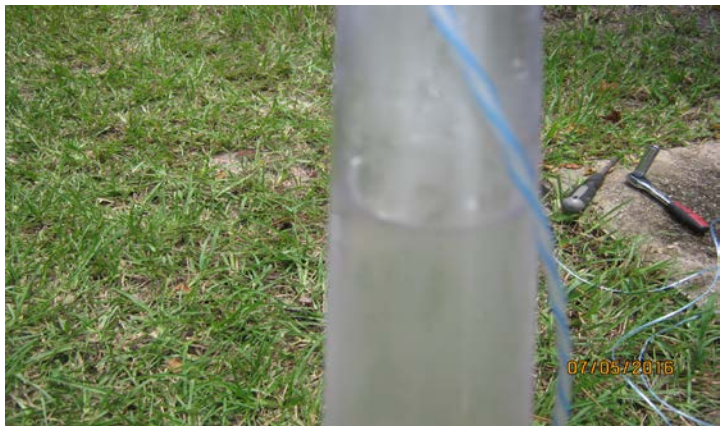
Photograph 29 Date: 5 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of sediment free ground water after purging.



Photograph 31 Date: 5 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of sediment free ground water from MW-191.



Photograph 30 Date: 5 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of sediment free ground water after purging MW-191.



Photograph 32 Date: 5 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of clear ground water from MW-191.



Photograph 33 Date: 19 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of labeling drums.



Photograph 34 Date: 19 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of backhoe removing drums.



Photograph 35 Date: 19 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of loading drums on trailer.



Photograph 36 Date: 19 July 2016
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of loaded drums ready for transport to landfill.



Photograph 1 Date: 13 August 2018
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Installation of MW-191R.



Photograph 2 Date: 13 August 2018
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Completed MW-191R.



Photograph 3 Date: 14 August 2018
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Development of MW-191R.



Photograph 4 Date: 14 August 2018
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Removal of MW-191 and concrete pad.



Photograph 5 Date: 14 August 2018
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Removal of MW-191.



Photograph 6 Date: 14 August 2018
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: Former location of MW-191 after plugging and removal.



Photograph 7 Date: 15 August 2018
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-33 ground water sampling activities.



Photograph 8 Date: 15 August 2018
Site: Petro-Chemical Systems, Inc. (Turtle Bayou)
Description: View of MW-191R during ground water sampling activities.

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ATTACHMENT 4

BORING LOGS AND WELL COMPLETION DIAGRAMS

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EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-191R**

TOTAL DEPTH: **30 feet**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chemical Systems, Inc (Turtle Bayou) Site**
ADDRESS: **Liberty County, Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **8-13-2018**

DRILLING INFORMATION

DRILLING CO.: **Rodney Qualls Drilling**
DRILLER: **Jon Storm**
RIG TYPE: **Diedrich D-50 Turbo**
DRILLING METHOD: **HSA**
SAMPLING METHOD: **5' split tube sampler**
BOREHOLE SIZE: **8 inch**

⧖ Water level during drilling ⧗ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			Steel Cover PVC Stickup to 1.9'
0		SM	Sand. 10YR 4/3 brown. Loose, dry, fine/slightly silty, uniform, subrounded.			Cement 0 to -2'
		CL	Sandy Clay/Clayey Sand. 10YR 5/2 grayish brown, trace 6/8 brownish yellow. Stiff, medium-high plasticity, dry, some very sandy.			
		CL	Sandy Clay/Clay. 10YR 6/3 pale brown, some 7.5YR 6/8 reddish yellow (mottled). Stiff/hard, high plasticity, dry-very slightly moist.			
-5		CL	Sandy Clay/Clay. 10YR 6/3 pale brown, some 7.5YR 6/8 reddish yellow (mottled). Stiff/hard, high plasticity, dry-very slightly moist.			Bentonite chips -2' to -18'
-10		CL	Clay/some slightly sandy. 10YR 6/3 pale brown, some 7.5YR 6/8 reddish yellow (mottled). Medium stiff-stiff, high palsticity, some crumbly/friable, dry-slightly moist.			2" Sch.40 PVC Riser +1.9' to -20'
-15		CH	Clay. 10Y-5GY 7/1 light greenish gray, mottled 5YR 5/8-6/8 reddish yellow-yellowish red. Stiff/hard, high plasticity, dry-very slightly moist, trace fine white calcareous nodules.	⧗ dtw (toc) -18.36' 8-14-2018		
-20		CH	Clay. 10Y 7/1 light greenish gray, mottled 5YR 5/8-6/8 reddish yellow-yellowish red. Stiff/hard, high plasticity, dry-very slightly moist, some white calcareous nodules. Becoming sandy below 25'.			Sand Pack 20/40 Silica -18 to -30'
-25		SC	Sand, some clayey. 5YR 5/8-6/8 reddish yellow-yellowish red. Dense, fine-very silty, moist-wet, uniform.	⧖ dtw (bgs) -27.75' 8-13-2018		2" Sch 40 PVC Screen 0.010" slots -20' to -30'
		CH	Clay. 7.5YR 5/8 strong brown, some black streaks. Very stiff/hard, high plasticity, dry, little-no Sand/Silt.			
-30		SC CH	Sand. Same as above, wet.			
			Clay. Same as above, with dry light gray Silty Sand stringer 29.45'-29.55'.			

STATE OF TEXAS MARK O. KELLY GEOLOGY No. 2924 LICENSED PROFESSIONAL GEOSCIENTIST

NOTES: This log should not be used separately from the original report.

EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-201 / TW-02**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-6-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube/CFA**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **6"**

⧖ Water level during drilling ⧗ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		ML CL	Topsoil/Sandy Clay. 10YR 5/4 yellowish brown. Soft/dense, some plastic, moist-dry, some very sandy/silty (fine grain). Some Gravel.			Steel Vault Stickup 2.67' Cement 0 to -1'
			Silty Clay. 7.5YR 4/1 dark gray, 5YR 5/8 yellowish red. Stiff-some soft, plastic, some slightly moist.			
-5		CL	Silty Clay. 5YR 5/1 gray, 10YR 6/1 gray, 5YR 5/8 yellowish red, some black streaks. Stiff-some soft, plastic, some slightly moist.			Bentonite chips -1" to -18'
-10		CL	Silty Clay. 5GY 8/1-7/1 light greenish gray, 10YR 6/8 brownish yellow, some black streaks. Stiff-some soft, plastic, some slightly moist.			2" Sch.40 PVC Riser +2.67' to -20'
-15		CL	Silty Clay. 10YR 6/8 brownish yellow, 10YR 2/1 black streaks, 5GY 7/1 light greenish gray. Very stiff, plastic, dry-slightly moist, slightly silty.	dtw (bgs) -16.98' 5-11-2016		
-20		CL	Silty Clay. 5GY 7/1 light greenish gray, 10YR 6/8 brownish yellow, 10YR 2/1 black streaks. Very stiff, plastic, slightly moist, slightly silty. Gravelly CaCO3 nodules/deposits @ 21.75'-22.25'; white, dense/hard, angular.	dtw (bgs) -17.1' 5-02-2016		Sand Pack 16/30 Silica -18 to -30'
-25		CL CL	Silty Clay. 5GY 7/1 light greenish gray, 10YR 6/8 brownish yellow, 10YR 2/1 black streaks. Very stiff, plastic, sghtly moist, silty-sandy. CaCO3 nodules/deposits scattered; white, dense/hard, angular.			2" Sch 40 PVC Screen 0.020" slots -20' to -30'
-30		CH/ /SP	Clay (27.25'-28.25', 28.75'-29'). 10YR 6/8 brownish yellow. Very stiff, plastic, dry, silty. Sand (28.25'-28.75', 29'-30'). 10YR 6/4 light yellowish brown, 7/6 yellow. Soft, WET, fine grain.			
-35			Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed. CONVERTED TO MW-201 Original 2-1/4" temporary well direct push boring drilled out with augers and 2" PVC permanant well installed.			
-40						
-45						

STATE OF TEXAS
MARK O. KELLY
GEOLOGY
No. 2924
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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-202**

TOTAL DEPTH: **45'**

PROJECT INFORMATION

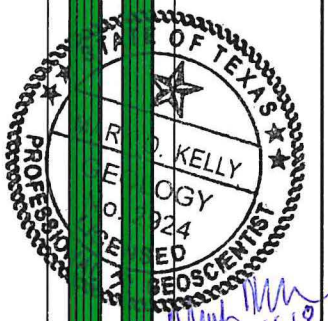
PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-06-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push / HSA**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **8.25"**

▽ Water level during drilling ▼ Water level in completed well Casing Elevation _____

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		CH	Clay. 10YR 4/2-4/3 dark grayish brown-brown. Stiff, plastic, moist.			Steel Vault Stickup 2.6'
		CL/SC	Sandy Clay/Clayey Sand. 7.5YR 5/8 strong brown. Loose/soft, dry.			Bentonite chips -1' to -38'
		CH	Clay. 10Y 7/1-6/1 light greenish gray-greenish gray, 2.5YR 4/8 red. Very stiff, plastic, slightly moist.			
-5		CL	Clay. 10Y 7/1-6/1 light greenish gray-greenish gray, 5YR 6/8 reddish yellow. Stiff, plastic, slightly moist, some slightly sandy.			2" Sch.40 PVC Riser +2.6 to -40'
-10		CL	Clay. 10Y 7/1-6/1 light greenish gray-greenish gray, 5YR 6/8 reddish yellow. Stiff, plastic, slightly moist, some slightly sandy, some black (organic-peat/coal) trace Hematite.			
-15		CL	Clay. 10Y-5GY 8/1 light greenish gray, 7.5YR 5/8 strong brown, 2.5/1 black. Stiff, plastic, slightly moist, some slightly sandy, abundant black, some slightly sandy.	dtw (bgs) -16.76' 5-10-2016		
-20		CL	Clay. 10Y 7/1 light greenish gray, 7.5YR 5/8 strong brown, 2.5/1 black. Stiff, plastic, slightly moist, some slightly sandy, trace black spots, some white CaCO3.	dtw (bgs) -16.80' 5-11-2016		
-25		CL/SC	Sandy Clay/Clayey Sand. 10YR 6/8 brownish yellow, some 7/1 light gray. Stiff, plastic-slightly plastic, moist, some CaCO3 Coarse Sand.			
-30		CH	Clay. 10YR 5/6-5/8 yellowish brown, some 10Y 7/1 light greenish gray, trace 2/1 black. Stiff, plastic, slightly moist-dry, trace Hematite, noncalcareous.			
-35		CH	Clay. 10YR 5/6-5/8 yellowish brown, 10Y 7/1 light greenish gray, trace 2/1 black. Very stiff, plastic, slightly moist-dry, some white CaCO3 (medium-coarse grain Sand).			Sand Pack 16/30 Silica -38' to -45'
-40		CL	Clay/Sandy Clay. 10YR 5/6 yellowish brown, 8/1 white. Very stiff, plastic, some CaCO3. More Sand w/ depth.			
		SP	Sand. 10YR 7/1 light gray, 6/6 brownish yellow, 2.5YR 7/2 pale red. Medium dense, WET, fine grain, uniform, subrounded. Flowing sand/water in HSA.			2" Sch 40 PVC Screen 0.020" slots -40' to -45'
-45						



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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-203 / TW-03**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

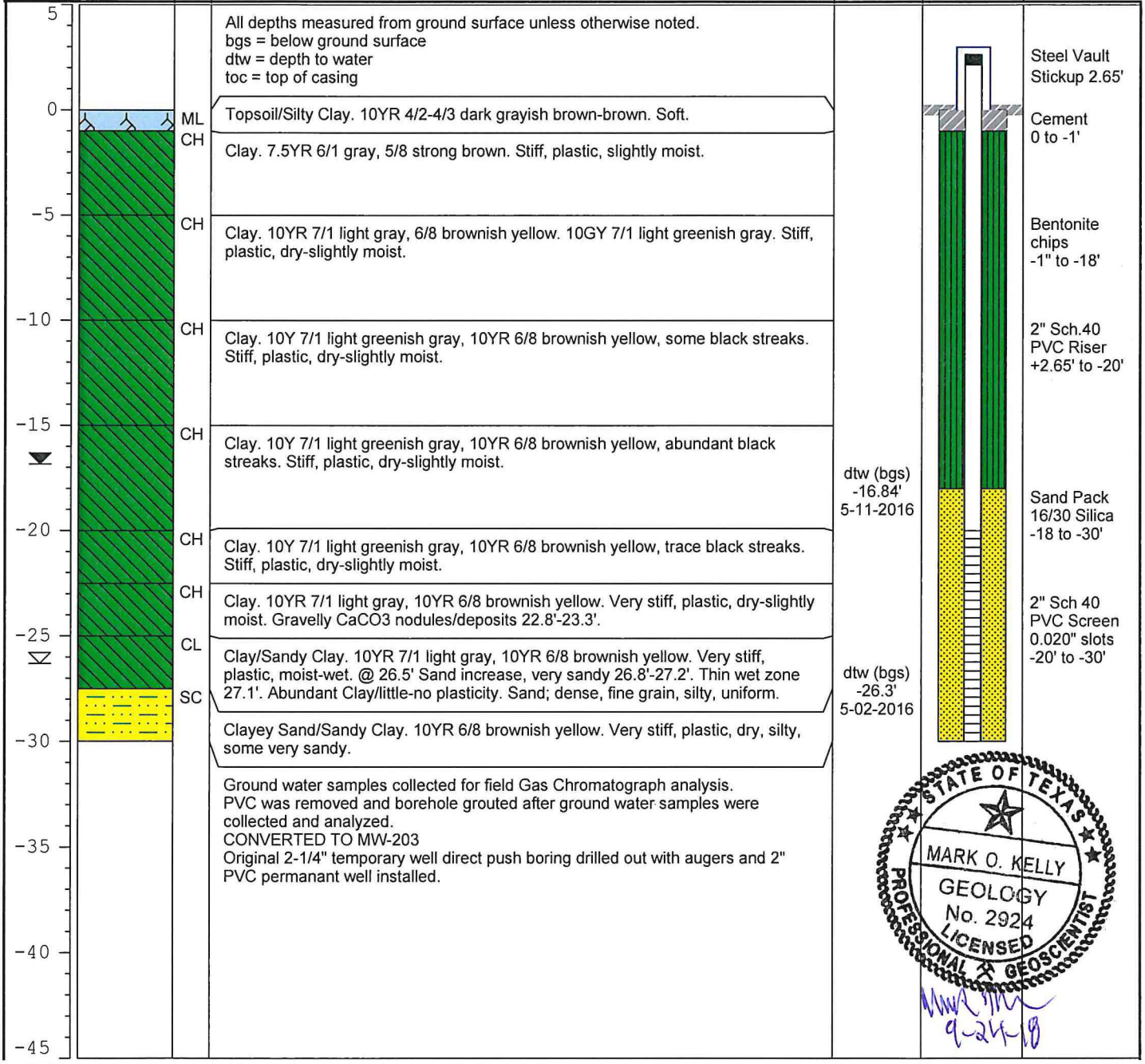
PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-02-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube/CFA**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **6"**

⧖ Water level during drilling ⧗ Water level in completed well Casing Elevation **NA**

DEPTH	USCS	SAMPLE DESCRIPTION	SAMPLES
		All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing	
0	ML	Topsoil/Silty Clay. 10YR 4/2-4/3 dark grayish brown-brown. Soft.	
	CH	Clay. 7.5YR 6/1 gray, 5/8 strong brown. Stiff, plastic, slightly moist.	
-5	CH	Clay. 10YR 7/1 light gray, 6/8 brownish yellow. 10GY 7/1 light greenish gray. Stiff, plastic, dry-slightly moist.	
-10	CH	Clay. 10Y 7/1 light greenish gray, 10YR 6/8 brownish yellow, some black streaks. Stiff, plastic, dry-slightly moist.	
-15	CH	Clay. 10Y 7/1 light greenish gray, 10YR 6/8 brownish yellow, abundant black streaks. Stiff, plastic, dry-slightly moist.	dtw (bgs) -16.84' 5-11-2016
-20	CH	Clay. 10Y 7/1 light greenish gray, 10YR 6/8 brownish yellow, trace black streaks. Stiff, plastic, dry-slightly moist.	
	CH	Clay. 10YR 7/1 light gray, 10YR 6/8 brownish yellow. Very stiff, plastic, dry-slightly moist. Gravelly CaCO3 nodules/deposits 22.8'-23.3'.	
-25	CL	Clay/Sandy Clay. 10YR 7/1 light gray, 10YR 6/8 brownish yellow. Very stiff, plastic, moist-wet. @ 26.5' Sand increase, very sandy 26.8'-27.2'. Thin wet zone 27.1'. Abundant Clay/little-no plasticity. Sand; dense, fine grain, silty, uniform.	dtw (bgs) -26.3' 5-02-2016
	SC	Clayey Sand/Sandy Clay. 10YR 6/8 brownish yellow. Very stiff, plastic, dry, silty, some very sandy.	
-30		Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed. CONVERTED TO MW-203 Original 2-1/4" temporary well direct push boring drilled out with augers and 2" PVC permanant well installed.	
-35			
-40			
-45			



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FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-204 / TW-08**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-04-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube/CFA**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **6"**

⧖ Water level during drilling ⧖ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		ML CH	Topsoil. Clay. 10YR 5/2 grayish brown, some 5/8 yellowish brown streaks. Stiff, plastic, moist.			Steel Vault Stickup 2.87' Cement 0 to -1'
-5		CH	Clay. 10YR 5/2 grayish brown, some 5/8 yellowish brown streaks. Stiff, plastic, moist.			Bentonite chips -1" to -18'
		CH	Clay. 10Y 7/1 light greenish gray, trace 5YR 5/6 yellowish red, some black spots. Very stiff, plastic, slightly moist-dry. Some CaCO3 nodules.			
-10		CH	Clay. 10Y 7/1light greenish gray, 10YR 5/8 yellowish brown. Very stiff, plastic, slightly moist-dry. Some scattered black/organic, especially last 0.25'.			2" Sch.40 PVC Riser +2.87' to -20'
-15		CH	Clay. 10Y 7/1light greenish gray, 10YR 5/8 yellowish brown. Very stiff, plastic, slightly moist-dry. Abundant black/organic (Peat?Coal).			
⧖		CH	Clay. 10Y 7/1light greenish gray, 10YR 5/8 yellowish brown, some black. Very stiff, plastic, slightly moist-dry. Trace white CaCO3.	dtw (bgs) -16.77' 5-11-2016		Sand Pack 16/30 Silica -18 to -30'
-20		CH	Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, trace black. Very stiff, plastic, slightly moist-dry. Some white CaCO3.			
		CH	Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, trace black. Very stiff, plastic, slightly moist-dry. Some large (~0.5") CaCO3, few very small.			2" Sch 40 PVC Screen 0.020" slots -20' to -30'
-25		CL	Sandy Clay/Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, black streaks. Very stiff, plastic, moist. (No obvious water.)			
⧖				dtw (bgs) -28.14' 5-04-2016		
-30			Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed. CONVERTED TO MW-204 Original 2-1/4" temporary well direct push boring drilled out with augers and 2" PVC permanant well installed.			
-35						
-40						
-45						

STATE OF TEXAS
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9-24-18

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **TW-01**

TOTAL DEPTH: **35'**

PROJECT INFORMATION

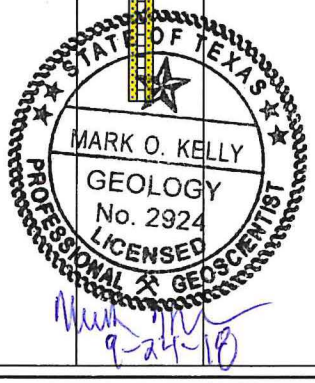
PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-02-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **2.25"**

⧖ Water level during drilling ⧗ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		ML	Topsoil/Silty Clay. 10YR 4/3 brown, 2.5Y 5/3 light olive brown. Soft-stiff, plastic, moist, some very silty, slightly blocky. Some Gravel/Caliche?.			Bentonite chips 0 to -23'
		ML	Clayey Silt/Silty Clay. 7.5YR 4/1 dark gray, 5YR 5/8 yellowish red. Medium stiff-stiff, plastic, some very silty-sandy.			
-5		CL	Clay. 10YR 6/1 gray, 6/8 brownish yellow. Very stiff, plastic, dry-slightly moist, slightly silty.			3/4" Sch.40 PVC Riser 0 to -25'
-10		CL	Clay. 10YR 6/1 gray, 5GY 7/1 light greenish gray, 10YR 6/8 brownish yellow. Very stiff, plastic, dry-slightly moist, slightly silty.			Sand Pack 16/30 Silica -23 to -35'
-15		CL	Clay. 10YR 6/8 brownish yellow, 5GY 7/1 light greenish gray, some 10YR 2/1 black. Very stiff, plastic, dry-slightly moist, slightly silty.			3/4" Sch 40 PVC Screen 0.020" slots -25' to -35'
-20		CL	Clay. 5GY 7/1 light greenish gray, 10YR 6/8 brownish yellow, some 10YR 7/1 light gray. Very stiff, plastic, dry-slightly moist, slightly silty.	dtw (bgs) -27.25' 5-03-2016		
-25		CL	Clay. 5GY 7/1 light greenish gray, 10YR 6/8 brownish yellow, some 10YR 7/1 light gray. Very stiff, plastic, dry-slightly moist, slightly silty.	dtw (bgs) -24.6' 5-02-2016		
		CL	Clay/Sandy Clay. 5GY 7/1 light greenish gray, 10YR 6/8 brownish yellow, some 10YR 7/1 light gray. Stiff, slighty plastic-plastic. @29', CaCO3 nodules/deposits, crumbly. *No obvious indication of water.*			
-30		CH	Clay. 10YR 7/1 light gray, 6/8 brownish yellow, some 2/1 black. Very stiff, plastic, dry, little-no Sand/Silt.			
-35			Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed.			
-40						
-45						



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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **TW-02/MW-201**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-02-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube/CFA**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **2.25"/6"**

⧖ Water level during drilling ⧗ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		ML CL	Topsoil/Sandy Clay. 10YR 5/4 yellowish brown. Soft/dense, some plastic, moist-dry, some very sandy/silty (fine grain). Some Gravel.			Bentonite chips 0 to -18'
			Silty Clay. 7.5YR 4/1 dark gray, 5YR 5/8 yellowish red. Stiff-some soft, plastic, some slightly moist.			
-5		CL	Silty Clay. 5YR 5/1 gray, 10YR 6/1 gray, 5YR 5/8 yellowish red, some black streaks. Stiff-some soft, plastic, some slightly moist.			3/4" Sch.40 PVC Riser 0 to -20'
-10		CL	Silty Clay. 5GY 8/1-7/1 light greenish gray, 10YR 6/8 brownish yellow, some black streaks. Stiff-some soft, plastic, some slightly moist.			Sand Pack 16/30 Silica -18 to -30'
-15		CL	Silty Clay. 10YR 6/8 brownish yellow, 10YR 2/1 black streaks, 5GY 7/1 light greenish gray. Very stiff, plastic, dry-slightly moist, slightly silty.	dtw (bgs) -16.98' 5-11-2016		3/4" Sch 40 PVC Screen 0.020" slots -20' to -30'
-20		CL	Silty Clay. 5GY 7/1 light greenish gray, 10YR 6/8 brownish yellow, 10YR 2/1 black streaks. Very stiff, plastic, slightly moist, slightly silty. Gravelly CaCO3 nodules/deposits @ 21.75'-22.25'; white, dense/hard, angular.	dtw (bgs) -17.1' 5-02-2016		
		CL	Silty Clay. 5GY 7/1 light greenish gray, 10YR 6/8 brownish yellow, 10YR 2/1 black streaks. Very stiff, plastic, sghtly moist, silty-sandy. CaCO3 nodules/deposits scattered; white, dense/hard, angular.			
-25		CH/ /SP	Clay (27.25'-28.25', 28.75'-29'). 10YR 6/8 brownish yellow. Very stiff, plastic, dry, silty. Sand (28.25'-28.75', 29'-30'). 10YR 6/4 light yellowish brown, 7/6 yellow. Soft, WET, fine grain.			
-30			Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed. CONVERTED TO MW-201			
-35						
-40						
-45						

STATE OF TEXAS
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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **TW-03/MW-203**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-02-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube/CFA**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **2.25"/6"**

⧖ Water level during drilling ⧗ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		ML	Topsoil/Silty Clay. 10YR 4/2-4/3 dark grayish brown-brown. Soft.			
		CH	Clay. 7.5YR 6/1 gray, 5/8 strong brown. Stiff, plastic, slightly moist.			Bentonite chips 0 to -18'
-5		CH	Clay. 10YR 7/1 light gray, 6/8 brownish yellow. 10GY 7/1 light greenish gray. Stiff, plastic, dry-slightly moist.			3/4" Sch.40 PVC Riser 0 to -20'
-10		CH	Clay. 10Y 7/1 light greenish gray, 10YR 6/8 brownish yellow, some black streaks. Stiff, plastic, dry-slightly moist.			Sand Pack 16/30 Silica -18 to -30'
-15 ⧗		CH	Clay. 10Y 7/1 light greenish gray, 10YR 6/8 brownish yellow, abundant black streaks. Stiff, plastic, dry-slightly moist.	dtw (bgs) -16.84' 5-11-2016		3/4" Sch 40 PVC Screen 0.020" slots -20' to -30'
-20		CH	Clay. 10Y 7/1 light greenish gray, 10YR 6/8 brownish yellow, trace black streaks. Stiff, plastic, dry-slightly moist.			
		CH	Clay. 10YR 7/1 light gray, 10YR 6/8 brownish yellow. Very stiff, plastic, dry-slightly moist. Gravelly CaCO3 nodules/deposits 22.8'-23.3'.			
-25 ⧖		CL	Clay/Sandy Clay. 10YR 7/1 light gray, 10YR 6/8 brownish yellow. Very stiff, plastic, moist-wet. @ 26.5' Sand increase, very sandy 26.8'-27.2'. Thin wet zone 27.1'. Abundant Clay/little-no plasticity. Sand; dense, fine grain, silty, uniform.	dtw (bgs) -26.3' 5-02-2016		
		SC	Clayey Sand/Sandy Clay. 10YR 6/8 brownish yellow. Very stiff, plastic, dry, silty, some very sandy.			
-30			Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed. CONVERTED TO MW-203			
-35						
-40						
-45						

STATE OF TEXAS
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9-24-18

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405 State Hwy 121
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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **TW-04**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-03-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **2.25"**

Water level during drilling ⧖ Water level in completed well ⧗ Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		ML	Topsoil/Silty Clay. 10YR 6/3 pale brown. Soft-medium stiff, moist.			
		CL	Clay/Silty Clay. 7.5YR 4/1 dark gray, 5/8 strong brown. Medium stiff, some soft, plastic, moist-dry.			Bentonite chips 0 to -18'
-5		CL	Clay/Silty Clay. 7.5YR 4/1 dark gray, 5/8 strong brown. Medium stiff, somr soft, plastic, moist-dry.			3/4" Sch.40 PVC Riser 0 to -20'
		CL	Clay/Silty Clay. 10YR 7/1 light gray, 10GY 7/1 light greenish gray. Stiff, plastic, dry-slightly moist. Trace CaCO3 nodules.			
-10		CL	Clay/Silty Clay. 10YR 7/1 light gray, 10YR 6/8 brownish yellow, some 2.5YR 4/8 red, trace black streaks. Very stiff, plastic, slightly moist-dry.			Sand Pack 16/30 Silica -18 to -30'
-15.28 ⧖		CL	Clay/Silty Clay. 10YR 7/1 light gray, 10YR 6/8 brownish yellow, some black streaks. Very stiff, plastic, slightly moist-dry.	dtw (bgs) -15.28' 5-03-2016		3/4" Sch 40 PVC Screen 0.020" slots -20' to -30'
-17.86 ⧗				dtw (bgs) -17.86' 5-04-2016		
-20		CL	Clay/Silty Clay. 10YR 7/1 light gray, 10YR 6/8 brownish yellow, some black streaks. Very stiff, plastic, slightly moist-dry. Trace CaCO3 nodules.			
		CL	Clay/Silty Clay. 10YR 7/1 light gray, 10YR 6/8 brownish yellow, some black streaks. Very stiff, plastic, slightly moist-dry. Abundant sandy/gravelly CaCO3 nodules 24.6'-25'.			
-25		CL	Sandy Clay. 10YR 7/1 light gray, 10YR 6/8 brownish yellow, some black streaks. Stiff, plastic, slightly moist-dry.			
		SP	Sand. 10YR 6/4 light yellowish brown, 7/6 yellow. Soft, WET, fine grain.			
-30			Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed.			
-35						
-40						
-45						

STATE OF TEXAS
MARK O. KELLY
GEOLOGY
No. 2924
LICENSED
PROFESSIONAL GEOSCIENTIST

9-24-19

NOTES: This log should not be used separately from the original report.

EA Engineering, Science, and Technology, Inc., PBC
405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **TW-05**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-03-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **2.25"**

▽ Water level during drilling ▼ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		ML	Topsoil/Silty Clay. 10YR 6/1 gray-6/3 pale brown. Medium dense, very sandy.			
		CH	Clay. 7.5YR 4/1 dark gray, 5/8 strong brown. Stiff, plastic, moist-wet.			Bentonite chips 0 to -18'
-5		CH	Clay. 10YR 7/1 light gray, 5/8 yellowish brown. Stiff, plastic, moist-wet. Trace small white CaCO3.			3/4" Sch.40 PVC Riser 0 to -20'
-10		CH	Clay. 10YR 7/1 light gray, 10GY 7/1 light greenish gray, 10YR 5/8 yellowish brown, black streaks. Very stiff, plastic, slightly moist-dry.			Sand Pack 16/30 Silica -18 to -30'
-15		CL	Clay. 10YR 7/1 light gray, 10GY 7/1 light greenish gray, 10YR 5/8 yellowish brown, black streaks. Very stiff, plastic, slightly moist-dry, sandy 18.5'-20'.	DRY 5-03-2016		3/4" Sch 40 PVC Screen 0.020" slots -20' to -30'
-20		CL	Clay. 10YR 7/1 light gray, 10GY 7/1 light greenish gray, 10YR 5/8 yellowish brown, black streaks. Very stiff, plastic, slightly moist-dry, sandy, CaCO3 nodules @~21.4'-21.6' and 24.8'.			
-25			Sand. 10YR 6/4 light yellowish brown, 7/6 yellow. Soft, slightly moist-dry, fine grain.			
		SP CL	Clay. 10YR 7/1 light gray, 10GY 7/1 light greenish gray, 10YR 5/8 yellowish brown, black streaks. Very stiff, plastic, slightly moist-dry, sandy.			
-30			No ground water samples were collected for field Gas Chromatograph analysis from this well. PVC was removed and borehole grouted.	dtw (bgs) -30.06' 5-04-2016		
-35						
-40						
-45						

STATE OF TEXAS
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Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **TW-06**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-03-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **2.25"**

⧖ Water level during drilling ⧗ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		CL CH	Sandy Clay. 10YR 5/3-4/2 brown-dark grayish brown. Soft, some slightly plastic, wet-moist, silty, calcareous.			Bentonite chips 0 to -18'
			Clay. 10Y 7/1 light greenish gray, 5YR 5/6 yellowish red. Stiff, plastic, noncalcareous.			
-5		CH	Clay. 10Y 7/1 light greenish gray, 5YR 5/6 yellowish red, trace black streaks. Very stiff, plastic, CaCO3 Sand/Gravel 7.6'-7.9'.			3/4" Sch.40 PVC Riser 0 to -20'
-10		CH	Clay. 10Y 8/1 light greenish gray, 10YR 6/8 brownish yellow, trace black streaks. Very stiff, plastic, CaCO3 Sand/Gravel 12.1'-12.2'.			Sand Pack 16/30 Silica -18 to -30'
-15		CH	Clay. 10Y 8/1 light greenish gray, 10YR 6/8 brownish yellow, trace black streaks. Very stiff, plastic, CaCO3 Sand/Gravel 12.1'-12.2'.	dtw (bgs) -17.55' 5-04-2016		3/4" Sch 40 PVC Screen 0.020" slots -20' to -30'
-20		CL	Clay. 10YR 7/1 light gray, 10GY 7/1 light greenish gray, 10YR 5/8 yellowish brown, black streaks. Stiff, plastic, moist-dry, sandy, few CaCO3 nodules.	dtw (bgs) -19.58' 5-03-2016		
		CL	Clay. 10YR 7/1 light gray, 10GY 7/1 light greenish gray, 10YR 5/8 yellowish brown, black streaks. Stiff, plastic, moist-dry, sandy, CaCO3 coarse Sand/fine Gravel @~ 24.8'.			
-25		CL	Clay. 10YR 7/1 light gray, 10GY 7/1 light greenish gray, 10YR 5/8 yellowish brown, black streaks. Stiff, plastic, moist-dry, sandy, CaCO3.			
		CL	Sandy Clay/Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, black streaks. Stiff, plastic, moist-dry. 27'-27.5'; Clay with medium-coarse Sand. Some scattered CaCO3, especially 27.5'-28'.			
-30			*No obvious water / no Sand zone.*			
-35			Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed.			
-40						
-45						

STATE OF TEXAS
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GEOLOGY
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9-24-18

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **TW-07**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-04-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **2.25"**

⧖ Water level during drilling ⧗ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		OH	Silt/Clay. 10YR 4/2 dark grayish brown. Soft, wet.			
		CL	Clay. 7.5YR 4/1 dark gray, 5/8 strong brown. Very stiff, plastic, slightly silty.			Bentonite chips 0 to -18'
-5		CH	Clay. 10Y 7/1 light greenish gray, 5YR 5/6 yellowish red, black streaks. Very stiff, plastic, slightly moist-dry. Some CaCO3 nodules, scattered, especially 6'-7'.			3/4" Sch.40 PVC Riser 0 to -20'
-10		CH	Clay. 10Y 7/1 light greenish gray, 5YR 5/6 yellowish red, black streaks. Very stiff, plastic, slightly moist-dry. @12.5' abundant black streaks/nodules (organic?peat).			Sand Pack 16/30 Silica -18 to -30'
-15		CH	Clay. 10Y 7/1 light greenish gray, 10YR 6/6, 6/8brownish yellow, black streaks. Very stiff, plastic, slightly moist-dry. Some small CaCO3 last foot.			3/4" Sch 40 PVC Screen 0.020" slots -20' to -30'
⧖				dtw (bgs) -17.33' 5-04-2016		
-20		CL	Clay. 10Y 8/1-7/1 light greenish gray, 10YR 7/8-6/8 yellow-brownish yellow, trace blackstreaks. Stiff, plastic, moist-dry, sandy, some scattered small white CaCO3 nodules.			
		CL	Clay. 10YR 7/1 light gray, 10GY 7/1 light greenish gray, 10YR 5/8 yellowish brown, black streaks. Stiff, plastic, moist-dry, sandy, some white Sand/Gravel CaCO3 @~23' & 24.75'.			
-25		CL	Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, black streaks. Stiff, plastic, moist-dry, sandy.			
		CL	Sandy Clay/Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, black streaks. Stiff, plastic, moist-dry, very sandy-sandy.			
-30			Clay/Sandy Clay/Clay. 10YR 5/8 yellowish brown, 10Y 7/1 light greenish gray, some black streaks. Stiff, plastic, moist-dry, sandy. Some scattered CaCO3.			
			NOTE: Installed in area with standing water; very wet & muddy.			
-35			Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed.			
-40						
-45						

STATE OF TEXAS
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GEOLOGY
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9-24-18

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **TW-08/MW-204**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-04-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube/CFA**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **2.25"/6"**

▽ Water level during drilling ▼ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		ML	Topsoil.			Bentonite chips 0 to -18'
		CH	Clay. 10YR 5/2 grayish brown, some 5/8 yellowish brown streaks. Stiff, plastic, moist.			
-5		CH	Clay. 10YR 5/2 grayish brown, some 5/8 yellowish brown streaks. Stiff, plastic, moist.			3/4" Sch.40 PVC Riser 0 to -20'
		CH	Clay. 10Y 7/1 light greenish gray, trace 5YR 5/6 yellowish red, some black spots. Very stiff, plastic, slightly moist-dry. Some CaCO3 nodules.			
-10		CH	Clay. 10Y 7/1light greenish gray, 10YR 5/8 yellowish brown. Very stiff, plastic, slightly moist-dry. Some scattered black/organic, especially last 0.25'.			Sand Pack 16/30 Silica -18 to -30'
-15		CH	Clay. 10Y 7/1light greenish gray, 10YR 5/8 yellowish brown. Very stiff, plastic, slightly moist-dry. Abundant black/organic (Peat?Coal).			3/4" Sch 40 PVC Screen 0.020" slots -20' to -30'
▼		CH	Clay. 10Y 7/1light greenish gray, 10YR 5/8 yellowish brown, some black. Very stiff, plastic, slightly moist-dry. Trace white CaCO3.	dtw (bgs) -16.77' 5-11-2016		
-20		CH	Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, trace black. Very stiff, plastic, slightly moist-dry. Some white CaCO3.			
		CH	Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, trace black. Very stiff, plastic, slightly moist-dry. Some large (~0.5") CaCO3, few very small.			
-25		CH				
		CL	Sandy Clay/Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, black streaks. Very stiff, plastic, moist. (No obvious water.)			
▽		CL		dtw (bgs) -28.14' 5-04-2016		
-30			Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed. CONVERTED TO MW-204			
-35						
-40						
-45						

STATE OF TEXAS
MARK O. KELLY
GEOLOGY
No. 2924
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9-24-18

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **TW-09**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-04-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **2.25"**

⧖ Water level during drilling ⧗ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		ML	Topsoil. 0.25'; 7.5YR 3/2 dark brown-2.5/1 black. 0.5'; 2.5YR 4/6-4/8 red.			
		CH	Clay. 10YR 5/2 grayish brown, some 5/8 yellowish brown streaks. Stiff, plastic, moist.			Bentonite chips 0 to -18'
-5		CH	Clay. 10Y 7/1 light greenish gray, some 10YR 6/8 brownish yellow, some black spots, trace 8/1 white. Very stiff, plastic, some slightly sandy.			3/4" Sch.40 PVC Riser 0 to -20'
-10			No Recovery. Sample liner stuck in rod, unable to remove.			Sand Pack 16/30 Silica -18 to -30'
-15		CH	Clay. 10YR 7/1 light gray, 5/6 yellowish brown, some black streaks. Very stiff, plastic, slightly moist-dry. Abundant black & yellow brown (organic?) last 0.75'-1'.	DRY. No response from interface probe.		3/4" Sch 40 PVC Screen 0.020" slots -20' to -30'
-20		CH	Clay. 10YR 7/1 light gray, 5/6 yellowish brown, some black streaks. Very stiff, plastic, slightly moist-dry. Some white CaCO3 ~22.5.			
		CH	Clay. 10YR 7/1 light gray, 5/6 yellowish brown, some black streaks. Very stiff, plastic, slightly moist-dry. Abundant CaCO3 throughout.			
-25		CL	Sandy Clay/Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, black streaks. Very stiff, plastic, some slightly plastic-nonplastic, very sandy, moist.			
		CL	Sandy Clay/Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, black streaks. Very stiff, plastic, sandy, moist-dry.			
-30			No ground water samples collected for field Gas Chromatograph analysis from this well. PVC was removed and borehole grouted.			
-35						
-40						
-45						

STATE OF TEXAS
MARK O. KELLY
GEOLOGY
No. 2924
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9-24-18

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405 State Hwy 121
Bldg. C, Ste. 100
Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **TW-10**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-04-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **2.25"**

⧖ Water level during drilling ⧗ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0		CL	Clay. 10YR 4/2 dark grayish brown, 6/8 brownish yellow. Soft, plastic, moist.			Bentonite chips 0 to -18'
		SP CH	Sand. 10YR 4/2 dark grayish brown, 2.5Y 5/2grayish brown. Fill? (near septic field).			
-5			Clay. 10YR 4/2 dark grayish brown, 6/8 brownish yellow. Stiff, plastic, moist.			3/4" Sch.40 PVC Riser 0 to -20'
		CH	Clay. 10Y 7/1 light greenish gray, some 10YR 6/8 brownish yellow, some black spots. Soft-stifff, plastic, moist, trace Hematite.			
-10		CH	Clay. 10Y 7/1 light greenish gray, some 10YR 6/8 brownish yellow. Very stiff, plastic, slightly moist-dry.			Sand Pack 16/30 Silica -18 to -30'
		CH	Clay. 10YR 6/8 brownish yellow, 10Y 7/1 light greenish gray, some black spots last 0.5'. Very stiff, plastic, slightly moist-dry.			
-15		CH	Clay. 5GY 8/1 light greenish gray, 10YR 5/6 yellowish brown, some black streaks. Soft/medium stiff-very stiff, plastic, moist, slightly wet 16.6'-17.1', sandy.			3/4" Sch 40 PVC Screen 0.020" slots -20' to -30'
⧖ -20		SP	Sand. 10YR 7/1 light gray. Medium dense-loose, moist-wet, fine grain, uniform, some Clay.	dtw (bgs) -19.25' 5-04-2016		
		CH	Clay. 5GY 8/1 light greenish gray, 10YR 5/6 yellowish brown, some black streaks. Stiff, plastic, some CaCO3 24'-25'.			
-25		CH	Clay. 10YR 5/6 yellowish brown, some 5GY 8/1-7/1 light greenish gray, some black streaks. Stiff, plastic, some fine-coarse sandy CaCO3 @~25.5'.			
-30		CL	Sandy Clay/Clay. 10YR 7/1 light gray, 10YR 5/8 yellowish brown, black streaks. Slightly soft, plastic, sandy-very sandy, WET.			
			Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed.			
-35						
-40						
-45						

STATE OF TEXAS
MARK O. KELLY
GEOLOGY
No. 2924
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9-24-16

NOTES: This log should not be used separately from the original report.

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405 State Hwy 121
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Lewisville, TX 75067

FIELD BOREHOLE LOG

BOREHOLE NO.: **TW-11**

TOTAL DEPTH: **-30**

PROJECT INFORMATION

PROJECT: **EPA RAC II**
SITE LOCATION: **Petro-Chem**
ADDRESS: **Liberty Co., Texas**
LOGGED BY: **Mark Kelly**
PROJECT MANAGER: **April Ballweg**
DATE DRILLED: **5-05-2016**

DRILLING INFORMATION

DRILLING CO.: **Qualls Drilling**
DRILLER: **Mario Robles**
RIG TYPE: **Geoprobe 7822DT**
DRILLING METHOD: **Direct Push-Dual Tube**
SAMPLING METHOD: **5' Plastic Liners**
BOREHOLE SIZE: **2.25"**

⧖ Water level during drilling ⧗ Water level in completed well Casing Elevation **NA**

DEPTH	SOIL/ROCK SYMBOLS	USCS	SAMPLE DESCRIPTION	SAMPLES	BORING COMPLETION	WELL DETAILS
5			All depths measured from ground surface unless otherwise noted. bgs = below ground surface dtw = depth to water toc = top of casing			
0			Topsoil (Sand/Clayey Sand). 10YR 5/4 yellowish brown. Soft, plastic, moist.			Bentonite chips 0 to -15.5'
			Clay/Silty Clay. 10YR 5/2 grayish brown, 2.5YR 5/8 red, 10Y-5GY 7/1 light greenish gray. Soft-medium stiff, plastic, moist.			
-5			Clay. 10YR 8/1 white, 7.5YR 5/8 strong brown. Very stiff, plastic, slightly moist-dry, white CaO3 nodules @~7.75', (coarse Sand/fine Gravel), some black spots.			3/4" Sch.40 PVC Riser +2.4' to -17.6'
-10			Clay. 10YR 7/1 light gray, 7.5YR 5/8 strong brown, some black streaks. Very stiff, plastic, slightly moist-dry. White CaCO3 nodules.			Sand Pack 16/30 Silica -15.5' to -27.6'
⧖				dtw (bgs) -13.40' 5-05-2016		
-15			Clay. 10YR 7/1 light gray, 7.5YR 5/8 strong brown, some black streaks. Very stiff, plastic, dry. CaCO3 nodules.			3/4" Sch 40 PVC Screen 0.020" slots -17.6' to -27.6'
			Clay. 10YR 7/1 light gray, 7.5YR 5/8 strong brown, some black streaks. Very stiff, plastic, dry. Trace fine grain CaCO3 nodules.			
-20			Clay. 10YR 7/1 light gray, 7.5YR 5/8 strong brown, some black streaks. Very stiff, plastic, dry. Abundant coarse sand/gravel grain CaCO3 20'-20.5'.			
			Clay. 10YR 7/1 light gray, 7.5YR 5/8 strong brown, some black streaks. Very stiff, plastic, dry. Angular gravel grain CaCO3 @24' (not heavily calcified). More sand/gravel grain CaCO3 @~24.75'. Trace Hematite.			
-25			Sand. Dense, slightly moist-moist.			
			Sandy Clay/Clay (mid-part mostly Clay). Stiff, slightly plastic-plastic, dry-wet, very sandy 29.75-30; some free water.			
-30			Some hole collapse (~2') during pipe installation, 2.4' stickup (of 30' pipe). Bottom screen 27.6' bgs.			
-35			Ground water samples collected for field Gas Chromatograph analysis. PVC was removed and borehole grouted after ground water samples were collected and analyzed.			
-40						
-45						

STATE OF TEXAS
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GEOLOGY
No. 2924
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9-24-18

NOTES: This log should not be used separately from the original report.

STATE OF TEXAS WELL REPORT for Tracking #491354

Owner:	**USEPA Region 6**	Owner Well #:	**MW-191R**
Address:	**1445 Ross Ave, Suite 1200 Dallas, TX 75202**	Grid #:	**64-03-5**
Well Location:	**300 CR 126 Liberty, TX 77575**	Latitude:	**29° 55' 08" N**
		Longitude:	**094° 41' 43" W**
Well County:	**Liberty**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **8/13/2018** Drilling End Date: **8/13/2018**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
8	**0**	**30**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
18	**30**	**Sand**	**20/40**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**2**	**Concrete 1 Bags/Sacks**
2	**18**	**Bentonite 8 Bags/Sacks**

Seal Method: **Gravity**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

314 thomas pl
everman, TX 76140

Driller Name: **Jon Storm** License Number: **5003**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**0.5**	**Sand, Loose, Dry, Fine, Silty**
0.5	**1**	**Sandy Clay, Stiff, Medium-High Plasticity**
1	**5**	**Sandy Clay/Clay, Stiff, Hard, High Plasticity, Dry to Slightly Moist**
5	**10**	**SAA**
10	**15**	**SAA, Clay, Slightly Sandy, Medium Stiff to Stiff, High Plasticity, Slightly Moist**
15	**20**	**Clay, Mottled, Stiff/Hard, High Plasticity, Dry to Slightly Moist**
20	**25**	**SAA with Larger White Calc Nodules**
25	**27.5**	**Clay, Medium Stiff, High Plasticity, Dry to Slightly Moist, Small White Calc Nodules**
27.5	**28.6**	**SAA, Clayey, Dense, Moist, Saturated, Uniform**
28.6	**29.15**	**Clay, Black Streaks, Very stiff/Hard, High Plasticity, Dry**
29.15	**29.35**	**Sand, Wet**
29.35	**29.5**	**Silty Sand, Light Grey, Dry, Very Silty, Trace Clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	**Riser**	**New Plastic (PVC)**	**40**	**0**	**20**
2	**Screen**	**New Plastic (PVC)**	**40 0.010**	**20**	**30**

29.5	**30**	**Clay, Stiff, Dry**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #423780

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**MW-201**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
Well County:	**Liberty**		
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **5/6/2016** Drilling End Date: **5/6/2016**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8.25**	**0**	**30**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**18**	**30**	**Sand**	**16/30**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**2**	**18**	

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Tan clayey sand**
2	**30**	**Tan silty clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	**Riser**	**New Plastic (PVC)**	**40**	**0**	**20**
2	**Screen**	**New Plastic (PVC)**	**40 0.020**	**20**	**30**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS WELL REPORT for Tracking #423783

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**MW-202**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
Well County:	**Liberty**		
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **5/9/2016** Drilling End Date: **5/9/2016**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
8.25	**0**	**45**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
38	**45**	**Sand**	**16/30**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
2	**38**	

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Tan clayey sand**
2	**40**	**Tan silty clay**
40	**45**	**Tan Sand**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	**Riser**	**New Plastic (PVC)**	**40**	**0**	**40**
2	**Screen**	**New Plastic (PVC)**	**40 0.020**	**40**	**45**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS WELL REPORT for Tracking #423781

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**MW-203**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
Well County:	**Liberty**		
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **5/9/2016** Drilling End Date: **5/9/2016**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
8.25	**0**	**30**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
18	**30**	**Sand**	**16/30**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
2	**18**	

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Tan clayey sand**
2	**30**	**Tan silty clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	**Riser**	**New Plastic (PVC)**	**40**	**0**	**20**
2	**Screen**	**New Plastic (PVC)**	**40 0.020**	**20**	**30**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS WELL REPORT for Tracking #423779

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**MW-204**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
Well County:	**Liberty**		
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **5/5/2016** Drilling End Date: **5/5/2016**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8.25**	**0**	**30**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**18**	**30**	**Sand**	**16/30**

Annular Seal Data: **No Data**

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

Report Amended on 8/20/2016 by Request #19559

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Tan clayey sand**
2	**30**	**Tan silty clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	**Riser**	**New Plastic (PVC)**	**40**	**0**	**20**
2	**Screen**	**New Plastic (PVC)**	**40 0.020**	**20**	**30**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS WELL REPORT for Tracking #423773

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**TMW-1**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
			****Plugged Within 48 Hours****
Well County:	**Liberty**		

****This well has been plugged**** **Plugging Report Tracking #159599**

Type of Work: **New Well** Proposed Use: **Monitor**

Drilling Start Date: **5/2/2016** Drilling End Date: **5/2/2016**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2.25**	**0**	**35**

Drilling Method: **Direct Push**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**18**	**35**	**Sand**	**16/30**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**2**	**18**	

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **No Data**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

Report Amended on 6/5/2016 by Request #17982

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Tan clayey sand**
2	**35**	**Tan silty clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
0.75	**Riser**	**New Plastic (PVC)**	**40**	**0**	**20**
0.75	**Screen**	**New Plastic (PVC)**	**40 0.020**	**20**	**35**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS WELL REPORT for Tracking #423774

Owner: **EPA Region 6 Main Office**

Address: **1445 Ross Avenue Suite 1200 Dallas , TX 75202**

Well Location: **South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**

Well County: **Liberty**

Number of Wells Drilled: **2**

Owner Well #: **TMW-2, TMW-3**

Grid #: **64-03-5**

Latitude: **29° 55' 07" N**

Longitude: **094° 41' 43" W**

Elevation: **No Data**

****Plugged Within 48 Hours****

****This well has been plugged**** **Plugging Report Tracking #159600**

Type of Work: **New Well**

Proposed Use: **Monitor**

Drilling Start Date: **5/2/2016** Drilling End Date: **5/2/2016**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2.25**	**0**	**30**

Drilling Method: **Direct Push**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**13**	**30**	**Sand**	**16/30**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**2**	**30**	

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **No Data**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

Report Amended on 6/5/2016 by Request #17981

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Tan clayey sand**
2	**30**	**Tan silty clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
0.75	**Riser**	**New Plastic (PVC)**	**40**	**0**	**15**
0.75	**Screen**	**New Plastic (PVC)**	**40 0.020**	**15**	**30**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS WELL REPORT for Tracking #423775

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**TMW-4,5,6,**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
		****Plugged Within 48 Hours****	
Well County:	**Liberty**		
Number of Wells Drilled:	**3**		

****This well has been plugged**** **Plugging Report Tracking #159601**

Type of Work: **New Well** Proposed Use: **Monitor**

Drilling Start Date: **5/3/2016** Drilling End Date: **5/3/2016**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2.25**	**0**	**30**

Drilling Method: **Direct Push**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**13**	**30**	**Sand**	**16/30**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**2**	**30**	

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **No Data**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Tan clayey sand**
2	**30**	**Tan silty clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
0.75	**Riser**	**New Plastic (PVC)**	**40**	**0**	**15**
0.75	**Screen**	**New Plastic (PVC)**	**40 0.020**	**15**	**30**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS WELL REPORT for Tracking #423776

Owner: **EPA Region 6 Main Office**

Address: **1445 Ross Avenue Suite 1200 Dallas , TX 75202**

Well Location: **South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**

Well County: **Liberty**

Number of Wells Drilled: **3**

Owner Well #: **TMW-7,8,9**

Grid #: **64-03-5**

Latitude: **29° 55' 07" N**

Longitude: **094° 41' 43" W**

Elevation: **No Data**

****Plugged Within 48 Hours****

****This well has been plugged**** **Plugging Report Tracking #159602**

Type of Work: **New Well**

Proposed Use: **Monitor**

Drilling Start Date: **5/4/2016** Drilling End Date: **5/4/2016**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2.25**	**0**	**30**

Drilling Method: **Direct Push**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**13**	**30**	**Sand**	**16/30**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**2**	**30**	

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **No Data**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Tan clayey sand**
2	**30**	**Tan silty clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
0.75	**Riser**	**New Plastic (PVC)**	**40**	**0**	**15**
0.75	**Screen**	**New Plastic (PVC)**	**40 0.020**	**15**	**30**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS WELL REPORT for Tracking #423777

Owner: **EPA Region 6 Main Office**

Address: **1445 Ross Avenue Suite 1200 Dallas , TX 75202**

Well Location: **South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**

Well County: **Liberty**

Owner Well #: **TMW-10**

Grid #: **64-03-5**

Latitude: **29° 55' 07" N**

Longitude: **094° 41' 43" W**

Elevation: **No Data**

****Plugged Within 48 Hours****

****This well has been plugged**** **Plugging Report Tracking #159603**

Type of Work: **New Well**

Proposed Use: **Monitor**

Drilling Start Date: **5/4/2016** Drilling End Date: **5/4/2016**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2.25**	**0**	**30**

Drilling Method: **Direct Push**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**13**	**30**	**Sand**	**16/30**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**2**	**30**	

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **No Data**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Tan clayey sand**
2	**30**	**Tan silty clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
0.75	**Riser**	**New Plastic (PVC)**	**40**	**0**	**15**
0.75	**Screen**	**New Plastic (PVC)**	**40 0.020**	**15**	**30**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS WELL REPORT for Tracking #423778

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**TMW-11**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
			****Plugged Within 48 Hours****
Well County:	**Liberty**		

****This well has been plugged**** **Plugging Report Tracking #159604**

Type of Work: **New Well** Proposed Use: **Monitor**

Drilling Start Date: **5/5/2016** Drilling End Date: **5/5/2016**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
2.25	**0**	**30**

Drilling Method: **Direct Push**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
13	**30**	**Sand**	**16/30**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
2	**30**	

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **No Data**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Yes**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**2**	**Tan clayey sand**
2	**30**	**Tan silty clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
0.75	**Riser**	**New Plastic (PVC)**	**40**	**0**	**15**
0.75	**Screen**	**New Plastic (PVC)**	**40 0.020**	**15**	**30**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS PLUGGING REPORT for Tracking #180764

Owner:	**USEPA Region 6**	Owner Well #:	**MW-191**
Address:	**1445 Ross Ave., Suite 1200 Dallas, TX 75202**	Grid #:	**64-03-5**
Well Location:	**300 CR 126 Liberty, TX 77575**	Latitude:	**29° 55' 08" N**
		Longitude:	**094° 41' 43" W**
Well County:	**Liberty**	Elevation:	**No Data**

Well Type: **Monitor**

Drilling Information

Company: **Best Drilling Services, Inc.** Date Drilled: **9/3/2010**

Driller: **Lloyd Bruce Milton** License Number: **4926**

Well Report Tracking #230451

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8**	**0**	**28**

Plugging Information

Date Plugged: **8/13/2018** Plugger:

Plug Method: **Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet**

Casing Left in Well:

Dia (in.)	*Top (ft.)*	*Bottom (ft.)*
2	**6**	**30**

Plug(s) Placed in Well:

Top (ft.)	*Bottom (ft.)*	*Description (number of sacks & material)*
0	**2**	**Concrete 1 Bags/Sacks**
2	**30**	**Bentonite 14 Bags/Sacks**

Certification Data: The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

314 thomas pl
everman, TX 76140

Driller Name: **Jon Storm** License Number: **5003**

Comments: **No Data**

STATE OF TEXAS PLUGGING REPORT for Tracking #159599

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**TMW-1**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
Well County:	**Liberty**		

Well Type: **Monitor**

Drilling Information

Company: **Roddy Qualls Environmental Drilling** Date Drilled: **5/2/2016**

Driller: **Gilbert Mario Robles** License Number: **52694**

Well Report Tracking #423773

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2.25**	**0**	**35**

Plugging Information

Date Plugged: **5/5/2016** Plugger: **Gilbert M. Robles**

Plug Method: **Tremmie pipe cement from bottom to top**

Casing Left in Well:

DIa (in.)	*Top (ft.)*	*Bottom (ft.)*
0.75	**0**	**0**

Plug(s) Placed in Well:

Top (ft.)	*Bottom (ft.)*	*Description (number of sacks & material)*
0	**35**	**Grout**

Certification Data: The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert Mario Robles** License Number: **52694**

Comments: **No Data**

Report Amended on 9/7/2016 by Request #15119

STATE OF TEXAS PLUGGING REPORT for Tracking #159600

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**TMW-2, TMW-3**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
Well County:	**Liberty**		

Well Type: **Monitor** Number of Wells Plugged: **2**

Drilling Information

Company: **Roddy Qualls Environmental Drilling** Date Drilled: **5/2/2016**

Driller: **Gilbert Mario Robles** License Number: **52694**

Well Report Tracking #423774

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2.25**	**0**	**30**

Plugging Information

Date Plugged: **5/5/2016** Plugger: **Gilbert M. Robles**

Plug Method: **Tremmie pipe cement from bottom to top**

Casing Left in Well:

DIa (in.)	*Top (ft.)*	*Bottom (ft.)*
0.75	**0**	**0**

Plug(s) Placed in Well:

Top (ft.)	*Bottom (ft.)*	*Description (number of sacks & material)*
0	**30**	**Grout**

Certification Data: The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert Mario Robles** License Number: **52694**

Comments: **No Data**

Report Amended on 9/7/2016 by Request #15120

STATE OF TEXAS PLUGGING REPORT for Tracking #159601

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**TMW-4,5,6,**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
Well County:	**Liberty**		

Well Type: **Monitor** Number of Wells Plugged: **3**

Drilling Information

Company: **Roddy Qualls Environmental Drilling** Date Drilled: **5/3/2016**

Driller: **Gilbert Mario Robles** License Number: **52694**

Well Report Tracking #423775

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2.25**	**0**	**30**

Plugging Information

Date Plugged: **5/5/2016** Plugger: **Gilbert M. Robles**

Plug Method: **Tremmie pipe cement from bottom to top**

Casing Left in Well:

DIa (in.)	*Top (ft.)*	*Bottom (ft.)*
0.75	**0**	**0**

Plug(s) Placed in Well:

Top (ft.)	*Bottom (ft.)*	*Description (number of sacks & material)*
0	**30**	**Grout**

Certification Data: The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

STATE OF TEXAS PLUGGING REPORT for Tracking #159602

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**TMW-7,8,9**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
Well County:	**Liberty**		
Well Type:	**Monitor**	Number of Wells Plugged:	**3**

Drilling Information

Company: **Roddy Qualls Environmental Drilling** Date Drilled: **5/4/2016**

Driller: **Gilbert Mario Robles** License Number: **52694**

Well Report Tracking #423776

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2.25**	**0**	**30**

Plugging Information

Date Plugged: **5/5/2016** Plugger: **Gilbert M. Robles**

Plug Method: **Tremmie pipe cement from bottom to top**

Casing Left in Well:

DIa (in.)	*Top (ft.)*	*Bottom (ft.)*
0.75	**0**	**0**

Plug(s) Placed in Well:

Top (ft.)	*Bottom (ft.)*	*Description (number of sacks & material)*
0	**30**	**Grout**

Certification Data: The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

STATE OF TEXAS PLUGGING REPORT for Tracking #159603

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**TMW-10**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
Well County:	**Liberty**		

Well Type: **Monitor**

Drilling Information

Company: **Roddy Qualls Environmental Drilling** Date Drilled: **5/4/2016**

Driller: **Gilbert Mario Robles** License Number: **52694**

Well Report Tracking #423777

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2.25**	**0**	**30**

Plugging Information

Date Plugged: **5/5/2016** Plugger: **Gilbert M. Robles**

Plug Method: **Tremmie pipe cement from bottom to top**

Casing Left in Well:

DIa (in.)	*Top (ft.)*	*Bottom (ft.)*
0.75	**0**	**0**

Plug(s) Placed in Well:

Top (ft.)	*Bottom (ft.)*	*Description (number of sacks & material)*
0	**30**	**Grout**

Certification Data: The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

STATE OF TEXAS PLUGGING REPORT for Tracking #159604

Owner:	**EPA Region 6 Main Office**	Owner Well #:	**TMW-11**
Address:	**1445 Ross Avenue Suite 1200 Dallas , TX 75202**	Grid #:	**64-03-5**
Well Location:	**South side of County Road 126, three quarters of a mile East of the intersection of Farm Market 563 and CCR 126. Liberty, TX 77575**	Latitude:	**29° 55' 07" N**
		Longitude:	**094° 41' 43" W**
		Elevation:	**No Data**
Well County:	**Liberty**		

Well Type: **Monitor**

Drilling Information

Company: **Roddy Qualls Environmental Drilling** Date Drilled: **5/5/2016**

Driller: **Gilbert Mario Robles** License Number: **52694**

Well Report Tracking #423778

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2.25**	**0**	**30**

Plugging Information

Date Plugged: **5/5/2016** Plugger: **Gilbert M. Robles**

Plug Method: **Tremmie pipe cement from bottom to top**

Casing Left in Well:

DIa (in.)	*Top (ft.)*	*Bottom (ft.)*
0.75	**0**	**0**

Plug(s) Placed in Well:

Top (ft.)	*Bottom (ft.)*	*Description (number of sacks & material)*
0	**30**	**Grout**

Certification Data: The driller certified that the driller plugged this well (or the well was plugged under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the reports(s) being returned for completion and resubmittal.

Company Information: **Roddy Qualls Environmental Drilling**

2790 Zion Hill Road
Weatherford, TX 76088

Driller Name: **Gilbert M. Robles** License Number: **52694**

Comments: **No Data**

EA Engineering, Science, and Technology, Inc., PBC

FIELD RECORD OF WELL DEVELOPMENT

Project Name: PetroChem	Project No: 14342134-B-5	Date: 5-10-2016
EA Personnel: MKelly	Development Method: Sub. Pump	
Weather/Temperature/Barometric Pressure: 83°F, 79% Humidity, 761mm Hg		Time: 1145

Shallow (30')

Well No.: MW-201	Well Condition: New
Well Diameter: 2"	Measurement Reference: TOC

Well Volume Calculations 1"= 0.041 gal/ft 2"= 0.163 gal/ft 4"= 0.653 gal/ft 6"= 1.469 gal ft

Stickup 2.67'

A. Depth To Water (ft): 16.48' bgs/TOC	D. Well Volume/ft:
B. Total Well Depth (ft):	E. Total Well Volume (gal)[C*D]:
C. Water Column Height (ft):	F. Five Well Volumes (gal):

Parameter	Reading 1	Reading 2	Reading 3	Reading 4	Reading 5	Reading 6
Time (min)	1215	1222	1235	1246	1315	1330
Depth to Water (ft)						
Purge Rate (gpm)	~3	~3	~3	~3	~3	
Volume Purged (gal)	5gal					
Conductivity (~~µS/cm~~) mS/cm	3.223	3.262	3.278	3.278	3.260	3.257
Temperature (°C) (°F)	22.65	22.07	22.21	22.00	22.00	22.04
Dissolved Oxygen mg/L	4.54	4.89	4.84	5.40	5.21	3.59
ORP (mV)	238.6	261.8	302.1	336.1	366.3	400.5
pH	6.68	6.71	6.68	6.66	6.69	6.59
Turbidity (NTU)	1379	347.5	522.1	459.5	33.5	194.1

Parameter	Reading 7	Reading 8	Reading 9	Reading 10	Reading 11	Reading 12
Time (min)	1335	1350	1355	1400	1410	1415
Depth to Water (ft)						
Purge Rate (gpm)	~3	~3	~3	~3	~3	~3
Volume Purged (gal)						
Conductivity (~~µS/cm~~) mS/cm	3.249	3.233	3.240	3.243	3.247	3.229
Temperature (°C) (°F)	21.88	22.83	22.15	22.12	22.03	22.44
Dissolved Oxygen mg/L	5.32	7.15	5.15	5.09	5.45	5.34
ORP (mV)	425.8	445.0	472.6	488.1	492.7	499.7
pH	6.62	6.71	6.07	6.67	6.66	6.66
Turbidity (NTU)	35.4	264.1	84.6	131.6	60.7	30.3

NOTE: NTU = Nephelometric turbidity unit.
ORP = Oxidation-reduction potential.

COMMENTS AND OBSERVATIONS: Pump ~5 gal v muddy water before start Recording Readings. Removed ~~25~~ 30 gal. (pumping dry & Recharging)

Plastic (Homer) bucket
(0.94' x 1.18')
= 6.13 gallons
= 5.19 gal/ft
= 0.43 gal/inch

Steel drum
(22.5" ID x 34" IH)
= 19.43 gal/ft
= 1.6 gal/inch
= 7.82 cu ft
= 0.29 cu yd

EA Engineering, Science, and Technology, Inc., PBC

FIELD RECORD OF WELL DEVELOPMENT

Project Name: Petro Chem	Project No: 14342134-B-5	Date: 5-10-2016
EA Personnel: MK, NL	Development Method: Sub. Pump	
Weather/Temperature/Barometric Pressure: 84°F, 71% Humidity, 761 mm Hg	Time: 1500	

deep (45')

Well No.: MW-202	Well Condition: new
Well Diameter: 2"	Measurement Reference: TOC

Well Volume Calculations 1"= 0.041 gal/ft 2"= 0.163 gal/ft 4"= 0.653 gal/ft 6"= 1.469 gal ft

Stickup 2.60'

A. Depth To Water (ft): 19.36 toc / ~16.76 bgs	D. Well Volume/ft:
B. Total Well Depth (ft): 47.28 toc / ~44.68 bgs	E. Total Well Volume (gal)[C*D]:
C. Water Column Height (ft):	F. Five Well Volumes (gal):

Parameter	Reading 1	Reading 2	Reading 3	Reading 4	Reading 5	Reading 6
Time (min)	1520	1530	1550	1600	1610	1615
Depth to Water (ft)						
Purge Rate (gpm)	~3	~3	~3	~3	~3	~3
Volume Purged (gal)						
Conductivity (~~µS/cm~~) mS/cm	1.120	1.052	1.050	1.028	1.029	1.024
Temperature (°C) (°F)	22.50	22.24	22.51	22.25	22.18	22.09
Dissolved Oxygen mg/L	3.48	3.79	4.70	3.78	3.74	3.38
ORP (mV)	410.7	383.8	398.4	369.8	389.5	392.8
pH	7.20	7.02	7.11	7.03	7.04	7.02
Turbidity (NTU)	243.7	91.2	44.0	46.1	54.8	17.7

Parameter	Reading 7	Reading 8	Reading 9	Reading 10	Reading 11	Reading 12
Time (min)	1620					
Depth to Water (ft)						
Purge Rate (gpm)	~3					
Volume Purged (gal)						
Conductivity (~~µS/cm~~) mS/cm	1.022					
Temperature (°C) (°F)	21.98					
Dissolved Oxygen mg/L	4.39					
ORP (mV)	389.7					
pH	7.02	MK				
Turbidity (NTU)	~~12.5~~ ← 12.5					

NOTE: NTU = Nephelometric turbidity unit.
ORP = Oxidation-reduction potential.

COMMENTS AND OBSERVATIONS: 1500 Pumping / Surging

(screen 39.68'-44.68' bgs)

Removed ~ 50 gal

Plastic (Homer) bucket
(0.94' x 1.18')
= 6.13 gallons
= 5.19 gal/ft
= 0.43 gal/inch

Steel drum
(22.5" ID x 34" IH)
= 19.43 gal/ft
= 1.6 gal/inch
= 7.82 cu ft
= 0.29 cu yd

EA Engineering, Science, and Technology, Inc., PBC

FIELD RECORD OF WELL DEVELOPMENT

Project Name: Petro Chem	Project No: 1434213A-B-5	Date: 5-10-2016
EA Personnel: MKelly	Development Method: Sub. Pump	
Weather/Temperature/Barometric Pressure: 85°F, 72% Humidity, 760mm Hg		Time: 1630

shallow (30')

stickup 2.65'

Well No.: MW-203	Well Condition: new
Well Diameter: 2"	Measurement Reference: TOC
Well Volume Calculations 1"= 0.041 gal/ft 2"= 0.163 gal/ft 4"= 0.653 gal/ft 6"= 1.469 gal ft	
A. Depth To Water (ft): 20.28' TOC / 17.63 bgs	D. Well Volume/ft:
B. Total Well Depth (ft):	E. Total Well Volume (gal)[C*D]:
C. Water Column Height (ft):	F. Five Well Volumes (gal):

1715

Parameter	Reading 1	Reading 2	Reading 3	Reading 4	Reading 5	Reading 6
Time (min)	1645	1650	1700	1710	~~1715~~	1720
Depth to Water (ft)						
Purge Rate (gpm)	~3	~3	~3	~3	~3	
Volume Purged (gal)						
Conductivity (µS/cm)	2.110	2.019	1.953	1.946	1.965	1.967
Temperature (°C) (°F)	22.07	22.41	22.48	22.97	23.55	23.42
Dissolved Oxygen	5.49	5.73	6.42	6.49	6.37	6.85
ORP (mV)	425.9	426.1	425.3	410.0	397.1	371.1
pH	6.84	6.87	6.92	6.82	6.88	6.97
Turbidity (NTU)	140.3	1065	305	122	37.4	39.1

Parameter	Reading 7	Reading 8	Reading 9	Reading 10	Reading 11	Reading 12
Time (min)	1730	1735	1740	1745		
Depth to Water (ft)						
Purge Rate (gpm)	~3	~3	~3	~3		
Volume Purged (gal)						
Conductivity ~~(µS/cm)~~ mS/cm	1.960	1.957	1.922	1.953		
Temperature (°C) (°F)	23.55	23.61	23.77	23.51		
Dissolved Oxygen mg/L	6.60	6.80	6.59	6.77		
ORP (mV)	358.4	365.2	370.8	371.0		
pH	6.98	6.98	6.91	6.86		
Turbidity (NTU)	41.4	30.2	21.8	16.5		

NOTE: NTU = Nephelometric turbidity unit.
ORP = Oxidation-reduction potential.

COMMENTS AND OBSERVATIONS: Well pumping dry & Recharging
Removed ~50 gal

Plastic (Homer) bucket
(0.94' x 1.18')
= 6.13 gallons
= 5.19 gal/ft
= 0.43 gal/inch

Steel drum
(22.5" ID x 34" IH)
= 19.43 gal/ft
= 1.6 gal/inch
= 7.82 cu ft
= 0.29 cu yd

2.65' stickup

EA Engineering, Science, and Technology, Inc., PBC

FIELD RECORD OF WELL DEVELOPMENT

Project Name: Petro Chem	Project No: 14342134	Date: 5-10-2014
EA Personnel: MKelly	Development Method: sub. pump	
Weather/Temperature/Barometric Pressure: 80°F, 85% Humidity, 761 mm Hg		Time: 1045

Shallow (30')

Well No.: MW-204	Well Condition: new
Well Diameter: 2"	Measurement Reference: toc

Well Volume Calculations 1"= 0.041 gal/ft 2"= 0.163 gal/ft 4"= 0.653 gal/ft 6"= 1.469 gal ft

Stickup 2.67

A. Depth To Water (ft): 16.68' bgs/toc	D. Well Volume/ft:
B. Total Well Depth (ft):	E. Total Well Volume (gal)[C*D]:
C. Water Column Height (ft):	F. Five Well Volumes (gal):

1105 Pumping

Parameter	Reading 1	Reading 2	Reading 3	Reading 4	Reading 5	Reading 6
Time (min)	1105	1110	1115	1120	1130	1135
Depth to Water (ft)						
Purge Rate (gpm)	~~~3~~	~~~3~~	~~~3~~	~3	~3	
Volume Purged (gal)	10	(10=7.54)	20			
Conductivity (~~µS/cm~~) mS/cm	1.880	1.904	1.894	1.897	1.893	1.914
Temperature (°C) (°F)	22.23	21.17	21.44	21.26	22.29	21.53
Dissolved Oxygen mg/L	6.74	~~7.60~~ 6.54	8.11	5.44	5.71	6.93
ORP (mV)	230.4	238.4	249.9	290.8	264.9	258.7
pH	6.46	6.60	6.92	6.73	6.80	6.82
Turbidity (NTU)	13.5	14.4	56.2	59.9	27.1	16.7

Parameter	Reading 7	Reading 8	Reading 9	Reading 10	Reading 11	Reading 12
Time (min)	1140					
Depth to Water (ft)						
Purge Rate (gpm)	3gpm					
Volume Purged (gal)						
Conductivity (µS/cm)	1.901					
Temperature (°C) (°F)	21.62					
Dissolved Oxygen	5.62					
ORP (mV)	288.8					
pH	6.82					
Turbidity (NTU)	27.7					

NOTE: NTU = Nephelometric turbidity unit.
ORP = Oxidation-reduction potential.

COMMENTS AND OBSERVATIONS: Removed 10gal yesterday: No Readings. 3-4 mL After 1115 Readings, well pumping dry & Recharging (Recharge ~3 min. then turn on pump & collect sample for readings, pump dry & Repeat). Removed ~~50~~ 25 gals.

Plastic (Homer) bucket
(0.94' x 1.18')
= 6.13 gallons
= 5.19 gal/ft
= 0.43 gal/inch

Steel drum
(22.5" ID x 34" IH)
= 19.43 gal/ft
= 1.6 gal/inch
= 7.82 cu ft
= 0.29 cu yd

EA Engineering, Science, and Technology, Inc., PBC

FIELD RECORD OF WELL DEVELOPMENT

Project Name: Petro Chem (Oversight)	Project No.: 14342134	Date: 8-14-2018
EA Personnel: M. Kelly	Development Method: Pump	
Weather/Temperature/Barometric Pressure: 85°F, 75% Humidity, 30.03" –		Time: 0900

Well No.: MW-191R	Well Condition: new
Well Diameter: 2" Stickup = 1.9'	Measurement Reference: TOC
Screen Interval: 20-30 bgs	Sand Pack Interval: 18-30
Well Volume Calculations: 2"=0.163 gal/ft 4"=0.653 gal/ft 6"=1.1469 gal/ft	
A. Depth To Water (ft): 18.36' toc	D. Well Volume/ft: 0.163
B. Total Well Depth (ft): 30 bgs / 31.9 toc	E. Total Well Volume (gal)[c*d]: 2.21
C. Water Column Height (ft): 13.54 ft	F. Five Well Volumes (gal): 11.05

Parameter	Reading 1	Reading 2	Reading 3	Reading 4	Reading 5	Reading 6
Time (min)	0915	0931	0945	0955	1011	1023
Depth to Water (ft)	–					
Pump Depth (ft)	TD / 30' bgs →					
Purge Rate (gpm)	500 ml / 10 sec	3 L/min →				
Volume Purged (gal)	~10	~20	~25	~30	~32	~35
Temperature (°C) (°F)	23.0	22.9	23.0	22.8	22.9	23.1
Conductivity (µS/cm) (mS/cm)	2458	2397	2396	2397	2404	2401
~~TDS (ppm)~~ DO (mg/L)	3.73	5.33	4.54	3.91	3.84	4.54
pH	6.64	6.72	6.65	6.65	6.62	6.66
ORP (mV)	162.8	159.8	162.1	164.3	166.7	165.9
Turbidity (NTU) (AU)	5.92 (?)	532	198	158	50.7	40.7

µS/cm DO

38 gal removed

Parameter	Reading 7	Reading 8	Reading 9	Reading 10	Reading 11	Reading 12
Time (min)						
Depth to Water (ft)						
Pump Depth (ft)						
Purge Rate (gpm)						
Volume Purged (gal)						
Temperature (°C) (°F)						
Conductivity (µS/cm) (mS/cm)						
TDS (ppm)						
pH						
ORP (mV)						
Turbidity (NTU) (AU)						

COMMENTS AND OBSERVATIONS: – Surge w/ pump
Start pumping ~0900, Pump dry @ ~0905 Recharge. ~~Dry @ 0920~~ 0915 – Pumping, 0920 – dry. 0931 Pumping. 0935 – dry (surged w/ pump) 0945 – pumping. 0949 – dry 0955 – pump. 0957 – dry. 1011 – Pumping. 1015 – dry. 1023 – Pump 1026 – dry. Stop. Remove 38 gallons

Plastic (Homer) bucket
(0.94' x 1.18')
= 6.13 gallons
= 5.19 gal/ft
= 0.43 gal/inch

Steel drum
(22.5" ID x 34" IH)
= 19.43 gsl/ft
= 1.6 gal/inch
= 7.82 cu ft = 0.29 cu yd

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ATTACHMENT 5

LABORATORY REPORTS

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Laboratory
Environmental Services Branch
10625 Fallstone Road, Houston, TX 77099
Phone: (281)983-2100 Fax: (281)983-2248

Final Analytical Report

Site Name ----------	Petro Chemical Systems
Sample Collection Date(s)--	06/14/16
Contact----------	Raji Josiam (6SF-RA)
Report Date----------	07/22/16
Project #----------	16SF085
Work Order(s)----------	1606002

Analyses included in this report:

ABN CLP Routine List (E)

VOA CLP Low Level (E)

Report Narrative

Volatiles:

Bromomethane is qualified as blank related 1606002-05 due to presence of this analyte in the associated analysis blank. This analyte is also qualified estimated due to failure of the %RSD in the initial calibration.

Acetone is qualified as blank related in 1606002-12 due to presence of this analyte in the associated equipment rinsate. This analyte is also qualified estimated due to failure in the alternate source verification for the initial calibration.

Batch B6F2301: One analyte fails high in both BSs. Neither was detected in the associated samples.

Semi-volatiles:

Benzoic acid is qualified as estimated in sample 1606002-04 due to chromatography problems with calibration.

Batch B6F1504: The surrogate 2-Chlorophenol-d4 fails high in the BS and MSD but should not affect the data.

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of the sample results. The results apply only to the samples tested. This final report should only be reproduced in full.

The reporting limit (sometimes referred to as a quantitation limit) is defined as the lowest concentration at which an analyte can be reliably measured and reported without qualification. Reporting limits are adjusted for sample size, dilution, and matrix interference. Concentrations below the reporting limit are reported as non-detects or <RL.

Report Approvals:

Richard McMillin
Region 6 Laboratory Technical Manager

David W. McQuiddy
Region 6 Laboratory Branch Chief

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Environmental Services Branch Laboratory

10625 Fallstone Road
Houston, Texas 77099

Sample Receipt and Disposal

Site Name: Petro Chemical Systems Project Number: 16SF085

Data Management Coordinator: Christy Warren

/ /

Data Management Coordinator Signature Date

Date Transmitted: _____/_____/_____

Please have the U.S. EPA Project Manager/Officer call the Data Management Coordinator at 3-2137 for any comments or questions.

Please sign and date this form below and return it with any comments to:

Christy Warren
Data Management Coordinator
Region 6 Laboratory
6MD-HS

_____/____/_____
Received by and Date

Comments:

The laboratory routinely disposes of samples 90 days after all analyses have been completed. If you have a need to hold these samples in custody longer than 90 days, please sign below.

_____ _____
Signature Date

Please provide a reason for holding:

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
ER-1	1606002-01	Liquid	6/14/16 17:26	06/15/16 12:00
FB-1	1606002-02	Liquid	6/14/16 17:35	06/15/16 12:00
MW-108	1606002-03	Liquid	6/14/16 13:40	06/15/16 12:00
MW-109A	1606002-04	Liquid	6/14/16 16:55	06/15/16 12:00
MW-110	1606002-05	Liquid	6/14/16 14:40	06/15/16 12:00
MW-192	1606002-06	Liquid	6/14/16 15:05	06/15/16 12:00
MW-193	1606002-07	Liquid	6/14/16 12:30	06/15/16 12:00
MW-201	1606002-08	Liquid	6/14/16 10:00	06/15/16 12:00
MW-202	1606002-09	Liquid	6/14/16 9:20	06/15/16 12:00
MW-203	1606002-10	Liquid	6/14/16 15:50	06/15/16 12:00
MW-203-DUP	1606002-11	Liquid	6/14/16 15:50	06/15/16 12:00
MW-204	1606002-12	Liquid	6/14/16 10:30	06/15/16 12:00
MW-33	1606002-13	Liquid	6/14/16 11:00	06/15/16 12:00
TB-1	1606002-14	Liquid	6/14/16 18:00	06/15/16 12:00

Environmental Protection Agency

Region 6 Laboratory

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QC SUMMARY REPORT

ABN CLP Routine List (E)

B6F1504

Liquid

Samples: 12 **ReExts: 0**

LAB NUMBER	SOURCE
B6F1504-BLK1	
B6F1504-BS1	
B6F1504-MS1	1606002-03
B6F1504-MSD1	1606002-03

VOA CLP Low Level (E)

B6F2301

Liquid

Samples: 14 **ReExts: 0**

LAB NUMBER	SOURCE
B6F2301-BLK1	
B6F2301-BLK2	
B6F2301-BS1	
B6F2301-BS2	
B6F2301-MS1	1606002-03
B6F2301-MSD1	1606002-03

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-01 **Station ID: ER-1**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1045ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	65.7		91.6	42-109	06/16/16	06/16/16
Phenol-d5	64.2		89.4	46-110	"	"
2-Chlorophenol-d4	64.0		89.2	47-103	"	"
1,2-Dichlorobenzene-d4	34.7		72.4	33-100	"	"
Nitrobenzene-d5	37.1		77.6	42-126	"	"
2-Fluorobiphenyl	33.8		70.6	50-104	"	"
2,4,6-Tribromophenol	70.4		98.1	59-142	"	"
Terphenyl-d14	47.8		99.9	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	U		1.9	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		1.9	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Benzaldehyde (100-52-7)	U		4.8	"	"	"
Benzoic acid (65-85-0)	U		9.6	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloroaniline (106-47-8)	U		4.8	"	"	"

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-01 **Station ID: ER-1**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1045ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		4.8	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.1	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.1	"	"	"
Di-n-butyl phthalate (84-74-2)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Fluoranthene (206-44-0)	U		1.9	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.7	"	"	"

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-01 **Station ID: ER-1**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1045ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		7.7	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		7.7	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
4-Nitrophenol (100-02-7)	U		12.4	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Phenol (108-95-2)	U		4.8	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"

WD

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-01 **Station ID: ER-1**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	51.9		104	86-117	06/16/16	06/16/16
Toluene-d8	49.7		99.5	85-113	"	"
4-Bromofluorobenzene	50.0		99.9	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	06/16/16	06/16/16
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	**3.9**		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	"	"	"

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Region 6 Laboratory

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-01 **Station ID: ER-1**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	1	06/16/16	06/16/16
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-02 **Station ID: FB-1**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	45.4		90.8	86-117	06/16/16	06/16/16
Toluene-d8	44.0		88.0	85-113	"	"
4-Bromofluorobenzene	44.2		88.4	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	06/16/16	06/16/16
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	**4.3**		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-02 **Station ID: FB-1**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	1	06/16/16	06/16/16
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-03 **Station ID: MW-108**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1048ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	63.7		89.0	42-109	06/16/16	06/16/16
Phenol-d5	65.1		91.0	46-110	"	"
2-Chlorophenol-d4	64.4		90.0	47-103	"	"
1,2-Dichlorobenzene-d4	32.3		67.7	33-100	"	"
Nitrobenzene-d5	38.1		79.8	42-126	"	"
2-Fluorobiphenyl	33.5		70.3	50-104	"	"
2,4,6-Tribromophenol	73.9		103	59-142	"	"
Terphenyl-d14	47.1		98.6	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	U		1.9	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		1.9	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Benzaldehyde (100-52-7)	U		4.8	"	"	"
Benzoic acid (65-85-0)	U		9.5	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloroaniline (106-47-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-03 **Station ID: MW-108**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1048ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		4.8	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.1	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.1	"	"	"
Di-n-butyl phthalate (84-74-2)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Fluoranthene (206-44-0)	U		1.9	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.6	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-03 **Station ID: MW-108**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1048ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		7.6	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		7.6	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
4-Nitrophenol (100-02-7)	U		12.4	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Phenol (108-95-2)	U		4.8	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-03 **Station ID: MW-108**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	51.1		102	86-117	06/17/16	06/17/16
Toluene-d8	49.9		99.8	85-113	"	"
4-Bromofluorobenzene	48.5		97.0	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	06/17/16	06/17/16
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	**8.7**		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	**1.0**		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-03 **Station ID: MW-108**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	1	06/17/16	06/17/16
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

yph

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Region 6 Laboratory

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-04 **Station ID: MW-109A**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 500ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	114		76.1	42-109	06/16/16	06/16/16
Phenol-d5	131		87.0	46-110	"	"
2-Chlorophenol-d4	130		86.8	47-103	"	"
1,2-Dichlorobenzene-d4	57.9		57.9	33-100	"	"
Nitrobenzene-d5	101		101	42-126	"	"
2-Fluorobiphenyl	62.6		62.6	50-104	"	"
2,4,6-Tribromophenol	152		102	59-142	"	"
Terphenyl-d14	101		101	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	**5.2**		4.0	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		4.0	"	"	"
Acetophenone (98-86-2)	**10.2**		10.0	"	"	"
Anthracene (120-12-7)	U		4.0	"	"	"
Atrazine (1912-24-9)	U		10.0	"	"	"
Benzaldehyde (100-52-7)	U		10.0	"	"	"
Benzoic acid (65-85-0)	**62.4**	**J**	20.0	"	"	"
Benzo (a) anthracene (56-55-3)	U		10.0	"	"	"
Benzo (a) pyrene (50-32-8)	U		10.0	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		10.0	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		10.0	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		10.0	"	"	"
Benzyl alcohol (100-51-6)	U		10.0	"	"	"
1,1'-Biphenyl (92-52-4)	**42.1**		10.0	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		10.0	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		10.0	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		10.0	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		10.0	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		10.0	"	"	"
Butyl benzyl phthalate (85-68-7)	U		10.0	"	"	"
Carbazole (86-74-8)	U		10.0	"	"	"
Caprolactam (105-60-2)	U		10.0	"	"	"
4-Chloroaniline (106-47-8)	U		10.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-04 **Station ID: MW-109A**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 500ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		10.0	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		10.0	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		10.0	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		10.0	"	"	"
Chrysene (218-01-9)	U		10.0	"	"	"
Dibenzofuran (132-64-9)	U		10.0	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		10.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		10.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		10.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		10.0	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		10.0	"	"	"
2,4-Dichlorophenol (120-83-2)	U		10.0	"	"	"
Diethyl phthalate (84-66-2)	U		10.0	"	"	"
2,4-Dimethylphenol (105-67-9)	U		10.0	"	"	"
Dimethyl phthalate (131-11-3)	U		10.0	"	"	"
2,4-Dinitrophenol (51-28-5)	U		40.0	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		10.0	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		10.0	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		40.0	"	"	"
Di-n-butyl phthalate (84-74-2)	U		10.0	"	"	"
Di-n-octyl phthalate (117-84-0)	U		10.0	"	"	"
Fluoranthene (206-44-0)	U		4.0	"	"	"
Fluorene (86-73-7)	**9.5**		4.0	"	"	"
Hexachlorobenzene (118-74-1)	U		10.0	"	"	"
Hexachlorobutadiene (87-68-3)	U		10.0	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		10.0	"	"	"
Hexachloroethane (67-72-1)	U		10.0	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		10.0	"	"	"
Isophorone (78-59-1)	U		10.0	"	"	"
1-Methylnaphthalene (90-12-0)	**205**		40.0	10	"	06/16/16
2-Methylnaphthalene (91-57-6)	**178**		40.0	"	"	"
2-Methylphenol (95-48-7)	U		10.0	1	"	06/16/16
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		10.0	"	"	"
Naphthalene (91-20-3)	**3,560**		400	100	"	06/16/16
2-Nitroaniline (88-74-4)	U		16.0	1	"	06/16/16

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-04 **Station ID: MW-109A**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 500ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		16.0	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		16.0	"	"	"
Nitrobenzene (98-95-3)	U		10.0	"	"	"
2-Nitrophenol (88-75-5)	U		10.0	"	"	"
4-Nitrophenol (100-02-7)	U		26.0	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		10.0	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		10.0	"	"	"
Pentachlorophenol (87-86-5)	U		10.0	"	"	"
Phenanthrene (85-01-8)	U		4.0	"	"	"
Phenol (108-95-2)	**250**		100	10	"	06/16/16
Pyrene (129-00-0)	U		4.0	1	"	06/16/16
1,2,4-Trichlorobenzene (120-82-1)	U		10.0	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		10.0	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		10.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-04 **Station ID: MW-109A**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	49.9		99.8	86-117	06/17/16	06/17/16
Toluene-d8	47.7		95.5	85-113	"	"
4-Bromofluorobenzene	46.6		93.1	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		100	100	06/17/16	06/17/16
Chloromethane (74-87-3)	U		100	"	"	"
Vinyl chloride (75-01-4)	U		100	"	"	"
Bromomethane (74-83-9)	U		100	"	"	"
Chloroethane (75-00-3)	U		100	"	"	"
Trichlorofluoromethane (75-69-4)	U		100	"	"	"
1,1-Dichloroethene (75-35-4)	U		100	"	"	"
Carbon disulfide (75-15-0)	U		100	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		100	"	"	"
Acetone (67-64-1)	U		500	"	"	"
Methylene chloride (75-09-2)	U		200	"	"	"
Methyl acetate (79-20-9)	U		100	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		100	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		100	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		100	"	"	"
1,1-Dichloroethane (75-34-3)	U		100	"	"	"
2-Butanone (78-93-3)	U		500	"	"	"
Chloroform (67-66-3)	U		100	"	"	"
1,2-Dichloroethane (107-06-2)	U		100	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		100	"	"	"
Cyclohexane (110-82-7)	U		100	"	"	"
Carbon tetrachloride (56-23-5)	U		100	"	"	"
Benzene (71-43-2)	**137,000**		1,000	1000	"	06/17/16
Trichloroethene (79-01-6)	U		100	100	"	06/17/16
Methylcyclohexane (108-87-2)	U		100	"	"	"
1,2-Dichloropropane (78-87-5)	U		100	"	"	"
Bromodichloromethane (75-27-4)	U		100	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		100	"	"	"

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Region 6 Laboratory

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-04 **Station ID: MW-109A**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		100	100	06/17/16	06/17/16
1,1,2-Trichloroethane (79-00-5)	U		100	"	"	"
Dibromochloromethane (124-48-1)	U		100	"	"	"
Bromoform (75-25-2)	U		100	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		500	"	"	"
Toluene (108-88-3)	**5,760**		100	"	"	"
Tetrachloroethene (127-18-4)	U		100	"	"	"
2-Hexanone (591-78-6)	U		500	"	"	"
1,2-Dibromoethane (106-93-4)	U		100	"	"	"
Chlorobenzene (108-90-7)	U		100	"	"	"
Ethylbenzene (100-41-4)	**887**		100	"	"	"
meta-/para-Xylene (na)	**454**		200	"	"	"
ortho-Xylene (95-47-6)	**394**		100	"	"	"
Styrene (100-42-5)	U		100	"	"	"
Isopropylbenzene (98-82-8)	U		100	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		100	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		100	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		100	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		100	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		100	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		100	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-05 **Station ID: MW-110**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1042ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	67.0		93.1	42-109	06/16/16	06/16/16
Phenol-d5	62.1		86.3	46-110	"	"
2-Chlorophenol-d4	64.2		89.2	47-103	"	"
1,2-Dichlorobenzene-d4	33.0		68.8	33-100	"	"
Nitrobenzene-d5	38.4		80.0	42-126	"	"
2-Fluorobiphenyl	33.3		69.4	50-104	"	"
2,4,6-Tribromophenol	76.5		106	59-142	"	"
Terphenyl-d14	51.4		107	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	U		1.9	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		1.9	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Benzaldehyde (100-52-7)	U		4.8	"	"	"
Benzoic acid (65-85-0)	U		9.6	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloroaniline (106-47-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-05 **Station ID: MW-110**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1042ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		4.8	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.2	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.2	"	"	"
Di-n-butyl phthalate (84-74-2)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Fluoranthene (206-44-0)	U		1.9	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.7	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-05 **Station ID: MW-110**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1042ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		7.7	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		7.7	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
4-Nitrophenol (100-02-7)	U		12.5	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Phenol (108-95-2)	U		4.8	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-05 **Station ID: MW-110**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	51.6		103	86-117	06/16/16	06/16/16
Toluene-d8	50.7		101	85-113	"	"
4-Bromofluorobenzene	50.2		100	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	06/16/16	06/16/16
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	**1.1**	**B, J**	1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	"	"	"

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Region 6 Laboratory

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-05 **Station ID: MW-110**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	1	06/16/16	06/16/16
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-06 **Station ID: MW-192**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1049ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	68.8		96.2	42-109	06/16/16	06/16/16
Phenol-d5	67.8		94.8	46-110	"	"
2-Chlorophenol-d4	67.6		94.6	47-103	"	"
1,2-Dichlorobenzene-d4	33.7		70.7	33-100	"	"
Nitrobenzene-d5	40.5		85.0	42-126	"	"
2-Fluorobiphenyl	36.3		76.2	50-104	"	"
2,4,6-Tribromophenol	76.9		108	59-142	"	"
Terphenyl-d14	47.7		100	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	U		1.9	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		1.9	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Benzaldehyde (100-52-7)	U		4.8	"	"	"
Benzoic acid (65-85-0)	U		9.5	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloroaniline (106-47-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-06 **Station ID: MW-192**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1049ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		4.8	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.1	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.1	"	"	"
Di-n-butyl phthalate (84-74-2)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Fluoranthene (206-44-0)	U		1.9	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.6	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-06 **Station ID: MW-192**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1049ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		7.6	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		7.6	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
4-Nitrophenol (100-02-7)	U		12.4	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Phenol (108-95-2)	U		4.8	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-06 **Station ID: MW-192**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	48.5		97.1	86-117	06/16/16	06/16/16
Toluene-d8	48.0		96.1	85-113	"	"
4-Bromofluorobenzene	47.3		94.5	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	06/16/16	06/16/16
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	**8.1**		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-06 **Station ID: MW-192**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	1	06/16/16	06/16/16
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-07 **Station ID: MW-193**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1050ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	63.4		88.8	42-109	06/16/16	06/16/16
Phenol-d5	59.9		83.8	46-110	"	"
2-Chlorophenol-d4	62.1		86.9	47-103	"	"
1,2-Dichlorobenzene-d4	30.3		63.6	33-100	"	"
Nitrobenzene-d5	37.2		78.1	42-126	"	"
2-Fluorobiphenyl	31.0		65.1	50-104	"	"
2,4,6-Tribromophenol	76.9		108	59-142	"	"
Terphenyl-d14	47.7		100	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	U		1.9	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		1.9	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Benzaldehyde (100-52-7)	U		4.8	"	"	"
Benzoic acid (65-85-0)	U		9.5	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloroaniline (106-47-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-07 **Station ID: MW-193**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1050ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		4.8	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.0	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.0	"	"	"
Di-n-butyl phthalate (84-74-2)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Fluoranthene (206-44-0)	U		1.9	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.6	"	"	"

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Region 6 Laboratory

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-07 **Station ID: MW-193**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1050ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		7.6	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		7.6	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
4-Nitrophenol (100-02-7)	U		12.4	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Phenol (108-95-2)	U		4.8	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-07 **Station ID: MW-193**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	46.9		93.7	86-117	06/16/16	06/16/16
Toluene-d8	45.9		91.7	85-113	"	"
4-Bromofluorobenzene	45.1		90.1	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	06/16/16	06/16/16
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	**1.5**		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	**11.0**		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-07 **Station ID: MW-193**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	1	06/16/16	06/16/16
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-08 **Station ID: MW-201**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1048ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	51.3		71.7	42-109	06/16/16	06/16/16
Phenol-d5	48.9		68.3	46-110	"	"
2-Chlorophenol-d4	50.1		69.9	47-103	"	"
1,2-Dichlorobenzene-d4	25.9		54.2	33-100	"	"
Nitrobenzene-d5	30.4		63.6	42-126	"	"
2-Fluorobiphenyl	31.5		66.0	50-104	"	"
2,4,6-Tribromophenol	70.8		98.9	59-142	"	"
Terphenyl-d14	52.7		111	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	U		1.9	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		1.9	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Benzaldehyde (100-52-7)	U		4.8	"	"	"
Benzoic acid (65-85-0)	U		9.5	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloroaniline (106-47-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-08 **Station ID: MW-201**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1048ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		4.8	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.1	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.1	"	"	"
Di-n-butyl phthalate (84-74-2)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Fluoranthene (206-44-0)	U		1.9	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.6	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-08 **Station ID: MW-201**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1048ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		7.6	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		7.6	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
4-Nitrophenol (100-02-7)	U		12.4	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Phenol (108-95-2)	U		4.8	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-08 **Station ID: MW-201**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	50.5		101	86-117	06/17/16	06/17/16
Toluene-d8	47.8		95.6	85-113	"	"
4-Bromofluorobenzene	46.5		92.9	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	06/17/16	06/17/16
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	**29.6**		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-08 **Station ID: MW-201**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	1	06/17/16	06/17/16
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-09 **Station ID: MW-202**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1042ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	58.1		80.7	42-109	06/16/16	06/16/16
Phenol-d5	54.8		76.1	46-110	"	"
2-Chlorophenol-d4	57.6		80.0	47-103	"	"
1,2-Dichlorobenzene-d4	28.1		58.6	33-100	"	"
Nitrobenzene-d5	34.1		71.1	42-126	"	"
2-Fluorobiphenyl	28.7		59.9	50-104	"	"
2,4,6-Tribromophenol	68.3		95.0	59-142	"	"
Terphenyl-d14	45.0		93.9	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	U		1.9	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		1.9	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Benzaldehyde (100-52-7)	U		4.8	"	"	"
Benzoic acid (65-85-0)	U		9.6	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloroaniline (106-47-8)	U		4.8	"	"	"

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-09 **Station ID: MW-202**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1042ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		4.8	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.2	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.2	"	"	"
Di-n-butyl phthalate (84-74-2)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Fluoranthene (206-44-0)	U		1.9	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.7	"	"	"

Environmental Protection Agency

Region 6 Laboratory

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-09 **Station ID: MW-202**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1042ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		7.7	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		7.7	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
4-Nitrophenol (100-02-7)	U		12.5	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Phenol (108-95-2)	U		4.8	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"

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Region 6 Laboratory

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-09 **Station ID: MW-202**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	50.0		100	86-117	06/17/16	06/17/16
Toluene-d8	47.6		95.2	85-113	"	"
4-Bromofluorobenzene	46.7		93.4	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	06/17/16	06/17/16
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	"	"	"

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Region 6 Laboratory

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-09 **Station ID: MW-202**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	1	06/17/16	06/17/16
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-10 **Station ID: MW-203**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1032ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	57.4		78.9	42-109	06/16/16	06/16/16
Phenol-d5	49.2		67.7	46-110	"	"
2-Chlorophenol-d4	57.8		79.5	47-103	"	"
1,2-Dichlorobenzene-d4	25.1		51.8	33-100	"	"
Nitrobenzene-d5	33.4		69.0	42-126	"	"
2-Fluorobiphenyl	31.6		65.1	50-104	"	"
2,4,6-Tribromophenol	75.7		104	59-142	"	"
Terphenyl-d14	50.6		104	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	U		1.9	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		1.9	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Benzaldehyde (100-52-7)	U		4.8	"	"	"
Benzoic acid (65-85-0)	U		9.7	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloroaniline (106-47-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-10 **Station ID: MW-203**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1032ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		4.8	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.4	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.4	"	"	"
Di-n-butyl phthalate (84-74-2)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Fluoranthene (206-44-0)	U		1.9	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-10 **Station ID: MW-203**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1032ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		7.8	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		7.8	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
4-Nitrophenol (100-02-7)	U		12.6	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Phenol (108-95-2)	**682**		48.4	10	"	06/16/16
Pyrene (129-00-0)	U		1.9	1	"	06/16/16
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-10 **Station ID: MW-203**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	50.6		101	86-117	06/17/16	06/17/16
Toluene-d8	48.5		96.9	85-113	"	"
4-Bromofluorobenzene	47.2		94.4	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		10.0	10	06/17/16	06/17/16
Chloromethane (74-87-3)	U		10.0	"	"	"
Vinyl chloride (75-01-4)	U		10.0	"	"	"
Bromomethane (74-83-9)	U		10.0	"	"	"
Chloroethane (75-00-3)	U		10.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		10.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		10.0	"	"	"
Carbon disulfide (75-15-0)	U		10.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		10.0	"	"	"
Acetone (67-64-1)	U		50.0	"	"	"
Methylene chloride (75-09-2)	U		20.0	"	"	"
Methyl acetate (79-20-9)	U		10.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		10.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		10.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		10.0	"	"	"
1,1-Dichloroethane (75-34-3)	**35.9**		10.0	"	"	"
2-Butanone (78-93-3)	U		50.0	"	"	"
Chloroform (67-66-3)	U		10.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		10.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		10.0	"	"	"
Cyclohexane (110-82-7)	U		10.0	"	"	"
Carbon tetrachloride (56-23-5)	U		10.0	"	"	"
Benzene (71-43-2)	**9,160**		500	500	"	06/17/16
Trichloroethene (79-01-6)	U		10.0	10	"	06/17/16
Methylcyclohexane (108-87-2)	U		10.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		10.0	"	"	"
Bromodichloromethane (75-27-4)	U		10.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		10.0	"	"	"

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Region 6 Laboratory

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-10 **Station ID: MW-203**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		10.0	10	06/17/16	06/17/16
1,1,2-Trichloroethane (79-00-5)	U		10.0	"	"	"
Dibromochloromethane (124-48-1)	U		10.0	"	"	"
Bromoform (75-25-2)	U		10.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		50.0	"	"	"
Toluene (108-88-3)	U		10.0	"	"	"
Tetrachloroethene (127-18-4)	U		10.0	"	"	"
2-Hexanone (591-78-6)	U		50.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		10.0	"	"	"
Chlorobenzene (108-90-7)	U		10.0	"	"	"
Ethylbenzene (100-41-4)	U		10.0	"	"	"
meta-/para-Xylene (na)	U		20.0	"	"	"
ortho-Xylene (95-47-6)	U		10.0	"	"	"
Styrene (100-42-5)	U		10.0	"	"	"
Isopropylbenzene (98-82-8)	**18.3**		10.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		10.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		10.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		10.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		10.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		10.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		10.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Region 6 Laboratory

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-11 **Station ID: MW-203-DUP**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1042ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	63.0		87.6	42-109	06/16/16	06/16/16
Phenol-d5	55.3		76.9	46-110	"	"
2-Chlorophenol-d4	63.5		88.3	47-103	"	"
1,2-Dichlorobenzene-d4	30.1		62.8	33-100	"	"
Nitrobenzene-d5	36.8		76.8	42-126	"	"
2-Fluorobiphenyl	35.4		73.7	50-104	"	"
2,4,6-Tribromophenol	88.6		123	59-142	"	"
Terphenyl-d14	54.2		113	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	U		1.9	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		1.9	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Benzaldehyde (100-52-7)	U		4.8	"	"	"
Benzoic acid (65-85-0)	U		9.6	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloroaniline (106-47-8)	U		4.8	"	"	"

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Region 6 Laboratory

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-11 **Station ID: MW-203-DUP**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1042ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		4.8	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.2	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.2	"	"	"
Di-n-butyl phthalate (84-74-2)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Fluoranthene (206-44-0)	U		1.9	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.7	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-11 **Station ID: MW-203-DUP**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1042ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		7.7	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		7.7	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
4-Nitrophenol (100-02-7)	U		12.5	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Phenol (108-95-2)	**594**		48.0	10	"	06/16/16
Pyrene (129-00-0)	U		1.9	1	"	06/16/16
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-11 **Station ID: MW-203-DUP**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	50.5		101	86-117	06/17/16	06/17/16
Toluene-d8	48.7		97.5	85-113	"	"
4-Bromofluorobenzene	47.8		95.6	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		10.0	10	06/17/16	06/17/16
Chloromethane (74-87-3)	U		10.0	"	"	"
Vinyl chloride (75-01-4)	U		10.0	"	"	"
Bromomethane (74-83-9)	U		10.0	"	"	"
Chloroethane (75-00-3)	U		10.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		10.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		10.0	"	"	"
Carbon disulfide (75-15-0)	U		10.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		10.0	"	"	"
Acetone (67-64-1)	U		50.0	"	"	"
Methylene chloride (75-09-2)	U		20.0	"	"	"
Methyl acetate (79-20-9)	U		10.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		10.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		10.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		10.0	"	"	"
1,1-Dichloroethane (75-34-3)	**34.8**		10.0	"	"	"
2-Butanone (78-93-3)	U		50.0	"	"	"
Chloroform (67-66-3)	U		10.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		10.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		10.0	"	"	"
Cyclohexane (110-82-7)	U		10.0	"	"	"
Carbon tetrachloride (56-23-5)	U		10.0	"	"	"
Benzene (71-43-2)	**9,920**		100	100	"	06/17/16
Trichloroethene (79-01-6)	U		10.0	10	"	06/17/16
Methylcyclohexane (108-87-2)	U		10.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		10.0	"	"	"
Bromodichloromethane (75-27-4)	U		10.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		10.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-11 **Station ID: MW-203-DUP**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		10.0	10	06/17/16	06/17/16
1,1,2-Trichloroethane (79-00-5)	U		10.0	"	"	"
Dibromochloromethane (124-48-1)	U		10.0	"	"	"
Bromoform (75-25-2)	U		10.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		50.0	"	"	"
Toluene (108-88-3)	U		10.0	"	"	"
Tetrachloroethene (127-18-4)	U		10.0	"	"	"
2-Hexanone (591-78-6)	U		50.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		10.0	"	"	"
Chlorobenzene (108-90-7)	U		10.0	"	"	"
Ethylbenzene (100-41-4)	U		10.0	"	"	"
meta-/para-Xylene (na)	U		20.0	"	"	"
ortho-Xylene (95-47-6)	U		10.0	"	"	"
Styrene (100-42-5)	U		10.0	"	"	"
Isopropylbenzene (98-82-8)	**17.7**		10.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		10.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		10.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		10.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		10.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		10.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		10.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-12 **Station ID: MW-204**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1015ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	59.8		80.9	42-109	06/16/16	06/16/16
Phenol-d5	58.9		79.7	46-110	"	"
2-Chlorophenol-d4	59.3		80.3	47-103	"	"
1,2-Dichlorobenzene-d4	26.0		52.9	33-100	"	"
Nitrobenzene-d5	34.9		70.8	42-126	"	"
2-Fluorobiphenyl	33.8		68.6	50-104	"	"
2,4,6-Tribromophenol	77.0		104	59-142	"	"
Terphenyl-d14	54.3		110	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	U		2.0	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		2.0	"	"	"
Acetophenone (98-86-2)	U		4.9	"	"	"
Anthracene (120-12-7)	U		2.0	"	"	"
Atrazine (1912-24-9)	U		4.9	"	"	"
Benzaldehyde (100-52-7)	U		4.9	"	"	"
Benzoic acid (65-85-0)	U		9.9	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.9	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.9	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.9	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.9	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.9	"	"	"
Benzyl alcohol (100-51-6)	U		4.9	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.9	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.9	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.9	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.9	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.9	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.9	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.9	"	"	"
Carbazole (86-74-8)	U		4.9	"	"	"
Caprolactam (105-60-2)	U		4.9	"	"	"
4-Chloroaniline (106-47-8)	U		4.9	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-12 **Station ID: MW-204**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1015ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		4.9	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		4.9	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.9	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.9	"	"	"
Chrysene (218-01-9)	U		4.9	"	"	"
Dibenzofuran (132-64-9)	U		4.9	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.9	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.9	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.9	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.9	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.9	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.9	"	"	"
Diethyl phthalate (84-66-2)	U		4.9	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.9	"	"	"
Dimethyl phthalate (131-11-3)	U		4.9	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.7	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.9	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.9	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.7	"	"	"
Di-n-butyl phthalate (84-74-2)	U		4.9	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.9	"	"	"
Fluoranthene (206-44-0)	U		2.0	"	"	"
Fluorene (86-73-7)	U		2.0	"	"	"
Hexachlorobenzene (118-74-1)	U		4.9	"	"	"
Hexachlorobutadiene (87-68-3)	U		4.9	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.9	"	"	"
Hexachloroethane (67-72-1)	U		4.9	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.9	"	"	"
Isophorone (78-59-1)	U		4.9	"	"	"
1-Methylnaphthalene (90-12-0)	U		2.0	"	"	"
2-Methylnaphthalene (91-57-6)	U		2.0	"	"	"
2-Methylphenol (95-48-7)	U		4.9	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.9	"	"	"
Naphthalene (91-20-3)	U		2.0	"	"	"
2-Nitroaniline (88-74-4)	U		7.9	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-12 **Station ID: MW-204**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1015ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		7.9	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		7.9	"	"	"
Nitrobenzene (98-95-3)	U		4.9	"	"	"
2-Nitrophenol (88-75-5)	U		4.9	"	"	"
4-Nitrophenol (100-02-7)	U		12.8	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.9	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.9	"	"	"
Pentachlorophenol (87-86-5)	U		4.9	"	"	"
Phenanthrene (85-01-8)	U		2.0	"	"	"
Phenol (108-95-2)	U		4.9	"	"	"
Pyrene (129-00-0)	U		2.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.9	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.9	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.9	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-12 **Station ID: MW-204**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	50.7		101	86-117	06/17/16	06/17/16
Toluene-d8	48.1		96.2	85-113	"	"
4-Bromofluorobenzene	46.2		92.4	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	06/17/16	06/17/16
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	**7.5**	**FB, J**	5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	**1.2**		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-12 **Station ID: MW-204**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	1	06/17/16	06/17/16
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-13 **Station ID: MW-33**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1035ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	49.0		67.6	42-109	06/16/16	06/16/16
Phenol-d5	49.6		68.5	46-110	"	"
2-Chlorophenol-d4	53.2		73.4	47-103	"	"
1,2-Dichlorobenzene-d4	25.2		52.1	33-100	"	"
Nitrobenzene-d5	35.5		73.5	42-126	"	"
2-Fluorobiphenyl	31.4		64.9	50-104	"	"
2,4,6-Tribromophenol	51.8		71.5	59-142	"	"
Terphenyl-d14	53.6		111	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Acenaphthene (83-32-9)	U		1.9	1	06/16/16	06/16/16
Acenaphthylene (208-96-8)	U		1.9	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Benzaldehyde (100-52-7)	U		4.8	"	"	"
Benzoic acid (65-85-0)	U		9.7	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloroaniline (106-47-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-13 **Station ID: MW-33**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1035ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2-Chloronaphthalene (91-58-7)	U		4.8	1	06/16/16	06/16/16
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.3	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.3	"	"	"
Di-n-butyl phthalate (84-74-2)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Fluoranthene (206-44-0)	U		1.9	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.7	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1606002-13 **Station ID: MW-33**

Batch: B6F1504 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 1035ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
3-Nitroaniline (99-09-2)	U		7.7	1	06/16/16	06/16/16
4-Nitroaniline (100-01-6)	U		7.7	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
4-Nitrophenol (100-02-7)	U		12.6	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Phenol (108-95-2)	U		4.8	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-13 **Station ID: MW-33**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	51.2		102	86-117	06/16/16	06/16/16
Toluene-d8	50.0		100	85-113	"	"
4-Bromofluorobenzene	49.0		98.0	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	06/16/16	06/16/16
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	**2.2**		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-13 **Station ID: MW-33**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	1	06/16/16	06/16/16
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-14 **Station ID: TB-1**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	46.0		92.0	86-117	06/16/16	06/16/16
Toluene-d8	45.7		91.5	85-113	"	"
4-Bromofluorobenzene	45.3		90.6	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	06/16/16	06/16/16
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	"	"	"

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1606002-14 **Station ID: TB-1**

Batch: B6F2301 Date Collected: 06/14/16
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	1	06/16/16	06/16/16
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

yph

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B6F2301 **Sample Type: Liquid**

Blank (B6F2301-BLK1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	49.9		50.0	99.9	86-117
Toluene-d8	48.3		50.0	96.6	85-113
4-Bromofluorobenzene	47.7		50.0	95.4	73-115

Blank (B6F2301-BLK1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Dichlorodifluoromethane	U		1.0
Chloromethane	U		1.0
Vinyl chloride	U		1.0
Bromomethane	U		1.0
Chloroethane	U		1.0
Trichlorofluoromethane	U		1.0
1,1-Dichloroethene	U		1.0
Carbon disulfide	U		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	U		1.0
Acetone	U		5.0
Methylene chloride	U		2.0
Methyl acetate	U		1.0
trans-1,2-Dichloroethene	U		1.0
cis-1,2-Dichloroethene	U		1.0
Methyl tert-butyl ether	U		1.0
1,1-Dichloroethane	U		1.0
2-Butanone	U		5.0
Chloroform	U		1.0
1,2-Dichloroethane	U		1.0
1,1,1-Trichloroethane	U		1.0
Cyclohexane	U		1.0
Carbon tetrachloride	U		1.0
Benzene	U		1.0

Environmental Protection Agency

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B6F2301 **Sample Type: Liquid**

Blank (B6F2301-BLK1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Trichloroethene	U		1.0
Methylcyclohexane	U		1.0
1,2-Dichloropropane	U		1.0
Bromodichloromethane	U		1.0
cis-1,3-Dichloropropene	U		1.0
trans-1,3-Dichloropropene	U		1.0
1,1,2-Trichloroethane	U		1.0
Dibromochloromethane	U		1.0
Bromoform	U		1.0
4-Methyl-2-pentanone	U		5.0
Toluene	U		1.0
Tetrachloroethene	U		1.0
2-Hexanone	U		5.0
1,2-Dibromoethane	U		1.0
Chlorobenzene	U		1.0
Ethylbenzene	U		1.0
meta-/para-Xylene	U		2.0
ortho-Xylene	U		1.0
Styrene	U		1.0
Isopropylbenzene	U		1.0
1,1,2,2-Tetrachloroethane	U		1.0
1,3-Dichlorobenzene	U		1.0
1,4-Dichlorobenzene	U		1.0
1,2-Dichlorobenzene	U		1.0
1,2-Dibromo-3-chloropropane	U		1.0
1,2,4-Trichlorobenzene	U		1.0

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B6F2301 **Sample Type: Liquid**

Blank (B6F2301-BLK2)

Prepared: 6/17/2016 Analyzed: 6/17/2016

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	49.4		50.0	98.8	86-117
Toluene-d8	46.8		50.0	93.6	85-113
4-Bromofluorobenzene	46.2		50.0	92.4	73-115

Blank (B6F2301-BLK2)

Prepared: 6/17/2016 Analyzed: 6/17/2016

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Dichlorodifluoromethane	U		1.0
Chloromethane	U		1.0
Vinyl chloride	U		1.0
Bromomethane	U		1.0
Chloroethane	U		1.0
Trichlorofluoromethane	U		1.0
1,1-Dichloroethene	U		1.0
Carbon disulfide	U		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	U		1.0
Acetone	U		5.0
Methylene chloride	U		2.0
Methyl acetate	U		1.0
trans-1,2-Dichloroethene	U		1.0
cis-1,2-Dichloroethene	U		1.0
Methyl tert-butyl ether	U		1.0
1,1-Dichloroethane	U		1.0
2-Butanone	U		5.0
Chloroform	U		1.0
1,2-Dichloroethane	U		1.0
1,1,1-Trichloroethane	U		1.0
Cyclohexane	U		1.0
Carbon tetrachloride	U		1.0
Benzene	U		1.0

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B6F2301 **Sample Type: Liquid**

Blank (B6F2301-BLK2)

Prepared: 6/17/2016 Analyzed: 6/17/2016

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Trichloroethene	U		1.0
Methylcyclohexane	U		1.0
1,2-Dichloropropane	U		1.0
Bromodichloromethane	U		1.0
cis-1,3-Dichloropropene	U		1.0
trans-1,3-Dichloropropene	U		1.0
1,1,2-Trichloroethane	U		1.0
Dibromochloromethane	U		1.0
Bromoform	U		1.0
4-Methyl-2-pentanone	U		5.0
Toluene	U		1.0
Tetrachloroethene	U		1.0
2-Hexanone	U		5.0
1,2-Dibromoethane	U		1.0
Chlorobenzene	U		1.0
Ethylbenzene	U		1.0
meta-/para-Xylene	U		2.0
ortho-Xylene	U		1.0
Styrene	U		1.0
Isopropylbenzene	U		1.0
1,1,2,2-Tetrachloroethane	U		1.0
1,3-Dichlorobenzene	U		1.0
1,4-Dichlorobenzene	U		1.0
1,2-Dichlorobenzene	U		1.0
1,2-Dibromo-3-chloropropane	U		1.0
1,2,4-Trichlorobenzene	U		1.0

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B6F2301 **Sample Type: Liquid**

LCS (B6F2301-BS1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	48.1		50.0	96.1	86-117
Toluene-d8	49.0		50.0	98.0	85-113
4-Bromofluorobenzene	49.0		50.0	97.9	73-115

LCS (B6F2301-BS1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Dichlorodifluoromethane	43.6		1.0	50.0	87.3	69-132
Chloromethane	44.0		1.0	50.0	87.9	73-130
Vinyl chloride	43.9		1.0	50.0	87.9	76-130
Bromomethane	44.1		1.0	50.0	88.2	75-129
Chloroethane	46.8		1.0	50.0	93.5	75-121
Trichlorofluoromethane	50.0		1.0	50.0	100	79-130
1,1-Dichloroethene	56.1		1.0	50.0	112	76-127
Carbon disulfide	56.9		1.0	50.0	114	74-122
1,1,2-Trichloro-1,2,2-trifluoroethane	55.3		1.0	50.0	111	79-126
Acetone	70.8		5.0	50.0	142 #	44-140
Methylene chloride	54.2		2.0	50.0	108	79-122
Methyl acetate	49.0		1.0	50.0	98.0	78-118
trans-1,2-Dichloroethene	52.8		1.0	50.0	106	78-123
cis-1,2-Dichloroethene	51.1		1.0	50.0	102	80-120
Methyl tert-butyl ether	50.1		1.0	50.0	100	78-124
1,1-Dichloroethane	54.8		1.0	50.0	110	80-122
2-Butanone	58.3		5.0	50.0	117	71-127
Chloroform	50.7		1.0	50.0	101	81-121
1,2-Dichloroethane	52.5		1.0	50.0	105	80-121
1,1,1-Trichloroethane	51.5		1.0	50.0	103	80-120
Cyclohexane	51.8		1.0	50.0	104	77-120
Carbon tetrachloride	48.4		1.0	50.0	96.9	78-121
Benzene	52.0		1.0	50.0	104	81-119

Environmental Protection Agency

Region 6 Laboratory

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B6F2301 **Sample Type: Liquid**

LCS (B6F2301-BS1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Trichloroethene	51.6		1.0	50.0	103	80-120
Methylcyclohexane	51.5		1.0	50.0	103	79-122
1,2-Dichloropropane	53.6		1.0	50.0	107	81-121
Bromodichloromethane	47.7		1.0	50.0	95.4	80-121
cis-1,3-Dichloropropene	48.8		1.0	50.0	97.6	79-119
trans-1,3-Dichloropropene	45.0		1.0	50.0	90.1	78-119
1,1,2-Trichloroethane	50.4		1.0	50.0	101	80-120
Dibromochloromethane	46.9		1.0	50.0	93.9	80-118
Bromoform	43.7		1.0	50.0	87.5	79-119
4-Methyl-2-pentanone	47.5		5.0	50.0	95.0	77-121
Toluene	51.2		1.0	50.0	102	81-118
Tetrachloroethene	50.9		1.0	50.0	102	80-120
2-Hexanone	53.3		5.0	50.0	107	77-122
1,2-Dibromoethane	50.4		1.0	50.0	101	81-118
Chlorobenzene	51.0		1.0	50.0	102	81-118
Ethylbenzene	50.2		1.0	50.0	100	80-118
meta-/para-Xylene	102		2.0	100	102	81-117
ortho-Xylene	50.5		1.0	50.0	101	81-118
Styrene	50.5		1.0	50.0	101	79-118
Isopropylbenzene	50.2		1.0	50.0	100	74-124
1,1,2,2-Tetrachloroethane	48.9		1.0	50.0	97.7	79-119
1,3-Dichlorobenzene	51.2		1.0	50.0	102	81-118
1,4-Dichlorobenzene	50.8		1.0	50.0	102	80-117
1,2-Dichlorobenzene	51.5		1.0	50.0	103	79-119
1,2-Dibromo-3-chloropropane	44.6		1.0	50.0	89.1	77-123
1,2,4-Trichlorobenzene	53.0		1.0	50.0	106	78-128

Environmental Protection Agency

Region 6 Laboratory

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B6F2301 **Sample Type: Liquid**

LCS (B6F2301-BS2)

Prepared: 6/17/2016 Analyzed: 6/17/2016

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	50.2		50.0	100	86-117
Toluene-d8	50.1		50.0	100	85-113
4-Bromofluorobenzene	50.3		50.0	101	73-115

LCS (B6F2301-BS2)

Prepared: 6/17/2016 Analyzed: 6/17/2016

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Dichlorodifluoromethane	48.5		1.0	50.0	97.0	69-132
Chloromethane	49.4		1.0	50.0	98.7	73-130
Vinyl chloride	49.7		1.0	50.0	99.4	76-130
Bromomethane	51.3		1.0	50.0	103	75-129
Chloroethane	47.2		1.0	50.0	94.5	75-121
Trichlorofluoromethane	54.0		1.0	50.0	108	79-130
1,1-Dichloroethene	59.2		1.0	50.0	118	76-127
Carbon disulfide	62.3		1.0	50.0	125 #	74-122
1,1,2-Trichloro-1,2,2-trifluoroethane	58.6		1.0	50.0	117	79-126
Acetone	60.2		5.0	50.0	120	44-140
Methylene chloride	55.8		2.0	50.0	112	79-122
Methyl acetate	55.3		1.0	50.0	111	78-118
trans-1,2-Dichloroethene	55.6		1.0	50.0	111	78-123
cis-1,2-Dichloroethene	52.9		1.0	50.0	106	80-120
Methyl tert-butyl ether	54.0		1.0	50.0	108	78-124
1,1-Dichloroethane	57.2		1.0	50.0	114	80-122
2-Butanone	56.1		5.0	50.0	112	71-127
Chloroform	53.4		1.0	50.0	107	81-121
1,2-Dichloroethane	55.3		1.0	50.0	111	80-121
1,1,1-Trichloroethane	55.4		1.0	50.0	111	80-120
Cyclohexane	52.8		1.0	50.0	106	77-120
Carbon tetrachloride	53.6		1.0	50.0	107	78-121
Benzene	53.2		1.0	50.0	106	81-119

Environmental Protection Agency

Region 6 Laboratory

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B6F2301 **Sample Type: Liquid**

LCS (B6F2301-BS2)

Prepared: 6/17/2016 Analyzed: 6/17/2016

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Trichloroethene	54.0		1.0	50.0	108	80-120
Methylcyclohexane	52.9		1.0	50.0	106	79-122
1,2-Dichloropropane	55.3		1.0	50.0	111	81-121
Bromodichloromethane	52.6		1.0	50.0	105	80-121
cis-1,3-Dichloropropene	53.4		1.0	50.0	107	79-119
trans-1,3-Dichloropropene	50.2		1.0	50.0	100	78-119
1,1,2-Trichloroethane	52.7		1.0	50.0	105	80-120
Dibromochloromethane	51.8		1.0	50.0	104	80-118
Bromoform	52.3		1.0	50.0	105	79-119
4-Methyl-2-pentanone	52.4		5.0	50.0	105	77-121
Toluene	53.2		1.0	50.0	106	81-118
Tetrachloroethene	53.0		1.0	50.0	106	80-120
2-Hexanone	54.4		5.0	50.0	109	77-122
1,2-Dibromoethane	54.1		1.0	50.0	108	81-118
Chlorobenzene	52.5		1.0	50.0	105	81-118
Ethylbenzene	52.1		1.0	50.0	104	80-118
meta-/para-Xylene	105		2.0	100	105	81-117
ortho-Xylene	52.5		1.0	50.0	105	81-118
Styrene	52.0		1.0	50.0	104	79-118
Isopropylbenzene	52.0		1.0	50.0	104	74-124
1,1,2,2-Tetrachloroethane	53.4		1.0	50.0	107	79-119
1,3-Dichlorobenzene	52.9		1.0	50.0	106	81-118
1,4-Dichlorobenzene	52.4		1.0	50.0	105	80-117
1,2-Dichlorobenzene	53.5		1.0	50.0	107	79-119
1,2-Dibromo-3-chloropropane	53.4		1.0	50.0	107	77-123
1,2,4-Trichlorobenzene	54.2		1.0	50.0	108	78-128

Environmental Protection Agency

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B6F2301 **Sample Type: Liquid**

Matrix Spike (B6F2301-MS1)

Source: 1606002-03 Prepared: 6/17/2016 Analyzed: 6/17/2016

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	50.1		50.0	100	86-117
Toluene-d8	47.6		50.0	95.3	85-113
4-Bromofluorobenzene	47.1		50.0	94.1	73-115

Matrix Spike (B6F2301-MS1)

Source: 1606002-03 Prepared: 6/17/2016 Analyzed: 6/17/2016

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
1,1-Dichloroethene	46.8		1.0	50.0		93.5	72-134
Benzene	45.0		1.0	50.0		90.1	79-122
Trichloroethene	44.4		1.0	50.0		88.7	79-126
Toluene	45.4		1.0	50.0		90.7	81-122
Chlorobenzene	44.9		1.0	50.0		89.8	82-121

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B6F2301 **Sample Type: Liquid**

Matrix Spike Dup (B6F2301-MSD1)

Source: 1606002-03 Prepared: 6/17/2016 Analyzed: 6/17/2016

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	50.6		50.0	101	86-117
Toluene-d8	47.2		50.0	94.5	85-113
4-Bromofluorobenzene	46.0		50.0	91.9	73-115

Matrix Spike Dup (B6F2301-MSD1)

Source: 1606002-03 Prepared: 6/17/2016 Analyzed: 6/17/2016

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,1-Dichloroethene	51.2		1.0	50.0		102	72-134	8.99	21
Benzene	46.8		1.0	50.0		93.6	79-122	3.83	16
Trichloroethene	46.0		1.0	50.0		92.1	79-126	3.67	14
Toluene	47.6		1.0	50.0		95.1	81-122	4.74	13
Chlorobenzene	46.4		1.0	50.0		92.8	82-121	3.31	10

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B6F1504 **Sample Type: Liquid**

Blank (B6F1504-BLK1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	75.0		75.0	99.9	42-109
Phenol-d5	75.9		75.0	101	46-110
2-Chlorophenol-d4	74.7		75.0	99.6	47-103
1,2-Dichlorobenzene-d4	35.6		50.0	71.1	33-100
Nitrobenzene-d5	43.9		50.0	87.8	42-126
2-Fluorobiphenyl	40.0		50.0	80.0	50-104
2,4,6-Tribromophenol	74.4		75.0	99.2	59-142
Terphenyl-d14	50.0		50.0	100	61-125

Blank (B6F1504-BLK1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Acenaphthene	U		2.0
Acenaphthylene	U		2.0
Acetophenone	U		5.0
Anthracene	U		2.0
Atrazine	U		5.0
Benzaldehyde	U		5.0
Benzoic acid	U		10.0
Benzo (a) anthracene	U		5.0
Benzo (a) pyrene	U		5.0
Benzo (b) fluoranthene	U		5.0
Benzo (g,h,i) perylene	U		5.0
Benzo (k) fluoranthene	U		5.0
Benzyl alcohol	U		5.0
1,1'-Biphenyl	U		5.0
Bis(2-chloroethoxy)methane	U		5.0
Bis(2-chloroethyl)ether	U		5.0
Bis(2-chloro-1-methylethyl)ether	U		5.0
Bis(2-ethylhexyl)phthalate	U		5.0

Environmental Protection Agency

Region 6 Laboratory

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Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B6F1504 **Sample Type: Liquid**

Blank (B6F1504-BLK1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
4-Bromophenyl phenyl ether	U		5.0
Butyl benzyl phthalate	U		5.0
Carbazole	U		5.0
Caprolactam	U		5.0
4-Chloroaniline	U		5.0
2-Chloronaphthalene	U		5.0
2-Chlorophenol	U		5.0
4-Chlorophenyl phenyl ether	U		5.0
4-Chloro-3-methylphenol	U		5.0
Chrysene	U		5.0
Dibenzofuran	U		5.0
Dibenz (a,h) anthracene	U		5.0
1,2-Dichlorobenzene	U		5.0
1,3-Dichlorobenzene	U		5.0
1,4-Dichlorobenzene	U		5.0
3,3´-Dichlorobenzidine	U		5.0
2,4-Dichlorophenol	U		5.0
Diethyl phthalate	U		5.0
2,4-Dimethylphenol	U		5.0
Dimethyl phthalate	U		5.0
2,4-Dinitrophenol	U		20.0
2,4-Dinitrotoluene	U		5.0
2,6-Dinitrotoluene	U		5.0
4,6-Dinitro-2-methylphenol	U		20.0
Di-n-butyl phthalate	U		5.0
Di-n-octyl phthalate	U		5.0
Fluoranthene	U		2.0
Fluorene	U		2.0
Hexachlorobenzene	U		5.0
Hexachlorobutadiene	U		5.0
Hexachlorocyclopentadiene	U		5.0
Hexachloroethane	U		5.0
Indeno (1,2,3-cd) pyrene	U		5.0

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
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Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B6F1504 **Sample Type: Liquid**

Blank (B6F1504-BLK1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Isophorone	U		5.0
1-Methylnaphthalene	U		2.0
2-Methylnaphthalene	U		2.0
2-Methylphenol	U		5.0
3 &/or 4-Methylphenol	U		5.0
Naphthalene	U		2.0
2-Nitroaniline	U		8.0
3-Nitroaniline	U		8.0
4-Nitroaniline	U		8.0
Nitrobenzene	U		5.0
2-Nitrophenol	U		5.0
4-Nitrophenol	U		13.0
N-Nitrosodiphenylamine/Diphenylamine	U		5.0
N-Nitrosodi-n-propylamine	U		5.0
Pentachlorophenol	U		5.0
Phenanthrene	U		2.0
Phenol	U		5.0
Pyrene	U		2.0
1,2,4-Trichlorobenzene	U		5.0
2,4,5-Trichlorophenol	U		5.0
2,4,6-Trichlorophenol	U		5.0

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B6F1504 **Sample Type: Liquid**

LCS (B6F1504-BS1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	80.3		75.0	107	42-109
Phenol-d5	78.0		75.0	104	46-110
2-Chlorophenol-d4	78.3		75.0	104 #	47-103
1,2-Dichlorobenzene-d4	38.7		50.0	77.5	33-100
Nitrobenzene-d5	46.1		50.0	92.2	42-126
2-Fluorobiphenyl	38.0		50.0	75.9	50-104
2,4,6-Tribromophenol	76.0		75.0	101	59-142
Terphenyl-d14	53.3		50.0	107	61-125

LCS (B6F1504-BS1)

Prepared: 6/16/2016 Analyzed: 6/16/2016

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Acenaphthene	41.6		2.0	50.0	83.3	63-112
2-Chlorophenol	71.9		5.0	75.0	95.9	64-116
4-Chloro-3-methylphenol	66.2		5.0	75.0	88.3	63-117
1,4-Dichlorobenzene	33.6		5.0	50.0	67.3	35-100
2,4-Dinitrotoluene	49.3		5.0	50.0	98.5	59-120
4-Nitrophenol	80.0		13.0	75.0	107	49-137
N-Nitrosodi-n-propylamine	44.6		5.0	50.0	89.3	65-118
Pentachlorophenol	78.8		5.0	75.0	105	46-133
Phenol	70.3		5.0	75.0	93.7	60-116
Pyrene	48.8		2.0	50.0	97.7	59-131
1,2,4-Trichlorobenzene	36.9		5.0	50.0	73.8	42-103

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
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Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B6F1504 **Sample Type: Liquid**

Matrix Spike (B6F1504-MS1)

Source: 1606002-03 Prepared: 6/16/2016 Analyzed: 6/16/2016

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	72.0		71.0	101	42-109
Phenol-d5	68.7		71.0	96.7	46-110
2-Chlorophenol-d4	70.0		71.0	98.5	47-103
1,2-Dichlorobenzene-d4	35.3		47.3	74.5	33-100
Nitrobenzene-d5	41.0		47.3	86.6	42-126
2-Fluorobiphenyl	36.1		47.3	76.2	50-104
2,4,6-Tribromophenol	74.4		71.0	105	59-142
Terphenyl-d14	46.4		47.3	98.0	61-125

Matrix Spike (B6F1504-MS1)

Source: 1606002-03 Prepared: 6/16/2016 Analyzed: 6/16/2016

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Acenaphthene	37.6		1.9	47.3		79.4	41-131
2-Chlorophenol	63.6		4.7	71.0		89.5	46-114
4-Chloro-3-methylphenol	60.5		4.7	71.0		85.2	44-137
1,4-Dichlorobenzene	31.7		4.7	47.3		67.0	34-100
2,4-Dinitrotoluene	43.5		4.7	47.3		91.9	57-123
4-Nitrophenol	67.9		12.3	71.0		95.6	39-152
N-Nitrosodi-n-propylamine	39.7		4.7	47.3		83.8	50-116
Pentachlorophenol	75.5		4.7	71.0		106	55-146
Phenol	61.7		4.7	71.0		86.9	41-114
Pyrene	42.6		1.9	47.3		90.0	54-133
1,2,4-Trichlorobenzene	34.1		4.7	47.3		72.0	38-106

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B6F1504 **Sample Type: Liquid**

Matrix Spike Dup (B6F1504-MSD1)

Source: 1606002-03 Prepared: 6/16/2016 Analyzed: 6/16/2016

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	77.2		70.6	109	42-109
Phenol-d5	74.8		70.6	106	46-110
2-Chlorophenol-d4	75.1		70.6	106 #	47-103
1,2-Dichlorobenzene-d4	39.0		47.0	83.0	33-100
Nitrobenzene-d5	43.9		47.0	93.3	42-126
2-Fluorobiphenyl	37.3		47.0	79.4	50-104
2,4,6-Tribromophenol	76.5		70.6	108	59-142
Terphenyl-d14	45.1		47.0	95.8	61-125

Matrix Spike Dup (B6F1504-MSD1)

Source: 1606002-03 Prepared: 6/16/2016 Analyzed: 6/16/2016

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Acenaphthene	40.3		1.9	47.0		85.6	41-131	7.48	33
2-Chlorophenol	69.0		4.7	70.6		97.8	46-114	8.90	27
4-Chloro-3-methylphenol	63.8		4.7	70.6		90.4	44-137	5.89	30
1,4-Dichlorobenzene	35.5		4.7	47.0		75.4	34-100	11.8	32
2,4-Dinitrotoluene	46.0		4.7	47.0		97.9	57-123	6.30	16
4-Nitrophenol	70.7		12.2	70.6		100	39-152	4.75	34
N-Nitrosodi-n-propylamine	43.1		4.7	47.0		91.5	50-116	8.81	29
Pentachlorophenol	77.0		4.7	70.6		109	55-146	2.51	21
Phenol	67.5		4.7	70.6		95.6	41-114	9.52	32
Pyrene	42.1		1.9	47.0		89.5	54-133	0.51	21
1,2,4-Trichlorobenzene	38.5		4.7	47.0		81.9	38-106	12.9	26

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

SURROGATE SUMMARY REPORT

VOA CLP Low Level (E)

Liquid

LAB NUMBER	1,2-DCE-d4	TOL-d8	4-BFB
1606002-01	104	99.5	99.9
1606002-02	90.8	88.0	88.4
1606002-03	102	99.8	97.0
1606002-04	99.8	95.5	93.1
1606002-05	103	101	100
1606002-06	97.1	96.1	94.5
1606002-07	93.7	91.7	90.1
1606002-08	101	95.6	92.9
1606002-09	100	95.2	93.4
1606002-10	101	96.9	94.4
1606002-11	101	97.5	95.6
1606002-12	101	96.2	92.4
1606002-13	102	100	98.0
1606002-14	92.0	91.5	90.6
B6F2301-BLK1	99.9	96.6	95.4
B6F2301-BLK2	98.8	93.6	92.4
B6F2301-BS1	96.1	98.0	97.9
B6F2301-BS2	100	100	101
B6F2301-MS1	100	95.3	94.1
B6F2301-MSD1	101	94.5	91.9

			QC LIMITS
1,2-DCE-d4	=	1,2-Dichloroethane-d4	86 - 117
TOL-d8	=	Toluene-d8	85 - 113
4-BFB	=	4-Bromofluorobenzene	73 - 115

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

SURROGATE SUMMARY REPORT

ABN CLP Routine List (E)

Liquid

LAB NUMBER	2-FP	PH-d5	2-CP-d4	1,2-DCB-d4	NB-d5	2-FBP	2,4,6-TBP	TP-d14
1606002-01	91.6	89.4	89.2	72.4	77.6	70.6	98.1	99.9
1606002-03	89.0	91.0	90.0	67.7	79.8	70.3	103	98.6
1606002-04	76.1	87.0	86.8	57.9	101	62.6	102	101
1606002-05	93.1	86.3	89.2	68.8	80.0	69.4	106	107
1606002-06	96.2	94.8	94.6	70.7	85.0	76.2	108	100
1606002-07	88.8	83.8	86.9	63.6	78.1	65.1	108	100
1606002-08	71.7	68.3	69.9	54.2	63.6	66.0	98.9	111
1606002-09	80.7	76.1	80.0	58.6	71.1	59.9	95.0	93.9
1606002-10	78.9	67.7	79.5	51.8	69.0	65.1	104	104
1606002-11	87.6	76.9	88.3	62.8	76.8	73.7	123	113
1606002-12	80.9	79.7	80.3	52.9	70.8	68.6	104	110
1606002-13	67.6	68.5	73.4	52.1	73.5	64.9	71.5	111
B6F1504-BLK1	99.9	101	99.6	71.1	87.8	80.0	99.2	100
B6F1504-BS1	107	104	104 #	77.5	92.2	75.9	101	107
B6F1504-MS1	101	96.7	98.5	74.5	86.6	76.2	105	98.0
B6F1504-MSD1	109	106	106 #	83.0	93.3	79.4	108	95.8

QC LIMITS

2-FP	=	2-Fluorophenol	42 - 109
PH-d5	=	Phenol-d5	46 - 110
2-CP-d4	=	2-Chlorophenol-d4	47 - 103
1,2-DCB-d4	=	1,2-Dichlorobenzene-d4	33 - 100
NB-d5	=	Nitrobenzene-d5	42 - 126
2-FBP	=	2-Fluorobiphenyl	50 - 104
2,4,6-TBP	=	2,4,6-Tribromophenol	59 - 142
TP-d14	=	Terphenyl-d14	61 - 125

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
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Notes and Definitions

J	The identification of the analyte is acceptable; the reported value is an estimate.
FB	Field Blank Related - The concentration found in the sample was less than 10X the concentration found in the associated field, trip, or equipment blank. Presence in the sample is therefore suspect.
B	Blank Related - The concentration found in the sample was less than 10X the concentration found in the associated extraction, digestion and/or analysis blank. Presence in the sample is therefore suspect.
A	This sample was extracted at a single acid pH.
HTS	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.
ABN	Acid Base Neutrals (Semivolatile Compounds)
AES	Atomic Emission Spectrometer
BS	Blank Spike
CVAA	Cold Vapor Atomic Absorption
DCB	Decachlorobiphenyl
ECD	Electron Capture Detector
GC	Gas Chromatograph
ICP	Inductively Coupled Plasma
ISTD	Internal Standard
LCS	Laboratory Control Sample
MS	Mass Spectrometer
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	Not Applicable
NPD	Nitrogen Phosphorous Detector
NR	Not Reported
PCB	Polychlorinatedbiphenyl

Environmental Protection Agency

Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
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RL	Reporting Limit
RT	Retention Time
RPD	Relative Percent Difference
TCLP	Toxicity Characteristic Leaching Procedure
TCMX	Tetrachloro-meta-xylene
U	Undetected
VOA	Volatile Organic Analysis

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.

USEPA CLP COC (LAB COPY)
DateShipped: 6/14/2016
CarrierName: EA
AirbillNo: NA

CHAIN OF CUSTODY RECORD

No: 6-061016-150727-0001
Lab: US EPA Region 6 Laboratory
Lab Contact: Christy Warren
Lab Phone: 281-983-2137

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
ER-1		Water/ John Bonner	Grab	VOA-L(35)	1027 (Ice to 4C & HCl) (3)	ER-1	06/14/2016 17:26	
FB-1		Water/ John Bonner	Grab	VOA-L(35)	1025 (Ice to 4C & HCl) (3)	FB-1	06/14/2016 17:35	
MW-108		Ground Water/ John Bonner	Grab	VOA-L(35)	1002 (Ice to 4C & HCl) (9)	MW-108	06/14/2016 13:40	
MW-109A		Ground Water/ John Bonner	Grab	VOA-H(35)	1011 (Ice to 4C & HCl) (3)	MW-109A	06/14/2016 16:55	
MW-110		Ground Water/ John Bonner	Grab	VOA-L(35)	1008 (Ice to 4C & HCl) (3)	MW-110	06/14/2016 14:40	
MW-192		Ground Water/ John Bonner	Grab	VOA-H(35)	1009 (Ice to 4C & HCl) (3)	MW-192	06/14/2016 15:05	
MW-193		Ground Water/ John Bonner	Grab	VOA-L(35)	1006 (Ice to 4C & HCl) (3)	MW-193	06/14/2016 12:30	
MW-201		Ground Water/ John Bonner	Grab	VOA-L(35)	1003 (Ice to 4C & HCl) (3)	MW-201	06/14/2016 10:00	
MW-202		Ground Water/ John Bonner	Grab	VOA-L(35)	1001 (Ice to 4C & HCl) (3)	MW-202	06/14/2016 09:20	
MW-203		Ground Water/ John Bonner	Grab	VOA-H(35)	1010 (Ice to 4C & HCl) (3)	MW-203	06/14/2016 15:50	

Sample(s) to be used for Lab QC: MW-108 Tag 1002

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key: VOA-L=VOA-L, VOA-H=VOA-H

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	John T B[illegible] / EA Eng	6/15/16 1000	S Cross	6/15/16 12:00	

Temp Blank = 1°C

USEPA CLP COC (LAB COPY)

DateShipped: 6/14/2016
CarrierName: EA
AirbillNo: NA

CHAIN OF CUSTODY RECORD

No: 6-061016-150727-0001

Lab: US EPA Region 6 Laboratory
Lab Contact: Christy Warren
Lab Phone: 281-983-2137

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MW-203-DUP		Ground Water/ John Bonner	Grab	VOA-H(35)	1023 (Ice to 4C & HCl) (3)	MW-203-DUP	06/14/2016 15:50	
MW-204		Ground Water/ John Bonner	Grab	VOA-L(35)	1004 (Ice to 4C & HCl) (3)	MW-204	06/14/2016 10:30	
MW-33		Ground Water/ John Bonner	Grab	VOA-L(35)	1005 (Ice to 4C & HCl) (3)	MW-33	06/14/2016 11:00	
TB-1		Water/ John Bonner	Grab	VOA-L(35)	1029 (Ice to 4C & HCl) (3)	TB-1	06/14/2016 18:00	

Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: VOA-L=VOA-L, VOA-H=VOA-H

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	John T Bonner / EA Eng	6/15/16 10:00	J Crow	6/15/16 12:00	

Temp Blank = 1°C

USEPA CLP COC (LAB COPY)

DateShipped: 6/14/2016
CarrierName: EA
AirbillNo: NA

CHAIN OF CUSTODY RECORD

No: 6-061016-151034-0002

Lab: US EPA Region 6 Laboratory
Lab Contact: Christy Warren
Lab Phone: 281-983-2137

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MW-193		Ground Water/ John Bonner	Grab	ABN-L(35)	1017 (Ice to 4C) (2)	MW-193	06/14/2016 12:30	
MW-204		Ground Water/ John Bonner	Grab	ABN-L(35)	1015 (Ice to 4C) (2)	MW-204	06/14/2016 10:30	
MW-33		Ground Water/ John Bonner	Grab	ABN-L(35)	1016 (Ice to 4C) (2)	MW-33	06/14/2016 11:00	

Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: ABN-L=ABN-L

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	John Bonner / EA Eng	6/15/16 1000	S Cisse	6/15/16 12:00	

Temp Blank = 1°C

USEPA CLP COC (LAB COPY)

DateShipped: 6/14/2016
CarrierName: EA
AirbillNo: NA

CHAIN OF CUSTODY RECORD

No: 6-061016-151036-0003

Lab: US EPA Region 6 Laboratory
Lab Contact: Christy Warren
Lab Phone: 281-983-2137

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MW-108		Ground Water/ John Bonner	Grab	ABN-L(35)	1013 (Ice to 4C) (6)	MW-108	06/14/2016 13:40	

Sample(s) to be used for Lab QC: MW-108 Tag 1013

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: ABN-L=ABN-L

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	John T Bonner / EA Eng	6/15/16 1000	J Cox	6/15/16 12:00	

Temp Blank = 1°C

USEPA CLP COC (LAB COPY)

DateShipped: 6/14/2016
CarrierName: EA
AirbillNo: NA

CHAIN OF CUSTODY RECORD

No: 6-061016-151036-0004

Lab: US EPA Region 6 Laboratory
Lab Contact: Christy Warren
Lab Phone: 281-983-2137

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
ER-1		Water/ John Bonner	Grab	ABN-L(35)	1028 (Ice to 4C) (2)	ER-1	06/14/2016 17:26	
MW-201		Ground Water/ John Bonner	Grab	ABN-L(35)	1014 (Ice to 4C) (2)	MW-201	06/14/2016 10:00	
MW-202		Ground Water/ John Bonner	Grab	ABN-L(35)	1012 (Ice to 4C) (2)	MW-202	06/14/2016 09:20	

Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: ABN-L=ABN-L

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	John T Bonner / EA Eng	6/15/16 1000	J Close	6/15/16 12:00	

Temp Blank = 1°

USEPA CLP COC (LAB COPY)

DateShipped: 6/14/2016
CarrierName: EA
AirbillNo: NA

CHAIN OF CUSTODY RECORD

No: 6-061016-151036-0005

Lab: US EPA Region 6 Laboratory
Lab Contact: Christy Warren
Lab Phone: 281-983-2137

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MW-110		Ground Water/ John Bonner	Grab	ABN-L(35)	1019 (Ice to 4C) (2)	MW-110	06/14/2016 14:40	
MW-203		Ground Water/ John Bonner	Grab	ABN-H(35)	1021 (Ice to 4C) (2)	MW-203	06/14/2016 15:50	
MW-203-DUP		Ground Water/ John Bonner	Grab	ABN-H(35)	1024 (Ice to 4C) (2)	MW-203-DUP	06/14/2016 15:50	

Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: ABN-L=ABN-L, ABN-H=ABN-H

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	John T Bonner / EA Eng	6/15/16 1000	J Cox	6/15/16 12:00	

Temp Blank = 1°C

USEPA CLP COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 6-061016-151036-0006

DateShipped: 6/14/2016
CarrierName:
AirbillNo:

Lab: US EPA Region 6 Laboratory
Lab Contact: Christy Warren
Lab Phone: 281-983-2137

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
MW-109A		Ground Water/ John Bonner	Grab	ABN-H(35)	1022 (Ice to 4C) (2)	MW-109A	06/14/2016 16:55	
MW-192		Ground Water/ John Bonner	Grab	ABN-H(35)	1020 (Ice to 4C) (2)	MW-192	06/14/2016 15:05	

Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: ABN-H=ABN-H

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	John T Bonner / EPA Eng	6/15/16 1000		6/15/16 12:0 U	

Temp Blank = 2°C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Laboratory
Environmental Services Branch
10625 Fallstone Road, Houston, TX 77099
Phone: (281)983-2100 Fax: (281)983-2248

Final Analytical Report

Site Name ----------Petro Chemical Systems

Sample Collection Date(s)-- 08/15/18

Contact---------- Raji Josiam (6SF-RA)

Report Date---------- 09/07/18

Project #---------- 18SF103

Work Order(s)---------- 1808018

Analyses included in this report:

ABN CLP Routine List	VOA CLP Low Level (E)

Report Narrative

Volatiles:

Acetone is qualified as blank related in samples 1808018-12 and -16 and estimated in samples 1808018-01 and -02 due to presence in the associated field blanks and failure in the continuing calibration verification, respectively.

Batch B8H2302: Two analytes fail in BS1 but were not reported in the samples.

Semi-volatiles:

bis(2-Ethylhexyl)phthalate is > reporting limit in the blank but was not reported in the samples.

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of the sample results. The results apply only to the samples tested. This final report should only be reproduced in full.

The reporting limit (sometimes referred to as a quantitation limit) is defined as the lowest concentration at which an analyte can be reliably measured and reported without qualification. Reporting limits are adjusted for sample size, dilution, and matrix interference. Concentrations below the reporting limit are reported as non-detects or <RL.

For a list of ISO 17025 accredited methods go to:
http://region6a.epa.gov/intranet/6md/lab/labisocertification2018.pdf

Report Approvals:

Richard McMillin
Region 6 Laboratory Technical Manager

David W. McQuiddy
Region 6 Laboratory Branch Chief

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Environmental Services Branch Laboratory

10625 Fallstone Road
Houston, Texas 77099

Sample Receipt and Disposal

Site Name: Petro Chemical Systems Project Number: 18SF103

Data Management Coordinator: Christy Warren

_____ / /

Data Management Coordinator Signature Date

Date Transmitted: _____/_____/_____

Please have the U.S. EPA Project Manager/Officer call the Data Management Coordinator at 3-2137 for any comments or questions.

Please sign and date this form below and return it with any comments to:

Christy Warren
Data Management Coordinator
Region 6 Laboratory
6MD-HS

_____/_____/_____

Received by and Date

Comments:

The laboratory routinely disposes of samples 90 days after all analyses have been completed. If you have a need to hold these samples in custody longer than 90 days, please sign below.

_____ _____

Signature Date

Please provide a reason for holding:

Environmental Protection Agency

Region 6 Laboratory

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ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
ER-1	1808018-01	Liquid	8/15/18 16:30	08/16/18 11:35
FB-1	1808018-02	Liquid	8/15/18 16:26	08/16/18 11:35
MW-108	1808018-03	Liquid	8/15/18 13:36	08/16/18 11:35
MW-108-DUP	1808018-04	Liquid	8/15/18 13:36	08/16/18 11:35
MW-109A	1808018-05	Liquid	8/15/18 18:00	08/16/18 11:35
MW-109A-DUP	1808018-06	Liquid	8/15/18 18:00	08/16/18 11:35
MW-110	1808018-07	Liquid	8/15/18 10:10	08/16/18 11:35
MW-110-DUP	1808018-08	Liquid	8/15/18 10:10	08/16/18 11:35
MW-191R	1808018-09	Liquid	8/15/18 15:55	08/16/18 11:35
MW-192	1808018-10	Liquid	8/15/18 14:15	08/16/18 11:35
MW-193	1808018-11	Liquid	8/15/18 14:50	08/16/18 11:35
MW-201	1808018-12	Liquid	8/15/18 12:26	08/16/18 11:35
MW-202	1808018-13	Liquid	8/15/18 9:05	08/16/18 11:35
MW-203	1808018-14	Liquid	8/15/18 17:10	08/16/18 11:35
MW-203-DUP	1808018-15	Liquid	8/15/18 17:10	08/16/18 11:35
MW-204	1808018-16	Liquid	8/15/18 11:55	08/16/18 11:35
MW-33	1808018-17	Liquid	8/15/18 11:11	08/16/18 11:35
TB-1	1808018-18	Liquid	8/15/18 8:00	08/16/18 11:35

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QC SUMMARY REPORT

ABN CLP Routine List
B8H1701
Liquid
Samples: 14 **ReExts: 0**

LAB NUMBER	SOURCE
B8H1701-BLK1	
B8H1701-BS1	
B8H1701-MS1	1808018-17
B8H1701-MSD1	1808018-17

VOA CLP Low Level (E)
B8H2302
Liquid
Samples: 16 **ReExts: 0**

LAB NUMBER	SOURCE
B8H2302-BLK1	
B8H2302-BLK2	
B8H2302-BS1	
B8H2302-BS2	
B8H2302-MS1	1808018-17
B8H2302-MSD1	1808018-17

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-01 **Station ID: ER-1**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1035ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	52.8		72.9	42-109	08/17/18	08/17/18
Phenol-d5	52.4		72.4	46-110	"	"
2-Chlorophenol-d4	55.2		76.1	47-103	"	"
1,2-Dichlorobenzene-d4	35.1		72.7	33-100	"	"
Nitrobenzene-d5	37.7		77.9	42-126	"	"
2-Fluorobiphenyl	34.3		70.9	50-104	"	"
2,4,6-Tribromophenol	61.0		84.2	59-142	"	"
Terphenyl-d14	43.2		89.4	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		4.8	1	08/17/18	08/17/18
Phenol (108-95-2)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"

Environmental Protection Agency
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Phone:(281)983-2100 Fax:(281)983-2248

Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-01 **Station ID: ER-1**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1035ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		4.8	1	08/17/18	08/17/18
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2-Chloronaphthalene (91-58-7)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
2-Nitroaniline (88-74-4)	U		7.7	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
Acenaphthylene (208-96-8)	U		1.9	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
3-Nitroaniline (99-09-2)	U		7.7	"	"	"
Acenaphthene (83-32-9)	U		1.9	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.3	"	"	"
4-Nitrophenol (100-02-7)	U		12.6	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Nitroaniline (100-01-6)	U		7.7	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.3	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-01 **Station ID: ER-1**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1035ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		4.8	1	08/17/18	08/17/18
Fluoranthene (206-44-0)	U		1.9	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-01 **Station ID: ER-1**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	49.6		99.1	86-117	08/20/18	08/20/18
Toluene-d8	49.2		98.4	85-113	"	"
4-Bromofluorobenzene	47.6		95.2	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/20/18	08/20/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	**5.2**	**J**	5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-01 **Station ID: ER-1**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/20/18	08/20/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-02 **Station ID: FB-1**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	50.8		102	86-117	08/20/18	08/20/18
Toluene-d8	50.0		99.9	85-113	"	"
4-Bromofluorobenzene	48.8		97.6	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/20/18	08/20/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	**5.9**	**J**	5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-02 **Station ID: FB-1**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/20/18	08/20/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-03 **Station ID: MW-108**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1039ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	55.3		76.6	42-109	08/17/18	08/17/18
Phenol-d5	55.2		76.5	46-110	"	"
2-Chlorophenol-d4	58.0		80.4	47-103	"	"
1,2-Dichlorobenzene-d4	35.0		72.8	33-100	"	"
Nitrobenzene-d5	39.7		82.5	42-126	"	"
2-Fluorobiphenyl	36.2		75.2	50-104	"	"
2,4,6-Tribromophenol	62.0		85.8	59-142	"	"
Terphenyl-d14	41.1		85.4	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		4.8	1	08/17/18	08/17/18
Phenol (108-95-2)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-03 **Station ID: MW-108**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1039ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		4.8	1	08/17/18	08/17/18
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2-Chloronaphthalene (91-58-7)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
2-Nitroaniline (88-74-4)	U		7.7	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
Acenaphthylene (208-96-8)	U		1.9	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
3-Nitroaniline (99-09-2)	U		7.7	"	"	"
Acenaphthene (83-32-9)	U		1.9	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.2	"	"	"
4-Nitrophenol (100-02-7)	U		12.5	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Nitroaniline (100-01-6)	U		7.7	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.2	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-03 **Station ID: MW-108**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1039ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		4.8	1	08/17/18	08/17/18
Fluoranthene (206-44-0)	U		1.9	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-03 **Station ID: MW-108**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	50.8		102	86-117	08/20/18	08/20/18
Toluene-d8	51.1		102	85-113	"	"
4-Bromofluorobenzene	49.2		98.4	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/20/18	08/20/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	**10.0**		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	**1.2**		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-03 **Station ID: MW-108**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/20/18	08/20/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-04 **Station ID: MW-108-DUP**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1019ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	48.9		66.5	42-109	08/17/18	08/17/18
Phenol-d5	48.7		66.1	46-110	"	"
2-Chlorophenol-d4	52.0		70.6	47-103	"	"
1,2-Dichlorobenzene-d4	31.7		64.7	33-100	"	"
Nitrobenzene-d5	35.5		72.3	42-126	"	"
2-Fluorobiphenyl	33.0		67.2	50-104	"	"
2,4,6-Tribromophenol	62.5		84.9	59-142	"	"
Terphenyl-d14	43.5		88.6	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		4.9	1	08/17/18	08/17/18
Phenol (108-95-2)	U		4.9	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.9	"	"	"
2-Chlorophenol (95-57-8)	U		4.9	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.9	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.9	"	"	"
Benzyl alcohol (100-51-6)	U		4.9	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.9	"	"	"
2-Methylphenol (95-48-7)	U		4.9	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.9	"	"	"
Acetophenone (98-86-2)	U		4.9	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.9	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.9	"	"	"
Hexachloroethane (67-72-1)	U		4.9	"	"	"
Nitrobenzene (98-95-3)	U		4.9	"	"	"
Isophorone (78-59-1)	U		4.9	"	"	"
2-Nitrophenol (88-75-5)	U		4.9	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.9	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.9	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.9	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.9	"	"	"
Naphthalene (91-20-3)	U		2.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-04 **Station ID: MW-108-DUP**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1019ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		4.9	1	08/17/18	08/17/18
Hexachlorobutadiene (87-68-3)	U		4.9	"	"	"
Caprolactam (105-60-2)	U		4.9	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		2.0	"	"	"
1-Methylnaphthalene (90-12-0)	U		2.0	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.9	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.9	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.9	"	"	"
2-Chloronaphthalene (91-58-7)	U		4.9	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.9	"	"	"
Dimethyl phthalate (131-11-3)	U		4.9	"	"	"
Acenaphthylene (208-96-8)	U		2.0	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.9	"	"	"
3-Nitroaniline (99-09-2)	U		7.9	"	"	"
Acenaphthene (83-32-9)	U		2.0	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.6	"	"	"
4-Nitrophenol (100-02-7)	U		12.8	"	"	"
Dibenzofuran (132-64-9)	U		4.9	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.9	"	"	"
Fluorene (86-73-7)	U		2.0	"	"	"
Diethyl phthalate (84-66-2)	U		4.9	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.9	"	"	"
4-Nitroaniline (100-01-6)	U		7.9	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.6	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.9	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.9	"	"	"
Atrazine (1912-24-9)	U		4.9	"	"	"
Pentachlorophenol (87-86-5)	U		4.9	"	"	"
Phenanthrene (85-01-8)	U		2.0	"	"	"
Anthracene (120-12-7)	U		2.0	"	"	"
Carbazole (86-74-8)	U		4.9	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-04 **Station ID: MW-108-DUP**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1019ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		4.9	1	08/17/18	08/17/18
Fluoranthene (206-44-0)	U		2.0	"	"	"
Pyrene (129-00-0)	U		2.0	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.9	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.9	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.9	"	"	"
Chrysene (218-01-9)	U		4.9	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.9	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.9	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.9	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.9	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.9	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.9	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.9	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.9	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-05 **Station ID: MW-109A**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 500ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	99.0		66.0	42-109	08/17/18	08/17/18
Phenol-d5	106		70.5	46-110	"	"
2-Chlorophenol-d4	107		71.3	47-103	"	"
1,2-Dichlorobenzene-d4	62.4		62.4	33-100	"	"
Nitrobenzene-d5	118		118	42-126	"	"
2-Fluorobiphenyl	75.5		75.5	50-104	"	"
2,4,6-Tribromophenol	148		98.6	59-142	"	"
Terphenyl-d14	91.7		91.7	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		10.0	1	08/17/18	08/17/18
Phenol (108-95-2)	**86.6**		10.0	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		10.0	"	"	"
2-Chlorophenol (95-57-8)	U		10.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		10.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		10.0	"	"	"
Benzyl alcohol (100-51-6)	U		10.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		10.0	"	"	"
2-Methylphenol (95-48-7)	U		10.0	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		10.0	"	"	"
Acetophenone (98-86-2)	U		10.0	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		10.0	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		10.0	"	"	"
Hexachloroethane (67-72-1)	U		10.0	"	"	"
Nitrobenzene (98-95-3)	U		10.0	"	"	"
Isophorone (78-59-1)	U		10.0	"	"	"
2-Nitrophenol (88-75-5)	U		10.0	"	"	"
2,4-Dimethylphenol (105-67-9)	U		10.0	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		10.0	"	"	"
2,4-Dichlorophenol (120-83-2)	U		10.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		10.0	"	"	"
Naphthalene (91-20-3)	**3,390**		400	100	"	08/20/18
4-Chloroaniline (106-47-8)	U		10.0	1	"	08/17/18

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-05 **Station ID: MW-109A**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 500ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Hexachlorobutadiene (87-68-3)	U		10.0	1	08/17/18	08/17/18
Caprolactam (105-60-2)	U		10.0	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		10.0	"	"	"
2-Methylnaphthalene (91-57-6)	**162**		40.0	10	"	08/20/18
1-Methylnaphthalene (90-12-0)	**193**		40.0	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		10.0	1	"	08/17/18
2,4,6-Trichlorophenol (88-06-2)	U		10.0	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		10.0	"	"	"
2-Chloronaphthalene (91-58-7)	U		10.0	"	"	"
1,1'-Biphenyl (92-52-4)	**44.4**		10.0	"	"	"
2-Nitroaniline (88-74-4)	U		16.0	"	"	"
Dimethyl phthalate (131-11-3)	U		10.0	"	"	"
Acenaphthylene (208-96-8)	U		4.0	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		10.0	"	"	"
3-Nitroaniline (99-09-2)	U		16.0	"	"	"
Acenaphthene (83-32-9)	**5.4**		4.0	"	"	"
2,4-Dinitrophenol (51-28-5)	U		40.0	"	"	"
4-Nitrophenol (100-02-7)	U		26.0	"	"	"
Dibenzofuran (132-64-9)	U		10.0	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		10.0	"	"	"
Fluorene (86-73-7)	**7.4**		4.0	"	"	"
Diethyl phthalate (84-66-2)	U		10.0	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		10.0	"	"	"
4-Nitroaniline (100-01-6)	U		16.0	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		40.0	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		10.0	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		10.0	"	"	"
Hexachlorobenzene (118-74-1)	U		10.0	"	"	"
Atrazine (1912-24-9)	U		10.0	"	"	"
Pentachlorophenol (87-86-5)	U		10.0	"	"	"
Phenanthrene (85-01-8)	U		4.0	"	"	"
Anthracene (120-12-7)	U		4.0	"	"	"
Carbazole (86-74-8)	U		10.0	"	"	"
Di-n-butyl phthalate (84-74-2)	U		10.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-05 **Station ID: MW-109A**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 500ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Fluoranthene (206-44-0)	U		4.0	1	08/17/18	08/17/18
Pyrene (129-00-0)	U		4.0	"	"	"
Butyl benzyl phthalate (85-68-7)	U		10.0	"	"	"
Benzo (a) anthracene (56-55-3)	U		10.0	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		10.0	"	"	"
Chrysene (218-01-9)	U		10.0	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		10.0	"	"	"
Di-n-octyl phthalate (117-84-0)	U		10.0	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		10.0	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		10.0	"	"	"
Benzo (a) pyrene (50-32-8)	U		10.0	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		10.0	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		10.0	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		10.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-05 **Station ID: MW-109A**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	49.4		98.7	86-117	08/22/18	08/22/18
Toluene-d8	48.6		97.1	85-113	"	"
4-Bromofluorobenzene	47.7		95.4	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		50.0	50	08/22/18	08/22/18
Chloromethane (74-87-3)	U		50.0	"	"	"
Vinyl chloride (75-01-4)	U		50.0	"	"	"
Bromomethane (74-83-9)	U		50.0	"	"	"
Chloroethane (75-00-3)	U		50.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		50.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		50.0	"	"	"
Carbon disulfide (75-15-0)	U		50.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		50.0	"	"	"
Acetone (67-64-1)	U		250	"	"	"
Methylene chloride (75-09-2)	U		100	"	"	"
Methyl acetate (79-20-9)	U		50.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		50.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		50.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		50.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		50.0	"	"	"
2-Butanone (78-93-3)	U		250	"	"	"
Chloroform (67-66-3)	U		50.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		50.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		50.0	"	"	"
Cyclohexane (110-82-7)	U		50.0	"	"	"
Carbon tetrachloride (56-23-5)	U		50.0	"	"	"
Benzene (71-43-2)	**94,700**		1,000	1000	"	08/22/18
Trichloroethene (79-01-6)	U		50.0	50	"	08/22/18
Methylcyclohexane (108-87-2)	U		50.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		50.0	"	"	"
Bromodichloromethane (75-27-4)	U		50.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-05 **Station ID: MW-109A**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		50.0	50	08/22/18	08/22/18
trans-1,3-Dichloropropene (10061-02-6)	U		50.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		50.0	"	"	"
Dibromochloromethane (124-48-1)	U		50.0	"	"	"
Bromoform (75-25-2)	U		50.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		250	"	"	"
Toluene (108-88-3)	U		50.0	"	"	"
Tetrachloroethene (127-18-4)	U		50.0	"	"	"
2-Hexanone (591-78-6)	U		250	"	"	"
1,2-Dibromoethane (106-93-4)	U		50.0	"	"	"
Chlorobenzene (108-90-7)	U		50.0	"	"	"
Ethylbenzene (100-41-4)	**630**		50.0	"	"	"
meta-/para-Xylene (na)	**200**		100	"	"	"
ortho-Xylene (95-47-6)	**124**		50.0	"	"	"
Styrene (100-42-5)	U		50.0	"	"	"
Isopropylbenzene (98-82-8)	U		50.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		50.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		50.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		50.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		50.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		50.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		50.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-06 **Station ID: MW-109A-DUP**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	47.5		95.0	86-117	08/22/18	08/22/18
Toluene-d8	48.4		96.9	85-113	"	"
4-Bromofluorobenzene	47.3		94.6	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		50.0	50	08/22/18	08/22/18
Chloromethane (74-87-3)	U		50.0	"	"	"
Vinyl chloride (75-01-4)	U		50.0	"	"	"
Bromomethane (74-83-9)	U		50.0	"	"	"
Chloroethane (75-00-3)	U		50.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		50.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		50.0	"	"	"
Carbon disulfide (75-15-0)	U		50.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		50.0	"	"	"
Acetone (67-64-1)	U		250	"	"	"
Methylene chloride (75-09-2)	U		100	"	"	"
Methyl acetate (79-20-9)	U		50.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		50.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		50.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		50.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		50.0	"	"	"
2-Butanone (78-93-3)	U		250	"	"	"
Chloroform (67-66-3)	U		50.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		50.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		50.0	"	"	"
Cyclohexane (110-82-7)	U		50.0	"	"	"
Carbon tetrachloride (56-23-5)	U		50.0	"	"	"
Benzene (71-43-2)	**104,000**		1,000	1000	"	08/22/18
Trichloroethene (79-01-6)	U		50.0	50	"	08/22/18
Methylcyclohexane (108-87-2)	U		50.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		50.0	"	"	"
Bromodichloromethane (75-27-4)	U		50.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-06 **Station ID: MW-109A-DUP**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		50.0	50	08/22/18	08/22/18
trans-1,3-Dichloropropene (10061-02-6)	U		50.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		50.0	"	"	"
Dibromochloromethane (124-48-1)	U		50.0	"	"	"
Bromoform (75-25-2)	U		50.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		250	"	"	"
Toluene (108-88-3)	U		50.0	"	"	"
Tetrachloroethene (127-18-4)	U		50.0	"	"	"
2-Hexanone (591-78-6)	U		250	"	"	"
1,2-Dibromoethane (106-93-4)	U		50.0	"	"	"
Chlorobenzene (108-90-7)	U		50.0	"	"	"
Ethylbenzene (100-41-4)	**702**		50.0	"	"	"
meta-/para-Xylene (na)	**213**		100	"	"	"
ortho-Xylene (95-47-6)	**132**		50.0	"	"	"
Styrene (100-42-5)	U		50.0	"	"	"
Isopropylbenzene (98-82-8)	U		50.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		50.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		50.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		50.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		50.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		50.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		50.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-07 **Station ID: MW-110**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1008ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	50.4		67.8	42-109	08/17/18	08/17/18
Phenol-d5	49.9		67.1	46-110	"	"
2-Chlorophenol-d4	52.7		70.8	47-103	"	"
1,2-Dichlorobenzene-d4	31.3		63.2	33-100	"	"
Nitrobenzene-d5	36.4		73.4	42-126	"	"
2-Fluorobiphenyl	33.9		68.4	50-104	"	"
2,4,6-Tribromophenol	64.8		87.0	59-142	"	"
Terphenyl-d14	44.4		89.4	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		5.0	1	08/17/18	08/17/18
Phenol (108-95-2)	U		5.0	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		5.0	"	"	"
2-Chlorophenol (95-57-8)	U		5.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		5.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		5.0	"	"	"
Benzyl alcohol (100-51-6)	U		5.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		5.0	"	"	"
2-Methylphenol (95-48-7)	U		5.0	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		5.0	"	"	"
Acetophenone (98-86-2)	U		5.0	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		5.0	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		5.0	"	"	"
Hexachloroethane (67-72-1)	U		5.0	"	"	"
Nitrobenzene (98-95-3)	U		5.0	"	"	"
Isophorone (78-59-1)	U		5.0	"	"	"
2-Nitrophenol (88-75-5)	U		5.0	"	"	"
2,4-Dimethylphenol (105-67-9)	U		5.0	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		5.0	"	"	"
2,4-Dichlorophenol (120-83-2)	U		5.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		5.0	"	"	"
Naphthalene (91-20-3)	U		2.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-07 **Station ID: MW-110**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1008ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		5.0	1	08/17/18	08/17/18
Hexachlorobutadiene (87-68-3)	U		5.0	"	"	"
Caprolactam (105-60-2)	U		5.0	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		5.0	"	"	"
2-Methylnaphthalene (91-57-6)	U		2.0	"	"	"
1-Methylnaphthalene (90-12-0)	U		2.0	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		5.0	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		5.0	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		5.0	"	"	"
2-Chloronaphthalene (91-58-7)	U		5.0	"	"	"
1,1'-Biphenyl (92-52-4)	U		5.0	"	"	"
2-Nitroaniline (88-74-4)	U		7.9	"	"	"
Dimethyl phthalate (131-11-3)	U		5.0	"	"	"
Acenaphthylene (208-96-8)	U		2.0	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		5.0	"	"	"
3-Nitroaniline (99-09-2)	U		7.9	"	"	"
Acenaphthene (83-32-9)	U		2.0	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.8	"	"	"
4-Nitrophenol (100-02-7)	U		12.9	"	"	"
Dibenzofuran (132-64-9)	U		5.0	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		5.0	"	"	"
Fluorene (86-73-7)	U		2.0	"	"	"
Diethyl phthalate (84-66-2)	U		5.0	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		5.0	"	"	"
4-Nitroaniline (100-01-6)	U		7.9	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.8	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		5.0	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		5.0	"	"	"
Hexachlorobenzene (118-74-1)	U		5.0	"	"	"
Atrazine (1912-24-9)	U		5.0	"	"	"
Pentachlorophenol (87-86-5)	U		5.0	"	"	"
Phenanthrene (85-01-8)	U		2.0	"	"	"
Anthracene (120-12-7)	U		2.0	"	"	"
Carbazole (86-74-8)	U		5.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-07 **Station ID: MW-110**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1008ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		5.0	1	08/17/18	08/17/18
Fluoranthene (206-44-0)	U		2.0	"	"	"
Pyrene (129-00-0)	U		2.0	"	"	"
Butyl benzyl phthalate (85-68-7)	U		5.0	"	"	"
Benzo (a) anthracene (56-55-3)	U		5.0	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		5.0	"	"	"
Chrysene (218-01-9)	U		5.0	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		5.0	"	"	"
Di-n-octyl phthalate (117-84-0)	U		5.0	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		5.0	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		5.0	"	"	"
Benzo (a) pyrene (50-32-8)	U		5.0	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		5.0	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		5.0	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		5.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-07 **Station ID: MW-110**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	49.4		98.8	86-117	08/20/18	08/20/18
Toluene-d8	48.7		97.4	85-113	"	"
4-Bromofluorobenzene	47.7		95.3	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/20/18	08/20/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-07 **Station ID: MW-110**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/20/18	08/20/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-08 **Station ID: MW-110-DUP**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1047ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	44.9		62.7	42-109	08/17/18	08/17/18
Phenol-d5	44.5		62.1	46-110	"	"
2-Chlorophenol-d4	47.7		66.6	47-103	"	"
1,2-Dichlorobenzene-d4	28.6		59.8	33-100	"	"
Nitrobenzene-d5	33.4		70.0	42-126	"	"
2-Fluorobiphenyl	31.6		66.3	50-104	"	"
2,4,6-Tribromophenol	56.1		78.3	59-142	"	"
Terphenyl-d14	41.8		87.6	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		4.8	1	08/17/18	08/17/18
Phenol (108-95-2)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-08 **Station ID: MW-110-DUP**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1047ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		4.8	1	08/17/18	08/17/18
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2-Chloronaphthalene (91-58-7)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
2-Nitroaniline (88-74-4)	U		7.6	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
Acenaphthylene (208-96-8)	U		1.9	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
3-Nitroaniline (99-09-2)	U		7.6	"	"	"
Acenaphthene (83-32-9)	U		1.9	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.1	"	"	"
4-Nitrophenol (100-02-7)	U		12.4	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Nitroaniline (100-01-6)	U		7.6	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.1	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-08 **Station ID: MW-110-DUP**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1047ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		4.8	1	08/17/18	08/17/18
Fluoranthene (206-44-0)	U		1.9	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-09 **Station ID: MW-191R**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1041ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	39.7		55.1	42-109	08/17/18	08/17/18
Phenol-d5	40.4		56.0	46-110	"	"
2-Chlorophenol-d4	43.6		60.5	47-103	"	"
1,2-Dichlorobenzene-d4	27.7		57.7	33-100	"	"
Nitrobenzene-d5	32.6		67.9	42-126	"	"
2-Fluorobiphenyl	31.4		65.3	50-104	"	"
2,4,6-Tribromophenol	63.0		87.5	59-142	"	"
Terphenyl-d14	42.2		87.8	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		4.8	1	08/17/18	08/17/18
Phenol (108-95-2)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-09 **Station ID: MW-191R**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1041ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		4.8	1	08/17/18	08/17/18
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2-Chloronaphthalene (91-58-7)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
2-Nitroaniline (88-74-4)	U		7.7	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
Acenaphthylene (208-96-8)	U		1.9	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
3-Nitroaniline (99-09-2)	U		7.7	"	"	"
Acenaphthene (83-32-9)	U		1.9	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.2	"	"	"
4-Nitrophenol (100-02-7)	U		12.5	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Nitroaniline (100-01-6)	U		7.7	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.2	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-09 **Station ID: MW-191R**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1041ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		4.8	1	08/17/18	08/17/18
Fluoranthene (206-44-0)	U		1.9	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-09 **Station ID: MW-191R**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	48.9		97.8	86-117	08/20/18	08/20/18
Toluene-d8	48.5		96.9	85-113	"	"
4-Bromofluorobenzene	47.7		95.4	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/20/18	08/20/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-09 **Station ID: MW-191R**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/20/18	08/20/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-10 **Station ID: MW-192**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1003ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	49.3		65.9	42-109	08/17/18	08/17/18
Phenol-d5	50.9		68.0	46-110	"	"
2-Chlorophenol-d4	52.8		70.5	47-103	"	"
1,2-Dichlorobenzene-d4	32.6		65.4	33-100	"	"
Nitrobenzene-d5	37.3		74.8	42-126	"	"
2-Fluorobiphenyl	34.7		69.5	50-104	"	"
2,4,6-Tribromophenol	66.4		88.8	59-142	"	"
Terphenyl-d14	42.3		84.9	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		5.0	1	08/17/18	08/17/18
Phenol (108-95-2)	U		5.0	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		5.0	"	"	"
2-Chlorophenol (95-57-8)	U		5.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		5.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		5.0	"	"	"
Benzyl alcohol (100-51-6)	U		5.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		5.0	"	"	"
2-Methylphenol (95-48-7)	U		5.0	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		5.0	"	"	"
Acetophenone (98-86-2)	U		5.0	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		5.0	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		5.0	"	"	"
Hexachloroethane (67-72-1)	U		5.0	"	"	"
Nitrobenzene (98-95-3)	U		5.0	"	"	"
Isophorone (78-59-1)	U		5.0	"	"	"
2-Nitrophenol (88-75-5)	U		5.0	"	"	"
2,4-Dimethylphenol (105-67-9)	U		5.0	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		5.0	"	"	"
2,4-Dichlorophenol (120-83-2)	U		5.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		5.0	"	"	"
Naphthalene (91-20-3)	U		2.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-10 **Station ID: MW-192**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1003ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		5.0	1	08/17/18	08/17/18
Hexachlorobutadiene (87-68-3)	U		5.0	"	"	"
Caprolactam (105-60-2)	U		5.0	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		5.0	"	"	"
2-Methylnaphthalene (91-57-6)	U		2.0	"	"	"
1-Methylnaphthalene (90-12-0)	U		2.0	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		5.0	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		5.0	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		5.0	"	"	"
2-Chloronaphthalene (91-58-7)	U		5.0	"	"	"
1,1'-Biphenyl (92-52-4)	U		5.0	"	"	"
2-Nitroaniline (88-74-4)	U		8.0	"	"	"
Dimethyl phthalate (131-11-3)	U		5.0	"	"	"
Acenaphthylene (208-96-8)	U		2.0	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		5.0	"	"	"
3-Nitroaniline (99-09-2)	U		8.0	"	"	"
Acenaphthene (83-32-9)	U		2.0	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.9	"	"	"
4-Nitrophenol (100-02-7)	U		13.0	"	"	"
Dibenzofuran (132-64-9)	U		5.0	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		5.0	"	"	"
Fluorene (86-73-7)	U		2.0	"	"	"
Diethyl phthalate (84-66-2)	U		5.0	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		5.0	"	"	"
4-Nitroaniline (100-01-6)	U		8.0	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.9	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		5.0	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		5.0	"	"	"
Hexachlorobenzene (118-74-1)	U		5.0	"	"	"
Atrazine (1912-24-9)	U		5.0	"	"	"
Pentachlorophenol (87-86-5)	U		5.0	"	"	"
Phenanthrene (85-01-8)	U		2.0	"	"	"
Anthracene (120-12-7)	U		2.0	"	"	"
Carbazole (86-74-8)	U		5.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-10 **Station ID: MW-192**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1003ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		5.0	1	08/17/18	08/17/18
Fluoranthene (206-44-0)	U		2.0	"	"	"
Pyrene (129-00-0)	U		2.0	"	"	"
Butyl benzyl phthalate (85-68-7)	U		5.0	"	"	"
Benzo (a) anthracene (56-55-3)	U		5.0	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		5.0	"	"	"
Chrysene (218-01-9)	U		5.0	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		5.0	"	"	"
Di-n-octyl phthalate (117-84-0)	U		5.0	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		5.0	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		5.0	"	"	"
Benzo (a) pyrene (50-32-8)	U		5.0	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		5.0	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		5.0	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		5.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-10 **Station ID: MW-192**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	51.1		102	86-117	08/20/18	08/20/18
Toluene-d8	51.0		102	85-113	"	"
4-Bromofluorobenzene	49.4		98.9	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/20/18	08/20/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	**1.1**		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	**7.7**		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-10 **Station ID: MW-192**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/20/18	08/20/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-11 **Station ID: MW-193**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1013ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	51.6		69.7	42-109	08/17/18	08/17/18
Phenol-d5	54.7		73.9	46-110	"	"
2-Chlorophenol-d4	57.4		77.5	47-103	"	"
1,2-Dichlorobenzene-d4	37.4		75.8	33-100	"	"
Nitrobenzene-d5	40.8		82.7	42-126	"	"
2-Fluorobiphenyl	37.9		76.8	50-104	"	"
2,4,6-Tribromophenol	66.4		89.7	59-142	"	"
Terphenyl-d14	44.3		89.7	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		4.9	1	08/17/18	08/17/18
Phenol (108-95-2)	U		4.9	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.9	"	"	"
2-Chlorophenol (95-57-8)	U		4.9	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.9	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.9	"	"	"
Benzyl alcohol (100-51-6)	U		4.9	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.9	"	"	"
2-Methylphenol (95-48-7)	U		4.9	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.9	"	"	"
Acetophenone (98-86-2)	U		4.9	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.9	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.9	"	"	"
Hexachloroethane (67-72-1)	U		4.9	"	"	"
Nitrobenzene (98-95-3)	U		4.9	"	"	"
Isophorone (78-59-1)	U		4.9	"	"	"
2-Nitrophenol (88-75-5)	U		4.9	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.9	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.9	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.9	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.9	"	"	"
Naphthalene (91-20-3)	U		2.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-11 **Station ID: MW-193**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1013ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		4.9	1	08/17/18	08/17/18
Hexachlorobutadiene (87-68-3)	U		4.9	"	"	"
Caprolactam (105-60-2)	U		4.9	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.9	"	"	"
2-Methylnaphthalene (91-57-6)	U		2.0	"	"	"
1-Methylnaphthalene (90-12-0)	U		2.0	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.9	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.9	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.9	"	"	"
2-Chloronaphthalene (91-58-7)	U		4.9	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.9	"	"	"
2-Nitroaniline (88-74-4)	U		7.9	"	"	"
Dimethyl phthalate (131-11-3)	U		4.9	"	"	"
Acenaphthylene (208-96-8)	U		2.0	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.9	"	"	"
3-Nitroaniline (99-09-2)	U		7.9	"	"	"
Acenaphthene (83-32-9)	U		2.0	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.7	"	"	"
4-Nitrophenol (100-02-7)	U		12.8	"	"	"
Dibenzofuran (132-64-9)	U		4.9	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.9	"	"	"
Fluorene (86-73-7)	U		2.0	"	"	"
Diethyl phthalate (84-66-2)	U		4.9	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.9	"	"	"
4-Nitroaniline (100-01-6)	U		7.9	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.7	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.9	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.9	"	"	"
Hexachlorobenzene (118-74-1)	U		4.9	"	"	"
Atrazine (1912-24-9)	U		4.9	"	"	"
Pentachlorophenol (87-86-5)	U		4.9	"	"	"
Phenanthrene (85-01-8)	U		2.0	"	"	"
Anthracene (120-12-7)	U		2.0	"	"	"
Carbazole (86-74-8)	U		4.9	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-11 **Station ID: MW-193**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1013ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		4.9	1	08/17/18	08/17/18
Fluoranthene (206-44-0)	U		2.0	"	"	"
Pyrene (129-00-0)	U		2.0	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.9	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.9	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.9	"	"	"
Chrysene (218-01-9)	U		4.9	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.9	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.9	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.9	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.9	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.9	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.9	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.9	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.9	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-11 **Station ID: MW-193**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	51.7		103	86-117	08/20/18	08/20/18
Toluene-d8	51.7		103	85-113	"	"
4-Bromofluorobenzene	50.1		100	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/20/18	08/20/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	**1.9**		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	**13.8**		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-11 **Station ID: MW-193**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/20/18	08/20/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-12 **Station ID: MW-201**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 982ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	50.5		66.2	42-109	08/17/18	08/17/18
Phenol-d5	53.0		69.4	46-110	"	"
2-Chlorophenol-d4	55.6		72.8	47-103	"	"
1,2-Dichlorobenzene-d4	33.1		65.0	33-100	"	"
Nitrobenzene-d5	39.6		77.7	42-126	"	"
2-Fluorobiphenyl	35.7		70.1	50-104	"	"
2,4,6-Tribromophenol	69.2		90.6	59-142	"	"
Terphenyl-d14	44.8		88.0	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		5.1	1	08/17/18	08/17/18
Phenol (108-95-2)	U		5.1	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		5.1	"	"	"
2-Chlorophenol (95-57-8)	U		5.1	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		5.1	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		5.1	"	"	"
Benzyl alcohol (100-51-6)	U		5.1	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		5.1	"	"	"
2-Methylphenol (95-48-7)	U		5.1	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		5.1	"	"	"
Acetophenone (98-86-2)	U		5.1	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		5.1	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		5.1	"	"	"
Hexachloroethane (67-72-1)	U		5.1	"	"	"
Nitrobenzene (98-95-3)	U		5.1	"	"	"
Isophorone (78-59-1)	U		5.1	"	"	"
2-Nitrophenol (88-75-5)	U		5.1	"	"	"
2,4-Dimethylphenol (105-67-9)	U		5.1	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		5.1	"	"	"
2,4-Dichlorophenol (120-83-2)	U		5.1	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		5.1	"	"	"
Naphthalene (91-20-3)	U		2.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-12 **Station ID: MW-201**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 982ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		5.1	1	08/17/18	08/17/18
Hexachlorobutadiene (87-68-3)	U		5.1	"	"	"
Caprolactam (105-60-2)	U		5.1	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		5.1	"	"	"
2-Methylnaphthalene (91-57-6)	U		2.0	"	"	"
1-Methylnaphthalene (90-12-0)	U		2.0	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		5.1	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		5.1	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		5.1	"	"	"
2-Chloronaphthalene (91-58-7)	U		5.1	"	"	"
1,1'-Biphenyl (92-52-4)	U		5.1	"	"	"
2-Nitroaniline (88-74-4)	U		8.1	"	"	"
Dimethyl phthalate (131-11-3)	U		5.1	"	"	"
Acenaphthylene (208-96-8)	U		2.0	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		5.1	"	"	"
3-Nitroaniline (99-09-2)	U		8.1	"	"	"
Acenaphthene (83-32-9)	U		2.0	"	"	"
2,4-Dinitrophenol (51-28-5)	U		20.4	"	"	"
4-Nitrophenol (100-02-7)	U		13.2	"	"	"
Dibenzofuran (132-64-9)	U		5.1	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		5.1	"	"	"
Fluorene (86-73-7)	U		2.0	"	"	"
Diethyl phthalate (84-66-2)	U		5.1	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		5.1	"	"	"
4-Nitroaniline (100-01-6)	U		8.1	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		20.4	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		5.1	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		5.1	"	"	"
Hexachlorobenzene (118-74-1)	U		5.1	"	"	"
Atrazine (1912-24-9)	U		5.1	"	"	"
Pentachlorophenol (87-86-5)	U		5.1	"	"	"
Phenanthrene (85-01-8)	U		2.0	"	"	"
Anthracene (120-12-7)	U		2.0	"	"	"
Carbazole (86-74-8)	U		5.1	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-12 **Station ID: MW-201**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 982ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		5.1	1	08/17/18	08/17/18
Fluoranthene (206-44-0)	U		2.0	"	"	"
Pyrene (129-00-0)	U		2.0	"	"	"
Butyl benzyl phthalate (85-68-7)	U		5.1	"	"	"
Benzo (a) anthracene (56-55-3)	U		5.1	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		5.1	"	"	"
Chrysene (218-01-9)	U		5.1	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		5.1	"	"	"
Di-n-octyl phthalate (117-84-0)	U		5.1	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		5.1	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		5.1	"	"	"
Benzo (a) pyrene (50-32-8)	U		5.1	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		5.1	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		5.1	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		5.1	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-12 **Station ID: MW-201**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	50.5		101	86-117	08/22/18	08/22/18
Toluene-d8	50.4		101	85-113	"	"
4-Bromofluorobenzene	48.8		97.5	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/22/18	08/22/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	**5.9**	**FB**	5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	**6.4**		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-12 **Station ID: MW-201**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/22/18	08/22/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-13 **Station ID: MW-202**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 979ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	56.3		73.5	42-109	08/17/18	08/17/18
Phenol-d5	56.4		73.6	46-110	"	"
2-Chlorophenol-d4	58.6		76.5	47-103	"	"
1,2-Dichlorobenzene-d4	33.3		65.2	33-100	"	"
Nitrobenzene-d5	40.4		79.1	42-126	"	"
2-Fluorobiphenyl	35.8		70.0	50-104	"	"
2,4,6-Tribromophenol	73.6		96.1	59-142	"	"
Terphenyl-d14	42.4		83.0	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		5.1	1	08/17/18	08/17/18
Phenol (108-95-2)	U		5.1	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		5.1	"	"	"
2-Chlorophenol (95-57-8)	U		5.1	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		5.1	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		5.1	"	"	"
Benzyl alcohol (100-51-6)	U		5.1	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		5.1	"	"	"
2-Methylphenol (95-48-7)	U		5.1	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		5.1	"	"	"
Acetophenone (98-86-2)	U		5.1	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		5.1	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		5.1	"	"	"
Hexachloroethane (67-72-1)	U		5.1	"	"	"
Nitrobenzene (98-95-3)	U		5.1	"	"	"
Isophorone (78-59-1)	U		5.1	"	"	"
2-Nitrophenol (88-75-5)	U		5.1	"	"	"
2,4-Dimethylphenol (105-67-9)	U		5.1	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		5.1	"	"	"
2,4-Dichlorophenol (120-83-2)	U		5.1	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		5.1	"	"	"
Naphthalene (91-20-3)	U		2.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-13 **Station ID: MW-202**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 979ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		5.1	1	08/17/18	08/17/18
Hexachlorobutadiene (87-68-3)	U		5.1	"	"	"
Caprolactam (105-60-2)	U		5.1	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		5.1	"	"	"
2-Methylnaphthalene (91-57-6)	U		2.0	"	"	"
1-Methylnaphthalene (90-12-0)	U		2.0	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		5.1	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		5.1	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		5.1	"	"	"
2-Chloronaphthalene (91-58-7)	U		5.1	"	"	"
1,1'-Biphenyl (92-52-4)	U		5.1	"	"	"
2-Nitroaniline (88-74-4)	U		8.2	"	"	"
Dimethyl phthalate (131-11-3)	U		5.1	"	"	"
Acenaphthylene (208-96-8)	U		2.0	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		5.1	"	"	"
3-Nitroaniline (99-09-2)	U		8.2	"	"	"
Acenaphthene (83-32-9)	U		2.0	"	"	"
2,4-Dinitrophenol (51-28-5)	U		20.4	"	"	"
4-Nitrophenol (100-02-7)	U		13.3	"	"	"
Dibenzofuran (132-64-9)	U		5.1	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		5.1	"	"	"
Fluorene (86-73-7)	U		2.0	"	"	"
Diethyl phthalate (84-66-2)	U		5.1	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		5.1	"	"	"
4-Nitroaniline (100-01-6)	U		8.2	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		20.4	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		5.1	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		5.1	"	"	"
Hexachlorobenzene (118-74-1)	U		5.1	"	"	"
Atrazine (1912-24-9)	U		5.1	"	"	"
Pentachlorophenol (87-86-5)	U		5.1	"	"	"
Phenanthrene (85-01-8)	U		2.0	"	"	"
Anthracene (120-12-7)	U		2.0	"	"	"
Carbazole (86-74-8)	U		5.1	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-13 **Station ID: MW-202**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 979ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		5.1	1	08/17/18	08/17/18
Fluoranthene (206-44-0)	U		2.0	"	"	"
Pyrene (129-00-0)	U		2.0	"	"	"
Butyl benzyl phthalate (85-68-7)	U		5.1	"	"	"
Benzo (a) anthracene (56-55-3)	U		5.1	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		5.1	"	"	"
Chrysene (218-01-9)	U		5.1	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		5.1	"	"	"
Di-n-octyl phthalate (117-84-0)	U		5.1	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		5.1	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		5.1	"	"	"
Benzo (a) pyrene (50-32-8)	U		5.1	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		5.1	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		5.1	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		5.1	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-13 **Station ID: MW-202**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	48.7		97.4	86-117	08/22/18	08/22/18
Toluene-d8	48.2		96.3	85-113	"	"
4-Bromofluorobenzene	47.6		95.2	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/22/18	08/22/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	**9.9**		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	**18.1**		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	**8.4**		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	**2.0**		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-13 **Station ID: MW-202**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/22/18	08/22/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-14 **Station ID: MW-203**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 998ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	50.0		66.5	42-109	08/17/18	08/20/18
Phenol-d5	49.4		65.8	46-110	"	"
2-Chlorophenol-d4	52.7		70.1	47-103	"	"
1,2-Dichlorobenzene-d4	30.4		60.7	33-100	"	"
Nitrobenzene-d5	37.1		74.1	42-126	"	"
2-Fluorobiphenyl	32.6		65.2	50-104	"	"
2,4,6-Tribromophenol	66.6		88.6	59-142	"	"
Terphenyl-d14	44.8		89.5	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		5.0	1	08/17/18	08/20/18
Phenol (108-95-2)	U		5.0	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		5.0	"	"	"
2-Chlorophenol (95-57-8)	U		5.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		5.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		5.0	"	"	"
Benzyl alcohol (100-51-6)	U		5.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		5.0	"	"	"
2-Methylphenol (95-48-7)	U		5.0	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		5.0	"	"	"
Acetophenone (98-86-2)	U		5.0	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		5.0	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		5.0	"	"	"
Hexachloroethane (67-72-1)	U		5.0	"	"	"
Nitrobenzene (98-95-3)	U		5.0	"	"	"
Isophorone (78-59-1)	U		5.0	"	"	"
2-Nitrophenol (88-75-5)	U		5.0	"	"	"
2,4-Dimethylphenol (105-67-9)	U		5.0	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		5.0	"	"	"
2,4-Dichlorophenol (120-83-2)	U		5.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		5.0	"	"	"
Naphthalene (91-20-3)	U		2.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-14 **Station ID: MW-203**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 998ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		5.0	1	08/17/18	08/20/18
Hexachlorobutadiene (87-68-3)	U		5.0	"	"	"
Caprolactam (105-60-2)	U		5.0	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		5.0	"	"	"
2-Methylnaphthalene (91-57-6)	U		2.0	"	"	"
1-Methylnaphthalene (90-12-0)	U		2.0	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		5.0	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		5.0	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		5.0	"	"	"
2-Chloronaphthalene (91-58-7)	U		5.0	"	"	"
1,1'-Biphenyl (92-52-4)	U		5.0	"	"	"
2-Nitroaniline (88-74-4)	U		8.0	"	"	"
Dimethyl phthalate (131-11-3)	U		5.0	"	"	"
Acenaphthylene (208-96-8)	U		2.0	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		5.0	"	"	"
3-Nitroaniline (99-09-2)	U		8.0	"	"	"
Acenaphthene (83-32-9)	U		2.0	"	"	"
2,4-Dinitrophenol (51-28-5)	U		20.0	"	"	"
4-Nitrophenol (100-02-7)	U		13.0	"	"	"
Dibenzofuran (132-64-9)	U		5.0	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		5.0	"	"	"
Fluorene (86-73-7)	U		2.0	"	"	"
Diethyl phthalate (84-66-2)	U		5.0	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		5.0	"	"	"
4-Nitroaniline (100-01-6)	U		8.0	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		20.0	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		5.0	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		5.0	"	"	"
Hexachlorobenzene (118-74-1)	U		5.0	"	"	"
Atrazine (1912-24-9)	U		5.0	"	"	"
Pentachlorophenol (87-86-5)	U		5.0	"	"	"
Phenanthrene (85-01-8)	U		2.0	"	"	"
Anthracene (120-12-7)	U		2.0	"	"	"
Carbazole (86-74-8)	U		5.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-14 **Station ID: MW-203**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 998ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		5.0	1	08/17/18	08/20/18
Fluoranthene (206-44-0)	U		2.0	"	"	"
Pyrene (129-00-0)	U		2.0	"	"	"
Butyl benzyl phthalate (85-68-7)	U		5.0	"	"	"
Benzo (a) anthracene (56-55-3)	U		5.0	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		5.0	"	"	"
Chrysene (218-01-9)	U		5.0	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		5.0	"	"	"
Di-n-octyl phthalate (117-84-0)	U		5.0	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		5.0	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		5.0	"	"	"
Benzo (a) pyrene (50-32-8)	U		5.0	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		5.0	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		5.0	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		5.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-14 **Station ID: MW-203**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	50.1		100	86-117	08/22/18	08/22/18
Toluene-d8	49.8		99.6	85-113	"	"
4-Bromofluorobenzene	48.9		97.7	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/22/18	08/22/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	**1.9**		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	**4.8**		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	**1.9**		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	**20.9**		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-14 **Station ID: MW-203**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/22/18	08/22/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-15 **Station ID: MW-203-DUP**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	50.3		101	86-117	08/22/18	08/22/18
Toluene-d8	50.2		100	85-113	"	"
4-Bromofluorobenzene	48.6		97.3	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/22/18	08/22/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	**2.1**		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	**5.2**		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	**2.1**		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	**21.3**		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-15 **Station ID: MW-203-DUP**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/22/18	08/22/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-16 **Station ID: MW-204**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 996ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	47.4		63.0	42-109	08/17/18	08/20/18
Phenol-d5	47.5		63.1	46-110	"	"
2-Chlorophenol-d4	50.5		67.0	47-103	"	"
1,2-Dichlorobenzene-d4	29.4		58.5	33-100	"	"
Nitrobenzene-d5	35.2		70.0	42-126	"	"
2-Fluorobiphenyl	30.4		60.6	50-104	"	"
2,4,6-Tribromophenol	65.6		87.2	59-142	"	"
Terphenyl-d14	45.3		90.3	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		5.0	1	08/17/18	08/20/18
Phenol (108-95-2)	U		5.0	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		5.0	"	"	"
2-Chlorophenol (95-57-8)	U		5.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		5.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		5.0	"	"	"
Benzyl alcohol (100-51-6)	U		5.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		5.0	"	"	"
2-Methylphenol (95-48-7)	U		5.0	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		5.0	"	"	"
Acetophenone (98-86-2)	U		5.0	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		5.0	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		5.0	"	"	"
Hexachloroethane (67-72-1)	U		5.0	"	"	"
Nitrobenzene (98-95-3)	U		5.0	"	"	"
Isophorone (78-59-1)	U		5.0	"	"	"
2-Nitrophenol (88-75-5)	U		5.0	"	"	"
2,4-Dimethylphenol (105-67-9)	U		5.0	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		5.0	"	"	"
2,4-Dichlorophenol (120-83-2)	U		5.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		5.0	"	"	"
Naphthalene (91-20-3)	U		2.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-16 **Station ID: MW-204**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 996ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		5.0	1	08/17/18	08/20/18
Hexachlorobutadiene (87-68-3)	U		5.0	"	"	"
Caprolactam (105-60-2)	U		5.0	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		5.0	"	"	"
2-Methylnaphthalene (91-57-6)	U		2.0	"	"	"
1-Methylnaphthalene (90-12-0)	U		2.0	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		5.0	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		5.0	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		5.0	"	"	"
2-Chloronaphthalene (91-58-7)	U		5.0	"	"	"
1,1'-Biphenyl (92-52-4)	U		5.0	"	"	"
2-Nitroaniline (88-74-4)	U		8.0	"	"	"
Dimethyl phthalate (131-11-3)	U		5.0	"	"	"
Acenaphthylene (208-96-8)	U		2.0	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		5.0	"	"	"
3-Nitroaniline (99-09-2)	U		8.0	"	"	"
Acenaphthene (83-32-9)	U		2.0	"	"	"
2,4-Dinitrophenol (51-28-5)	U		20.1	"	"	"
4-Nitrophenol (100-02-7)	U		13.1	"	"	"
Dibenzofuran (132-64-9)	U		5.0	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		5.0	"	"	"
Fluorene (86-73-7)	U		2.0	"	"	"
Diethyl phthalate (84-66-2)	U		5.0	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		5.0	"	"	"
4-Nitroaniline (100-01-6)	U		8.0	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		20.1	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		5.0	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		5.0	"	"	"
Hexachlorobenzene (118-74-1)	U		5.0	"	"	"
Atrazine (1912-24-9)	U		5.0	"	"	"
Pentachlorophenol (87-86-5)	U		5.0	"	"	"
Phenanthrene (85-01-8)	U		2.0	"	"	"
Anthracene (120-12-7)	U		2.0	"	"	"
Carbazole (86-74-8)	U		5.0	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-16 **Station ID: MW-204**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 996ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		5.0	1	08/17/18	08/20/18
Fluoranthene (206-44-0)	U		2.0	"	"	"
Pyrene (129-00-0)	U		2.0	"	"	"
Butyl benzyl phthalate (85-68-7)	U		5.0	"	"	"
Benzo (a) anthracene (56-55-3)	U		5.0	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		5.0	"	"	"
Chrysene (218-01-9)	U		5.0	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		5.0	"	"	"
Di-n-octyl phthalate (117-84-0)	U		5.0	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		5.0	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		5.0	"	"	"
Benzo (a) pyrene (50-32-8)	U		5.0	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		5.0	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		5.0	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		5.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-16 **Station ID: MW-204**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	48.8		97.6	86-117	08/22/18	08/22/18
Toluene-d8	48.5		97.0	85-113	"	"
4-Bromofluorobenzene	47.2		94.3	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/22/18	08/22/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	**6.3**	**FB**	5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-16 **Station ID: MW-204**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/22/18	08/22/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-17 **Station ID: MW-33**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1034ml Sample Qualifiers: **A**

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorophenol	46.8		64.5	42-109	08/17/18	08/17/18
Phenol-d5	47.2		65.1	46-110	"	"
2-Chlorophenol-d4	49.5		68.2	47-103	"	"
1,2-Dichlorobenzene-d4	31.9		66.0	33-100	"	"
Nitrobenzene-d5	33.9		70.2	42-126	"	"
2-Fluorobiphenyl	31.7		65.5	50-104	"	"
2,4,6-Tribromophenol	60.5		83.5	59-142	"	"
Terphenyl-d14	41.3		85.5	61-125	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Benzaldehyde (100-52-7)	U		4.8	1	08/17/18	08/17/18
Phenol (108-95-2)	U		4.8	"	"	"
Bis(2-chloroethyl)ether (111-44-4)	U		4.8	"	"	"
2-Chlorophenol (95-57-8)	U		4.8	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		4.8	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		4.8	"	"	"
Benzyl alcohol (100-51-6)	U		4.8	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		4.8	"	"	"
2-Methylphenol (95-48-7)	U		4.8	"	"	"
Bis(2-chloro-1-methylethyl)ether (108-60-1)	U		4.8	"	"	"
Acetophenone (98-86-2)	U		4.8	"	"	"
3 &/or 4-Methylphenol (108-39-4/106-44-5)	U		4.8	"	"	"
N-Nitrosodi-n-propylamine (621-64-7)	U		4.8	"	"	"
Hexachloroethane (67-72-1)	U		4.8	"	"	"
Nitrobenzene (98-95-3)	U		4.8	"	"	"
Isophorone (78-59-1)	U		4.8	"	"	"
2-Nitrophenol (88-75-5)	U		4.8	"	"	"
2,4-Dimethylphenol (105-67-9)	U		4.8	"	"	"
Bis(2-chloroethoxy)methane (111-91-1)	U		4.8	"	"	"
2,4-Dichlorophenol (120-83-2)	U		4.8	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		4.8	"	"	"
Naphthalene (91-20-3)	U		1.9	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-17 **Station ID: MW-33**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1034ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
4-Chloroaniline (106-47-8)	U		4.8	1	08/17/18	08/17/18
Hexachlorobutadiene (87-68-3)	U		4.8	"	"	"
Caprolactam (105-60-2)	U		4.8	"	"	"
4-Chloro-3-methylphenol (59-50-7)	U		4.8	"	"	"
2-Methylnaphthalene (91-57-6)	U		1.9	"	"	"
1-Methylnaphthalene (90-12-0)	U		1.9	"	"	"
Hexachlorocyclopentadiene (77-47-4)	U		4.8	"	"	"
2,4,6-Trichlorophenol (88-06-2)	U		4.8	"	"	"
2,4,5-Trichlorophenol (95-95-4)	U		4.8	"	"	"
2-Chloronaphthalene (91-58-7)	U		4.8	"	"	"
1,1'-Biphenyl (92-52-4)	U		4.8	"	"	"
2-Nitroaniline (88-74-4)	U		7.7	"	"	"
Dimethyl phthalate (131-11-3)	U		4.8	"	"	"
Acenaphthylene (208-96-8)	U		1.9	"	"	"
2,6-Dinitrotoluene (606-20-2)	U		4.8	"	"	"
3-Nitroaniline (99-09-2)	U		7.7	"	"	"
Acenaphthene (83-32-9)	U		1.9	"	"	"
2,4-Dinitrophenol (51-28-5)	U		19.3	"	"	"
4-Nitrophenol (100-02-7)	U		12.6	"	"	"
Dibenzofuran (132-64-9)	U		4.8	"	"	"
2,4-Dinitrotoluene (121-14-2)	U		4.8	"	"	"
Fluorene (86-73-7)	U		1.9	"	"	"
Diethyl phthalate (84-66-2)	U		4.8	"	"	"
4-Chlorophenyl phenyl ether (7005-72-3)	U		4.8	"	"	"
4-Nitroaniline (100-01-6)	U		7.7	"	"	"
4,6-Dinitro-2-methylphenol (534-52-1)	U		19.3	"	"	"
N-Nitrosodiphenylamine/Diphenylamine (86-30-6/122-39-4)	U		4.8	"	"	"
4-Bromophenyl phenyl ether (101-55-3)	U		4.8	"	"	"
Hexachlorobenzene (118-74-1)	U		4.8	"	"	"
Atrazine (1912-24-9)	U		4.8	"	"	"
Pentachlorophenol (87-86-5)	U		4.8	"	"	"
Phenanthrene (85-01-8)	U		1.9	"	"	"
Anthracene (120-12-7)	U		1.9	"	"	"
Carbazole (86-74-8)	U		4.8	"	"	"

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Semivolatiles by CLP OLM04.2 - GC/MS

Lab ID: 1808018-17 **Station ID: MW-33**

Batch: B8H1701 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 1034ml Sample Qualifiers: **A**

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Di-n-butyl phthalate (84-74-2)	U		4.8	1	08/17/18	08/17/18
Fluoranthene (206-44-0)	U		1.9	"	"	"
Pyrene (129-00-0)	U		1.9	"	"	"
Butyl benzyl phthalate (85-68-7)	U		4.8	"	"	"
Benzo (a) anthracene (56-55-3)	U		4.8	"	"	"
3,3´-Dichlorobenzidine (91-94-1)	U		4.8	"	"	"
Chrysene (218-01-9)	U		4.8	"	"	"
Bis(2-ethylhexyl)phthalate (117-81-7)	U		4.8	"	"	"
Di-n-octyl phthalate (117-84-0)	U		4.8	"	"	"
Benzo (b) fluoranthene (205-99-2)	U		4.8	"	"	"
Benzo (k) fluoranthene (207-08-9)	U		4.8	"	"	"
Benzo (a) pyrene (50-32-8)	U		4.8	"	"	"
Indeno (1,2,3-cd) pyrene (193-39-5)	U		4.8	"	"	"
Dibenz (a,h) anthracene (53-70-3)	U		4.8	"	"	"
Benzo (g,h,i) perylene (191-24-2)	U		4.8	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-17 **Station ID: MW-33**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	48.3		96.6	86-117	08/22/18	08/22/18
Toluene-d8	48.5		96.9	85-113	"	"
4-Bromofluorobenzene	47.2		94.4	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/22/18	08/22/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	**2.1**		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-17 **Station ID: MW-33**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/22/18	08/22/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-18 **Station ID: TB-1**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Surrogates

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
1,2-Dichloroethane-d4	49.7		99.4	86-117	08/20/18	08/20/18
Toluene-d8	49.6		99.2	85-113	"	"
4-Bromofluorobenzene	48.4		96.7	73-115	"	"

Targets

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Dichlorodifluoromethane (75-71-8)	U		1.0	1	08/20/18	08/20/18
Chloromethane (74-87-3)	U		1.0	"	"	"
Vinyl chloride (75-01-4)	U		1.0	"	"	"
Bromomethane (74-83-9)	U		1.0	"	"	"
Chloroethane (75-00-3)	U		1.0	"	"	"
Trichlorofluoromethane (75-69-4)	U		1.0	"	"	"
1,1-Dichloroethene (75-35-4)	U		1.0	"	"	"
Carbon disulfide (75-15-0)	U		1.0	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U		1.0	"	"	"
Acetone (67-64-1)	U		5.0	"	"	"
Methylene chloride (75-09-2)	U		2.0	"	"	"
Methyl acetate (79-20-9)	U		1.0	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U		1.0	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U		1.0	"	"	"
Methyl tert-butyl ether (1634-04-4)	U		1.0	"	"	"
1,1-Dichloroethane (75-34-3)	U		1.0	"	"	"
2-Butanone (78-93-3)	U		5.0	"	"	"
Chloroform (67-66-3)	U		1.0	"	"	"
1,2-Dichloroethane (107-06-2)	U		1.0	"	"	"
1,1,1-Trichloroethane (71-55-6)	U		1.0	"	"	"
Cyclohexane (110-82-7)	U		1.0	"	"	"
Carbon tetrachloride (56-23-5)	U		1.0	"	"	"
Benzene (71-43-2)	U		1.0	"	"	"
Trichloroethene (79-01-6)	U		1.0	"	"	"
Methylcyclohexane (108-87-2)	U		1.0	"	"	"
1,2-Dichloropropane (78-87-5)	U		1.0	"	"	"
Bromodichloromethane (75-27-4)	U		1.0	"	"	"

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Volatiles by CLP OLM04.2 - GC/MS (Low Level)

Lab ID: 1808018-18 **Station ID: TB-1**

Batch: B8H2302 Date Collected: 08/15/18
Sample Type: Liquid Sample Vol: 5ml Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
cis-1,3-Dichloropropene (10061-01-5)	U		1.0	1	08/20/18	08/20/18
trans-1,3-Dichloropropene (10061-02-6)	U		1.0	"	"	"
1,1,2-Trichloroethane (79-00-5)	U		1.0	"	"	"
Dibromochloromethane (124-48-1)	U		1.0	"	"	"
Bromoform (75-25-2)	U		1.0	"	"	"
4-Methyl-2-pentanone (108-10-1)	U		5.0	"	"	"
Toluene (108-88-3)	U		1.0	"	"	"
Tetrachloroethene (127-18-4)	U		1.0	"	"	"
2-Hexanone (591-78-6)	U		5.0	"	"	"
1,2-Dibromoethane (106-93-4)	U		1.0	"	"	"
Chlorobenzene (108-90-7)	U		1.0	"	"	"
Ethylbenzene (100-41-4)	U		1.0	"	"	"
meta-/para-Xylene (na)	U		2.0	"	"	"
ortho-Xylene (95-47-6)	U		1.0	"	"	"
Styrene (100-42-5)	U		1.0	"	"	"
Isopropylbenzene (98-82-8)	U		1.0	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U		1.0	"	"	"
1,3-Dichlorobenzene (541-73-1)	U		1.0	"	"	"
1,4-Dichlorobenzene (106-46-7)	U		1.0	"	"	"
1,2-Dichlorobenzene (95-50-1)	U		1.0	"	"	"
1,2-Dibromo-3-chloropropane (96-12-8)	U		1.0	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U		1.0	"	"	"

This sample was received at pH 2.
Vinyl Chloride and Styrene may be biased low.

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B8H2302 **Sample Type: Liquid**

Blank (B8H2302-BLK1)

Prepared: 8/20/2018 Analyzed: 8/20/2018

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	49.9		50.0	99.8	86-117
Toluene-d8	49.6		50.0	99.2	85-113
4-Bromofluorobenzene	48.2		50.0	96.5	73-115

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Dichlorodifluoromethane	U		1.0
Chloromethane	U		1.0
Vinyl chloride	U		1.0
Bromomethane	U		1.0
Chloroethane	U		1.0
Trichlorofluoromethane	U		1.0
1,1-Dichloroethene	U		1.0
Carbon disulfide	U		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	U		1.0
Acetone	U		5.0
Methylene chloride	U		2.0
Methyl acetate	U		1.0
trans-1,2-Dichloroethene	U		1.0
cis-1,2-Dichloroethene	U		1.0
Methyl tert-butyl ether	U		1.0
1,1-Dichloroethane	U		1.0
2-Butanone	U		5.0
Chloroform	U		1.0
1,2-Dichloroethane	U		1.0
1,1,1-Trichloroethane	U		1.0
Cyclohexane	U		1.0
Carbon tetrachloride	U		1.0
Benzene	U		1.0
Trichloroethene	U		1.0
Methylcyclohexane	U		1.0

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B8H2302 **Sample Type: Liquid**

Blank (B8H2302-BLK1)

Prepared: 8/20/2018 Analyzed: 8/20/2018

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
1,2-Dichloropropane	U		1.0
Bromodichloromethane	U		1.0
cis-1,3-Dichloropropene	U		1.0
trans-1,3-Dichloropropene	U		1.0
1,1,2-Trichloroethane	U		1.0
Dibromochloromethane	U		1.0
Bromoform	U		1.0
4-Methyl-2-pentanone	U		5.0
Toluene	U		1.0
Tetrachloroethene	U		1.0
2-Hexanone	U		5.0
1,2-Dibromoethane	U		1.0
Chlorobenzene	U		1.0
Ethylbenzene	U		1.0
meta-/para-Xylene	U		2.0
ortho-Xylene	U		1.0
Styrene	U		1.0
Isopropylbenzene	U		1.0
1,1,2,2-Tetrachloroethane	U		1.0
1,3-Dichlorobenzene	U		1.0
1,4-Dichlorobenzene	U		1.0
1,2-Dichlorobenzene	U		1.0
1,2-Dibromo-3-chloropropane	U		1.0
1,2,4-Trichlorobenzene	U		1.0

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B8H2302 **Sample Type: Liquid**

Blank (B8H2302-BLK2)

Prepared: 8/22/2018 Analyzed: 8/22/2018

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	47.9		50.0	95.8	86-117
Toluene-d8	48.1		50.0	96.2	85-113
4-Bromofluorobenzene	46.8		50.0	93.6	73-115

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Dichlorodifluoromethane	U		1.0
Chloromethane	U		1.0
Vinyl chloride	U		1.0
Bromomethane	U		1.0
Chloroethane	U		1.0
Trichlorofluoromethane	U		1.0
1,1-Dichloroethene	U		1.0
Carbon disulfide	U		1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	U		1.0
Acetone	U		5.0
Methylene chloride	U		2.0
Methyl acetate	U		1.0
trans-1,2-Dichloroethene	U		1.0
cis-1,2-Dichloroethene	U		1.0
Methyl tert-butyl ether	U		1.0
1,1-Dichloroethane	U		1.0
2-Butanone	U		5.0
Chloroform	U		1.0
1,2-Dichloroethane	U		1.0
1,1,1-Trichloroethane	U		1.0
Cyclohexane	U		1.0
Carbon tetrachloride	U		1.0
Benzene	U		1.0
Trichloroethene	U		1.0
Methylcyclohexane	U		1.0

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B8H2302 **Sample Type: Liquid**

Blank (B8H2302-BLK2)

Prepared: 8/22/2018 Analyzed: 8/22/2018

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
1,2-Dichloropropane	U		1.0
Bromodichloromethane	U		1.0
cis-1,3-Dichloropropene	U		1.0
trans-1,3-Dichloropropene	U		1.0
1,1,2-Trichloroethane	U		1.0
Dibromochloromethane	U		1.0
Bromoform	U		1.0
4-Methyl-2-pentanone	U		5.0
Toluene	U		1.0
Tetrachloroethene	U		1.0
2-Hexanone	U		5.0
1,2-Dibromoethane	U		1.0
Chlorobenzene	U		1.0
Ethylbenzene	U		1.0
meta-/para-Xylene	U		2.0
ortho-Xylene	U		1.0
Styrene	U		1.0
Isopropylbenzene	U		1.0
1,1,2,2-Tetrachloroethane	U		1.0
1,3-Dichlorobenzene	U		1.0
1,4-Dichlorobenzene	U		1.0
1,2-Dichlorobenzene	U		1.0
1,2-Dibromo-3-chloropropane	U		1.0
1,2,4-Trichlorobenzene	U		1.0

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B8H2302 **Sample Type: Liquid**

LCS (B8H2302-BS1)

Prepared: 8/20/2018 Analyzed: 8/20/2018

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	52.4		50.0	105	86-117
Toluene-d8	53.8		50.0	108	85-113
4-Bromofluorobenzene	53.9		50.0	108	73-115

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Dichlorodifluoromethane	64.5		1.0	50.0	129	69-132
Chloromethane	57.1		1.0	50.0	114	73-130
Vinyl chloride	56.8		1.0	50.0	114	76-130
Bromomethane	59.1		1.0	50.0	118	75-129
Chloroethane	55.3		1.0	50.0	111	75-121
Trichlorofluoromethane	57.4		1.0	50.0	115	79-130
1,1-Dichloroethene	54.4		1.0	50.0	109	76-127
Carbon disulfide	60.4		1.0	50.0	121	74-122
1,1,2-Trichloro-1,2,2-trifluoroethane	56.4		1.0	50.0	113	79-126
Acetone	23.0		5.0	50.0	46.0	44-140
Methylene chloride	54.6		2.0	50.0	109	79-122
Methyl acetate	54.3		1.0	50.0	109	78-118
trans-1,2-Dichloroethene	55.8		1.0	50.0	112	78-123
cis-1,2-Dichloroethene	55.2		1.0	50.0	110	80-120
Methyl tert-butyl ether	53.4		1.0	50.0	107	78-124
1,1-Dichloroethane	55.0		1.0	50.0	110	80-122
2-Butanone	32.4		5.0	50.0	64.8 #	71-127
Chloroform	53.6		1.0	50.0	107	81-121
1,2-Dichloroethane	54.4		1.0	50.0	109	80-121
1,1,1-Trichloroethane	55.8		1.0	50.0	112	80-120
Cyclohexane	54.4		1.0	50.0	109	77-120
Carbon tetrachloride	54.2		1.0	50.0	108	78-121
Benzene	54.2		1.0	50.0	108	81-119
Trichloroethene	55.6		1.0	50.0	111	80-120
Methylcyclohexane	53.8		1.0	50.0	108	79-122

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B8H2302 **Sample Type: Liquid**

LCS (B8H2302-BS1)

Prepared: 8/20/2018 Analyzed: 8/20/2018

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
1,2-Dichloropropane	55.2		1.0	50.0	110	81-121
Bromodichloromethane	53.9		1.0	50.0	108	80-121
cis-1,3-Dichloropropene	55.6		1.0	50.0	111	79-119
trans-1,3-Dichloropropene	54.6		1.0	50.0	109	78-119
1,1,2-Trichloroethane	53.7		1.0	50.0	107	80-120
Dibromochloromethane	53.3		1.0	50.0	107	80-118
Bromoform	53.8		1.0	50.0	108	79-119
4-Methyl-2-pentanone	47.0		5.0	50.0	94.1	77-121
Toluene	55.7		1.0	50.0	111	81-118
Tetrachloroethene	55.5		1.0	50.0	111	80-120
2-Hexanone	32.6		5.0	50.0	65.3 #	77-122
1,2-Dibromoethane	53.7		1.0	50.0	107	81-118
Chlorobenzene	55.0		1.0	50.0	110	81-118
Ethylbenzene	54.3		1.0	50.0	109	80-118
meta-/para-Xylene	110		2.0	100	110	81-117
ortho-Xylene	53.4		1.0	50.0	107	81-118
Styrene	53.8		1.0	50.0	108	79-118
Isopropylbenzene	54.4		1.0	50.0	109	74-124
1,1,2,2-Tetrachloroethane	56.5		1.0	50.0	113	79-119
1,3-Dichlorobenzene	54.3		1.0	50.0	109	81-118
1,4-Dichlorobenzene	54.9		1.0	50.0	110	80-117
1,2-Dichlorobenzene	55.3		1.0	50.0	111	79-119
1,2-Dibromo-3-chloropropane	54.0		1.0	50.0	108	77-123
1,2,4-Trichlorobenzene	57.4		1.0	50.0	115	78-128

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B8H2302 **Sample Type: Liquid**

LCS (B8H2302-BS2)

Prepared: 8/22/2018 Analyzed: 8/22/2018

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	47.0		50.0	94.1	86-117
Toluene-d8	47.3		50.0	94.6	85-113
4-Bromofluorobenzene	47.4		50.0	94.8	73-115

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Dichlorodifluoromethane	57.6		1.0	50.0	115	69-132
Chloromethane	50.6		1.0	50.0	101	73-130
Vinyl chloride	50.2		1.0	50.0	100	76-130
Bromomethane	51.7		1.0	50.0	103	75-129
Chloroethane	48.6		1.0	50.0	97.3	75-121
Trichlorofluoromethane	51.1		1.0	50.0	102	79-130
1,1-Dichloroethene	47.7		1.0	50.0	95.3	76-127
Carbon disulfide	53.9		1.0	50.0	108	74-122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.1		1.0	50.0	100	79-126
Acetone	44.5		5.0	50.0	89.0	44-140
Methylene chloride	47.8		2.0	50.0	95.6	79-122
Methyl acetate	45.0		1.0	50.0	90.0	78-118
trans-1,2-Dichloroethene	49.2		1.0	50.0	98.4	78-123
cis-1,2-Dichloroethene	49.2		1.0	50.0	98.4	80-120
Methyl tert-butyl ether	46.6		1.0	50.0	93.2	78-124
1,1-Dichloroethane	48.2		1.0	50.0	96.5	80-122
2-Butanone	46.4		5.0	50.0	92.7	71-127
Chloroform	47.0		1.0	50.0	94.0	81-121
1,2-Dichloroethane	48.3		1.0	50.0	96.6	80-121
1,1,1-Trichloroethane	49.3		1.0	50.0	98.7	80-120
Cyclohexane	47.9		1.0	50.0	95.7	77-120
Carbon tetrachloride	47.8		1.0	50.0	95.6	78-121
Benzene	47.7		1.0	50.0	95.4	81-119
Trichloroethene	48.9		1.0	50.0	97.9	80-120
Methylcyclohexane	47.6		1.0	50.0	95.1	79-122

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B8H2302 **Sample Type: Liquid**

LCS (B8H2302-BS2)

Prepared: 8/22/2018 Analyzed: 8/22/2018

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
1,2-Dichloropropane	49.7		1.0	50.0	99.3	81-121
Bromodichloromethane	47.2		1.0	50.0	94.4	80-121
cis-1,3-Dichloropropene	48.9		1.0	50.0	97.9	79-119
trans-1,3-Dichloropropene	48.3		1.0	50.0	96.6	78-119
1,1,2-Trichloroethane	47.1		1.0	50.0	94.2	80-120
Dibromochloromethane	46.9		1.0	50.0	93.9	80-118
Bromoform	47.4		1.0	50.0	94.7	79-119
4-Methyl-2-pentanone	46.1		5.0	50.0	92.1	77-121
Toluene	49.4		1.0	50.0	98.8	81-118
Tetrachloroethene	49.0		1.0	50.0	98.0	80-120
2-Hexanone	45.6		5.0	50.0	91.1	77-122
1,2-Dibromoethane	47.4		1.0	50.0	94.9	81-118
Chlorobenzene	48.6		1.0	50.0	97.1	81-118
Ethylbenzene	48.0		1.0	50.0	96.0	80-118
meta-/para-Xylene	97.0		2.0	100	97.0	81-117
ortho-Xylene	46.8		1.0	50.0	93.6	81-118
Styrene	47.6		1.0	50.0	95.3	79-118
Isopropylbenzene	47.6		1.0	50.0	95.2	74-124
1,1,2,2-Tetrachloroethane	48.3		1.0	50.0	96.7	79-119
1,3-Dichlorobenzene	48.0		1.0	50.0	96.0	81-118
1,4-Dichlorobenzene	48.2		1.0	50.0	96.4	80-117
1,2-Dichlorobenzene	48.5		1.0	50.0	97.0	79-119
1,2-Dibromo-3-chloropropane	46.6		1.0	50.0	93.1	77-123
1,2,4-Trichlorobenzene	51.0		1.0	50.0	102	78-128

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B8H2302 **Sample Type: Liquid**

Matrix Spike (B8H2302-MS1)

Source: 1808018-17 Prepared: 8/22/2018 Analyzed: 8/22/2018

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	50.1		50.0	100	86-117
Toluene-d8	49.4		50.0	98.8	85-113
4-Bromofluorobenzene	48.1		50.0	96.2	73-115

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
1,1-Dichloroethene	62.2		1.0	50.0		124	72-134
Benzene	53.0		1.0	50.0		106	79-122
Trichloroethene	53.6		1.0	50.0		107	79-126
Toluene	52.6		1.0	50.0		105	81-122
Chlorobenzene	51.6		1.0	50.0		103	82-121

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Volatiles by CLP OLM04.2 - GC/MS (Low Level) - Quality Control

Batch: B8H2302 **Sample Type: Liquid**

Matrix Spike Dup (B8H2302-MSD1)

Source: 1808018-17 Prepared: 8/22/2018 Analyzed: 8/22/2018

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
1,2-Dichloroethane-d4	48.5		50.0	97.1	86-117
Toluene-d8	47.4		50.0	94.7	85-113
4-Bromofluorobenzene	46.6		50.0	93.1	73-115

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,1-Dichloroethene	61.9		1.0	50.0		124	72-134	0.47	21
Benzene	52.4		1.0	50.0		105	79-122	1.14	16
Trichloroethene	52.9		1.0	50.0		106	79-126	1.18	14
Toluene	52.5		1.0	50.0		105	81-122	0.19	13
Chlorobenzene	51.2		1.0	50.0		102	82-121	0.68	10

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Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B8H1701 **Sample Type: Liquid**

Blank (B8H1701-BLK1)

Prepared: 8/17/2018 Analyzed: 8/17/2018

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	56.1		75.0	74.9	42-109
Phenol-d5	55.7		75.0	74.3	46-110
2-Chlorophenol-d4	58.1		75.0	77.5	47-103
1,2-Dichlorobenzene-d4	34.4		50.0	68.8	33-100
Nitrobenzene-d5	39.6		50.0	79.3	42-126
2-Fluorobiphenyl	36.3		50.0	72.6	50-104
2,4,6-Tribromophenol	62.3		75.0	83.1	59-142
Terphenyl-d14	45.2		50.0	90.3	61-125

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Benzaldehyde	U		5.0
Phenol	U		5.0
Bis(2-chloroethyl)ether	U		5.0
2-Chlorophenol	U		5.0
1,3-Dichlorobenzene	U		5.0
1,4-Dichlorobenzene	U		5.0
Benzyl alcohol	U		5.0
1,2-Dichlorobenzene	U		5.0
2-Methylphenol	U		5.0
Bis(2-chloro-1-methylethyl)ether	U		5.0
Acetophenone	U		5.0
3 &/or 4-Methylphenol	U		5.0
N-Nitrosodi-n-propylamine	U		5.0
Hexachloroethane	U		5.0
Nitrobenzene	U		5.0
Isophorone	U		5.0
2-Nitrophenol	U		5.0
2,4-Dimethylphenol	U		5.0
Bis(2-chloroethoxy)methane	U		5.0
2,4-Dichlorophenol	U		5.0
1,2,4-Trichlorobenzene	U		5.0

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Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B8H1701 **Sample Type: Liquid**

Blank (B8H1701-BLK1)

Prepared: 8/17/2018 Analyzed: 8/17/2018

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Naphthalene	U		2.0
4-Chloroaniline	U		5.0
Hexachlorobutadiene	U		5.0
Caprolactam	U		5.0
4-Chloro-3-methylphenol	U		5.0
2-Methylnaphthalene	U		2.0
1-Methylnaphthalene	U		2.0
Hexachlorocyclopentadiene	U		5.0
2,4,6-Trichlorophenol	U		5.0
2,4,5-Trichlorophenol	U		5.0
2-Chloronaphthalene	U		5.0
1,1'-Biphenyl	U		5.0
2-Nitroaniline	U		8.0
Dimethyl phthalate	U		5.0
Acenaphthylene	U		2.0
2,6-Dinitrotoluene	U		5.0
3-Nitroaniline	U		8.0
Acenaphthene	U		2.0
2,4-Dinitrophenol	U		20.0
4-Nitrophenol	U		13.0
Dibenzofuran	U		5.0
2,4-Dinitrotoluene	U		5.0
Fluorene	U		2.0
Diethyl phthalate	U		5.0
4-Chlorophenyl phenyl ether	U		5.0
4-Nitroaniline	U		8.0
4,6-Dinitro-2-methylphenol	U		20.0
N-Nitrosodiphenylamine/Diphenylamine	U		5.0
4-Bromophenyl phenyl ether	U		5.0
Hexachlorobenzene	U		5.0
Atrazine	U		5.0
Pentachlorophenol	U		5.0

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Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B8H1701 **Sample Type: Liquid**

Blank (B8H1701-BLK1)

Prepared: 8/17/2018 Analyzed: 8/17/2018

Targets (Continued)

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit
Phenanthrene	U		2.0
Anthracene	U		2.0
Carbazole	U		5.0
Di-n-butyl phthalate	U		5.0
Fluoranthene	U		2.0
Pyrene	U		2.0
Butyl benzyl phthalate	U		5.0
Benzo (a) anthracene	U		5.0
3,3´-Dichlorobenzidine	U		5.0
Chrysene	U		5.0
Bis(2-ethylhexyl)phthalate	**5.8**		5.0
Di-n-octyl phthalate	U		5.0
Benzo (b) fluoranthene	U		5.0
Benzo (k) fluoranthene	U		5.0
Benzo (a) pyrene	U		5.0
Indeno (1,2,3-cd) pyrene	U		5.0
Dibenz (a,h) anthracene	U		5.0
Benzo (g,h,i) perylene	U		5.0

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Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B8H1701 **Sample Type: Liquid**

LCS (B8H1701-BS1)

Prepared: 8/17/2018 Analyzed: 8/17/2018

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	58.3		75.0	77.7	42-109
Phenol-d5	56.0		75.0	74.6	46-110
2-Chlorophenol-d4	59.9		75.0	79.8	47-103
1,2-Dichlorobenzene-d4	28.3		50.0	56.7	33-100
Nitrobenzene-d5	40.8		50.0	81.6	42-126
2-Fluorobiphenyl	30.9		50.0	61.8	50-104
2,4,6-Tribromophenol	65.6		75.0	87.4	59-142
Terphenyl-d14	44.5		50.0	89.0	61-125

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC	%REC Limits
Phenol	56.9		5.0	75.0	75.9	60-116
2-Chlorophenol	58.9		5.0	75.0	78.5	64-116
1,4-Dichlorobenzene	29.2		5.0	50.0	58.3	35-100
N-Nitrosodi-n-propylamine	42.6		5.0	50.0	85.1	65-118
1,2,4-Trichlorobenzene	29.2		5.0	50.0	58.5	42-103
4-Chloro-3-methylphenol	62.2		5.0	75.0	82.9	63-117
Acenaphthene	38.3		2.0	50.0	76.5	63-112
4-Nitrophenol	73.0		13.0	75.0	97.3	49-137
2,4-Dinitrotoluene	45.9		5.0	50.0	91.8	59-120
Pentachlorophenol	75.4		5.0	75.0	101	46-133
Pyrene	40.9		2.0	50.0	81.8	59-131

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Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B8H1701 **Sample Type: Liquid**

Matrix Spike (B8H1701-MS1)

Source: 1808018-17 Prepared: 8/17/2018 Analyzed: 8/17/2018

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	56.6		73.0	77.5	42-109
Phenol-d5	54.5		73.0	74.7	46-110
2-Chlorophenol-d4	58.1		73.0	79.5	47-103
1,2-Dichlorobenzene-d4	34.8		48.7	71.5	33-100
Nitrobenzene-d5	41.0		48.7	84.2	42-126
2-Fluorobiphenyl	36.8		48.7	75.5	50-104
2,4,6-Tribromophenol	65.0		73.0	89.1	59-142
Terphenyl-d14	41.9		48.7	86.0	61-125

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Phenol	55.3		4.9	73.0		75.7	41-114
2-Chlorophenol	57.4		4.9	73.0		78.5	46-114
1,4-Dichlorobenzene	36.0		4.9	48.7		74.0	34-100
N-Nitrosodi-n-propylamine	41.7		4.9	48.7		85.6	50-116
1,2,4-Trichlorobenzene	37.1		4.9	48.7		76.3	38-106
4-Chloro-3-methylphenol	61.9		4.9	73.0		84.7	44-137
Acenaphthene	39.9		1.9	48.7		82.0	41-131
4-Nitrophenol	59.8		12.7	73.0		81.9	39-152
2,4-Dinitrotoluene	42.2		4.9	48.7		86.7	57-123
Pentachlorophenol	76.2		4.9	73.0		104	55-146
Pyrene	38.1		1.9	48.7		78.2	54-133

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Semivolatiles by CLP OLM04.2 - GC/MS - Quality Control

Batch: B8H1701 **Sample Type: Liquid**

Matrix Spike Dup (B8H1701-MSD1)

Source: 1808018-17 Prepared: 8/17/2018 Analyzed: 8/17/2018

Surrogates

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
2-Fluorophenol	59.4		74.4	79.9	42-109
Phenol-d5	58.0		74.4	78.0	46-110
2-Chlorophenol-d4	61.7		74.4	82.9	47-103
1,2-Dichlorobenzene-d4	38.1		49.6	76.8	33-100
Nitrobenzene-d5	43.3		49.6	87.4	42-126
2-Fluorobiphenyl	39.4		49.6	79.4	50-104
2,4,6-Tribromophenol	65.2		74.4	87.7	59-142
Terphenyl-d14	42.9		49.6	86.5	61-125

Targets

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Phenol	58.5		5.0	74.4		78.6	41-114	3.77	32
2-Chlorophenol	60.1		5.0	74.4		80.8	46-114	2.83	27
1,4-Dichlorobenzene	37.2		5.0	49.6		74.9	34-100	1.15	32
N-Nitrosodi-n-propylamine	43.9		5.0	49.6		88.6	50-116	3.42	29
1,2,4-Trichlorobenzene	38.8		5.0	49.6		78.3	38-106	2.59	26
4-Chloro-3-methylphenol	64.5		5.0	74.4		86.7	44-137	2.27	30
Acenaphthene	42.3		2.0	49.6		85.4	41-131	3.99	33
4-Nitrophenol	66.8		12.9	74.4		89.8	39-152	9.24	34
2,4-Dinitrotoluene	44.9		5.0	49.6		90.5	57-123	4.22	16
Pentachlorophenol	76.4		5.0	74.4		103	55-146	1.60	21
Pyrene	39.3		2.0	49.6		79.1	54-133	1.14	21

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SURROGATE SUMMARY REPORT

VOA CLP Low Level (E)

Liquid

LAB NUMBER	1,2-DCE-d4	TOL-d8	4-BFB
1808018-01	99.1	98.4	95.2
1808018-02	102	99.9	97.6
1808018-03	102	102	98.4
1808018-05	98.7	97.1	95.4
1808018-06	95.0	96.9	94.6
1808018-07	98.8	97.4	95.3
1808018-09	97.8	96.9	95.4
1808018-10	102	102	98.9
1808018-11	103	103	100
1808018-12	101	101	97.5
1808018-13	97.4	96.3	95.2
1808018-14	100	99.6	97.7
1808018-15	101	100	97.3
1808018-16	97.6	97.0	94.3
1808018-17	96.6	96.9	94.4
1808018-18	99.4	99.2	96.7
B8H2302-BLK1	99.8	99.2	96.5
B8H2302-BLK2	95.8	96.2	93.6
B8H2302-BS1	105	108	108
B8H2302-BS2	94.1	94.6	94.8
B8H2302-MS1	100	98.8	96.2
B8H2302-MSD1	97.1	94.7	93.1

			QC LIMITS
1,2-DCE-d4	=	1,2-Dichloroethane-d4	86 - 117
TOL-d8	=	Toluene-d8	85 - 113
4-BFB	=	4-Bromofluorobenzene	73 - 115

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SURROGATE SUMMARY REPORT

ABN CLP Routine List

Liquid

LAB NUMBER	2-FP	PH-d5	2-CP-d4	1,2-DCB-d4	NB-d5	2-FBP	2,4,6-TBP	TP-d14
1808018-01	72.9	72.4	76.1	72.7	77.9	70.9	84.2	89.4
1808018-03	76.6	76.5	80.4	72.8	82.5	75.2	85.8	85.4
1808018-04	66.5	66.1	70.6	64.7	72.3	67.2	84.9	88.6
1808018-05	66.0	70.5	71.3	62.4	118	75.5	98.6	91.7
1808018-07	67.8	67.1	70.8	63.2	73.4	68.4	87.0	89.4
1808018-08	62.7	62.1	66.6	59.8	70.0	66.3	78.3	87.6
1808018-09	55.1	56.0	60.5	57.7	67.9	65.3	87.5	87.8
1808018-10	65.9	68.0	70.5	65.4	74.8	69.5	88.8	84.9
1808018-11	69.7	73.9	77.5	75.8	82.7	76.8	89.7	89.7
1808018-12	66.2	69.4	72.8	65.0	77.7	70.1	90.6	88.0
1808018-13	73.5	73.6	76.5	65.2	79.1	70.0	96.1	83.0
1808018-14	66.5	65.8	70.1	60.7	74.1	65.2	88.6	89.5
1808018-16	63.0	63.1	67.0	58.5	70.0	60.6	87.2	90.3
1808018-17	64.5	65.1	68.2	66.0	70.2	65.5	83.5	85.5
B8H1701-BLK1	74.9	74.3	77.5	68.8	79.3	72.6	83.1	90.3
B8H1701-BS1	77.7	74.6	79.8	56.7	81.6	61.8	87.4	89.0
B8H1701-MS1	77.5	74.7	79.5	71.5	84.2	75.5	89.1	86.0
B8H1701-MSD1	79.9	78.0	82.9	76.8	87.4	79.4	87.7	86.5

			QC LIMITS
2-FP	=	2-Fluorophenol	42 - 109
PH-d5	=	Phenol-d5	46 - 110
2-CP-d4	=	2-Chlorophenol-d4	47 - 103
1,2-DCB-d4	=	1,2-Dichlorobenzene-d4	33 - 100
NB-d5	=	Nitrobenzene-d5	42 - 126
2-FBP	=	2-Fluorobiphenyl	50 - 104
2,4,6-TBP	=	2,4,6-Tribromophenol	59 - 142
TP-d14	=	Terphenyl-d14	61 - 125

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Qualifiers

J	The identification of the analyte is acceptable; the reported value is an estimate.
FB	Field Blank Related - The concentration found in the sample was less than 10X the concentration found in the associated field, trip, or equipment blank. Presence in the sample is therefore suspect.
A	This sample was extracted at a single acid pH.
HTS	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.
U	The analyte was not detected at or above the reporting limit.

Abbreviations and Symbols

ABN	Acid Base Neutrals (Semivolatile Compounds)
AES	Atomic Emission Spectrometer
BS	Blank Spike
CVAA	Cold Vapor Atomic Absorption
DCB	Decachlorobiphenyl
ECD	Electron Capture Detector
GC	Gas Chromatograph
ICP	Inductively Coupled Plasma
ISTD	Internal Standard
LCS	Laboratory Control Sample
MS	Mass Spectrometer
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	Not Applicable
NPD	Nitrogen Phosphorous Detector
NR	Not Reported
PCB	Polychlorinatedbiphenyl
RL	Reporting Limit

RT	Retention Time
RPD	Relative Percent Difference
TCLP	Toxicity Characteristic Leaching Procedure
TCMX	Tetrachloro-meta-xylene
VOA	Volatile Organic Analysis
#	Out of QC limits
>LR	The result was greater than the linear range.

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.

ANALYTICAL REPORT

Job Number: 600-130758-1

Job Description: Petro-Chemical Systems Turtle Bayou IDW

For:
EA Engineering, Science, and Technology
405 S. Highway 121 bypass
Building C
Suite 100
Lewisville, TX 75067

Attention: Ms. April Ballweg



Approved for release.
Cathy L Upton
Project Manager I
5/26/2016 5:31 PM

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CASE NARRATIVE

Client: EA Engineering, Science, and Technology

Project: Petro-Chemical Systems Turtle Bayou IDW

Report Number: 600-130758-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
Note: All samples that require thermal preservation are considered acceptable if the arrival temperature is within 2°C of the required temperature or method specified range. For samples with a specified temperature of 4°C, samples with a temperature ranging from just above freezing temperature of water to 6°C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

The samples were received on 05/12/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.3 C.

TCLP VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples PC-IDW Soil (600-130758-1) and PC-IDW Water (600-130758-2) were analyzed for TCLP volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8260B. The samples were leached on 05/18/2016 and analyzed on 05/19/2016.

Samples PC-IDW Soil (600-130758-1)[20X] and PC-IDW Water (600-130758-2)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GC-MS)-Soil
Sample PC-IDW Soil (600-130758-1) was analyzed for BTEX in accordance with EPA SW-846 Method 8260B. The samples were prepared and analyzed on 05/12/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GC-MS)-Water
Sample PC-IDW Water (600-130758-2) was analyzed for BTEX in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 05/16/2016.

Sample PC-IDW Water (600-130758-2)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)-Soil
Sample PC-IDW Soil (600-130758-1) was analyzed for EPA SW-846 Method TCLP Semivolatile organic compounds (GC-MS) in accordance with SW846 8270C. The samples were leached on 05/13/2016, prepared on 05/16/2016 and analyzed on 05/19/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)-Water
Sample PC-IDW Water (600-130758-2) was analyzed for TCLP Semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8270C. The samples were leached on 05/13/2016, prepared on 05/14/2016 and analyzed on 05/17/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL PETROLEUM HYDROCARBONS-Soil
Sample PC-IDW Soil (600-130758-1) was analyzed for total petroleum hydrocarbons in accordance with TNRCC Method 1005. The samples were prepared on 05/12/2016 and analyzed on 05/13/2016.

o-Terphenyl failed the surrogate recovery criteria high for MB 600-188433/1-B, LCS 600-188433/2-B and LCSD 600-188433/3-B. The client sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL PETROLEUM HYDROCARBONS-Water
Sample PC-IDW Water (600-130758-2) was analyzed for total petroleum hydrocarbons in accordance with TNRCC Method 1005. The samples were prepared and analyzed on 05/16/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP METALS (ICP)
Samples PC-IDW Soil (600-130758-1) and PC-IDW Water (600-130758-2) were analyzed for TCLP metals (ICP) in accordance with EPA SW-846 Methods 1311/ 6010B. The samples were leached on 05/13/2016, and prepared and analyzed on 05/16/2016.

Barium was detected in method blank MB 600-188544/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Barium was detected in method blank LB 600-188518/1-D at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TCLP MERCURY
Samples PC-IDW Soil (600-130758-1) and PC-IDW Water (600-130758-2) were analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 05/13/2016, and prepared and analyzed on 05/16/2016.

Mercury failed the recovery criteria low for the MS of sample PC-IDW Water (600-130758-2) in batch 600-188600. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

REACTIVE CYANIDE-Soil
Sample PC-IDW Soil (600-130758-1) was analyzed for Reactive Cyanide in accordance with EPA SW-846 Method 9012. The samples were prepared on 05/19/2016 and analyzed on 05/20/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

REACTIVE CYANIDE-Water
Sample PC-IDW Water (600-130758-2) was analyzed for reactive cyanide in accordance with EPA SW-846 7.3.3. The samples were prepared on 05/19/2016 and analyzed on 05/20/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

REACTIVE SULFIDE-Soil
Sample PC-IDW Soil (600-130758-1) was analyzed for reactive sulfide in accordance with EPA SW-846 Method 7.3.4. The samples were prepared on 05/19/2016 and analyzed on 05/20/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

REACTIVE SULFIDE-Water
Sample PC-IDW Water (600-130758-2) was analyzed for reactive sulfide in accordance with EPA SW-846 Method 7.3.4. The samples were prepared on 05/19/2016 and analyzed on 05/20/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CORROSIVITY (PH)-Water

Sample PC-IDW Water (600-130758-2) was analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9040B. The samples were analyzed on 05/13/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CORROSIVITY (PH)-Soil
Sample PC-IDW Soil (600-130758-1) was analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9045C. The samples were analyzed on 05/13/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FLASHPOINT-Soil
Sample PC-IDW Soil (600-130758-1) was analyzed for flashpoint in accordance with ASTM Method D 92. The samples were analyzed on 05/18/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

FLASHPOINT-Water
Sample PC-IDW Water (600-130758-2) was analyzed for flashpoint in accordance with EPA SW-846 Method 1010. The samples were analyzed on 05/18/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS
Sample PC-IDW Soil (600-130758-1) was analyzed for percent solids in accordance with EPA SW846 Method 3550C. The samples were analyzed on 05/12/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Systems Turtle Bayou IDW

TestAmerica Job ID: 600-130758-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C	Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
7470A	Mercury (CVAA)	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
7.4.4	Reactive Sulfide	EPA	TAL HOU
9012	Cyanide, Reactive	SW846	TAL HOU
9040B	Corrosivity as pH	SW846	TAL HOU
9045C	Corrosivity	SW846	TAL HOU
D92	Flashpoint	ASTM	TAL HOU
SW846 Ch. 7	Ignitability	SW846	TAL HOU

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Systems Turtle Bayou IDW

TestAmerica Job ID: 600-130758-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-130758-1	PC-IDW Soil	Solid	05/11/16 10:00	05/12/16 11:16
600-130758-2	PC-IDW Water	Water	05/11/16 10:00	05/12/16 11:16

Detection Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Systems Turtle Bayou IDW

TestAmerica Job ID: 600-130758-1

Client Sample ID: PC-IDW Soil — Lab Sample ID: 600-130758-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	1.03	B	0.200	0.00530	mg/L	1		6010B	TCLP
pH	10.9		0.0100	0.0100	SU	1		9045C	Total/NA
Flashpoint	>212		1.00	1.00	Degrees F	1		D92	Total/NA

Client Sample ID: PC-IDW Water — Lab Sample ID: 600-130758-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.000367	J	0.00100	0.000212	mg/L	1		8260B	Total/NA
m-Xylene & p-Xylene	0.00168		0.00100	0.000205	mg/L	1		8260B	Total/NA
Xylenes, Total	0.00228		0.00200	0.000366	mg/L	1		8260B	Total/NA
o-Xylene	0.000596	J	0.00100	0.000192	mg/L	1		8260B	Total/NA
Benzene - DL	0.0564		0.00500	0.000880	mg/L	5		8260B	Total/NA
Barium	0.236	B	0.200	0.00530	mg/L	1		6010B	TCLP
pH	8.04	H	0.0100	0.0100	SU	1		9040B	Total/NA
Flashpoint	>186		1.00	1.00	Degrees F	1		SW846 Ch. 7	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: PC-IDW Soil

Date Collected: 05/11/16 10:00
Date Received: 05/12/16 11:16

Lab Sample ID: 600-130758-1

Matrix: Solid
Percent Solids: 80.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.553	U	4.39	0.553	ug/Kg	☼	05/12/16 11:16	05/12/16 19:29	1
Ethylbenzene	0.895	U	4.39	0.895	ug/Kg	☼	05/12/16 11:16	05/12/16 19:29	1
Toluene	1.21	U	4.39	1.21	ug/Kg	☼	05/12/16 11:16	05/12/16 19:29	1
Xylenes, Total	0.991	U	4.39	0.991	ug/Kg	☼	05/12/16 11:16	05/12/16 19:29	1
m-Xylene & p-Xylene	1.33	U	4.39	1.33	ug/Kg	☼	05/12/16 11:16	05/12/16 19:29	1
o-Xylene	0.991	U	4.39	0.991	ug/Kg	☼	05/12/16 11:16	05/12/16 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*61 - 130*	*05/12/16 11:16*	*05/12/16 19:29*	*1*
Dibromofluoromethane	*79*		*68 - 140*	*05/12/16 11:16*	*05/12/16 19:29*	*1*
Toluene-d8 (Surr)	*82*		*50 - 130*	*05/12/16 11:16*	*05/12/16 19:29*	*1*
4-Bromofluorobenzene	*102*		*57 - 140*	*05/12/16 11:16*	*05/12/16 19:29*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0112	U	0.100	0.0112	mg/L			05/19/16 17:45	20
Carbon tetrachloride	0.0184	U	0.100	0.0184	mg/L			05/19/16 17:45	20
Chlorobenzene	0.0164	U	0.100	0.0164	mg/L			05/19/16 17:45	20
Chloroform	0.0164	U	0.100	0.0164	mg/L			05/19/16 17:45	20
1,2-Dichloroethane	0.0202	U	0.100	0.0202	mg/L			05/19/16 17:45	20
1,1-Dichloroethene	0.0152	U	0.100	0.0152	mg/L			05/19/16 17:45	20
2-Butanone (MEK)	0.0314	U	0.200	0.0314	mg/L			05/19/16 17:45	20
Tetrachloroethene	0.0248	U	0.100	0.0248	mg/L			05/19/16 17:45	20
Trichloroethene	0.0316	U	0.100	0.0316	mg/L			05/19/16 17:45	20
Vinyl chloride	0.0170	U	0.100	0.0170	mg/L			05/19/16 17:45	20
1,4-Dichlorobenzene	0.0182	U	0.100	0.0182	mg/L			05/19/16 17:45	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*67 - 139*		*05/19/16 17:45*	*20*
Dibromofluoromethane	*104*		*62 - 130*		*05/19/16 17:45*	*20*
Toluene-d8 (Surr)	*110*		*70 - 130*		*05/19/16 17:45*	*20*
1,2-Dichloroethane-d4 (Surr)	*95*		*50 - 134*		*05/19/16 17:45*	*20*

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00243	U	0.0125	0.00243	mg/L		05/16/16 06:29	05/19/16 16:04	1
2,4-Dinitrotoluene	0.00264	U	0.0125	0.00264	mg/L		05/16/16 06:29	05/19/16 16:04	1
2,4,5-Trichlorophenol	0.00525	U	0.0125	0.00525	mg/L		05/16/16 06:29	05/19/16 16:04	1
2,4,6-Trichlorophenol	0.00415	U	0.0125	0.00415	mg/L		05/16/16 06:29	05/19/16 16:04	1
2-Methylphenol	0.00178	U	0.0125	0.00178	mg/L		05/16/16 06:29	05/19/16 16:04	1
3 & 4 Methylphenol	0.00169	U	0.0125	0.00169	mg/L		05/16/16 06:29	05/19/16 16:04	1
Hexachlorobenzene	0.00410	U	0.0125	0.00410	mg/L		05/16/16 06:29	05/19/16 16:04	1
Hexachlorobutadiene	0.00321	U	0.0125	0.00321	mg/L		05/16/16 06:29	05/19/16 16:04	1
Hexachloroethane	0.00411	U	0.0125	0.00411	mg/L		05/16/16 06:29	05/19/16 16:04	1
Nitrobenzene	0.00324	U	0.0125	0.00324	mg/L		05/16/16 06:29	05/19/16 16:04	1
Pentachlorophenol	0.00394	U	0.0125	0.00394	mg/L		05/16/16 06:29	05/19/16 16:04	1
Pyridine	0.00270	U	0.0125	0.00270	mg/L		05/16/16 06:29	05/19/16 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*66*		*24 - 150*	*05/16/16 06:29*	*05/19/16 16:04*	*1*

Client Sample ID: PC-IDW Soil
Lab Sample ID: 600-130758-1

Date Collected: 05/11/16 10:00
Matrix: Solid
Date Received: 05/12/16 11:16

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) - TCLP (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*45*		*10 - 130*	*05/16/16 06:29*	*05/19/16 16:04*	*1*
2-Fluorobiphenyl	*64*		*38 - 133*	*05/16/16 06:29*	*05/19/16 16:04*	*1*
2,4,6-Tribromophenol	*74*		*19 - 150*	*05/16/16 06:29*	*05/19/16 16:04*	*1*
Terphenyl-d14	*76*		*35 - 150*	*05/16/16 06:29*	*05/19/16 16:04*	*1*
Phenol-d5 (Surr)	*29*		*10 - 130*	*05/16/16 06:29*	*05/19/16 16:04*	*1*

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.66	U	9.63	3.66	mg/Kg	☼	05/12/16 14:06	05/13/16 16:01	1
>C12-C28	3.91	U	9.63	3.91	mg/Kg	☼	05/12/16 14:06	05/13/16 16:01	1
>C28-C35	3.91	U	9.63	3.91	mg/Kg	☼	05/12/16 14:06	05/13/16 16:01	1
Total Petroleum Hydrocarbons (C6-C35)	3.66	U	9.63	3.66	mg/Kg	☼	05/12/16 14:06	05/13/16 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*123*		*70 - 130*	*05/12/16 14:06*	*05/13/16 16:01*	*1*

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.0129	U	0.100	0.0129	mg/L		05/16/16 06:12	05/16/16 18:24	1
Arsenic	0.0285	U	0.100	0.0285	mg/L		05/16/16 06:12	05/16/16 18:24	1
Barium	**1.03**	**B**	0.200	0.00530	mg/L		05/16/16 06:12	05/16/16 18:24	1
Cadmium	0.00280	U	0.0500	0.00280	mg/L		05/16/16 06:12	05/16/16 18:24	1
Chromium	0.0159	U	0.100	0.0159	mg/L		05/16/16 06:12	05/16/16 18:24	1
Lead	0.0219	U	0.100	0.0219	mg/L		05/16/16 06:12	05/16/16 18:24	1
Selenium	0.0287	U	0.400	0.0287	mg/L		05/16/16 06:12	05/16/16 18:24	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000820	U	0.000200	0.0000820	mg/L		05/16/16 06:52	05/16/16 13:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	13.7	U	49.1	13.7	mg/Kg		05/19/16 15:00	05/20/16 11:30	1
Cyanide, Reactive	0.0840	U	0.246	0.0840	mg/Kg		05/19/16 15:00	05/20/16 20:40	1
pH	**10.9**		0.0100	0.0100	SU			05/13/16 07:50	1
Flashpoint	**>212**		1.00	1.00	Degrees F			05/18/16 11:00	1

Client Sample ID: PC-IDW Water
Lab Sample ID: 600-130758-2

Date Collected: 05/11/16 10:00
Matrix: Water
Date Received: 05/12/16 11:16

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.000198	U	0.00100	0.000198	mg/L			05/16/16 14:27	1
Ethylbenzene	**0.000367**	**J**	0.00100	0.000212	mg/L			05/16/16 14:27	1
m-Xylene & p-Xylene	**0.00168**		0.00100	0.000205	mg/L			05/16/16 14:27	1
Xylenes, Total	**0.00228**		0.00200	0.000366	mg/L			05/16/16 14:27	1
o-Xylene	**0.000596**	**J**	0.00100	0.000192	mg/L			05/16/16 14:27	1

Client Sample ID: PC-IDW Water

Date Collected: 05/11/16 10:00
Date Received: 05/12/16 11:16

Lab Sample ID: 600-130758-2

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*50 - 134*		*05/16/16 14:27*	*1*
Dibromofluoromethane	*86*		*62 - 130*		*05/16/16 14:27*	*1*
Toluene-d8 (Surr)	*79*		*70 - 130*		*05/16/16 14:27*	*1*
4-Bromofluorobenzene	*120*		*67 - 139*		*05/16/16 14:27*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0564**		0.00500	0.000880	mg/L			05/16/16 19:35	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*50 - 134*		*05/16/16 19:35*	*5*
Dibromofluoromethane	*84*		*62 - 130*		*05/16/16 19:35*	*5*
Toluene-d8 (Surr)	*80*		*70 - 130*		*05/16/16 19:35*	*5*
4-Bromofluorobenzene	*124*		*67 - 139*		*05/16/16 19:35*	*5*

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0112	U	0.100	0.0112	mg/L			05/19/16 18:10	20
Carbon tetrachloride	0.0184	U	0.100	0.0184	mg/L			05/19/16 18:10	20
Chlorobenzene	0.0164	U	0.100	0.0164	mg/L			05/19/16 18:10	20
Chloroform	0.0164	U	0.100	0.0164	mg/L			05/19/16 18:10	20
1,2-Dichloroethane	0.0202	U	0.100	0.0202	mg/L			05/19/16 18:10	20
1,1-Dichloroethene	0.0152	U	0.100	0.0152	mg/L			05/19/16 18:10	20
2-Butanone (MEK)	0.0314	U	0.200	0.0314	mg/L			05/19/16 18:10	20
Tetrachloroethene	0.0248	U	0.100	0.0248	mg/L			05/19/16 18:10	20
Trichloroethene	0.0316	U	0.100	0.0316	mg/L			05/19/16 18:10	20
Vinyl chloride	0.0170	U	0.100	0.0170	mg/L			05/19/16 18:10	20
1,4-Dichlorobenzene	0.0182	U	0.100	0.0182	mg/L			05/19/16 18:10	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*117*		*67 - 139*		*05/19/16 18:10*	*20*
Dibromofluoromethane	*102*		*62 - 130*		*05/19/16 18:10*	*20*
Toluene-d8 (Surr)	*117*		*70 - 130*		*05/19/16 18:10*	*20*
1,2-Dichloroethane-d4 (Surr)	*97*		*50 - 134*		*05/19/16 18:10*	*20*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00890	U	0.0500	0.00890	mg/L		05/14/16 09:21	05/17/16 16:06	1
2,4-Dinitrotoluene	0.0132	U	0.0500	0.0132	mg/L		05/14/16 09:21	05/17/16 16:06	1
2,4,5-Trichlorophenol	0.0136	U	0.0500	0.0136	mg/L		05/14/16 09:21	05/17/16 16:06	1
2,4,6-Trichlorophenol	0.0129	U	0.0500	0.0129	mg/L		05/14/16 09:21	05/17/16 16:06	1
2-Methylphenol	0.00905	U	0.0500	0.00905	mg/L		05/14/16 09:21	05/17/16 16:06	1
3 & 4 Methylphenol	0.00940	U	0.100	0.00940	mg/L		05/14/16 09:21	05/17/16 16:06	1
Hexachlorobenzene	0.0130	U	0.0500	0.0130	mg/L		05/14/16 09:21	05/17/16 16:06	1
Hexachlorobutadiene	0.0106	U	0.0500	0.0106	mg/L		05/14/16 09:21	05/17/16 16:06	1
Hexachloroethane	0.0110	U	0.0500	0.0110	mg/L		05/14/16 09:21	05/17/16 16:06	1
Nitrobenzene	0.0124	U	0.0500	0.0124	mg/L		05/14/16 09:21	05/17/16 16:06	1
Pentachlorophenol	0.0231	U	0.250	0.0231	mg/L		05/14/16 09:21	05/17/16 16:06	1
Pyridine	0.0108	U	0.0500	0.0108	mg/L		05/14/16 09:21	05/17/16 16:06	1

Client Sample ID: PC-IDW Water
Lab Sample ID: 600-130758-2

Date Collected: 05/11/16 10:00
Matrix: Water

Date Received: 05/12/16 11:16

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Phenol-d5	*71*		*10 - 130*	*05/14/16 09:21*	*05/17/16 16:06*	*1*
Nitrobenzene-d5	*85*		*35 - 130*	*05/14/16 09:21*	*05/17/16 16:06*	*1*
2-Fluorophenol	*80*		*10 - 130*	*05/14/16 09:21*	*05/17/16 16:06*	*1*
2-Fluorobiphenyl	*83*		*41 - 130*	*05/14/16 09:21*	*05/17/16 16:06*	*1*
2,4,6-Tribromophenol	*81*		*12 - 138*	*05/14/16 09:21*	*05/17/16 16:06*	*1*
Terphenyl-d14	*92*		*43 - 130*	*05/14/16 09:21*	*05/17/16 16:06*	*1*

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.679	U	1.64	0.679	mg/L		05/16/16 14:59	05/16/16 19:39	1
>C12-C28	0.785	U	1.64	0.785	mg/L		05/16/16 14:59	05/16/16 19:39	1
>C28-C35	0.785	U	1.64	0.785	mg/L		05/16/16 14:59	05/16/16 19:39	1
Total Petroleum Hydrocarbons (C6-C35)	0.679	U	1.64	0.679	mg/L		05/16/16 14:59	05/16/16 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*116*		*70 - 130*	*05/16/16 14:59*	*05/16/16 19:39*	*1*

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.0129	U	0.100	0.0129	mg/L		05/16/16 06:12	05/16/16 17:44	1
Arsenic	0.0285	U	0.100	0.0285	mg/L		05/16/16 06:12	05/16/16 17:44	1
Barium	**0.236**	**B**	0.200	0.00530	mg/L		05/16/16 06:12	05/16/16 17:44	1
Cadmium	0.00280	U	0.0500	0.00280	mg/L		05/16/16 06:12	05/16/16 17:44	1
Chromium	0.0159	U	0.100	0.0159	mg/L		05/16/16 06:12	05/16/16 17:44	1
Lead	0.0219	U	0.100	0.0219	mg/L		05/16/16 06:12	05/16/16 17:44	1
Selenium	0.0287	U	0.400	0.0287	mg/L		05/16/16 06:12	05/16/16 17:44	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000820	U F1	0.000200	0.0000820	mg/L		05/16/16 06:52	05/16/16 13:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	1.40	U	50.0	1.40	mg/L		05/19/16 15:00	05/20/16 11:30	1
Cyanide, Reactive	0.0397	U	0.250	0.0397	mg/L		05/19/16 15:00	05/20/16 20:40	1
pH	**8.04**	**H**	0.0100	0.0100	SU			05/13/16 07:50	1
Flashpoint	**>186**		1.00	1.00	Degrees F			05/18/16 10:15	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Systems Turtle Bayou IDW

TestAmerica Job ID: 600-130758-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(61-130)	(68-140)	(50-130)	(57-140)
600-130758-1	PC-IDW Soil	98	79	82	102
LCS 600-188369/3	Lab Control Sample	76	97	94	102
LCSD 600-188369/4	Lab Control Sample Dup	80	95	86	109
MB 600-188369/6	Method Blank	95	85	84	103

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	TOL	12DCE
Lab Sample ID	Client Sample ID	(67-139)	(62-130)	(70-130)	(50-134)
LCS 600-188838/4	Lab Control Sample	108	115	120	105
LCSD 600-188838/5	Lab Control Sample Dup	110	111	119	100
MB 600-188838/7	Method Blank	112	107	117	98

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	TOL	12DCE
Lab Sample ID	Client Sample ID	(67-139)	(62-130)	(70-130)	(50-134)
600-130604-A-2-A MSD	Matrix Spike Duplicate	109	112	119	102
600-130604-A-2-B MS	Matrix Spike	107	115	116	104
600-130758-1	PC-IDW Soil	110	104	110	95
LB 600-188875/1-A	Method Blank	110	109	116	101

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

Surrogate Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Systems Turtle Bayou IDW

TestAmerica Job ID: 600-130758-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(50-134)	(62-130)	(70-130)	(67-139)
600-130758-2	PC-IDW Water	104	86	79	120
600-130758-2 - DL	PC-IDW Water	96	84	80	124
LCS 600-188556/3	Lab Control Sample	105	80	82	120
LCSD 600-188556/4	Lab Control Sample Dup	93	85	84	120
MB 600-188556/6	Method Blank	104	85	80	121

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	TOL	12DCE
Lab Sample ID	Client Sample ID	(67-139)	(62-130)	(70-130)	(50-134)
600-130758-2	PC-IDW Water	117	102	117	97

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	2FP	FBP	TBP	PHL	TPH
Lab Sample ID	Client Sample ID	(24-150)	(10-130)	(38-133)	(19-150)	(10-130)	(35-150)
LCS 600-188545/2-A	Lab Control Sample	71	72	70	68	72	82
MB 600-188545/1-A	Method Blank	61	60	62	65	57	73

Surrogate Legend

NBZ = Nitrobenzene-d5
2FP = 2-Fluorophenol
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	2FP	FBP	TBP	TPH	PHL
Lab Sample ID	Client Sample ID	(24-150)	(10-130)	(38-133)	(19-150)	(35-150)	(10-130)
600-130758-1	PC-IDW Soil	66	45	64	74	76	29

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (Continued)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)							
		NBZ	2FP	FBP	TBP	TPH	PHL		
Lab Sample ID	Client Sample ID	(24-150)	(10-130)	(38-133)	(19-150)	(35-150)	(10-130)		
LB 600-188518/1-C	Method Blank	57	59	55	63	63	44		

Surrogate Legend

NBZ = Nitrobenzene-d5
2FP = 2-Fluorophenol
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPH = Terphenyl-d14
PHL = Phenol-d5 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		NBZ	2FP	FBP	TBP	PHL	TPH		
Lab Sample ID	Client Sample ID	(35-130)	(10-130)	(41-130)	(12-138)	(10-130)	(43-130)		
LCS 600-188525/2-A	Lab Control Sample	85	86	82	86	83	83		
MB 600-188525/1-A	Method Blank	86	89	83	89	72	96		

Surrogate Legend

NBZ = Nitrobenzene-d5
2FP = 2-Fluorophenol
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
PHL = Phenol-d5
TPH = Terphenyl-d14

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)							
		PHL	NBZ	2FP	FBP	TBP	TPH		
Lab Sample ID	Client Sample ID	(10-130)	(35-130)	(10-130)	(41-130)	(12-138)	(43-130)		
600-130758-2	PC-IDW Water	71	85	80	83	81	92		
600-130758-2 MS	PC-IDW Water	85	84	84	83	88	82		
LB 600-188519/1-B	Method Blank	73	83	83	81	88	92		

Surrogate Legend

PHL = Phenol-d5
NBZ = Nitrobenzene-d5
2FP = 2-Fluorophenol
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPH = Terphenyl-d14

Surrogate Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Systems Turtle Bayou IDW

TestAmerica Job ID: 600-130758-1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTPH (70-130)
600-130758-1	PC-IDW Soil	123
600-130758-1 MS	PC-IDW Soil	126
600-130758-1 MSD	PC-IDW Soil	122
LCS 600-188433/2-B	Lab Control Sample	135 X
LCSD 600-188433/3-B	Lab Control Sample Dup	132 X
MB 600-188433/1-B	Method Blank	142 X

Surrogate Legend

OTPH = o-Terphenyl

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTPH (70-130)
600-130738-I-1-A MS	Matrix Spike	121
600-130738-J-1-A MSD	Matrix Spike Duplicate	114
600-130758-2	PC-IDW Water	116
LCS 600-188603/2-A	Lab Control Sample	123
LCSD 600-188603/3-A	Lab Control Sample Dup	113
MB 600-188603/1-A	Method Blank	114

Surrogate Legend

OTPH = o-Terphenyl

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-188369/6

Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 188369

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			05/12/16 11:00	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			05/12/16 11:00	1
Toluene	1.38	U	5.00	1.38	ug/Kg			05/12/16 11:00	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			05/12/16 11:00	1
m-Xylene & p-Xylene	1.52	U	5.00	1.52	ug/Kg			05/12/16 11:00	1
o-Xylene	1.13	U	5.00	1.13	ug/Kg			05/12/16 11:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*57 - 140*		*05/12/16 11:00*	*1*
Dibromofluoromethane	*85*		*68 - 140*		*05/12/16 11:00*	*1*
Toluene-d8 (Surr)	*84*		*50 - 130*		*05/12/16 11:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*61 - 130*		*05/12/16 11:00*	*1*

Lab Sample ID: LCS 600-188369/3

Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 188369

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	50.98		ug/Kg		102	70 - 131
Ethylbenzene	50.0	48.43		ug/Kg		97	66 - 130
Toluene	50.0	54.51		ug/Kg		109	67 - 130
Xylenes, Total	100	103.9		ug/Kg		104	63 - 130
m-Xylene & p-Xylene	50.0	50.40		ug/Kg		101	64 - 130
o-Xylene	50.0	53.46		ug/Kg		107	62 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*57 - 140*
Dibromofluoromethane	*97*		*68 - 140*
Toluene-d8 (Surr)	*94*		*50 - 130*
1,2-Dichloroethane-d4 (Surr)	*76*		*61 - 130*

Lab Sample ID: LCSD 600-188369/4

Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 188369

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	48.23		ug/Kg		96	70 - 131	6	30
Ethylbenzene	50.0	44.09		ug/Kg		88	66 - 130	9	30
Toluene	50.0	45.47		ug/Kg		91	67 - 130	18	30
Xylenes, Total	100	89.49		ug/Kg		89	63 - 130	15	30
m-Xylene & p-Xylene	50.0	45.08		ug/Kg		90	64 - 130	11	30
o-Xylene	50.0	44.41		ug/Kg		89	62 - 130	19	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*57 - 140*
Dibromofluoromethane	*95*		*68 - 140*
Toluene-d8 (Surr)	*86*		*50 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-188369/4
Matrix: Solid
Analysis Batch: 188369

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*80*		*61 - 130*

Lab Sample ID: MB 600-188556/6
Matrix: Water
Analysis Batch: 188556

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000176	U	0.00100	0.000176	mg/L			05/16/16 11:54	1
Toluene	0.000198	U	0.00100	0.000198	mg/L			05/16/16 11:54	1
Ethylbenzene	0.000212	U	0.00100	0.000212	mg/L			05/16/16 11:54	1
m-Xylene & p-Xylene	0.000205	U	0.00100	0.000205	mg/L			05/16/16 11:54	1
Xylenes, Total	0.000366	U	0.00200	0.000366	mg/L			05/16/16 11:54	1
o-Xylene	0.000192	U	0.00100	0.000192	mg/L			05/16/16 11:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*50 - 134*		*05/16/16 11:54*	*1*
Dibromofluoromethane	*85*		*62 - 130*		*05/16/16 11:54*	*1*
Toluene-d8 (Surr)	*80*		*70 - 130*		*05/16/16 11:54*	*1*
4-Bromofluorobenzene	*121*		*67 - 139*		*05/16/16 11:54*	*1*

Lab Sample ID: LCS 600-188556/3
Matrix: Water
Analysis Batch: 188556

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0100	0.008452		mg/L		85	70 - 130
Toluene	0.0100	0.009854		mg/L		99	70 - 130
Ethylbenzene	0.0100	0.01004		mg/L		100	70 - 130
m-Xylene & p-Xylene	0.0100	0.01091		mg/L		109	70 - 130
Xylenes, Total	0.0200	0.02069		mg/L		103	70 - 130
o-Xylene	0.0100	0.009778		mg/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*50 - 134*
Dibromofluoromethane	*80*		*62 - 130*
Toluene-d8 (Surr)	*82*		*70 - 130*
4-Bromofluorobenzene	*120*		*67 - 139*

Lab Sample ID: LCSD 600-188556/4
Matrix: Water
Analysis Batch: 188556

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0100	0.008182		mg/L		82	70 - 130	3	20
Toluene	0.0100	0.009547		mg/L		95	70 - 130	3	20
Ethylbenzene	0.0100	0.009710		mg/L		97	70 - 130	3	20
m-Xylene & p-Xylene	0.0100	0.01049		mg/L		105	70 - 130	4	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-188556/4
Matrix: Water
Analysis Batch: 188556

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total			0.0200	0.02007		mg/L		100	70 - 130	3	20
o-Xylene			0.0100	0.009575		mg/L		96	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*50 - 134*
Dibromofluoromethane	*85*		*62 - 130*
Toluene-d8 (Surr)	*84*		*70 - 130*
4-Bromofluorobenzene	*120*		*67 - 139*

Lab Sample ID: MB 600-188838/7
Matrix: Solid
Analysis Batch: 188838

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			05/19/16 11:54	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			05/19/16 11:54	1
Chloroform	0.000820	U	0.00500	0.000820	mg/L			05/19/16 11:54	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			05/19/16 11:54	1
Benzene	0.000560	U	0.00500	0.000560	mg/L			05/19/16 11:54	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			05/19/16 11:54	1
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			05/19/16 11:54	1
Tetrachloroethene	0.00124	U	0.00500	0.00124	mg/L			05/19/16 11:54	1
Trichloroethene	0.00158	U	0.00500	0.00158	mg/L			05/19/16 11:54	1
Vinyl chloride	0.000850	U	0.00500	0.000850	mg/L			05/19/16 11:54	1
1,4-Dichlorobenzene	0.000910	U	0.00500	0.000910	mg/L			05/19/16 11:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*67 - 139*		*05/19/16 11:54*	*1*
Dibromofluoromethane	*107*		*62 - 130*		*05/19/16 11:54*	*1*
Toluene-d8 (Surr)	*117*		*70 - 130*		*05/19/16 11:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*50 - 134*		*05/19/16 11:54*	*1*

Lab Sample ID: LCS 600-188838/4
Matrix: Solid
Analysis Batch: 188838

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Carbon tetrachloride			0.0500	0.04596		mg/L		92	68 - 140		
Chlorobenzene			0.0500	0.05054		mg/L		101	70 - 130		
Chloroform			0.0500	0.04575		mg/L		91	70 - 131		
1,2-Dichloroethane			0.0500	0.04680		mg/L		94	62 - 144		
Benzene			0.0500	0.04488		mg/L		90	70 - 131		
1,1-Dichloroethene			0.0500	0.04981		mg/L		100	67 - 134		
2-Butanone (MEK)			0.100	0.08868		mg/L		89	34 - 140		
Tetrachloroethene			0.0500	0.05293		mg/L		106	57 - 130		
Trichloroethene			0.0500	0.05017		mg/L		100	70 - 130		
Vinyl chloride			0.0500	0.05406		mg/L		108	55 - 150		
1,4-Dichlorobenzene			0.0500	0.04677		mg/L		94	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	*108*		*67 - 139*
Dibromofluoromethane	*115*		*62 - 130*
Toluene-d8 (Surr)	*120*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*105*		*50 - 134*

Lab Sample ID: LCSD 600-188838/5
Matrix: Solid
Analysis Batch: 188838

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon tetrachloride			0.0500	0.04264		mg/L		85	68 - 140	8	20
Chlorobenzene			0.0500	0.04846		mg/L		97	70 - 130	4	20
Chloroform			0.0500	0.04392		mg/L		88	70 - 131	4	20
1,2-Dichloroethane			0.0500	0.04677		mg/L		94	62 - 144	0	20
Benzene			0.0500	0.04458		mg/L		89	70 - 131	1	20
1,1-Dichloroethene			0.0500	0.04711		mg/L		94	67 - 134	6	20
2-Butanone (MEK)			0.100	0.07810		mg/L		78	34 - 140	13	20
Tetrachloroethene			0.0500	0.04944		mg/L		99	57 - 130	7	20
Trichloroethene			0.0500	0.04736		mg/L		95	70 - 130	6	20
Vinyl chloride			0.0500	0.05290		mg/L		106	55 - 150	2	20
1,4-Dichlorobenzene			0.0500	0.04401		mg/L		88	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	*110*		*67 - 139*
Dibromofluoromethane	*111*		*62 - 130*
Toluene-d8 (Surr)	*119*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*100*		*50 - 134*

Lab Sample ID: LB 600-188875/1-A
Matrix: Solid
Analysis Batch: 188838

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			05/19/16 15:15	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			05/19/16 15:15	1
Chloroform	0.000820	U	0.00500	0.000820	mg/L			05/19/16 15:15	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			05/19/16 15:15	1
Benzene	0.000560	U	0.00500	0.000560	mg/L			05/19/16 15:15	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			05/19/16 15:15	1
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			05/19/16 15:15	1
Tetrachloroethene	0.00124	U	0.00500	0.00124	mg/L			05/19/16 15:15	1
Trichloroethene	0.00158	U	0.00500	0.00158	mg/L			05/19/16 15:15	1
Vinyl chloride	0.000850	U	0.00500	0.000850	mg/L			05/19/16 15:15	1
1,4-Dichlorobenzene	0.000910	U	0.00500	0.000910	mg/L			05/19/16 15:15	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	*110*		*67 - 139*		*05/19/16 15:15*	*1*
Dibromofluoromethane	*109*		*62 - 130*		*05/19/16 15:15*	*1*
Toluene-d8 (Surr)	*116*		*70 - 130*		*05/19/16 15:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*50 - 134*		*05/19/16 15:15*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-130604-A-2-A MSD
Matrix: Solid
Analysis Batch: 188838

Client Sample ID: Matrix Spike Duplicate
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon tetrachloride	0.0184	U	1.00	0.8738		mg/L		87	68 - 140	12	25
Chlorobenzene	0.0164	U	1.00	1.017		mg/L		102	70 - 130	5	21
Chloroform	0.0164	U	1.00	0.8904		mg/L		89	70 - 131	1	25
1,2-Dichloroethane	0.0202	U	1.00	0.9472		mg/L		95	62 - 144	5	25
Benzene	0.0112	U	1.00	0.8970		mg/L		90	70 - 131	0	21
1,1-Dichloroethene	0.0152	U	1.00	0.9924		mg/L		99	67 - 134	1	22
2-Butanone (MEK)	0.0314	U	2.00	1.617		mg/L		81	34 - 140	3	25
Tetrachloroethene	0.0248	U	1.00	1.060		mg/L		106	57 - 130	0	25
Trichloroethene	0.0316	U	1.00	1.004		mg/L		100	70 - 130	1	24
Vinyl chloride	0.0170	U	1.00	0.8555		mg/L		86	55 - 150	1	25
1,4-Dichlorobenzene	0.0182	U	1.00	0.8964		mg/L		90	70 - 130	1	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*67 - 139*
Dibromofluoromethane	*112*		*62 - 130*
Toluene-d8 (Surr)	*119*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*102*		*50 - 134*

Lab Sample ID: 600-130604-A-2-B MS
Matrix: Solid
Analysis Batch: 188838

Client Sample ID: Matrix Spike
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	0.0184	U	1.00	0.9901		mg/L		99	68 - 140
Chlorobenzene	0.0164	U	1.00	0.9700		mg/L		97	70 - 130
Chloroform	0.0164	U	1.00	0.9027		mg/L		90	70 - 131
1,2-Dichloroethane	0.0202	U	1.00	0.9052		mg/L		91	62 - 144
Benzene	0.0112	U	1.00	0.8942		mg/L		89	70 - 131
1,1-Dichloroethene	0.0152	U	1.00	1.004		mg/L		100	67 - 134
2-Butanone (MEK)	0.0314	U	2.00	1.567		mg/L		78	34 - 140
Tetrachloroethene	0.0248	U	1.00	1.064		mg/L		106	57 - 130
Trichloroethene	0.0316	U	1.00	0.9895		mg/L		99	70 - 130
Vinyl chloride	0.0170	U	1.00	0.8622		mg/L		86	55 - 150
1,4-Dichlorobenzene	0.0182	U	1.00	0.8894		mg/L		89	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*67 - 139*
Dibromofluoromethane	*115*		*62 - 130*
Toluene-d8 (Surr)	*116*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*104*		*50 - 134*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-188525/1-A
Matrix: Water
Analysis Batch: 188677

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188525

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00178	U	0.0100	0.00178	mg/L		05/14/16 09:18	05/17/16 14:08	1
2,4-Dinitrotoluene	0.00263	U	0.0100	0.00263	mg/L		05/14/16 09:18	05/17/16 14:08	1
2,4,5-Trichlorophenol	0.00271	U	0.0100	0.00271	mg/L		05/14/16 09:18	05/17/16 14:08	1
2,4,6-Trichlorophenol	0.00259	U	0.0100	0.00259	mg/L		05/14/16 09:18	05/17/16 14:08	1
2-Methylphenol	0.00181	U	0.0100	0.00181	mg/L		05/14/16 09:18	05/17/16 14:08	1
3 & 4 Methylphenol	0.00188	U	0.0200	0.00188	mg/L		05/14/16 09:18	05/17/16 14:08	1
Hexachlorobenzene	0.00259	U	0.0100	0.00259	mg/L		05/14/16 09:18	05/17/16 14:08	1
Hexachlorobutadiene	0.00212	U	0.0100	0.00212	mg/L		05/14/16 09:18	05/17/16 14:08	1
Hexachloroethane	0.00220	U	0.0100	0.00220	mg/L		05/14/16 09:18	05/17/16 14:08	1
Nitrobenzene	0.00248	U	0.0100	0.00248	mg/L		05/14/16 09:18	05/17/16 14:08	1
Pentachlorophenol	0.00462	U	0.0500	0.00462	mg/L		05/14/16 09:18	05/17/16 14:08	1
Pyridine	0.00216	U	0.0100	0.00216	mg/L		05/14/16 09:18	05/17/16 14:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*86*		*35 - 130*	*05/14/16 09:18*	*05/17/16 14:08*	*1*
2-Fluorophenol	*89*		*10 - 130*	*05/14/16 09:18*	*05/17/16 14:08*	*1*
2-Fluorobiphenyl	*83*		*41 - 130*	*05/14/16 09:18*	*05/17/16 14:08*	*1*
2,4,6-Tribromophenol	*89*		*12 - 138*	*05/14/16 09:18*	*05/17/16 14:08*	*1*
Phenol-d5	*72*		*10 - 130*	*05/14/16 09:18*	*05/17/16 14:08*	*1*
Terphenyl-d14	*96*		*43 - 130*	*05/14/16 09:18*	*05/17/16 14:08*	*1*

Lab Sample ID: LCS 600-188525/2-A
Matrix: Water
Analysis Batch: 188677

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188525

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0500	0.04158		mg/L		83	57 - 130
2,4-Dinitrotoluene	0.0500	0.04436		mg/L		89	60 - 130
2,4,5-Trichlorophenol	0.0500	0.04459		mg/L		89	51 - 130
2,4,6-Trichlorophenol	0.0500	0.04557		mg/L		91	49 - 130
2-Methylphenol	0.0500	0.04315		mg/L		86	39 - 130
3 & 4 Methylphenol	0.0500	0.04303		mg/L		86	29 - 130
Hexachlorobenzene	0.0500	0.04468		mg/L		89	61 - 130
Hexachlorobutadiene	0.0500	0.04219		mg/L		84	52 - 130
Hexachloroethane	0.0500	0.04119		mg/L		82	52 - 130
Nitrobenzene	0.0500	0.04363		mg/L		87	55 - 130
Pentachlorophenol	0.100	0.07223		mg/L		72	46 - 130
Pyridine	0.0500	0.04044		mg/L		81	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*85*		*35 - 130*
2-Fluorophenol	*86*		*10 - 130*
2-Fluorobiphenyl	*82*		*41 - 130*
2,4,6-Tribromophenol	*86*		*12 - 138*
Phenol-d5	*83*		*10 - 130*
Terphenyl-d14	*83*		*43 - 130*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 600-188519/1-B
Matrix: Water
Analysis Batch: 188677

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 188525

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00890	U	0.0500	0.00890	mg/L		05/14/16 09:21	05/17/16 15:19	1
2,4-Dinitrotoluene	0.0132	U	0.0500	0.0132	mg/L		05/14/16 09:21	05/17/16 15:19	1
2,4,5-Trichlorophenol	0.0136	U	0.0500	0.0136	mg/L		05/14/16 09:21	05/17/16 15:19	1
2,4,6-Trichlorophenol	0.0129	U	0.0500	0.0129	mg/L		05/14/16 09:21	05/17/16 15:19	1
2-Methylphenol	0.00905	U	0.0500	0.00905	mg/L		05/14/16 09:21	05/17/16 15:19	1
3 & 4 Methylphenol	0.00940	U	0.100	0.00940	mg/L		05/14/16 09:21	05/17/16 15:19	1
Hexachlorobenzene	0.0130	U	0.0500	0.0130	mg/L		05/14/16 09:21	05/17/16 15:19	1
Hexachlorobutadiene	0.0106	U	0.0500	0.0106	mg/L		05/14/16 09:21	05/17/16 15:19	1
Hexachloroethane	0.0110	U	0.0500	0.0110	mg/L		05/14/16 09:21	05/17/16 15:19	1
Nitrobenzene	0.0124	U	0.0500	0.0124	mg/L		05/14/16 09:21	05/17/16 15:19	1
Pentachlorophenol	0.0231	U	0.250	0.0231	mg/L		05/14/16 09:21	05/17/16 15:19	1
Pyridine	0.0108	U	0.0500	0.0108	mg/L		05/14/16 09:21	05/17/16 15:19	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*83*		*35 - 130*	*05/14/16 09:21*	*05/17/16 15:19*	*1*
2-Fluorophenol	*83*		*10 - 130*	*05/14/16 09:21*	*05/17/16 15:19*	*1*
2-Fluorobiphenyl	*81*		*41 - 130*	*05/14/16 09:21*	*05/17/16 15:19*	*1*
2,4,6-Tribromophenol	*88*		*12 - 138*	*05/14/16 09:21*	*05/17/16 15:19*	*1*
Phenol-d5	*73*		*10 - 130*	*05/14/16 09:21*	*05/17/16 15:19*	*1*
Terphenyl-d14	*92*		*43 - 130*	*05/14/16 09:21*	*05/17/16 15:19*	*1*

Lab Sample ID: 600-130758-2 MS
Matrix: Water
Analysis Batch: 188677

Client Sample ID: PC-IDW Water
Prep Type: TCLP
Prep Batch: 188525

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.00890	U	0.250	0.1986		mg/L		79	57 - 130
2,4-Dinitrotoluene	0.0132	U	0.250	0.2157		mg/L		86	60 - 130
2,4,5-Trichlorophenol	0.0136	U	0.250	0.2235		mg/L		89	51 - 130
2,4,6-Trichlorophenol	0.0129	U	0.250	0.2133		mg/L		85	49 - 130
2-Methylphenol	0.00905	U	0.250	0.2084		mg/L		83	39 - 130
3 & 4 Methylphenol	0.00940	U	0.250	0.2094		mg/L		84	29 - 130
Hexachlorobenzene	0.0130	U	0.250	0.2255		mg/L		90	61 - 130
Hexachlorobutadiene	0.0106	U	0.250	0.2112		mg/L		84	52 - 130
Hexachloroethane	0.0110	U	0.250	0.1970		mg/L		79	52 - 130
Nitrobenzene	0.0124	U	0.250	0.2178		mg/L		87	55 - 130
Pentachlorophenol	0.0231	U	0.500	0.4140		mg/L		83	46 - 130
Pyridine	0.0108	U	0.250	0.1973		mg/L		79	10 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5	*84*		*35 - 130*
2-Fluorophenol	*84*		*10 - 130*
2-Fluorobiphenyl	*83*		*41 - 130*
2,4,6-Tribromophenol	*88*		*12 - 138*
Phenol-d5	*85*		*10 - 130*
Terphenyl-d14	*82*		*43 - 130*

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Lab Sample ID: MB 600-188545/1-A
Matrix: Solid
Analysis Batch: 188802

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188545

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00243	U	0.0125	0.00243	mg/L		05/16/16 06:26	05/19/16 11:42	1
2,4-Dinitrotoluene	0.00264	U	0.0125	0.00264	mg/L		05/16/16 06:26	05/19/16 11:42	1
2,4,5-Trichlorophenol	0.00525	U	0.0125	0.00525	mg/L		05/16/16 06:26	05/19/16 11:42	1
2,4,6-Trichlorophenol	0.00415	U	0.0125	0.00415	mg/L		05/16/16 06:26	05/19/16 11:42	1
2-Methylphenol	0.00178	U	0.0125	0.00178	mg/L		05/16/16 06:26	05/19/16 11:42	1
3 & 4 Methylphenol	0.00169	U	0.0125	0.00169	mg/L		05/16/16 06:26	05/19/16 11:42	1
Hexachlorobenzene	0.00410	U	0.0125	0.00410	mg/L		05/16/16 06:26	05/19/16 11:42	1
Hexachlorobutadiene	0.00321	U	0.0125	0.00321	mg/L		05/16/16 06:26	05/19/16 11:42	1
Hexachloroethane	0.00411	U	0.0125	0.00411	mg/L		05/16/16 06:26	05/19/16 11:42	1
Nitrobenzene	0.00324	U	0.0125	0.00324	mg/L		05/16/16 06:26	05/19/16 11:42	1
Pentachlorophenol	0.00394	U	0.0125	0.00394	mg/L		05/16/16 06:26	05/19/16 11:42	1
Pyridine	0.00270	U	0.0125	0.00270	mg/L		05/16/16 06:26	05/19/16 11:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*61*		*24 - 150*	*05/16/16 06:26*	*05/19/16 11:42*	*1*
2-Fluorophenol	*60*		*10 - 130*	*05/16/16 06:26*	*05/19/16 11:42*	*1*
2-Fluorobiphenyl	*62*		*38 - 133*	*05/16/16 06:26*	*05/19/16 11:42*	*1*
2,4,6-Tribromophenol	*65*		*19 - 150*	*05/16/16 06:26*	*05/19/16 11:42*	*1*
Phenol-d5 (Surr)	*57*		*10 - 130*	*05/16/16 06:26*	*05/19/16 11:42*	*1*
Terphenyl-d14	*73*		*35 - 150*	*05/16/16 06:26*	*05/19/16 11:42*	*1*

Lab Sample ID: LCS 600-188545/2-A
Matrix: Solid
Analysis Batch: 188802

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188545

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0500	0.03369		mg/L		67	28 - 136
2,4-Dinitrotoluene	0.0500	0.03395		mg/L		68	59 - 133
2,4,5-Trichlorophenol	0.0500	0.03343		mg/L		67	49 - 130
2,4,6-Trichlorophenol	0.0500	0.03137		mg/L		63	53 - 130
2-Methylphenol	0.0500	0.03383		mg/L		68	38 - 136
3 & 4 Methylphenol	0.0500	0.03420		mg/L		68	42 - 123
Hexachlorobenzene	0.0500	0.03272		mg/L		65	49 - 142
Hexachlorobutadiene	0.0500	0.03193		mg/L		64	29 - 144
Hexachloroethane	0.0500	0.03324		mg/L		66	26 - 141
Nitrobenzene	0.0500	0.03276		mg/L		66	58 - 130
Pentachlorophenol	0.100	0.06181		mg/L		62	29 - 130
Pyridine	0.0500	0.03112		mg/L		62	10 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*71*		*24 - 150*
2-Fluorophenol	*72*		*10 - 130*
2-Fluorobiphenyl	*70*		*38 - 133*
2,4,6-Tribromophenol	*68*		*19 - 150*
Phenol-d5 (Surr)	*72*		*10 - 130*
Terphenyl-d14	*82*		*35 - 150*

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (Continued)

Lab Sample ID: LB 600-188518/1-C
Matrix: Solid
Analysis Batch: 188802

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 188545

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00243	U	0.0125	0.00243	mg/L		05/16/16 06:26	05/19/16 12:29	1
2,4-Dinitrotoluene	0.00264	U	0.0125	0.00264	mg/L		05/16/16 06:26	05/19/16 12:29	1
2,4,5-Trichlorophenol	0.00525	U	0.0125	0.00525	mg/L		05/16/16 06:26	05/19/16 12:29	1
2,4,6-Trichlorophenol	0.00415	U	0.0125	0.00415	mg/L		05/16/16 06:26	05/19/16 12:29	1
2-Methylphenol	0.00178	U	0.0125	0.00178	mg/L		05/16/16 06:26	05/19/16 12:29	1
3 & 4 Methylphenol	0.00169	U	0.0125	0.00169	mg/L		05/16/16 06:26	05/19/16 12:29	1
Hexachlorobenzene	0.00410	U	0.0125	0.00410	mg/L		05/16/16 06:26	05/19/16 12:29	1
Hexachlorobutadiene	0.00321	U	0.0125	0.00321	mg/L		05/16/16 06:26	05/19/16 12:29	1
Hexachloroethane	0.00411	U	0.0125	0.00411	mg/L		05/16/16 06:26	05/19/16 12:29	1
Nitrobenzene	0.00324	U	0.0125	0.00324	mg/L		05/16/16 06:26	05/19/16 12:29	1
Pentachlorophenol	0.00394	U	0.0125	0.00394	mg/L		05/16/16 06:26	05/19/16 12:29	1
Pyridine	0.00270	U	0.0125	0.00270	mg/L		05/16/16 06:26	05/19/16 12:29	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*57*		*24 - 150*	*05/16/16 06:26*	*05/19/16 12:29*	*1*
2-Fluorophenol	*59*		*10 - 130*	*05/16/16 06:26*	*05/19/16 12:29*	*1*
2-Fluorobiphenyl	*55*		*38 - 133*	*05/16/16 06:26*	*05/19/16 12:29*	*1*
2,4,6-Tribromophenol	*63*		*19 - 150*	*05/16/16 06:26*	*05/19/16 12:29*	*1*
Phenol-d5 (Surr)	*44*		*10 - 130*	*05/16/16 06:26*	*05/19/16 12:29*	*1*
Terphenyl-d14	*63*		*35 - 150*	*05/16/16 06:26*	*05/19/16 12:29*	*1*

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-188433/1-B
Matrix: Solid
Analysis Batch: 188457

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188433

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	10.0	3.80	mg/Kg		05/12/16 15:02	05/13/16 09:07	1
>C12-C28	4.06	U	10.0	4.06	mg/Kg		05/12/16 15:02	05/13/16 09:07	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		05/12/16 15:02	05/13/16 09:07	1
Total Petroleum Hydrocarbons (C6-C35)	3.80	U	10.0	3.80	mg/Kg		05/12/16 15:02	05/13/16 09:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*142*	*X*	*70 - 130*	*05/12/16 15:02*	*05/13/16 09:07*	*1*

Lab Sample ID: LCS 600-188433/2-B
Matrix: Solid
Analysis Batch: 188457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188433

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	250	272.6		mg/Kg		109	75 - 125
>C12-C28	250	267.3		mg/Kg		107	75 - 125
Total Petroleum Hydrocarbons (C6-C35)	500	539.9		mg/Kg		108	75 - 125

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: LCS 600-188433/2-B
Matrix: Solid
Analysis Batch: 188457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188433

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*135*	*X*	*70 - 130*

Lab Sample ID: LCSD 600-188433/3-B
Matrix: Solid
Analysis Batch: 188457

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 188433

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12			250	280.0		mg/Kg		112	75 - 125	3	20
>C12-C28			250	280.3		mg/Kg		112	75 - 125	5	20
Total Petroleum Hydrocarbons (C6-C35)			500	560.3		mg/Kg		112	75 - 125	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*132*	*X*	*70 - 130*

Lab Sample ID: 600-130758-1 MS
Matrix: Solid
Analysis Batch: 188457

Client Sample ID: PC-IDW Soil
Prep Type: Total/NA
Prep Batch: 188433

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	3.66	U	229	230.7		mg/Kg	☼	101	75 - 125
>C12-C28	3.91	U	229	214.4		mg/Kg	☼	94	75 - 125
Total Petroleum Hydrocarbons (C6-C35)	3.66	U	458	445.1		mg/Kg	☼	97	75 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*126*		*70 - 130*

Lab Sample ID: 600-130758-1 MSD
Matrix: Solid
Analysis Batch: 188457

Client Sample ID: PC-IDW Soil
Prep Type: Total/NA
Prep Batch: 188433

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	3.66	U	228	227.4		mg/Kg	☼	100	75 - 125	1	20
>C12-C28	3.91	U	228	222.3		mg/Kg	☼	98	75 - 125	4	20
Total Petroleum Hydrocarbons (C6-C35)	3.66	U	456	449.7		mg/Kg	☼	99	75 - 125	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*122*		*70 - 130*

Lab Sample ID: MB 600-188603/1-A
Matrix: Water
Analysis Batch: 188552

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188603

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.830	U	2.00	0.830	mg/L		05/16/16 14:59	05/16/16 15:54	1
>C12-C28	0.960	U	2.00	0.960	mg/L		05/16/16 14:59	05/16/16 15:54	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: MB 600-188603/1-A
Matrix: Water
Analysis Batch: 188552

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188603

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C28-C35	0.960	U	2.00	0.960	mg/L		05/16/16 14:59	05/16/16 15:54	1
Total Petroleum Hydrocarbons (C6-C35)	0.830	U	2.00	0.830	mg/L		05/16/16 14:59	05/16/16 15:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*114*		*70 - 130*	*05/16/16 14:59*	*05/16/16 15:54*	*1*

Lab Sample ID: LCS 600-188603/2-A
Matrix: Water
Analysis Batch: 188552

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188603

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	33.3	33.49		mg/L		100	75 - 125
>C12-C28	33.3	33.15		mg/L		99	75 - 125
Total Petroleum Hydrocarbons (C6-C35)	66.7	66.64		mg/L		100	75 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*123*		*70 - 130*

Lab Sample ID: LCSD 600-188603/3-A
Matrix: Water
Analysis Batch: 188552

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 188603

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	33.3	32.62		mg/L		98	75 - 125	3	20
>C12-C28	33.3	30.99		mg/L		93	75 - 125	7	20
Total Petroleum Hydrocarbons (C6-C35)	66.7	63.61		mg/L		95	75 - 125	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: 600-130738-I-1-A MS
Matrix: Water
Analysis Batch: 188552

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 188603

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	0.685	U	27.6	28.12		mg/L		102	75 - 125
>C12-C28	0.792	U	27.6	27.67		mg/L		100	75 - 125
Total Petroleum Hydrocarbons (C6-C35)	0.685	U	55.2	55.79		mg/L		101	75 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*121*		*70 - 130*

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: 600-130738-J-1-A MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 188552 — **Prep Batch: 188603**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	0.685	U	27.3	27.35		mg/L		100	75 - 125	3	20
>C12-C28	0.792	U	27.3	26.25		mg/L		96	75 - 125	5	20
Total Petroleum Hydrocarbons (C6-C35)	0.685	U	54.7	53.60		mg/L		98	75 - 125	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*114*		*70 - 130*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-188544/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 188611 — **Prep Batch: 188544**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.00129	U	0.0100	0.00129	mg/L		05/16/16 06:12	05/16/16 17:38	1
Arsenic	0.00285	U	0.0100	0.00285	mg/L		05/16/16 06:12	05/16/16 17:38	1
Barium	0.001646	J	0.0200	0.000530	mg/L		05/16/16 06:12	05/16/16 17:38	1
Cadmium	0.000280	U	0.00500	0.000280	mg/L		05/16/16 06:12	05/16/16 17:38	1
Chromium	0.00159	U	0.0100	0.00159	mg/L		05/16/16 06:12	05/16/16 17:38	1
Lead	0.00219	U	0.0100	0.00219	mg/L		05/16/16 06:12	05/16/16 17:38	1
Selenium	0.00287	U	0.0400	0.00287	mg/L		05/16/16 06:12	05/16/16 17:38	1

Lab Sample ID: LCS 600-188544/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 188611 — **Prep Batch: 188544**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.500	0.5235		mg/L		105	80 - 120
Arsenic	1.00	1.042		mg/L		104	80 - 120
Barium	1.00	1.037		mg/L		104	80 - 120
Cadmium	0.500	0.5161		mg/L		103	80 - 120
Chromium	1.00	1.033		mg/L		103	80 - 120
Lead	1.00	1.049		mg/L		105	80 - 120
Selenium	1.00	1.033		mg/L		103	80 - 120

Lab Sample ID: LB 600-188518/1-D — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 188611 — **Prep Batch: 188544**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.0129	U	0.100	0.0129	mg/L		05/16/16 06:12	05/16/16 17:50	1
Arsenic	0.0285	U	0.100	0.0285	mg/L		05/16/16 06:12	05/16/16 17:50	1
Barium	0.01269	J	0.200	0.00530	mg/L		05/16/16 06:12	05/16/16 17:50	1
Cadmium	0.00280	U	0.0500	0.00280	mg/L		05/16/16 06:12	05/16/16 17:50	1
Chromium	0.0159	U	0.100	0.0159	mg/L		05/16/16 06:12	05/16/16 17:50	1
Lead	0.0219	U	0.100	0.0219	mg/L		05/16/16 06:12	05/16/16 17:50	1
Selenium	0.0287	U	0.400	0.0287	mg/L		05/16/16 06:12	05/16/16 17:50	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LB 600-188519/1-C
Matrix: Water
Analysis Batch: 188611

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 188544

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.0129	U	0.100	0.0129	mg/L		05/16/16 06:12	05/16/16 17:42	1
Arsenic	0.0285	U	0.100	0.0285	mg/L		05/16/16 06:12	05/16/16 17:42	1
Barium	0.00530	U	0.200	0.00530	mg/L		05/16/16 06:12	05/16/16 17:42	1
Cadmium	0.00280	U	0.0500	0.00280	mg/L		05/16/16 06:12	05/16/16 17:42	1
Chromium	0.0159	U	0.100	0.0159	mg/L		05/16/16 06:12	05/16/16 17:42	1
Lead	0.0219	U	0.100	0.0219	mg/L		05/16/16 06:12	05/16/16 17:42	1
Selenium	0.0287	U	0.400	0.0287	mg/L		05/16/16 06:12	05/16/16 17:42	1

Lab Sample ID: 600-130758-2 MS
Matrix: Water
Analysis Batch: 188611

Client Sample ID: PC-IDW Water
Prep Type: TCLP
Prep Batch: 188544

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0129	U	5.00	5.355		mg/L		107	75 - 125
Arsenic	0.0285	U	10.0	10.79		mg/L		108	75 - 125
Barium	0.236	B	10.0	10.85		mg/L		106	75 - 125
Cadmium	0.00280	U	5.00	5.284		mg/L		106	75 - 125
Chromium	0.0159	U	10.0	10.54		mg/L		105	75 - 125
Lead	0.0219	U	10.0	10.67		mg/L		107	75 - 125
Selenium	0.0287	U	10.0	10.68		mg/L		107	75 - 125

Lab Sample ID: 600-130758-2 DU
Matrix: Water
Analysis Batch: 188611

Client Sample ID: PC-IDW Water
Prep Type: TCLP
Prep Batch: 188544

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	0.0129	U	0.0129	U	mg/L		NC	20
Arsenic	0.0285	U	0.0285	U	mg/L		NC	20
Barium	0.236	B	0.2285		mg/L		3	20
Cadmium	0.00280	U	0.00280	U	mg/L		NC	20
Chromium	0.0159	U	0.0159	U	mg/L		NC	20
Lead	0.0219	U	0.0219	U	mg/L		NC	20
Selenium	0.0287	U	0.0287	U	mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 600-188546/7-A
Matrix: Solid
Analysis Batch: 188600

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188546

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000820	U	0.000200	0.0000820	mg/L		05/16/16 06:52	05/16/16 13:12	1

Lab Sample ID: LCS 600-188546/8-A
Matrix: Solid
Analysis Batch: 188600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188546

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00300	0.003185		mg/L		106	70 - 130

Lab Sample ID: LB 600-188518/1-E
Matrix: Solid
Analysis Batch: 188600

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 188546

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000820	U	0.000200	0.0000820	mg/L		05/16/16 06:52	05/16/16 13:21	1

Lab Sample ID: LB 600-188519/1-D
Matrix: Water
Analysis Batch: 188600

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 188546

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0000820	U	0.000200	0.0000820	mg/L		05/16/16 06:52	05/16/16 13:16	1

Lab Sample ID: 600-130758-2 MS
Matrix: Water
Analysis Batch: 188600

Client Sample ID: PC-IDW Water
Prep Type: TCLP
Prep Batch: 188546

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0000820	U F1	0.00300	0.001212	F1	mg/L		40	75 - 125

Lab Sample ID: 600-130753-A-1-I DU
Matrix: Solid
Analysis Batch: 188600

Client Sample ID: Duplicate
Prep Type: TCLP
Prep Batch: 188546

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.0000820	U	0.0000820	U	mg/L		NC	20

Method: 7.4.4 - Reactive Sulfide

Lab Sample ID: MB 600-188911/1-A
Matrix: Solid
Analysis Batch: 188971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188911

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	1.40	U	50.0	1.40	mg/L		05/19/16 15:00	05/20/16 11:30	1

Lab Sample ID: LCS 600-188911/3-A
Matrix: Solid
Analysis Batch: 188971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Reactive	992	1750		mg/L		176	0 - 200

Lab Sample ID: 600-130758-1 MS
Matrix: Solid
Analysis Batch: 188971

Client Sample ID: PC-IDW Soil
Prep Type: Total/NA
Prep Batch: 188911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Reactive	13.7	U	963	116.5		mg/Kg		12	0 - 200

Lab Sample ID: 600-130758-2 MS
Matrix: Water
Analysis Batch: 188971

Client Sample ID: PC-IDW Water
Prep Type: Total/NA
Prep Batch: 188911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Reactive	1.40	U	992	1670		mg/L		168	0 - 200

Lab Sample ID: 600-130758-1 DU
Matrix: Solid
Analysis Batch: 188971

Client Sample ID: PC-IDW Soil
Prep Type: Total/NA
Prep Batch: 188911

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide, Reactive	13.7	U		13.4	U	mg/Kg				NC	20

Lab Sample ID: 600-130758-2 DU
Matrix: Water
Analysis Batch: 188971

Client Sample ID: PC-IDW Water
Prep Type: Total/NA
Prep Batch: 188911

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide, Reactive	1.40	U		1.40	U	mg/L				NC	20

Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 600-188911/1-A
Matrix: Solid
Analysis Batch: 189004

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188911

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	0.0397	U	0.250	0.0397	mg/L		05/19/16 15:00	05/20/16 20:40	1

Lab Sample ID: LCS 600-188911/22-A ^40
Matrix: Solid
Analysis Batch: 189004

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188911

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Reactive			1000	257.0		mg/L		26	0 - 200		

Lab Sample ID: LCS 600-188911/2-A ^80
Matrix: Solid
Analysis Batch: 189004

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188911

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Reactive			1000	412.0		mg/L		41	0 - 200		

Lab Sample ID: 600-130758-1 MS
Matrix: Solid
Analysis Batch: 189004

Client Sample ID: PC-IDW Soil
Prep Type: Total/NA
Prep Batch: 188911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Reactive	0.0840	U	968	65.83		mg/Kg		7	0 - 200		

Lab Sample ID: 600-130758-2 MS
Matrix: Water
Analysis Batch: 189004

Client Sample ID: PC-IDW Water
Prep Type: Total/NA
Prep Batch: 188911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Reactive	0.0397	U	1000	56.00		mg/L		6	0 - 200		

Method: 9012 - Cyanide, Reactive (Continued)

Lab Sample ID: 600-130758-1 DU
Matrix: Solid
Analysis Batch: 189004

Client Sample ID: PC-IDW Soil
Prep Type: Total/NA
Prep Batch: 188911

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cyanide, Reactive	0.0840	U		0.0818	U	mg/Kg				NC	20

Lab Sample ID: 600-130758-2 DU
Matrix: Water
Analysis Batch: 189004

Client Sample ID: PC-IDW Water
Prep Type: Total/NA
Prep Batch: 188911

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cyanide, Reactive	0.0397	U		0.0397	U	mg/L				NC	20

Method: 9040B - Corrosivity as pH

Lab Sample ID: LCS 600-188500/26
Matrix: Water
Analysis Batch: 188500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.020		SU		100	99 - 101		

Method: 9045C - Corrosivity

Lab Sample ID: LCS 600-188500/51
Matrix: Solid
Analysis Batch: 188500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.010		SU		100	99 - 101		

Lab Sample ID: 600-130758-1 DU
Matrix: Solid
Analysis Batch: 188500

Client Sample ID: PC-IDW Soil
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	10.9			11.00		SU				0.5	1

Method: D92 - Flashpoint

Lab Sample ID: LCS 600-188809/1
Matrix: Solid
Analysis Batch: 188809

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Flashpoint			81.0	81.00		Degrees F		100	96.9 - 103.1 09		

Method: D92 - Flashpoint (Continued)

Lab Sample ID: 600-130758-1 DU
Matrix: Solid
Analysis Batch: 188809

Client Sample ID: PC-IDW Soil
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Flashpoint	>212			>212		Degrees F				NC	20

Method: SW846 Ch. 7 - Ignitability

Lab Sample ID: MB 600-188805/1
Matrix: Water
Analysis Batch: 188805

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>186		1.00	1.00	Degrees F			05/18/16 10:15	1

Lab Sample ID: LCS 600-188805/2
Matrix: Water
Analysis Batch: 188805

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Flashpoint			81.0	81.60		Degrees F		101	96.9 - 103.1 09		

Lab Sample ID: 600-130750-A-2 DU
Matrix: Water
Analysis Batch: 188805

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Flashpoint	>186			>186		Degrees F				NC	20

GC/MS VOA

Analysis Batch: 188369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	Total/NA	Solid	8260B	188431
LCS 600-188369/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-188369/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 600-188369/6	Method Blank	Total/NA	Solid	8260B	

Prep Batch: 188431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	Total/NA	Solid	5035	

Analysis Batch: 188556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-2	PC-IDW Water	Total/NA	Water	8260B	
600-130758-2 - DL	PC-IDW Water	Total/NA	Water	8260B	
LCS 600-188556/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-188556/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 600-188556/6	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 188838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130604-A-2-A MSD	Matrix Spike Duplicate	TCLP	Solid	8260B	188875
600-130604-A-2-B MS	Matrix Spike	TCLP	Solid	8260B	188875
600-130758-1	PC-IDW Soil	TCLP	Solid	8260B	188875
600-130758-2	PC-IDW Water	TCLP	Water	8260B	188875
LB 600-188875/1-A	Method Blank	TCLP	Solid	8260B	188875
LCS 600-188838/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-188838/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 600-188838/7	Method Blank	Total/NA	Solid	8260B	

Leach Batch: 188875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130604-A-2-A MSD	Matrix Spike Duplicate	TCLP	Solid	1311	
600-130604-A-2-B MS	Matrix Spike	TCLP	Solid	1311	
600-130758-1	PC-IDW Soil	TCLP	Solid	1311	
600-130758-2	PC-IDW Water	TCLP	Water	1311	
LB 600-188875/1-A	Method Blank	TCLP	Solid	1311	

GC/MS Semi VOA

Leach Batch: 188518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	TCLP	Solid	1311	
LB 600-188518/1-C	Method Blank	TCLP	Solid	1311	

Leach Batch: 188519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-2	PC-IDW Water	TCLP	Water	1311	
600-130758-2 MS	PC-IDW Water	TCLP	Water	1311	
LB 600-188519/1-B	Method Blank	TCLP	Water	1311	

GC/MS Semi VOA (Continued)

Prep Batch: 188525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-2	PC-IDW Water	TCLP	Water	3510C	188519
600-130758-2 MS	PC-IDW Water	TCLP	Water	3510C	188519
LB 600-188519/1-B	Method Blank	TCLP	Water	3510C	188519
LCS 600-188525/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-188525/1-A	Method Blank	Total/NA	Water	3510C	

Prep Batch: 188545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	TCLP	Solid	3510C LVI	188518
LB 600-188518/1-C	Method Blank	TCLP	Solid	3510C LVI	188518
LCS 600-188545/2-A	Lab Control Sample	Total/NA	Solid	3510C LVI	
MB 600-188545/1-A	Method Blank	Total/NA	Solid	3510C LVI	

Analysis Batch: 188677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-2	PC-IDW Water	TCLP	Water	8270C	188525
600-130758-2 MS	PC-IDW Water	TCLP	Water	8270C	188525
LB 600-188519/1-B	Method Blank	TCLP	Water	8270C	188525
LCS 600-188525/2-A	Lab Control Sample	Total/NA	Water	8270C	188525
MB 600-188525/1-A	Method Blank	Total/NA	Water	8270C	188525

Analysis Batch: 188802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	TCLP	Solid	8270C	188545
LB 600-188518/1-C	Method Blank	TCLP	Solid	8270C	188545
LCS 600-188545/2-A	Lab Control Sample	Total/NA	Solid	8270C	188545
MB 600-188545/1-A	Method Blank	Total/NA	Solid	8270C	188545

GC Semi VOA

Prep Batch: 188433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	Total/NA	Solid	5035	
600-130758-1 MS	PC-IDW Soil	Total/NA	Solid	5035	
600-130758-1 MSD	PC-IDW Soil	Total/NA	Solid	5035	
LCS 600-188433/2-B	Lab Control Sample	Total/NA	Solid	5035	
LCSD 600-188433/3-B	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 600-188433/1-B	Method Blank	Total/NA	Solid	5035	

Prep Batch: 188434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	Total/NA	Solid	TX_1005_S_Prep	188433
600-130758-1 MS	PC-IDW Soil	Total/NA	Solid	TX_1005_S_Prep	188433
600-130758-1 MSD	PC-IDW Soil	Total/NA	Solid	TX_1005_S_Prep	188433
LCS 600-188433/2-B	Lab Control Sample	Total/NA	Solid	TX_1005_S_Prep	188433
LCSD 600-188433/3-B	Lab Control Sample Dup	Total/NA	Solid	TX_1005_S_Prep	188433

GC Semi VOA (Continued)

Prep Batch: 188434 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-188433/1-B	Method Blank	Total/NA	Solid	TX_1005_S_Prep	188433

Analysis Batch: 188457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	Total/NA	Solid	TX 1005	188434
600-130758-1 MS	PC-IDW Soil	Total/NA	Solid	TX 1005	188434
600-130758-1 MSD	PC-IDW Soil	Total/NA	Solid	TX 1005	188434
LCS 600-188433/2-B	Lab Control Sample	Total/NA	Solid	TX 1005	188434
LCSD 600-188433/3-B	Lab Control Sample Dup	Total/NA	Solid	TX 1005	188434
MB 600-188433/1-B	Method Blank	Total/NA	Solid	TX 1005	188434
RTC 600-188457/1	RTC		Solid	TX 1005	

Analysis Batch: 188552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130738-I-1-A MS	Matrix Spike	Total/NA	Water	TX 1005	188603
600-130738-J-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	TX 1005	188603
600-130758-2	PC-IDW Water	Total/NA	Water	TX 1005	188603
LCS 600-188603/2-A	Lab Control Sample	Total/NA	Water	TX 1005	188603
LCSD 600-188603/3-A	Lab Control Sample Dup	Total/NA	Water	TX 1005	188603
MB 600-188603/1-A	Method Blank	Total/NA	Water	TX 1005	188603
RTC 600-188552/1	RTC		Water	TX 1005	
RTC 600-188552/2	RTC		Water	TX 1005	

Prep Batch: 188603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130738-I-1-A MS	Matrix Spike	Total/NA	Water	TX_1005_W_Prep	
600-130738-J-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	TX_1005_W_Prep	
600-130758-2	PC-IDW Water	Total/NA	Water	TX_1005_W_Prep	
LCS 600-188603/2-A	Lab Control Sample	Total/NA	Water	TX_1005_W_Prep	
LCSD 600-188603/3-A	Lab Control Sample Dup	Total/NA	Water	TX_1005_W_Prep	
MB 600-188603/1-A	Method Blank	Total/NA	Water	TX_1005_W_Prep	

Metals

Leach Batch: 188518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130753-A-1-H SD ^5	SD	TCLP	Solid	1311	
600-130753-A-1-I DU	Duplicate	TCLP	Solid	1311	
600-130758-1	PC-IDW Soil	TCLP	Solid	1311	
LB 600-188518/1-D	Method Blank	TCLP	Solid	1311	
LB 600-188518/1-E	Method Blank	TCLP	Solid	1311	

Leach Batch: 188519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-2	PC-IDW Water	TCLP	Water	1311	

Metals (Continued)

Leach Batch: 188519 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-2 DU	PC-IDW Water	TCLP	Water	1311	
600-130758-2 MS	PC-IDW Water	TCLP	Water	1311	
600-130758-2 PDS	PC-IDW Water	TCLP	Water	1311	
600-130758-2 SD	PC-IDW Water	TCLP	Water	1311	
LB 600-188519/1-C	Method Blank	TCLP	Water	1311	
LB 600-188519/1-D	Method Blank	TCLP	Water	1311	

Prep Batch: 188544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	TCLP	Solid	3010A	188518
600-130758-2	PC-IDW Water	TCLP	Water	3010A	188519
600-130758-2 DU	PC-IDW Water	TCLP	Water	3010A	188519
600-130758-2 MS	PC-IDW Water	TCLP	Water	3010A	188519
600-130758-2 PDS	PC-IDW Water	TCLP	Water	3010A	188519
600-130758-2 SD	PC-IDW Water	TCLP	Water	3010A	188519
LB 600-188518/1-D	Method Blank	TCLP	Solid	3010A	188518
LB 600-188519/1-C	Method Blank	TCLP	Water	3010A	188519
LCS 600-188544/2-A	Lab Control Sample	Total/NA	Solid	3010A	
MB 600-188544/1-A	Method Blank	Total/NA	Solid	3010A	

Prep Batch: 188546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130753-A-1-H SD ^5	SD	TCLP	Solid	7470A	188518
600-130753-A-1-I DU	Duplicate	TCLP	Solid	7470A	188518
600-130758-1	PC-IDW Soil	TCLP	Solid	7470A	188518
600-130758-2	PC-IDW Water	TCLP	Water	7470A	188519
600-130758-2 MS	PC-IDW Water	TCLP	Water	7470A	188519
LB 600-188518/1-E	Method Blank	TCLP	Solid	7470A	188518
LB 600-188519/1-D	Method Blank	TCLP	Water	7470A	188519
LCS 600-188546/8-A	Lab Control Sample	Total/NA	Solid	7470A	
MB 600-188546/7-A	Method Blank	Total/NA	Solid	7470A	

Analysis Batch: 188600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130753-A-1-H SD ^5	SD	TCLP	Solid	7470A	188546
600-130753-A-1-I DU	Duplicate	TCLP	Solid	7470A	188546
600-130758-1	PC-IDW Soil	TCLP	Solid	7470A	188546
600-130758-2	PC-IDW Water	TCLP	Water	7470A	188546
600-130758-2 MS	PC-IDW Water	TCLP	Water	7470A	188546
CRA 600-188600/10	DL		Solid	7470A	
LB 600-188518/1-E	Method Blank	TCLP	Solid	7470A	188546
LB 600-188519/1-D	Method Blank	TCLP	Water	7470A	188546
LCS 600-188546/8-A	Lab Control Sample	Total/NA	Solid	7470A	188546
MB 600-188546/7-A	Method Blank	Total/NA	Solid	7470A	188546

Analysis Batch: 188611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	TCLP	Solid	6010B	188544
600-130758-2	PC-IDW Water	TCLP	Water	6010B	188544
600-130758-2 DU	PC-IDW Water	TCLP	Water	6010B	188544
600-130758-2 MS	PC-IDW Water	TCLP	Water	6010B	188544

Metals (Continued)

Analysis Batch: 188611 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-2 PDS	PC-IDW Water	TCLP	Water	6010B	188544
600-130758-2 SD	PC-IDW Water	TCLP	Water	6010B	188544
ICSA 600-188611/12	ICS		Solid	6010B	
ICSAB 600-188611/13	ICS		Solid	6010B	
LB 600-188518/1-D	Method Blank	TCLP	Solid	6010B	188544
LB 600-188519/1-C	Method Blank	TCLP	Water	6010B	188544
LCS 600-188544/2-A	Lab Control Sample	Total/NA	Solid	6010B	188544
MB 600-188544/1-A	Method Blank	Total/NA	Solid	6010B	188544

General Chemistry

Analysis Batch: 188435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	Total/NA	Solid	2540B	
600-130758-1 DU	PC-IDW Soil	Total/NA	Solid	2540B	

Analysis Batch: 188500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	Total/NA	Solid	9045C	
600-130758-1 DU	PC-IDW Soil	Total/NA	Solid	9045C	
600-130758-2	PC-IDW Water	Total/NA	Water	9040B	
LCS 600-188500/26	Lab Control Sample	Total/NA	Water	9040B	
LCS 600-188500/51	Lab Control Sample	Total/NA	Solid	9045C	

Analysis Batch: 188805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130750-A-2 DU	Duplicate	Total/NA	Water	SW846 Ch. 7	
600-130758-2	PC-IDW Water	Total/NA	Water	SW846 Ch. 7	
LCS 600-188805/2	Lab Control Sample	Total/NA	Water	SW846 Ch. 7	
MB 600-188805/1	Method Blank	Total/NA	Water	SW846 Ch. 7	

Analysis Batch: 188809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	Total/NA	Solid	D92	
600-130758-1 DU	PC-IDW Soil	Total/NA	Solid	D92	
LCS 600-188809/1	Lab Control Sample	Total/NA	Solid	D92	

Prep Batch: 188911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	Total/NA	Solid	7.3.4	
600-130758-1 DU	PC-IDW Soil	Total/NA	Solid	7.3.4	
600-130758-1 MS	PC-IDW Soil	Total/NA	Solid	7.3.4	
600-130758-1 MS	PC-IDW Soil	Total/NA	Solid	7.3.4	
600-130758-2	PC-IDW Water	Total/NA	Water	7.3.4	
600-130758-2 DU	PC-IDW Water	Total/NA	Water	7.3.4	
600-130758-2 MS	PC-IDW Water	Total/NA	Water	7.3.4	
600-130758-2 MS	PC-IDW Water	Total/NA	Water	7.3.4	
LCS 600-188911/22-A ^40	Lab Control Sample	Total/NA	Solid	7.3.4	
LCS 600-188911/2-A ^80	Lab Control Sample	Total/NA	Solid	7.3.4	
LCS 600-188911/3-A	Lab Control Sample	Total/NA	Solid	7.3.4	

General Chemistry (Continued)

Prep Batch: 188911 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-188911/1-A	Method Blank	Total/NA	Solid	7.3.4	

Analysis Batch: 188971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	Total/NA	Solid	7.4.4	188911
600-130758-1 DU	PC-IDW Soil	Total/NA	Solid	7.4.4	188911
600-130758-1 MS	PC-IDW Soil	Total/NA	Solid	7.4.4	188911
600-130758-2	PC-IDW Water	Total/NA	Water	7.4.4	188911
600-130758-2 DU	PC-IDW Water	Total/NA	Water	7.4.4	188911
600-130758-2 MS	PC-IDW Water	Total/NA	Water	7.4.4	188911
LCS 600-188911/3-A	Lab Control Sample	Total/NA	Solid	7.4.4	188911
MB 600-188911/1-A	Method Blank	Total/NA	Solid	7.4.4	188911

Analysis Batch: 189004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-130758-1	PC-IDW Soil	Total/NA	Solid	9012	188911
600-130758-1 DU	PC-IDW Soil	Total/NA	Solid	9012	188911
600-130758-1 MS	PC-IDW Soil	Total/NA	Solid	9012	188911
600-130758-2	PC-IDW Water	Total/NA	Water	9012	188911
600-130758-2 DU	PC-IDW Water	Total/NA	Water	9012	188911
600-130758-2 MS	PC-IDW Water	Total/NA	Water	9012	188911
LCS 600-188911/22-A ^40	Lab Control Sample	Total/NA	Solid	9012	188911
LCS 600-188911/2-A ^80	Lab Control Sample	Total/NA	Solid	9012	188911
MB 600-188911/1-A	Method Blank	Total/NA	Solid	9012	188911

Client Sample ID: PC-IDW Soil

Lab Sample ID: 600-130758-1

Date Collected: 05/11/16 10:00

Matrix: Solid

Date Received: 05/12/16 11:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			188875	05/18/16 18:30	TWR	TAL HOU
TCLP	Analysis	8260B		20	188838	05/19/16 17:45	DT1	TAL HOU
Total/NA	Prep	5035			188431	05/12/16 11:16	WS1	TAL HOU
Total/NA	Analysis	8260B		1	188369	05/12/16 19:29	WS1	TAL HOU
TCLP	Leach	1311			188518	05/13/16 17:00	RT1	TAL HOU
TCLP	Prep	3510C LVI			188545	05/16/16 06:29	SMB	TAL HOU
TCLP	Analysis	8270C		1	188802	05/19/16 16:04	KP1	TAL HOU
Total/NA	Prep	5035			188433	05/12/16 14:06	NVP	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			188434	05/12/16 15:15	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	188457	05/13/16 16:01	PXS	TAL HOU
TCLP	Leach	1311			188518	05/13/16 17:00	RT1	TAL HOU
TCLP	Prep	3010A			188544	05/16/16 06:12	TAW	TAL HOU
TCLP	Analysis	6010B		1	188611	05/16/16 18:24	DCL	TAL HOU
TCLP	Leach	1311			188518	05/13/16 17:00	RT1	TAL HOU
TCLP	Prep	7470A			188546	05/16/16 06:52	SCG	TAL HOU
TCLP	Analysis	7470A		1	188600	05/16/16 13:51	SCG	TAL HOU
Total/NA	Analysis	2540B		1	188435	05/12/16 15:21	KRD	TAL HOU
Total/NA	Prep	7.3.4			188911	05/19/16 15:00	KRD	TAL HOU
Total/NA	Analysis	7.4.4		1	188971	05/20/16 11:30	KRD	TAL HOU
Total/NA	Prep	7.3.4			188911	05/19/16 15:00	KRD	TAL HOU
Total/NA	Analysis	9012		1	189004	05/20/16 20:40	EAS	TAL HOU
Total/NA	Analysis	9045C		1	188500	05/13/16 07:50	MJB	TAL HOU
Total/NA	Analysis	D92		1	188809	05/18/16 11:00	BDG	TAL HOU

Client Sample ID: PC-IDW Water

Lab Sample ID: 600-130758-2

Date Collected: 05/11/16 10:00

Matrix: Water

Date Received: 05/12/16 11:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			188875	05/18/16 18:30	TWR	TAL HOU
TCLP	Analysis	8260B		20	188838	05/19/16 18:10	DT1	TAL HOU
Total/NA	Analysis	8260B		1	188556	05/16/16 14:27	YX1	TAL HOU
Total/NA	Analysis	8260B	DL	5	188556	05/16/16 19:35	YX1	TAL HOU
TCLP	Leach	1311			188519	05/13/16 19:00	RT1	TAL HOU
TCLP	Prep	3510C			188525	05/14/16 09:21	LER	TAL HOU
TCLP	Analysis	8270C		1	188677	05/17/16 16:06	KP1	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			188603	05/16/16 14:59	NVP	TAL HOU
Total/NA	Analysis	TX 1005		1	188552	05/16/16 19:39	RJV	TAL HOU
TCLP	Leach	1311			188519	05/13/16 19:00	RT1	TAL HOU
TCLP	Prep	3010A			188544	05/16/16 06:12	TAW	TAL HOU
TCLP	Analysis	6010B		1	188611	05/16/16 17:44	DCL	TAL HOU
TCLP	Leach	1311			188519	05/13/16 19:00	RT1	TAL HOU
TCLP	Prep	7470A			188546	05/16/16 06:52	SCG	TAL HOU
TCLP	Analysis	7470A		1	188600	05/16/16 13:18	SCG	TAL HOU

Lab Chronicle

Client: EA Engineering, Science, and Technology
TestAmerica Job ID: 600-130758-1
Project/Site: Petro-Chemical Systems Turtle Bayou IDW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7.3.4			188911	05/19/16 15:00	KRD	TAL HOU
Total/NA	Analysis	7.4.4		1	188971	05/20/16 11:30	KRD	TAL HOU
Total/NA	Prep	7.3.4			188911	05/19/16 15:00	KRD	TAL HOU
Total/NA	Analysis	9012		1	189004	05/20/16 20:40	EAS	TAL HOU
Total/NA	Analysis	9040B		1	188500	05/13/16 07:50	MJB	TAL HOU
Total/NA	Analysis	SW846 Ch. 7		1	188805	05/18/16 10:15	DAW	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	RL	MDL	Units	Method
Benzene	0.00100	0.000176	mg/L	8260B
Ethylbenzene	0.00100	0.000212	mg/L	8260B
m-Xylene & p-Xylene	0.00100	0.000205	mg/L	8260B
o-Xylene	0.00100	0.000192	mg/L	8260B
Toluene	0.00100	0.000198	mg/L	8260B
Xylenes, Total	0.00200	0.000366	mg/L	8260B

Method: 8260B - Volatile Organic Compounds (GC/MS)
Prep: 5035

Analyte	RL	MDL	Units	Method
Benzene	5.00	0.630	ug/Kg	8260B
Ethylbenzene	5.00	1.02	ug/Kg	8260B
m-Xylene & p-Xylene	5.00	1.52	ug/Kg	8260B
o-Xylene	5.00	1.13	ug/Kg	8260B
Toluene	5.00	1.38	ug/Kg	8260B
Xylenes, Total	5.00	1.13	ug/Kg	8260B

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP
Leach: 1311

Analyte	RL	MDL	Units	Method
1,1-Dichloroethene	0.00500	0.000760	mg/L	8260B
1,1-Dichloroethene	0.00500	0.000760	mg/L	8260B
1,2-Dichloroethane	0.00500	0.00101	mg/L	8260B
1,2-Dichloroethane	0.00500	0.00101	mg/L	8260B
1,4-Dichlorobenzene	0.00500	0.000910	mg/L	8260B
1,4-Dichlorobenzene	0.00500	0.000910	mg/L	8260B
2-Butanone (MEK)	0.0100	0.00157	mg/L	8260B
2-Butanone (MEK)	0.0100	0.00157	mg/L	8260B
Benzene	0.00500	0.000560	mg/L	8260B
Benzene	0.00500	0.000560	mg/L	8260B
Carbon tetrachloride	0.00500	0.000920	mg/L	8260B
Carbon tetrachloride	0.00500	0.000920	mg/L	8260B
Chlorobenzene	0.00500	0.000820	mg/L	8260B
Chlorobenzene	0.00500	0.000820	mg/L	8260B
Chloroform	0.00500	0.000820	mg/L	8260B
Chloroform	0.00500	0.000820	mg/L	8260B
Tetrachloroethene	0.00500	0.00124	mg/L	8260B
Tetrachloroethene	0.00500	0.00124	mg/L	8260B
Trichloroethene	0.00500	0.00158	mg/L	8260B
Trichloroethene	0.00500	0.00158	mg/L	8260B
Vinyl chloride	0.00500	0.000850	mg/L	8260B
Vinyl chloride	0.00500	0.000850	mg/L	8260B

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) - T
Prep: 3510C LVI
Leach: 1311

Analyte	RL	MDL	Units	Method
1,4-Dichlorobenzene	0.0100	0.00194	mg/L	8270C
2,4,5-Trichlorophenol	0.0100	0.00420	mg/L	8270C
2,4,6-Trichlorophenol	0.0100	0.00332	mg/L	8270C

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) - T

Prep: 3510C LVI
Leach: 1311

Analyte	RL	MDL	Units	Method
2,4-Dinitrotoluene	0.0100	0.00211	mg/L	8270C
2-Methylphenol	0.0100	0.00142	mg/L	8270C
3 & 4 Methylphenol	0.0100	0.00135	mg/L	8270C
Hexachlorobenzene	0.0100	0.00328	mg/L	8270C
Hexachlorobutadiene	0.0100	0.00257	mg/L	8270C
Hexachloroethane	0.0100	0.00329	mg/L	8270C
Nitrobenzene	0.0100	0.00259	mg/L	8270C
Pentachlorophenol	0.0100	0.00315	mg/L	8270C
Pyridine	0.0100	0.00216	mg/L	8270C

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Prep: 3510C
Leach: 1311

Analyte	RL	MDL	Units	Method
1,4-Dichlorobenzene	0.0100	0.00178	mg/L	8270C
2,4,5-Trichlorophenol	0.0100	0.00271	mg/L	8270C
2,4,6-Trichlorophenol	0.0100	0.00259	mg/L	8270C
2,4-Dinitrotoluene	0.0100	0.00263	mg/L	8270C
2-Methylphenol	0.0100	0.00181	mg/L	8270C
3 & 4 Methylphenol	0.0200	0.00188	mg/L	8270C
Hexachlorobenzene	0.0100	0.00259	mg/L	8270C
Hexachlorobutadiene	0.0100	0.00212	mg/L	8270C
Hexachloroethane	0.0100	0.00220	mg/L	8270C
Nitrobenzene	0.0100	0.00248	mg/L	8270C
Pentachlorophenol	0.0500	0.00462	mg/L	8270C
Pyridine	0.0100	0.00216	mg/L	8270C

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Prep: 5035

Analyte	RL	MDL	Units	Method
>C12-C28	10.0	4.06	mg/Kg	TX 1005
>C28-C35	10.0	4.06	mg/Kg	TX 1005
C6-C12	10.0	3.80	mg/Kg	TX 1005
Total Petroleum Hydrocarbons (C6-C35)	10.0	3.80	mg/Kg	TX 1005

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Prep: TX_1005_W_Prep

Analyte	RL	MDL	Units	Method
>C12-C28	2.00	0.960	mg/L	TX 1005
>C28-C35	2.00	0.960	mg/L	TX 1005
C6-C12	2.00	0.830	mg/L	TX 1005
Total Petroleum Hydrocarbons (C6-C35)	2.00	0.830	mg/L	TX 1005

Method: 6010B - Metals (ICP) - TCLP

Prep: 3010A
Leach: 1311

Method: 6010B - Metals (ICP) - TCLP

Prep: 3010A

Leach: 1311

Analyte	RL	MDL	Units	Method
Arsenic	0.0100	0.00285	mg/L	6010B
Arsenic	0.0100	0.00285	mg/L	6010B
Barium	0.0200	0.000530	mg/L	6010B
Barium	0.0200	0.000530	mg/L	6010B
Cadmium	0.00500	0.000280	mg/L	6010B
Cadmium	0.00500	0.000280	mg/L	6010B
Chromium	0.0100	0.00159	mg/L	6010B
Chromium	0.0100	0.00159	mg/L	6010B
Lead	0.0100	0.00219	mg/L	6010B
Lead	0.0100	0.00219	mg/L	6010B
Selenium	0.0400	0.00287	mg/L	6010B
Selenium	0.0400	0.00287	mg/L	6010B
Silver	0.0100	0.00129	mg/L	6010B
Silver	0.0100	0.00129	mg/L	6010B

Method: 7470A - Mercury (CVAA) - TCLP

Prep: 7470A

Leach: 1311

Analyte	RL	MDL	Units	Method
Mercury	0.000200	0.0000820	mg/L	7470A
Mercury	0.000200	0.0000820	mg/L	7470A

General Chemistry

Analyte	RL	MDL	Units	Method
pH	0.0100	0.0100	SU	9040B
pH	0.0100	0.0100	SU	9045C
Flashpoint	1.00	1.00	Degrees F	D92
Flashpoint	1.00	1.00	Degrees F	SW846 Ch. 7

General Chemistry

Prep: 7.3.4

Analyte	RL	MDL	Units	Method
Sulfide, Reactive	50.0	14.0	mg/Kg	7.4.4
Sulfide, Reactive	50.0	1.40	mg/L	7.4.4
Cyanide, Reactive	0.250	0.0855	mg/Kg	9012
Cyanide, Reactive	0.250	0.0397	mg/L	9012

Certification Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Systems Turtle Bayou IDW

TestAmerica Job ID: 600-130758-1

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Texas	NELAP	6	T104704223-16-19	10-31-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
2540B		Solid	Percent Moisture
2540B		Solid	Percent Solids
7.4.4	7.3.4	Water	Sulfide, Reactive
7470A	7470A	Solid	Mercury
8270C	3510C	Water	3 & 4 Methylphenol
9012	7.3.4	Solid	Cyanide, Reactive
9012	7.3.4	Water	Cyanide, Reactive
D92		Solid	Flashpoint

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHVOAMS10 Analysis Batch Number: 187178

Lab Sample ID: IC 600-187178/4 Client Sample ID:

Date Analyzed: 04/26/16 14:29 Lab File ID: T11702.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	4.23	Incomplete Integration	tengd	04/26/16 16:36
Vinyl chloride	4.72	Incomplete Integration	tengd	04/26/16 16:36
Chloroethane	5.29	Incomplete Integration	tengd	04/26/16 16:36
Isopropyl alcohol	5.84	Incomplete Integration	tengd	04/26/16 16:36
Methyl acetate	6.42	Incomplete Integration	tengd	04/26/16 16:36
1,1,2-Trichloro-1,2,2-trifluoroethane	6.48	Incomplete Integration	tengd	04/26/16 16:36
2-Butanone (MEK)	7.43	Incomplete Integration	tengd	04/26/16 16:36
Bromochloromethane	7.71	Incomplete Integration	tengd	04/26/16 16:36
Isobutyl alcohol	7.74	Incomplete Integration	tengd	04/26/16 16:36
1,1,2-Trichloroethane	10.18	Incomplete Integration	tengd	04/26/16 16:36
N-Propylbenzene	13.39	Incomplete Integration	tengd	04/26/16 16:40
Hexachlorobutadiene	16.99	Incomplete Integration	tengd	04/26/16 16:40

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHVOAMS10 Analysis Batch Number: 187178

Lab Sample ID: IC 600-187178/5 Client Sample ID:

Date Analyzed: 04/26/16 14:54 Lab File ID: T11703.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	4.24	Incomplete Integration	tengd	04/26/16 16:55
Chloromethane	4.61	Incomplete Integration	tengd	04/26/16 16:55
Trichlorofluoromethane	5.84	Incomplete Integration	tengd	04/26/16 16:55
Isopropyl alcohol	5.85	Poor chromatography	tengd	04/26/16 17:04
Ethyl ether	6.03	Incomplete Integration	tengd	04/26/16 16:55
1,1-Dichloroethene	6.30	Incomplete Integration	tengd	04/26/16 16:55
Methyl acetate	6.42	Incomplete Integration	tengd	04/26/16 16:55
1,1,2-Trichloro-1,2,2-trifluoroethane	6.47	Incomplete Integration	tengd	04/26/16 16:55
3-Chloro-1-propene	6.49	Incomplete Integration	tengd	04/26/16 16:55
trans-1,2-Dichloroethene	6.96	Incomplete Integration	tengd	04/26/16 16:55
Propionitrile	7.12	Incomplete Integration	tengd	04/26/16 16:55
Isobutyl alcohol	7.75	Incomplete Integration	tengd	04/26/16 16:55
Dibromofluoromethane	7.85	Incomplete Integration	tengd	04/26/16 16:55
Tetrahydrofuran	7.98	Incomplete Integration	tengd	04/26/16 17:08
1,4-Dioxane	9.20	Incomplete Integration	tengd	04/26/16 16:55
Tetrahydrothiophene	11.01	Split Peak	tengd	04/26/16 16:55

Lab Sample ID: IC 600-187178/6 Client Sample ID:

Date Analyzed: 04/26/16 15:20 Lab File ID: T11704.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	5.85	Incomplete Integration	tengd	04/26/16 16:59
Ethyl ether	6.03	Incomplete Integration	tengd	04/26/16 16:59
Acrylonitrile	6.32	Incomplete Integration	tengd	04/26/16 16:59
1,4-Dioxane	9.19	Incomplete Integration	tengd	04/26/16 16:59

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHVOAMS10 Analysis Batch Number: 187178

Lab Sample ID: IC 600-187178/8 Client Sample ID:

Date Analyzed: 04/26/16 16:10 Lab File ID: T11706.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	5.84	Incomplete Integration	tengd	04/26/16 17:01

Lab Sample ID: IC 600-187178/9 Client Sample ID:

Date Analyzed: 04/26/16 16:36 Lab File ID: T11707.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	5.84	Incomplete Integration	tengd	04/26/16 17:07

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHVOAMS10 Analysis Batch Number: 188838

Lab Sample ID: CCVIS 600-188838/3 Client Sample ID:

Date Analyzed: 05/19/16 09:47 Lab File ID: T14001A.D GC Column: DB-VRX 60 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrahydrothiophene	11.00	Split Peak	tengd	05/19/16 10:18

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHSVMS09 Analysis Batch Number: 188634

Lab Sample ID: IC 600-188634/2 Client Sample ID:

Date Analyzed: 05/17/16 07:57 Lab File ID: 05171602.D GC Column: RXi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[a]anthracene	11.17	Split Peak	patelk	05/17/16 08:41
Chrysene	11.21	Split Peak	patelk	05/17/16 08:41

Lab Sample ID: IC 600-188634/3 Client Sample ID:

Date Analyzed: 05/17/16 08:21 Lab File ID: 05171603.D GC Column: RXi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[a]anthracene	11.18	Split Peak	patelk	05/17/16 08:43

Lab Sample ID: ICIS 600-188634/5 Client Sample ID:

Date Analyzed: 05/17/16 09:08 Lab File ID: 05171605.D GC Column: RXi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chrysene	11.23	Baseline	patelk	05/17/16 10:29

Lab Sample ID: IC 600-188634/8 Client Sample ID:

Date Analyzed: 05/17/16 10:19 Lab File ID: 05171608.D GC Column: RXi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	5.05	Baseline	patelk	05/17/16 10:40
Benzo[k]fluoranthene	12.50	Baseline	patelk	05/17/16 10:40

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHSVMS09 Analysis Batch Number: 188802

Lab Sample ID: IC 600-188802/2 Client Sample ID:

Date Analyzed: 05/19/16 06:54 Lab File ID: 05191603.D GC Column: RXi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzo[b]fluoranthene	12.33	Split Peak	patelk	05/19/16 08:12

Lab Sample ID: IC 600-188802/6 Client Sample ID:

Date Analyzed: 05/19/16 08:32 Lab File ID: 05191607.D GC Column: RXi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitroaniline	8.30	Baseline	patelk	05/19/16 09:25
Phenanthrene	9.00	Baseline	patelk	05/19/16 09:25
Benzo[k]fluoranthene	12.42	Baseline	patelk	05/19/16 09:25

Lab Sample ID: IC 600-188802/7 Client Sample ID:

Date Analyzed: 05/19/16 08:56 Lab File ID: 05191608.D GC Column: RXi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitroaniline	8.31	Split Peak	patelk	05/19/16 09:24

Lab Sample ID: IC 600-188802/8 Client Sample ID:

Date Analyzed: 05/19/16 09:21 Lab File ID: 05191609.D GC Column: RXi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitroaniline	8.31	Baseline	patelk	05/19/16 09:44
Phenanthrene	9.00	Baseline	patelk	05/19/16 09:44
Benzo[b]fluoranthene	12.38	Baseline	patelk	05/19/16 09:44

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHSVMS09 Analysis Batch Number: 188802

Lab Sample ID: CCVIS 600-188802/10 Client Sample ID:

Date Analyzed: 05/19/16 10:08 Lab File ID: 05191611.D GC Column: RXi-5Sil MS ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenanthrene	8.99	Baseline	patelk	05/19/16 11:09

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHFID12 Analysis Batch Number: 188340

Lab Sample ID: IC 600-188340/5 Client Sample ID:

Date Analyzed: 05/12/16 10:32 Lab File ID: F0512005.D GC Column: RTX-5 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
C6-C12	6.33	Baseline Smoothing	vanderborghr	05/12/16 14:07
>C12-C28	13.09	Unspecified	vanderborghr	05/12/16 12:43
o-Terphenyl	13.42	Split Peak	vanderborghr	05/12/16 12:43

Lab Sample ID: IC 600-188340/6 Client Sample ID:

Date Analyzed: 05/12/16 11:04 Lab File ID: F0512006.D GC Column: RTX-5 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
>C28-C35	18.88	Split Peak	vanderborghr	05/12/16 11:36

Lab Sample ID: IC 600-188340/7 Client Sample ID:

Date Analyzed: 05/12/16 11:37 Lab File ID: F0512007.D GC Column: RTX-5 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
C6	3.58	Split Peak	vanderborghr	05/12/16 13:05
C6-C12	6.33	Baseline Smoothing	vanderborghr	05/12/16 14:08
>C12-C28	13.09	Baseline Smoothing	vanderborghr	05/12/16 14:07

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHFID12 Analysis Batch Number: 188340

Lab Sample ID: ICRT 600-188340/8 Client Sample ID:

Date Analyzed: 05/12/16 12:10 Lab File ID: F0512008.D GC Column: RTX-5 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
>C28-C35	18.88	Split Peak	vanderborghr	05/12/16 12:41

Lab Sample ID: IC 600-188340/9 Client Sample ID:

Date Analyzed: 05/12/16 12:43 Lab File ID: F0512009.D GC Column: RTX-5 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
C6	3.59	Split Peak	vanderborghr	05/12/16 13:46
C6-C12	6.33	Split Peak	vanderborghr	05/12/16 13:46
>C28-C35	18.88	Split Peak	vanderborghr	05/12/16 13:47

Lab Sample ID: IC 600-188340/10 Client Sample ID:

Date Analyzed: 05/12/16 13:16 Lab File ID: F0512010.D GC Column: RTX-5 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
C6-C12	6.33	Baseline Smoothing	vanderborghr	05/12/16 13:50
>C12-C28	13.09	Baseline Smoothing	vanderborghr	05/12/16 13:50

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHFID12 Analysis Batch Number: 188340

Lab Sample ID: IC 600-188340/11 Client Sample ID:

Date Analyzed: 05/12/16 13:49 Lab File ID: F0512011.D GC Column: RTX-5 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
C6-C12	6.33	Baseline Smoothing	vanderborghr	05/12/16 14:17
>C12-C28	13.09	Baseline Smoothing	vanderborghr	05/12/16 14:17

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHFID12 Analysis Batch Number: 188457

Lab Sample ID: 600-130758-1 MSD Client Sample ID: PC-IDW Soil MSD

Date Analyzed: 05/13/16 17:07 Lab File ID: F0513017.D GC Column: RTX-5 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
C6-C12	6.29	Baseline Smoothing	somjitp	05/16/16 09:26
>C12-C28	13.10	Baseline Smoothing	somjitp	05/16/16 09:26

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHFID12_R Analysis Batch Number: 188342

Lab Sample ID: IC 600-188342/5 Client Sample ID:

Date Analyzed: 05/12/16 10:32 Lab File ID: B0512005.D GC Column: RTX-5 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
C6-C12	6.24	Baseline Smoothing	vanderborghr	05/12/16 13:37
>C12-C28	13.13	Baseline Smoothing	vanderborghr	05/12/16 13:37

Lab Sample ID: IC 600-188342/6 Client Sample ID:

Date Analyzed: 05/12/16 11:04 Lab File ID: B0512006.D GC Column: RTX-5 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
C6-C12	6.24	Baseline Smoothing	vanderborghr	05/12/16 13:38
>C12-C28	13.13	Baseline Smoothing	vanderborghr	05/12/16 13:38

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): DB-VRX 60 ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
PC-IDW Soil	600-130758-1	79	98	82	102
	MB 600-188369/6	85	95	84	103
	LCS 600-188369/3	97	76	94	102
	LCSD 600-188369/4	95	80	86	109

	QC LIMITS
DBFM = Dibromofluoromethane	68-140
DCA = 1,2-Dichloroethane-d4 (Surr)	61-130
TOL = Toluene-d8 (Surr)	50-130
BFB = 4-Bromofluorobenzene	57-140

Column to be used to flag recovery values

FORM II 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid (TCLP) Level: Low

GC Column (1): DB-VRX 60 ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
PC-IDW Soil	600-130758-1	104	95	110	110
	MB 600-188838/7	107	98	117	112
	LB 600-188875/1-A	109	101	116	110
	LCS 600-188838/4	115	105	120	108
	LCSD 600-188838/5	111	100	119	110
	600-130604-A-2-B MS	115	104	116	107
	600-130604-A-2-A MSD	112	102	119	109

	QC LIMITS
DBFM = Dibromofluoromethane	62-130
DCA = 1,2-Dichloroethane-d4 (Surr)	50-134
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	67-139

Column to be used to flag recovery values

FORM II 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water (TCLP) Level: Low

GC Column (1): DB-VRX 60 ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
PC-IDW Water	600-130758-2	102	97	117	117

	QC LIMITS
DBFM = Dibromofluoromethane	62-130
DCA = 1,2-Dichloroethane-d4 (Surr)	50-134
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	67-139

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: k13302.d

Lab ID: LCS 600-188369/3 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Benzene	50.0	50.98	102	70-131	
Ethylbenzene	50.0	48.43	97	66-130	
Toluene	50.0	54.51	109	67-130	
Xylenes, Total	100	103.9	104	63-130	
m-Xylene & p-Xylene	50.0	50.40	101	64-130	
o-Xylene	50.0	53.46	107	62-130	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low Lab File ID: T14002.D

Lab ID: LCS 600-188838/4 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Carbon tetrachloride	0.0500	0.04596	92	68-140	
Chlorobenzene	0.0500	0.05054	101	70-130	
Chloroform	0.0500	0.04575	91	70-131	
1,2-Dichloroethane	0.0500	0.04680	94	62-144	
Benzene	0.0500	0.04488	90	70-131	
1,1-Dichloroethene	0.0500	0.04981	100	67-134	
2-Butanone (MEK)	0.100	0.08868	89	34-140	
Tetrachloroethene	0.0500	0.05293	106	57-130	
Trichloroethene	0.0500	0.05017	100	70-130	
Vinyl chloride	0.0500	0.05406	108	55-150	
1,4-Dichlorobenzene	0.0500	0.04677	94	70-130	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: k13303.d

Lab ID: LCSD 600-188369/4 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Benzene	50.0	48.23	96	6	30	70-131	
Ethylbenzene	50.0	44.09	88	9	30	66-130	
Toluene	50.0	45.47	91	18	30	67-130	
Xylenes, Total	100	89.49	89	15	30	63-130	
m-Xylene & p-Xylene	50.0	45.08	90	11	30	64-130	
o-Xylene	50.0	44.41	89	19	30	62-130	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low Lab File ID: T14003.D

Lab ID: LCSD 600-188838/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Carbon tetrachloride	0.0500	0.04264	85	8	20	68-140	
Chlorobenzene	0.0500	0.04846	97	4	20	70-130	
Chloroform	0.0500	0.04392	88	4	20	70-131	
1,2-Dichloroethane	0.0500	0.04677	94	0	20	62-144	
Benzene	0.0500	0.04458	89	1	20	70-131	
1,1-Dichloroethene	0.0500	0.04711	94	6	20	67-134	
2-Butanone (MEK)	0.100	0.07810	78	13	20	34-140	
Tetrachloroethene	0.0500	0.04944	99	7	20	57-130	
Trichloroethene	0.0500	0.04736	95	6	20	70-130	
Vinyl chloride	0.0500	0.05290	106	2	20	55-150	
1,4-Dichlorobenzene	0.0500	0.04401	88	6	20	70-130	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: T14015.D

Lab ID: 600-130604-A-2-B MS Client ID:

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Carbon tetrachloride	1.00	0.0184 U	0.9901	99	68-140	
Chlorobenzene	1.00	0.0164 U	0.9700	97	70-130	
Chloroform	1.00	0.0164 U	0.9027	90	70-131	
1,2-Dichloroethane	1.00	0.0202 U	0.9052	91	62-144	
Benzene	1.00	0.0112 U	0.8942	89	70-131	
1,1-Dichloroethene	1.00	0.0152 U	1.004	100	67-134	
2-Butanone (MEK)	2.00	0.0314 U	1.567	78	34-140	
Tetrachloroethene	1.00	0.0248 U	1.064	106	57-130	
Trichloroethene	1.00	0.0316 U	0.9895	99	70-130	
Vinyl chloride	1.00	0.0170 U	0.8622	86	55-150	
1,4-Dichlorobenzene	1.00	0.0182 U	0.8894	89	70-130	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid (TCLP) Level: Low Lab File ID: T14016.D

Lab ID: 600-130604-A-2-A MSD Client ID:

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Carbon tetrachloride	1.00	0.8738	87	12	25	68-140	
Chlorobenzene	1.00	1.017	102	5	21	70-130	
Chloroform	1.00	0.8904	89	1	25	70-131	
1,2-Dichloroethane	1.00	0.9472	95	5	25	62-144	
Benzene	1.00	0.8970	90	0	21	70-131	
1,1-Dichloroethene	1.00	0.9924	99	1	22	67-134	
2-Butanone (MEK)	2.00	1.617	81	3	25	34-140	
Tetrachloroethene	1.00	1.060	106	0	25	57-130	
Trichloroethene	1.00	1.004	100	1	24	70-130	
Vinyl chloride	1.00	0.8555	86	1	25	55-150	
1,4-Dichlorobenzene	1.00	0.8964	90	1	25	70-130	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: k13305.d Lab Sample ID: MB 600-188369/6

Matrix: Solid Heated Purge:(Y/N) N

Instrument ID: CHVOAMS09 Date Analyzed: 05/12/2016 11:00

GC Column: DB-VRX 60 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-188369/3	k13302.d	05/12/2016 09:47
	LCSD 600-188369/4	k13303.d	05/12/2016 10:11
PC-IDW Soil	600-130758-1	k13326.d	05/12/2016 19:29

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: T14005.D Lab Sample ID: MB 600-188838/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: CHVOAMS10 Date Analyzed: 05/19/2016 11:54

GC Column: DB-VRX 60 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-188838/4	T14002.D	05/19/2016 10:13
	LCSD 600-188838/5	T14003.D	05/19/2016 10:38
	LB 600-188875/1-A	T14013.D	05/19/2016 15:15
	600-130604-A-2-B MS	T14015.D	05/19/2016 16:05
	600-130604-A-2-A MSD	T14016.D	05/19/2016 16:30
PC-IDW Soil	600-130758-1	T14019.D	05/19/2016 17:45
PC-IDW Water	600-130758-2	T14020.D	05/19/2016 18:10

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: k12700a.d BFB Injection Date: 05/06/2016

Instrument ID: CHVOAMS09 BFB Injection Time: 08:32

Analysis Batch No.: 187980

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.1	
75	30.0 - 60.0 % of mass 95	39.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.8	(0.8) 1
174	50.0 - 120.00 % of mass 95	94.1	
175	5.0 - 9.0 % of mass 174	7.1	(7.6) 1
176	95.0 - 101.0 % of mass 174	90.8	(96.4) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-187980/3	k12702.d	05/06/2016	10:15
	IC 600-187980/4	k12703.d	05/06/2016	10:40
	IC 600-187980/5	k12704.d	05/06/2016	11:04
	ICIS 600-187980/6	k12705.d	05/06/2016	11:29
	IC 600-187980/7	k12706.d	05/06/2016	11:53
	IC 600-187980/8	k12707.d	05/06/2016	12:17

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: k13300.d BFB Injection Date: 05/12/2016

Instrument ID: CHVOAMS09 BFB Injection Time: 08:12

Analysis Batch No.: 188369

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.3	
75	30.0 - 60.0 % of mass 95	41.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	1.0	(1.0) 1
174	50.0 - 120.00 % of mass 95	93.1	
175	5.0 - 9.0 % of mass 174	6.7	(7.2) 1
176	95.0 - 101.0 % of mass 174	89.5	(96.2) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-188369/2	k13301.d	05/12/2016	08:48
	LCS 600-188369/3	k13302.d	05/12/2016	09:47
	LCSD 600-188369/4	k13303.d	05/12/2016	10:11
	MB 600-188369/6	k13305.d	05/12/2016	11:00
PC-IDW Soil	600-130758-1	k13326.d	05/12/2016	19:29

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: T11700A.D BFB Injection Date: 04/26/2016

Instrument ID: CHVOAMS10 BFB Injection Time: 13:48

Analysis Batch No.: 187178

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.4	
75	30.0 - 60.0 % of mass 95	50.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	89.6	
175	5.0 - 9.0 % of mass 174	6.7	(7.4) 1
176	95.0 - 101.0 % of mass 174	90.4	(100.9) 1
177	5.0 - 9.0 % of mass 176	4.5	(5.0) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-187178/4	T11702.D	04/26/2016	14:29
	IC 600-187178/5	T11703.D	04/26/2016	14:54
	IC 600-187178/6	T11704.D	04/26/2016	15:20
	ICIS 600-187178/7	T11705.D	04/26/2016	15:45
	IC 600-187178/8	T11706.D	04/26/2016	16:10
	IC 600-187178/9	T11707.D	04/26/2016	16:36

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: T14000A.D BFB Injection Date: 05/19/2016

Instrument ID: CHVOAMS10 BFB Injection Time: 09:06

Analysis Batch No.: 188838

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.2	
75	30.0 - 60.0 % of mass 95	52.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.3	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	50.0 - 120.00 % of mass 95	93.2	
175	5.0 - 9.0 % of mass 174	7.5	(8.0) 1
176	95.0 - 101.0 % of mass 174	89.0	(95.5) 1
177	5.0 - 9.0 % of mass 176	6.6	(7.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-188838/3	T14001A.D	05/19/2016	09:47
	LCS 600-188838/4	T14002.D	05/19/2016	10:13
	LCSD 600-188838/5	T14003.D	05/19/2016	10:38
	MB 600-188838/7	T14005.D	05/19/2016	11:54
	LB 600-188875/1-A	T14013.D	05/19/2016	15:15
	600-130604-A-2-B MS	T14015.D	05/19/2016	16:05
	600-130604-A-2-A MSD	T14016.D	05/19/2016	16:30
PC-IDW Soil	600-130758-1	T14019.D	05/19/2016	17:45
PC-IDW Water	600-130758-2	T14020.D	05/19/2016	18:10

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: CCVIS 600-188369/2 Date Analyzed: 05/12/2016 08:48

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm)

Lab File ID (Standard): k13301.d Heated Purge: (Y/N) N

Calibration ID: 9179

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		370477	8.45	142617	11.41	193549	14.03
UPPER LIMIT		740954	8.95	285234	11.91	387098	14.53
LOWER LIMIT		185239	7.95	71309	10.91	96775	13.53
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-188369/3		370765	8.45	130414	11.41	188050	14.02
LCSD 600-188369/4		372807	8.46	142357	11.42	178673	14.03
MB 600-188369/6		345441	8.46	133344	11.42	180020	14.03
600-130758-1	PC-IDW Soil	346886	8.46	145503	11.42	193064	14.03

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: CCVIS 600-188838/3 Date Analyzed: 05/19/2016 09:47

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm)

Lab File ID (Standard): T14001A.D Heated Purge: (Y/N) N

Calibration ID: 9118

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		312938	8.75	122941	11.74	131486	14.30
UPPER LIMIT		625876	9.25	245882	12.24	262972	14.80
LOWER LIMIT		156469	8.25	61471	11.24	65743	13.80
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 600-188838/4		323321	8.76	124166	11.74	132915	14.30
LCSD 600-188838/5		339449	8.76	129108	11.75	132919	14.30
MB 600-188838/7		307263	8.75	118244	11.74	118985	14.30
LB 600-188875/1-A		265296	8.76	102353	11.75	99943	14.30
600-130604-A-2-B MS		298683	8.76	118215	11.75	125535	14.30
600-130604-A-2-A MSD		312325	8.76	120740	11.74	130814	14.30
600-130758-1	PC-IDW Soil	297382	8.76	112560	11.74	111294	14.30
600-130758-2	PC-IDW Water	272129	8.75	105890	11.74	101215	14.30

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Soil | Lab Sample ID: 600-130758-1

Matrix: Solid | Lab File ID: k13326.d

Analysis Method: 8260B | Date Collected: 05/11/2016 10:00

Sample wt/vol: 7.125(g) | Date Analyzed: 05/12/2016 19:29

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: 20.0 | Level: (low/med) Low

Analysis Batch No.: 188369 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.553	U	4.39	0.553
100-41-4	Ethylbenzene	0.895	U	4.39	0.895
108-88-3	Toluene	1.21	U	4.39	1.21
1330-20-7	Xylenes, Total	0.991	U	4.39	0.991
179601-23-1	m-Xylene & p-Xylene	1.33	U	4.39	1.33
95-47-6	o-Xylene	0.991	U	4.39	0.991

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		61-130
1868-53-7	Dibromofluoromethane	79		68-140
2037-26-5	Toluene-d8 (Surr)	82		50-130
460-00-4	4-Bromofluorobenzene	102		57-140

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13326.d
Lims ID: 600-130758-N-1-A
Client ID: PC-IDW Soil
Sample Type: Client
Inject. Date: 12-May-2016 19:29:30 ALS Bottle#: 25 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 600-130758-N-1-A
Misc. Info.: 600-0012035-027
Operator ID: ws Instrument ID: CHVOAMS09

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 13-May-2016 09:17:06 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: shenw Date: 13-May-2016 09:17:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.460	8.454	0.006	100	346886	50.0	
4 Vinyl chloride	62		4.357				ND	
22 1,1-Dichloroethene	96		5.961				ND	
38 2-Butanone (MEK)	72		7.125				ND	
44 Chloroform	83		7.424				ND	
$ 48 Dibromofluoromethane	113	7.521	7.515	0.006	93	108754	39.3	
$ 55 1,2-Dichloroethane-d4 (Sur	65	7.869	7.863	0.006	0	119295	49.0	
56 1,2-Dichloroethane	62		7.924				ND	
62 Carbon tetrachloride	119		8.290				ND	
63 Benzene	78		8.314				ND	
72 Trichloroethene	130		8.796				ND	
* 80 Chlorobenzene-d5	82	11.417	11.411	0.006	82	145503	50.0	
$ 90 Toluene-d8 (Surr)	98	9.960	9.954	0.006	93	396667	41.0	
92 Toluene	92		10.021				ND	
100 Tetrachloroethene	164		10.759				ND	
S 101 Xylenes, Total	106				0		2.07	
105 Chlorobenzene	112		11.447				ND	
106 Ethylbenzene	106	11.636	11.630	0.006	98	3497	0.8063	
107 m-Xylene & p-Xylene	91	11.825	11.819	0.006	0	14569	1.46	
110 o-Xylene	106	12.264	12.264	0.000	96	3399	0.6119	
* 112 1,4-Dichlorobenzene-d4	152	14.026	14.026	0.000	93	193064	50.0	
$ 120 4-Bromofluorobenzene	95	12.716	12.709	0.007	98	191182	50.9	
135 1,4-Dichlorobenzene	146		14.051				ND	

Reagents:

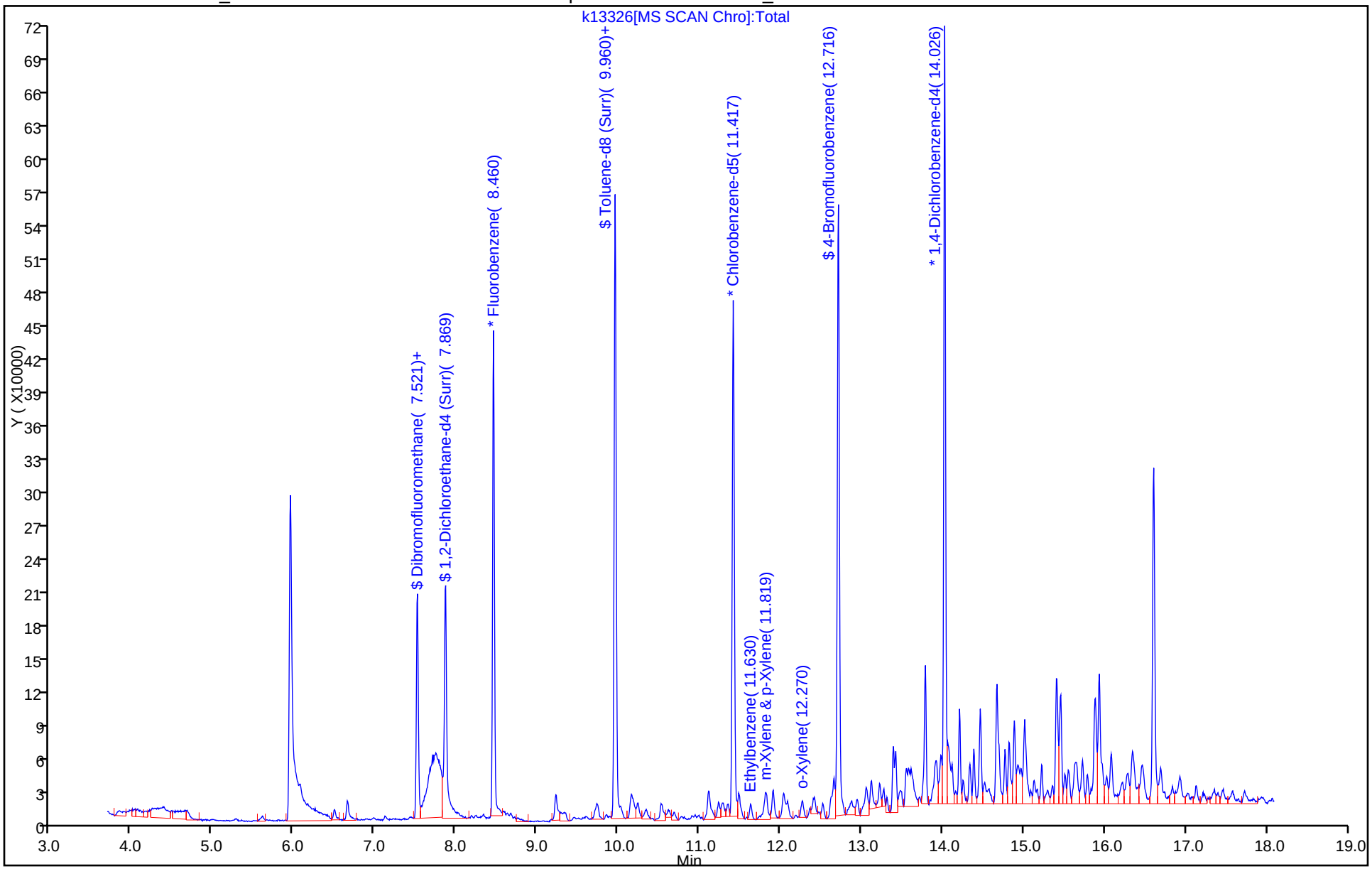
VOAIS50PPM_00172 Amount Added: 5.00 Units: uL Run Reagent
VOASS50PPM_00210 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 13-May-2016 09:19:07 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13326.d

Injection Date:	12-May-2016 19:29:30	Instrument ID:	CHVOAMS09	Operator ID:	ws
Lims ID:	600-130758-N-1-A	Lab Sample ID:	600-130758-1	Worklist Smp#:	27
Client ID:	PC-IDW Soil				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Soil | Lab Sample ID: 600-130758-1

Matrix: Solid (TCLP) | Lab File ID: T14019.D

Analysis Method: 8260B | Date Collected: 05/11/2016 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/19/2016 17:45

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188838 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.0112	U	0.100	0.0112
56-23-5	Carbon tetrachloride	0.0184	U	0.100	0.0184
108-90-7	Chlorobenzene	0.0164	U	0.100	0.0164
67-66-3	Chloroform	0.0164	U	0.100	0.0164
107-06-2	1,2-Dichloroethane	0.0202	U	0.100	0.0202
75-35-4	1,1-Dichloroethene	0.0152	U	0.100	0.0152
78-93-3	2-Butanone (MEK)	0.0314	U	0.200	0.0314
127-18-4	Tetrachloroethene	0.0248	U	0.100	0.0248
79-01-6	Trichloroethene	0.0316	U	0.100	0.0316
75-01-4	Vinyl chloride	0.0170	U	0.100	0.0170
106-46-7	1,4-Dichlorobenzene	0.0182	U	0.100	0.0182

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene	110		67-139
1868-53-7	Dibromofluoromethane	104		62-130
2037-26-5	Toluene-d8 (Surr)	110		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		50-134

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14019.D
Lims ID: 600-130758-A-1-E
Client ID: PC-IDW Soil
Sample Type: Client
Inject. Date: 19-May-2016 17:45:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 600-130758-a-1-e
Misc. Info.: 600-0012131-021
Operator ID: DT Instrument ID: CHVOAMS10

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 20-May-2016 08:48:54 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: tengd Date: 20-May-2016 08:49:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.762	8.754	0.008	99	297382	50.0	
4 Vinyl chloride	62		4.710				ND	
20 1,1-Dichloroethene	96		6.302				ND	
56 2-Butanone (MEK)	72		7.435				ND	
$ 52 Dibromofluoromethane	113	7.844	7.829	0.015	92	73989	52.1	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.175	8.170	0.005	0	74853	47.3	
65 1,2-Dichloroethane	62		8.230				ND	
54 Carbon tetrachloride	119		8.600				ND	
63 Benzene	78		8.616				ND	
70 Trichloroethene	130		9.097				ND	
48 Chloroform	83		12.578				ND	
* 85 Chlorobenzene-d5	82	11.743	11.741	0.002	83	112560	50.0	
$ 93 Toluene-d8 (Surr)	98	10.286	10.278	0.008	93	273975	55.0	
94 Toluene	92		10.352				ND	
S 104 Xylenes, Total	106		10.900				ND	
98 Tetrachloroethene	164		11.086				ND	
109 Chlorobenzene	112		11.776				ND	
108 Ethylbenzene	106		11.946				ND	
111 m-Xylene & p-Xylene	91		12.139				ND	
112 o-Xylene	106		12.582				ND	
* 117 1,4-Dichlorobenzene-d4	152	14.300	14.302	-0.002	94	111294	50.0	
$ 122 4-Bromofluorobenzene	95	13.017	13.015	0.002	92	89932	55.2	
140 1,4-Dichlorobenzene	146		14.327				ND	

Reagents:

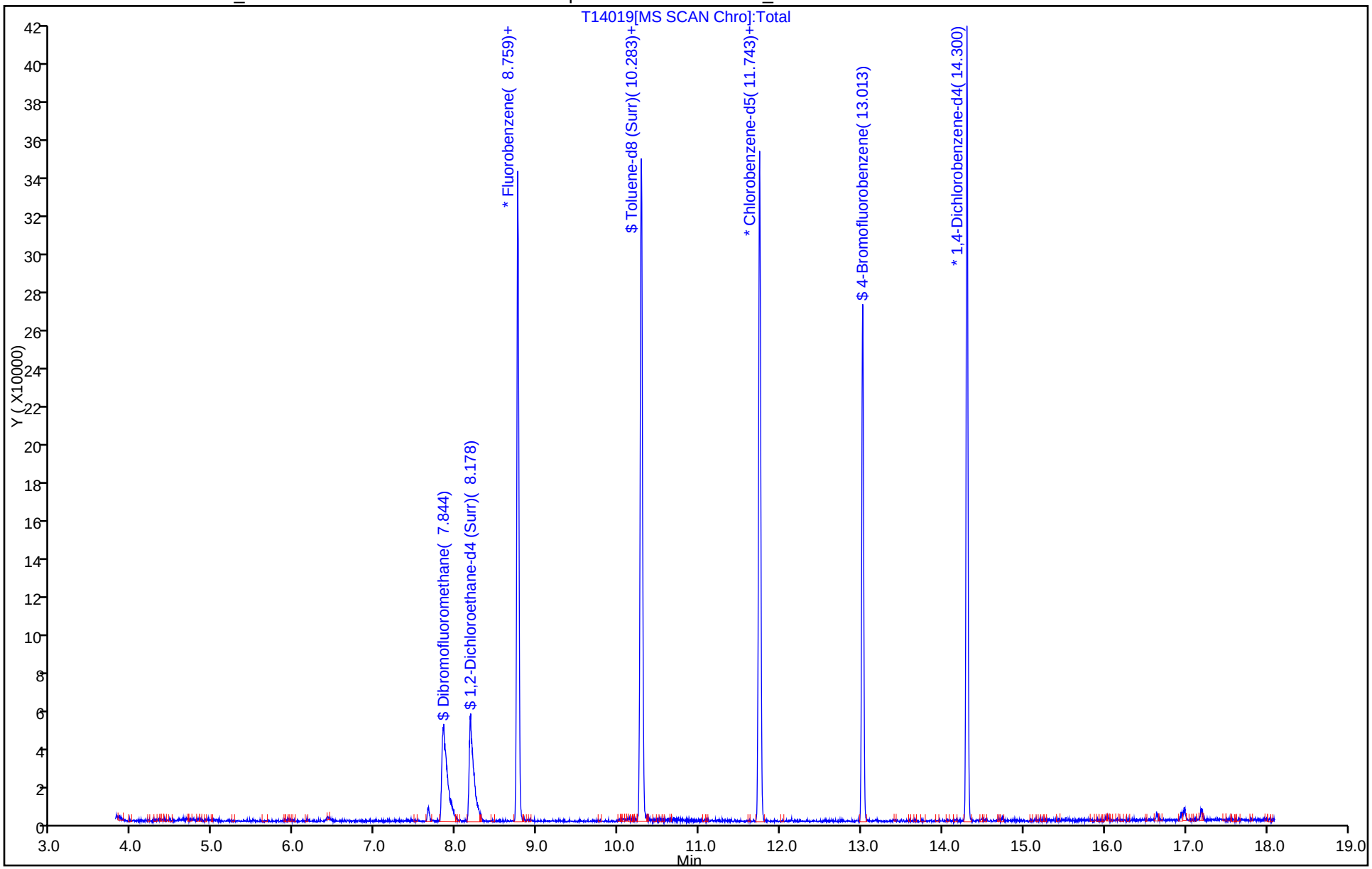
VOAIS250PPM_00048 Amount Added: 1.00 Units: uL Run Reagent
VOASS250PPM_00024 Amount Added: 1.00 Units: uL Run Reagent

Report Date: 20-May-2016 08:49:10 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14019.D

Injection Date:	19-May-2016 17:45:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	600-130758-A-1-E	Lab Sample ID:	600-130758-1	Worklist Smp#:	21
Client ID:	PC-IDW Soil				
Purge Vol:	5.000 mL	Dil. Factor:	20.0000	ALS Bottle#:	20
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Water | Lab Sample ID: 600-130758-2

Matrix: Water (TCLP) | Lab File ID: T14020.D

Analysis Method: 8260B | Date Collected: 05/11/2016 10:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/19/2016 18:10

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188838 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.0112	U	0.100	0.0112
56-23-5	Carbon tetrachloride	0.0184	U	0.100	0.0184
108-90-7	Chlorobenzene	0.0164	U	0.100	0.0164
67-66-3	Chloroform	0.0164	U	0.100	0.0164
107-06-2	1,2-Dichloroethane	0.0202	U	0.100	0.0202
75-35-4	1,1-Dichloroethene	0.0152	U	0.100	0.0152
78-93-3	2-Butanone (MEK)	0.0314	U	0.200	0.0314
127-18-4	Tetrachloroethene	0.0248	U	0.100	0.0248
79-01-6	Trichloroethene	0.0316	U	0.100	0.0316
75-01-4	Vinyl chloride	0.0170	U	0.100	0.0170
106-46-7	1,4-Dichlorobenzene	0.0182	U	0.100	0.0182

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene	117		67-139
1868-53-7	Dibromofluoromethane	102		62-130
2037-26-5	Toluene-d8 (Surr)	117		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		50-134

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14020.D
Lims ID: 600-130758-A-2-J
Client ID: PC-IDW Water
Sample Type: Client
Inject. Date: 19-May-2016 18:10:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 600-130758-a-2-j
Misc. Info.: 600-0012131-022
Operator ID: DT Instrument ID: CHVOAMS10

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 20-May-2016 08:49:28 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: tengd Date: 20-May-2016 08:49:28

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.754	8.754	0.000	99	272129	50.0	
4 Vinyl chloride	62		4.710				ND	
20 1,1-Dichloroethene	96		6.302				ND	
56 2-Butanone (MEK)	72		7.435				ND	
$ 52 Dibromofluoromethane	113	7.833	7.829	0.004	92	66366	51.0	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.167	8.167	-0.003	0	70302	48.6	
65 1,2-Dichloroethane	62		8.230				ND	
54 Carbon tetrachloride	119		8.600				ND	
63 Benzene	78		8.616				ND	
70 Trichloroethene	130		9.097				ND	
48 Chloroform	83		12.578				ND	
* 85 Chlorobenzene-d5	82	11.741	11.741	0.000	83	105890	50.0	
$ 93 Toluene-d8 (Surr)	98	10.275	10.278	-0.003	92	273300	58.4	
98 Tetrachloroethene	164		11.086				ND	
109 Chlorobenzene	112		11.776				ND	
* 117 1,4-Dichlorobenzene-d4	152	14.302	14.302	0.000	94	101215	50.0	
$ 122 4-Bromofluorobenzene	95	13.012	13.015	-0.003	91	86883	58.6	
140 1,4-Dichlorobenzene	146		14.327				ND	

Reagents:

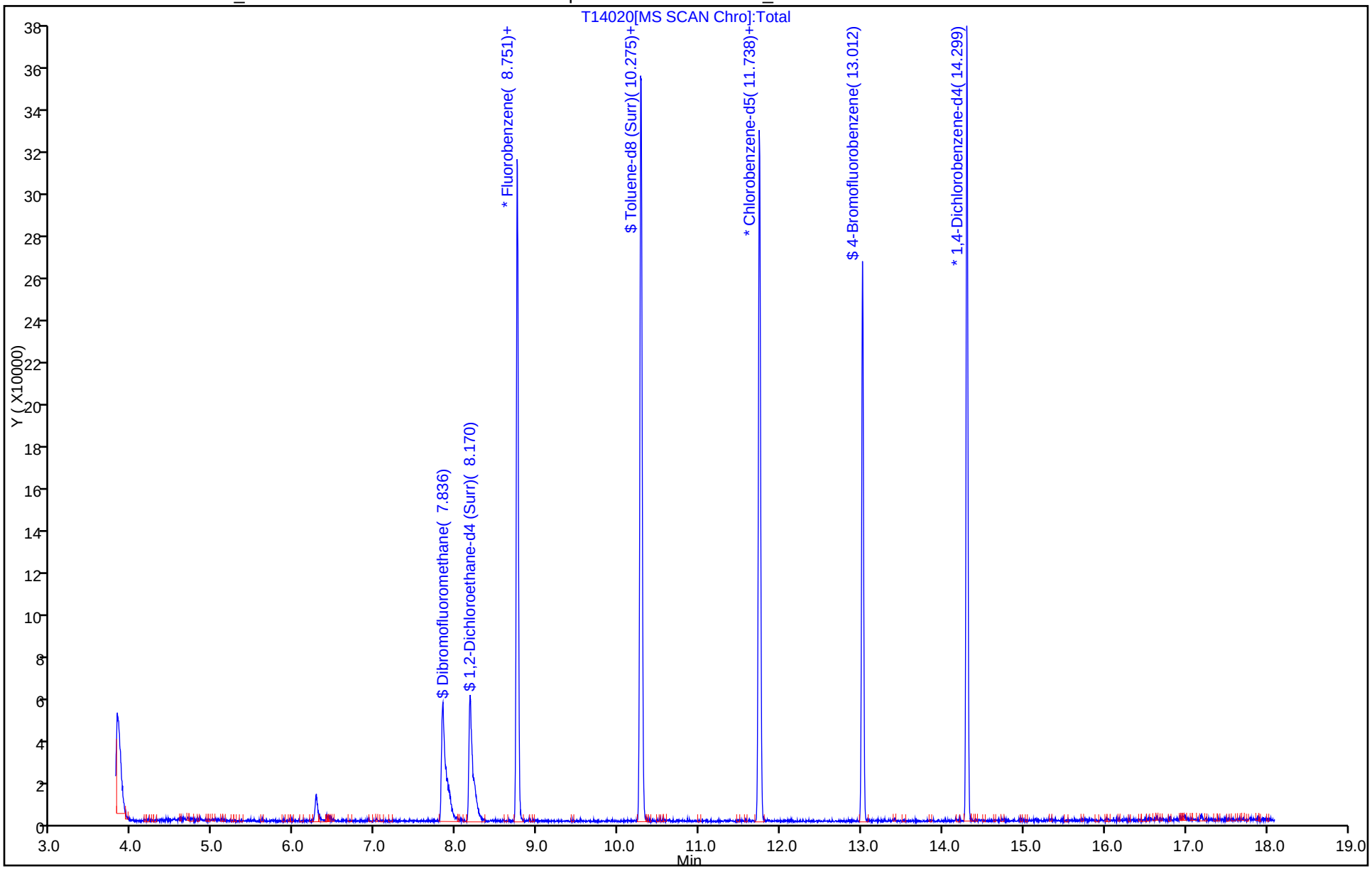
VOAIS250PPM_00048 Amount Added: 1.00 Units: uL Run Reagent
VOASS250PPM_00024 Amount Added: 1.00 Units: uL Run Reagent

Report Date: 20-May-2016 08:49:29 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14020.D

Injection Date:	19-May-2016 18:10:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	600-130758-A-2-J	Lab Sample ID:	600-130758-2	Worklist Smp#:	22
Client ID:	PC-IDW Water				
Purge Vol:	5.000 mL	Dil. Factor:	20.0000	ALS Bottle#:	21
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-187980/3	k12702.d
Level 2	IC 600-187980/4	k12703.d
Level 3	IC 600-187980/5	k12704.d
Level 4	ICIS 600-187980/6	k12705.d
Level 5	IC 600-187980/7	k12706.d
Level 6	IC 600-187980/8	k12707.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.4879 0.4634	0.5034	0.4803	0.4819	0.4901	Ave		0.4845				2.7		15.0			
Chloromethane	0.5296 0.4862	0.5490	0.4866	0.4987	0.5247	Ave		0.5124			0.1000	5.0		15.0			
Vinyl chloride	0.4503 0.3653	0.4662	0.4353	0.4131	0.4318	Ave		0.4270				8.2		15.0			
Butadiene	0.3262 0.3558	0.3729	0.3634	0.3582	0.3767	Ave		0.3589				5.0		15.0			
Ethylene oxide	0.1111 0.0434	0.0733	0.0559	0.0444	0.0392	Lin2	3.6288	0.0379							0.9950		0.9900
Bromomethane	0.3686 0.3602	0.4066	0.3676	0.3530	0.3830	Ave		0.3732				5.1		15.0			
Chloroethane	0.2378 0.2249	0.2537	0.2439	0.2316	0.2426	Ave		0.2391				4.2		15.0			
Dichlorofluoromethane	0.6339 0.6152	0.6730	0.6430	0.6159	0.6670	Ave		0.6413				3.9		15.0			
Acrolein	0.0010 0.0015	0.0004	0.0017	0.0013	0.0012	Lin	-0.031	0.0015							0.9910		0.9900
Acetonitrile	0.0366 +++++	0.0371	0.0494	0.0411	0.0414	Ave		0.0411				12.5		15.0			
Trichlorofluoromethane	0.5752 0.5737	0.5497	0.6046	0.5947	0.6292	Ave		0.5878				4.7		15.0			
Isopropyl alcohol	0.0244 +++++	0.0200	0.0276	0.0195	0.0219	Ave		0.0227				14.8		15.0			
Acetone	0.1072 +++++	0.0897	0.0995	0.0856	0.0824	Ave		0.0929				11.1		15.0			
Ethyl ether	0.3299 0.2756	0.2936	0.2899	0.2796	0.2700	Ave		0.2898				7.4		15.0			
2-Methyl-2-propanol	0.0477 +++++	0.0391	0.0562	0.0454	0.0431	Ave		0.0463				13.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1-Dichloroethene	0.4057 0.3582	0.3580	0.3658	0.3624	0.3736	Ave		0.3706				4.9		15.0			
Acrylonitrile	0.0906 +++++	0.0838	0.0994	0.0831	0.0796	Ave		0.0873				9.0		15.0			
Iodomethane	0.9502 0.8640	0.8325	0.8894	0.8940	0.8774	Ave		0.8846				4.4		15.0			
Methylene Chloride	0.9414 0.4232	0.6486	0.5386	0.4619	0.4327	Lin2	2.6342	0.4054							0.9990		0.9900
Methyl acetate	0.2682 0.2819	0.2674	0.2922	0.2507	0.2386	Ave		0.2665				7.4		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3145 0.3345	0.2800	0.3467	0.3585	0.3570	Ave		0.3319				9.1		15.0			
3-Chloro-1-propene	0.1864 0.1664	0.1719	0.1824	0.1786	0.1728	Ave		0.1764				4.2		15.0			
Carbon disulfide	1.3605 1.2324	1.2489	1.3042	1.3137	1.3021	Ave		1.2936				3.6		15.0			
trans-1,2-Dichloroethene	0.3968 0.3489	0.3573	0.3733	0.3797	0.3707	Ave		0.3711				4.5		15.0			
Methyl tert-butyl ether	0.9212 0.9165	0.8632	0.9406	0.8895	0.8624	Ave		0.8989				3.6		15.0			
Propionitrile	0.0467 +++++	0.0481	0.0556	0.0461	0.0445	Ave		0.0482				9.0		15.0			
1,1-Dichloroethane	0.6121 0.5688	0.5778	0.6007	0.6020	0.5918	Ave		0.5922			0.1000	2.7		15.0			
Vinyl acetate	0.5706 0.6046	0.5273	0.6039	0.5429	0.5079	Ave		0.5596				7.2		15.0			
2-Chloro-1,3-butadiene	0.5637 0.4915	0.4924	0.5282	0.5278	0.5173	Ave		0.5201				5.2		15.0			
Hexane	0.5833 0.4856	0.5006	0.5182	0.5285	0.5118	Ave		0.5213				6.5		15.0			
Isopropyl ether	1.2131 1.1976	1.1312	1.2441	1.2337	1.2028	Ave		1.2037				3.3		15.0			
2-Butanone (MEK)	0.0317 +++++	0.0327	0.0432	0.0341	0.0333	Ave		0.0350				13.3		15.0			
Methacrylonitrile	0.0411 0.0416	0.0411	0.0449	0.0379	0.0364	Ave		0.0405				7.4		15.0			
cis-1,2-Dichloroethene	0.4312 0.3923	0.3934	0.4148	0.4170	0.4018	Ave		0.4084				3.7		15.0			
Ethyl acetate	0.3215 0.3687	0.3208	0.3785	0.3089	0.3073	Ave		0.3343				9.3		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Bromochloromethane	0.2749 0.2489	0.2455	0.2605	0.2534	0.2418	Ave		0.2542				4.7		15.0			
Chloroform	0.6889 0.6184	0.6119	0.6509	0.6472	0.6328	Ave		0.6417				4.3		15.0			
Ethyl tert-Butyl Ether (ETBE)	1.0490 1.0675	0.9897	1.0906	1.0677	1.0377	Ave		1.0504				3.3		15.0			
Isobutyl alcohol	0.0278 0.0303	0.0240	0.0289	0.0245	0.0225	Ave		0.0263				11.8		15.0			
2,2-Dichloropropane	0.4574 0.3224	0.3863	0.3840	0.3809	0.3614	Ave		0.3821				11.5		15.0			
Tetrahydrofuran	0.1482 +++++	0.1443	0.1406	0.1150	0.1086	Ave		0.1314				13.8		15.0			
1,2-Dichloroethane	0.4477 0.4270	0.4092	0.4527	0.4221	0.4071	Ave		0.4276				4.5		15.0			
n-Butanol	0.0108 +++++	0.0108	0.0120	0.0119	0.0114	Ave		0.0114				5.3		15.0			
1,1,1-Trichloroethane	0.5653 0.5262	0.5422	0.5428	0.5631	0.5620	Ave		0.5503				2.8		15.0			
1,1-Dichloropropene	0.4535 0.4026	0.4248	0.4303	0.4369	0.4253	Ave		0.4289				3.9		15.0			
Cyclohexane	0.4968 0.3653	0.4329	0.4371	0.4406	0.4028	Ave		0.4292				10.2		15.0			
Carbon tetrachloride	0.5646 0.5127	0.5019	0.5250	0.5495	0.5442	Ave		0.5330				4.5		15.0			
Benzene	1.3558 1.2461	1.2542	1.2951	1.2956	1.2827	Ave		1.2883				3.0		15.0			
tert-Amyl Methyl Ether (TAME)	0.9142 0.9012	0.8500	0.9205	0.8937	0.8612	Ave		0.8901				3.2		15.0			
Isooctane	1.4909 1.0730	1.3077	1.3391	1.3281	1.2335	Ave		1.2954				10.6		15.0			
Ethyl acrylate	0.4848 0.5825	0.4725	0.5942	0.5374	0.5282	Ave		0.5332				9.3		15.0			
n-Heptane	0.6490 0.5725	0.5717	0.6096	0.6055	0.5944	Ave		0.6004				4.8		15.0			
Dibromomethane	0.2556 0.2511	0.2458	0.2590	0.2417	0.2372	Ave		0.2484				3.4		15.0			
1,2-Dichloropropane	0.3503 0.3264	0.3261	0.3450	0.3307	0.3284	Ave		0.3345				3.1		15.0			
2-Nitropropane	0.0953 0.0960	0.0853	0.0926	0.0780	0.0820	Ave		0.0882				8.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Trichloroethene	0.5052 0.4747	0.5087	0.5096	0.5096	0.5043	Ave		0.5020				2.7		15.0			
Bromodichloromethane	0.5165 0.4991	0.4574	0.5200	0.5064	0.5019	Ave		0.5002				4.5		15.0			
Methyl methacrylate	0.3144 0.3226	0.2888	0.3362	0.2841	0.2839	Ave		0.3050				7.4		15.0			
1,4-Dioxane	0.0021 0.0029	0.0013	0.0026	0.0018	0.0018	Qua	0.3048	0.0007	0.0000005						0.9970		0.9900
2-Chloroethyl vinyl ether	0.5494 0.5320	0.5217	0.5797	0.5032	0.4896	Ave		0.5293				6.1		15.0			
Methylcyclohexane	0.6273 0.5104	0.5726	0.5705	0.5815	0.5470	Ave		0.5682				6.8		15.0			
cis-1,3-Dichloropropene	1.5301 1.3682	1.3995	1.4879	1.4028	1.3796	Ave		1.4280				4.6		15.0			
4-Methyl-2-pentanone (MIBK)	0.3987 0.4054	0.3881	0.4251	0.3535	0.3360	Ave		0.3845				8.7		15.0			
trans-1,3-Dichloropropene	1.3051 1.2549	1.2422	1.3563	1.2302	1.2293	Ave		1.2697				4.0		15.0			
1,1,2-Trichloroethane	0.9464 0.8873	0.8836	0.9900	0.8786	0.8681	Ave		0.9090				5.3		15.0			
Ethyl methacrylate	1.0645 1.0448	1.0021	1.1031	1.0018	0.9788	Ave		1.0325				4.5		15.0			
Toluene	2.4973 2.1166	2.2784	2.3442	2.2763	2.2680	Ave		2.2968				5.4		15.0			
1,3-Dichloropropane	1.3660 1.2640	1.3067	1.4021	1.2536	1.2253	Ave		1.3030				5.3		15.0			
2-Hexanone	0.7440 0.7491	0.7997	0.8259	0.6529	0.6322	Ave		0.7340				10.6		15.0			
Dibromochloromethane	1.3400 1.3323	1.2805	1.4267	1.3047	1.2982	Ave		1.3304				3.9		15.0			
n-Butyl acetate	1.7358 1.6404	1.7176	1.8312	1.5142	1.4784	Ave		1.6529				8.2		15.0			
1,2-Dibromoethane	1.0709 1.0209	1.0423	1.1239	0.9870	0.9787	Ave		1.0373				5.3		15.0			
Tetrachloroethene	1.0702 0.8660	0.9485	0.9739	0.9443	0.9584	Ave		0.9602				6.8		15.0			
1-Chlorohexane	0.9680 0.7484	0.8344	0.8241	0.8165	0.8385	Ave		0.8383				8.5		15.0			
1,1,1,2-Tetrachloroethane	1.2928 1.1697	1.2066	1.2447	1.2027	1.2086	Ave		1.2208				3.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorobenzene	3.1964 2.8713	2.9825	3.1138	2.9567	2.9657	Ave		3.0144			0.3000	3.9		15.0			
Ethylbenzene	1.5868 1.3891	1.4721	1.5362	1.4753	1.4825	Ave		1.4903				4.5		15.0			
m-Xylene & p-Xylene	3.6660 3.2169	3.3961	3.4673	3.4055	3.4049	Ave		3.4261				4.2		15.0			
Bromoform	0.5679 0.6164	0.6060	0.6289	0.5865	0.5850	Ave		0.5985			0.1000	3.8		15.0			
Styrene	3.0173 2.9627	2.9286	3.0479	2.9344	3.0018	Ave		2.9821				1.6		15.0			
Cyclohexanone	0.0450 0.0510	0.0431	0.0469	0.0370	0.0362	Ave		0.0432				13.4		15.0			
1,1,2,2-Tetrachloroethane	1.0246 1.0057	0.9951	1.0451	0.9153	0.8897	Ave		0.9792			0.3000	6.4		15.0			
o-Xylene	2.0841 1.7873	1.8676	1.9809	1.8723	1.8603	Ave		1.9088				5.5		15.0			
trans-1,4-Dichloro-2-butene	0.2381 0.2393	0.2298	0.2557	0.2143	0.2184	Ave		0.2326				6.5		15.0			
1,2,3-Trichloropropane	0.2731 0.2542	0.2823	0.2935	0.2494	0.2423	Ave		0.2658				7.6		15.0			
Isopropylbenzene	3.6774 3.2005	3.3629	3.4878	3.5586	3.5646	Ave		3.4753				4.9		15.0			
Bromobenzene	1.1495 1.0248	1.0402	1.0820	1.0857	1.0767	Ave		1.0765				4.0		15.0			
N-Propylbenzene	1.0618 0.9537	1.0048	1.0219	1.0450	1.0393	Ave		1.0211				3.8		15.0			
2-Chlorotoluene	1.0497 0.9370	0.9567	0.9919	1.0131	1.0039	Ave		0.9921				4.1		15.0			
4-Chlorotoluene	2.6445 2.3901	2.4405	2.5741	2.5798	2.5610	Ave		2.5316				3.8		15.0			
1,3,5-Trimethylbenzene	3.1222 2.8569	2.8866	2.9995	3.1312	3.1007	Ave		3.0162				4.0		15.0			
tert-Butylbenzene	2.9136 2.6071	2.5918	2.7105	2.8219	2.8278	Ave		2.7454				4.7		15.0			
1,2,4-Trimethylbenzene	3.4030 3.0563	3.1389	3.2182	3.3096	3.2349	Ave		3.2268				3.8		15.0			
sec-Butylbenzene	4.3754 3.8307	3.9790	4.0719	4.2091	4.1919	Ave		4.1097				4.7		15.0			
Benzyl chloride	1.7890 1.8251	1.7983	1.8685	1.7002	1.6708	Ave		1.7753				4.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	2.2292 2.0365	2.1210	2.1896	2.1731	2.1402	Ave		2.1483				3.1		15.0			
1,4-Dichlorobenzene	2.2875 2.0806	2.1590	2.2148	2.1810	2.1683	Ave		2.1819				3.1		15.0			
4-Isopropyltoluene	3.9153 3.4921	3.5871	3.6823	3.8001	3.7742	Ave		3.7085				4.1		15.0			
1,2,3-Trimethylbenzene	3.4677 3.2702	3.2189	3.3362	3.4395	3.3753	Ave		3.3513				2.9		15.0			
1,2-Dichlorobenzene	2.1692 2.0714	2.1550	2.1854	2.1537	2.1260	Ave		2.1434				1.9		15.0			
n-Butylbenzene	3.4560 3.0251	3.1055	3.2068	3.3064	3.3063	Ave		3.2343				4.8		15.0			
1,2-Dibromo-3-Chloropropane	0.2866 0.2933	0.2962	0.3037	0.2649	0.2622	Ave		0.2845				6.0		15.0			
1,3,5-Trichlorobenzene	1.8137 1.6716	1.7280	1.7694	1.8126	1.8056	Ave		1.7668				3.2		15.0			
1,2,4-Trichlorobenzene	1.7463 1.6524	1.7003	1.7412	1.7724	1.7586	Ave		1.7285				2.6		15.0			
Naphthalene	4.7137 4.2409	4.3329	4.4102	4.0547	4.0814	Ave		4.3056				5.6		15.0			
Hexachlorobutadiene	0.4360 0.3434	0.3929	0.3909	0.3860	0.3898	Ave		0.3898				7.5		15.0			
1,2,3-Trichlorobenzene	1.7060 1.5511	1.6537	1.6742	1.6587	1.6632	Ave		1.6512				3.2		15.0			
Dibromofluoromethane	0.4283 0.3950	0.3684	0.4089	0.4052	0.3897	Ave		0.3993				5.1		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3555 0.3525	0.3383	0.3697	0.3501	0.3387	Ave		0.3508				3.3		15.0			
Toluene-d8 (Surr)	3.5565 3.1102	3.2801	3.3891	3.3336	3.2870	Ave		3.3261				4.4		15.0			
4-Bromofluorobenzene	1.0298 0.9217	0.9349	0.9973	0.9835	0.9691	Ave		0.9727				4.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-187980/3	k12702.d
Level 2	IC 600-187980/4	k12703.d
Level 3	IC 600-187980/5	k12704.d
Level 4	ICIS 600-187980/6	k12705.d
Level 5	IC 600-187980/7	k12706.d
Level 6	IC 600-187980/8	k12707.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	16943 647447	36490	67247	173769	332067	5.00 200	10.0	20.0	50.0	100
Chloromethane	FB	Ave	18389 679348	39791	68130	179821	355463	5.00 200	10.0	20.0	50.0	100
Vinyl chloride	FB	Ave	15635 510370	33792	60941	148983	292544	5.00 200	10.0	20.0	50.0	100
Butadiene	FB	Ave	11327 497181	27031	50874	129186	255215	5.00 200	10.0	20.0	50.0	100
Ethylene oxide	FB	Lin2	38580 606095	53106	78232	160039	265392	50.0 2000	100	200	500	1000
Bromomethane	FB	Ave	12801 503304	29469	51470	127310	259520	5.00 200	10.0	20.0	50.0	100
Chloroethane	FB	Ave	8256 314260	18390	34148	83517	164374	5.00 200	10.0	20.0	50.0	100
Dichlorofluoromethane	FB	Ave	22012 859560	48782	90029	222088	451901	5.00 200	10.0	20.0	50.0	100
Acrolein	FB	Lin	180 10233	149	1160	2394	4071	25.0 1000	50.0	100	250	500
Acetonitrile	FB	Ave	12694 +++++	26892	69108	148141	280382	50.0 +++++	100	200	500	1000
Trichlorofluoromethane	FB	Ave	19972 801571	39843	84648	214436	426305	5.00 200	10.0	20.0	50.0	100
Isopropyl alcohol	FB	Ave	8488 +++++	14486	38663	70493	148211	50.0 +++++	100	200	500	1000
Acetone	FB	Ave	7447 +++++	13001	27854	61729	111675	10.0 +++++	20.0	40.0	100	200
Ethyl ether	FB	Ave	11455 385128	21281	40587	100842	182915	5.00 200	10.0	20.0	50.0	100
2-Methyl-2-propanol	FB	Ave	16562 +++++	28307	78670	163610	292334	50.0 +++++	100	200	500	1000
1,1-Dichloroethene	FB	Ave	14088 500586	25949	51222	130700	253093	5.00 200	10.0	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acrylonitrile	FB	Ave	31450 +++++	60741	139153	299795	539386	50.0 +++++	100	200	500	1000
Iodomethane	FB	Ave	32996 1207240	60341	124523	322369	594439	5.00 200	10.0	20.0	50.0	100
Methylene Chloride	FB	Lin2	32689 591326	47008	75409	166574	293144	5.00 200	10.0	20.0	50.0	100
Methyl acetate	FB	Ave	46571 1969208	96900	204523	451941	808229	25.0 1000	50.0	100	250	500
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	10922 467363	20293	48540	129289	241867	5.00 200	10.0	20.0	50.0	100
3-Chloro-1-propene	FB	Ave	6474 232547	12462	25542	64394	117100	5.00 200	10.0	20.0	50.0	100
Carbon disulfide	FB	Ave	47243 1722077	90522	182602	473738	882190	5.00 200	10.0	20.0	50.0	100
trans-1,2-Dichloroethene	FB	Ave	13778 487577	25896	52271	136919	251159	5.00 200	10.0	20.0	50.0	100
Methyl tert-butyl ether	FB	Ave	31988 1280572	62562	131692	320766	584284	5.00 200	10.0	20.0	50.0	100
Propionitrile	FB	Ave	16215 +++++	34867	77820	166088	301230	50.0 +++++	100	200	500	1000
1,1-Dichloroethane	FB	Ave	21256 794765	41880	84110	217075	400968	5.00 200	10.0	20.0	50.0	100
Vinyl acetate	FB	Ave	39629 1689608	76444	169114	391556	688261	10.0 400	20.0	40.0	100	200
2-Chloro-1,3-butadiene	FB	Ave	19574 686751	35687	73951	190332	350447	5.00 200	10.0	20.0	50.0	100
Hexane	FB	Ave	20255 678569	36285	72557	190584	346732	5.00 200	10.0	20.0	50.0	100
Isopropyl ether	FB	Ave	42123 1673435	81986	174182	444895	814913	5.00 200	10.0	20.0	50.0	100
2-Butanone (MEK)	FB	Ave	2200 +++++	4739	12098	24598	45190	10.0 +++++	20.0	40.0	100	200
Methacrylonitrile	FB	Ave	14288 581857	29793	62872	136503	246809	50.0 2000	100	200	500	1000
cis-1,2-Dichloroethene	FB	Ave	14973 548144	28513	58082	150369	272201	5.00 200	10.0	20.0	50.0	100
Ethyl acetate	FB	Ave	22330 1030460	46508	105983	222795	416358	10.0 400	20.0	40.0	100	200
Bromochloromethane	FB	Ave	9545 347739	17796	36466	91378	163841	5.00 200	10.0	20.0	50.0	100
Chloroform	FB	Ave	23923 864100	44350	91130	233398	428724	5.00 200	10.0	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Ethyl tert-Butyl Ether (ETBE)	FB	Ave	36427 1491570	71737	152697	385038	703043	5.00 200	10.0	20.0	50.0	100
Isobutyl alcohol	FB	Ave	24096 1058623	43418	101327	220439	380985	125 5000	250	500	1250	2500
2,2-Dichloropropane	FB	Ave	15883 450555	28000	53770	137373	244854	5.00 200	10.0	20.0	50.0	100
Tetrahydrofuran	FB	Ave	10292 +++++	20913	39375	82962	147212	10.0 +++++	20.0	40.0	100	200
1,2-Dichloroethane	FB	Ave	15546 596673	29660	63383	152214	275794	5.00 200	10.0	20.0	50.0	100
n-Butanol	FB	Ave	9336 +++++	19546	42149	107192	193726	125 +++++	250	500	1250	2500
1,1,1-Trichloroethane	FB	Ave	19629 735212	39302	75998	203045	380765	5.00 200	10.0	20.0	50.0	100
1,1-Dichloropropene	FB	Ave	15746 562516	30790	60252	157538	288173	5.00 200	10.0	20.0	50.0	100
Cyclohexane	FB	Ave	17250 510377	31377	61201	158883	272896	5.00 200	10.0	20.0	50.0	100
Carbon tetrachloride	FB	Ave	19605 716378	36375	73511	198170	368734	5.00 200	10.0	20.0	50.0	100
Benzene	FB	Ave	47081 1741200	90903	181330	467208	869052	5.00 200	10.0	20.0	50.0	100
tert-Amyl Methyl Ether (TAME)	FB	Ave	31745 1259215	61607	128882	322258	583468	5.00 200	10.0	20.0	50.0	100
Isooctane	FB	Ave	51770 1499272	94780	187490	478932	835690	5.00 200	10.0	20.0	50.0	100
Ethyl acrylate	FB	Ave	16835 813895	34246	83187	193778	357831	5.00 200	10.0	20.0	50.0	100
n-Heptane	FB	Ave	22537 799920	41435	85344	218358	402711	5.00 200	10.0	20.0	50.0	100
Dibromomethane	FB	Ave	8875 350908	17819	36260	87150	160702	5.00 200	10.0	20.0	50.0	100
1,2-Dichloropropane	FB	Ave	12164 456145	23638	48306	119236	222513	5.00 200	10.0	20.0	50.0	100
2-Nitropropane	FB	Ave	6619 268239	12362	25933	56271	111060	10.0 400	20.0	40.0	100	200
Trichloroethene	FB	Ave	17544 663298	36868	71346	183754	341661	5.00 200	10.0	20.0	50.0	100
Bromodichloromethane	FB	Ave	17935 697335	33153	72800	182629	340074	5.00 200	10.0	20.0	50.0	100
Methyl methacrylate	FB	Ave	21838 901455	41868	94146	204866	384675	10.0 400	20.0	40.0	100	200

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,4-Dioxane	FB	Qua	1488 80408	1828	7186	12889	24186	100 4000	200	400	1000	2000
2-Chloroethyl vinyl ether	CBZ	Ave	13916 580229	26814	59066	135724	247390	10.0 400	20.0	40.0	100	200
Methylcyclohexane	FB	Ave	21784 713178	41499	79873	209708	370629	5.00 200	10.0	20.0	50.0	100
cis-1,3-Dichloropropene	CBZ	Ave	19377 746132	35967	75799	189180	348543	5.00 200	10.0	20.0	50.0	100
4-Methyl-2-pentanone (MIBK)	FB	Ave	27690 1132887	56261	119028	254915	455341	10.0 400	20.0	40.0	100	200
trans-1,3-Dichloropropene	CBZ	Ave	16528 684308	31924	69091	165900	310573	5.00 200	10.0	20.0	50.0	100
1,1,2-Trichloroethane	CBZ	Ave	11985 483837	22708	50431	118486	219302	5.00 200	10.0	20.0	50.0	100
Ethyl methacrylate	CBZ	Ave	13480 569751	25753	56194	135103	247292	5.00 200	10.0	20.0	50.0	100
Toluene	CBZ	Ave	31625 1154212	58554	119419	306984	572970	5.00 200	10.0	20.0	50.0	100
1,3-Dichloropropane	CBZ	Ave	17299 689278	33583	71427	169056	309547	5.00 200	10.0	20.0	50.0	100
2-Hexanone	CBZ	Ave	18843 816961	41106	84149	176095	319440	10.0 400	20.0	40.0	100	200
Dibromochloromethane	CBZ	Ave	16970 726540	32909	72679	175948	327965	5.00 200	10.0	20.0	50.0	100
n-Butyl acetate	CBZ	Ave	21982 894525	44142	93283	204204	373509	5.00 200	10.0	20.0	50.0	100
1,2-Dibromoethane	CBZ	Ave	13562 556736	26788	57256	133110	247247	5.00 200	10.0	20.0	50.0	100
Tetrachloroethene	CBZ	Ave	13553 472260	24377	49614	127351	242119	5.00 200	10.0	20.0	50.0	100
1-Chlorohexane	CBZ	Ave	12259 408117	21443	41983	110116	211837	5.00 200	10.0	20.0	50.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	16372 637878	31009	63405	162191	305332	5.00 200	10.0	20.0	50.0	100
Chlorobenzene	CBZ	Ave	40478 1565761	76651	158625	398734	749251	5.00 200	10.0	20.0	50.0	100
Ethylbenzene	CBZ	Ave	20095 757525	37833	78257	198964	374522	5.00 200	10.0	20.0	50.0	100
m-Xylene & p-Xylene	CBZ	Ave	46426 1754253	87280	176630	459261	860209	5.00 200	10.0	20.0	50.0	100
Bromoform	DCB	Ave	10172 468159	21879	44339	104068	196247	5.00 200	10.0	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Styrene	CBZ	Ave	38211 1615631	75266	155266	395728	758351	5.00 200	10.0	20.0	50.0	100
Cyclohexanone	CBZ	Ave	28483 1391382	55395	119434	249248	456721	250 10000	500	1000	2500	5000
1,1,2,2-Tetrachloroethane	DCB	Ave	18352 763829	35927	73680	162415	298439	5.00 200	10.0	20.0	50.0	100
o-Xylene	CBZ	Ave	26393 974655	47997	100913	252503	469981	5.00 200	10.0	20.0	50.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	4265 181768	8295	18030	38031	73250	5.00 200	10.0	20.0	50.0	100
1,2,3-Trichloropropane	DCB	Ave	4892 193051	10191	20690	44247	81273	5.00 200	10.0	20.0	50.0	100
Isopropylbenzene	DCB	Ave	65869 2430765	121408	245901	631460	1195730	5.00 200	10.0	20.0	50.0	100
Bromobenzene	DCB	Ave	20589 778294	37553	76285	192647	361171	5.00 200	10.0	20.0	50.0	100
N-Propylbenzene	DCB	Ave	19019 724354	36275	72050	185427	348614	5.00 200	10.0	20.0	50.0	100
2-Chlorotoluene	DCB	Ave	18802 711619	34540	69932	179771	336768	5.00 200	10.0	20.0	50.0	100
4-Chlorotoluene	DCB	Ave	47368 1815242	88106	181481	457767	859068	5.00 200	10.0	20.0	50.0	100
1,3,5-Trimethylbenzene	DCB	Ave	55925 2169790	104212	211476	555606	1040118	5.00 200	10.0	20.0	50.0	100
tert-Butylbenzene	DCB	Ave	52187 1980113	93569	191101	500726	948561	5.00 200	10.0	20.0	50.0	100
1,2,4-Trimethylbenzene	DCB	Ave	60953 2321273	113322	226897	587268	1085143	5.00 200	10.0	20.0	50.0	100
sec-Butylbenzene	DCB	Ave	78371 2909437	143651	287084	746885	1406152	5.00 200	10.0	20.0	50.0	100
Benzyl chloride	DCB	Ave	32044 1386121	64923	131736	301688	560448	5.00 200	10.0	20.0	50.0	100
1,3-Dichlorobenzene	DCB	Ave	39929 1546727	76573	154375	385609	717926	5.00 200	10.0	20.0	50.0	100
1,4-Dichlorobenzene	DCB	Ave	40974 1580199	77946	156149	387005	727353	5.00 200	10.0	20.0	50.0	100
4-Isopropyltoluene	DCB	Ave	70130 2652204	129502	259617	674297	1266037	5.00 200	10.0	20.0	50.0	100
1,2,3-Trimethylbenzene	DCB	Ave	62112 2483735	116211	235215	610319	1132215	5.00 200	10.0	20.0	50.0	100
1,2-Dichlorobenzene	DCB	Ave	38854 1573197	77799	154077	382163	713146	5.00 200	10.0	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187980

SDG No.:

Instrument ID: CHVOAMS09 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/06/2016 10:15 Calibration End Date: 05/06/2016 12:17 Calibration ID: 9179

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCB	Ave	61903 2297553	112114	226089	586698	1109096	5.00 200	10.0	20.0	50.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	5134 222733	10694	21412	47002	87960	5.00 200	10.0	20.0	50.0	100
1,3,5-Trichlorobenzene	DCB	Ave	32486 1269554	62383	124752	321634	605692	5.00 200	10.0	20.0	50.0	100
1,2,4-Trichlorobenzene	DCB	Ave	31280 1255000	61385	122764	314497	589907	5.00 200	10.0	20.0	50.0	100
Naphthalene	DCB	Ave	84431 3220951	156429	310932	719488	1369081	5.00 200	10.0	20.0	50.0	100
Hexachlorobutadiene	DCB	Ave	7810 260835	14183	27563	68491	130768	5.00 200	10.0	20.0	50.0	100
1,2,3-Trichlorobenzene	DCB	Ave	30557 1178057	59704	118039	294332	557907	5.00 200	10.0	20.0	50.0	100
Dibromofluoromethane	FB	Ave	14874 551922	26702	57248	146135	264046	5.00 200	10.0	20.0	50.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	12343 492486	24517	51768	126235	229463	5.00 200	10.0	20.0	50.0	100
Toluene-d8 (Surr)	CBZ	Ave	45039 1696080	84298	172648	449565	830423	5.00 200	10.0	20.0	50.0	100
4-Bromofluorobenzene	DCB	Ave	18445 699997	33752	70314	174512	325065	5.00 200	10.0	20.0	50.0	100

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12702.d
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 06-May-2016 10:15:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 600-0011949-003
Operator ID: WS Instrument ID: CHVOAMS09
Sublist: chrom-8260s_9*sub20

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 06-May-2016 13:59:43 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: shenw Date: 06-May-2016 11:04:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.454	8.454	0.000	100	347247	50.0	50.0	
2 Dichlorodifluoromethane	85	3.894	3.894	0.000	99	16943	5.00	5.04	
3 Chloromethane	50	4.132	4.132	0.000	98	18389	5.00	5.17	
4 Vinyl chloride	62	4.357	4.357	0.000	97	15635	5.00	5.27	
5 Butadiene	39	4.485	4.485	0.000	94	11327	5.00	4.54	
6 Ethylene oxide	44	4.699	4.699	0.000	97	38580	50.0	50.8	
7 Bromomethane	94	4.802	4.802	0.000	91	12801	5.00	4.94	
8 Chloroethane	64	4.955	4.955	0.000	97	8256	5.00	4.97	
10 Dichlorofluoromethane	67	4.985	4.985	0.000	97	22012	5.00	4.94	
9 Ethanol	45		5.211				NC	ND	
13 Acrolein	56	5.467	5.467	0.000	1	180	25.0	39.4	
14 Acetonitrile	41	5.479	5.479	0.000	67	12694	50.0	10.6	
15 Trichlorofluoromethane	101	5.485	5.485	0.000	99	19972	5.00	4.89	
16 Isopropyl alcohol	45	5.503	5.503	0.000	99	8488	50.0	-118.7	
18 Acetone	43	5.577	5.577	0.000	97	7447	10.0	11.2	
19 Ethyl ether	59	5.674	5.674	0.000	97	11455	5.00	5.69	
21 2-Methyl-2-propanol	59	5.949	5.949	0.000	96	16562	50.0	-11.8	
22 1,1-Dichloroethene	96	5.961	5.961	0.000	94	14088	5.00	5.47	
23 Acrylonitrile	52	5.985	5.985	0.000	100	31450	50.0	51.3	
24 Iodomethane	142	6.009	6.009	0.000	98	32996	5.00	5.37	
25 Methylene Chloride	84	6.070	6.070	0.000	96	32689	5.00	5.11	
26 Methyl acetate	43	6.095	6.095	0.000	99	46571	25.0	25.2	
27 1,1,2-Trichloro-1,2,2-trif	151	6.113	6.113	0.000	88	10922	5.00	4.74	
28 3-Chloro-1-propene	76	6.150	6.150	0.000	94	6474	5.00	5.28	
29 Carbon disulfide	76	6.308	6.308	0.000	99	47243	5.00	5.26	
30 trans-1,2-Dichloroethene	96	6.625	6.625	0.000	99	13778	5.00	5.35	
31 Methyl tert-butyl ether	73	6.692	6.692	0.000	97	31988	5.00	5.12	
32 Propionitrile	54	6.814	6.814	0.000	60	16215	50.0	47.8	
33 1,1-Dichloroethane	63	6.820	6.820	0.000	96	21256	5.00	5.17	
34 Vinyl acetate	43	6.887	6.887	0.000	97	39629	10.0	10.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 2-Chloro-1,3-butadiene	53	7.107	7.107	0.000	91	19574	5.00	5.42	
36 Hexane	57	7.119	7.119	0.000	87	20255	5.00	5.59	
38 2-Butanone (MEK)	72	7.137	7.137	0.000	77	2200	10.0	8.79	
37 Isopropyl ether	45	7.125	7.125	0.000	89	42123	5.00	5.04	
39 Methacrylonitrile	66	7.204	7.204	0.000	95	14288	50.0	50.8	
40 cis-1,2-Dichloroethene	96	7.265	7.265	0.000	75	14973	5.00	5.28	
41 Ethyl acetate	43	7.357	7.357	0.000	98	22330	10.0	9.62	
42 Chlorobromomethane	128	7.393	7.393	0.000	88	9545	5.00	5.41	
44 Chloroform	83	7.424	7.424	0.000	91	23923	5.00	5.37	
45 Tert-butyl ethyl ether	59	7.436	7.436	0.000	98	36427	5.00	4.99	
46 Isobutyl alcohol	43	7.454	7.454	0.000	91	24096	125.0	131.8	
47 2,2-Dichloropropane	77	7.491	7.491	0.000	89	15883	5.00	5.99	
$ 48 Dibromofluoromethane	113	7.515	7.515	0.000	92	14874	5.00	5.36	
S 50 1,2-Dichloroethene, Total	96				0		10.0	10.6	
51 Tetrahydrofuran	42	7.674	7.674	0.000	94	10292	10.0	11.3	
$ 55 1,2-Dichloroethane-d4 (Sur	65	7.863	7.863	0.000	0	12343	5.00	5.07	
56 1,2-Dichloroethane	62	7.924	7.924	0.000	96	15546	5.00	5.23	
57 n-Butanol	56	8.003	8.003	0.000	37	9336	125.0	-6.42	
58 1,1,1-Trichloroethane	97	8.003	8.003	0.000	96	19629	5.00	5.14	
60 1,1-Dichloropropene	75	8.137	8.137	0.000	93	15746	5.00	5.29	
61 Cyclohexane	84	8.235	8.235	0.000	93	17250	5.00	5.79	
62 Carbon tetrachloride	119	8.290	8.290	0.000	95	19605	5.00	5.30	
63 Benzene	78	8.314	8.314	0.000	97	47081	5.00	5.26	
64 Tert-amyl methyl ether	73	8.393	8.393	0.000	98	31745	5.00	5.14	
66 Isooctane	57	8.607	8.607	0.000	96	51770	5.00	5.75	
67 Ethyl acrylate	55	8.649	8.649	0.000	96	16835	5.00	4.55	
68 n-Heptane	43	8.667	8.667	0.000	96	22537	5.00	5.40	
69 Dibromomethane	93	8.747	8.747	0.000	89	8875	5.00	5.14	
70 1,2-Dichloropropane	63	8.765	8.765	0.000	95	12164	5.00	5.24	
71 2-Nitropropane	43	8.771	8.771	0.000	76	6619	10.0	10.8	
72 Trichloroethene	130	8.796	8.796	0.000	91	17544	5.00	5.03	
73 Dichlorobromomethane	83	8.832	8.832	0.000	97	17935	5.00	5.16	
75 Methyl methacrylate	41	8.881	8.881	0.000	96	21838	10.0	10.3	
76 1,4-Dioxane	58	8.905	8.905	0.000	30	1488	100.0	-138.7	
78 Methylcyclohexane	83	9.222	9.222	0.000	91	21784	5.00	5.52	
79 4-Methyl-2-pentanone (MIBK	43	9.393	9.393	0.000	97	27690	10.0	10.4	
* 80 Chlorobenzene-d5	82	11.411	11.411	0.000	81	126638	50.0	50.0	
84 2-Chloroethyl vinyl ether	63	9.113	9.113	0.000	93	13916	10.0	10.4	
85 cis-1,3-Dichloropropene	75	9.332	9.332	0.000	95	19377	5.00	5.36	
86 trans-1,3-Dichloropropene	75	9.686	9.686	0.000	92	16528	5.00	5.14	
89 1,1,2-Trichloroethane	97	9.850	9.850	0.000	89	11985	5.00	5.21	
$ 90 Toluene-d8 (Surr)	98	9.954	9.954	0.000	92	45039	5.00	5.35	
91 Ethyl methacrylate	69	10.003	10.003	0.000	93	13480	5.00	5.15	
92 Toluene	92	10.027	10.027	0.000	98	31625	5.00	5.44	
93 1,3-Dichloropropane	76	10.064	10.064	0.000	92	17299	5.00	5.24	
95 2-Hexanone	43	10.155	10.155	0.000	100	18843	10.0	10.1	
96 Chlorodibromomethane	129	10.356	10.356	0.000	91	16970	5.00	5.04	
98 n-Butyl acetate	43	10.435	10.435	0.000	99	21982	5.00	5.25	
99 Ethylene Dibromide	107	10.612	10.612	0.000	98	13562	5.00	5.16	
100 Tetrachloroethene	164	10.759	10.759	0.000	94	13553	5.00	5.57	
S 101 Xylenes, Total	106				0		10.0	10.8	
103 1-Chlorohexane	55	11.313	11.313	0.000	97	12259	5.00	5.77	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,1,1,2-Tetrachloroethane	131	11.368	11.368	0.000	91	16372	5.00	5.29	
105 Chlorobenzene	112	11.447	11.447	0.000	97	40478	5.00	5.30	
106 Ethylbenzene	106	11.630	11.630	0.000	97	20095	5.00	5.32	
107 m-Xylene & p-Xylene	91	11.819	11.819	0.000	0	46426	5.00	5.35	
108 Styrene	104	12.185	12.185	0.000	95	38211	5.00	5.06	
109 Cyclohexanone	55	12.222	12.222	0.000	90	28483	250.0	260.4	
110 o-Xylene	106	12.264	12.264	0.000	96	26393	5.00	5.46	
* 112 1,4-Dichlorobenzene-d4	152	14.026	14.026	0.000	92	179118	50.0	50.0	
115 Bromoform	173	12.002	12.002	0.000	97	10172	5.00	4.74	
116 1,1,2,2-Tetrachloroethane	83	12.258	12.258	0.000	94	18352	5.00	5.23	
117 trans-1,4-Dichloro-2-buten	53	12.411	12.411	0.000	73	4265	5.00	5.12	
118 1,2,3-Trichloropropane	110	12.417	12.417	0.000	87	4892	5.00	5.14	
119 Isopropylbenzene	105	12.655	12.655	0.000	95	65869	5.00	5.29	
$ 120 4-Bromofluorobenzene	95	12.709	12.709	0.000	98	18445	5.00	5.29	
121 Bromobenzene	156	12.953	12.953	0.000	83	20589	5.00	5.34	
122 N-Propylbenzene	120	13.112	13.112	0.000	99	19019	5.00	5.20	
124 2-Chlorotoluene	126	13.234	13.234	0.000	99	18802	5.00	5.29	
125 4-Chlorotoluene	91	13.307	13.307	0.000	95	47368	5.00	5.22	
126 1,3,5-Trimethylbenzene	105	13.386	13.386	0.000	96	55925	5.00	5.18	
128 tert-Butylbenzene	119	13.685	13.685	0.000	92	52187	5.00	5.31	
129 1,2,4-Trimethylbenzene	105	13.782	13.782	0.000	97	60953	5.00	5.27	
131 sec-Butylbenzene	105	13.898	13.898	0.000	94	78371	5.00	5.32	
133 Benzyl chloride	91	13.984	13.984	0.000	97	32044	5.00	5.04	
134 1,3-Dichlorobenzene	146	13.990	13.990	0.000	98	39929	5.00	5.19	
135 1,4-Dichlorobenzene	146	14.051	14.051	0.000	96	40974	5.00	5.24	
136 4-Isopropyltoluene	119	14.063	14.063	0.000	97	70130	5.00	5.28	
137 1,2,3-Trimethylbenzene	105	14.209	14.209	0.000	97	62112	5.00	5.17	
138 1,2-Dichlorobenzene	146	14.404	14.404	0.000	99	38854	5.00	5.06	
139 n-Butylbenzene	91	14.465	14.465	0.000	97	61903	5.00	5.34	
141 1,2-Dibromo-3-Chloropropan	157	14.874	14.874	0.000	92	5134	5.00	5.04	
142 1,3,5-Trichlorobenzene	180	15.721	15.721	0.000	97	32486	5.00	5.13	
143 1,2,4-Trichlorobenzene	180	16.312	16.312	0.000	95	31280	5.00	5.05	
144 Naphthalene	128	16.605	16.605	0.000	96	84431	5.00	5.47	
145 Hexachlorobutadiene	190	16.648	16.648	0.000	98	7810	5.00	5.59	
146 1,2,3-Trichlorobenzene	180	16.843	16.843	0.000	97	30557	5.00	5.17	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

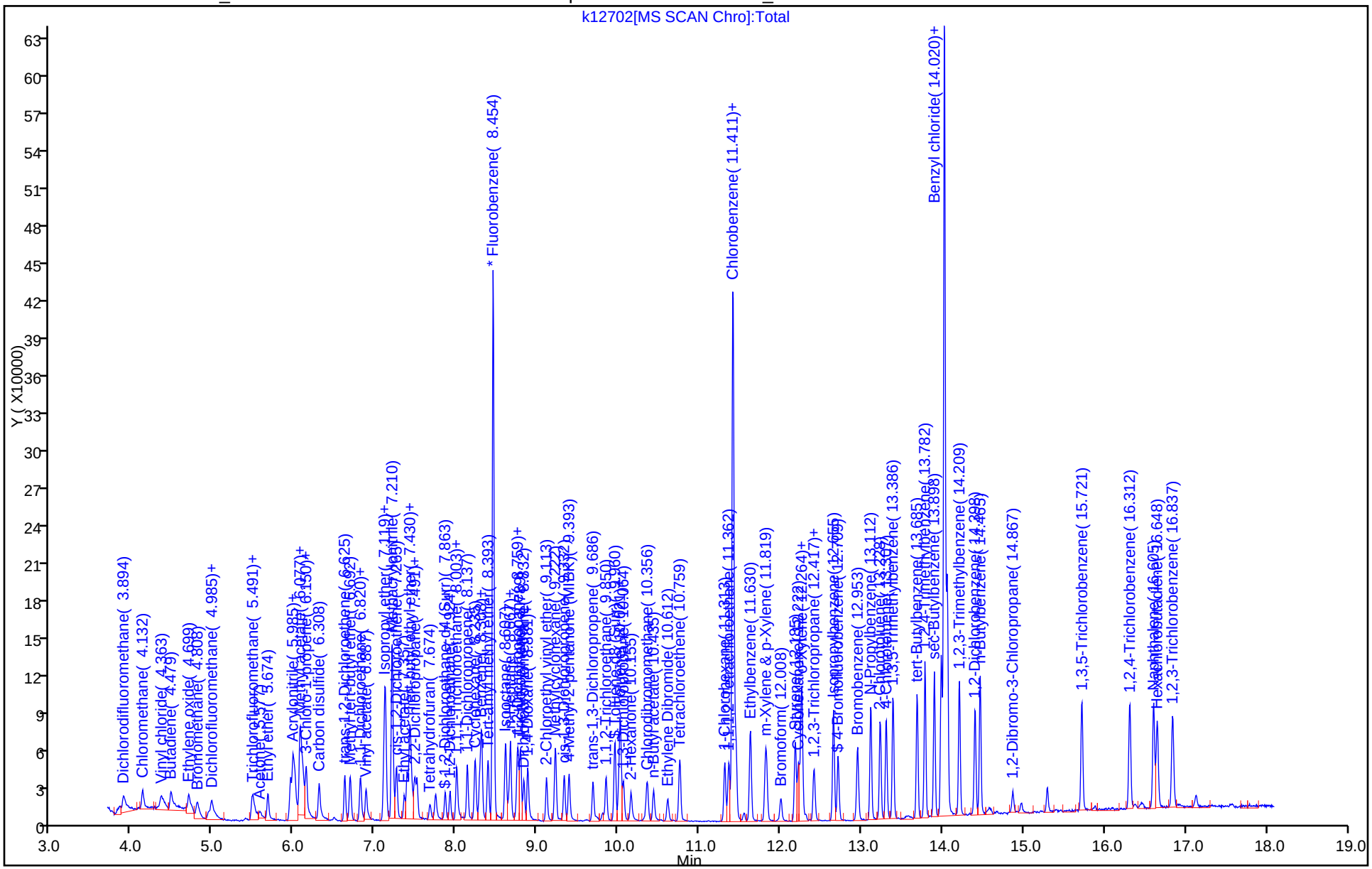
VOASTDGASPT_00166	Amount Added:	0.50	Units: uL
VOAIS50PPM_00171	Amount Added:	5.00	Units: uL
EOxideStd_00071	Amount Added:	0.50	Units: uL
VOASTDPT2_00056	Amount Added:	0.50	Units: uL

Report Date: 06-May-2016 13:59:43 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12702.d

Injection Date:	06-May-2016 10:15:30	Instrument ID:	CHVOAMS09	Operator ID:	WS
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12703.d
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 06-May-2016 10:40:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 600-0011949-004
Operator ID: WS Instrument ID: CHVOAMS09
Sublist: chrom-8260s_9*sub20

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 06-May-2016 13:59:45 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: shenw Date: 06-May-2016 13:57:35

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.460	8.454	0.006	99	362401	50.0	50.0	
2 Dichlorodifluoromethane	85	3.894	3.894	0.000	99	36490	10.0	10.4	
3 Chloromethane	50	4.132	4.132	0.000	99	39791	10.0	10.7	
4 Vinyl chloride	62	4.363	4.357	0.006	98	33792	10.0	10.9	
5 Butadiene	39	4.479	4.485	-0.006	99	27031	10.0	10.4	
6 Ethylene oxide	44	4.705	4.699	0.006	97	53106	100.0	97.5	
7 Bromomethane	94	4.808	4.802	0.006	90	29469	10.0	10.9	
8 Chloroethane	64	4.949	4.955	-0.006	97	18390	10.0	10.6	
10 Dichlorofluoromethane	67	4.985	4.985	0.000	97	48782	10.0	10.5	
9 Ethanol	45	5.205	5.211	-0.006	57	564	NC	NC	
13 Acrolein	56	5.503	5.467	0.036	24	149	50.0	35.7	
14 Acetonitrile	41	5.485	5.479	0.006	53	26892	100.0	71.9	
15 Trichlorofluoromethane	101	5.491	5.485	0.006	96	39843	10.0	9.35	
16 Isopropyl alcohol	45	5.503	5.503	0.000	99	14486	100.0	18.9	
18 Acetone	43	5.583	5.577	0.006	99	13001	20.0	18.8	
19 Ethyl ether	59	5.680	5.674	0.006	96	21281	10.0	10.1	
21 2-Methyl-2-propanol	59	5.955	5.949	0.007	99	28307	100.0	44.9	
22 1,1-Dichloroethene	96	5.961	5.961	0.000	96	25949	10.0	9.66	
23 Acrylonitrile	52	5.985	5.985	0.000	99	60741	100.0	94.8	
24 Iodomethane	142	6.009	6.009	0.000	99	60341	10.0	9.41	
25 Methylene Chloride	84	6.076	6.070	0.006	95	47008	10.0	9.50	
26 Methyl acetate	43	6.095	6.095	0.000	99	96900	50.0	50.2	
27 1,1,2-Trichloro-1,2,2-trif	151	6.119	6.113	0.006	88	20293	10.0	8.44	
28 3-Chloro-1-propene	76	6.150	6.150	0.000	93	12462	10.0	9.74	
29 Carbon disulfide	76	6.314	6.308	0.006	99	90522	10.0	9.65	
30 trans-1,2-Dichloroethene	96	6.631	6.625	0.006	98	25896	10.0	9.63	
31 Methyl tert-butyl ether	73	6.698	6.692	0.006	97	62562	10.0	9.60	
32 Propionitrile	54	6.820	6.814	0.006	56	34867	100.0	98.5	
33 1,1-Dichloroethane	63	6.820	6.820	0.000	96	41880	10.0	9.76	
34 Vinyl acetate	43	6.887	6.887	0.000	97	76444	20.0	18.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 2-Chloro-1,3-butadiene	53	7.107	7.107	0.000	91	35687	10.0	9.47	
36 Hexane	57	7.125	7.119	0.006	85	36285	10.0	9.60	
38 2-Butanone (MEK)	72	7.137	7.137	0.000	77	4739	20.0	18.1	
37 Isopropyl ether	45	7.131	7.125	0.006	87	81986	10.0	9.40	
39 Methacrylonitrile	66	7.210	7.204	0.006	94	29793	100.0	101.5	
40 cis-1,2-Dichloroethene	96	7.265	7.265	0.000	75	28513	10.0	9.63	
41 Ethyl acetate	43	7.363	7.357	0.006	99	46508	20.0	19.2	
42 Chlorobromomethane	128	7.399	7.393	0.006	88	17796	10.0	9.66	
44 Chloroform	83	7.424	7.424	0.000	92	44350	10.0	9.54	
45 Tert-butyl ethyl ether	59	7.436	7.436	0.000	98	71737	10.0	9.42	
46 Isobutyl alcohol	43	7.460	7.454	0.006	94	43418	250.0	227.6	
47 2,2-Dichloropropane	77	7.491	7.491	0.000	89	28000	10.0	10.1	
$ 48 Dibromofluoromethane	113	7.521	7.515	0.006	92	26702	10.0	9.23	
S 50 1,2-Dichloroethene, Total	96				0		20.0	19.3	
51 Tetrahydrofuran	42	7.680	7.674	0.006	93	20913	20.0	21.9	
$ 55 1,2-Dichloroethane-d4 (Sur	65	7.869	7.863	0.006	0	24517	10.0	9.64	
56 1,2-Dichloroethane	62	7.924	7.924	0.000	96	29660	10.0	9.57	
57 n-Butanol	56	8.009	8.003	0.006	34	19546	250.0	182.7	
58 1,1,1-Trichloroethane	97	8.009	8.003	0.006	97	39302	10.0	9.85	
60 1,1-Dichloropropene	75	8.143	8.137	0.006	96	30790	10.0	9.90	
61 Cyclohexane	84	8.241	8.235	0.006	92	31377	10.0	10.1	
62 Carbon tetrachloride	119	8.296	8.290	0.006	95	36375	10.0	9.42	
63 Benzene	78	8.314	8.314	0.000	96	90903	10.0	9.74	
64 Tert-amyl methyl ether	73	8.393	8.393	0.000	98	61607	10.0	9.55	
66 Isooctane	57	8.613	8.607	0.006	96	94780	10.0	10.1	
67 Ethyl acrylate	55	8.649	8.649	0.000	98	34246	10.0	8.86	
68 n-Heptane	43	8.674	8.667	0.007	96	41435	10.0	9.52	
69 Dibromomethane	93	8.753	8.747	0.006	92	17819	10.0	9.90	
70 1,2-Dichloropropane	63	8.765	8.765	0.000	95	23638	10.0	9.75	
71 2-Nitropropane	43	8.771	8.771	0.000	74	12362	20.0	19.3	
72 Trichloroethene	130	8.795	8.796	-0.001	92	36868	10.0	10.1	
73 Dichlorobromomethane	83	8.838	8.832	0.006	98	33153	10.0	9.14	
75 Methyl methacrylate	41	8.887	8.881	0.006	97	41868	20.0	18.9	
76 1,4-Dioxane	58	8.899	8.905	-0.006	80	1828	200.0	-76.8	
78 Methylcyclohexane	83	9.228	9.222	0.006	92	41499	10.0	10.1	
79 4-Methyl-2-pentanone (MIBK	43	9.393	9.393	0.000	97	56261	20.0	20.2	
* 80 Chlorobenzene-d5	82	11.417	11.411	0.006	81	128500	50.0	50.0	
84 2-Chloroethyl vinyl ether	63	9.119	9.113	0.006	92	26814	20.0	19.7	
85 cis-1,3-Dichloropropene	75	9.332	9.332	0.000	95	35967	10.0	9.80	
86 trans-1,3-Dichloropropene	75	9.692	9.686	0.006	92	31924	10.0	9.78	
89 1,1,2-Trichloroethane	97	9.856	9.850	0.006	87	22708	10.0	9.72	
$ 90 Toluene-d8 (Surr)	98	9.960	9.954	0.006	92	84298	10.0	9.86	
91 Ethyl methacrylate	69	10.009	10.003	0.006	92	25753	10.0	9.71	
92 Toluene	92	10.027	10.027	0.000	98	58554	10.0	9.92	
93 1,3-Dichloropropane	76	10.064	10.064	0.000	92	33583	10.0	10.0	
95 2-Hexanone	43	10.155	10.155	0.000	99	41106	20.0	21.8	
96 Chlorodibromomethane	129	10.362	10.356	0.006	90	32909	10.0	9.62	
98 n-Butyl acetate	43	10.441	10.435	0.006	98	44142	10.0	10.4	
99 Ethylene Dibromide	107	10.612	10.612	0.000	98	26788	10.0	10.0	
100 Tetrachloroethene	164	10.765	10.759	0.006	95	24377	10.0	9.88	
S 101 Xylenes, Total	106				0		20.0	19.7	
103 1-Chlorohexane	55	11.313	11.313	0.000	97	21443	10.0	9.95	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,1,1,2-Tetrachloroethane	131	11.362	11.368	-0.006	94	31009	10.0	9.88	
105 Chlorobenzene	112	11.453	11.447	0.006	98	76651	10.0	9.89	
106 Ethylbenzene	106	11.630	11.630	0.000	97	37833	10.0	9.88	
107 m-Xylene & p-Xylene	91	11.825	11.819	0.006	0	87280	10.0	9.91	
108 Styrene	104	12.185	12.185	0.000	95	75266	10.0	9.82	
109 Cyclohexanone	55	12.228	12.222	0.006	91	55395	500.0	499.1	
110 o-Xylene	106	12.264	12.264	0.000	96	47997	10.0	9.78	
* 112 1,4-Dichlorobenzene-d4	152	14.026	14.026	0.000	92	180511	50.0	50.0	
115 Bromoform	173	12.008	12.002	0.006	97	21879	10.0	10.1	
116 1,1,2,2-Tetrachloroethane	83	12.258	12.258	0.000	94	35927	10.0	10.2	
117 trans-1,4-Dichloro-2-buten	53	12.411	12.411	0.000	75	8295	10.0	9.88	
118 1,2,3-Trichloropropane	110	12.423	12.417	0.006	87	10191	10.0	10.6	
119 Isopropylbenzene	105	12.654	12.655	0.000	95	121408	10.0	9.68	
$ 120 4-Bromofluorobenzene	95	12.715	12.709	0.006	98	33752	10.0	9.61	
121 Bromobenzene	156	12.953	12.953	0.000	87	37553	10.0	9.66	
122 N-Propylbenzene	120	13.118	13.112	0.006	98	36275	10.0	9.84	
124 2-Chlorotoluene	126	13.234	13.234	0.000	99	34540	10.0	9.64	
125 4-Chlorotoluene	91	13.307	13.307	0.000	95	88106	10.0	9.64	
126 1,3,5-Trimethylbenzene	105	13.392	13.386	0.006	95	104212	10.0	9.57	
128 tert-Butylbenzene	119	13.691	13.685	0.006	91	93569	10.0	9.44	
129 1,2,4-Trimethylbenzene	105	13.788	13.782	0.006	96	113322	10.0	9.73	
131 sec-Butylbenzene	105	13.898	13.898	0.000	93	143651	10.0	9.68	
133 Benzyl chloride	91	13.983	13.984	-0.001	97	64923	10.0	10.1	
134 1,3-Dichlorobenzene	146	13.990	13.990	0.000	96	76573	10.0	9.87	
135 1,4-Dichlorobenzene	146	14.051	14.051	0.000	96	77946	10.0	9.90	
136 4-Isopropyltoluene	119	14.063	14.063	0.000	97	129502	10.0	9.67	
137 1,2,3-Trimethylbenzene	105	14.209	14.209	0.000	97	116211	10.0	9.61	
138 1,2-Dichlorobenzene	146	14.404	14.404	0.000	99	77799	10.0	10.1	
139 n-Butylbenzene	91	14.465	14.465	0.000	97	112114	10.0	9.60	
141 1,2-Dibromo-3-Chloropropan	157	14.867	14.874	-0.007	90	10694	10.0	10.4	
142 1,3,5-Trichlorobenzene	180	15.721	15.721	0.000	97	62383	10.0	9.78	
143 1,2,4-Trichlorobenzene	180	16.312	16.312	0.000	95	61385	10.0	9.84	
144 Naphthalene	128	16.605	16.605	0.000	96	156429	10.0	10.1	
145 Hexachlorobutadiene	190	16.648	16.648	0.000	97	14183	10.0	10.1	
146 1,2,3-Trichlorobenzene	180	16.843	16.843	0.000	97	59704	10.0	10.0	
S 163 1,3-Dichloropropene, Total	1				0			19.6	
S 170 Trihalomethanes, Total	1				0			38.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

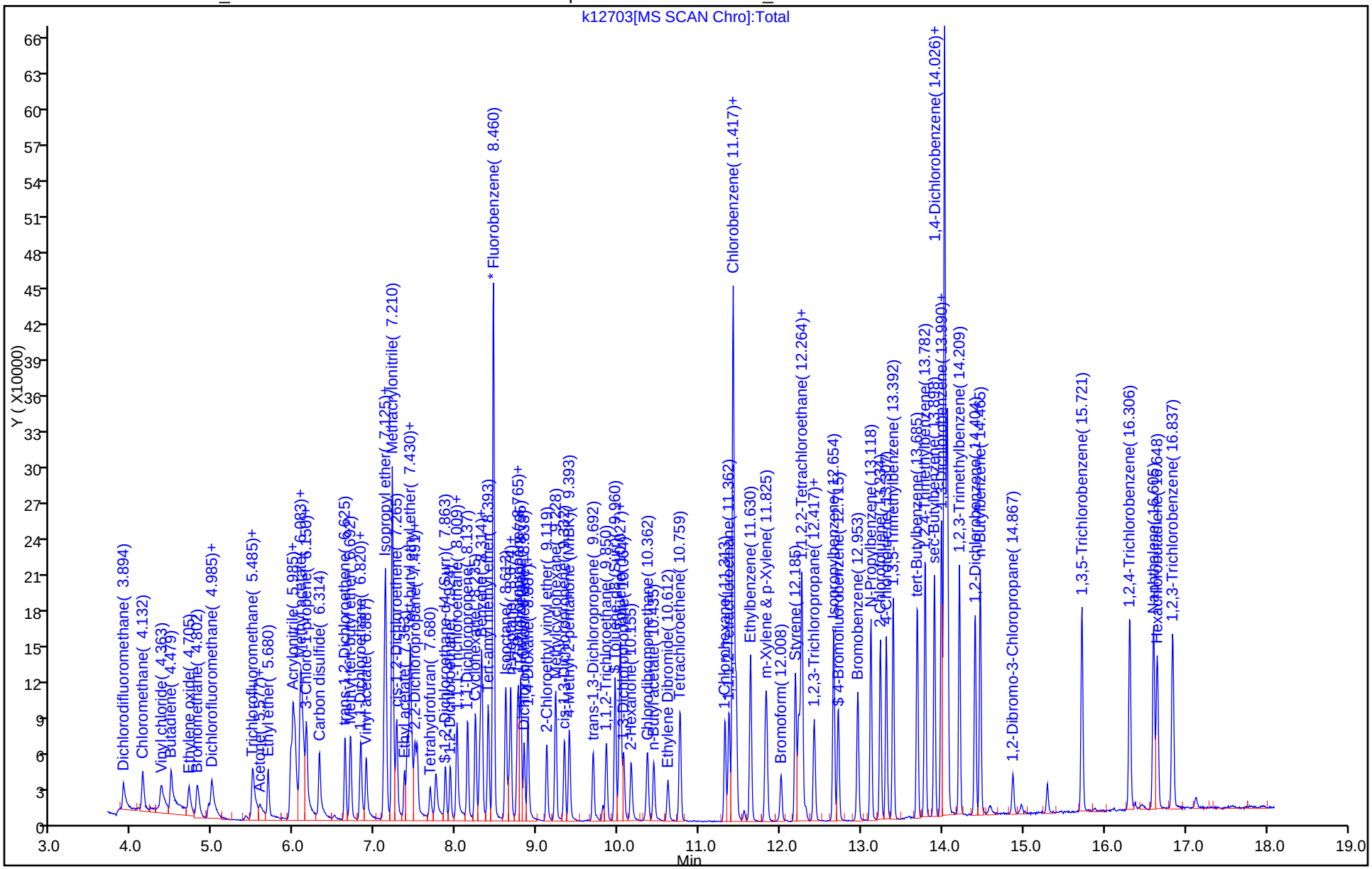
VOASTDGASPT_00166	Amount Added:	1.00	Units: uL
VOAIS50PPM_00171	Amount Added:	5.00	Units: uL
EOxideStd_00071	Amount Added:	1.00	Units: uL
VOASTDPT2_00056	Amount Added:	1.00	Units: uL

Report Date: 06-May-2016 13:59:45 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12703.d

Injection Date:	06-May-2016 10:40:30	Instrument ID:	CHVOAMS09	Operator ID:	WS
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12704.d
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 06-May-2016 11:04:30 ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 600-0011949-005
Operator ID: WS Instrument ID: CHVOAMS09
Sublist: chrom-8260s_9*sub20

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 06-May-2016 13:59:46 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: shenw Date: 06-May-2016 13:58:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.460	8.454	0.006	100	350021	50.0	50.0	
2 Dichlorodifluoromethane	85	3.894	3.894	0.000	99	67247	20.0	19.8	
3 Chloromethane	50	4.132	4.132	0.000	99	68130	20.0	19.0	
4 Vinyl chloride	62	4.363	4.357	0.006	98	60941	20.0	20.4	
5 Butadiene	39	4.479	4.485	-0.006	96	50874	20.0	20.3	
6 Ethylene oxide	44	4.699	4.699	0.000	98	78232	200.0	199.1	
7 Bromomethane	94	4.808	4.802	0.006	90	51470	20.0	19.7	
8 Chloroethane	64	4.949	4.955	-0.006	98	34148	20.0	20.4	
10 Dichlorofluoromethane	67	4.985	4.985	0.000	97	90029	20.0	20.1	
9 Ethanol	45	5.168	5.211	-0.043	42	598	NC	NC	
13 Acrolein	56	5.473	5.467	0.006	24	1160	100.0	135.6	
14 Acetonitrile	41	5.473	5.479	-0.006	97	69108	200.0	255.5	
15 Trichlorofluoromethane	101	5.491	5.485	0.006	98	84648	20.0	20.6	
16 Isopropyl alcohol	45	5.510	5.503	0.007	99	38663	200.0	318.4	
18 Acetone	43	5.577	5.577	0.000	99	27854	40.0	41.6	
19 Ethyl ether	59	5.680	5.674	0.006	96	40587	20.0	20.0	
21 2-Methyl-2-propanol	59	5.955	5.949	0.007	99	78670	200.0	276.6	
22 1,1-Dichloroethene	96	5.967	5.961	0.006	96	51222	20.0	19.7	
23 Acrylonitrile	52	5.985	5.985	0.000	99	139153	200.0	225.0	
24 Iodomethane	142	6.009	6.009	0.000	99	124523	20.0	20.1	
25 Methylene Chloride	84	6.077	6.070	0.007	95	75409	20.0	20.1	
26 Methyl acetate	43	6.095	6.095	0.000	99	204523	100.0	109.6	
27 1,1,2-Trichloro-1,2,2-trif	151	6.119	6.113	0.006	89	48540	20.0	20.9	
28 3-Chloro-1-propene	76	6.156	6.150	0.006	93	25542	20.0	20.7	
29 Carbon disulfide	76	6.314	6.308	0.006	99	182602	20.0	20.2	
30 trans-1,2-Dichloroethene	96	6.631	6.625	0.006	98	52271	20.0	20.1	
31 Methyl tert-butyl ether	73	6.692	6.692	0.000	97	131692	20.0	20.9	
32 Propionitrile	54	6.808	6.814	-0.006	99	77820	200.0	227.7	
33 1,1-Dichloroethane	63	6.820	6.820	0.000	96	84110	20.0	20.3	
34 Vinyl acetate	43	6.887	6.887	0.000	96	169114	40.0	43.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 2-Chloro-1,3-butadiene	53	7.107	7.107	0.000	90	73951	20.0	20.3	
36 Hexane	57	7.125	7.119	0.006	80	72557	20.0	19.9	
37 Isopropyl ether	45	7.131	7.125	0.006	88	174182	20.0	20.7	
38 2-Butanone (MEK)	72	7.131	7.137	-0.006	93	12098	40.0	48.0	
39 Methacrylonitrile	66	7.210	7.204	0.006	95	62872	200.0	221.7	
40 cis-1,2-Dichloroethene	96	7.265	7.265	0.000	76	58082	20.0	20.3	
41 Ethyl acetate	43	7.357	7.357	0.000	99	105983	40.0	45.3	
42 Chlorobromomethane	128	7.399	7.393	0.006	87	36466	20.0	20.5	
44 Chloroform	83	7.424	7.424	0.000	92	91130	20.0	20.3	
45 Tert-butyl ethyl ether	59	7.436	7.436	0.000	99	152697	20.0	20.8	
46 Isobutyl alcohol	43	7.454	7.454	0.000	97	101327	500.0	550.0	
47 2,2-Dichloropropane	77	7.491	7.491	0.000	88	53770	20.0	20.1	
$ 48 Dibromofluoromethane	113	7.521	7.515	0.006	92	57248	20.0	20.5	
S 50 1,2-Dichloroethene, Total	96				0		40.0	40.4	
51 Tetrahydrofuran	42	7.680	7.674	0.006	94	39375	40.0	42.8	
$ 55 1,2-Dichloroethane-d4 (Sur	65	7.863	7.863	0.000	0	51768	20.0	21.1	
56 1,2-Dichloroethane	62	7.924	7.924	0.000	97	63383	20.0	21.2	
57 n-Butanol	56	8.003	8.003	0.000	91	42149	500.0	585.0	
58 1,1,1-Trichloroethane	97	8.009	8.003	0.006	97	75998	20.0	19.7	
60 1,1-Dichloropropene	75	8.137	8.137	0.000	93	60252	20.0	20.1	
61 Cyclohexane	84	8.241	8.235	0.006	92	61201	20.0	20.4	
62 Carbon tetrachloride	119	8.296	8.290	0.006	95	73511	20.0	19.7	
63 Benzene	78	8.314	8.314	0.000	96	181330	20.0	20.1	
64 Tert-amyl methyl ether	73	8.393	8.393	0.000	97	128882	20.0	20.7	
66 Isooctane	57	8.613	8.607	0.006	96	187490	20.0	20.7	
67 Ethyl acrylate	55	8.649	8.649	0.000	98	83187	20.0	22.3	
68 n-Heptane	43	8.674	8.667	0.007	97	85344	20.0	20.3	
69 Dibromomethane	93	8.753	8.747	0.006	91	36260	20.0	20.9	
70 1,2-Dichloropropane	63	8.765	8.765	0.000	93	48306	20.0	20.6	
71 2-Nitropropane	43	8.771	8.771	0.000	75	25933	40.0	42.0	
72 Trichloroethene	130	8.796	8.796	0.000	91	71346	20.0	20.3	
73 Dichlorobromomethane	83	8.838	8.832	0.006	99	72800	20.0	20.8	
75 Methyl methacrylate	41	8.881	8.881	0.000	96	94146	40.0	44.1	
76 1,4-Dioxane	58	8.899	8.905	-0.006	93	7186	400.0	673.3	
78 Methylcyclohexane	83	9.228	9.222	0.006	91	79873	20.0	20.1	
79 4-Methyl-2-pentanone (MIBK	43	9.393	9.393	0.000	97	119028	40.0	44.2	
* 80 Chlorobenzene-d5	82	11.417	11.411	0.006	82	127355	50.0	50.0	
84 2-Chloroethyl vinyl ether	63	9.119	9.113	0.006	93	59066	40.0	43.8	
85 cis-1,3-Dichloropropene	75	9.332	9.332	0.000	95	75799	20.0	20.8	
86 trans-1,3-Dichloropropene	75	9.692	9.686	0.006	93	69091	20.0	21.4	
89 1,1,2-Trichloroethane	97	9.850	9.850	0.000	88	50431	20.0	21.8	
$ 90 Toluene-d8 (Surr)	98	9.960	9.954	0.006	93	172648	20.0	20.4	
91 Ethyl methacrylate	69	10.009	10.003	0.006	93	56194	20.0	21.4	
92 Toluene	92	10.027	10.027	0.000	98	119419	20.0	20.4	
93 1,3-Dichloropropane	76	10.064	10.064	0.000	93	71427	20.0	21.5	
95 2-Hexanone	43	10.155	10.155	0.000	99	84149	40.0	45.0	
96 Chlorodibromomethane	129	10.362	10.356	0.006	88	72679	20.0	21.4	
98 n-Butyl acetate	43	10.435	10.435	0.000	98	93283	20.0	22.2	
99 Ethylene Dibromide	107	10.612	10.612	0.000	99	57256	20.0	21.7	
100 Tetrachloroethene	164	10.765	10.759	0.006	96	49614	20.0	20.3	
S 101 Xylenes, Total	106				0		40.0	41.0	
103 1-Chlorohexane	55	11.313	11.313	0.000	97	41983	20.0	19.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,1,1,2-Tetrachloroethane	131	11.368	11.368	0.000	95	63405	20.0	20.4	
105 Chlorobenzene	112	11.454	11.447	0.007	98	158625	20.0	20.7	
106 Ethylbenzene	106	11.630	11.630	0.000	97	78257	20.0	20.6	
107 m-Xylene & p-Xylene	91	11.819	11.819	0.000	0	176630	20.0	20.2	
108 Styrene	104	12.185	12.185	0.000	95	155266	20.0	20.4	
109 Cyclohexanone	55	12.222	12.222	0.000	91	119434	1000.0	1085.7	
110 o-Xylene	106	12.264	12.264	0.000	96	100913	20.0	20.8	
* 112 1,4-Dichlorobenzene-d4	152	14.026	14.026	0.000	92	176259	50.0	50.0	
115 Bromoform	173	12.008	12.002	0.006	97	44339	20.0	21.0	
116 1,1,2,2-Tetrachloroethane	83	12.258	12.258	0.000	94	73680	20.0	21.3	
117 trans-1,4-Dichloro-2-buten	53	12.411	12.411	0.000	93	18030	20.0	22.0	
118 1,2,3-Trichloropropane	110	12.423	12.417	0.006	86	20690	20.0	22.1	
119 Isopropylbenzene	105	12.661	12.655	0.007	94	245901	20.0	20.1	
$ 120 4-Bromofluorobenzene	95	12.709	12.709	0.000	99	70314	20.0	20.5	
121 Bromobenzene	156	12.953	12.953	0.000	85	76285	20.0	20.1	
122 N-Propylbenzene	120	13.118	13.112	0.006	99	72050	20.0	20.0	
124 2-Chlorotoluene	126	13.234	13.234	0.000	99	69932	20.0	20.0	
125 4-Chlorotoluene	91	13.307	13.307	0.000	95	181481	20.0	20.3	
126 1,3,5-Trimethylbenzene	105	13.392	13.386	0.006	96	211476	20.0	19.9	
128 tert-Butylbenzene	119	13.691	13.685	0.006	92	191101	20.0	19.7	
129 1,2,4-Trimethylbenzene	105	13.788	13.782	0.006	96	226897	20.0	19.9	
131 sec-Butylbenzene	105	13.898	13.898	0.000	93	287084	20.0	19.8	
133 Benzyl chloride	91	13.984	13.984	0.000	97	131736	20.0	21.0	
134 1,3-Dichlorobenzene	146	13.990	13.990	0.000	97	154375	20.0	20.4	
135 1,4-Dichlorobenzene	146	14.051	14.051	0.000	97	156149	20.0	20.3	
136 4-Isopropyltoluene	119	14.063	14.063	0.000	97	259617	20.0	19.9	
137 1,2,3-Trimethylbenzene	105	14.209	14.209	0.000	97	235215	20.0	19.9	
138 1,2-Dichlorobenzene	146	14.404	14.404	0.000	99	154077	20.0	20.4	
139 n-Butylbenzene	91	14.465	14.465	0.000	97	226089	20.0	19.8	
141 1,2-Dibromo-3-Chloropropan	157	14.868	14.874	-0.006	93	21412	20.0	21.4	
142 1,3,5-Trichlorobenzene	180	15.721	15.721	0.000	97	124752	20.0	20.0	
143 1,2,4-Trichlorobenzene	180	16.312	16.312	0.000	94	122764	20.0	20.1	
144 Naphthalene	128	16.605	16.605	0.000	96	310932	20.0	20.5	
145 Hexachlorobutadiene	190	16.654	16.648	0.006	98	27563	20.0	20.1	
146 1,2,3-Trichlorobenzene	180	16.837	16.843	-0.006	97	118039	20.0	20.3	
S 163 1,3-Dichloropropene, Total	1				0			42.2	
S 170 Trihalomethanes, Total	1				0			83.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

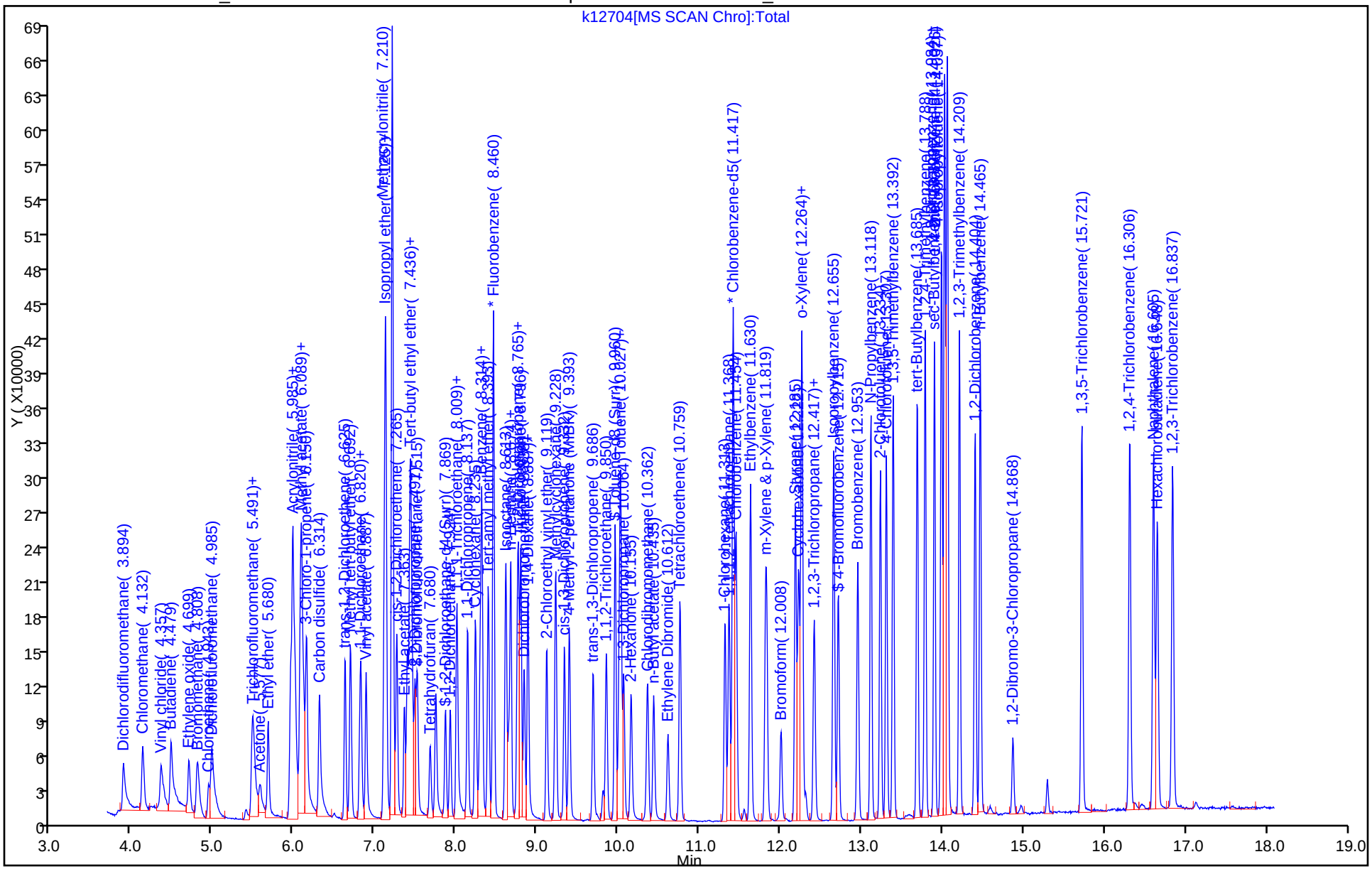
VOASTDGASPT_00166	Amount Added:	2.00	Units: uL
VOAIS50PPM_00171	Amount Added:	5.00	Units: uL
EOxideStd_00071	Amount Added:	2.00	Units: uL
VOASTDPT2_00056	Amount Added:	2.00	Units: uL

Report Date: 06-May-2016 13:59:47 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12704.d

Injection Date:	06-May-2016 11:04:30	Instrument ID:	CHVOAMS09	Operator ID:	WS
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12705.d
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 06-May-2016 11:29:30 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: icis
Misc. Info.: 600-0011949-006
Operator ID: WS Instrument ID: CHVOAMS09
Sublist: chrom-8260s_9*sub20

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 06-May-2016 13:59:48 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: shenw Date: 06-May-2016 13:03:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.460	8.460	0.000	100	360607	50.0	50.0	
2 Dichlorodifluoromethane	85	3.894	3.894	0.000	99	173769	50.0	49.7	
3 Chloromethane	50	4.132	4.132	0.000	99	179821	50.0	48.7	
4 Vinyl chloride	62	4.358	4.358	0.000	98	148983	50.0	48.4	
5 Butadiene	39	4.479	4.479	0.000	95	129186	50.0	49.9	
6 Ethylene oxide	44	4.699	4.699	0.000	98	160039	500.0	489.6	
7 Bromomethane	94	4.803	4.803	0.000	90	127310	50.0	47.3	
8 Chloroethane	64	4.949	4.949	0.000	99	83517	50.0	48.4	
10 Dichlorofluoromethane	67	4.985	4.985	0.000	97	222088	50.0	48.0	
9 Ethanol	45		5.211				NC	ND	
13 Acrolein	56	5.473	5.473	0.000	26	2394	250.0	250.0	
14 Acetonitrile	41	5.473	5.473	0.000	98	148141	500.0	530.5	
15 Trichlorofluoromethane	101	5.491	5.491	0.000	99	214436	50.0	50.6	
16 Isopropyl alcohol	45	5.510	5.510	0.000	97	70493	500.0	541.1	
18 Acetone	43	5.577	5.577	0.000	99	61729	100.0	89.5	
19 Ethyl ether	59	5.680	5.680	0.000	96	100842	50.0	48.3	
21 2-Methyl-2-propanol	59	5.949	5.949	0.000	99	163610	500.0	561.0	
22 1,1-Dichloroethene	96	5.961	5.961	0.000	95	130700	50.0	48.9	
23 Acrylonitrile	52	5.985	5.985	0.000	98	299795	500.0	470.5	
24 Iodomethane	142	6.010	6.010	0.000	99	322369	50.0	50.5	
25 Methylene Chloride	84	6.077	6.077	0.000	96	166574	50.0	50.5	
26 Methyl acetate	43	6.089	6.089	0.000	99	451941	250.0	235.2	
27 1,1,2-Trichloro-1,2,2-trif	151	6.119	6.119	0.000	88	129289	50.0	54.0	
28 3-Chloro-1-propene	76	6.150	6.150	0.000	93	64394	50.0	50.6	
29 Carbon disulfide	76	6.308	6.308	0.000	99	473738	50.0	50.8	
30 trans-1,2-Dichloroethene	96	6.625	6.625	0.000	98	136919	50.0	51.2	
31 Methyl tert-butyl ether	73	6.692	6.692	0.000	97	320766	50.0	49.5	
32 Propionitrile	54	6.808	6.808	0.000	99	166088	500.0	471.7	
33 1,1-Dichloroethane	63	6.820	6.820	0.000	97	217075	50.0	50.8	
34 Vinyl acetate	43	6.888	6.888	0.000	96	391556	100.0	97.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 2-Chloro-1,3-butadiene	53	7.107	7.107	0.000	91	190332	50.0	50.7	
36 Hexane	57	7.125	7.125	0.000	95	190584	50.0	50.7	
37 Isopropyl ether	45	7.131	7.131	0.000	92	444895	50.0	51.2	
38 2-Butanone (MEK)	72	7.131	7.131	0.000	92	24598	100.0	94.6	
39 Methacrylonitrile	66	7.211	7.211	0.000	95	136503	500.0	467.2	
40 cis-1,2-Dichloroethene	96	7.265	7.265	0.000	77	150369	50.0	51.1	
41 Ethyl acetate	43	7.357	7.357	0.000	99	222795	100.0	92.4	
42 Chlorobromomethane	128	7.400	7.400	0.000	87	91378	50.0	49.9	
44 Chloroform	83	7.424	7.424	0.000	92	233398	50.0	50.4	
45 Tert-butyl ethyl ether	59	7.436	7.436	0.000	97	385038	50.0	50.8	
46 Isobutyl alcohol	43	7.454	7.454	0.000	95	220439	1250.0	1161.3	
47 2,2-Dichloropropane	77	7.491	7.491	0.000	87	137373	50.0	49.9	
$ 48 Dibromofluoromethane	113	7.522	7.522	0.000	93	146135	50.0	50.7	
S 50 1,2-Dichloroethene, Total	96				0		100.0	102.2	
51 Tetrahydrofuran	42	7.674	7.674	0.000	91	82962	100.0	87.5	
$ 55 1,2-Dichloroethane-d4 (Sur	65	7.863	7.863	0.000	0	126235	50.0	49.9	
56 1,2-Dichloroethane	62	7.924	7.924	0.000	97	152214	50.0	49.4	
57 n-Butanol	56	8.003	8.003	0.000	90	107192	1250.0	1420.0	
58 1,1,1-Trichloroethane	97	8.009	8.009	0.000	97	203045	50.0	51.2	
60 1,1-Dichloropropene	75	8.137	8.137	0.000	93	157538	50.0	50.9	
61 Cyclohexane	84	8.235	8.235	0.000	93	158883	50.0	51.3	
62 Carbon tetrachloride	119	8.296	8.296	0.000	95	198170	50.0	51.6	
63 Benzene	78	8.314	8.314	0.000	96	467208	50.0	50.3	
64 Tert-amyl methyl ether	73	8.393	8.393	0.000	97	322258	50.0	50.2	
66 Isooctane	57	8.613	8.613	0.000	96	478932	50.0	51.3	
67 Ethyl acrylate	55	8.643	8.643	0.000	94	193778	50.0	50.4	
68 n-Heptane	43	8.674	8.674	0.000	97	218358	50.0	50.4	
69 Dibromomethane	93	8.753	8.753	0.000	91	87150	50.0	48.6	
70 1,2-Dichloropropane	63	8.765	8.765	0.000	92	119236	50.0	49.4	
71 2-Nitropropane	43	8.771	8.771	0.000	97	56271	100.0	88.5	
72 Trichloroethene	130	8.796	8.796	0.000	92	183754	50.0	50.8	
73 Dichlorobromomethane	83	8.838	8.838	0.000	99	182629	50.0	50.6	
75 Methyl methacrylate	41	8.881	8.881	0.000	96	204866	100.0	93.1	
76 1,4-Dioxane	58	8.905	8.905	0.000	95	12889	1000.0	1132.4	
78 Methylcyclohexane	83	9.229	9.229	0.000	91	209708	50.0	51.2	
79 4-Methyl-2-pentanone (MIBK	43	9.393	9.393	0.000	97	254915	100.0	91.9	
* 80 Chlorobenzene-d5	82	11.417	11.417	0.000	82	134859	50.0	50.0	
84 2-Chloroethyl vinyl ether	63	9.113	9.113	0.000	92	135724	100.0	95.1	
85 cis-1,3-Dichloropropene	75	9.332	9.332	0.000	95	189180	50.0	49.1	
86 trans-1,3-Dichloropropene	75	9.692	9.692	0.000	93	165900	50.0	48.4	
89 1,1,2-Trichloroethane	97	9.850	9.850	0.000	88	118486	50.0	48.3	
$ 90 Toluene-d8 (Surr)	98	9.960	9.960	0.000	93	449565	50.0	50.1	
91 Ethyl methacrylate	69	10.009	10.009	0.000	91	135103	50.0	48.5	
92 Toluene	92	10.027	10.027	0.000	98	306984	50.0	49.6	
93 1,3-Dichloropropane	76	10.064	10.064	0.000	93	169056	50.0	48.1	
95 2-Hexanone	43	10.155	10.155	0.000	99	176095	100.0	89.0	
96 Chlorodibromomethane	129	10.362	10.362	0.000	89	175948	50.0	49.0	
98 n-Butyl acetate	43	10.436	10.436	0.000	98	204204	50.0	45.8	
99 Ethylene Dibromide	107	10.612	10.612	0.000	98	133110	50.0	47.6	
100 Tetrachloroethene	164	10.759	10.759	0.000	95	127351	50.0	49.2	
S 101 Xylenes, Total	106				0		100.0	98.7	
103 1-Chlorohexane	55	11.313	11.313	0.000	97	110116	50.0	48.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,1,1,2-Tetrachloroethane	131	11.368	11.368	0.000	94	162191	50.0	49.3	
105 Chlorobenzene	112	11.454	11.454	0.000	98	398734	50.0	49.0	
106 Ethylbenzene	106	11.630	11.630	0.000	97	198964	50.0	49.5	
107 m-Xylene & p-Xylene	91	11.826	11.826	0.000	0	459261	50.0	49.7	
108 Styrene	104	12.185	12.185	0.000	95	395728	50.0	49.2	
109 Cyclohexanone	55	12.222	12.222	0.000	92	249248	2500.0	2139.7	
110 o-Xylene	106	12.265	12.265	0.000	96	252503	50.0	49.0	
* 112 1,4-Dichlorobenzene-d4	152	14.026	14.026	0.000	92	177444	50.0	50.0	
115 Bromoform	173	12.008	12.008	0.000	98	104068	50.0	49.0	
116 1,1,2,2-Tetrachloroethane	83	12.258	12.258	0.000	94	162415	50.0	46.7	
117 trans-1,4-Dichloro-2-buten	53	12.411	12.411	0.000	95	38031	50.0	46.1	
118 1,2,3-Trichloropropane	110	12.423	12.423	0.000	86	44247	50.0	46.9	
119 Isopropylbenzene	105	12.655	12.655	0.000	94	631460	50.0	51.2	
$ 120 4-Bromofluorobenzene	95	12.710	12.710	0.000	98	174512	50.0	50.6	
121 Bromobenzene	156	12.953	12.953	0.000	84	192647	50.0	50.4	
122 N-Propylbenzene	120	13.118	13.118	0.000	99	185427	50.0	51.2	
124 2-Chlorotoluene	126	13.234	13.234	0.000	99	179771	50.0	51.1	
125 4-Chlorotoluene	91	13.307	13.307	0.000	95	457767	50.0	51.0	
126 1,3,5-Trimethylbenzene	105	13.392	13.392	0.000	95	555606	50.0	51.9	
128 tert-Butylbenzene	119	13.691	13.691	0.000	91	500726	50.0	51.4	
129 1,2,4-Trimethylbenzene	105	13.789	13.789	0.000	96	587268	50.0	51.3	
131 sec-Butylbenzene	105	13.898	13.898	0.000	93	746885	50.0	51.2	
133 Benzyl chloride	91	13.984	13.984	0.000	98	301688	50.0	47.9	
134 1,3-Dichlorobenzene	146	13.990	13.990	0.000	97	385609	50.0	50.6	
135 1,4-Dichlorobenzene	146	14.051	14.051	0.000	97	387005	50.0	50.0	
136 4-Isopropyltoluene	119	14.063	14.063	0.000	97	674297	50.0	51.2	
137 1,2,3-Trimethylbenzene	105	14.209	14.209	0.000	97	610319	50.0	51.3	
138 1,2-Dichlorobenzene	146	14.404	14.404	0.000	99	382163	50.0	50.2	
139 n-Butylbenzene	91	14.465	14.465	0.000	97	586698	50.0	51.1	
141 1,2-Dibromo-3-Chloropropan	157	14.868	14.868	0.000	93	47002	50.0	46.6	
142 1,3,5-Trichlorobenzene	180	15.721	15.721	0.000	98	321634	50.0	51.3	
143 1,2,4-Trichlorobenzene	180	16.312	16.312	0.000	95	314497	50.0	51.3	
144 Naphthalene	128	16.605	16.605	0.000	96	719488	50.0	47.1	
145 Hexachlorobutadiene	190	16.648	16.648	0.000	98	68491	50.0	49.5	
146 1,2,3-Trichlorobenzene	180	16.837	16.837	0.000	97	294332	50.0	50.2	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

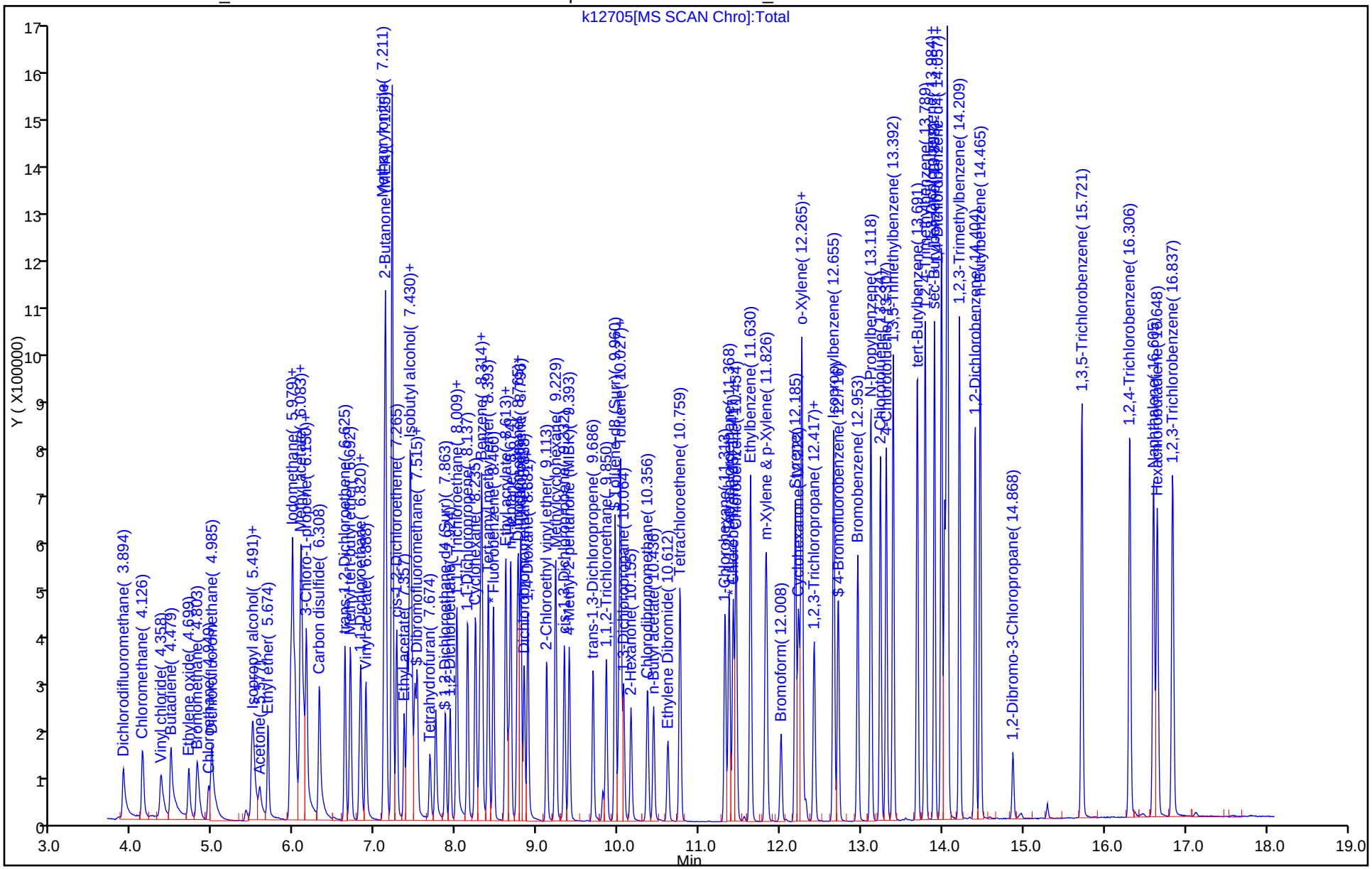
VOASTDGASPT_00166	Amount Added:	5.00	Units: uL
VOAIS50PPM_00171	Amount Added:	5.00	Units: uL
EOxideStd_00071	Amount Added:	5.00	Units: uL
VOASTDPT2_00056	Amount Added:	5.00	Units: uL

Report Date: 06-May-2016 13:59:49 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12705.d

Injection Date:	06-May-2016 11:29:30	Instrument ID:	CHVOAMS09	Operator ID:	WS
Lims ID:	icis			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12706.d
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 06-May-2016 11:53:30 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 600-0011949-007
Operator ID: WS Instrument ID: CHVOAMS09
Sublist: chrom-8260s_9*sub20

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 06-May-2016 13:59:51 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: shenw Date: 06-May-2016 13:58:47

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.460	8.460	0.000	100	338756	50.0	50.0	
2 Dichlorodifluoromethane	85	3.894	3.894	0.000	100	332067	100.0	101.2	
3 Chloromethane	50	4.132	4.132	0.000	100	355463	100.0	102.4	
4 Vinyl chloride	62	4.357	4.358	-0.001	98	292544	100.0	101.1	
5 Butadiene	39	4.479	4.479	0.000	96	255215	100.0	105.0	
6 Ethylene oxide	44	4.699	4.699	0.000	98	265392	1000.0	937.5	
7 Bromomethane	94	4.802	4.803	-0.001	90	259520	100.0	102.6	
8 Chloroethane	64	4.943	4.949	-0.006	98	164374	100.0	101.5	
10 Dichlorofluoromethane	67	4.985	4.985	0.000	98	451901	100.0	104.0	
9 Ethanol	45	5.211	5.211	0.000	84	4196	NC	NC	
13 Acrolein	56	5.467	5.473	-0.006	24	4071	500.0	435.0	
14 Acetonitrile	41	5.473	5.473	0.000	99	280382	1000.0	973.9	
15 Trichlorofluoromethane	101	5.485	5.491	-0.006	99	426305	100.0	107.0	
16 Isopropyl alcohol	45	5.510	5.510	0.000	99	148211	1000.0	969.9	
18 Acetone	43	5.571	5.577	-0.006	99	111675	200.0	172.4	
19 Ethyl ether	59	5.674	5.680	-0.006	98	182915	100.0	93.2	
21 2-Methyl-2-propanol	59	5.949	5.949	0.000	99	292334	1000.0	957.7	
22 1,1-Dichloroethene	96	5.961	5.961	0.000	95	253093	100.0	100.8	
23 Acrylonitrile	52	5.979	5.985	-0.006	99	539386	1000.0	901.0	
24 Iodomethane	142	6.010	6.010	0.000	99	594439	100.0	99.2	
25 Methylene Chloride	84	6.077	6.077	0.000	95	293144	100.0	100.2	
26 Methyl acetate	43	6.089	6.089	0.000	99	808229	500.0	447.7	
27 1,1,2-Trichloro-1,2,2-trif	151	6.119	6.119	0.000	88	241867	100.0	107.6	
28 3-Chloro-1-propene	76	6.150	6.150	0.000	93	117100	100.0	98.0	
29 Carbon disulfide	76	6.308	6.308	0.000	99	882190	100.0	100.7	
30 trans-1,2-Dichloroethene	96	6.625	6.625	0.000	98	251159	100.0	99.9	
31 Methyl tert-butyl ether	73	6.692	6.692	0.000	97	584284	100.0	95.9	
32 Propionitrile	54	6.802	6.808	-0.006	99	301230	1000.0	910.8	
33 1,1-Dichloroethane	63	6.820	6.820	0.000	96	400968	100.0	99.9	
34 Vinyl acetate	43	6.881	6.888	-0.007	96	688261	200.0	181.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 2-Chloro-1,3-butadiene	53	7.107	7.107	0.000	90	350447	100.0	99.4	
36 Hexane	57	7.125	7.125	0.000	77	346732	100.0	98.2	
37 Isopropyl ether	45	7.131	7.131	0.000	95	814913	100.0	99.9	
38 2-Butanone (MEK)	72	7.125	7.131	-0.006	93	45190	200.0	185.1	
39 Methacrylonitrile	66	7.211	7.211	0.000	95	246809	1000.0	899.2	
40 cis-1,2-Dichloroethene	96	7.265	7.265	0.000	78	272201	100.0	98.4	
41 Ethyl acetate	43	7.357	7.357	0.000	99	416358	200.0	183.8	
42 Chlorobromomethane	128	7.393	7.400	-0.007	92	163841	100.0	95.1	
44 Chloroform	83	7.424	7.424	0.000	92	428724	100.0	98.6	
45 Tert-butyl ethyl ether	59	7.436	7.436	0.000	97	703043	100.0	98.8	
46 Isobutyl alcohol	43	7.454	7.454	0.000	95	380985	2500.0	2136.6	
47 2,2-Dichloropropane	77	7.491	7.491	0.000	84	244854	100.0	94.6	
$ 48 Dibromofluoromethane	113	7.515	7.522	-0.007	93	264046	100.0	97.6	
S 50 1,2-Dichloroethene, Total	96				0		200.0	198.3	
51 Tetrahydrofuran	42	7.674	7.674	0.000	91	147212	200.0	165.2	
$ 55 1,2-Dichloroethane-d4 (Sur	65	7.863	7.863	0.000	0	229463	100.0	96.6	
56 1,2-Dichloroethane	62	7.924	7.924	0.000	97	275794	100.0	95.2	
57 n-Butanol	56	8.003	8.003	0.000	91	193726	2500.0	2400.7	
58 1,1,1-Trichloroethane	97	8.009	8.009	0.000	97	380765	100.0	102.1	
60 1,1-Dichloropropene	75	8.137	8.137	0.000	93	288173	100.0	99.2	
61 Cyclohexane	84	8.235	8.235	0.000	93	272896	100.0	93.8	
62 Carbon tetrachloride	119	8.296	8.296	0.000	95	368734	100.0	102.1	
63 Benzene	78	8.314	8.314	0.000	97	869052	100.0	99.6	
64 Tert-amyl methyl ether	73	8.393	8.393	0.000	97	583468	100.0	96.8	
66 Isooctane	57	8.613	8.613	0.000	96	835690	100.0	95.2	
67 Ethyl acrylate	55	8.643	8.643	0.000	96	357831	100.0	99.0	
68 n-Heptane	43	8.674	8.674	0.000	97	402711	100.0	99.0	
69 Dibromomethane	93	8.747	8.753	-0.006	91	160702	100.0	95.5	
70 1,2-Dichloropropane	63	8.765	8.765	0.000	92	222513	100.0	98.2	
71 2-Nitropropane	43	8.771	8.771	0.000	96	111060	200.0	185.9	
72 Trichloroethene	130	8.796	8.796	0.000	93	341661	100.0	100.5	
73 Dichlorobromomethane	83	8.838	8.838	0.000	99	340074	100.0	100.3	
75 Methyl methacrylate	41	8.881	8.881	0.000	96	384675	200.0	186.2	
76 1,4-Dioxane	58	8.899	8.905	-0.006	93	24186	2000.0	1909.2	
78 Methylcyclohexane	83	9.228	9.229	0.000	92	370629	100.0	96.3	
79 4-Methyl-2-pentanone (MIBK	43	9.393	9.393	0.000	97	455341	200.0	174.8	
* 80 Chlorobenzene-d5	82	11.417	11.417	0.000	82	126318	50.0	50.0	
84 2-Chloroethyl vinyl ether	63	9.113	9.113	0.000	93	247390	200.0	185.0	
85 cis-1,3-Dichloropropene	75	9.332	9.332	0.000	94	348543	100.0	96.6	
86 trans-1,3-Dichloropropene	75	9.686	9.692	-0.006	93	310573	100.0	96.8	
89 1,1,2-Trichloroethane	97	9.850	9.850	0.000	89	219302	100.0	95.5	
$ 90 Toluene-d8 (Surr)	98	9.960	9.960	0.000	93	830423	100.0	98.8	
91 Ethyl methacrylate	69	10.009	10.009	0.000	92	247292	100.0	94.8	
92 Toluene	92	10.027	10.027	0.000	98	572970	100.0	98.7	
93 1,3-Dichloropropane	76	10.064	10.064	0.000	92	309547	100.0	94.0	
95 2-Hexanone	43	10.155	10.155	0.000	99	319440	200.0	172.3	
96 Chlorodibromomethane	129	10.362	10.362	0.000	89	327965	100.0	97.6	
98 n-Butyl acetate	43	10.436	10.436	0.000	98	373509	100.0	89.4	
99 Ethylene Dibromide	107	10.612	10.612	0.000	98	247247	100.0	94.3	
100 Tetrachloroethene	164	10.759	10.759	0.000	96	242119	100.0	99.8	
S 101 Xylenes, Total	106				0		200.0	196.8	
103 1-Chlorohexane	55	11.313	11.313	0.000	96	211837	100.0	100.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,1,1,2-Tetrachloroethane	131	11.368	11.368	0.000	94	305332	100.0	99.0	
105 Chlorobenzene	112	11.454	11.454	0.000	99	749251	100.0	98.4	
106 Ethylbenzene	106	11.630	11.630	0.000	97	374522	100.0	99.5	
107 m-Xylene & p-Xylene	91	11.826	11.826	0.000	0	860209	100.0	99.4	
108 Styrene	104	12.185	12.185	0.000	95	758351	100.0	100.7	
109 Cyclohexanone	55	12.222	12.222	0.000	92	456721	5000.0	4185.9	
110 o-Xylene	106	12.264	12.265	0.000	96	469981	100.0	97.5	
* 112 1,4-Dichlorobenzene-d4	152	14.026	14.026	0.000	90	167723	50.0	50.0	
115 Bromoform	173	12.008	12.008	0.000	98	196247	100.0	97.8	
116 1,1,2,2-Tetrachloroethane	83	12.258	12.258	0.000	95	298439	100.0	90.9	
117 trans-1,4-Dichloro-2-buten	53	12.411	12.411	0.000	78	73250	100.0	93.9	
118 1,2,3-Trichloropropane	110	12.417	12.423	-0.006	86	81273	100.0	91.2	
119 Isopropylbenzene	105	12.655	12.655	0.000	94	1195730	100.0	102.6	
$ 120 4-Bromofluorobenzene	95	12.709	12.710	-0.001	98	325065	100.0	99.6	
121 Bromobenzene	156	12.953	12.953	0.000	84	361171	100.0	100.0	
122 N-Propylbenzene	120	13.118	13.118	0.000	99	348614	100.0	101.8	
124 2-Chlorotoluene	126	13.234	13.234	0.000	99	336768	100.0	101.2	
125 4-Chlorotoluene	91	13.307	13.307	0.000	95	859068	100.0	101.2	
126 1,3,5-Trimethylbenzene	105	13.392	13.392	0.000	95	1040118	100.0	102.8	
128 tert-Butylbenzene	119	13.691	13.691	0.000	91	948561	100.0	103.0	
129 1,2,4-Trimethylbenzene	105	13.789	13.789	0.000	96	1085143	100.0	100.3	
131 sec-Butylbenzene	105	13.898	13.898	0.000	93	1406152	100.0	102.0	
133 Benzyl chloride	91	13.984	13.984	0.000	98	560448	100.0	94.1	
134 1,3-Dichlorobenzene	146	13.990	13.990	0.000	97	717926	100.0	99.6	
135 1,4-Dichlorobenzene	146	14.051	14.051	0.000	97	727353	100.0	99.4	
136 4-Isopropyltoluene	119	14.063	14.063	0.000	97	1266037	100.0	101.8	
137 1,2,3-Trimethylbenzene	105	14.209	14.209	0.000	97	1132215	100.0	100.7	
138 1,2-Dichlorobenzene	146	14.404	14.404	0.000	99	713146	100.0	99.2	
139 n-Butylbenzene	91	14.465	14.465	0.000	97	1109096	100.0	102.2	
141 1,2-Dibromo-3-Chloropropan	157	14.868	14.868	0.000	93	87960	100.0	92.2	
142 1,3,5-Trichlorobenzene	180	15.721	15.721	0.000	98	605692	100.0	102.2	
143 1,2,4-Trichlorobenzene	180	16.312	16.312	0.000	95	589907	100.0	101.7	
144 Naphthalene	128	16.605	16.605	0.000	96	1369081	100.0	94.8	
145 Hexachlorobutadiene	190	16.648	16.648	0.000	99	130768	100.0	100.0	
146 1,2,3-Trichlorobenzene	180	16.843	16.837	0.006	97	557907	100.0	100.7	
S 163 1,3-Dichloropropene, Total	1				0			193.4	
S 170 Trihalomethanes, Total	1				0			394.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

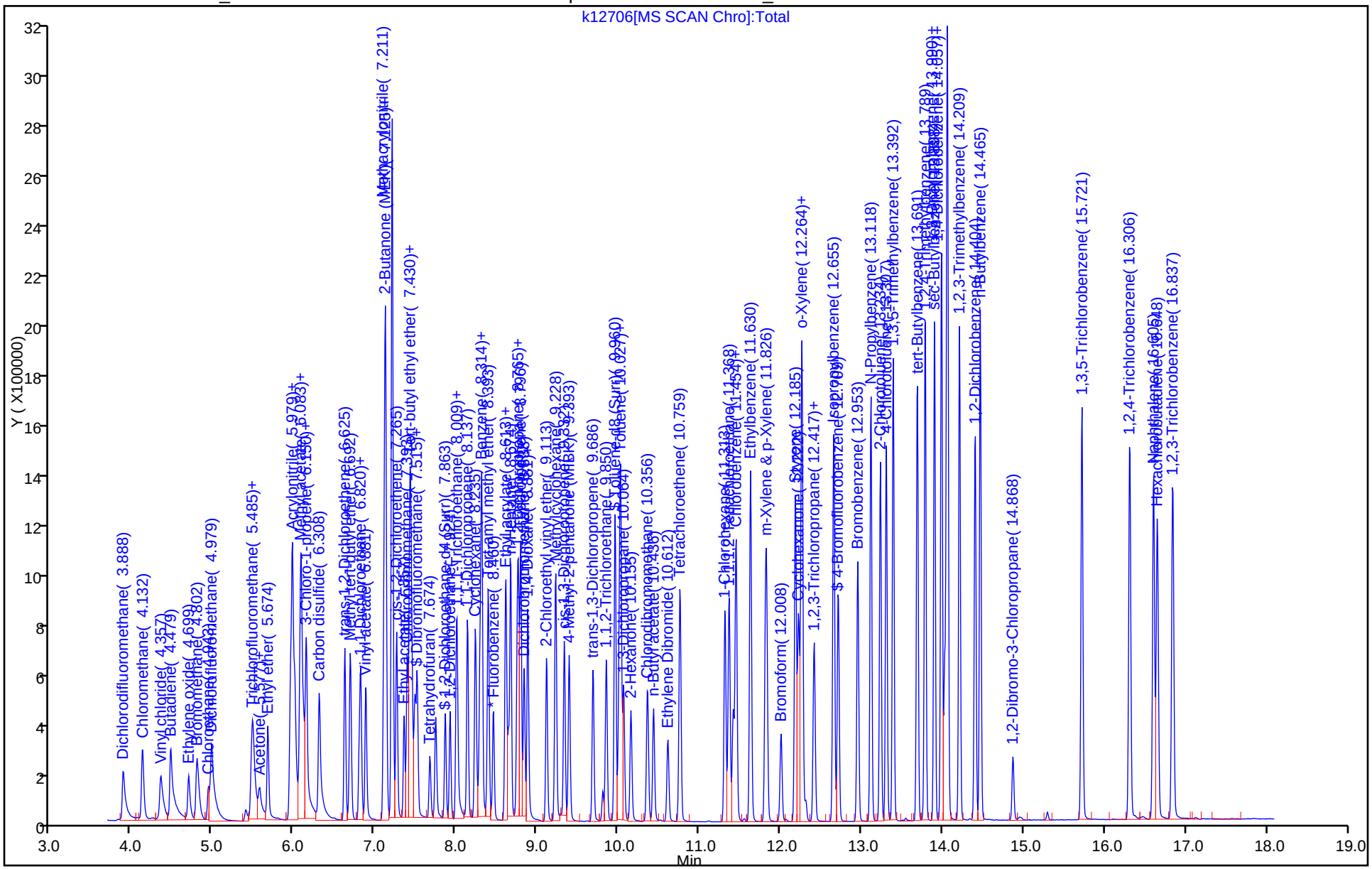
VOASTDGASPT_00166	Amount Added: 10.00	Units: uL
VOAIS50PPM_00171	Amount Added: 5.00	Units: uL
EOxideStd_00071	Amount Added: 10.00	Units: uL
VOASTDPT2_00056	Amount Added: 10.00	Units: uL

Report Date: 06-May-2016 13:59:51 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12706.d

Injection Date:	06-May-2016 11:53:30	Instrument ID:	CHVOAMS09	Operator ID:	WS
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 06-May-2016 12:17:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 600-0011949-008
Operator ID: WS Instrument ID: CHVOAMS09
Sublist: chrom-8260s_9*sub20

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 06-May-2016 13:59:52 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: shenw Date: 06-May-2016 13:59:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.460	8.460	0.000	100	349329	50.0	50.0	
2 Dichlorodifluoromethane	85	3.894	3.894	0.000	100	647447	200.0	191.3	
3 Chloromethane	50	4.132	4.132	0.000	99	679348	200.0	189.7	
4 Vinyl chloride	62	4.345	4.358	-0.013	98	510370	200.0	171.1	
5 Butadiene	39	4.473	4.479	-0.006	95	497181	200.0	198.3	
6 Ethylene oxide	44	4.699	4.699	0.000	99	606095	2000.0	2192.5	
7 Bromomethane	94	4.802	4.803	-0.001	90	503304	200.0	193.0	
8 Chloroethane	64	4.949	4.949	0.000	98	314260	200.0	188.1	
10 Dichlorofluoromethane	67	4.985	4.985	0.000	98	859560	200.0	191.8	
9 Ethanol	45		5.211				ND	ND	
13 Acrolein	56	5.467	5.473	-0.006	24	10233	1000.0	1029.3	
14 Acetonitrile	41	5.473	5.473	0.000	100	748290	2000.0	2606.1	
15 Trichlorofluoromethane	101	5.485	5.491	-0.006	99	801571	200.0	195.2	
16 Isopropyl alcohol	45	5.516	5.510	0.006	95	504455	2000.0	3181.6	
18 Acetone	43	5.577	5.577	0.000	99	305036	400.0	470.1	
19 Ethyl ether	59	5.674	5.680	-0.006	97	385128	200.0	190.2	
21 2-Methyl-2-propanol	59	5.955	5.949	0.006	100	854795	2000.0	2643.0	
22 1,1-Dichloroethene	96	5.961	5.961	0.000	96	500586	200.0	193.3	
23 Acrylonitrile	52	5.979	5.985	-0.006	98	1308397	2000.0	2145.1	
24 Iodomethane	142	6.010	6.010	0.000	99	1207240	200.0	195.3	
25 Methylene Chloride	84	6.077	6.077	0.000	95	591326	200.0	202.3	
26 Methyl acetate	43	6.089	6.089	0.000	100	1969208	1000.0	1057.7	
27 1,1,2-Trichloro-1,2,2-trif	151	6.119	6.119	0.000	91	467363	200.0	201.6	
28 3-Chloro-1-propene	76	6.150	6.150	0.000	93	232547	200.0	188.6	
29 Carbon disulfide	76	6.308	6.308	0.000	99	1722077	200.0	190.5	
30 trans-1,2-Dichloroethene	96	6.625	6.625	0.000	98	487577	200.0	188.0	
31 Methyl tert-butyl ether	73	6.692	6.692	0.000	97	1280572	200.0	203.9	
32 Propionitrile	54	6.808	6.808	0.000	99	726609	2000.0	2158.6	
33 1,1-Dichloroethane	63	6.820	6.820	0.000	97	794765	200.0	192.1	
34 Vinyl acetate	43	6.881	6.888	-0.007	97	1689608	400.0	432.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 2-Chloro-1,3-butadiene	53	7.107	7.107	0.000	91	686751	200.0	189.0	
36 Hexane	57	7.125	7.125	0.000	77	678569	200.0	186.3	
37 Isopropyl ether	45	7.131	7.131	0.000	91	1673435	200.0	199.0	
38 2-Butanone (MEK)	72	7.131	7.131	0.000	92	115172	400.0	470.9	
39 Methacrylonitrile	66	7.211	7.211	0.000	95	581857	2000.0	2055.7	
40 cis-1,2-Dichloroethene	96	7.265	7.265	0.000	78	548144	200.0	192.1	
41 Ethyl acetate	43	7.357	7.357	0.000	99	1030460	400.0	441.2	
42 Chlorobromomethane	128	7.400	7.400	0.000	87	347739	200.0	195.8	
44 Chloroform	83	7.424	7.424	0.000	93	864100	200.0	192.7	
45 Tert-butyl ethyl ether	59	7.436	7.436	0.000	98	1491570	200.0	203.3	
46 Isobutyl alcohol	43	7.460	7.454	0.006	97	1058623	5000.0	5757.1	
47 2,2-Dichloropropane	77	7.491	7.491	0.000	88	450555	200.0	168.8	
$ 48 Dibromofluoromethane	113	7.521	7.522	-0.001	93	551922	200.0	197.9	
S 50 1,2-Dichloroethene, Total	96				0		400.0	380.1	
51 Tetrahydrofuran	42	7.674	7.674	0.000	91	370025	400.0	403.2	
$ 55 1,2-Dichloroethane-d4 (Sur	65	7.863	7.863	0.000	0	492486	200.0	201.0	
56 1,2-Dichloroethane	62	7.924	7.924	0.000	96	596673	200.0	199.7	
57 n-Butanol	56	8.003	8.003	0.000	92	578105	5000.0	7269.7	
58 1,1,1-Trichloroethane	97	8.009	8.009	0.000	97	735212	200.0	191.2	
60 1,1-Dichloropropene	75	8.137	8.137	0.000	93	562516	200.0	187.7	
61 Cyclohexane	84	8.235	8.235	0.000	93	510377	200.0	170.2	
62 Carbon tetrachloride	119	8.296	8.296	0.000	96	716378	200.0	192.4	
63 Benzene	78	8.314	8.314	0.000	96	1741200	200.0	193.5	
64 Tert-amyl methyl ether	73	8.393	8.393	0.000	98	1259215	200.0	202.5	
66 Isooctane	57	8.613	8.613	0.000	97	1499272	200.0	165.7	
67 Ethyl acrylate	55	8.643	8.643	0.000	95	813895	200.0	218.5	
68 n-Heptane	43	8.674	8.674	0.000	97	799920	200.0	190.7	
69 Dibromomethane	93	8.753	8.753	0.000	92	350908	200.0	202.2	
70 1,2-Dichloropropane	63	8.765	8.765	0.000	93	456145	200.0	195.2	
71 2-Nitropropane	43	8.771	8.771	0.000	95	268239	400.0	435.3	
72 Trichloroethene	130	8.796	8.796	0.000	93	663298	200.0	189.1	
73 Dichlorobromomethane	83	8.838	8.838	0.000	99	697335	200.0	199.5	
75 Methyl methacrylate	41	8.881	8.881	0.000	96	901455	400.0	423.0	
76 1,4-Dioxane	58	8.905	8.905	0.000	92	80408	4000.0	4009.1	
78 Methylcyclohexane	83	9.228	9.229	0.000	91	713178	200.0	179.6	
79 4-Methyl-2-pentanone (MIBK	43	9.393	9.393	0.000	97	1132887	400.0	421.8	
* 80 Chlorobenzene-d5	82	11.417	11.417	0.000	81	136330	50.0	50.0	
84 2-Chloroethyl vinyl ether	63	9.113	9.113	0.000	93	580229	400.0	402.1	
85 cis-1,3-Dichloropropene	75	9.332	9.332	0.000	95	746132	200.0	191.6	
86 trans-1,3-Dichloropropene	75	9.686	9.692	-0.006	93	684308	200.0	197.7	
89 1,1,2-Trichloroethane	97	9.850	9.850	0.000	88	483837	200.0	195.2	
$ 90 Toluene-d8 (Surr)	98	9.960	9.960	0.000	93	1696080	200.0	187.0	
91 Ethyl methacrylate	69	10.009	10.009	0.000	92	569751	200.0	202.4	
92 Toluene	92	10.027	10.027	0.000	98	1154212	200.0	184.3	
93 1,3-Dichloropropane	76	10.064	10.064	0.000	92	689278	200.0	194.0	
95 2-Hexanone	43	10.155	10.155	0.000	99	816961	400.0	408.2	
96 Chlorodibromomethane	129	10.362	10.362	0.000	89	726540	200.0	200.3	
98 n-Butyl acetate	43	10.436	10.436	0.000	98	894525	200.0	198.5	
99 Ethylene Dibromide	107	10.612	10.612	0.000	98	556736	200.0	196.8	
100 Tetrachloroethene	164	10.759	10.759	0.000	96	472260	200.0	180.4	
S 101 Xylenes, Total	106				0		400.0	375.1	
103 1-Chlorohexane	55	11.313	11.313	0.000	96	408117	200.0	178.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,1,1,2-Tetrachloroethane	131	11.368	11.368	0.000	95	637878	200.0	191.6	
105 Chlorobenzene	112	11.454	11.454	0.000	99	1565761	200.0	190.5	
106 Ethylbenzene	106	11.630	11.630	0.000	97	757525	200.0	186.4	
107 m-Xylene & p-Xylene	91	11.819	11.826	-0.007	0	1754253	200.0	187.8	
108 Styrene	104	12.185	12.185	0.000	95	1615631	200.0	198.7	
109 Cyclohexanone	55	12.222	12.222	0.000	92	1391382	10000	11816	
110 o-Xylene	106	12.264	12.265	0.000	96	974655	200.0	187.3	
* 112 1,4-Dichlorobenzene-d4	152	14.026	14.026	0.000	92	189874	50.0	50.0	
115 Bromoform	173	12.008	12.008	0.000	98	468159	200.0	206.0	
116 1,1,2,2-Tetrachloroethane	83	12.258	12.258	0.000	94	763829	200.0	205.4	
117 trans-1,4-Dichloro-2-buten	53	12.411	12.411	0.000	95	181768	200.0	205.8	
118 1,2,3-Trichloropropane	110	12.423	12.423	0.000	86	193051	200.0	191.3	
119 Isopropylbenzene	105	12.655	12.655	0.000	95	2430765	200.0	184.2	
$ 120 4-Bromofluorobenzene	95	12.709	12.710	-0.001	98	699997	200.0	189.5	
121 Bromobenzene	156	12.953	12.953	0.000	84	778294	200.0	190.4	
122 N-Propylbenzene	120	13.118	13.118	0.000	98	724354	200.0	186.8	
124 2-Chlorotoluene	126	13.234	13.234	0.000	99	711619	200.0	188.9	
125 4-Chlorotoluene	91	13.307	13.307	0.000	95	1815242	200.0	188.8	
126 1,3,5-Trimethylbenzene	105	13.392	13.392	0.000	95	2169790	200.0	189.4	
128 tert-Butylbenzene	119	13.691	13.691	0.000	92	1980113	200.0	189.9	
129 1,2,4-Trimethylbenzene	105	13.789	13.789	0.000	96	2321273	200.0	189.4	
131 sec-Butylbenzene	105	13.898	13.898	0.000	93	2909437	200.0	186.4	
133 Benzyl chloride	91	13.984	13.984	0.000	98	1386121	200.0	205.6	
134 1,3-Dichlorobenzene	146	13.990	13.990	0.000	98	1546727	200.0	189.6	
135 1,4-Dichlorobenzene	146	14.051	14.051	0.000	97	1580199	200.0	190.7	
136 4-Isopropyltoluene	119	14.063	14.063	0.000	97	2652204	200.0	188.3	
137 1,2,3-Trimethylbenzene	105	14.209	14.209	0.000	97	2483735	200.0	195.2	
138 1,2-Dichlorobenzene	146	14.404	14.404	0.000	99	1573197	200.0	193.3	
139 n-Butylbenzene	91	14.465	14.465	0.000	97	2297553	200.0	187.1	
141 1,2-Dibromo-3-Chloropropan	157	14.868	14.868	0.000	94	222733	200.0	206.2	
142 1,3,5-Trichlorobenzene	180	15.721	15.721	0.000	98	1269554	200.0	189.2	
143 1,2,4-Trichlorobenzene	180	16.312	16.312	0.000	95	1255000	200.0	191.2	
144 Naphthalene	128	16.605	16.605	0.000	96	3220951	200.0	197.0	
145 Hexachlorobutadiene	190	16.648	16.648	0.000	99	260835	200.0	176.2	
146 1,2,3-Trichlorobenzene	180	16.837	16.837	0.000	97	1178057	200.0	187.9	
S 163 1,3-Dichloropropene, Total	1				0			389.3	
S 170 Trihalomethanes, Total	1				0			798.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

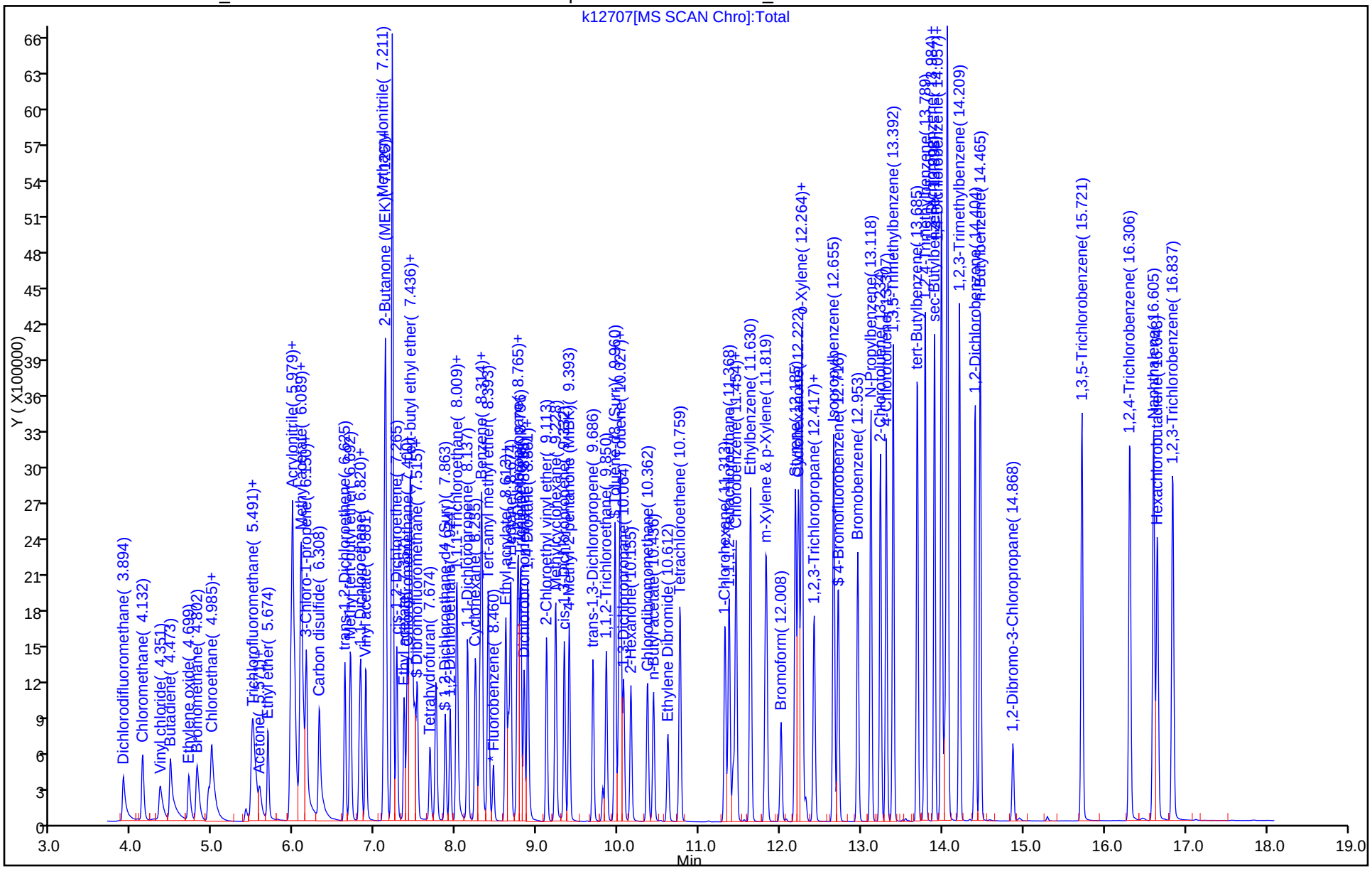
VOASTDGASPT_00166	Amount Added: 20.00	Units: uL
VOAIS50PPM_00171	Amount Added: 5.00	Units: uL
EOxideStd_00071	Amount Added: 20.00	Units: uL
VOASTDPT2_00056	Amount Added: 20.00	Units: uL

Report Date: 06-May-2016 13:59:53 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Injection Date:	06-May-2016 12:17:30	Instrument ID:	CHVOAMS09	Operator ID:	WS
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-187178/4	T11702.D
Level 2	IC 600-187178/5	T11703.D
Level 3	IC 600-187178/6	T11704.D
Level 4	ICIS 600-187178/7	T11705.D
Level 5	IC 600-187178/8	T11706.D
Level 6	IC 600-187178/9	T11707.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3020 0.2500	0.2675	0.2245	0.2427	0.2699	Ave		0.2594				10.3		15.0			
Chloromethane	0.4611 0.3718	0.4065	0.3954	0.4201	0.4876	Ave		0.4238			0.1000	10.2		15.0			
Vinyl chloride	0.5035 0.4624	0.3997	0.3944	0.3975	0.4730	Ave		0.4384				10.7		15.0			
Butadiene	0.3108 0.3110	0.2620	0.2619	0.2798	0.3204	Ave		0.2910				9.1		15.0			
Ethylene oxide	0.0848 0.0574	0.0672	0.0600	0.0595	0.0579	Lin2	1.3826	0.0556							0.9980		0.9900
Bromomethane	0.2534 0.2161	0.1883	0.1998	0.1921	0.2243	Ave		0.2123				11.5		15.0			
Chloroethane	0.1776 0.1543	0.1440	0.1244	0.1466	0.1617	Ave		0.1514				11.8		15.0			
Dichlorofluoromethane	0.4751 0.4085	0.3715	0.3856	0.3873	0.4242	Ave		0.4087				9.2		15.0			
Acrolein	0.0290 0.0272	0.0236	0.0243	0.0251	0.0270	Ave		0.0260				7.8		15.0			
Acetonitrile	0.0295 0.0264	0.0261	0.0232	0.0240	0.0264	Ave		0.0259				8.6		15.0			
Isopropyl alcohol	0.0094 0.0082	0.0075	0.0060	0.0058	0.0081	Lin	-0.370	0.0083							0.9940		0.9900
Trichlorofluoromethane	0.2783 0.3500	0.2906	0.3225	0.3159	0.3708	Ave		0.3213				10.9		15.0			
Propionaldehyde	0.0486 0.0481	0.0469	0.0427	0.0443	0.0483	Ave		0.0465				5.3		15.0			
Acetone	0.0790 0.0661	0.0537	0.0676	0.0660	0.0658	Ave		0.0664				12.1		15.0			
Ethyl ether	0.1944 0.1906	0.1640	0.1855	0.1853	0.1905	Ave		0.1850				5.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Methyl-2-propanol	0.0139 0.0143	0.0117	0.0123	0.0105	0.0123	Ave		0.0125				11.3		15.0			
1,1-Dichloroethene	0.1543 0.2283	0.1770	0.1965	0.2083	0.2222	Ave		0.1978				14.2		15.0			
Acrylonitrile	0.0745 0.0728	0.0571	0.0671	0.0700	0.0713	Ave		0.0688				9.1		15.0			
Iodomethane	0.3012 0.3259	0.2225	0.2998	0.3229	0.3376	Ave		0.3016				13.7		15.0			
Methylene Chloride	0.3015 0.2691	0.2452	0.2200	0.2375	0.2660	Ave		0.2565				11.2		15.0			
Methyl acetate	0.1680 0.1675	0.1446	0.1477	0.1477	0.1600	Ave		0.1559				6.8		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1133 0.1471	0.0980	0.0873	0.1021	0.1317	Lin	-1.091	0.1494							0.9940		0.9900
3-Chloro-1-propene	0.1049 0.1199	0.1030	0.1135	0.1227	0.1245	Ave		0.1148				8.0		15.0			
Carbon disulfide	0.8209 0.7528	0.6079	0.6844	0.6983	0.7647	Ave		0.7215				10.3		15.0			
cis-1,2-Dichloroethene	0.2527 0.2543	0.1535	0.2372	0.2421	0.2526	Lin1	-0.343	0.2541							0.9960		0.9900
trans-1,2-Dichloroethene	0.2566 0.2543	0.2228	0.2372	0.2421	0.2526	Ave		0.2443				5.3		15.0			
Methyl tert-butyl ether	0.7749 0.6521	0.6246	0.6650	0.6855	0.6501	Ave		0.6754				7.8		15.0			
Propionitrile	0.0256 0.0284	0.0282	0.0261	0.0276	0.0278	Ave		0.0273				4.2		15.0			
1,1-Dichloroethane	0.4567 0.4105	0.3787	0.3965	0.4002	0.4125	Ave		0.4092			0.1000	6.4		15.0			
Vinyl acetate	0.3597 0.3614	0.3085	0.3355	0.3443	0.3564	Ave		0.3443				5.9		15.0			
2-Chloro-1,3-butadiene	0.3777 0.3909	0.2681	0.3086	0.3382	0.3676	Ave		0.3418				13.7		15.0			
2-Butanone (MEK)	0.0302 0.0340	0.0245	0.0236	0.0251	0.0267	Ave		0.0274				14.6		15.0			
Hexane	0.1898 0.2438	0.1699	0.1809	0.2002	0.2202	Ave		0.2008				13.5		15.0			
Isopropyl ether	0.8108 0.8260	0.6829	0.7260	0.7647	0.7653	Ave		0.7626				6.9		15.0			
Methacrylonitrile	0.0329 0.0394	0.0251	0.0307	0.0385	0.0394	Lin1	-0.835	0.0397							0.9970		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Bromochloromethane	0.1378 0.1507	0.1187	0.1248	0.1483	0.1438	Ave		0.1373				9.5		15.0			
Methyl acrylate	0.2368 0.2467	0.2042	0.2200	0.2288	0.2382	Ave		0.2291				6.6		15.0			
Ethyl tert-Butyl Ether (ETBE)	0.8869 0.8974	0.7229	0.7670	0.8104	0.8467	Ave		0.8219				8.3		15.0			
Isobutyl alcohol	0.0122 0.0124	0.0090	0.0104	0.0112	0.0122	Ave		0.0112				11.8		15.0			
2,2-Dichloropropane	0.2641 0.3067	0.1976	0.2421	0.2666	0.2909	Ave		0.2613				14.7		15.0			
Tetrahydrofuran	0.0692 0.0593	0.0593	0.0633	0.0641	0.0605	Ave		0.0626				6.1		15.0			
1,2-Dichloroethane	0.3260 0.3439	0.3360	0.3483	0.3627	0.3493	Ave		0.3444				3.6		15.0			
n-Butanol	0.0046 0.0042	0.0032	0.0038	0.0038	0.0041	Ave		0.0040				12.1		15.0			
1,1,1-Trichloroethane	0.3833 0.3485	0.2455	0.2952	0.3394	0.3521	Ave		0.3273				15.0		15.0			
Ethyl acetate	0.2198 0.2041	0.1966	0.2067	0.2077	0.2074	Ave		0.2071				3.6		15.0			
1,1-Dichloropropene	0.3630 0.3312	0.2692	0.2899	0.3102	0.3193	Ave		0.3138				10.4		15.0			
Cyclohexane	0.3425 0.2691	0.2086	0.2539	0.2601	0.2774	Lin1	-0.002	0.2687							0.9960		0.9900
Carbon tetrachloride	0.3291 0.2832	0.2232	0.2603	0.2867	0.2915	Ave		0.2790				12.6		15.0			
Benzene	1.1458 1.0277	0.8382	0.9407	0.9733	0.9952	Ave		0.9868				10.3		15.0			
Isopropyl acetate	0.2216 0.2109	0.2061	0.1963	0.2098	0.2091	Ave		0.2090				3.9		15.0			
n-Heptane	0.2216 0.2109	0.2061	0.1963	0.2098	0.2091	Ave		0.2090				3.9		15.0			
tert-Amyl Methyl Ether (TAME)	0.7595 0.7411	0.6483	0.6860	0.7258	0.7172	Ave		0.7130				5.6		15.0			
Isooctane	0.4908 0.3902	0.3301	0.3339	0.3550	0.3893	Lin1	-0.014	0.3824							0.9960		0.9900
Ethyl acrylate	0.3198 0.3426	0.2920	0.3197	0.3378	0.3366	Ave		0.3248				5.8		15.0			
2-Nitropropane	0.0986 0.0790	0.0572	0.0719	0.0705	0.0752	Lin1	-0.034	0.0765							0.9940		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromomethane	0.1680 0.1543	0.1476	0.1594	0.1770	0.1654	Ave		0.1620				6.5		15.0			
1,2-Dichloropropane	0.2914 0.2698	0.2248	0.2406	0.2535	0.2523	Ave		0.2554				9.0		15.0			
Trichloroethene	0.3138 0.3134	0.2294	0.2747	0.2842	0.2954	Ave		0.2852				11.0		15.0			
n-Propyl acetate	0.3271 0.3326	0.2510	0.3053	0.3267	0.3217	Ave		0.3107				9.9		15.0			
Bromodichloromethane	0.3377 0.3490	0.2921	0.3176	0.3333	0.3384	Ave		0.3280				6.2		15.0			
Methyl methacrylate	0.2226 0.2209	0.1939	0.2011	0.2117	0.2110	Ave		0.2102				5.3		15.0			
1,4-Dioxane	0.0012 0.0009	0.0009	0.0008	0.0010	0.0009	Ave		0.0010				13.4		15.0			
2-Chloroethyl vinyl ether	0.4269 0.3950	0.3156	0.3686	0.3775	0.3742	Ave		0.3763				9.7		15.0			
Methylcyclohexane	0.2791 0.2452	0.1905	0.2200	0.2251	0.2348	Ave		0.2324				12.6		15.0			
cis-1,3-Dichloropropene	1.0833 1.0621	0.9114	0.9956	1.0401	1.0277	Ave		1.0200				6.0		15.0			
4-Methyl-2-pentanone (MIBK)	0.2356 0.2222	0.1987	0.2184	0.2269	0.2194	Ave		0.2202				5.6		15.0			
trans-1,3-Dichloropropene	0.8614 0.9122	0.7381	0.7837	0.8821	0.8815	Ave		0.8432				8.0		15.0			
1,1,2-Trichloroethane	0.6095 0.5672	0.5619	0.5338	0.5640	0.5600	Ave		0.5661				4.3		15.0			
Ethyl methacrylate	0.7943 0.8499	0.6715	0.7735	0.8255	0.8105	Ave		0.7875				7.9		15.0			
Toluene	1.8001 1.7091	1.3882	1.5232	1.6031	1.6157	Ave		1.6066				8.9		15.0			
1,3-Dichloropropane	1.1117 0.9902	0.8825	0.9957	0.9971	0.9551	Ave		0.9887				7.5		15.0			
2-Hexanone	0.3429 0.3609	0.3139	0.3542	0.3810	0.3536	Ave		0.3511				6.3		15.0			
Dibromochloromethane	0.6429 0.7213	0.5782	0.6469	0.7051	0.7124	Ave		0.6678				8.3		15.0			
n-Butyl acetate	0.7683 0.7826	0.7458	0.7612	0.8252	0.7916	Ave		0.7791				3.6		15.0			
1,2-Dibromoethane	0.5602 0.5852	0.5444	0.5913	0.5995	0.5756	Ave		0.5760				3.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Tetrahydrothiophene	0.5017 0.5277	0.4624	0.3128	0.5315	0.5216	Lin1	-0.765	0.5254							0.9910		0.9900
Tetrachloroethene	0.5155 0.4731	0.3792	0.4427	0.4501	0.4538	Ave		0.4524				9.8		15.0			
1-Chlorohexane	0.3458 0.4075	0.3291	0.3524	0.3830	0.3901	Ave		0.3680				8.2		15.0			
1,1,1,2-Tetrachloroethane	0.7208 0.7255	0.6229	0.6524	0.7120	0.7040	Ave		0.6896				6.1		15.0			
Chlorobenzene	2.1867 1.8857	1.6604	1.7817	1.8345	1.8200	Ave		1.8615			0.3000	9.5		15.0			
Ethylbenzene	0.9993 0.9426	0.7314	0.8662	0.8786	0.8956	Ave		0.8856				10.2		15.0			
Butyl acrylate	1.2212 1.2782	1.0520	1.0699	1.1796	1.2172	Ave		1.1697				7.7		15.0			
m-Xylene & p-Xylene	2.4971 2.5333	1.8319	2.0812	2.1676	2.3326	Ave		2.2406				11.9		15.0			
Bromoform	0.3533 0.4099	0.3729	0.3541	0.4121	0.4048	Ave		0.3845			0.1000	7.2		15.0			
Amyl acetate (mixed isomers)	0.9962 0.9784	0.8934	0.9582	0.9558	0.9426	Ave		0.9541				3.7		15.0			
Styrene	1.9811 2.0097	1.6166	1.7911	1.8909	1.9329	Ave		1.8704				7.8		15.0			
Cyclohexanone	0.0177 0.0134	0.0127	0.0128	0.0132	0.0132	Ave		0.0138				13.8		15.0			
1,1,2,2-Tetrachloroethane	0.8365 0.7706	0.6954	0.7416	0.7348	0.7447	Ave		0.7539			0.3000	6.3		15.0			
Chloroform	0.3265 0.3449	0.2483	0.3061	0.3089	0.3216	Ave		0.3094				10.7		15.0			
o-Xylene	1.1107 1.2417	0.9661	1.1018	1.1126	1.1769	Ave		1.1183				8.2		15.0			
trans-1,4-Dichloro-2-butene	0.1816 0.1889	0.1792	0.1920	0.1925	0.1874	Ave		0.1869				2.9		15.0			
1,2,3-Trichloropropane	0.2451 0.2070	0.2116	0.2163	0.2167	0.2195	Ave		0.2194				6.1		15.0			
Isopropylbenzene	2.7129 2.3472	1.9648	2.2266	2.3336	2.3552	Ave		2.3234				10.4		15.0			
Bromobenzene	0.8983 0.7305	0.7725	0.7681	0.7608	0.7386	Ave		0.7782				7.9		15.0			
N-Propylbenzene	0.7718 0.7219	0.5840	0.5945	0.6461	0.6815	Ave		0.6666				11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Butyl Methacrylate	1.0303 1.1809	0.9168	0.9779	1.0709	1.1165	Ave		1.0489				9.1		15.0			
2-Chlorotoluene	0.7781 0.6499	0.5750	0.5951	0.6254	0.6495	Ave		0.6455				11.1		15.0			
4-Chlorotoluene	2.0518 1.8489	1.6223	1.7405	1.8460	1.8316	Ave		1.8235				7.8		15.0			
1,3,5-Trimethylbenzene	2.0814 1.8783	1.5797	1.7489	1.8292	1.8937	Ave		1.8352				9.1		15.0			
tert-Butylbenzene	1.6839 1.5024	1.2604	1.4404	1.4117	1.5027	Ave		1.4669				9.4		15.0			
1,2,4-Trimethylbenzene	2.0906 1.9524	1.6642	1.8087	1.8897	1.9788	Ave		1.8974				7.8		15.0			
sec-Butylbenzene	2.2704 1.9467	1.6455	1.8241	1.9033	1.9767	Ave		1.9278				10.7		15.0			
Benzyl chloride	0.3665 0.3069	0.2363	0.2743	0.2855	0.3054	Ave		0.2958				14.6		15.0			
n-Butylbenzene	1.1152 1.5787	1.0548	1.1308	1.3411	1.4756	Lin1	-4.023	1.5409							0.9960		0.9900
1,3-Dichlorobenzene	1.4105 1.3173	1.0962	1.2049	1.2434	1.2820	Ave		1.2590				8.4		15.0			
4-Isopropyltoluene	2.1522 2.0949	1.5724	1.7362	1.8561	1.9696	Ave		1.8969				11.6		15.0			
1,4-Dichlorobenzene	1.6147 1.4676	1.2382	1.2829	1.3400	1.4056	Ave		1.3915				9.8		15.0			
1,2,3-Trimethylbenzene	2.3017 2.0614	1.7952	1.9864	2.0193	2.0716	Ave		2.0393				8.0		15.0			
1,2-Dichlorobenzene	1.3177 1.1950	1.1610	1.1732	1.1910	1.1898	Ave		1.2046				4.7		15.0			
1,2-Dibromo-3-Chloropropane	0.1369 0.1160	0.1297	0.1105	0.1211	0.1194	Ave		0.1223				7.8		15.0			
1,2,4-Trichlorobenzene	0.6261 0.5123	0.5089	0.5249	0.5324	0.5252	Ave		0.5383				8.2		15.0			
1,3,5-Trichlorobenzene	0.6002 0.3788	0.4048	0.3735	0.4013	0.3893	Lin1	0.7600	0.3759							0.9980		0.9900
Naphthalene	1.5565 0.9736	1.0417	0.9516	0.9546	1.0133	Lin1	1.8984	0.9601							0.9970		0.9900
Hexachlorobutadiene	0.0907 0.0946	0.0939	0.0977	0.0969	0.1004	Ave		0.0957				3.5		15.0			
1,2,3-Trichlorobenzene	0.3876 0.2291	0.2709	0.2376	0.2301	0.2340	Lin2	0.7982	0.2137							0.9920		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromofluoromethane	0.2483 0.2496	0.2155	0.2335	0.2408	0.2463	Ave		0.2390				5.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2515 0.2712	0.2718	0.2629	0.2779	0.2603	Ave		0.2659				3.6		15.0			
Toluene-d8 (Surr)	2.4621 2.3393	1.8611	2.1298	2.2253	2.2482	Ave		2.2110				9.3		15.0			
4-Bromofluorobenzene	0.8912 0.7258	0.6766	0.6792	0.7056	0.7126	Ave		0.7318				11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-187178/4	T11702.D
Level 2	IC 600-187178/5	T11703.D
Level 3	IC 600-187178/6	T11704.D
Level 4	ICIS 600-187178/7	T11705.D
Level 5	IC 600-187178/8	T11706.D
Level 6	IC 600-187178/9	T11707.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	9049 401247	17120	29025	82053	198560	5.00 200	10.0	20.0	50.0	100
Chloromethane	FB	Ave	13815 596886	26019	51125	141999	358748	5.00 200	10.0	20.0	50.0	100
Vinyl chloride	FB	Ave	15084 742201	25587	50994	134380	348010	5.00 200	10.0	20.0	50.0	100
Butadiene	FB	Ave	9313 499213	16771	33858	94575	235769	5.00 200	10.0	20.0	50.0	100
Ethylene oxide	FB	Lin2	25409 920920	43012	77592	201277	426223	50.0 2000	100	200	500	1000
Bromomethane	FB	Ave	7592 346868	12056	25830	64941	165055	5.00 200	10.0	20.0	50.0	100
Chloroethane	FB	Ave	5321 247724	9219	16083	49553	118992	5.00 200	10.0	20.0	50.0	100
Dichlorofluoromethane	FB	Ave	14235 655681	23783	49848	130931	312089	5.00 200	10.0	20.0	50.0	100
Acrolein	FB	Ave	4338 218175	7551	15737	42503	99406	25.0 1000	50.0	100	250	500
Acetonitrile	FB	Ave	8853 423541	16679	29976	81197	193919	50.0 2000	100	200	500	1000
Isopropyl alcohol	FB	Lin	2822 132090	4812	7756	19714	59662	50.0 2000	100	200	500	1000
Trichlorofluoromethane	FB	Ave	8337 561805	18599	41697	106794	272836	5.00 200	10.0	20.0	50.0	100
Propionaldehyde	FB	Ave	14631 776454	30190	55464	150685	357611	50.3 2011	101	201	503	1005
Acetone	FB	Ave	4735 212241	6871	17491	44603	96768	10.0 400	20.0	40.0	100	200
Ethyl ether	FB	Ave	5823 305932	10495	23985	62644	140145	5.00 200	10.0	20.0	50.0	100
2-Methyl-2-propanol	FB	Ave	4161 228935	7480	15851	35406	90427	50.0 2000	100	200	500	1000

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,1-Dichloroethene	FB	Ave	4624 366422	11328	25411	70419	163505	5.00 200	10.0	20.0	50.0	100
Acrylonitrile	FB	Ave	22325 1168829	36527	86692	236646	524650	50.0 2000	100	200	500	1000
Iodomethane	FB	Ave	9023 523160	14241	38765	109139	248356	5.00 200	10.0	20.0	50.0	100
Methylene Chloride	FB	Ave	9034 432041	15694	28445	80271	195679	5.00 200	10.0	20.0	50.0	100
Methyl acetate	FB	Ave	25167 1344076	46280	95472	249598	588614	25.0 1000	50.0	100	250	500
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Lin	3395 236091	6272	11281	34499	96865	5.00 200	10.0	20.0	50.0	100
3-Chloro-1-propene	FB	Ave	3144 192456	6592	14676	41462	91636	5.00 200	10.0	20.0	50.0	100
Carbon disulfide	FB	Ave	24595 1208442	38910	88491	236042	562645	5.00 200	10.0	20.0	50.0	100
cis-1,2-Dichloroethene	FB	Lin1	7572 408139	9824	30669	81828	185862	5.00 200	10.0	20.0	50.0	100
trans-1,2-Dichloroethene	FB	Ave	7688 408139	14264	30669	81828	185862	5.00 200	10.0	20.0	50.0	100
Methyl tert-butyl ether	FB	Ave	23215 1046718	39982	85972	231718	478346	5.00 200	10.0	20.0	50.0	100
Propionitrile	FB	Ave	7681 455605	18036	33721	93349	204218	50.0 2000	100	200	500	1000
1,1-Dichloroethane	FB	Ave	13682 659011	24243	51263	135295	303513	5.00 200	10.0	20.0	50.0	100
Vinyl acetate	FB	Ave	21552 1160299	39501	86743	232755	524485	10.0 400	20.0	40.0	100	200
2-Chloro-1,3-butadiene	FB	Ave	11315 627441	17162	39900	114329	270434	5.00 200	10.0	20.0	50.0	100
2-Butanone (MEK)	FB	Ave	1810 109106	3141	6104	16991	39305	10.0 400	20.0	40.0	100	200
Hexane	FB	Ave	5685 391302	10873	23387	67671	162007	5.00 200	10.0	20.0	50.0	100
Isopropyl ether	FB	Ave	24290 1325885	43716	93869	258482	563094	5.00 200	10.0	20.0	50.0	100
Methacrylonitrile	FB	Lin1	9844 632579	16067	39660	130028	289818	50.0 2000	100	200	500	1000
Bromochloromethane	FB	Ave	4127 241974	7596	16138	50138	105780	5.00 200	10.0	20.0	50.0	100
Methyl acrylate	FB	Ave	14188 792123	26140	56877	154688	350585	10.0 400	20.0	40.0	100	200

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Ethyl tert-Butyl Ether (ETBE)	FB	Ave	26571 1440518	46271	99161	273942	622958	5.00 200	10.0	20.0	50.0	100
Isobutyl alcohol	FB	Ave	9134 496326	14416	33636	94795	224130	125 5000	250	500	1250	2500
2,2-Dichloropropane	FB	Ave	7911 492308	12647	31301	90102	214029	5.00 200	10.0	20.0	50.0	100
Tetrahydrofuran	FB	Ave	4144 190428	7593	16364	43325	89022	10.0 400	20.0	40.0	100	200
1,2-Dichloroethane	FB	Ave	9766 552022	21505	45036	122593	257001	5.00 200	10.0	20.0	50.0	100
n-Butanol	FB	Ave	3454 168118	5120	12301	32052	75975	125 5000	250	500	1250	2500
1,1,1-Trichloroethane	FB	Ave	11483 559460	15717	38166	114729	259027	5.00 200	10.0	20.0	50.0	100
Ethyl acetate	FB	Ave	13172 655293	25165	53457	140450	305226	10.0 400	20.0	40.0	100	200
1,1-Dichloropropene	FB	Ave	10875 531707	17233	37485	104872	234918	5.00 200	10.0	20.0	50.0	100
Cyclohexane	FB	Lin1	10260 431995	13355	32829	87913	204133	5.00 200	10.0	20.0	50.0	100
Carbon tetrachloride	FB	Ave	9861 454545	14289	33652	96928	214500	5.00 200	10.0	20.0	50.0	100
Benzene	FB	Ave	34329 1649723	53652	121619	328995	732208	5.00 200	10.0	20.0	50.0	100
Isopropyl acetate	FB	Ave	6640 338486	13195	25380	70918	153839	5.00 200	10.0	20.0	50.0	100
n-Heptane	FB	Ave	6640 338486	13195	25380	70918	153839	5.00 200	10.0	20.0	50.0	100
tert-Amyl Methyl Ether (TAME)	FB	Ave	22753 1189621	41496	88689	245334	527653	5.00 200	10.0	20.0	50.0	100
Isooctane	FB	Lin1	14704 626343	21133	43170	120002	286456	5.00 200	10.0	20.0	50.0	100
Ethyl acrylate	FB	Ave	9580 549999	18691	41333	114184	247678	5.00 200	10.0	20.0	50.0	100
2-Nitropropane	FB	Lin1	5910 253716	7321	18600	47680	110599	10.0 400	20.0	40.0	100	200
Dibromomethane	FB	Ave	5032 247718	9448	20614	59842	121700	5.00 200	10.0	20.0	50.0	100
1,2-Dichloropropane	FB	Ave	8730 433116	14390	31110	85699	185601	5.00 200	10.0	20.0	50.0	100
Trichloroethene	FB	Ave	9402 503085	14682	35520	96069	217339	5.00 200	10.0	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Propyl acetate	FB	Ave	9800 533847	16064	39473	110423	236703	5.00 200	10.0	20.0	50.0	100
Bromodichloromethane	FB	Ave	10117 560272	18695	41062	112674	249005	5.00 200	10.0	20.0	50.0	100
Methyl methacrylate	FB	Ave	13339 709051	24822	51996	143154	310504	10.0 400	20.0	40.0	100	200
1,4-Dioxane	FB	Ave	713 30316	1154	2093	6888	13589	100 4000	200	400	1000	2000
2-Chloroethyl vinyl ether	CBZ	Ave	10331 520903	16331	38173	104680	228188	10.0 400	20.0	40.0	100	200
Methylcyclohexane	FB	Ave	8363 393627	12193	28438	76075	172737	5.00 200	10.0	20.0	50.0	100
cis-1,3-Dichloropropene	CBZ	Ave	13108 700367	23581	51554	144201	313356	5.00 200	10.0	20.0	50.0	100
4-Methyl-2-pentanone (MIBK)	FB	Ave	14116 713225	25443	56463	153395	322914	10.0 400	20.0	40.0	100	200
trans-1,3-Dichloropropene	CBZ	Ave	10424 601516	19097	40583	122303	268800	5.00 200	10.0	20.0	50.0	100
1,1,2-Trichloroethane	CBZ	Ave	7375 374002	14539	27641	78198	170761	5.00 200	10.0	20.0	50.0	100
Ethyl methacrylate	CBZ	Ave	9611 560406	17375	40055	114449	247126	5.00 200	10.0	20.0	50.0	100
Toluene	CBZ	Ave	21782 1126944	35919	78875	222260	492644	5.00 200	10.0	20.0	50.0	100
1,3-Dichloropropane	CBZ	Ave	13452 652913	22833	51559	138238	291229	5.00 200	10.0	20.0	50.0	100
2-Hexanone	CBZ	Ave	8298 475952	16246	36682	105653	215637	10.0 400	20.0	40.0	100	200
Dibromochloromethane	CBZ	Ave	7780 475604	14960	33500	97755	217236	5.00 200	10.0	20.0	50.0	100
n-Butyl acetate	CBZ	Ave	9297 516021	19296	39415	114404	241371	5.00 200	10.0	20.0	50.0	100
1,2-Dibromoethane	CBZ	Ave	6779 385876	14086	30621	83111	175521	5.00 200	10.0	20.0	50.0	100
Tetrahydrothiophene	CBZ	Lin1	6071 347986	11965	16197	73688	159056	5.00 200	10.0	20.0	50.0	100
Tetrachloroethene	CBZ	Ave	6238 311980	9812	22925	62403	138367	5.00 200	10.0	20.0	50.0	100
1-Chlorohexane	CBZ	Ave	4184 268706	8514	18247	53093	118937	5.00 200	10.0	20.0	50.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	8722 478406	16118	33783	98711	214661	5.00 200	10.0	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Chlorobenzene	CBZ	Ave	26460 1243429	42961	92258	254334	554957	5.00 200	10.0	20.0	50.0	100
Ethylbenzene	CBZ	Ave	12092 621545	18924	44856	121807	273093	5.00 200	10.0	20.0	50.0	100
Butyl acrylate	DCB	Ave	28349 1836707	51940	113553	334490	773309	10.0 400	20.0	40.0	100	200
m-Xylene & p-Xylene	CBZ	Ave	30217 1670425	47400	107767	300527	711259	5.00 200	10.0	20.0	50.0	100
Bromoform	DCB	Ave	4101 294512	9207	18789	58424	128597	5.00 200	10.0	20.0	50.0	100
Amyl acetate (mixed isomers)	CBZ	Ave	12055 645115	23115	49617	132509	287426	5.00 200	10.0	20.0	50.0	100
Styrene	CBZ	Ave	23973 1325151	41828	92746	262152	589365	5.00 200	10.0	20.0	50.0	100
Cyclohexanone	CBZ	Ave	10708 442446	16434	33199	91456	201979	250 10000	500	1000	2500	5000
1,1,2,2-Tetrachloroethane	DCB	Ave	9709 553676	17167	39352	104179	236578	5.00 200	10.0	20.0	50.0	100
Chloroform	FB	Ave	9781 553645	15891	39569	104411	236650	5.00 200	10.0	20.0	50.0	100
o-Xylene	CBZ	Ave	13440 818767	24998	57053	154247	358864	5.00 200	10.0	20.0	50.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	2108 135745	4423	10186	27294	59527	5.00 200	10.0	20.0	50.0	100
1,2,3-Trichloropropane	DCB	Ave	2845 148699	5224	11479	30718	69740	5.00 200	10.0	20.0	50.0	100
Isopropylbenzene	DCB	Ave	31490 1686382	48507	118157	330864	748163	5.00 200	10.0	20.0	50.0	100
Bromobenzene	DCB	Ave	10427 524867	19072	40759	107870	234638	5.00 200	10.0	20.0	50.0	100
N-Propylbenzene	DCB	Ave	8959 518696	14417	31547	91612	216479	5.00 200	10.0	20.0	50.0	100
Butyl Methacrylate	DCB	Ave	23917 1696835	45268	103787	303661	709319	10.0 400	20.0	40.0	100	200
2-Chlorotoluene	DCB	Ave	9032 466954	14196	31578	88668	206326	5.00 200	10.0	20.0	50.0	100
4-Chlorotoluene	DCB	Ave	23816 1328386	40051	92362	261723	581842	5.00 200	10.0	20.0	50.0	100
1,3,5-Trimethylbenzene	DCB	Ave	24159 1349510	38999	92805	259347	601568	5.00 200	10.0	20.0	50.0	100
tert-Butylbenzene	DCB	Ave	19546 1079435	31117	76437	200159	477368	5.00 200	10.0	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,2,4-Trimethylbenzene	DCB	Ave	24266 1402735	41084	95979	267926	628595	5.00 200	10.0	20.0	50.0	100
sec-Butylbenzene	DCB	Ave	26353 1398683	40622	96794	269854	627918	5.00 200	10.0	20.0	50.0	100
Benzyl chloride	DCB	Ave	4254 220495	5834	14555	40472	97022	5.00 200	10.0	20.0	50.0	100
n-Butylbenzene	DCB	Lin1	12945 1134233	26041	60007	190137	468763	5.00 200	10.0	20.0	50.0	100
1,3-Dichlorobenzene	DCB	Ave	16372 946443	27062	63938	176294	407252	5.00 200	10.0	20.0	50.0	100
4-Isopropyltoluene	DCB	Ave	24981 1505148	38819	92134	263158	625690	5.00 200	10.0	20.0	50.0	100
1,4-Dichlorobenzene	DCB	Ave	18742 1054432	30569	68076	189984	446506	5.00 200	10.0	20.0	50.0	100
1,2,3-Trimethylbenzene	DCB	Ave	26717 1481105	44320	105409	286300	658086	5.00 200	10.0	20.0	50.0	100
1,2-Dichlorobenzene	DCB	Ave	15295 858612	28661	62256	168869	377970	5.00 200	10.0	20.0	50.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1589 83335	3201	5865	17166	37919	5.00 200	10.0	20.0	50.0	100
1,2,4-Trichlorobenzene	DCB	Ave	7267 368072	12564	27853	75480	166854	5.00 200	10.0	20.0	50.0	100
1,3,5-Trichlorobenzene	DCB	Lin1	6967 272174	9994	19819	56903	123671	5.00 200	10.0	20.0	50.0	100
Naphthalene	DCB	Lin1	18067 699523	25716	50496	135342	321902	5.00 200	10.0	20.0	50.0	100
Hexachlorobutadiene	DCB	Ave	1053 67968	2317	5183	13739	31904	5.00 200	10.0	20.0	50.0	100
1,2,3-Trichlorobenzene	DCB	Lin2	4499 164574	6689	12609	32617	74326	5.00 200	10.0	20.0	50.0	100
Dibromofluoromethane	FB	Ave	7440 400599	13794	30190	81411	181194	5.00 200	10.0	20.0	50.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	7534 435399	17397	33986	93953	191503	5.00 200	10.0	20.0	50.0	100
Toluene-d8 (Surr)	CBZ	Ave	29793 1542521	48156	110285	308514	685513	5.00 200	10.0	20.0	50.0	100
4-Bromofluorobenzene	DCB	Ave	10344 521490	16703	36042	100035	226374	5.00 200	10.0	20.0	50.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 187178

SDG No.:

Instrument ID: CHVOAMS10 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/26/2016 14:29 Calibration End Date: 04/26/2016 16:36 Calibration ID: 9118

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 26-Apr-2016 14:29:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 600-0011772-004
Operator ID: DT Instrument ID: CHVOAMS10
Sublist: chrom-8260w5_10*sub11

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 26-Apr-2016 18:22:15 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: tengd Date: 26-Apr-2016 15:15:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.754	8.757	-0.003	98	299598	50.0	50.0	
2 Dichlorodifluoromethane	85	4.230	4.233	-0.003	61	9049	5.00	5.82	M
3 Chloromethane	50	4.599	4.612	-0.013	55	13815	5.00	5.44	
4 Vinyl chloride	62	4.721	4.702	0.019	52	15084	5.00	5.74	M
5 Butadiene	39	4.824	4.830	-0.006	73	9313	5.00	5.34	
10 Ethylene oxide	44	5.064	5.067	-0.003	89	25409	50.0	51.4	
8 Ethanol	45		5.106				ND	ND	
7 Bromomethane	94	5.154	5.154	0.000	46	7592	5.00	5.97	
11 Chloroethane	64	5.292	5.286	0.006	43	5321	5.00	5.86	M
13 Dichlorofluoromethane	67	5.334	5.327	0.007	50	14235	5.00	5.81	
24 Acrolein	56	5.809	5.809	0.000	44	4338	25.0	27.8	
16 Acetonitrile	41	5.812	5.815	-0.003	95	8853	50.0	57.0	
19 Isopropyl alcohol	45	5.837	5.837	0.000	42	2822	50.0	100.8	M
12 Trichlorofluoromethane	101	5.847	5.841	0.006	38	8337	5.00	4.33	
18 Propionaldehyde	58	5.892	5.902	-0.010	75	14631	50.3	52.5	
27 Acetone	43	5.905	5.918	-0.013	20	4735	10.0	11.9	
15 Ethyl ether	59	6.020	6.033	-0.013	57	5823	5.00	5.25	
31 2-Methyl-2-propanol	59	6.271	6.271	0.000	63	4161	50.0	55.7	
20 1,1-Dichloroethene	96	6.309	6.306	0.003	46	4624	5.00	3.90	
37 Acrylonitrile	52	6.316	6.312	0.004	97	22325	50.0	54.2	
23 Iodomethane	142	6.354	6.351	0.003	75	9023	5.00	4.99	
26 Methylene Chloride	84	6.409	6.409	0.000	69	9034	5.00	5.88	
28 Methyl acetate	43	6.415	6.418	-0.003	93	25167	25.0	26.9	M
21 1,1,2-Trichloro-1,2,2-trif	151	6.479	6.460	0.019	5	3395	5.00	11.1	M
25 3-Chloro-1-propene	76	6.495	6.495	0.000	58	3144	5.00	4.57	
22 Carbon disulfide	76	6.646	6.656	-0.010	91	24595	5.00	5.69	
29 trans-1,2-Dichloroethene	96	6.954	6.961	-0.007	78	7688	5.00	5.25	
44 cis-1,2-Dichloroethene	96	6.954	6.961	-0.007	51	7572	5.00	6.32	
30 Methyl tert-butyl ether	73	7.009	7.012	-0.003	92	23215	5.00	5.74	
35 Propionitrile	54	7.115	7.124	-0.009	83	7681	50.0	47.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	7.143	7.153	-0.010	26	13682	5.00	5.58	
40 Vinyl acetate	43	7.198	7.192	0.006	69	21552	10.0	10.4	
36 2-Chloro-1,3-butadiene	53	7.429	7.432	-0.003	64	11315	5.00	5.52	
56 2-Butanone (MEK)	72	7.429	7.435	-0.006	77	1810	10.0	11.0	M
58 Hexane	57	7.429	7.439	-0.010	61	5685	5.00	4.73	
32 Isopropyl ether	45	7.432	7.439	-0.007	78	24290	5.00	5.32	
61 Methacrylonitrile	66	7.512	7.519	-0.007	90	9844	50.0	62.4	
S 43 1,2-Dichloroethene, Total	96				0		10.0	11.6	
47 Chlorobromomethane	128	7.711	7.711	0.000	42	4127	5.00	5.01	M
45 Methyl acrylate	55	7.721	7.721	0.000	67	14188	10.0	10.3	
41 Tert-butyl ethyl ether	59	7.731	7.734	-0.003	94	26571	5.00	5.40	
39 Isobutyl alcohol	43	7.740	7.744	-0.004	47	9134	125.0	135.7	M
46 2,2-Dichloropropane	77	7.811	7.821	-0.010	51	7911	5.00	5.05	
$ 52 Dibromofluoromethane	113	7.840	7.833	0.007	35	7440	5.00	5.20	
53 Tetrahydrofuran	42	7.981	7.981	0.000	66	4144	10.0	11.0	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.183	8.180	0.003	0	7534	5.00	4.73	
65 1,2-Dichloroethane	62	8.228	8.228	0.000	61	9766	5.00	4.73	
38 n-Butanol	56	8.289	8.279	0.010	73	3454	125.0	145.8	
55 1,1,1-Trichloroethane	97	8.315	8.324	-0.009	64	11483	5.00	5.85	
33 Ethyl acetate	43	8.360	8.366	-0.006	93	13172	10.0	10.6	
57 1,1-Dichloropropene	75	8.437	8.443	-0.006	95	10875	5.00	5.78	
69 Cyclohexane	84	8.530	8.539	-0.009	56	10260	5.00	6.38	
54 Carbon tetrachloride	119	8.597	8.597	0.000	66	9861	5.00	5.90	
63 Benzene	78	8.616	8.616	0.000	96	34329	5.00	5.81	
62 Tert-amyl methyl ether	73	8.677	8.680	-0.003	97	22753	5.00	5.33	
60 n-Heptane	43	8.680	8.680	0.000	37	6640	5.00	5.30	
68 Isopropyl acetate	43	8.680	8.680	0.000	52	6640	5.00	5.30	
59 Isooctane	57	8.899	8.905	-0.006	65	14704	5.00	6.45	
72 Ethyl acrylate	55	8.928	8.924	0.004	29	9580	5.00	4.92	
66 2-Nitropropane	43	8.956	8.953	0.003	58	5910	10.0	13.3	
73 Dibromomethane	93	9.056	9.059	-0.003	41	5032	5.00	5.19	
79 1,2-Dichloropropane	63	9.066	9.069	-0.003	84	8730	5.00	5.70	
70 Trichloroethene	130	9.091	9.098	-0.007	95	9402	5.00	5.50	
76 n-Propyl acetate	43	9.136	9.139	-0.003	66	9800	5.00	5.26	
75 Dichlorobromomethane	83	9.136	9.146	-0.010	74	10117	5.00	5.15	
77 Methyl methacrylate	41	9.165	9.168	-0.003	90	13339	10.0	10.6	
78 1,4-Dioxane	58	9.187	9.194	-0.007	1	713	100.0	123.4	
71 Methylcyclohexane	83	9.537	9.534	0.003	88	8363	5.00	6.00	
80 4-Methyl-2-pentanone (MIBK	43	9.691	9.685	0.006	95	14116	10.0	10.7	
48 Chloroform	83	12.582	12.579	0.003	49	9781	5.00	5.28	
* 85 Chlorobenzene-d5	82	11.745	11.745	0.000	85	121006	50.0	50.0	
89 2-Chloroethyl vinyl ether	63	9.406	9.406	0.000	89	10331	10.0	11.3	
90 cis-1,3-Dichloropropene	75	9.637	9.640	-0.003	94	13108	5.00	5.31	
96 trans-1,3-Dichloropropene	75	9.993	9.996	-0.003	69	10424	5.00	5.11	
100 1,1,2-Trichloroethane	97	10.176	10.169	0.007	91	7375	5.00	5.38	M
$ 93 Toluene-d8 (Surr)	98	10.282	10.282	0.000	93	29793	5.00	5.57	
97 Ethyl methacrylate	69	10.311	10.311	0.000	60	9611	5.00	5.04	
94 Toluene	92	10.352	10.352	0.000	97	21782	5.00	5.60	
102 1,3-Dichloropropane	76	10.388	10.388	0.000	81	13452	5.00	5.62	
106 2-Hexanone	43	10.468	10.461	0.007	74	8298	10.0	9.77	
101 Chlorodibromomethane	129	10.702	10.696	0.006	43	7780	5.00	4.81	
103 n-Butyl acetate	43	10.747	10.741	0.006	83	9297	5.00	4.93	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 104 Xylenes, Total	106				0		10.0	10.5	
105 Ethylene Dibromide	107	10.946	10.949	-0.003	72	6779	5.00	4.86	
107 Tetrahydrothiophene	60	11.013	11.004	0.009	0	6071	5.00	6.23	
98 Tetrachloroethene	164	11.090	11.087	0.003	95	6238	5.00	5.70	
113 1-Chlorohexane	55	11.633	11.623	0.010	73	4184	5.00	4.70	
110 1,1,1,2-Tetrachloroethane	131	11.694	11.690	0.004	92	8722	5.00	5.23	
109 Chlorobenzene	112	11.777	11.780	-0.003	75	26460	5.00	5.87	
108 Ethylbenzene	106	11.947	11.947	0.000	99	12092	5.00	5.64	
111 m-Xylene & p-Xylene	91	12.146	12.140	0.006	0	30217	5.00	5.57	
115 Amyl acetate (mixed isomer	43	12.374	12.371	0.003	91	12055	5.00	5.22	
114 Styrene	104	12.505	12.502	0.003	96	23973	5.00	5.30	
116 Cyclohexanone	55	12.541	12.544	-0.003	77	10708	250.0	319.5	
112 o-Xylene	106	12.586	12.582	0.004	97	13440	5.00	4.97	
* 117 1,4-Dichlorobenzene-d4	152	14.302	14.306	-0.004	94	116073	50.0	50.0	
120 n-Butyl acrylate	55	12.136	12.130	0.006	97	28349	10.0	10.4	
119 Bromoform	173	12.339	12.339	0.000	61	4101	5.00	4.59	
124 1,1,2,2-Tetrachloroethane	83	12.582	12.579	0.003	60	9709	5.00	5.55	
129 trans-1,4-Dichloro-2-buten	53	12.714	12.717	-0.003	72	2108	5.00	4.86	
128 1,2,3-Trichloropropane	110	12.733	12.733	0.000	85	2845	5.00	5.59	
121 Isopropylbenzene	105	12.955	12.951	0.004	95	31490	5.00	5.84	
$ 122 4-Bromofluorobenzene	95	13.016	13.016	0.000	88	10344	5.00	6.09	
125 Bromobenzene	156	13.256	13.250	0.006	84	10427	5.00	5.77	
123 N-Propylbenzene	120	13.394	13.394	0.000	91	8959	5.00	5.79	M
134 Butyl Methacrylate	69	13.417	13.413	0.004	83	23917	10.0	9.82	
127 2-Chlorotoluene	126	13.519	13.519	0.000	96	9032	5.00	6.03	
130 4-Chlorotoluene	91	13.584	13.590	-0.006	98	23816	5.00	5.63	
126 1,3,5-Trimethylbenzene	105	13.661	13.661	0.000	97	24159	5.00	5.67	
131 tert-Butylbenzene	119	13.959	13.953	0.006	91	19546	5.00	5.74	
133 1,2,4-Trimethylbenzene	105	14.052	14.052	0.000	96	24266	5.00	5.51	
135 sec-Butylbenzene	105	14.164	14.164	0.000	93	26353	5.00	5.89	
143 Benzyl chloride	91	14.168	14.164	0.004	53	4254	5.00	6.19	
142 n-Butylbenzene	91	14.257	14.257	0.000	10	12945	5.00	6.23	
137 1,3-Dichlorobenzene	146	14.267	14.264	0.003	90	16372	5.00	5.60	
140 1,4-Dichlorobenzene	146	14.334	14.331	0.003	65	18742	5.00	5.80	
136 4-Isopropyltoluene	119	14.325	14.331	-0.006	96	24981	5.00	5.67	
139 1,2,3-Trimethylbenzene	105	14.482	14.482	0.000	98	26717	5.00	5.64	
144 1,2-Dichlorobenzene	146	14.694	14.687	0.007	94	15295	5.00	5.47	
146 1,2-Dibromo-3-Chloropropan	157	15.175	15.165	0.010	12	1589	5.00	5.60	
149 1,2,4-Trichlorobenzene	180	16.035	16.029	0.006	91	7267	5.00	5.82	
147 1,3,5-Trichlorobenzene	180	16.638	16.645	-0.007	96	6967	5.00	5.96	
150 Naphthalene	128	16.950	16.956	-0.006	97	18067	5.00	6.13	
148 Hexachlorobutadiene	190	16.988	16.982	0.006	18	1053	5.00	4.74	M
151 1,2,3-Trichlorobenzene	180	17.193	17.193	0.000	86	4499	5.00	5.33	
S 159 1,3-Dichloropropene, Total	1				0			10.4	
S 162 Trihalomethanes, Total	1				0			19.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

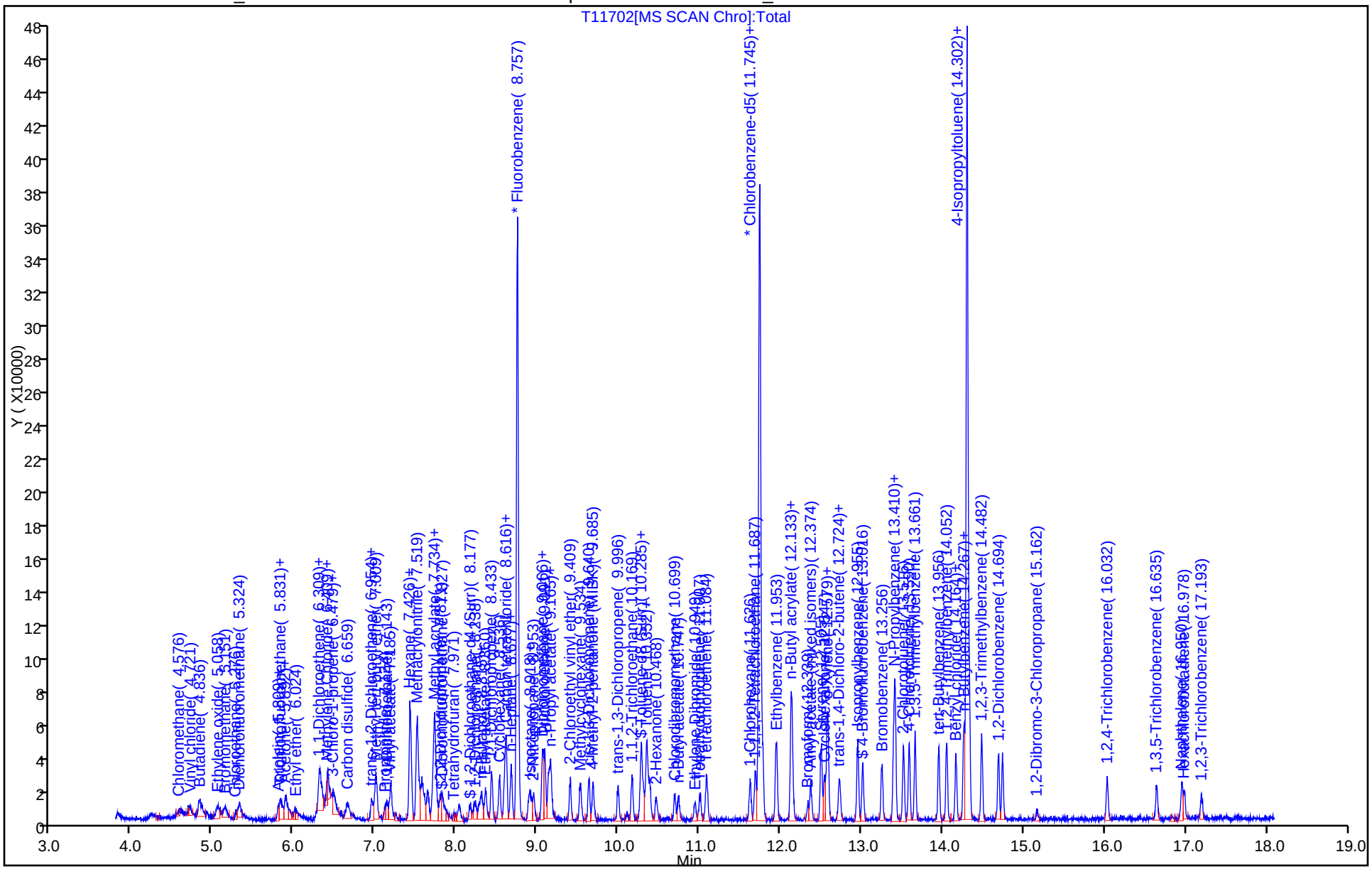
VOAIS250PPM_00046	Amount Added:	1.00	Units: uL
VOASTDGASPT_00164	Amount Added:	0.50	Units: uL
VOASTDPT2_00055	Amount Added:	0.50	Units: uL
6NRStd_00055	Amount Added:	0.50	Units: uL
EOxideStd_00070	Amount Added:	0.50	Units: uL
PropHydeSTDW_00051	Amount Added:	0.50	Units: uL

Report Date: 26-Apr-2016 18:22:16 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D

Injection Date:	26-Apr-2016 14:29:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	IC			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

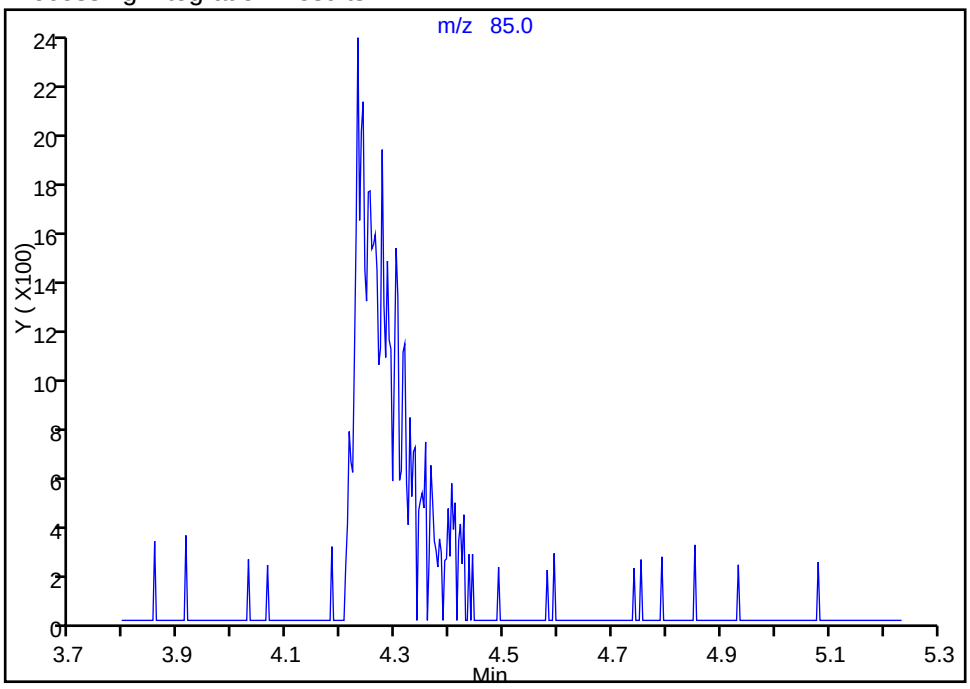
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

2 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

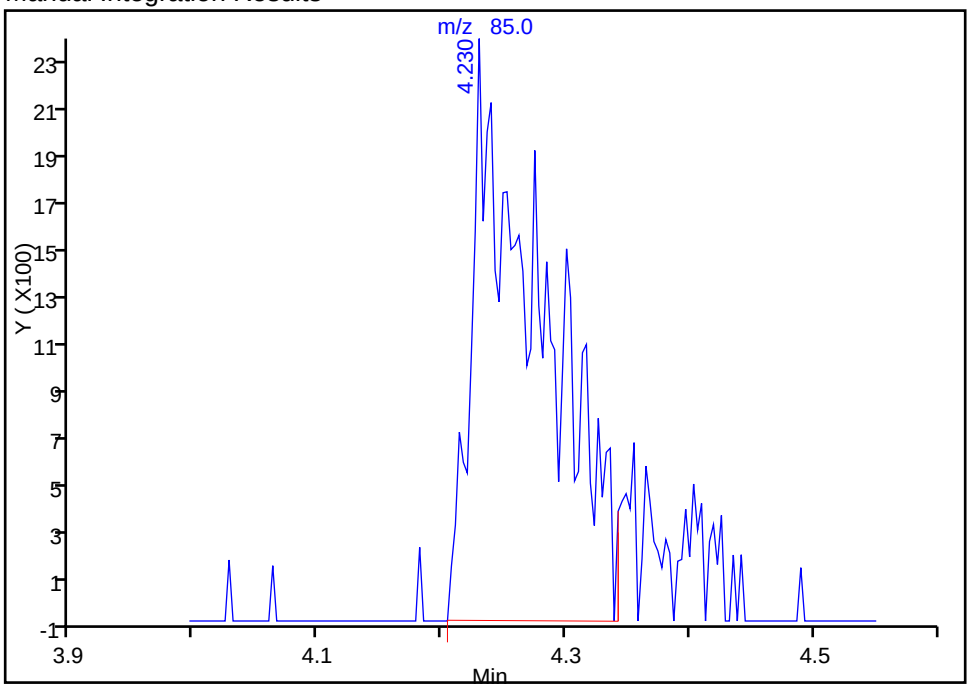
Not Detected
Expected RT: 4.23

Processing Integration Results



Manual Integration Results

RT: 4.23
Area: 9049
Amount: 5.821248
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

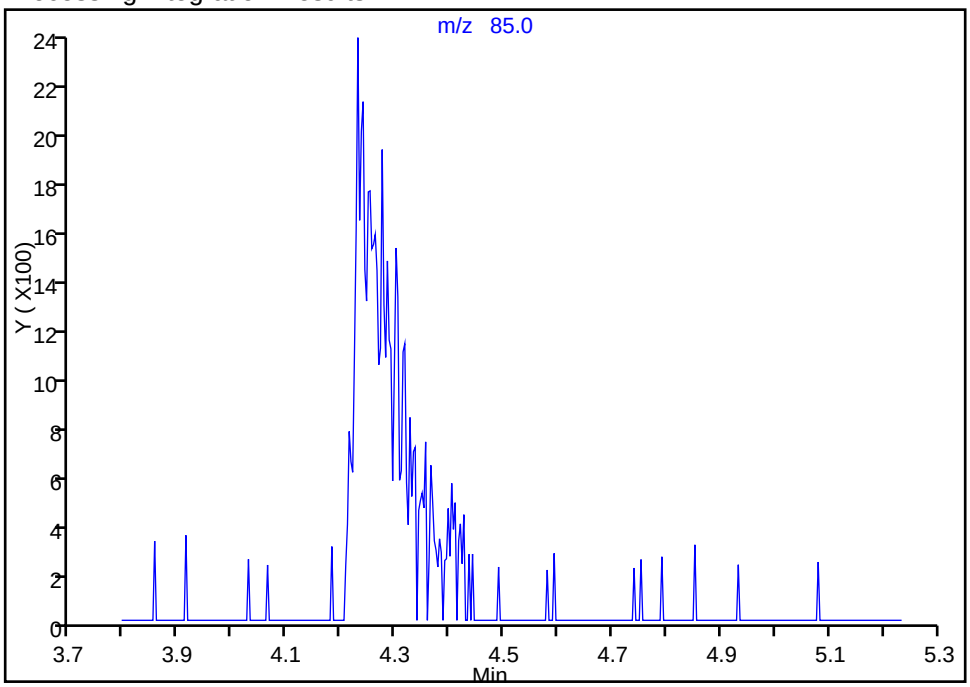
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

2 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

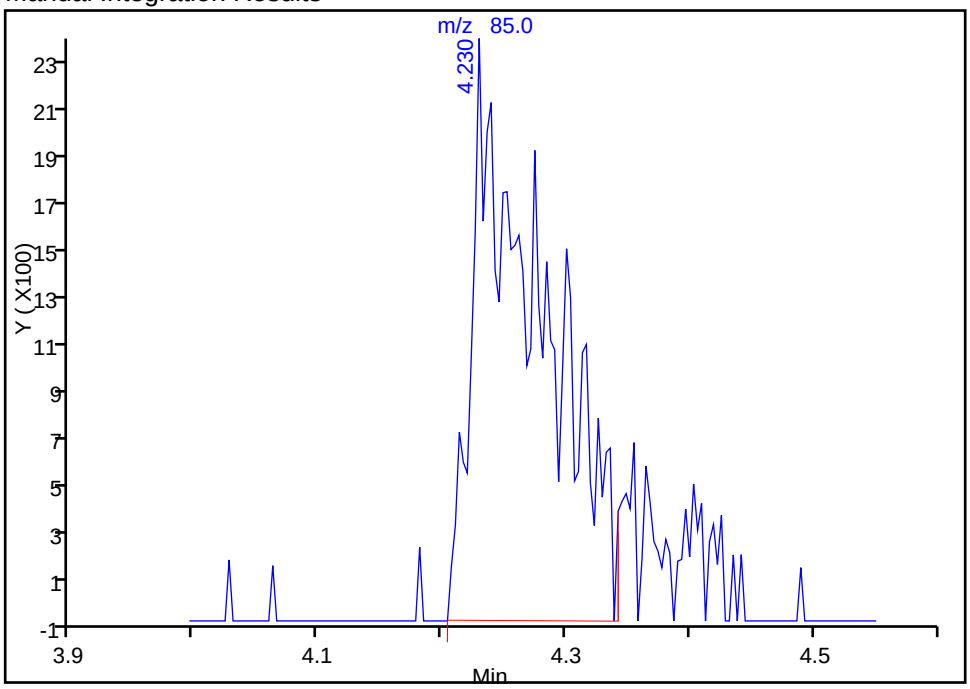
Processing Integration Results

Not Detected
Expected RT: 4.23



Manual Integration Results

RT: 4.23
Area: 9049
Amount: 5.821248
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

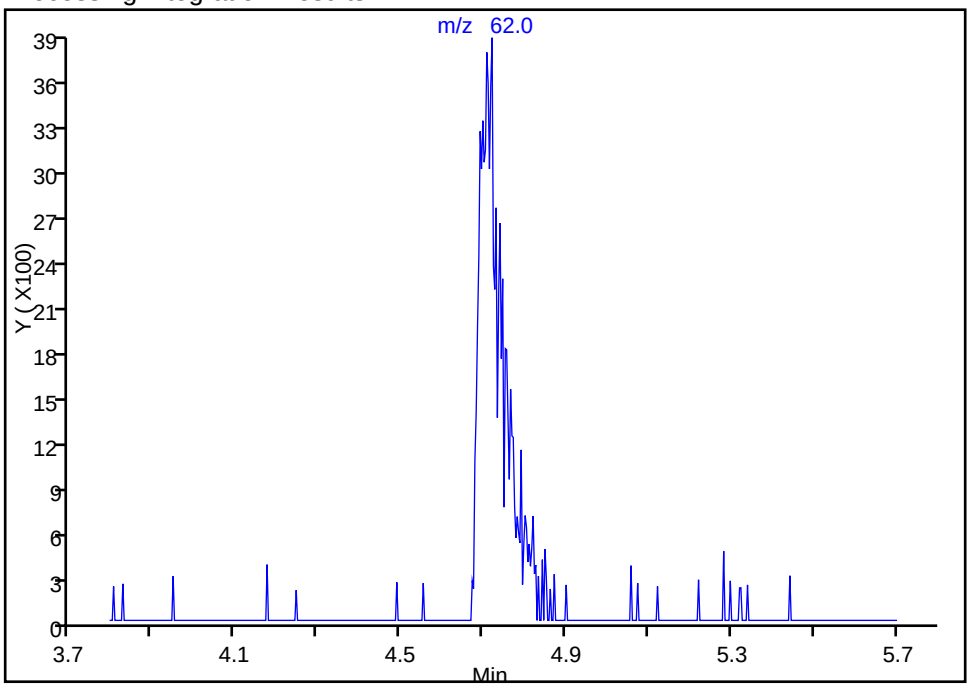
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

4 Vinyl chloride, CAS: 75-01-4

Signal: 1

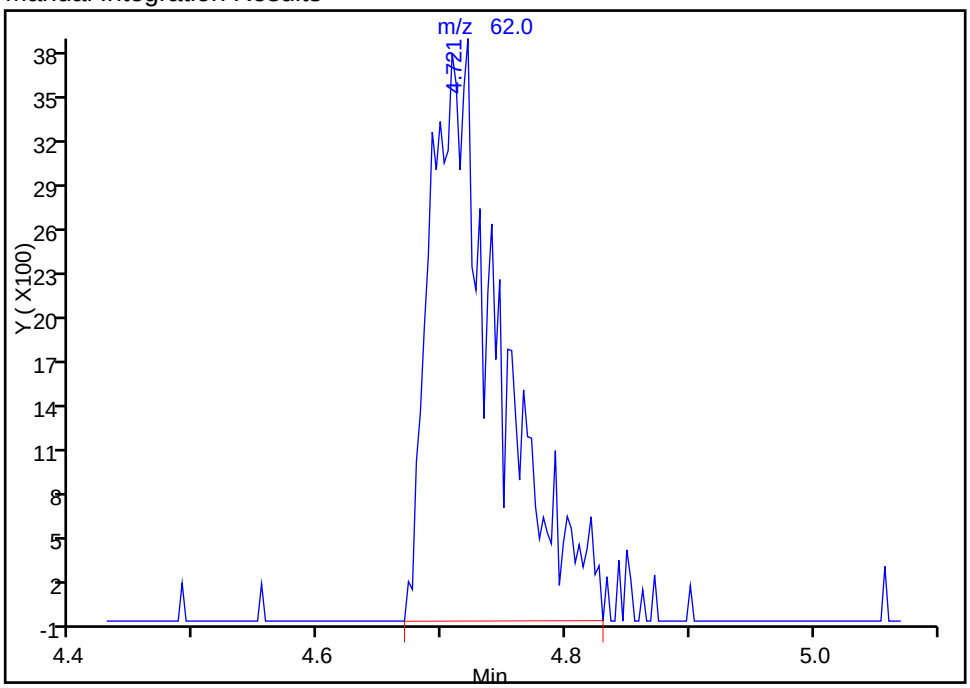
Not Detected
Expected RT: 4.70

Processing Integration Results



Manual Integration Results

RT: 4.72
Area: 15084
Amount: 5.741915
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

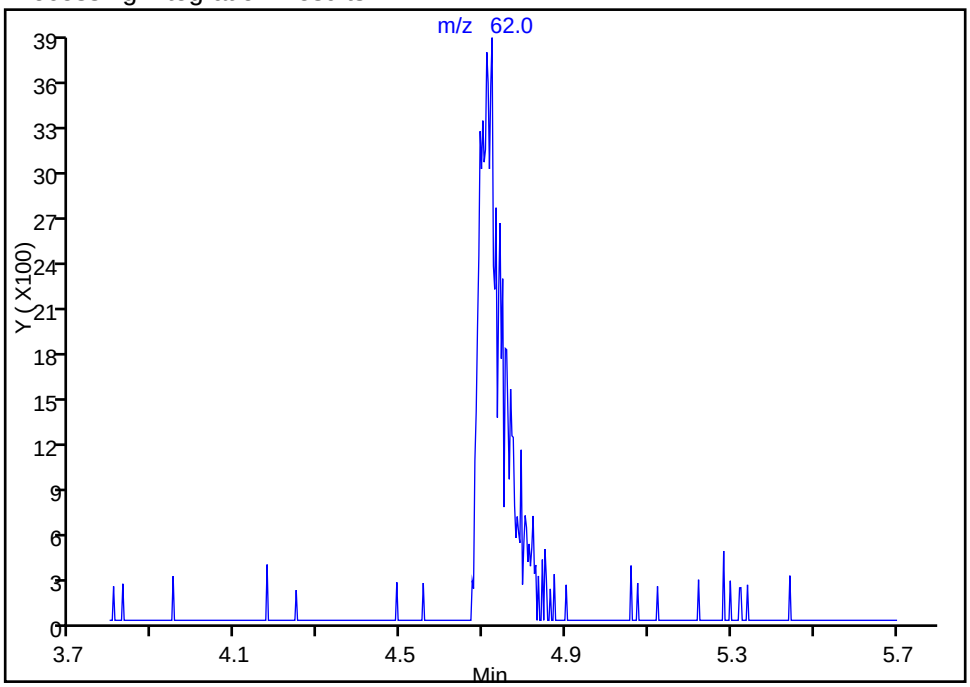
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

4 Vinyl chloride, CAS: 75-01-4

Signal: 1

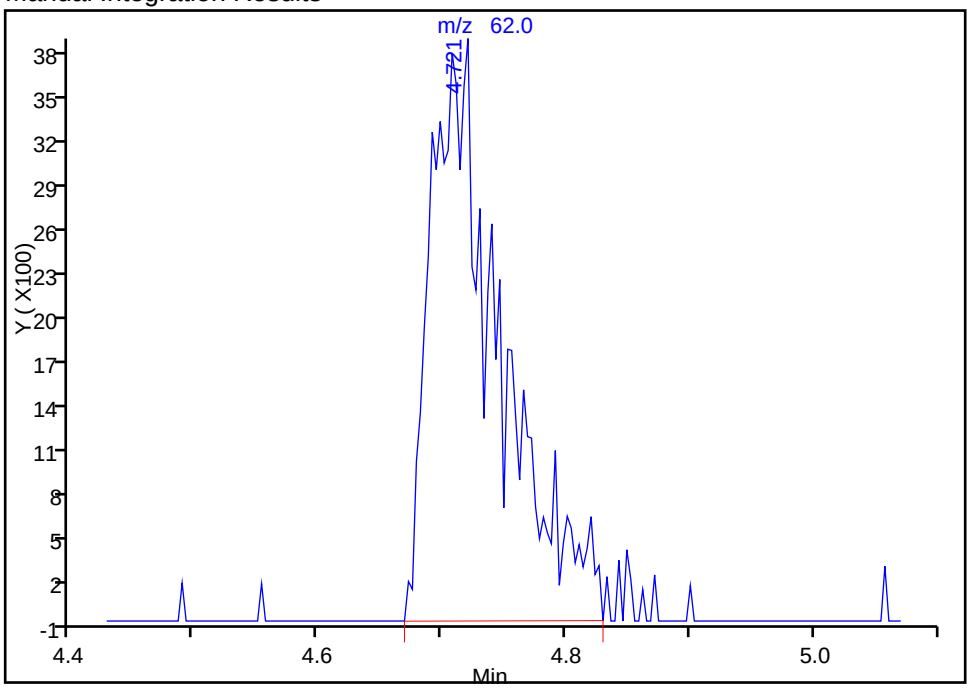
Not Detected
Expected RT: 4.70

Processing Integration Results



Manual Integration Results

RT: 4.72
Area: 15084
Amount: 5.741915
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

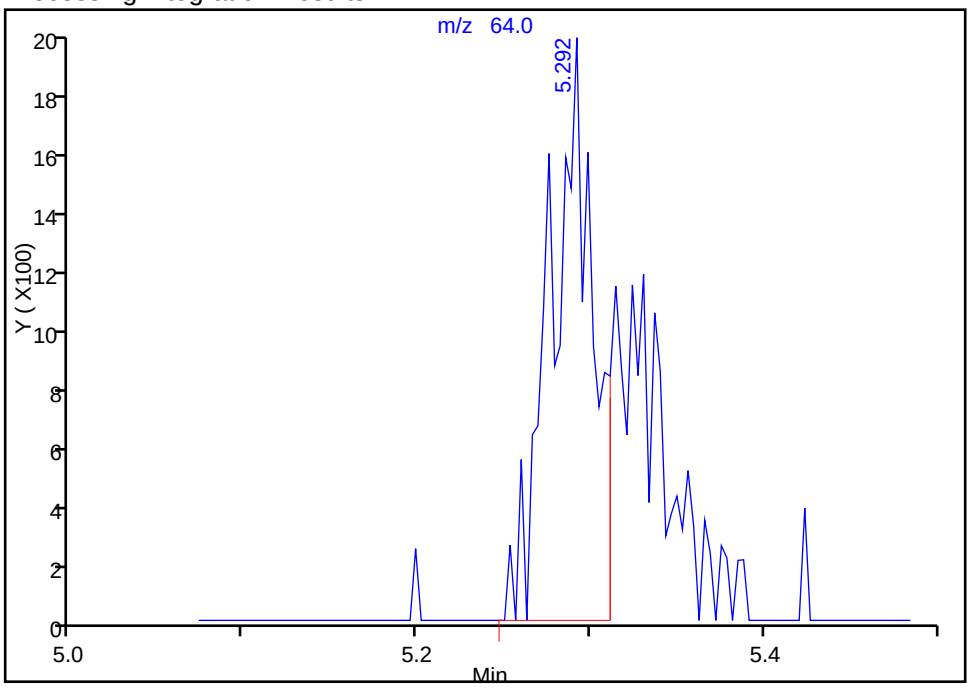
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

11 Chloroethane, CAS: 75-00-3

Signal: 1

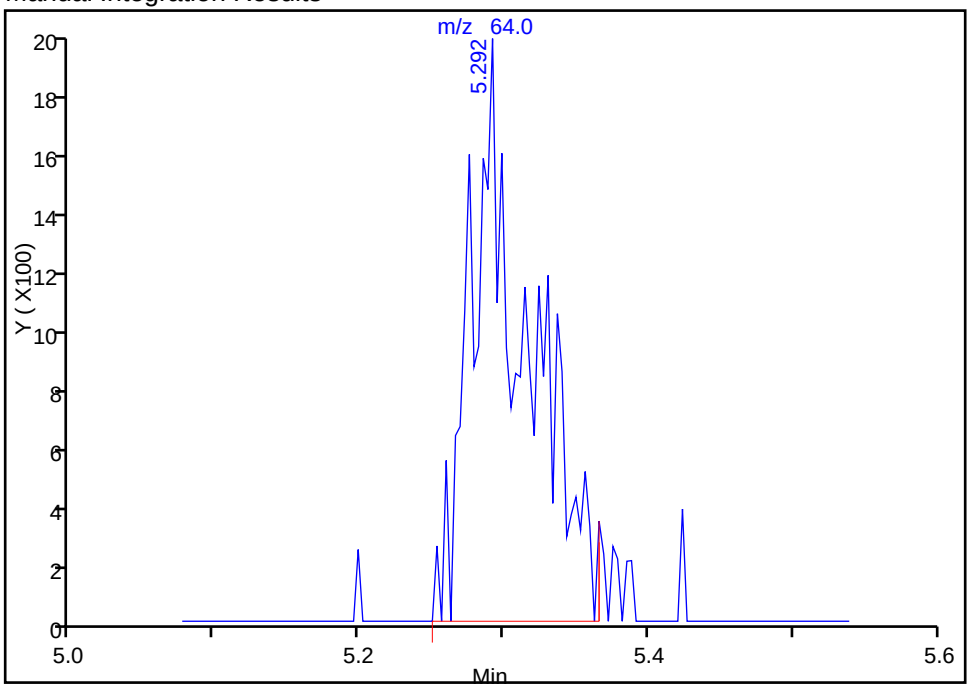
Processing Integration Results

RT: 5.29
Area: 3315
Amount: 5.219258
Amount Units: ug/l



Manual Integration Results

RT: 5.29
Area: 5321
Amount: 5.863686
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

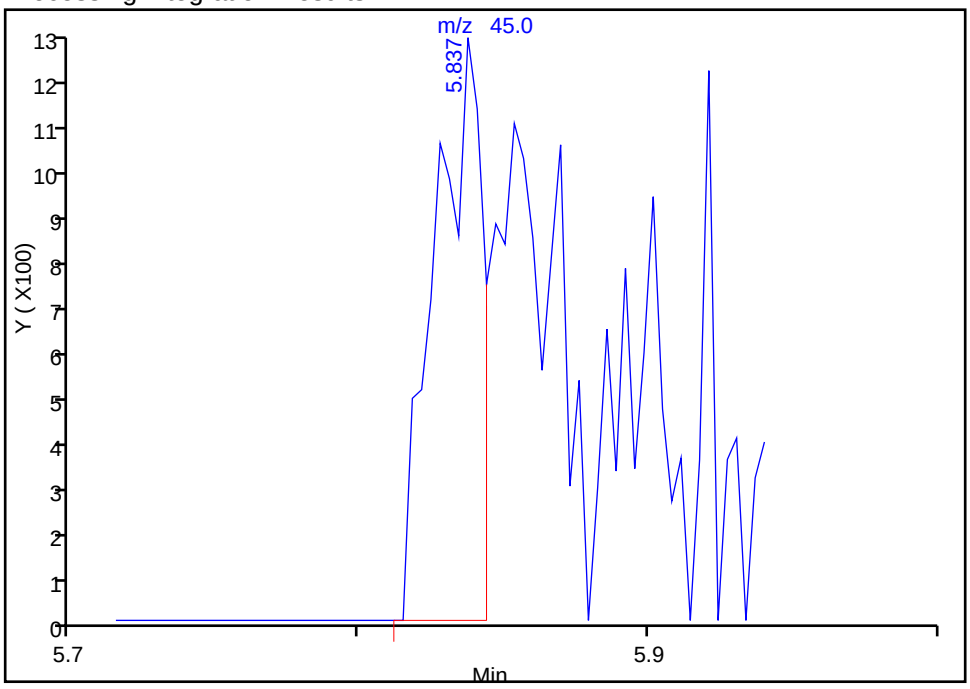
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

19 Isopropyl alcohol, CAS: 67-63-0

Signal: 1

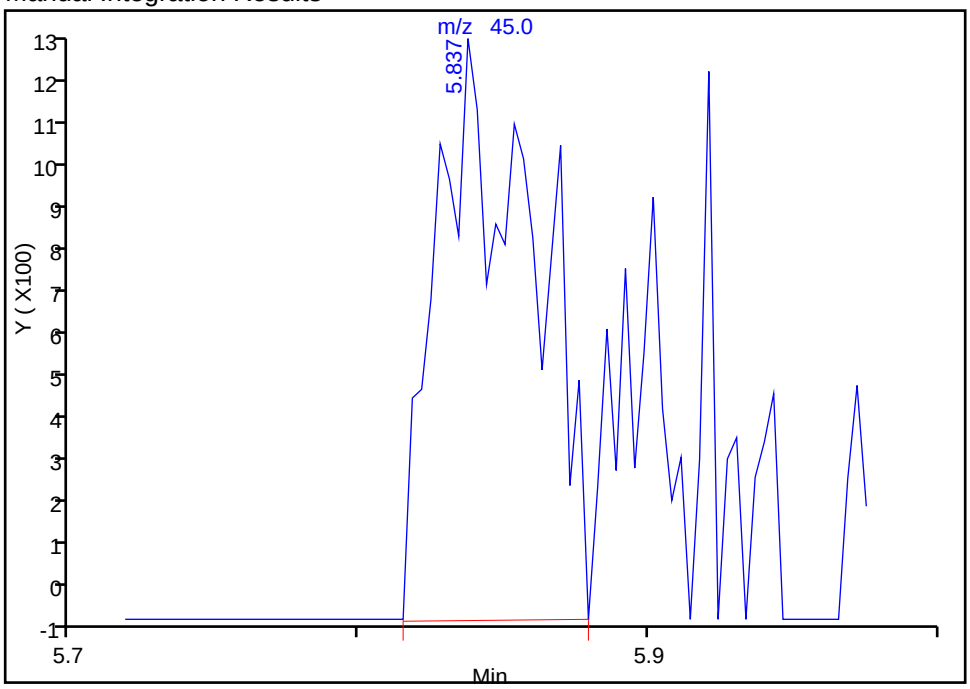
Processing Integration Results

RT: 5.84
Area: 1393
Amount: 52.777534
Amount Units: ug/l



Manual Integration Results

RT: 5.84
Area: 2822
Amount: 100.7915
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

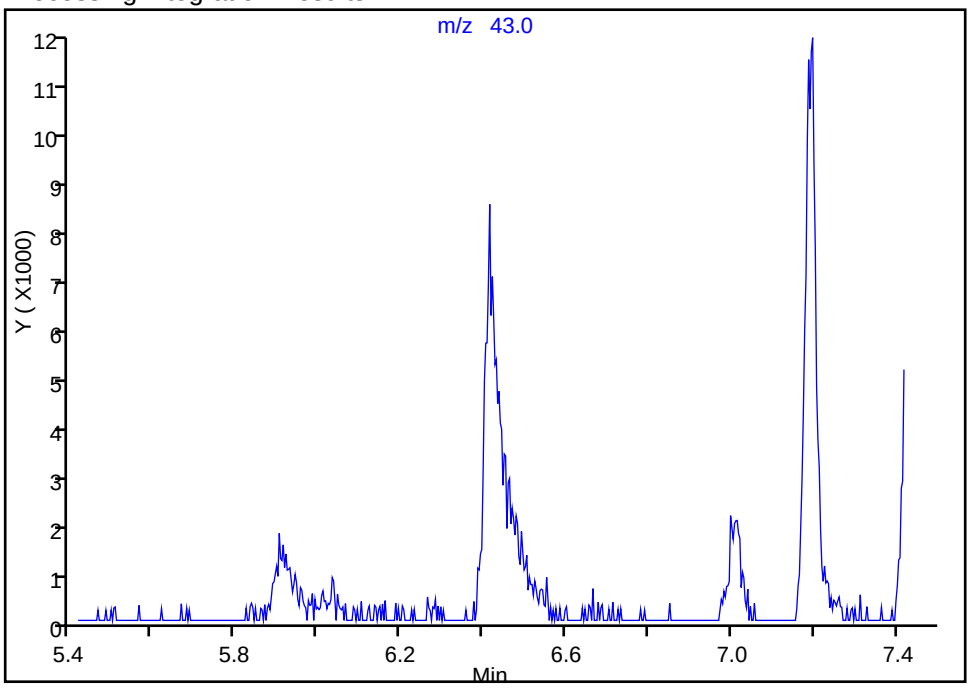
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

28 Methyl acetate, CAS: 79-20-9

Signal: 1

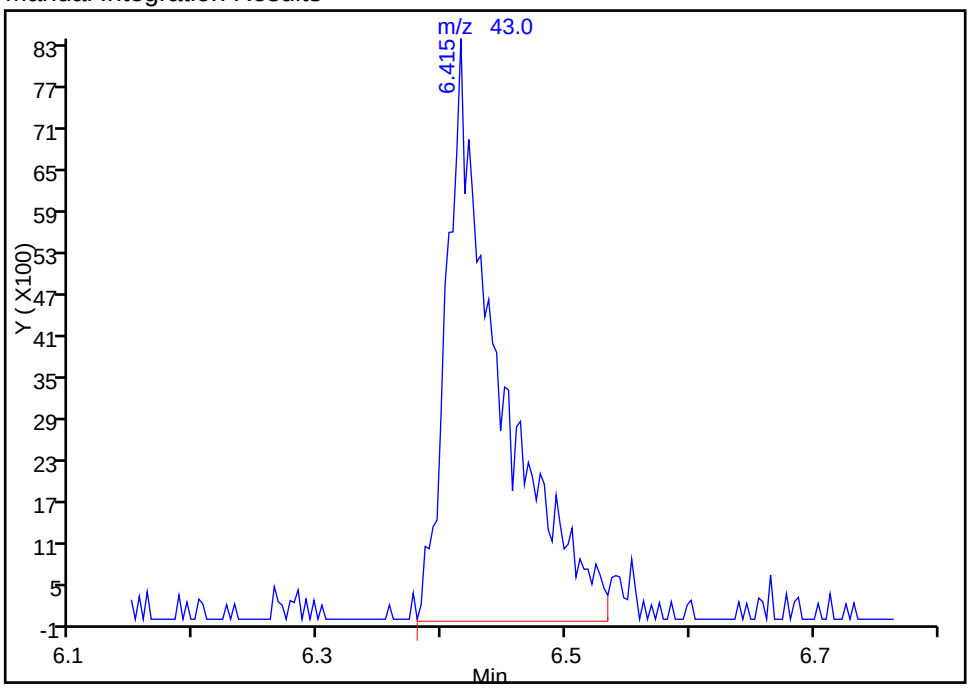
Not Detected
Expected RT: 6.42

Processing Integration Results



Manual Integration Results

RT: 6.42
Area: 25167
Amount: 26.940116
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

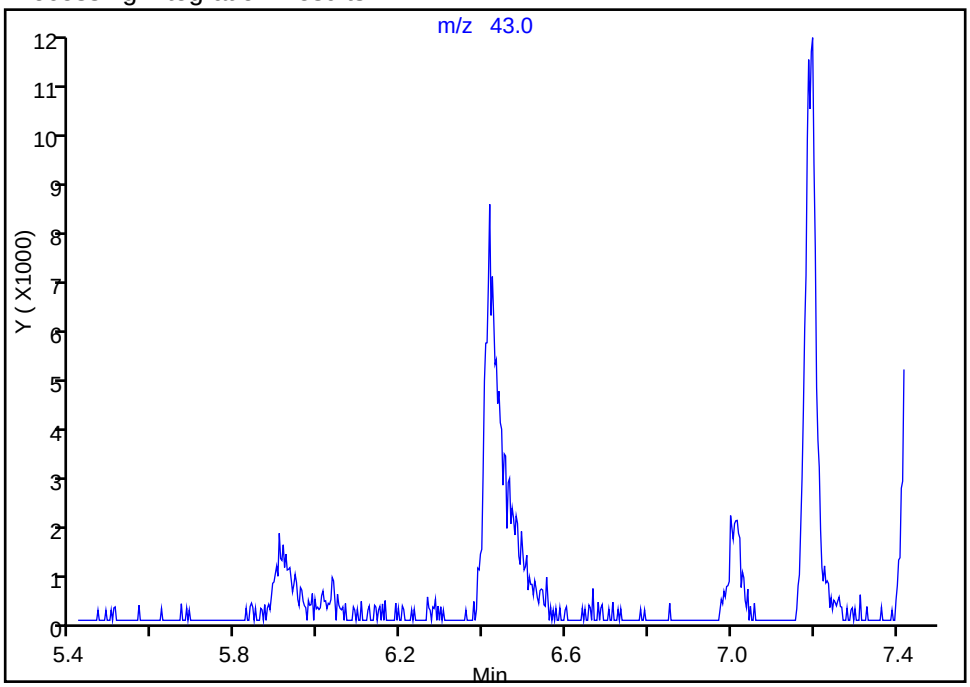
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

28 Methyl acetate, CAS: 79-20-9

Signal: 1

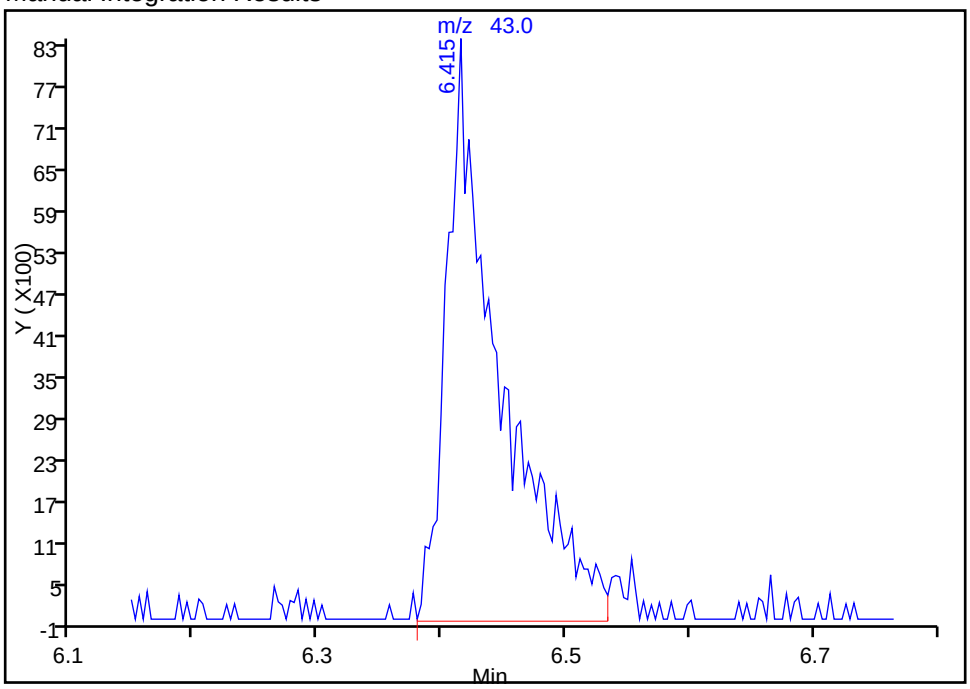
Not Detected
Expected RT: 6.42

Processing Integration Results



Manual Integration Results

RT: 6.42
Area: 25167
Amount: 26.940116
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

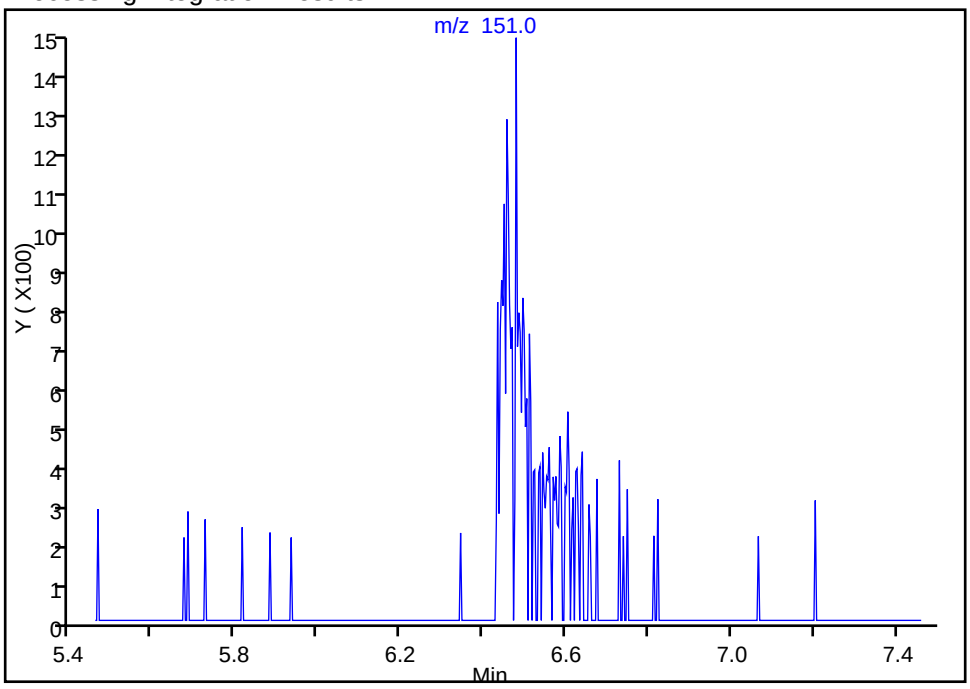
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

21 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

Signal: 1

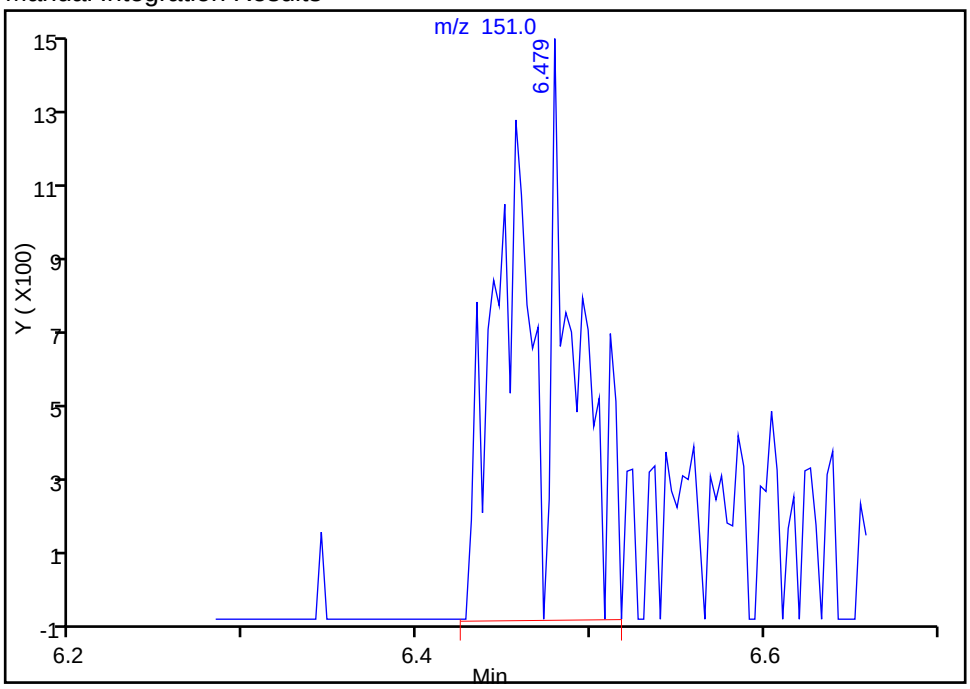
Not Detected
Expected RT: 6.46

Processing Integration Results



Manual Integration Results

RT: 6.48
Area: 3395
Amount: 11.095612
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

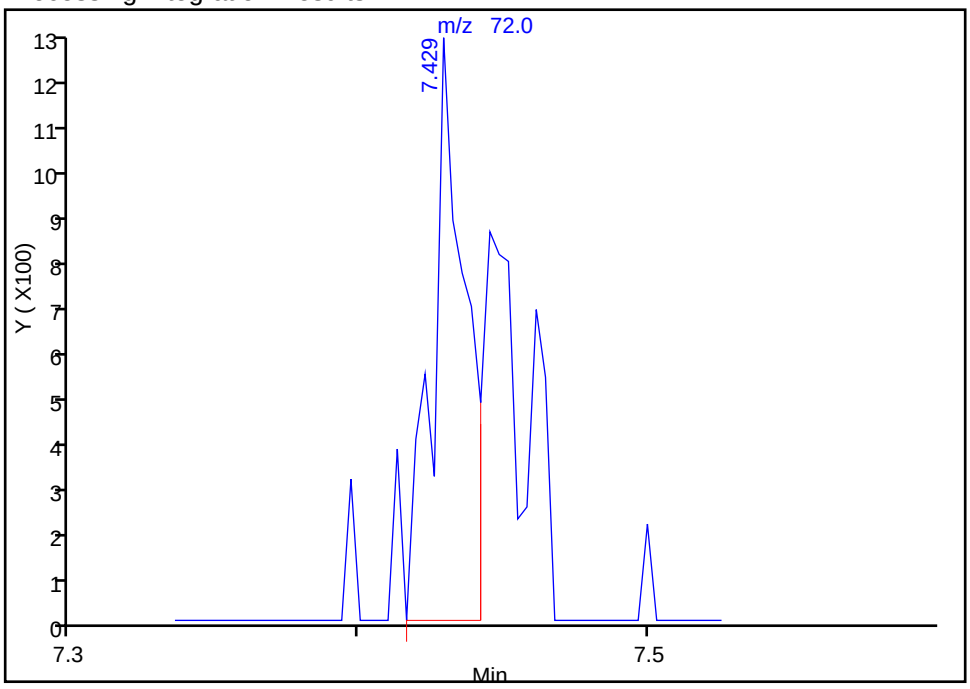
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

56 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

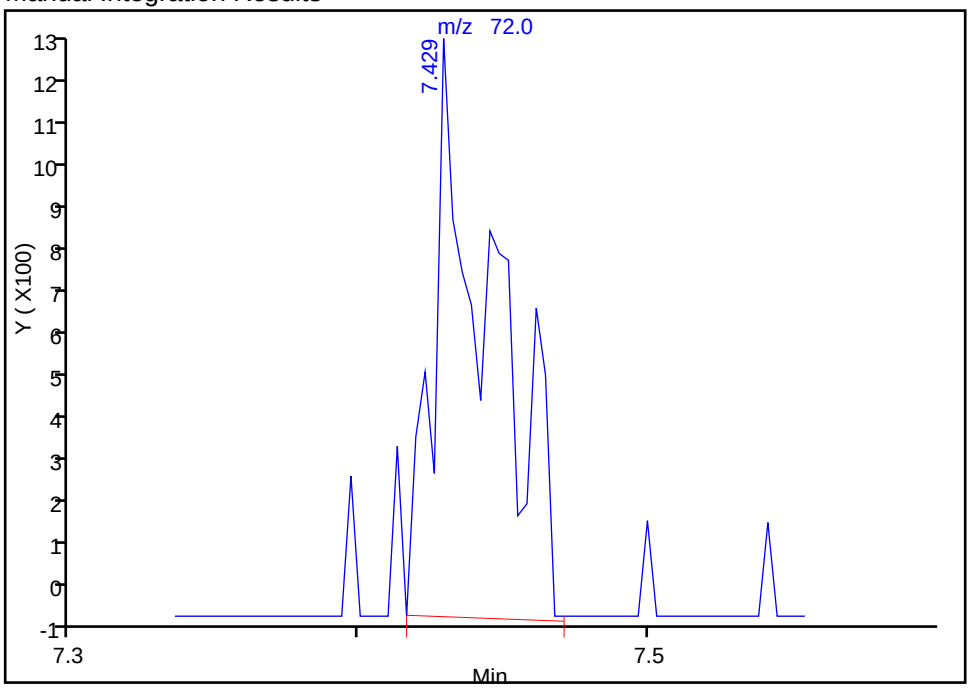
Processing Integration Results

RT: 7.43
Area: 1011
Amount: 9.107823
Amount Units: ug/l



Manual Integration Results

RT: 7.43
Area: 1810
Amount: 11.039566
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

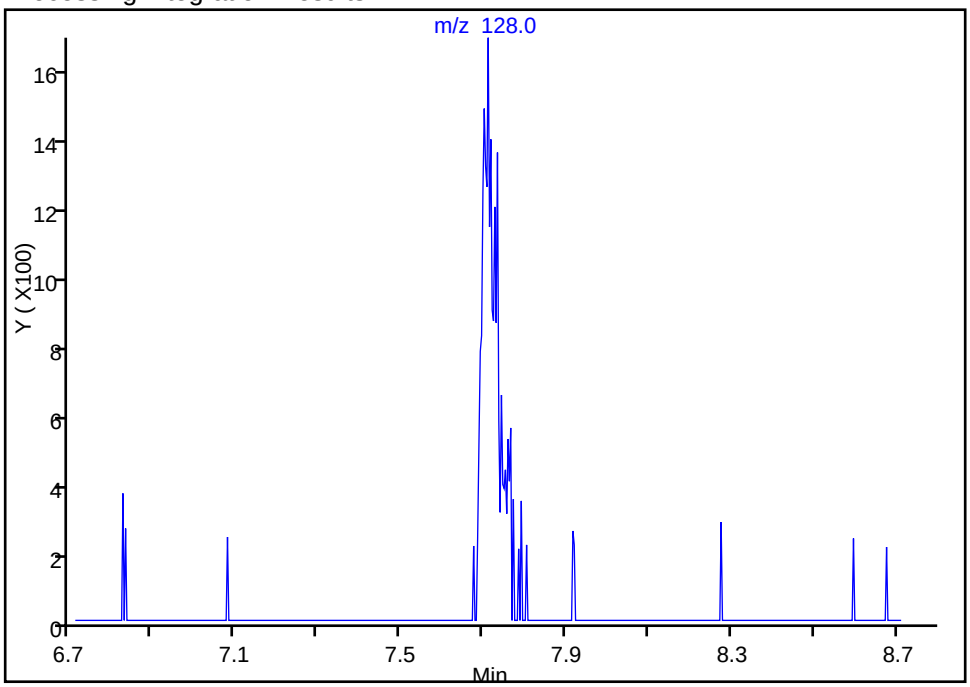
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

47 Chlorobromomethane, CAS: 74-97-5

Signal: 1

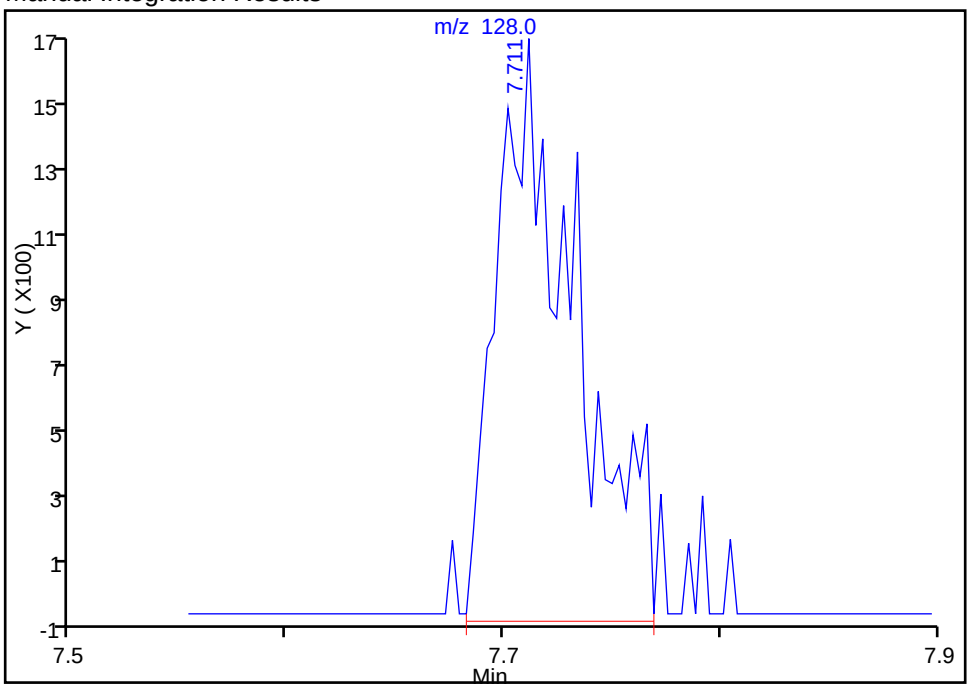
Not Detected
Expected RT: 7.71

Processing Integration Results



Manual Integration Results

RT: 7.71
Area: 4127
Amount: 5.014753
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

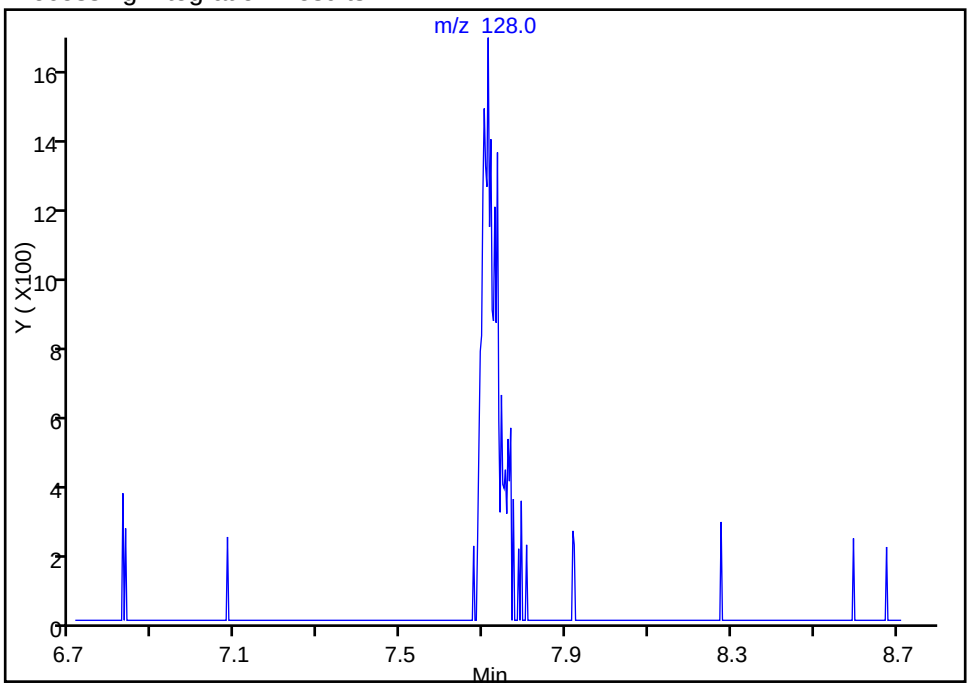
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

47 Chlorobromomethane, CAS: 74-97-5

Signal: 1

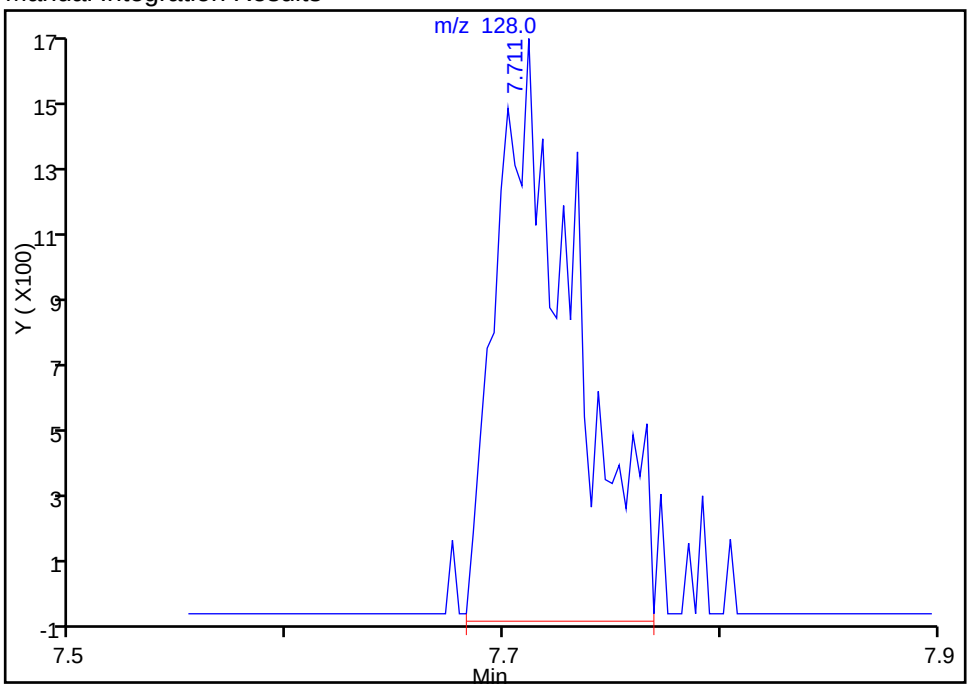
Processing Integration Results

Not Detected
Expected RT: 7.71



Manual Integration Results

RT: 7.71
Area: 4127
Amount: 5.014753
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:36:13
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

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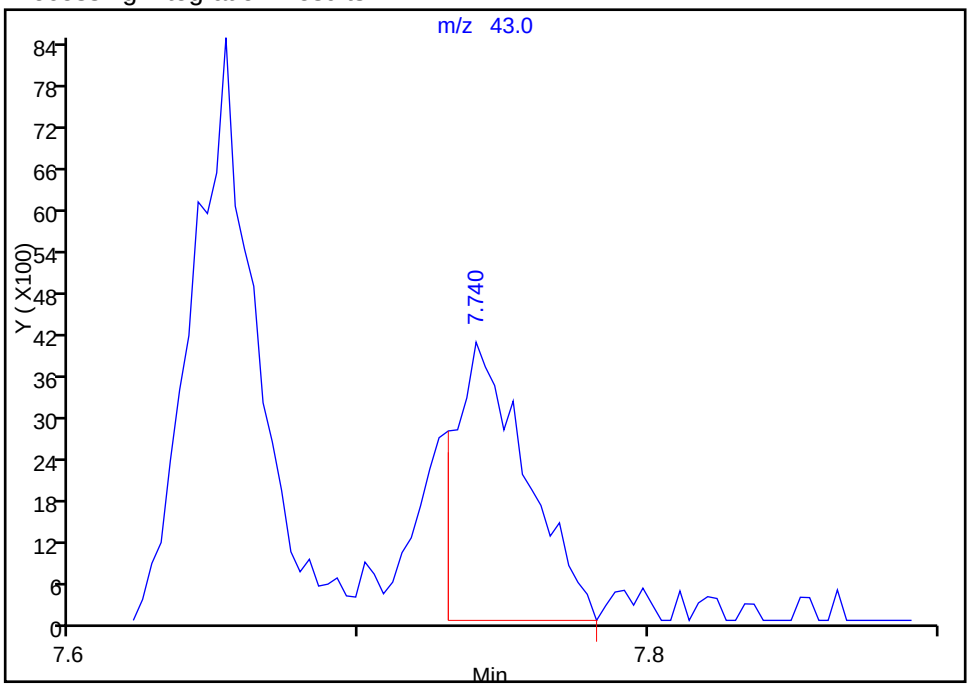
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

39 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

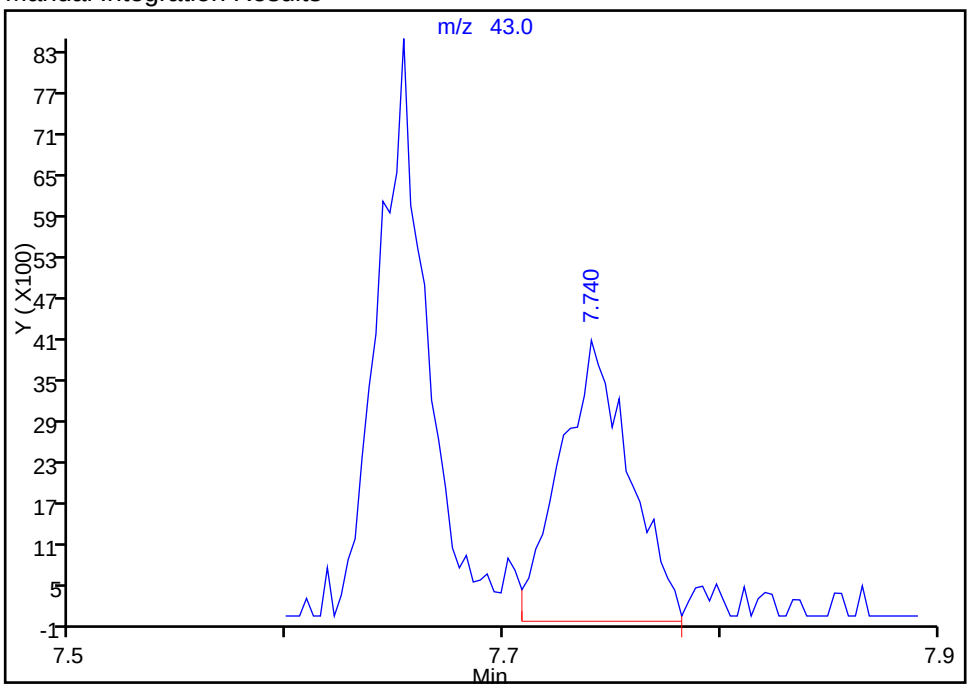
Processing Integration Results

RT: 7.74
Area: 6921
Amount: 148.0659
Amount Units: ug/l



Manual Integration Results

RT: 7.74
Area: 9134
Amount: 135.7413
Amount Units: ug/l



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Lims ID: IC
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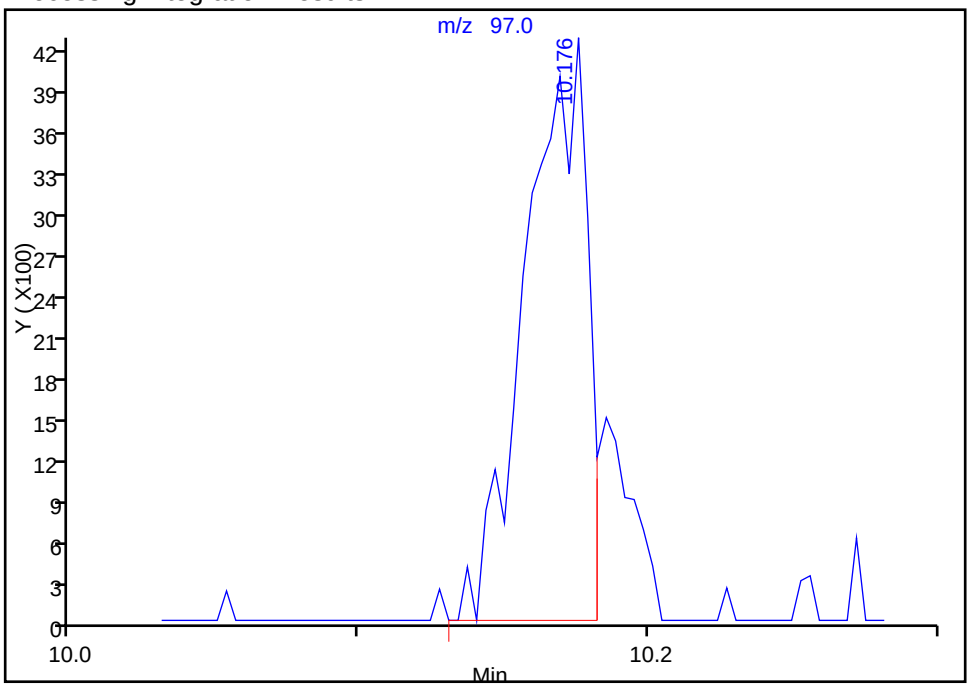
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

100 1,1,2-Trichloroethane, CAS: 79-00-5

Signal: 1

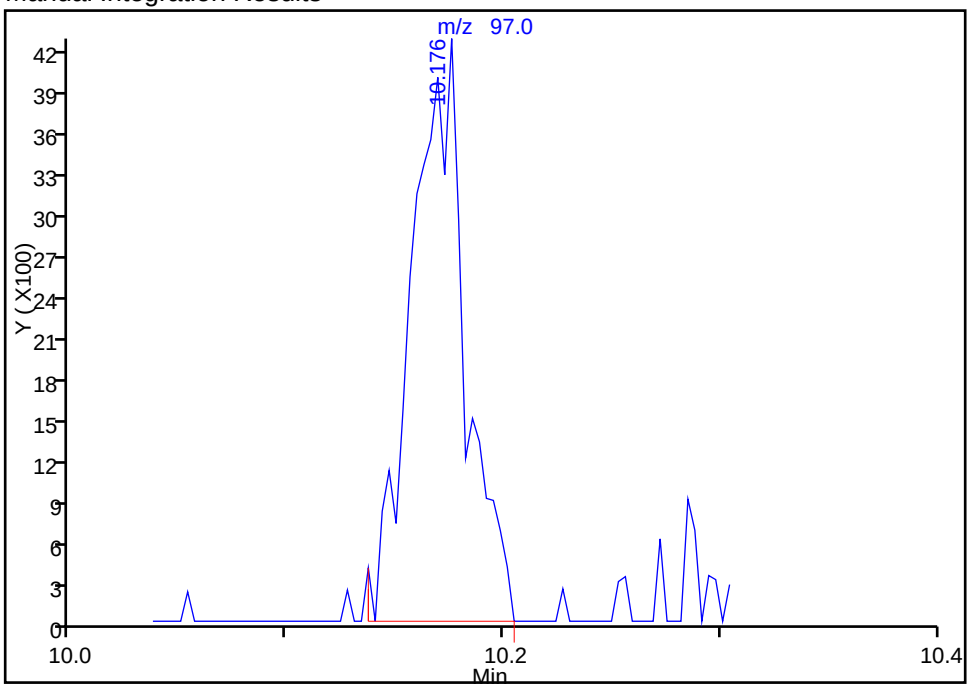
Processing Integration Results

RT: 10.18
Area: 6294
Amount: 5.092802
Amount Units: ug/l



Manual Integration Results

RT: 10.18
Area: 7375
Amount: 5.383375
Amount Units: ug/l



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Manual Integration/User Assign Peak Report

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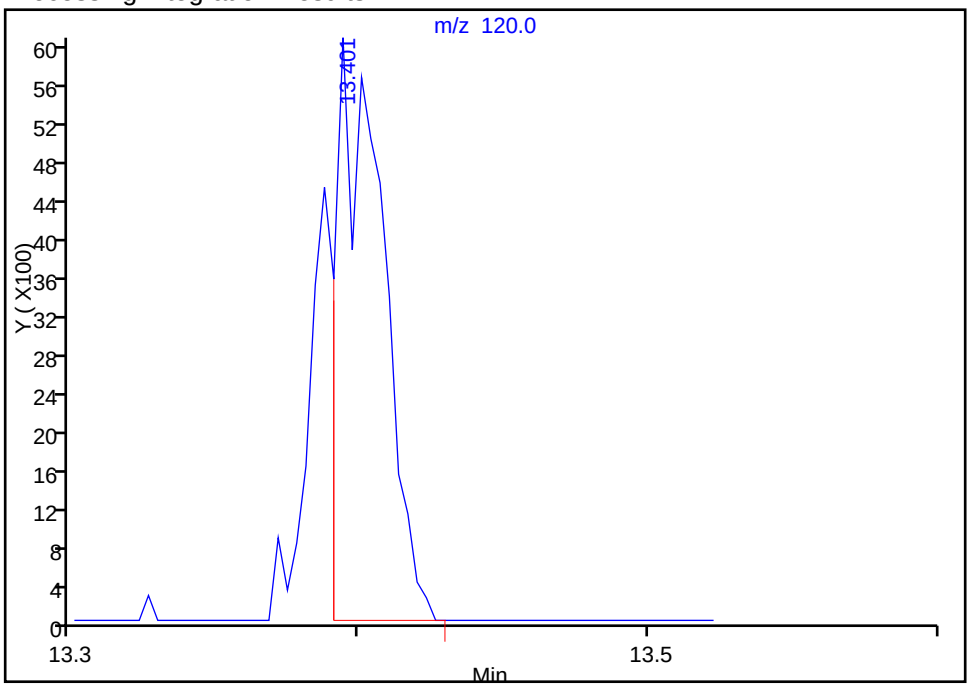
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

123 N-Propylbenzene, CAS: 103-65-1

Signal: 1

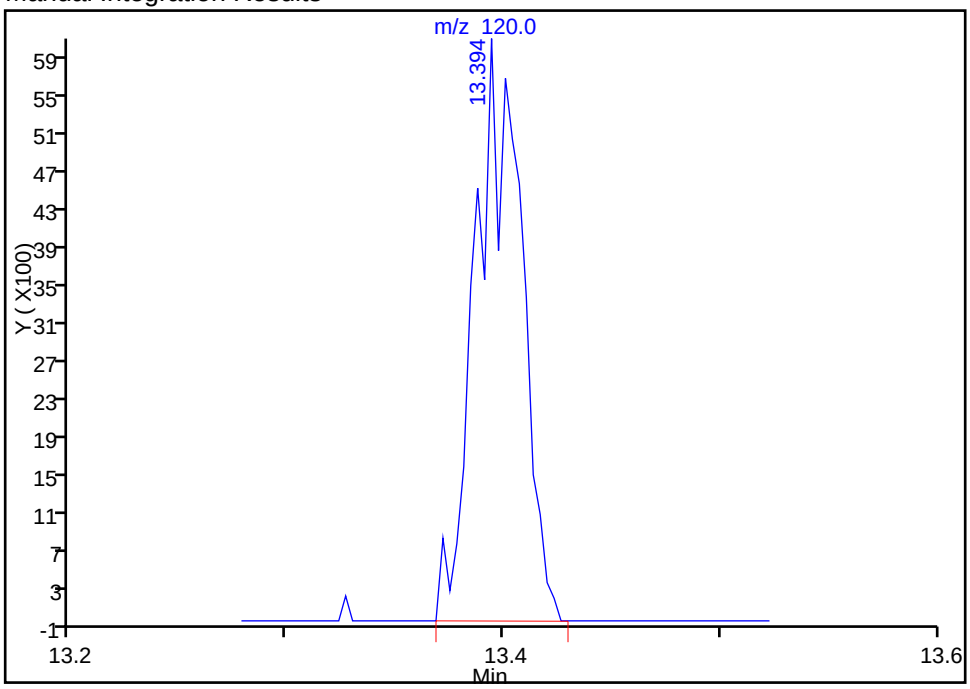
Processing Integration Results

RT: 13.40
Area: 6740
Amount: 5.531755
Amount Units: ug/l



Manual Integration Results

RT: 13.39
Area: 8959
Amount: 5.789004
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:40:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

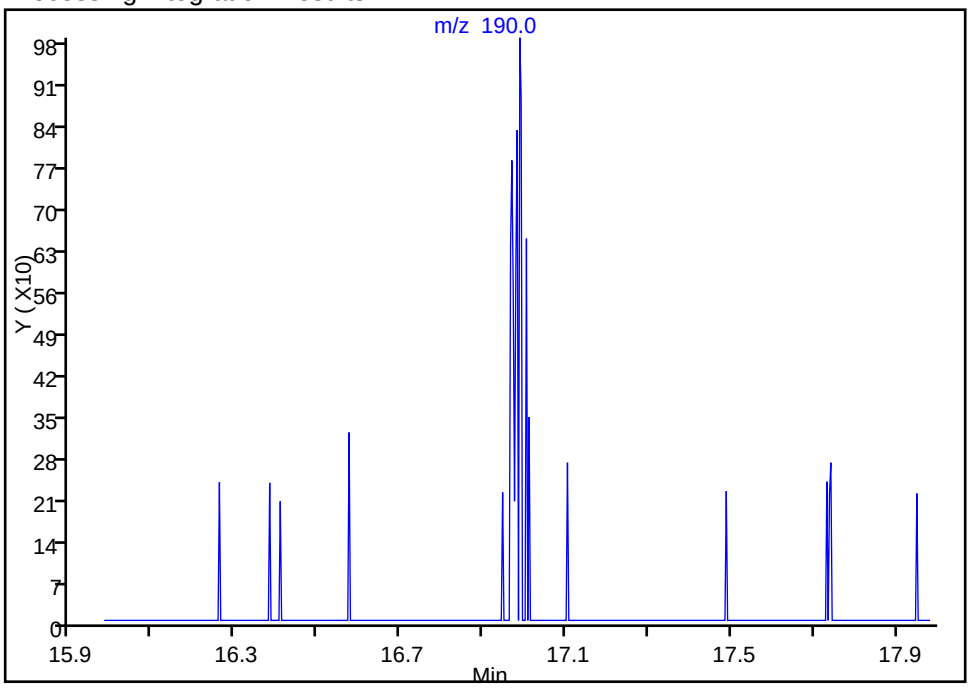
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11702.D
Injection Date: 26-Apr-2016 14:29:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

148 Hexachlorobutadiene, CAS: 87-68-3

Signal: 1

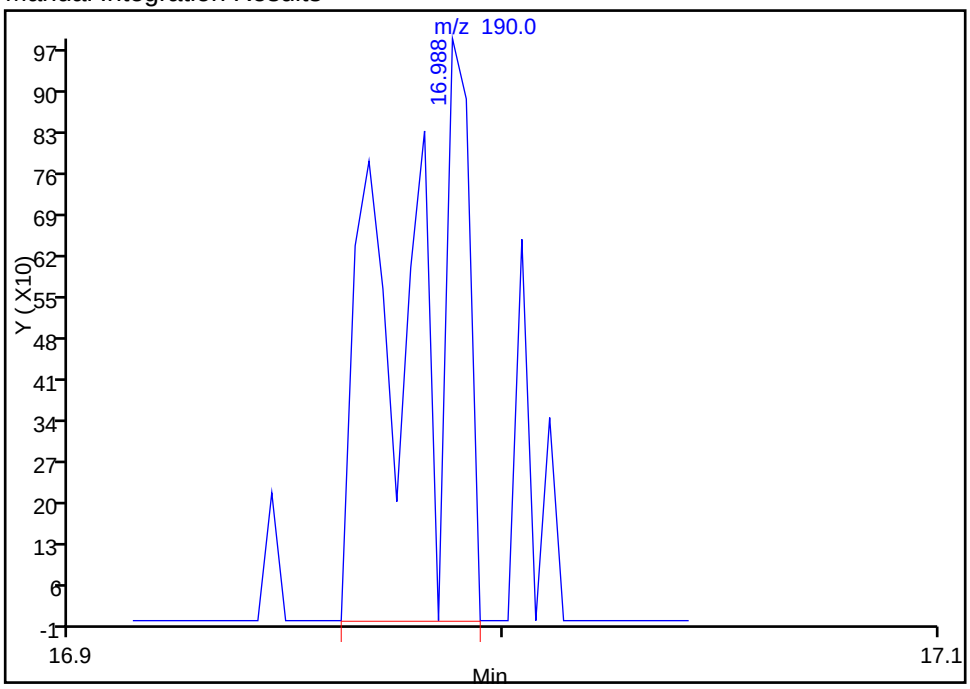
Not Detected
Expected RT: 16.98

Processing Integration Results



Manual Integration Results

RT: 16.99
Area: 1053
Amount: 4.739920
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:40:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 26-Apr-2016 14:54:30 ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 600-0011772-005
Operator ID: DT Instrument ID: CHVOAMS10
Sublist: chrom-8260w5_10*sub11

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 26-Apr-2016 18:22:20 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: tengd Date: 26-Apr-2016 15:16:45

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.757	8.757	0.000	99	320056	50.0	50.0	
2 Dichlorodifluoromethane	85	4.236	4.233	0.003	64	17120	10.0	10.3	M
3 Chloromethane	50	4.608	4.612	-0.004	68	26019	10.0	9.59	M
4 Vinyl chloride	62	4.701	4.702	-0.001	96	25587	10.0	9.12	
5 Butadiene	39	4.830	4.830	0.000	85	16771	10.0	9.00	
10 Ethylene oxide	44	5.061	5.067	-0.006	86	43012	100.0	96.0	
8 Ethanol	45		5.106				ND	ND	
7 Bromomethane	94	5.154	5.154	0.000	78	12056	10.0	8.87	
11 Chloroethane	64	5.292	5.286	0.006	35	9219	10.0	9.51	
13 Dichlorofluoromethane	67	5.324	5.327	-0.003	85	23783	10.0	9.09	
24 Acrolein	56	5.805	5.809	-0.004	59	7551	50.0	45.3	
16 Acetonitrile	41	5.818	5.815	0.003	76	16679	100.0	100.5	
19 Isopropyl alcohol	45	5.847	5.837	0.010	57	4812	100.0	134.4	M
12 Trichlorofluoromethane	101	5.844	5.841	0.003	31	18599	10.0	9.04	M
18 Propionaldehyde	58	5.892	5.902	-0.010	85	30190	100.5	101.5	
27 Acetone	43	5.914	5.918	-0.004	33	6871	20.0	16.2	
15 Ethyl ether	59	6.027	6.033	-0.006	52	10495	10.0	8.86	M
31 2-Methyl-2-propanol	59	6.277	6.271	0.006	64	7480	100.0	93.7	
20 1,1-Dichloroethene	96	6.302	6.306	-0.004	66	11328	10.0	8.95	M
37 Acrylonitrile	52	6.319	6.312	0.007	87	36527	100.0	82.9	
23 Iodomethane	142	6.351	6.351	0.000	84	14241	10.0	7.38	
26 Methylene Chloride	84	6.412	6.409	0.003	67	15694	10.0	9.56	
28 Methyl acetate	43	6.421	6.418	0.003	70	46280	50.0	46.4	M
21 1,1,2-Trichloro-1,2,2-trif	151	6.473	6.460	0.013	12	6272	10.0	13.9	M
25 3-Chloro-1-propene	76	6.492	6.495	-0.003	74	6592	10.0	8.97	M
22 Carbon disulfide	76	6.662	6.656	0.006	99	38910	10.0	8.42	
29 trans-1,2-Dichloroethene	96	6.957	6.961	-0.004	70	14264	10.0	9.12	M
44 cis-1,2-Dichloroethene	96	6.957	6.961	-0.004	52	9824	10.0	7.39	
30 Methyl tert-butyl ether	73	7.012	7.012	0.000	95	39982	10.0	9.25	
35 Propionitrile	54	7.121	7.124	-0.003	83	18036	100.0	103.3	M

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	7.159	7.153	0.006	77	24243	10.0	9.26	
40 Vinyl acetate	43	7.195	7.192	0.003	99	39501	20.0	17.9	
36 2-Chloro-1,3-butadiene	53	7.429	7.432	-0.003	93	17162	10.0	7.84	
56 2-Butanone (MEK)	72	7.435	7.435	0.000	75	3141	20.0	17.9	
58 Hexane	57	7.438	7.439	-0.001	59	10873	10.0	8.46	
32 Isopropyl ether	45	7.442	7.439	0.003	81	43716	10.0	8.96	
61 Methacrylonitrile	66	7.512	7.519	-0.007	88	16067	100.0	84.3	
S 43 1,2-Dichloroethene, Total	96				0		20.0	16.5	
47 Chlorobromomethane	128	7.714	7.711	0.003	41	7596	10.0	8.64	
45 Methyl acrylate	55	7.724	7.721	0.003	54	26140	20.0	17.8	
41 Tert-butyl ethyl ether	59	7.730	7.734	-0.004	98	46271	10.0	8.80	
39 Isobutyl alcohol	43	7.746	7.744	0.002	5	14416	250.0	200.5	M
46 2,2-Dichloropropane	77	7.811	7.821	-0.010	49	12647	10.0	7.56	
$ 52 Dibromofluoromethane	113	7.846	7.833	0.013	48	13794	10.0	9.02	M
53 Tetrahydrofuran	42	7.981	7.981	0.000	72	7593	20.0	18.9	M
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.167	8.180	-0.013	0	17397	10.0	10.2	
65 1,2-Dichloroethane	62	8.241	8.228	0.013	63	21505	10.0	9.76	
38 n-Butanol	56	8.279	8.279	0.000	78	5120	250.0	202.2	
55 1,1,1-Trichloroethane	97	8.311	8.324	-0.013	73	15717	10.0	7.50	
33 Ethyl acetate	43	8.363	8.366	-0.003	94	25165	20.0	19.0	
57 1,1-Dichloropropene	75	8.440	8.443	-0.003	96	17233	10.0	8.58	
69 Cyclohexane	84	8.539	8.539	0.000	84	13355	10.0	7.77	
54 Carbon tetrachloride	119	8.597	8.597	0.000	95	14289	10.0	8.00	
63 Benzene	78	8.616	8.616	0.000	96	53652	10.0	8.49	
62 Tert-amyl methyl ether	73	8.677	8.680	-0.003	97	41496	10.0	9.09	
60 n-Heptane	43	8.674	8.680	-0.006	30	13195	10.0	9.86	
68 Isopropyl acetate	43	8.674	8.680	-0.006	54	13195	10.0	9.86	
59 Isooctane	57	8.905	8.905	0.000	85	21133	10.0	8.67	
72 Ethyl acrylate	55	8.924	8.924	0.000	95	18691	10.0	8.99	
66 2-Nitropropane	43	8.950	8.953	-0.003	64	7321	20.0	15.4	
73 Dibromomethane	93	9.062	9.059	0.003	44	9448	10.0	9.11	
79 1,2-Dichloropropane	63	9.068	9.069	-0.001	86	14390	10.0	8.80	
70 Trichloroethene	130	9.097	9.098	-0.001	97	14682	10.0	8.04	
76 n-Propyl acetate	43	9.142	9.139	0.003	94	16064	10.0	8.08	
75 Dichlorobromomethane	83	9.145	9.146	-0.001	91	18695	10.0	8.90	
77 Methyl methacrylate	41	9.168	9.168	0.000	88	24822	20.0	18.4	
78 1,4-Dioxane	58	9.203	9.194	0.009	1	1154	200.0	186.9	M
71 Methylcyclohexane	83	9.531	9.534	-0.003	89	12193	10.0	8.19	
80 4-Methyl-2-pentanone (MIBK	43	9.694	9.685	0.009	76	25443	20.0	18.1	
48 Chloroform	83	12.579	12.579	0.000	50	15891	10.0	8.02	
* 85 Chlorobenzene-d5	82	11.745	11.745	0.000	84	129372	50.0	50.0	
89 2-Chloroethyl vinyl ether	63	9.402	9.406	-0.004	94	16331	20.0	16.8	
90 cis-1,3-Dichloropropene	75	9.640	9.640	0.000	95	23581	10.0	8.93	
96 trans-1,3-Dichloropropene	75	9.999	9.996	0.003	92	19097	10.0	8.75	
100 1,1,2-Trichloroethane	97	10.172	10.169	0.003	87	14539	10.0	9.93	
$ 93 Toluene-d8 (Surr)	98	10.281	10.282	-0.001	92	48156	10.0	8.42	
97 Ethyl methacrylate	69	10.310	10.311	-0.001	88	17375	10.0	8.53	
94 Toluene	92	10.352	10.352	0.000	96	35919	10.0	8.64	
102 1,3-Dichloropropane	76	10.387	10.388	-0.001	83	22833	10.0	8.93	
106 2-Hexanone	43	10.471	10.461	0.010	93	16246	20.0	17.9	
101 Chlorodibromomethane	129	10.702	10.696	0.006	87	14960	10.0	8.66	
103 n-Butyl acetate	43	10.740	10.741	-0.001	97	19296	10.0	9.57	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 104 Xylenes, Total	106				0		20.0	16.8	
105 Ethylene Dibromide	107	10.949	10.949	0.000	98	14086	10.0	9.45	
107 Tetrahydrothiophene	60	11.010	11.004	0.006	0	11965	10.0	10.3	M
98 Tetrachloroethene	164	11.096	11.087	0.009	82	9812	10.0	8.38	
113 1-Chlorohexane	55	11.632	11.623	0.009	91	8514	10.0	8.94	
110 1,1,1,2-Tetrachloroethane	131	11.690	11.690	0.000	89	16118	10.0	9.03	
109 Chlorobenzene	112	11.783	11.780	0.003	97	42961	10.0	8.92	
108 Ethylbenzene	106	11.947	11.947	0.000	98	18924	10.0	8.26	
111 m-Xylene & p-Xylene	91	12.142	12.140	0.002	0	47400	10.0	8.18	
115 Amyl acetate (mixed isomer	43	12.374	12.371	0.003	91	23115	10.0	9.36	
114 Styrene	104	12.505	12.502	0.003	94	41828	10.0	8.64	
116 Cyclohexanone	55	12.547	12.544	0.003	92	16434	500.0	458.7	
112 o-Xylene	106	12.582	12.582	0.000	96	24998	10.0	8.64	
* 117 1,4-Dichlorobenzene-d4	152	14.302	14.306	-0.004	94	123437	50.0	50.0	
120 n-Butyl acrylate	55	12.136	12.130	0.006	98	51940	20.0	18.0	
119 Bromoform	173	12.341	12.339	0.002	81	9207	10.0	9.70	
124 1,1,2,2-Tetrachloroethane	83	12.579	12.579	0.000	61	17167	10.0	9.22	
129 trans-1,4-Dichloro-2-buten	53	12.730	12.717	0.013	67	4423	10.0	9.58	
128 1,2,3-Trichloropropane	110	12.730	12.733	-0.003	87	5224	10.0	9.65	
121 Isopropylbenzene	105	12.954	12.951	0.003	95	48507	10.0	8.46	
$ 122 4-Bromofluorobenzene	95	13.012	13.016	-0.004	92	16703	10.0	9.25	
125 Bromobenzene	156	13.253	13.250	0.003	91	19072	10.0	9.93	
123 N-Propylbenzene	120	13.397	13.394	0.003	98	14417	10.0	8.76	
134 Butyl Methacrylate	69	13.416	13.413	0.003	85	45268	20.0	17.5	
127 2-Chlorotoluene	126	13.522	13.519	0.003	95	14196	10.0	8.91	
130 4-Chlorotoluene	91	13.586	13.590	-0.004	97	40051	10.0	8.90	
126 1,3,5-Trimethylbenzene	105	13.660	13.661	-0.001	97	38999	10.0	8.61	
131 tert-Butylbenzene	119	13.955	13.953	0.002	93	31117	10.0	8.59	
133 1,2,4-Trimethylbenzene	105	14.049	14.052	-0.003	97	41084	10.0	8.77	
135 sec-Butylbenzene	105	14.167	14.164	0.003	94	40622	10.0	8.54	
143 Benzyl chloride	91	14.167	14.164	0.003	53	5834	10.0	7.99	
142 n-Butylbenzene	91	14.257	14.257	0.000	19	26041	10.0	9.46	
137 1,3-Dichlorobenzene	146	14.270	14.264	0.006	94	27062	10.0	8.71	
140 1,4-Dichlorobenzene	146	14.331	14.331	0.000	81	30569	10.0	8.90	
136 4-Isopropyltoluene	119	14.331	14.331	0.000	95	38819	10.0	8.29	
139 1,2,3-Trimethylbenzene	105	14.488	14.482	0.006	97	44320	10.0	8.80	
144 1,2-Dichlorobenzene	146	14.690	14.687	0.003	96	28661	10.0	9.64	
146 1,2-Dibromo-3-Chloropropan	157	15.165	15.165	0.000	43	3201	10.0	10.6	
149 1,2,4-Trichlorobenzene	180	16.038	16.029	0.009	94	12564	10.0	9.45	
147 1,3,5-Trichlorobenzene	180	16.648	16.645	0.003	77	9994	10.0	8.75	
150 Naphthalene	128	16.952	16.956	-0.004	97	25716	10.0	8.87	
148 Hexachlorobutadiene	190	16.981	16.982	-0.001	40	2317	10.0	9.81	
151 1,2,3-Trichlorobenzene	180	17.193	17.193	0.000	93	6689	10.0	8.95	
S 162 Trihalomethanes, Total	1				0			35.3	
S 159 1,3-Dichloropropene, Total	1				0			17.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

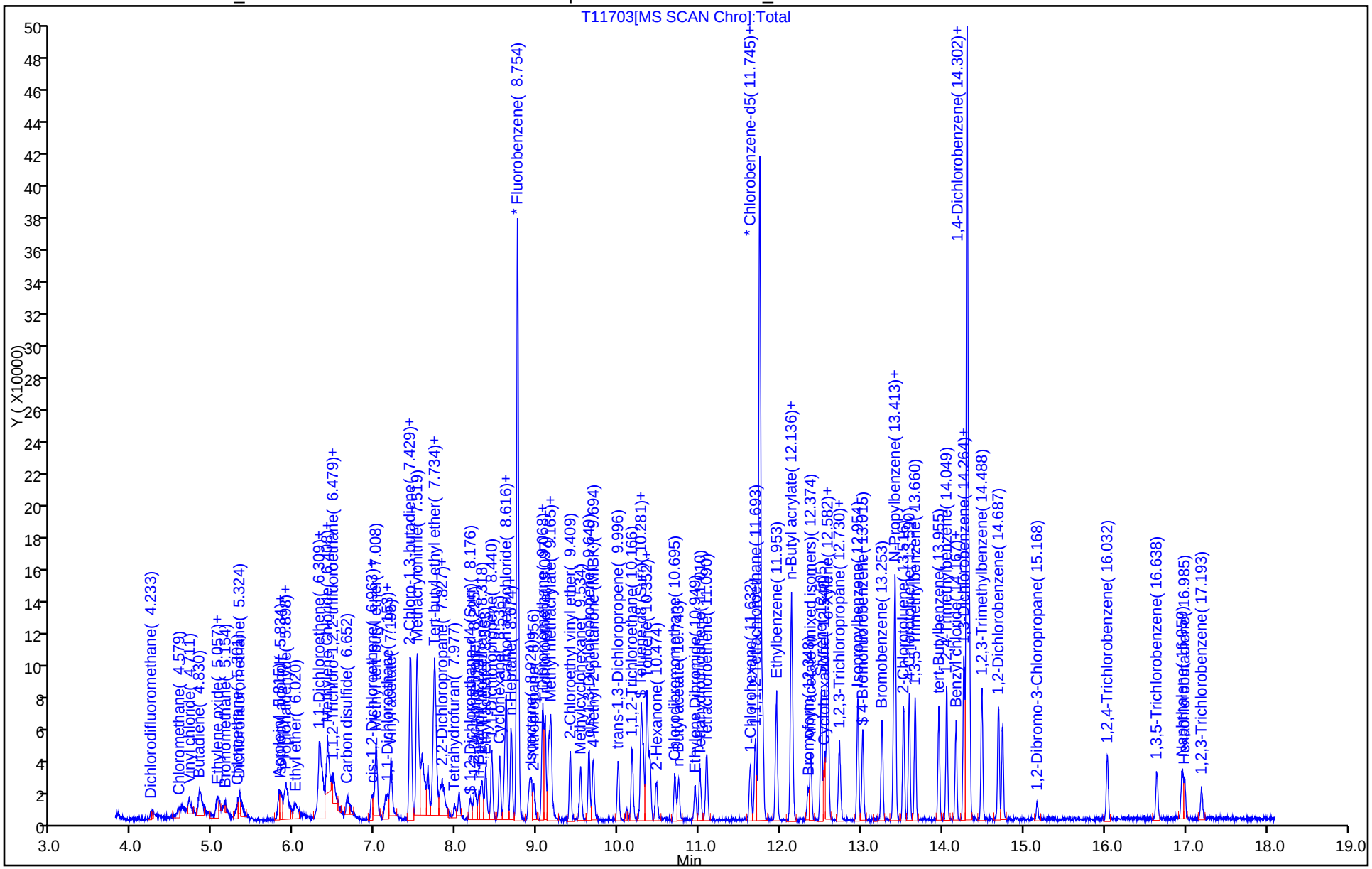
VOAIS250PPM_00046	Amount Added:	1.00	Units: uL
VOASTDGASPT_00164	Amount Added:	1.00	Units: uL
VOASTDPT2_00055	Amount Added:	1.00	Units: uL
6NRStd_00055	Amount Added:	1.00	Units: uL
EOxideStd_00070	Amount Added:	1.00	Units: uL
PropHydeSTDW_00051	Amount Added:	1.00	Units: uL

Report Date: 26-Apr-2016 18:22:21 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D

Injection Date:	26-Apr-2016 14:54:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	IC			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

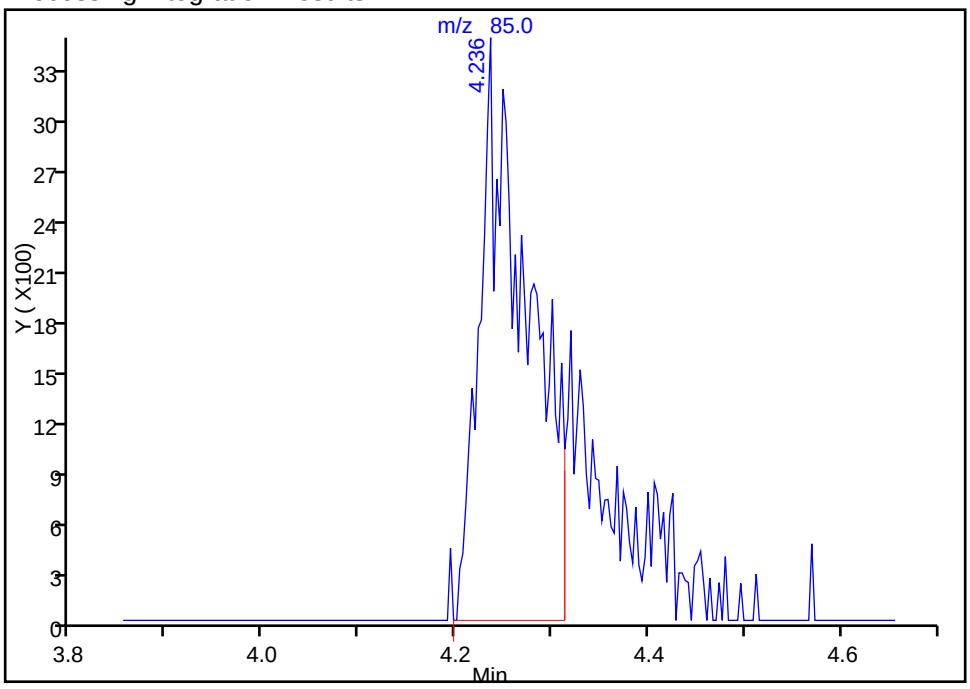
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

2 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

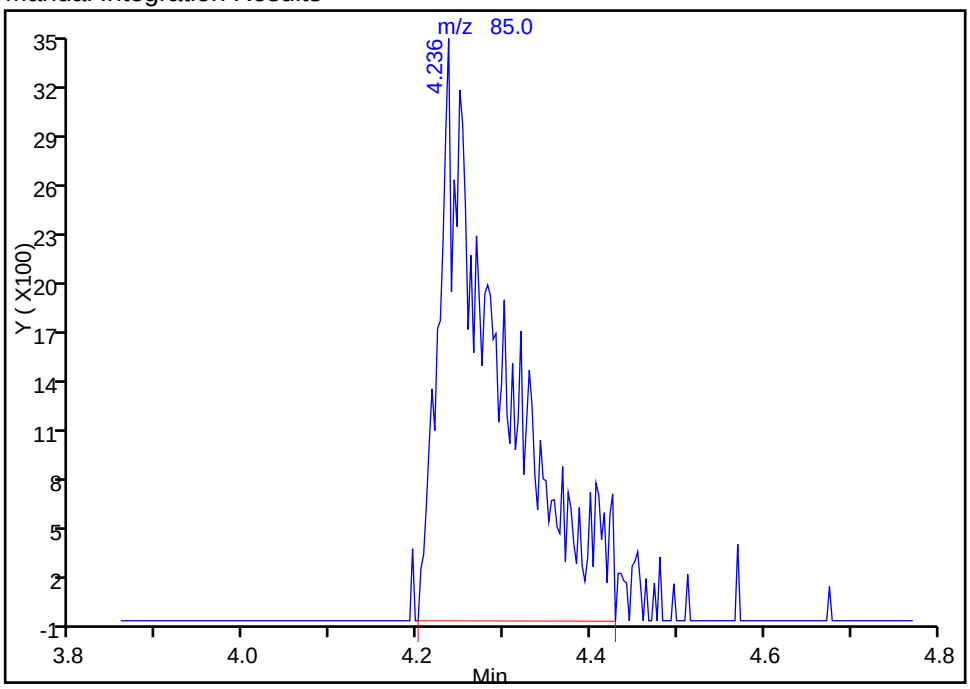
Processing Integration Results

RT: 4.24
Area: 12128
Amount: 8.187882
Amount Units: ug/l



Manual Integration Results

RT: 4.24
Area: 17120
Amount: 10.309371
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

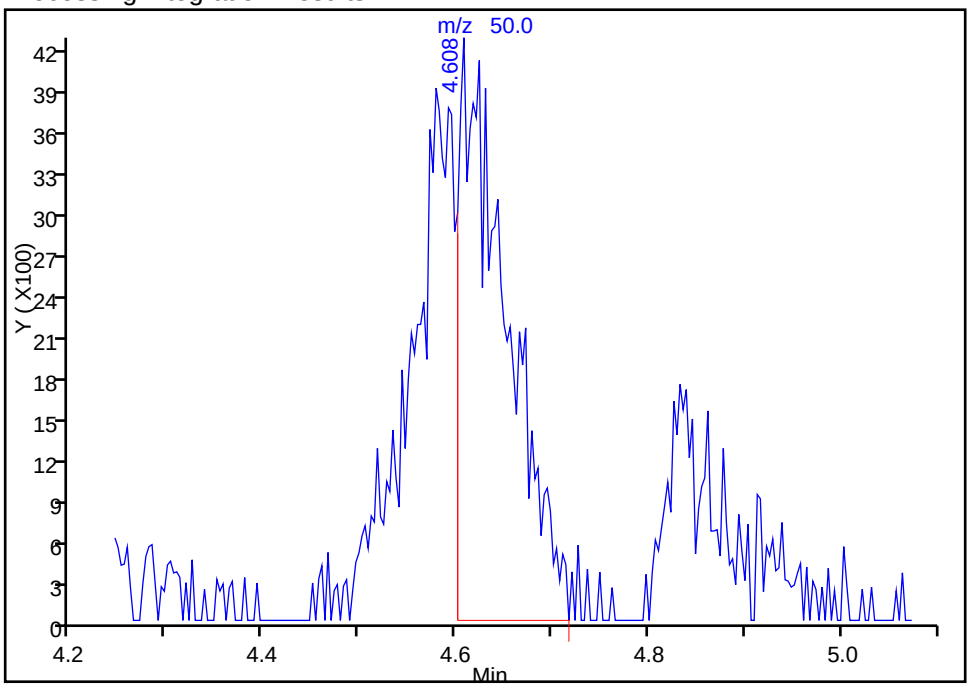
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

3 Chloromethane, CAS: 74-87-3

Signal: 1

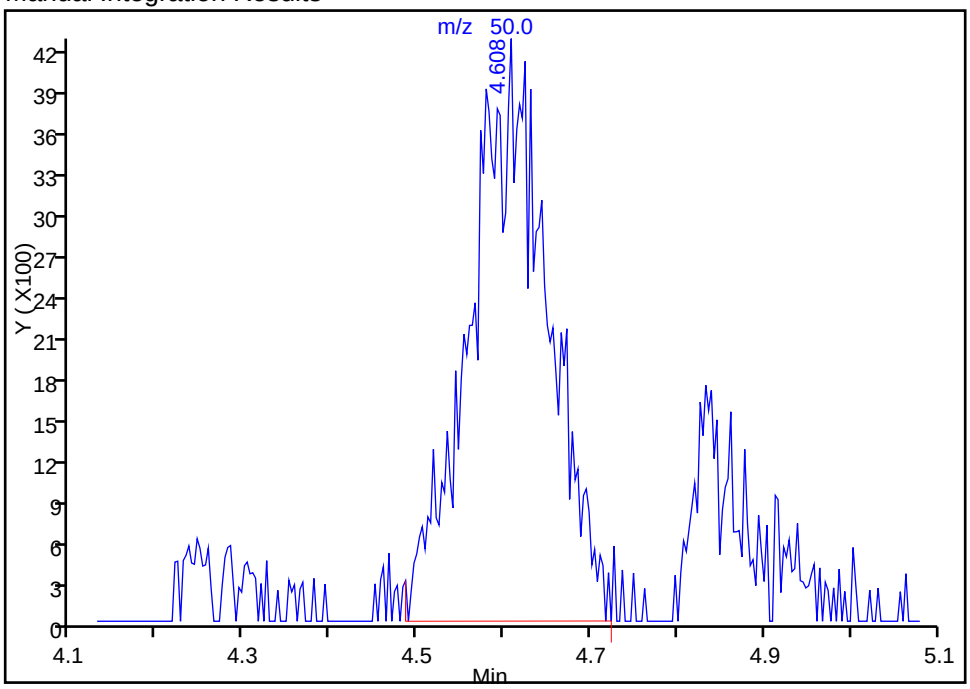
Processing Integration Results

RT: 4.61
Area: 14276
Amount: 6.059209
Amount Units: ug/l



Manual Integration Results

RT: 4.61
Area: 26019
Amount: 9.592210
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

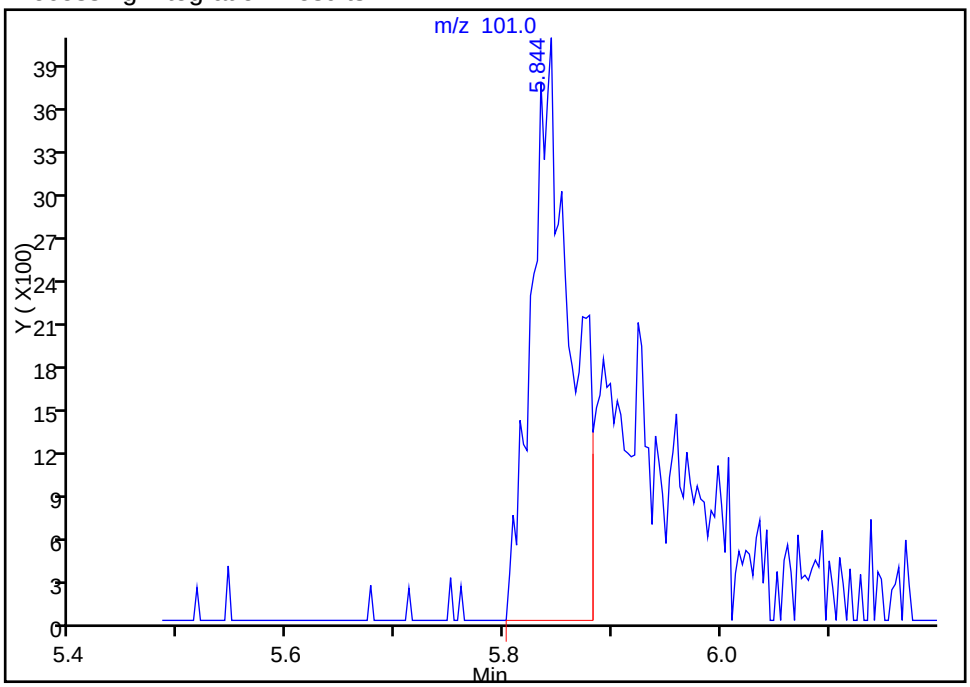
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

12 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

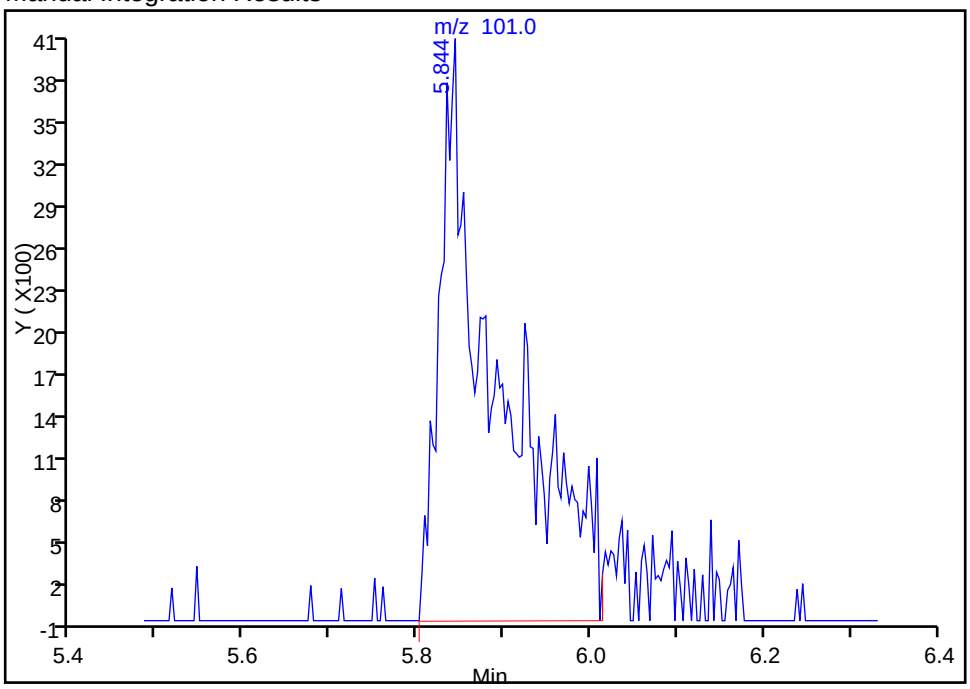
Processing Integration Results

RT: 5.84
Area: 10041
Amount: 7.634120
Amount Units: ug/l



Manual Integration Results

RT: 5.84
Area: 18599
Amount: 9.041889
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

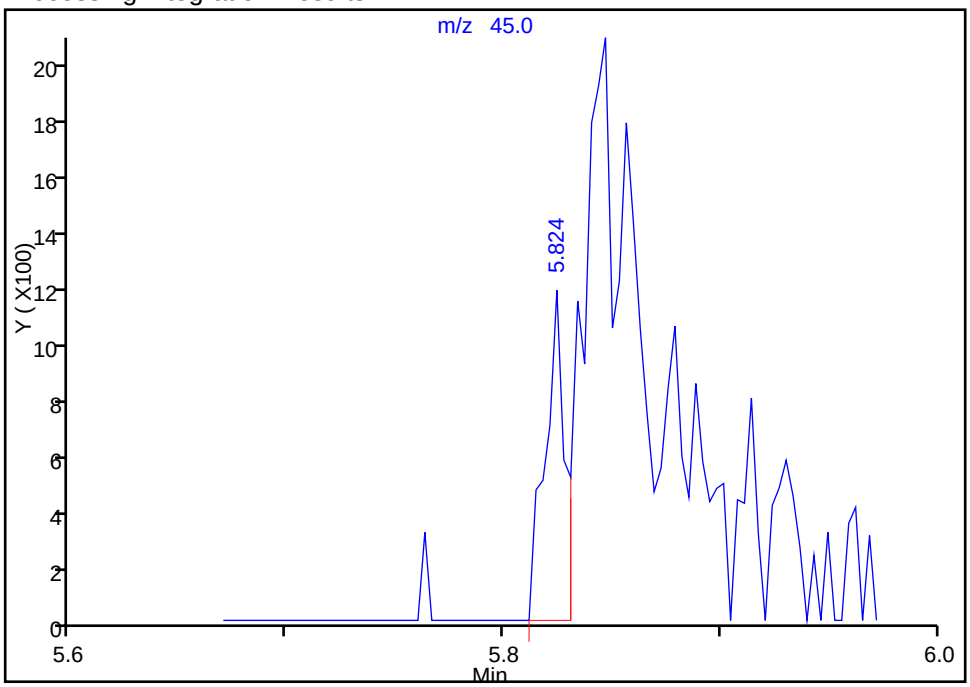
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

19 Isopropyl alcohol, CAS: 67-63-0

Signal: 1

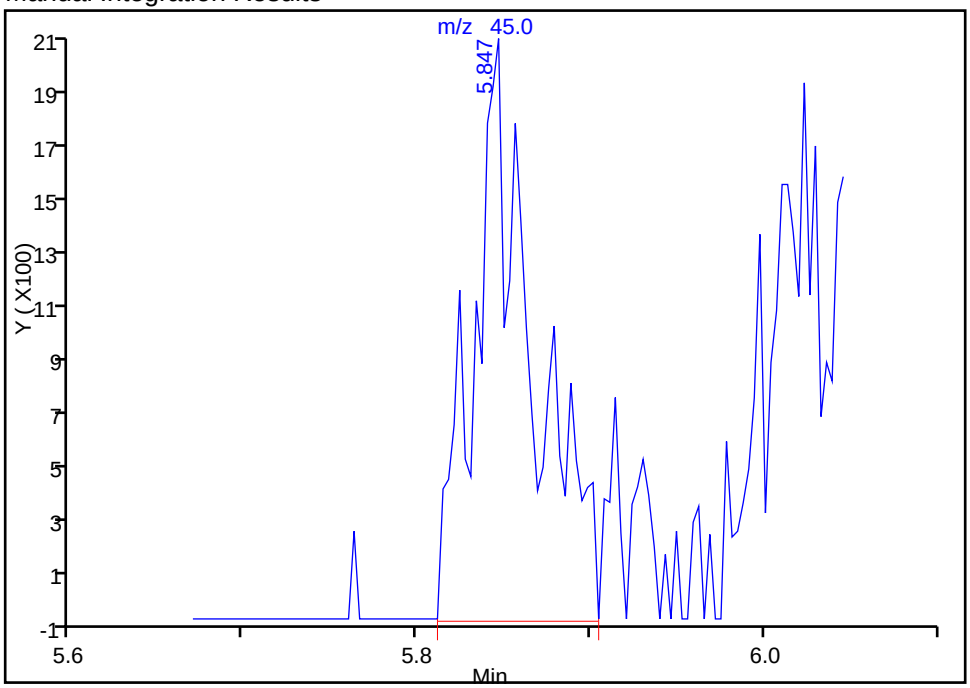
Processing Integration Results

RT: 5.82
Area: 729
Amount: 18.589396
Amount Units: ug/l



Manual Integration Results

RT: 5.85
Area: 4812
Amount: 134.4410
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 17:04:59
Audit Action: Assigned Compound ID Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Houston

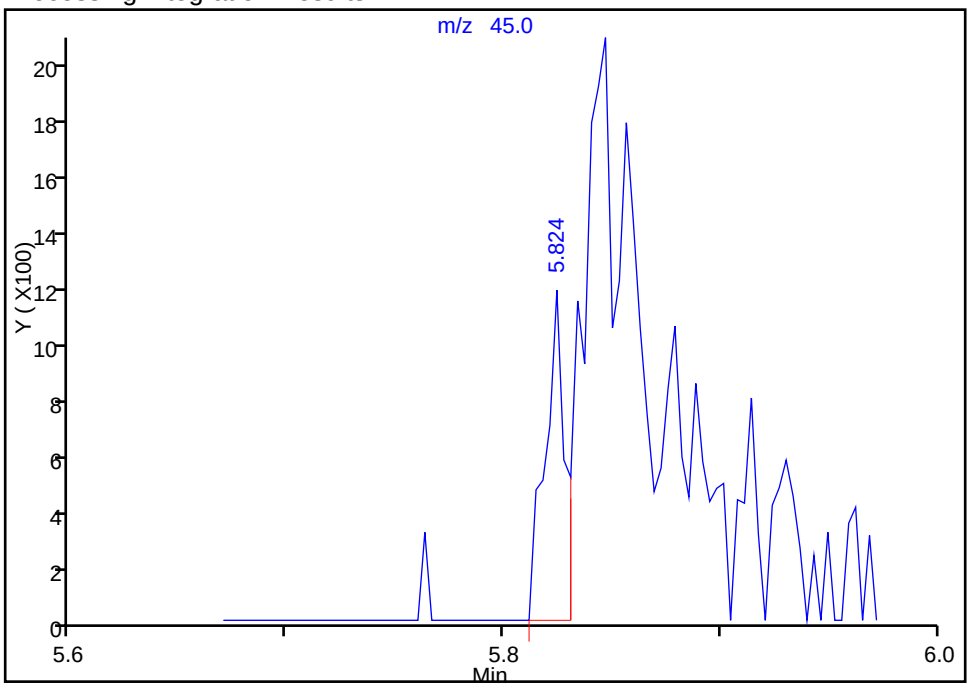
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

19 Isopropyl alcohol, CAS: 67-63-0

Signal: 1

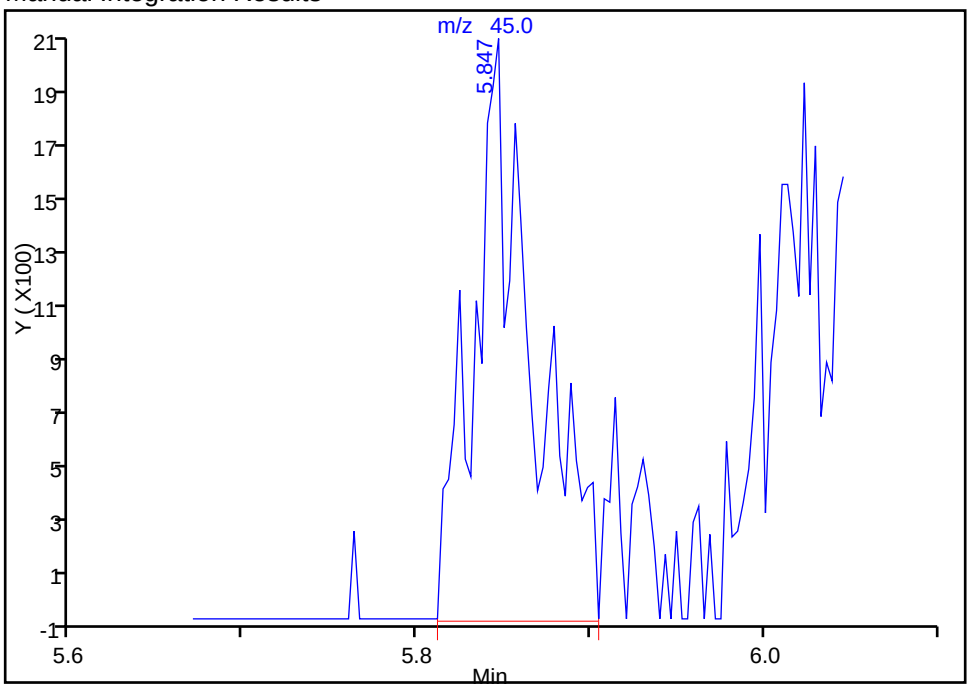
Processing Integration Results

RT: 5.82
Area: 729
Amount: 18.589396
Amount Units: ug/l



Manual Integration Results

RT: 5.85
Area: 4812
Amount: 134.4410
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 17:04:59
Audit Action: Manually Integrated Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

TestAmerica Houston

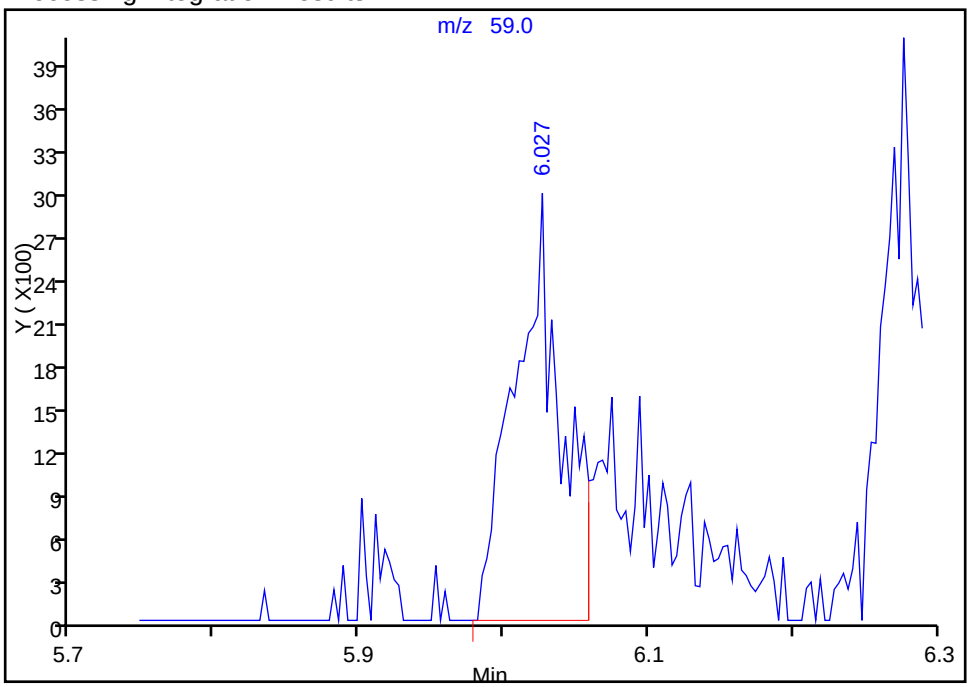
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

15 Ethyl ether, CAS: 60-29-7

Signal: 1

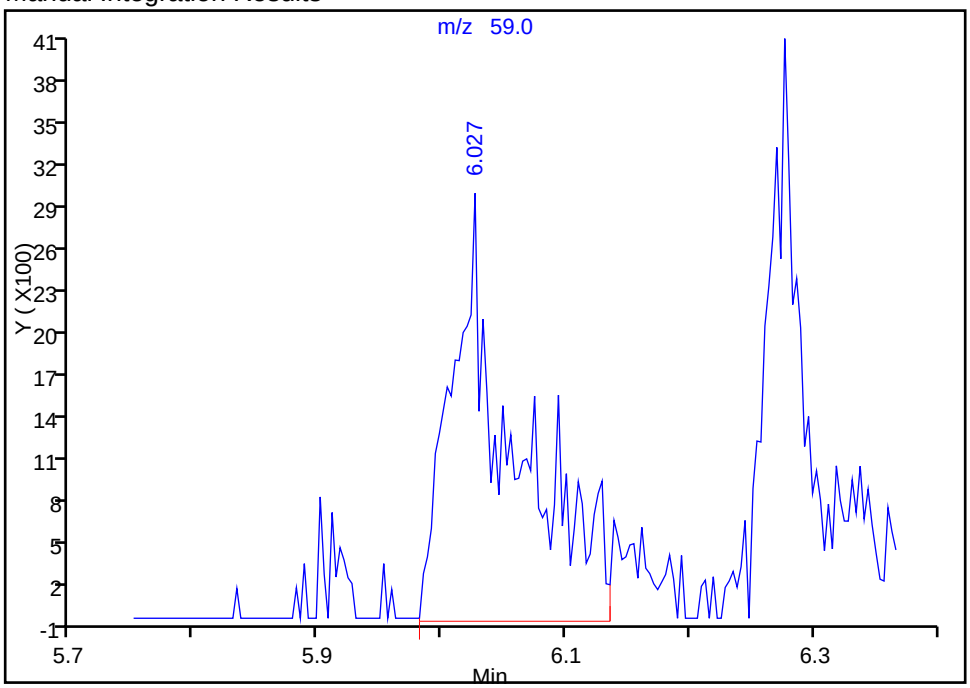
Processing Integration Results

RT: 6.03
Area: 6603
Amount: 7.040186
Amount Units: ug/l



Manual Integration Results

RT: 6.03
Area: 10495
Amount: 8.860750
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

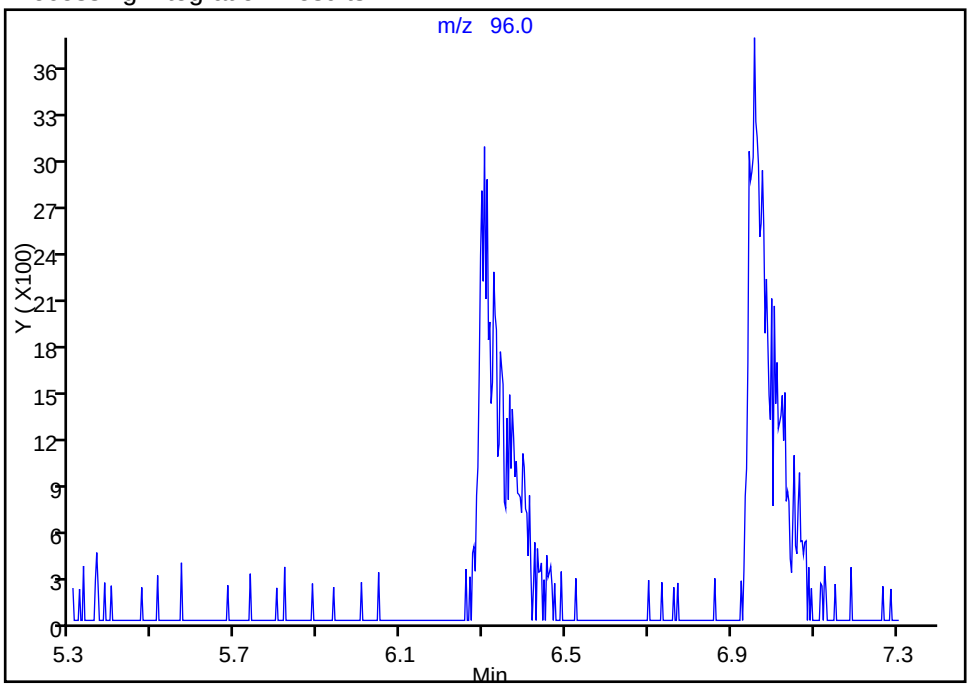
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

20 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

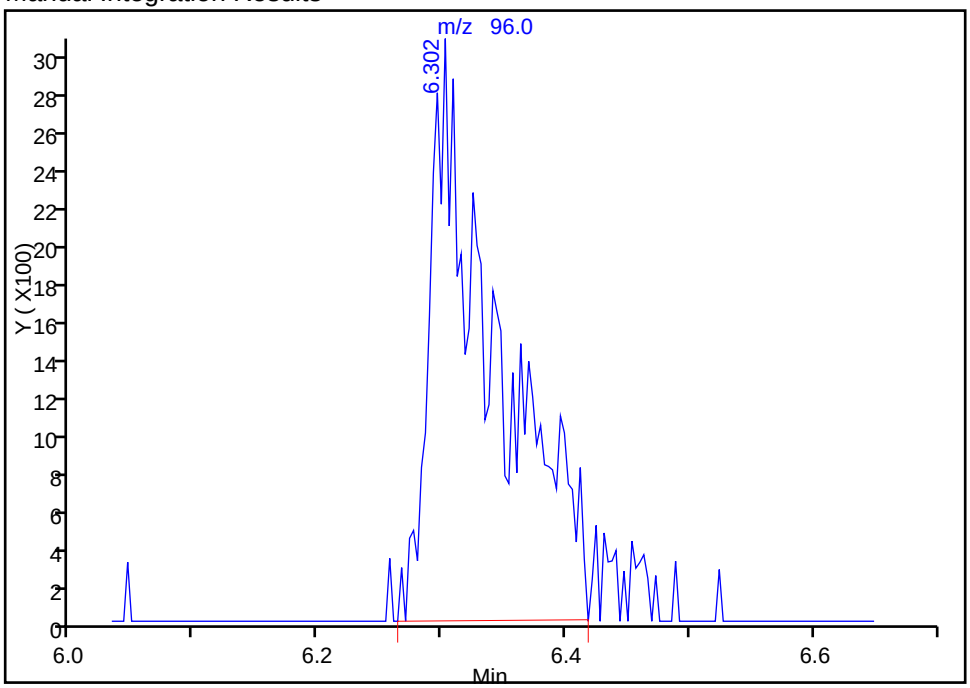
Not Detected
Expected RT: 6.31

Processing Integration Results



Manual Integration Results

RT: 6.30
Area: 11328
Amount: 8.947834
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

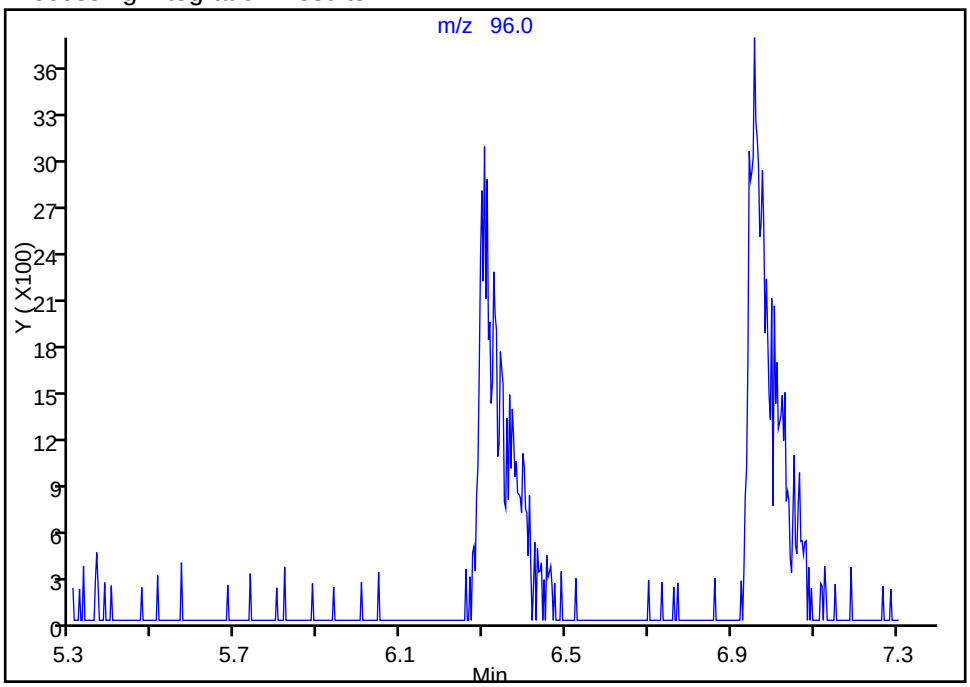
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

20 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

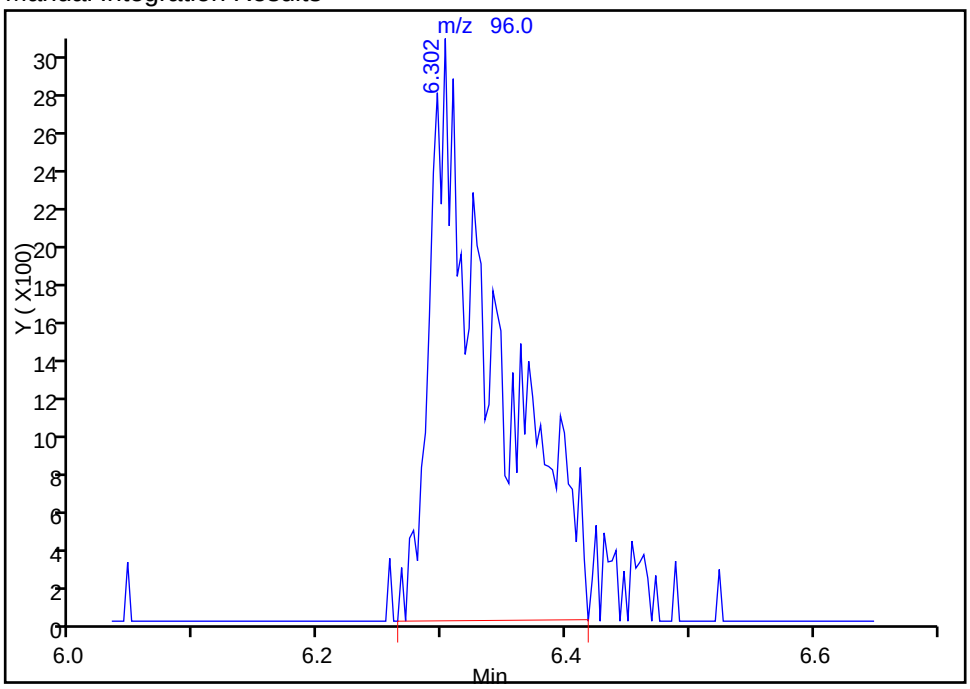
Not Detected
Expected RT: 6.31

Processing Integration Results



Manual Integration Results

RT: 6.30
Area: 11328
Amount: 8.947834
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

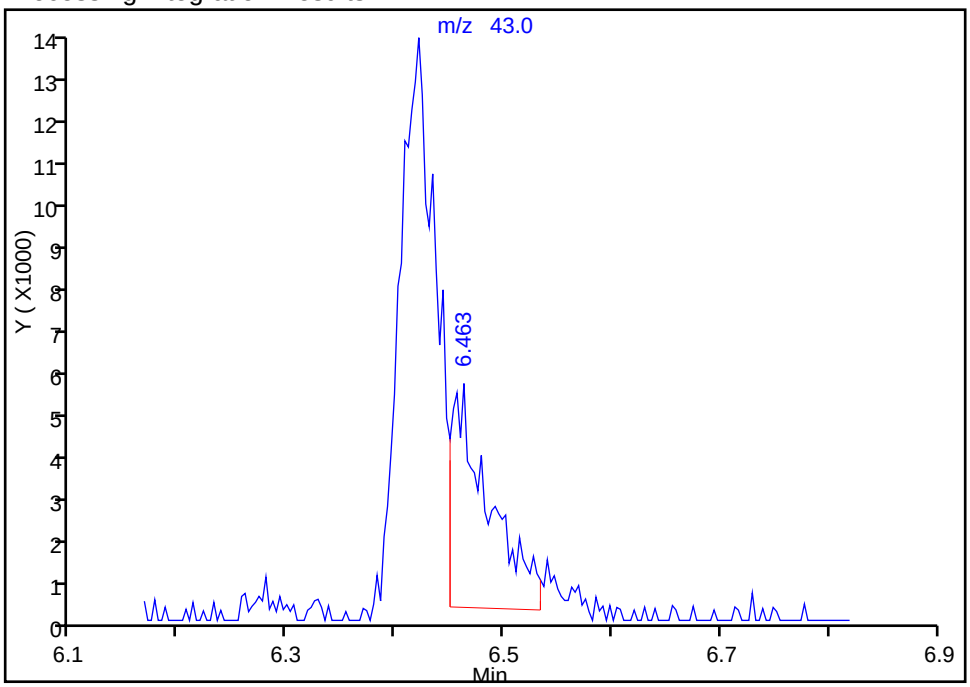
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

28 Methyl acetate, CAS: 79-20-9

Signal: 1

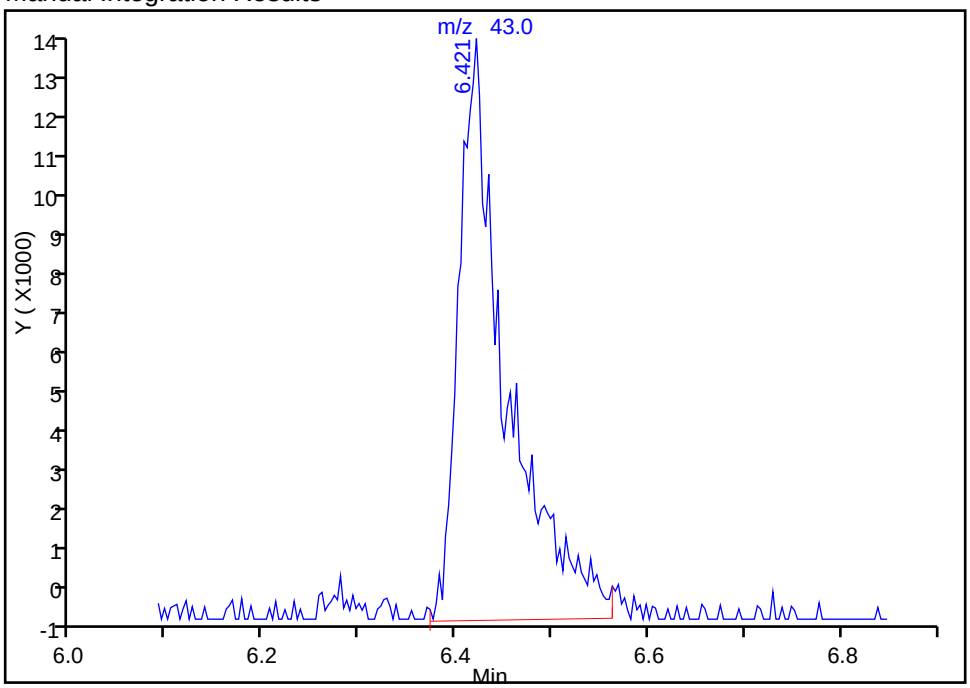
Processing Integration Results

RT: 6.46
Area: 12462
Amount: 15.503168
Amount Units: ug/l



Manual Integration Results

RT: 6.42
Area: 46280
Amount: 46.373973
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

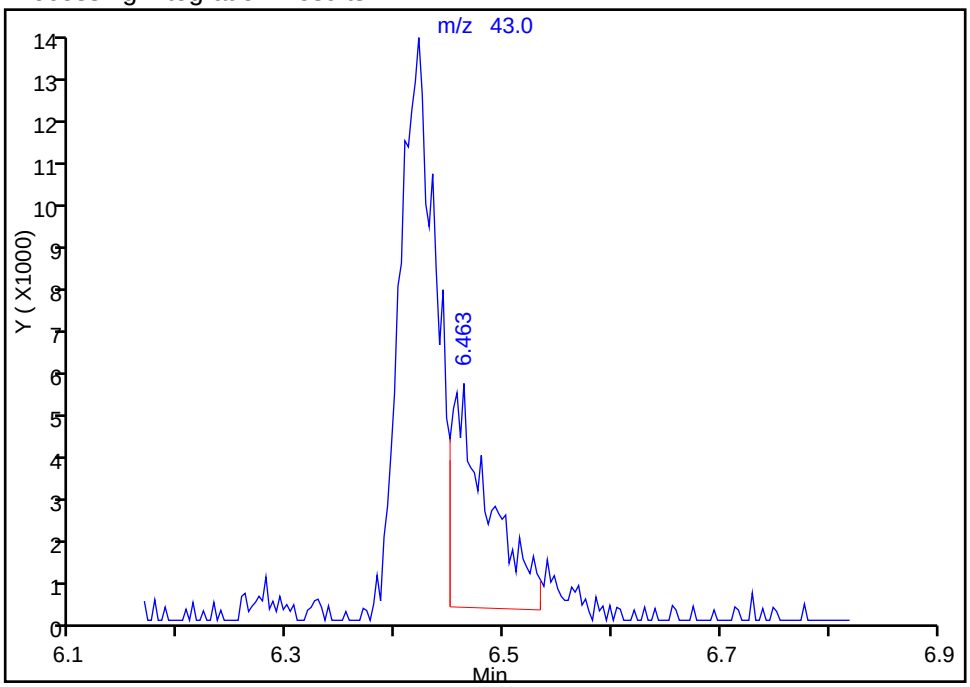
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

28 Methyl acetate, CAS: 79-20-9

Signal: 1

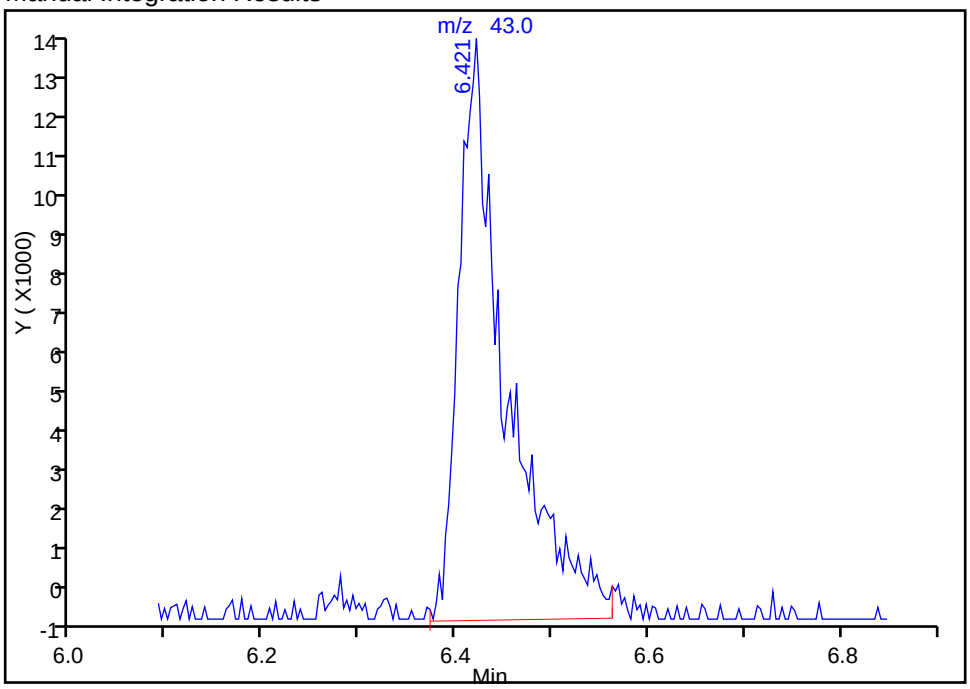
Processing Integration Results

RT: 6.46
Area: 12462
Amount: 15.503168
Amount Units: ug/l



Manual Integration Results

RT: 6.42
Area: 46280
Amount: 46.373973
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

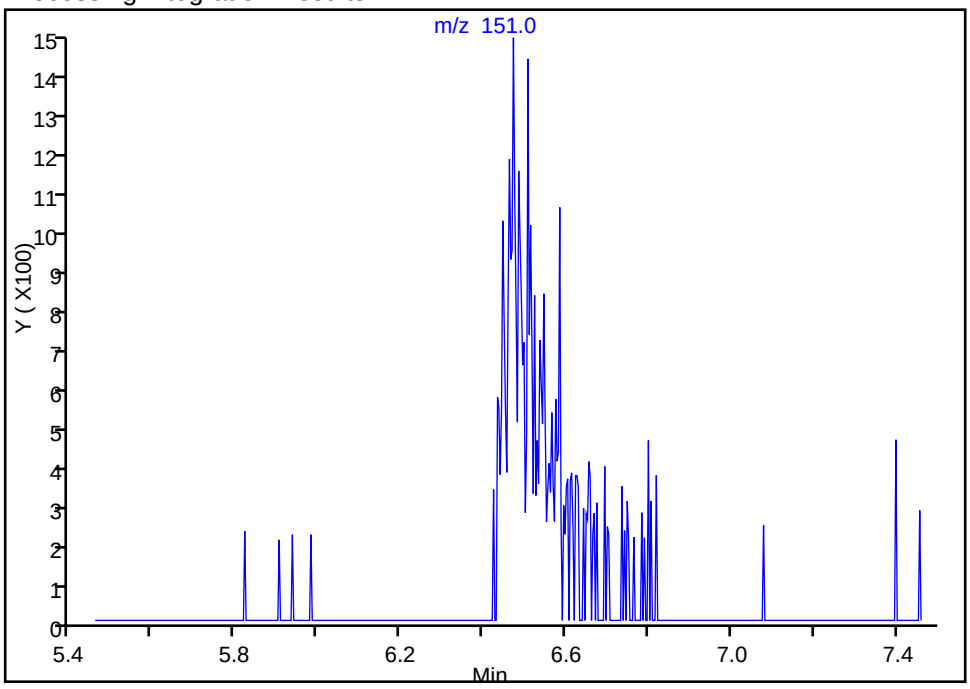
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

21 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

Signal: 1

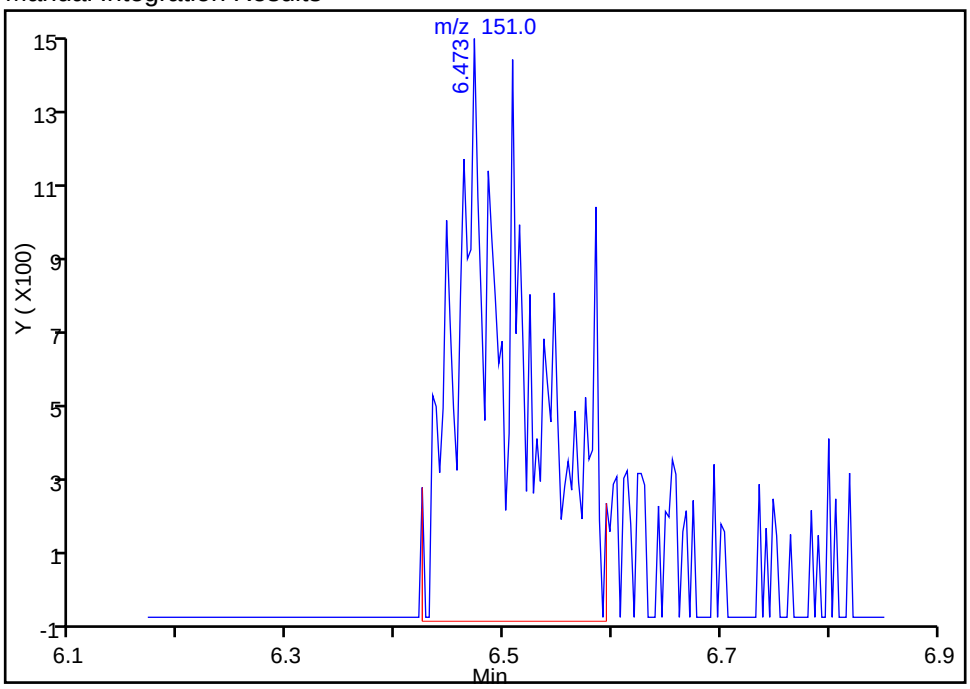
Not Detected
Expected RT: 6.46

Processing Integration Results



Manual Integration Results

RT: 6.47
Area: 6272
Amount: 13.861429
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

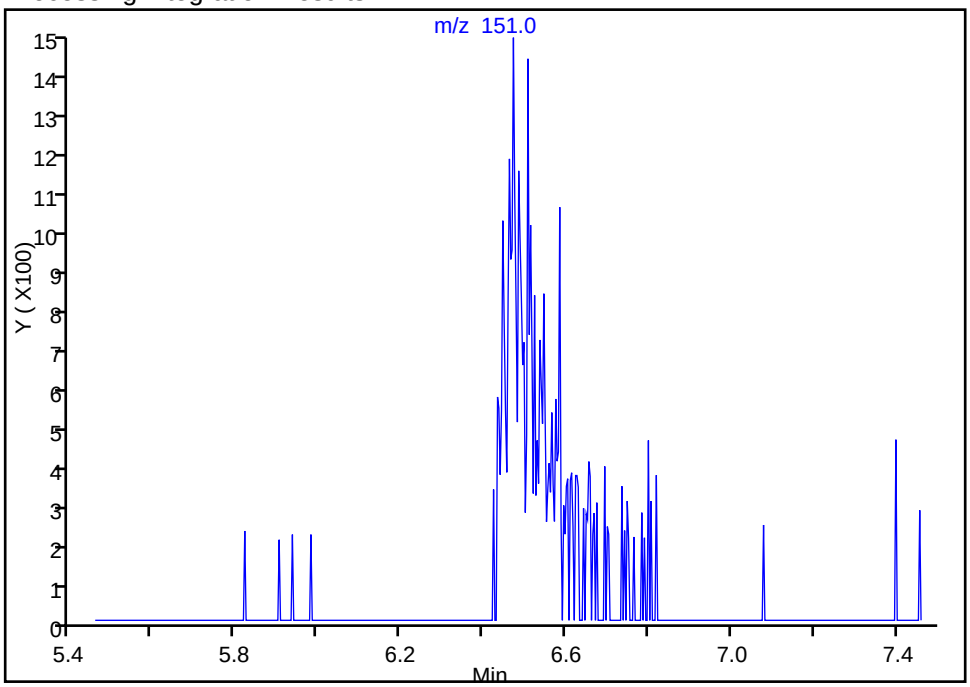
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

21 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

Signal: 1

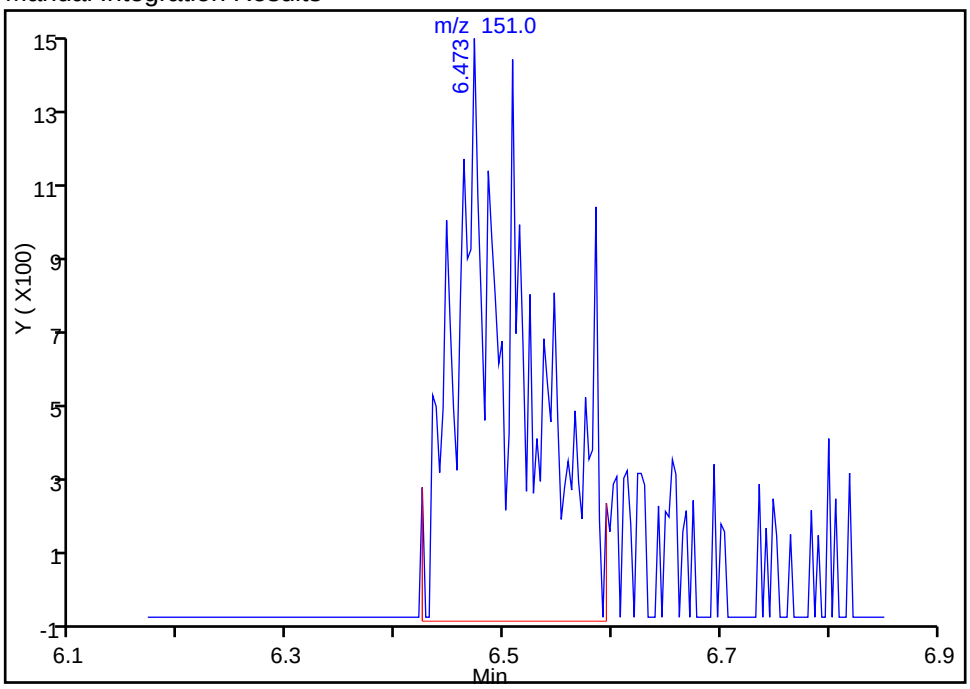
Not Detected
Expected RT: 6.46

Processing Integration Results



Manual Integration Results

RT: 6.47
Area: 6272
Amount: 13.861429
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

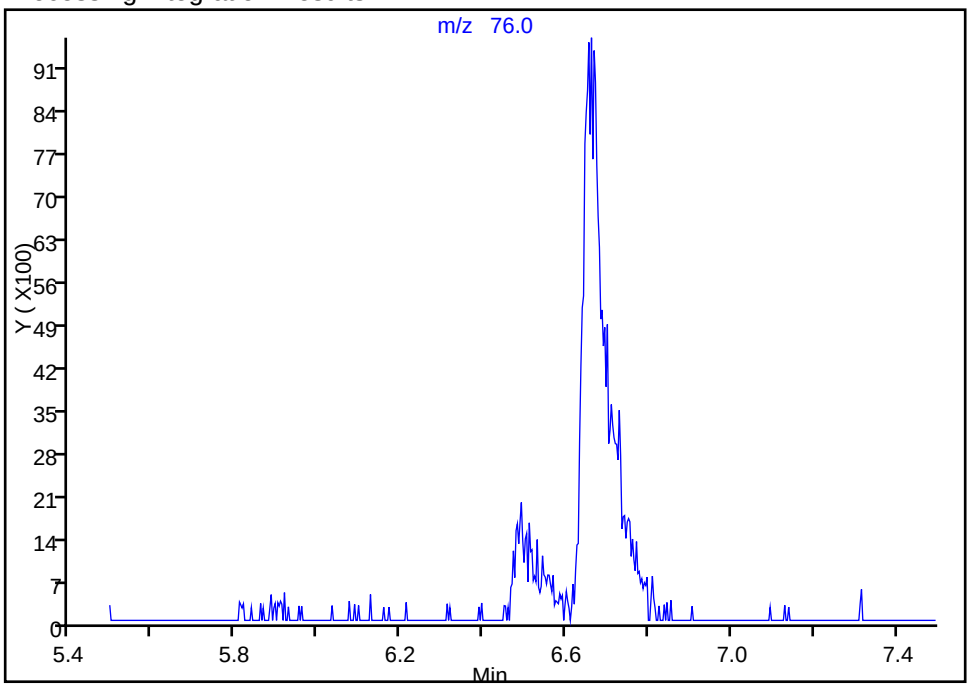
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

25 3-Chloro-1-propene, CAS: 107-05-1

Signal: 1

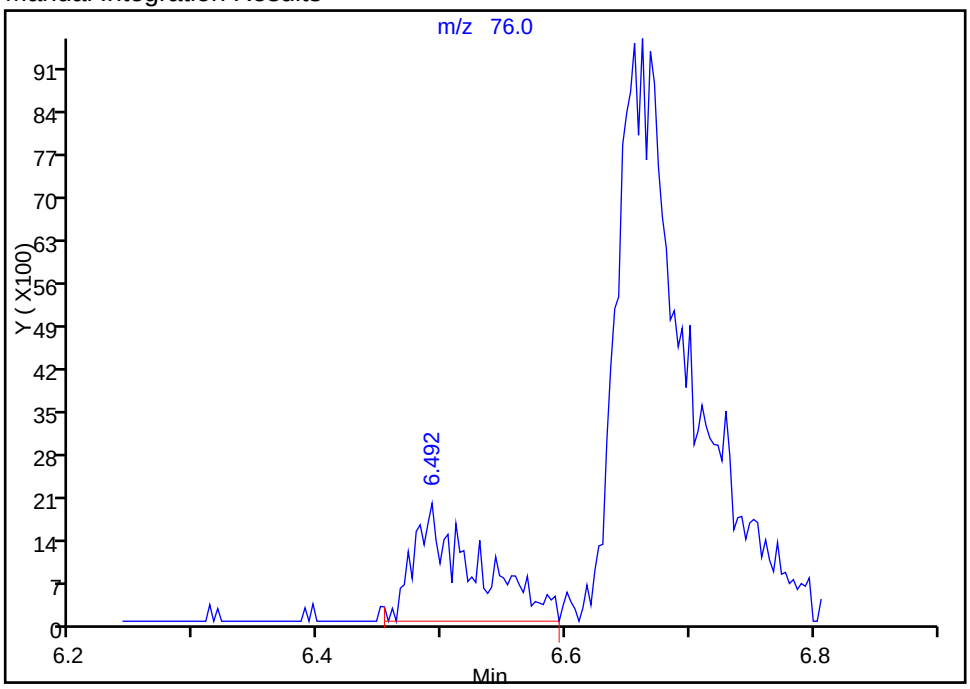
Not Detected
Expected RT: 6.50

Processing Integration Results



Manual Integration Results

RT: 6.49
Area: 6592
Amount: 8.974016
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

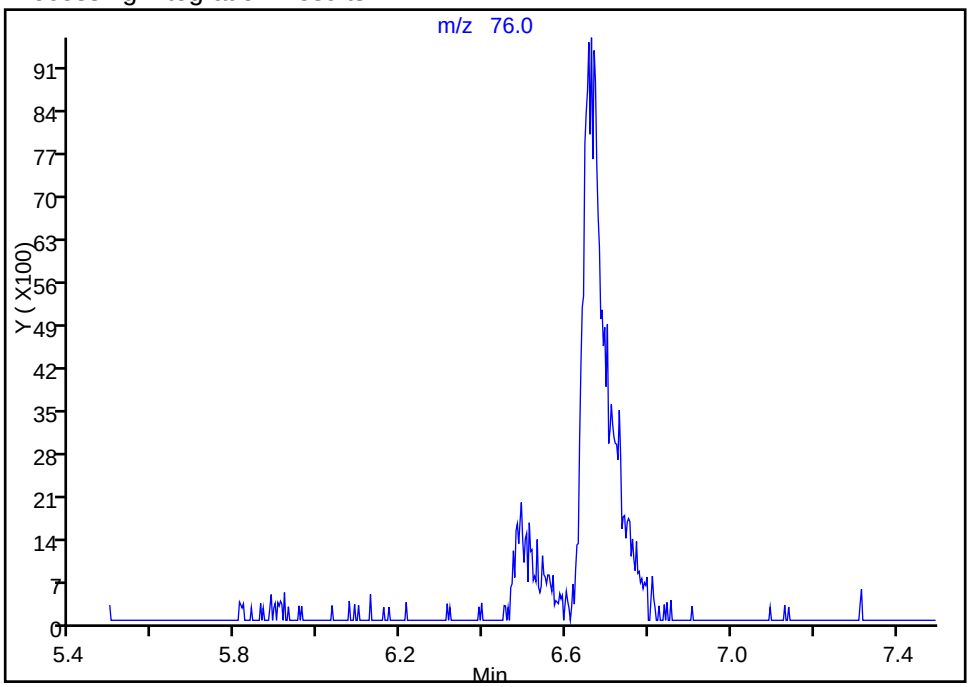
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

25 3-Chloro-1-propene, CAS: 107-05-1

Signal: 1

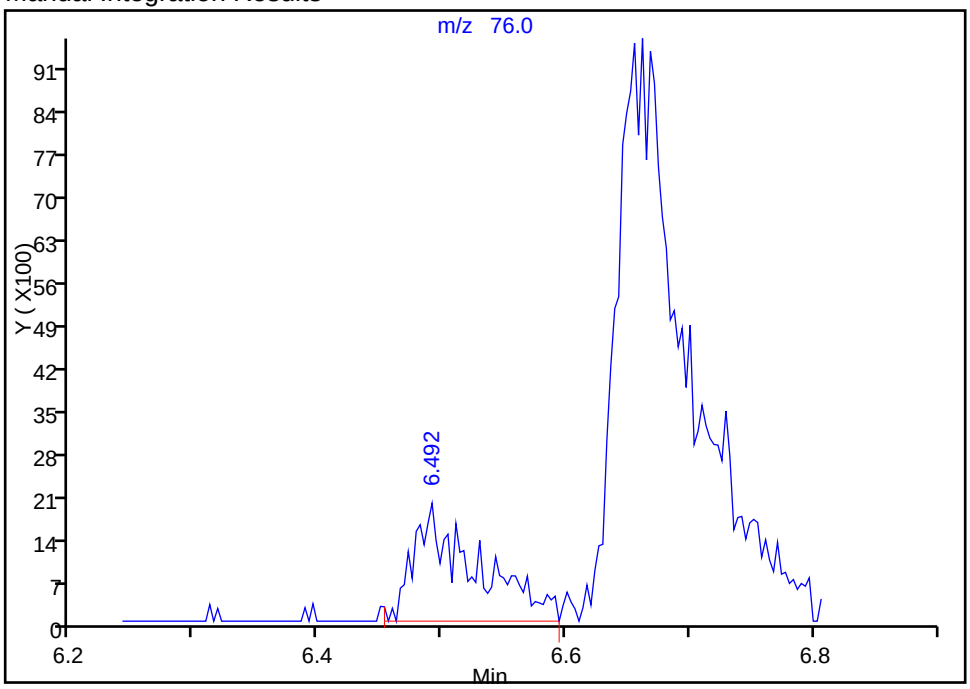
Not Detected
Expected RT: 6.50

Processing Integration Results



Manual Integration Results

RT: 6.49
Area: 6592
Amount: 8.974016
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

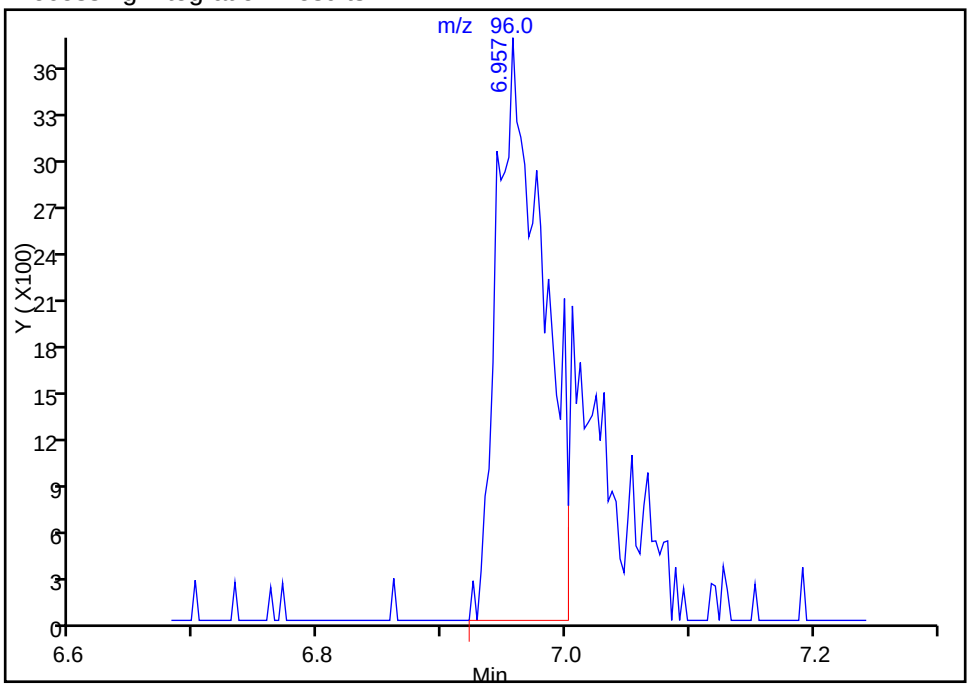
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

29 trans-1,2-Dichloroethene, CAS: 156-60-5

Signal: 1

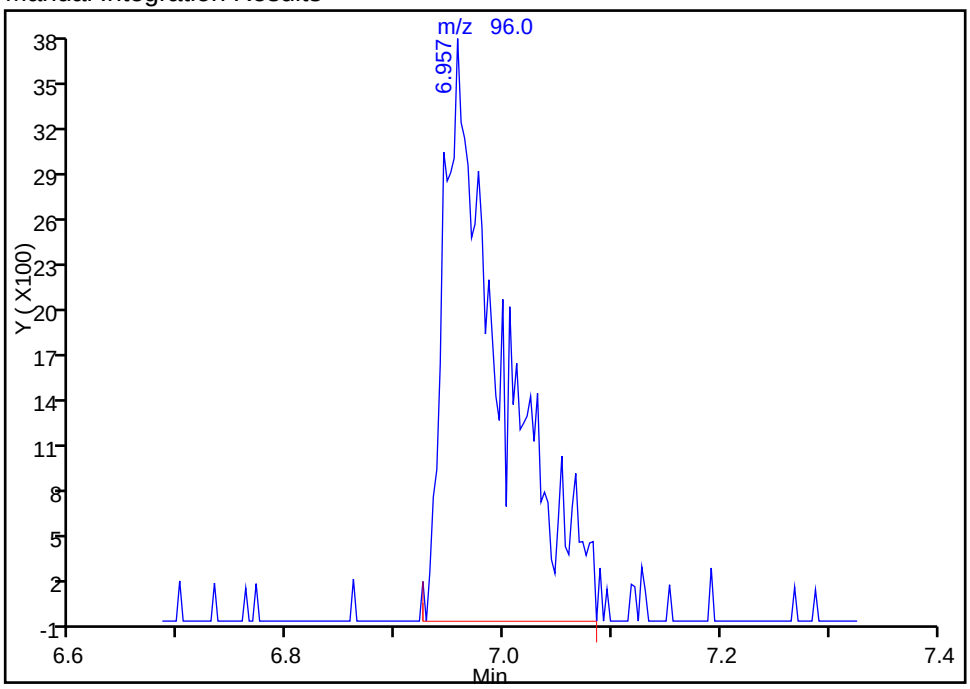
Processing Integration Results

RT: 6.96
Area: 9824
Amount: 7.689688
Amount Units: ug/l



Manual Integration Results

RT: 6.96
Area: 14264
Amount: 9.122628
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

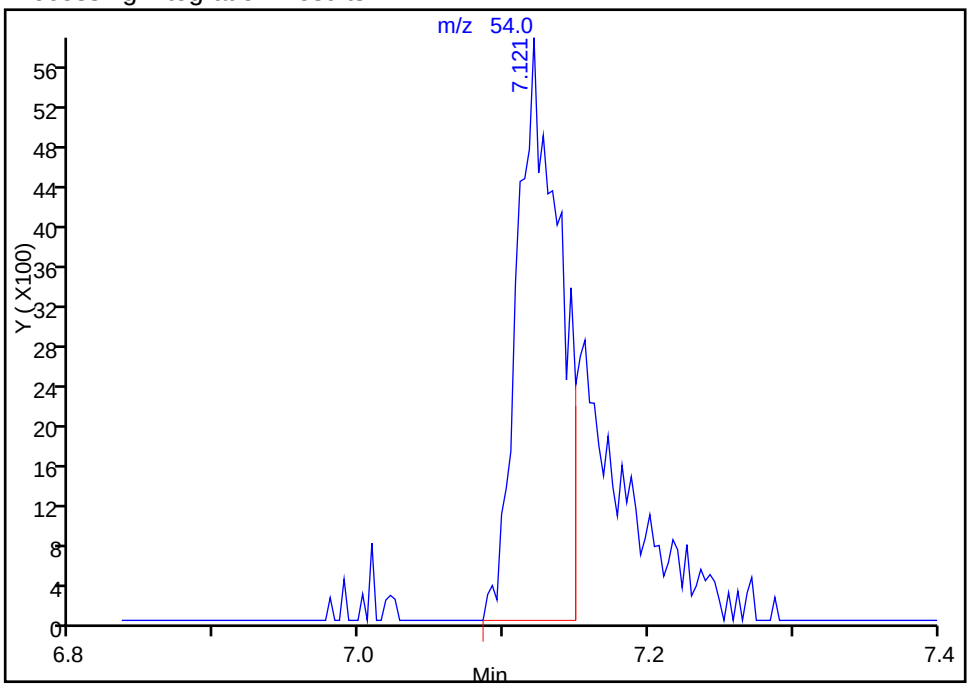
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

35 Propionitrile, CAS: 107-12-0

Signal: 1

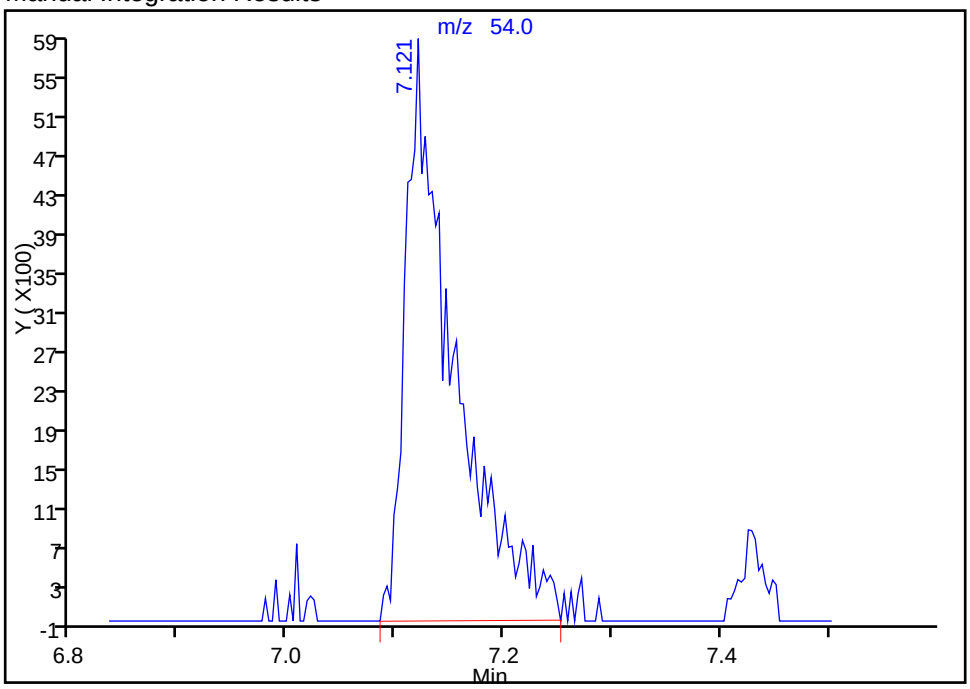
Processing Integration Results

RT: 7.12
Area: 11810
Amount: 83.494480
Amount Units: ug/l



Manual Integration Results

RT: 7.12
Area: 18036
Amount: 103.3043
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

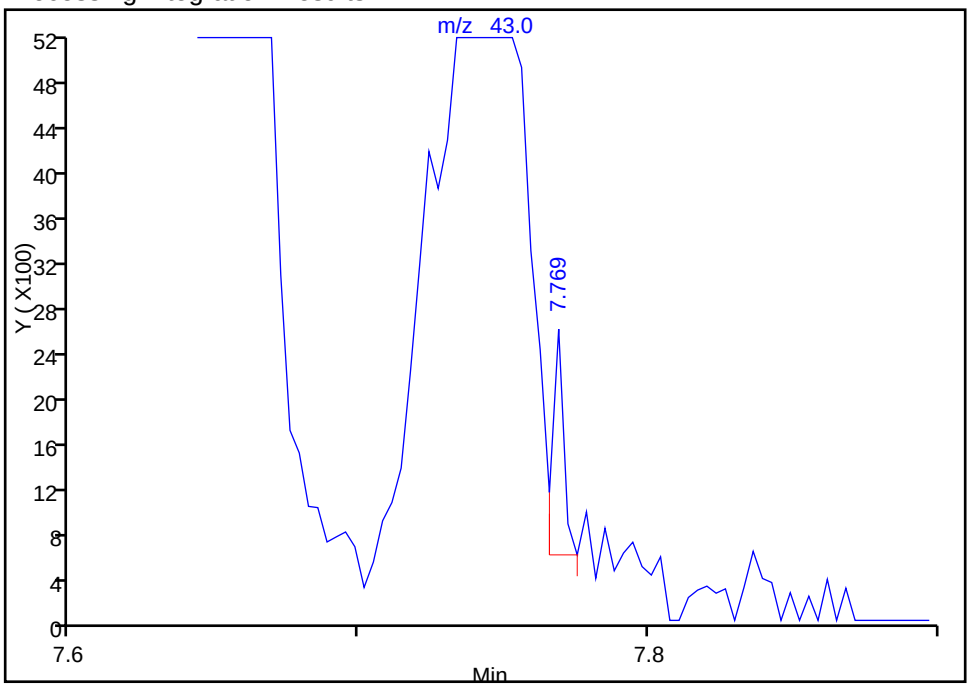
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

39 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

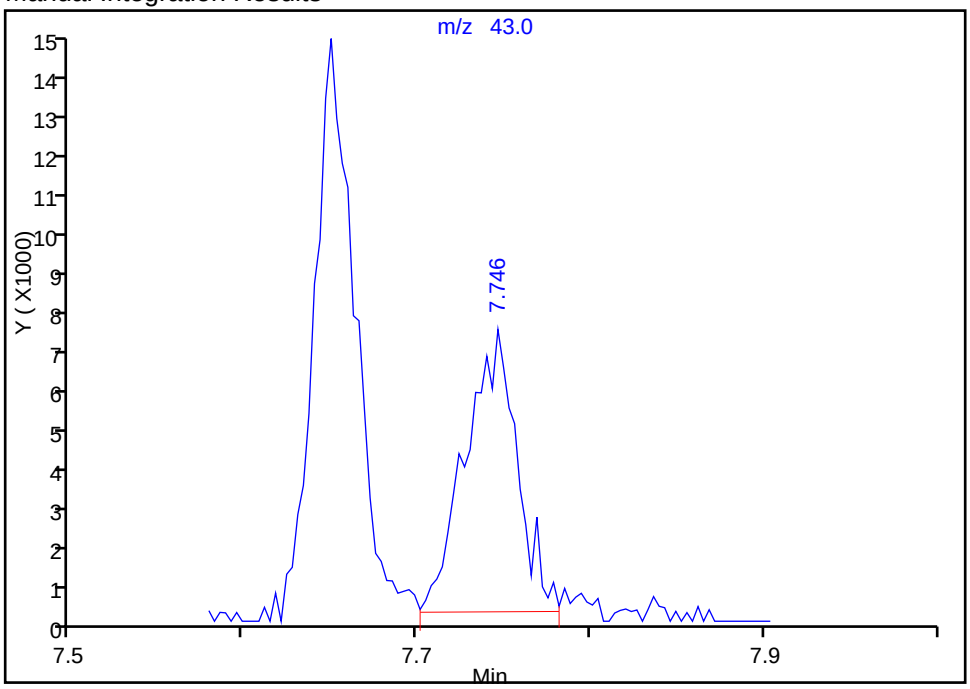
Processing Integration Results

RT: 7.77
Area: 543
Amount: 9.933639
Amount Units: ug/l



Manual Integration Results

RT: 7.75
Area: 14416
Amount: 200.5435
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

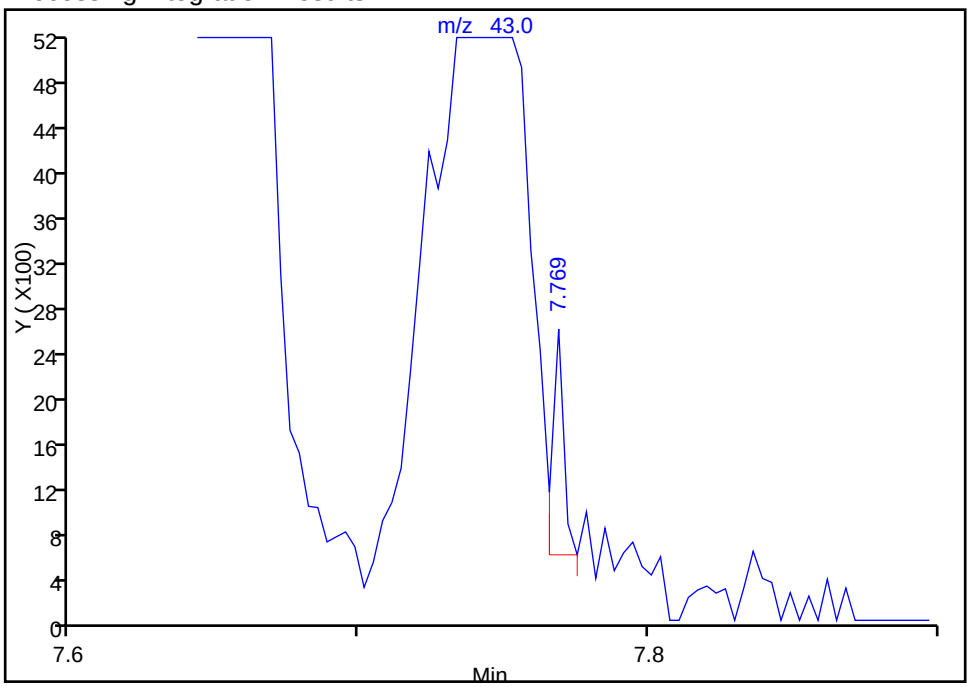
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

39 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

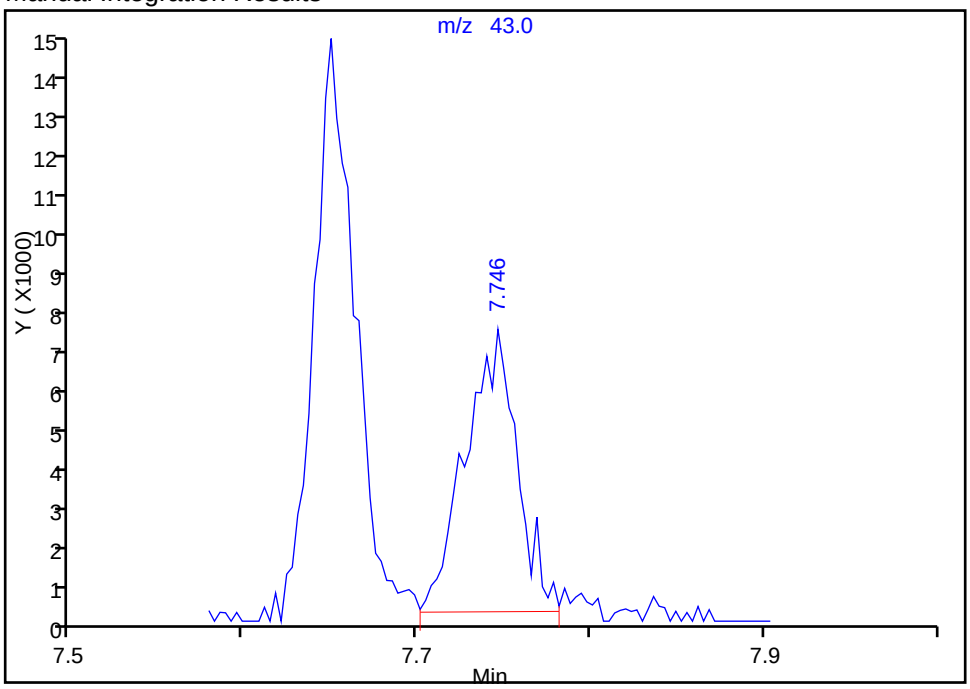
Processing Integration Results

RT: 7.77
Area: 543
Amount: 9.933639
Amount Units: ug/l



Manual Integration Results

RT: 7.75
Area: 14416
Amount: 200.5435
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

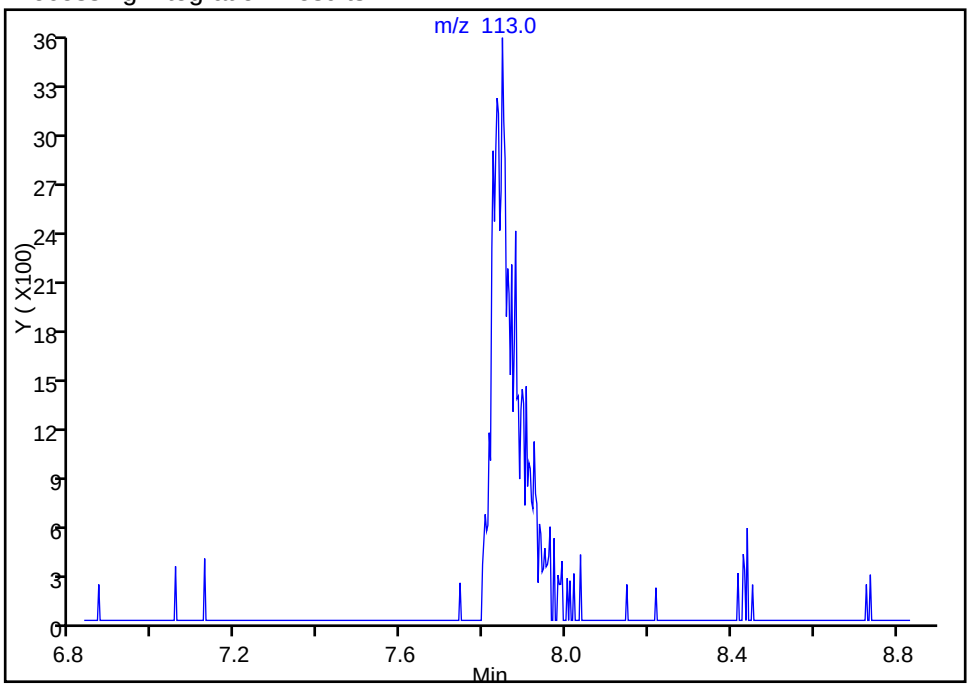
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

$ 52 Dibromofluoromethane, CAS: 1868-53-7

Signal: 1

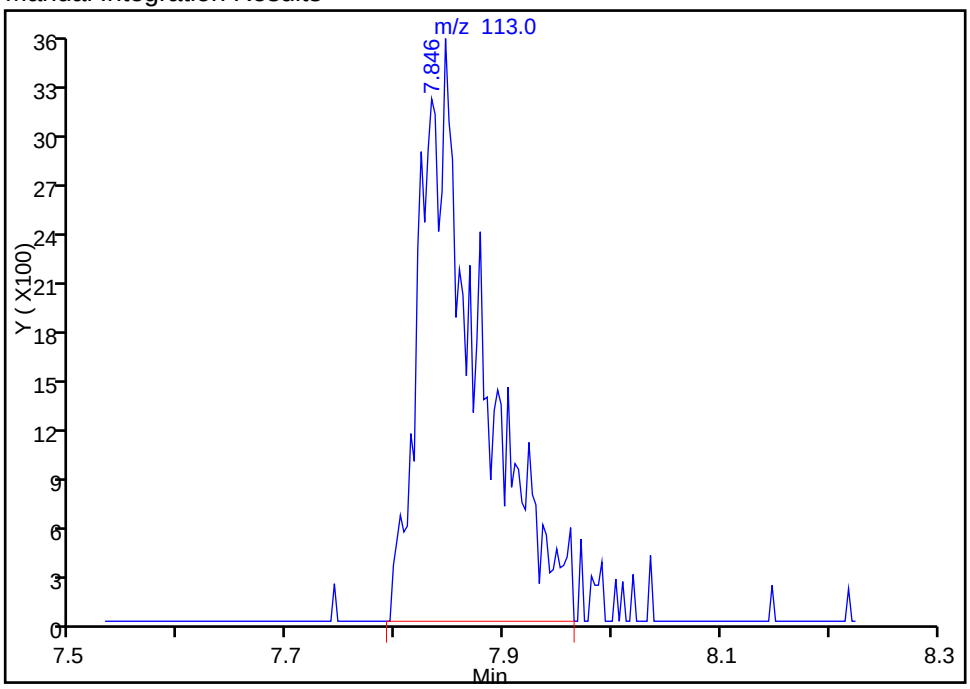
Not Detected
Expected RT: 7.83

Processing Integration Results



Manual Integration Results

RT: 7.85
Area: 13794
Amount: 9.016443
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

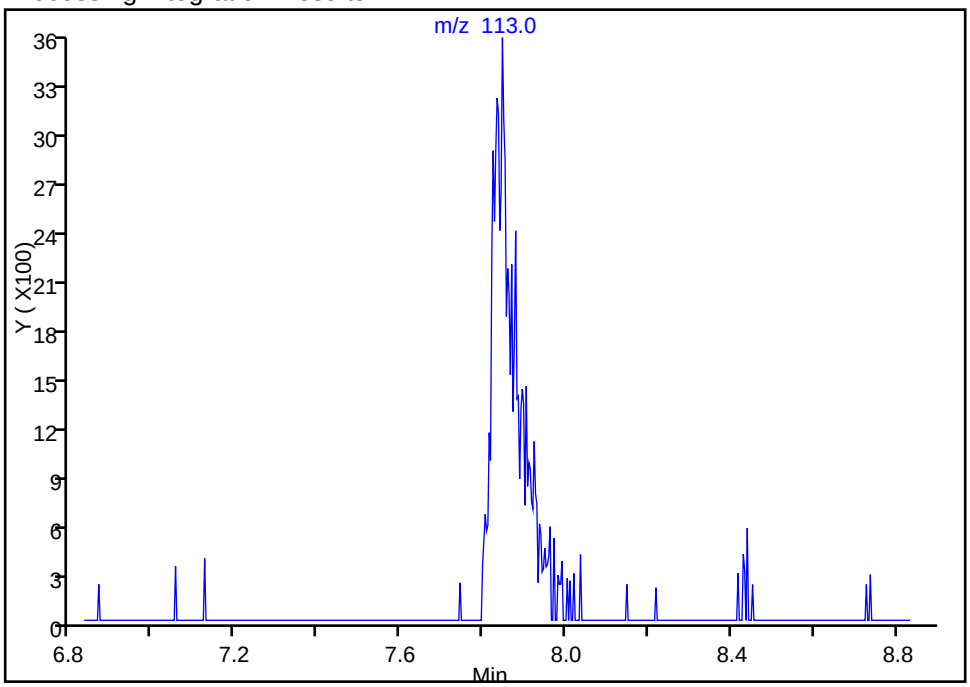
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

$ 52 Dibromofluoromethane, CAS: 1868-53-7

Signal: 1

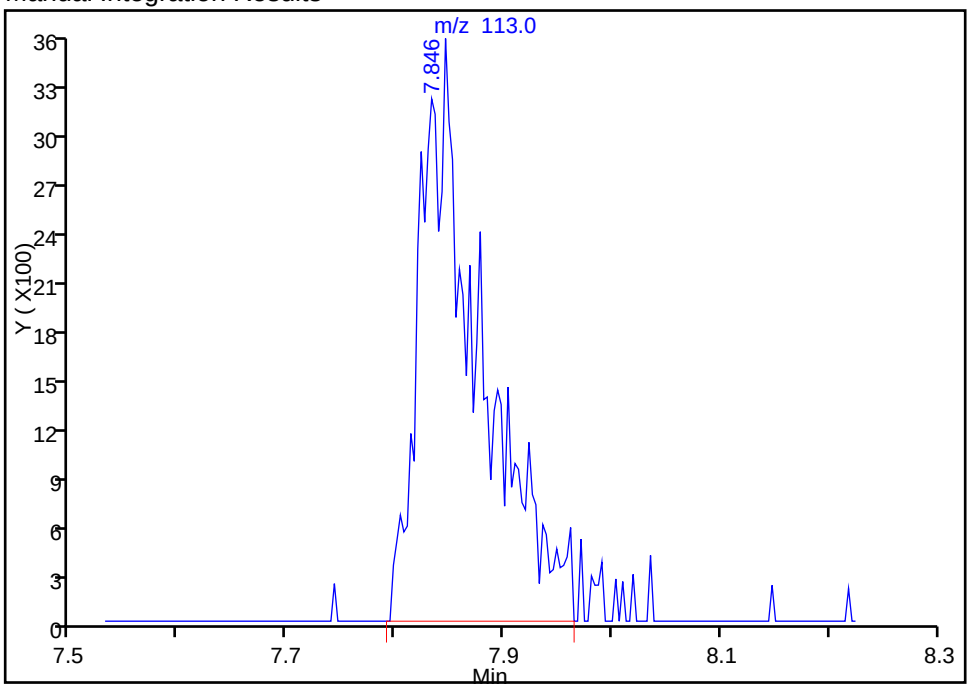
Processing Integration Results

Not Detected
Expected RT: 7.83



Manual Integration Results

RT: 7.85
Area: 13794
Amount: 9.016443
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

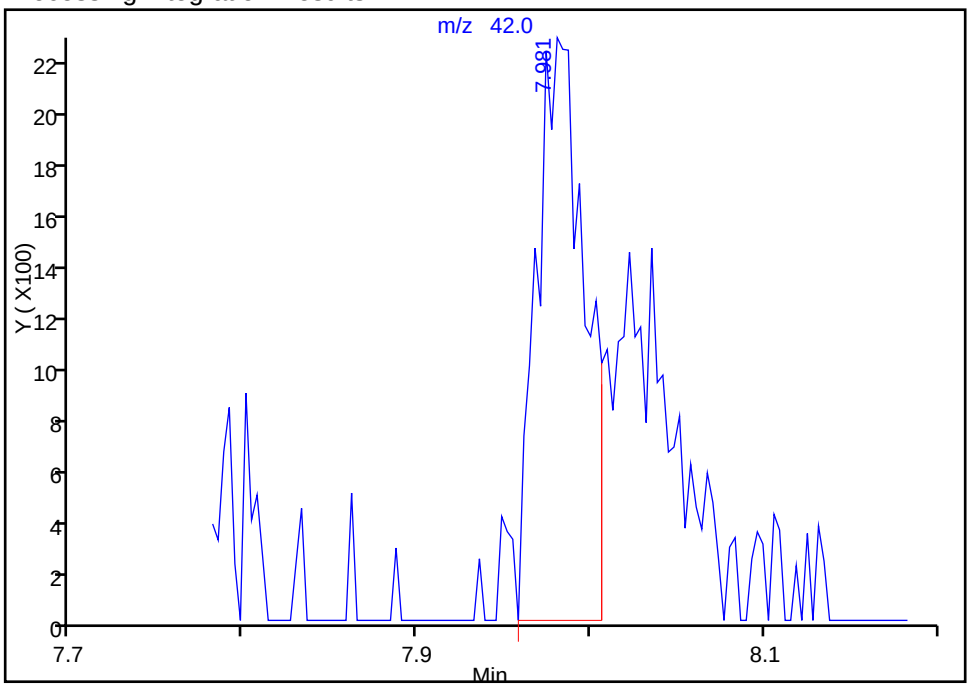
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

53 Tetrahydrofuran, CAS: 109-99-9

Signal: 1

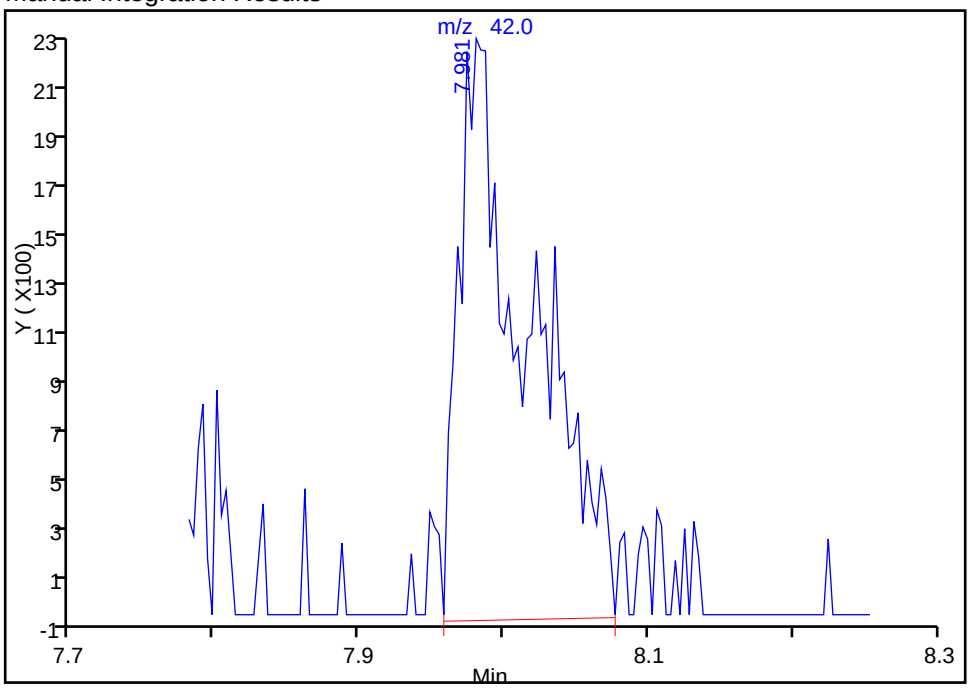
Processing Integration Results

RT: 7.98
Area: 4278
Amount: 12.981061
Amount Units: ug/l



Manual Integration Results

RT: 7.98
Area: 7593
Amount: 18.946297
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 17:08:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

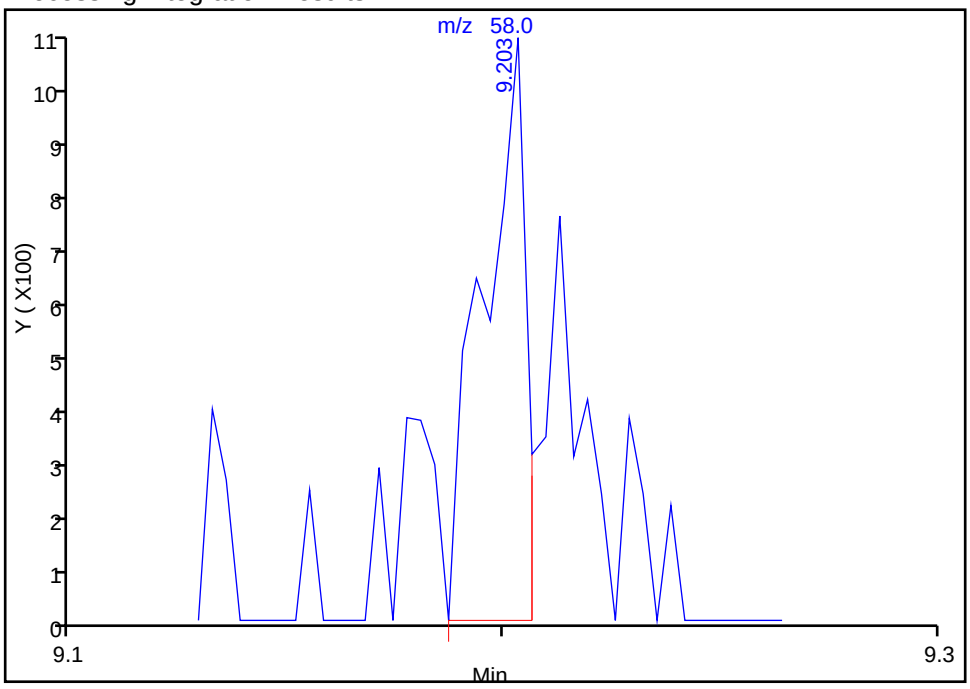
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

78 1,4-Dioxane, CAS: 123-91-1

Signal: 1

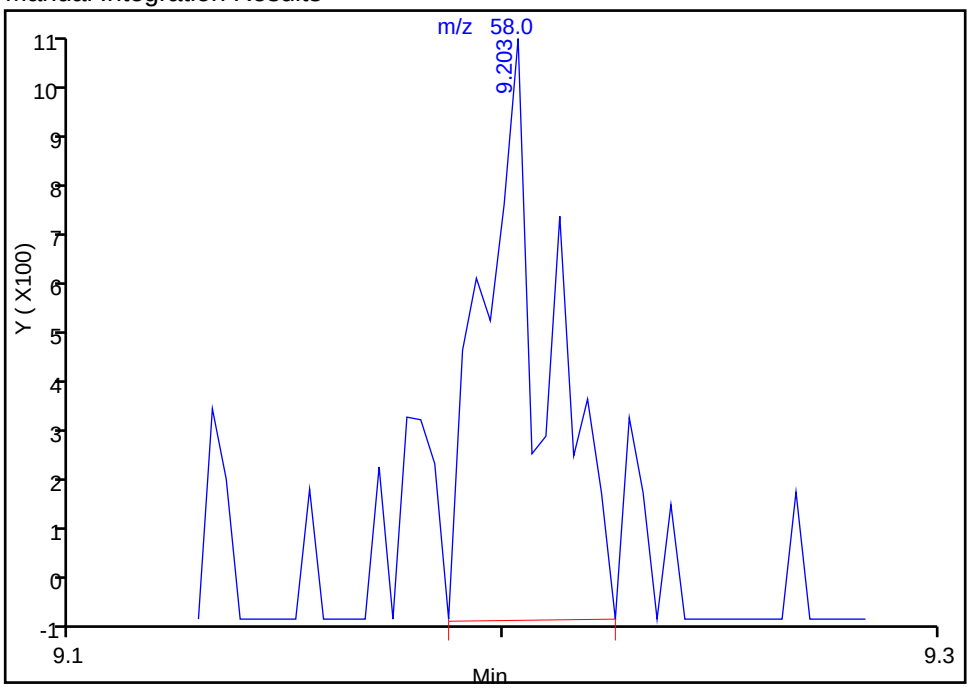
Processing Integration Results

RT: 9.20
Area: 751
Amount: 140.4780
Amount Units: ug/l



Manual Integration Results

RT: 9.20
Area: 1154
Amount: 186.9045
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

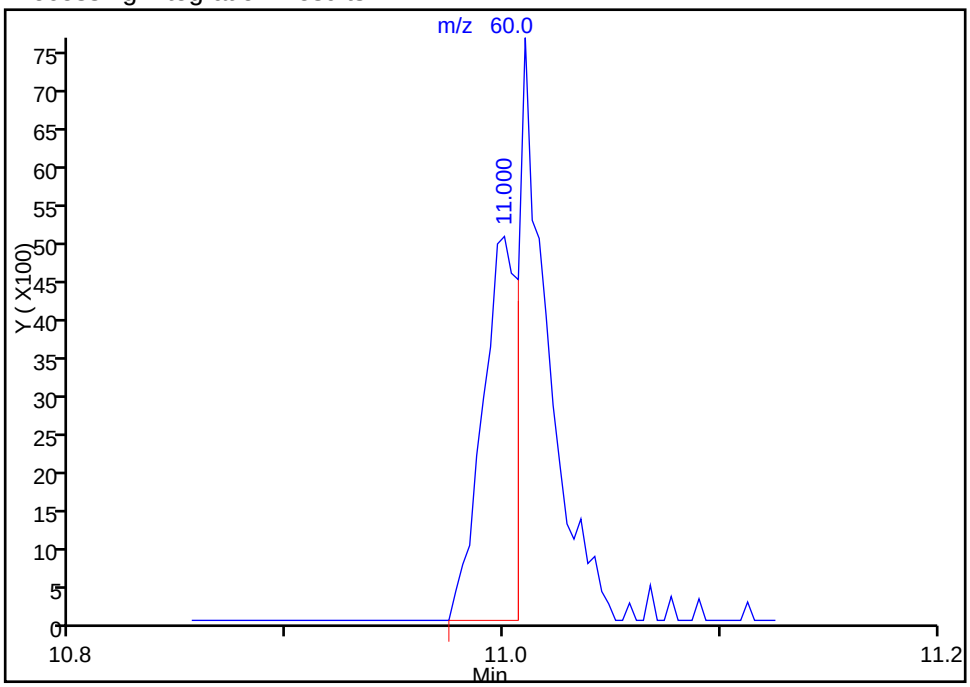
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D
Injection Date: 26-Apr-2016 14:54:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

107 Tetrahydrothiophene, CAS: 110-01-0

Signal: 1

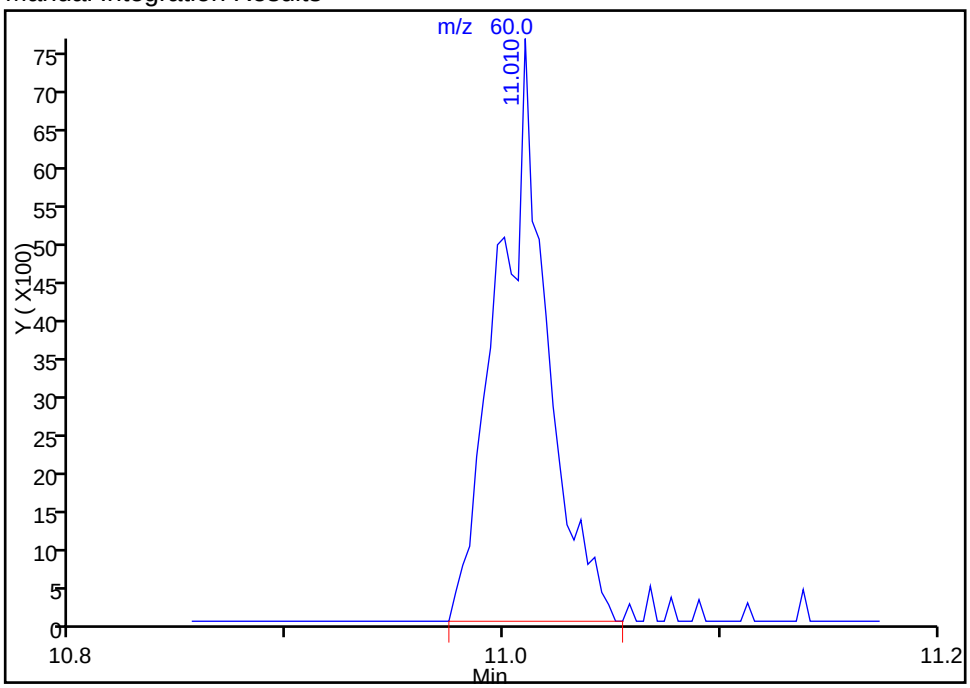
Processing Integration Results

RT: 11.00
Area: 5711
Amount: 5.635210
Amount Units: ug/l



Manual Integration Results

RT: 11.01
Area: 11965
Amount: 10.257360
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:55:57
Audit Action: Manually Integrated Audit Reason: Split Peak

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11704.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 26-Apr-2016 15:20:30 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 600-0011772-006
Operator ID: DT Instrument ID: CHVOAMS10
Sublist: chrom-8260w5_10*sub11

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 26-Apr-2016 18:22:26 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: tengd Date: 26-Apr-2016 15:58:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.756	8.757	-0.001	99	323220	50.0	50.0	
2 Dichlorodifluoromethane	85	4.231	4.233	-0.002	55	29025	20.0	17.3	
3 Chloromethane	50	4.594	4.612	-0.018	94	51125	20.0	18.7	
4 Vinyl chloride	62	4.700	4.702	-0.002	75	50994	20.0	18.0	
5 Butadiene	39	4.835	4.830	0.005	89	33858	20.0	18.0	
10 Ethylene oxide	44	5.056	5.067	-0.011	98	77592	200.0	191.0	
8 Ethanol	45	5.088	5.106	-0.018	1	888	NC	NC	
7 Bromomethane	94	5.156	5.154	0.002	76	25830	20.0	18.8	
11 Chloroethane	64	5.278	5.286	-0.008	69	16083	20.0	16.4	
13 Dichlorofluoromethane	67	5.322	5.327	-0.005	60	49848	20.0	18.9	
24 Acrolein	56	5.810	5.809	0.001	60	15737	100.0	93.5	
16 Acetonitrile	41	5.807	5.815	-0.008	98	29976	200.0	178.9	
19 Isopropyl alcohol	45	5.829	5.837	-0.008	45	7756	200.0	188.1	
12 Trichlorofluoromethane	101	5.846	5.841	0.005	69	41697	20.0	20.1	M
18 Propionaldehyde	58	5.897	5.902	-0.005	79	55464	201.1	184.6	
27 Acetone	43	5.910	5.918	-0.008	16	17491	40.0	40.8	
15 Ethyl ether	59	6.025	6.033	-0.008	76	23985	20.0	20.1	M
31 2-Methyl-2-propanol	59	6.272	6.271	0.001	82	15851	200.0	196.5	
20 1,1-Dichloroethene	96	6.311	6.306	0.005	34	25411	20.0	19.9	
37 Acrylonitrile	52	6.317	6.312	0.005	96	86692	200.0	194.9	M
23 Iodomethane	142	6.356	6.351	0.005	97	38765	20.0	19.9	
26 Methylene Chloride	84	6.407	6.409	-0.002	70	28445	20.0	17.2	
28 Methyl acetate	43	6.417	6.418	-0.001	96	95472	100.0	94.7	
21 1,1,2-Trichloro-1,2,2-trif	151	6.462	6.460	0.002	47	11281	20.0	19.0	
25 3-Chloro-1-propene	76	6.484	6.495	-0.011	49	14676	20.0	19.8	
22 Carbon disulfide	76	6.657	6.656	0.001	98	88491	20.0	19.0	
29 trans-1,2-Dichloroethene	96	6.956	6.961	-0.005	93	30669	20.0	19.4	
44 cis-1,2-Dichloroethene	96	6.956	6.961	-0.005	78	30669	20.0	20.0	
30 Methyl tert-butyl ether	73	7.010	7.012	-0.002	94	85972	20.0	19.7	
35 Propionitrile	54	7.123	7.124	-0.001	95	33721	200.0	191.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	7.142	7.153	-0.011	60	51263	20.0	19.4	
40 Vinyl acetate	43	7.193	7.192	0.001	94	86743	40.0	39.0	
36 2-Chloro-1,3-butadiene	53	7.427	7.432	-0.005	92	39900	20.0	18.1	
56 2-Butanone (MEK)	72	7.434	7.435	-0.001	80	6104	40.0	34.5	
58 Hexane	57	7.434	7.439	-0.005	59	23387	20.0	18.0	
32 Isopropyl ether	45	7.437	7.439	-0.002	82	93869	20.0	19.0	
61 Methacrylonitrile	66	7.517	7.519	-0.002	89	39660	200.0	175.7	
S 43 1,2-Dichloroethene, Total	96				0		40.0	39.4	
47 Chlorobromomethane	128	7.710	7.711	-0.001	85	16138	20.0	18.2	
45 Methyl acrylate	55	7.723	7.721	0.002	56	56877	40.0	38.4	
41 Tert-butyl ethyl ether	59	7.729	7.734	-0.005	95	99161	20.0	18.7	
39 Isobutyl alcohol	43	7.739	7.744	-0.005	84	33636	500.0	463.3	
46 2,2-Dichloropropane	77	7.803	7.821	-0.018	63	31301	20.0	18.5	
$ 52 Dibromofluoromethane	113	7.835	7.833	0.002	90	30190	20.0	19.5	
53 Tetrahydrofuran	42	7.983	7.981	0.002	87	16364	40.0	40.4	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.172	8.180	-0.008	0	33986	20.0	19.8	
65 1,2-Dichloroethane	62	8.226	8.228	-0.002	94	45036	20.0	20.2	
38 n-Butanol	56	8.281	8.279	0.002	77	12301	500.0	481.1	
55 1,1,1-Trichloroethane	97	8.319	8.324	-0.005	76	38166	20.0	18.0	
33 Ethyl acetate	43	8.364	8.366	-0.002	93	53457	40.0	39.9	
57 1,1-Dichloropropene	75	8.438	8.443	-0.005	97	37485	20.0	18.5	
69 Cyclohexane	84	8.538	8.539	-0.001	88	32829	20.0	18.9	
54 Carbon tetrachloride	119	8.599	8.597	0.002	97	33652	20.0	18.7	
63 Benzene	78	8.615	8.616	-0.001	96	121619	20.0	19.1	
62 Tert-amyl methyl ether	73	8.679	8.680	-0.001	98	88689	20.0	19.2	
60 n-Heptane	43	8.676	8.680	-0.004	33	25380	20.0	18.8	
68 Isopropyl acetate	43	8.676	8.680	-0.004	63	25380	20.0	18.8	
59 Isooctane	57	8.897	8.905	-0.008	95	43170	20.0	17.5	
72 Ethyl acrylate	55	8.926	8.924	0.002	96	41333	20.0	19.7	
66 2-Nitropropane	43	8.958	8.953	0.005	89	18600	40.0	38.1	
73 Dibromomethane	93	9.061	9.059	0.002	43	20614	20.0	19.7	
79 1,2-Dichloropropane	63	9.064	9.069	-0.005	85	31110	20.0	18.8	
70 Trichloroethene	130	9.096	9.098	-0.002	92	35520	20.0	19.3	
76 n-Propyl acetate	43	9.138	9.139	-0.001	97	39473	20.0	19.7	
75 Dichlorobromomethane	83	9.138	9.146	-0.008	83	41062	20.0	19.4	
77 Methyl methacrylate	41	9.170	9.168	0.002	87	51996	40.0	38.3	
78 1,4-Dioxane	58	9.189	9.194	-0.005	25	2093	400.0	335.7	M
71 Methylcyclohexane	83	9.536	9.534	0.002	88	28438	20.0	18.9	
80 4-Methyl-2-pentanone (MIBK	43	9.686	9.685	0.001	96	56463	40.0	39.7	
48 Chloroform	83	12.581	12.579	0.002	49	39569	20.0	19.8	
* 85 Chlorobenzene-d5	82	11.743	11.745	-0.002	84	129455	50.0	50.0	
89 2-Chloroethyl vinyl ether	63	9.407	9.406	0.001	87	38173	40.0	39.2	
90 cis-1,3-Dichloropropene	75	9.638	9.640	-0.002	95	51554	20.0	19.5	
96 trans-1,3-Dichloropropene	75	9.994	9.996	-0.002	94	40583	20.0	18.6	
100 1,1,2-Trichloroethane	97	10.171	10.169	0.002	93	27641	20.0	18.9	
$ 93 Toluene-d8 (Surr)	98	10.283	10.282	0.001	94	110285	20.0	19.3	
97 Ethyl methacrylate	69	10.306	10.311	-0.005	86	40055	20.0	19.6	
94 Toluene	92	10.354	10.352	0.002	97	78875	20.0	19.0	
102 1,3-Dichloropropane	76	10.386	10.388	-0.002	86	51559	20.0	20.1	
106 2-Hexanone	43	10.463	10.461	0.002	94	36682	40.0	40.4	
101 Chlorodibromomethane	129	10.697	10.696	0.001	89	33500	20.0	19.4	
103 n-Butyl acetate	43	10.739	10.741	-0.002	98	39415	20.0	19.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 104 Xylenes, Total	106				0		40.0	38.3	
105 Ethylene Dibromide	107	10.951	10.949	0.002	95	30621	20.0	20.5	
107 Tetrahydrothiophene	60	11.012	11.004	0.008	0	16197	20.0	13.4	
98 Tetrachloroethene	164	11.089	11.087	0.002	92	22925	20.0	19.6	
113 1-Chlorohexane	55	11.628	11.623	0.005	94	18247	20.0	19.2	
110 1,1,1,2-Tetrachloroethane	131	11.692	11.690	0.002	93	33783	20.0	18.9	
109 Chlorobenzene	112	11.782	11.780	0.002	97	92258	20.0	19.1	
108 Ethylbenzene	106	11.949	11.947	0.002	98	44856	20.0	19.6	
111 m-Xylene & p-Xylene	91	12.138	12.140	-0.002	0	107767	20.0	18.6	
115 Amyl acetate (mixed isomer	43	12.372	12.371	0.001	90	49617	20.0	20.1	
114 Styrene	104	12.504	12.502	0.002	95	92746	20.0	19.2	
116 Cyclohexanone	55	12.542	12.544	-0.002	89	33199	1000.0	926.0	
112 o-Xylene	106	12.587	12.582	0.005	96	57053	20.0	19.7	
* 117 1,4-Dichlorobenzene-d4	152	14.304	14.306	-0.002	93	132663	50.0	50.0	
120 n-Butyl acrylate	55	12.135	12.130	0.005	99	113553	40.0	36.6	
119 Bromoform	173	12.337	12.339	-0.002	78	18789	20.0	18.4	
124 1,1,2,2-Tetrachloroethane	83	12.581	12.579	0.002	60	39352	20.0	19.7	
129 trans-1,4-Dichloro-2-buten	53	12.719	12.717	0.002	72	10186	20.0	20.5	
128 1,2,3-Trichloropropane	110	12.735	12.733	0.002	86	11479	20.0	19.7	
121 Isopropylbenzene	105	12.950	12.951	-0.001	95	118157	20.0	19.2	
$ 122 4-Bromofluorobenzene	95	13.008	13.016	-0.008	90	36042	20.0	18.6	
125 Bromobenzene	156	13.255	13.250	0.005	90	40759	20.0	19.7	
123 N-Propylbenzene	120	13.396	13.394	0.002	97	31547	20.0	17.8	
134 Butyl Methacrylate	69	13.412	13.413	-0.001	84	103787	40.0	37.3	
127 2-Chlorotoluene	126	13.518	13.519	-0.001	96	31578	20.0	18.4	
130 4-Chlorotoluene	91	13.592	13.590	0.002	97	92362	20.0	19.1	
126 1,3,5-Trimethylbenzene	105	13.659	13.661	-0.002	96	92805	20.0	19.1	
131 tert-Butylbenzene	119	13.951	13.953	-0.002	91	76437	20.0	19.6	
133 1,2,4-Trimethylbenzene	105	14.054	14.052	0.002	96	95979	20.0	19.1	
135 sec-Butylbenzene	105	14.163	14.164	-0.001	94	96794	20.0	18.9	
143 Benzyl chloride	91	14.163	14.164	-0.001	53	14555	20.0	18.5	
142 n-Butylbenzene	91	14.259	14.257	0.002	28	60007	20.0	17.3	
137 1,3-Dichlorobenzene	146	14.269	14.264	0.005	97	63938	20.0	19.1	
140 1,4-Dichlorobenzene	146	14.326	14.331	-0.005	85	68076	20.0	18.4	
136 4-Isopropyltoluene	119	14.330	14.331	-0.001	96	92134	20.0	18.3	
139 1,2,3-Trimethylbenzene	105	14.484	14.482	0.002	97	105409	20.0	19.5	
144 1,2-Dichlorobenzene	146	14.686	14.687	-0.001	97	62256	20.0	19.5	
146 1,2-Dibromo-3-Chloropropan	157	15.167	15.165	0.002	93	5865	20.0	18.1	
149 1,2,4-Trichlorobenzene	180	16.030	16.029	0.001	93	27853	20.0	19.5	
147 1,3,5-Trichlorobenzene	180	16.640	16.645	-0.005	96	19819	20.0	17.8	
150 Naphthalene	128	16.948	16.956	-0.008	97	50496	20.0	17.8	
148 Hexachlorobutadiene	190	16.980	16.982	-0.002	66	5183	20.0	20.4	
151 1,2,3-Trichlorobenzene	180	17.198	17.193	0.005	93	12609	20.0	18.5	
S 162 Trihalomethanes, Total	1				0			76.9	
S 159 1,3-Dichloropropene, Total	1				0			38.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

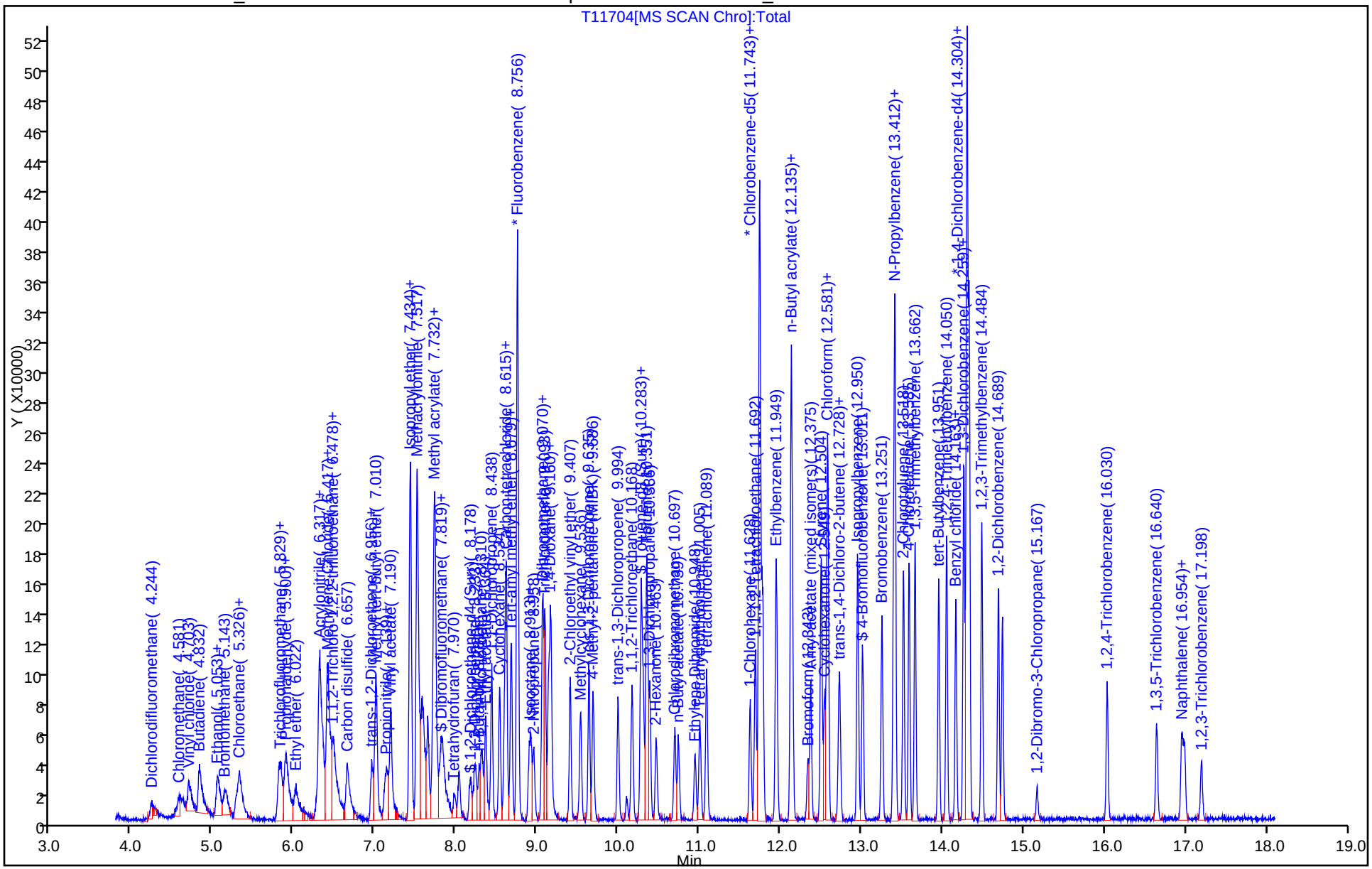
VOAIS250PPM_00046	Amount Added:	1.00	Units: uL
VOASTDGASPT_00164	Amount Added:	2.00	Units: uL
VOASTDPT2_00055	Amount Added:	2.00	Units: uL
6NRStd_00055	Amount Added:	2.00	Units: uL
EOxideStd_00070	Amount Added:	2.00	Units: uL
PropHydeSTDW_00051	Amount Added:	2.00	Units: uL

Report Date: 26-Apr-2016 18:22:27 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11704.D

Injection Date:	26-Apr-2016 15:20:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	IC			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

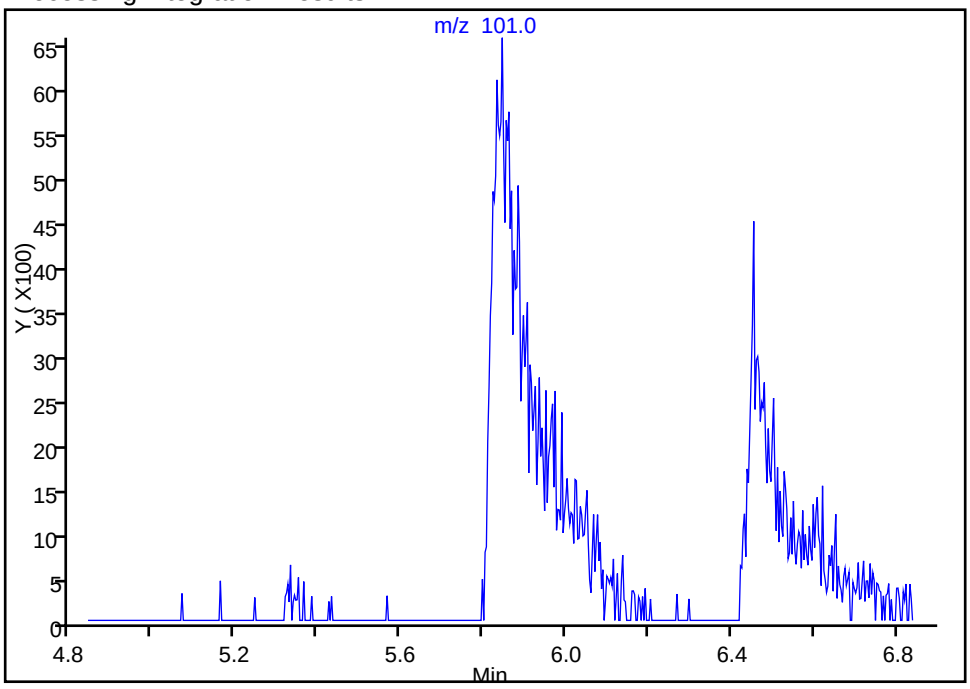
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11704.D
Injection Date: 26-Apr-2016 15:20:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

12 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

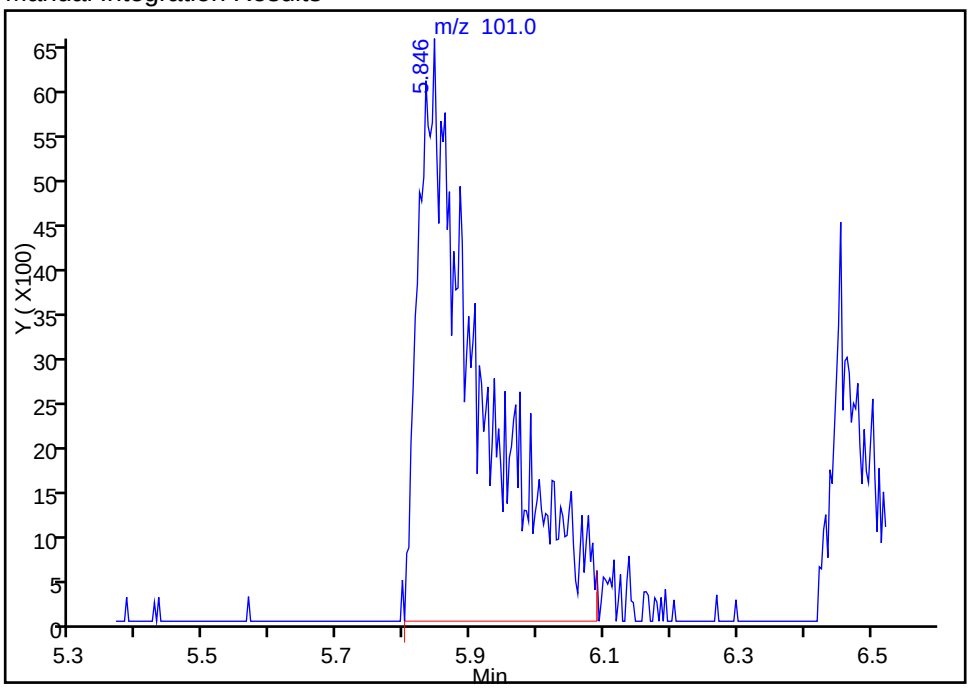
Not Detected
Expected RT: 5.84

Processing Integration Results



Manual Integration Results

RT: 5.85
Area: 41697
Amount: 20.072530
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:59:44
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11704.D

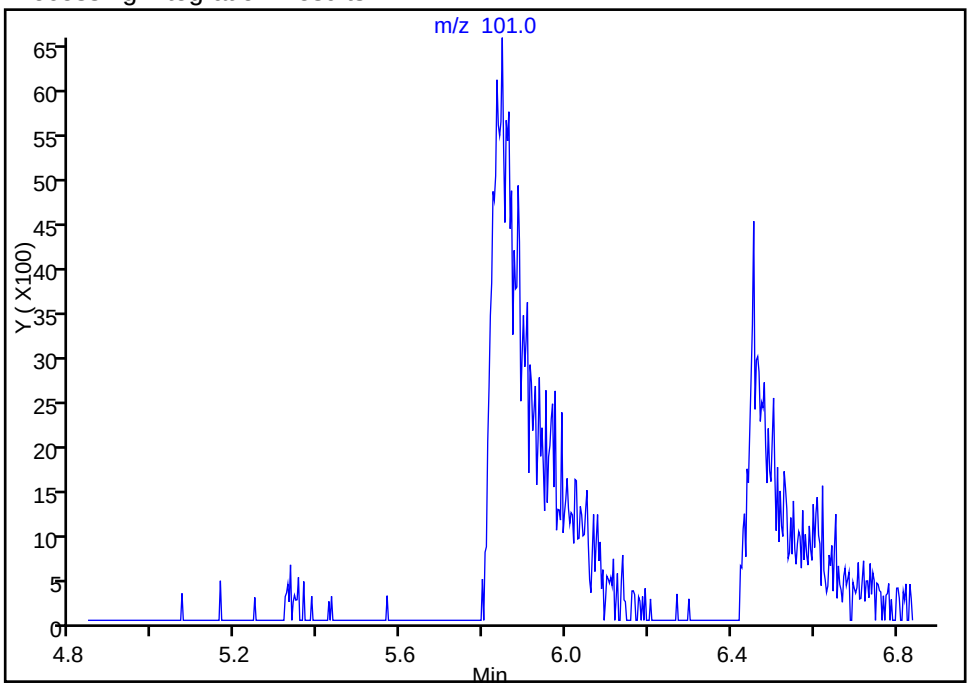
Injection Date:	26-Apr-2016 15:20:30	Instrument ID:	CHVOAMS10		
Lims ID:	IC				
Client ID:					
Operator ID:	DT	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		
Column:		Detector	MS SCAN		

12 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

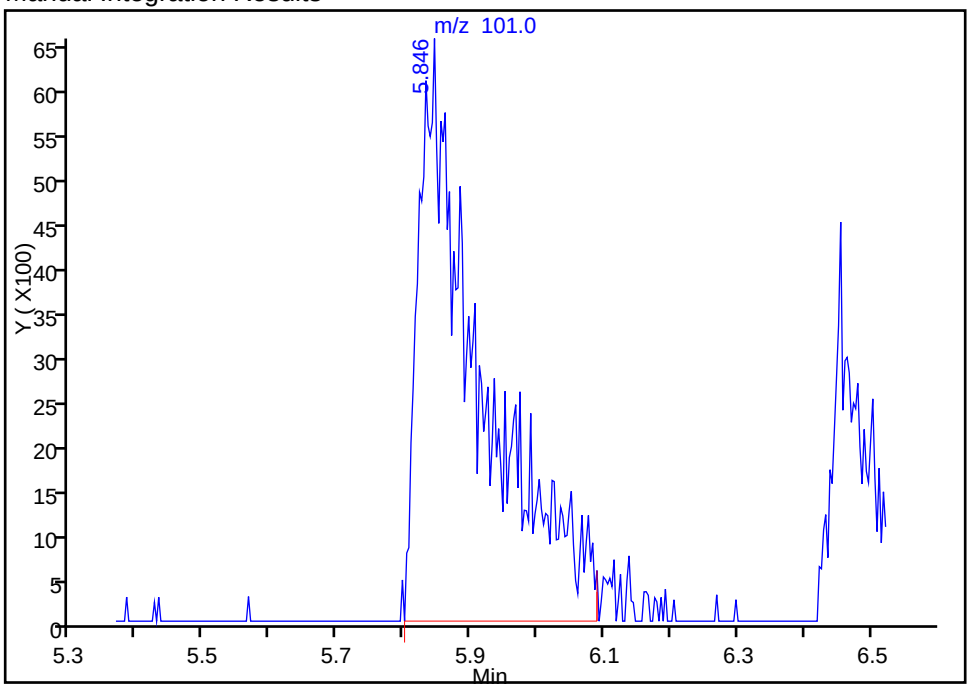
Processing Integration Results

Not Detected
Expected RT: 5.84



Manual Integration Results

RT: 5.85
Area: 41697
Amount: 20.072530
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:59:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

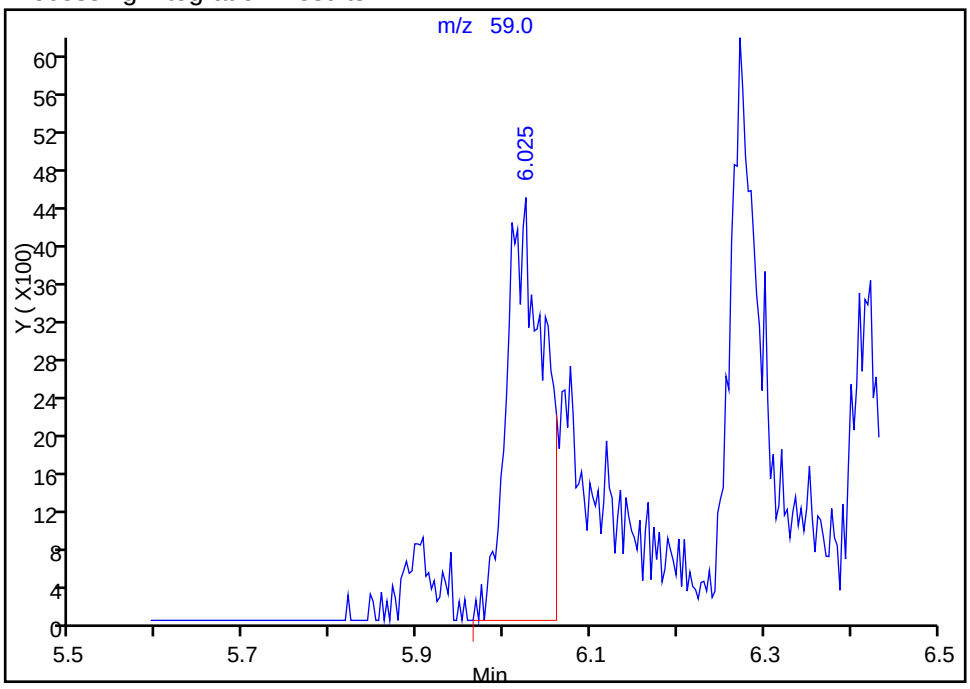
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11704.D
Injection Date: 26-Apr-2016 15:20:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

15 Ethyl ether, CAS: 60-29-7

Signal: 1

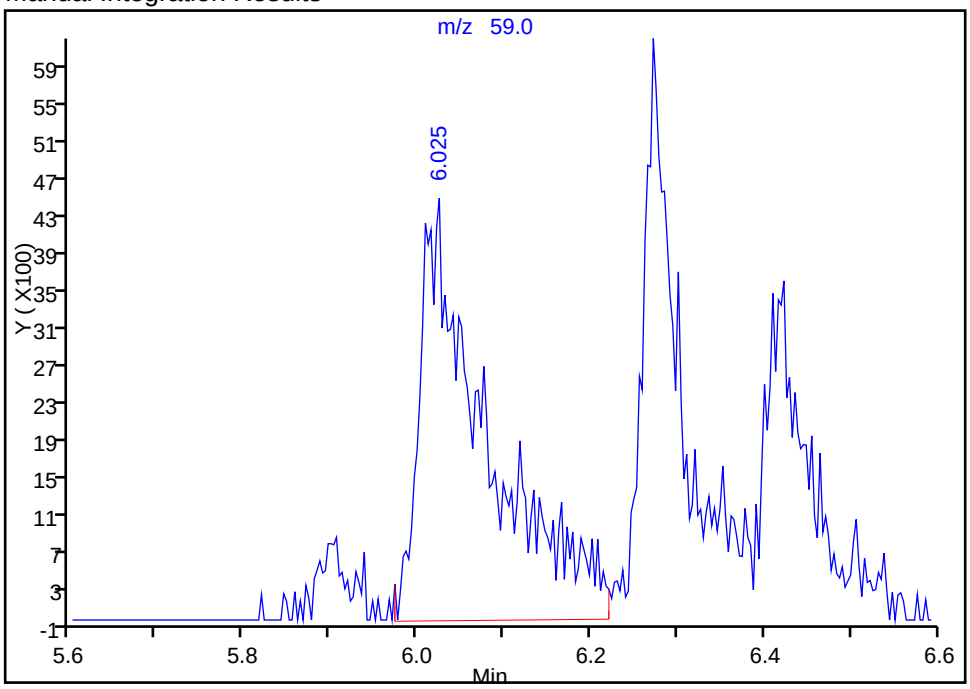
Processing Integration Results

RT: 6.03
Area: 13349
Amount: 12.768847
Amount Units: ug/l



Manual Integration Results

RT: 6.03
Area: 23985
Amount: 20.051900
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:59:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

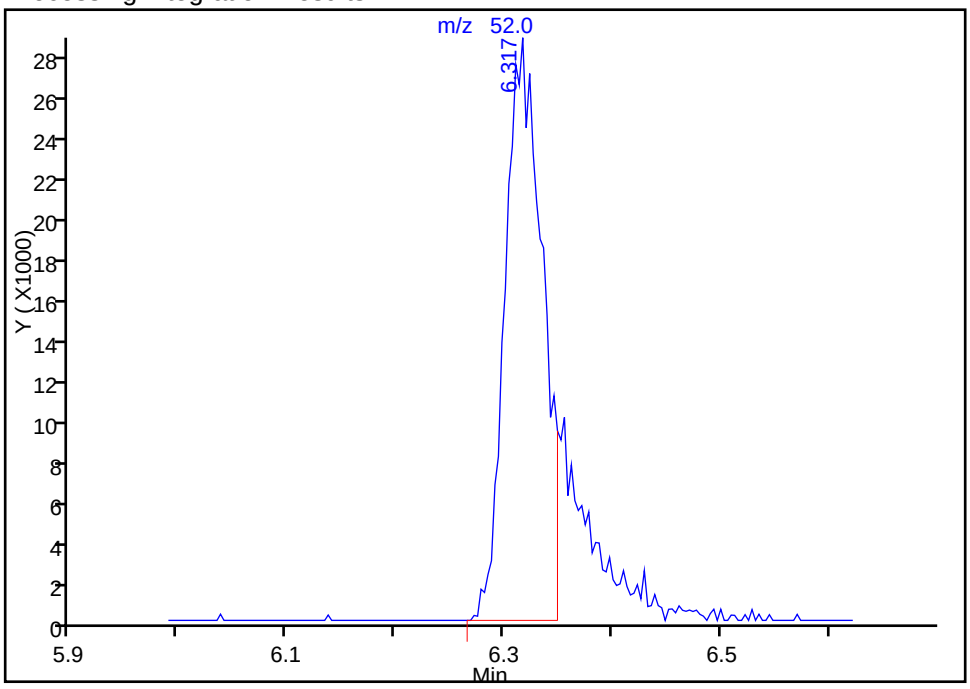
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11704.D
Injection Date: 26-Apr-2016 15:20:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

37 Acrylonitrile, CAS: 107-13-1

Signal: 1

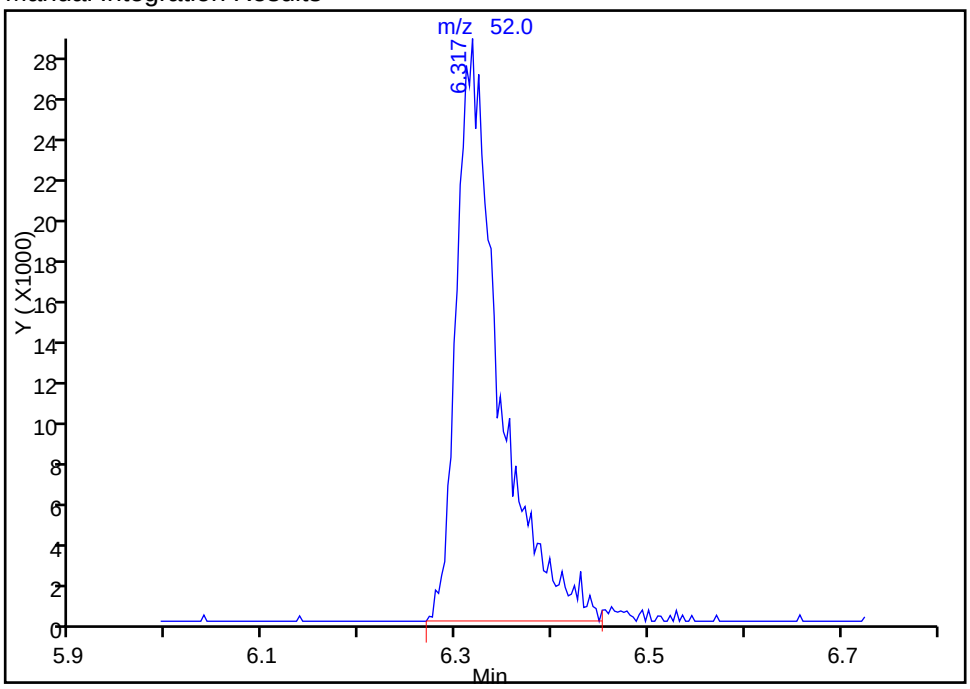
Processing Integration Results

RT: 6.32
Area: 67784
Amount: 165.1192
Amount Units: ug/l



Manual Integration Results

RT: 6.32
Area: 86692
Amount: 194.9405
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:59:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

TestAmerica Houston

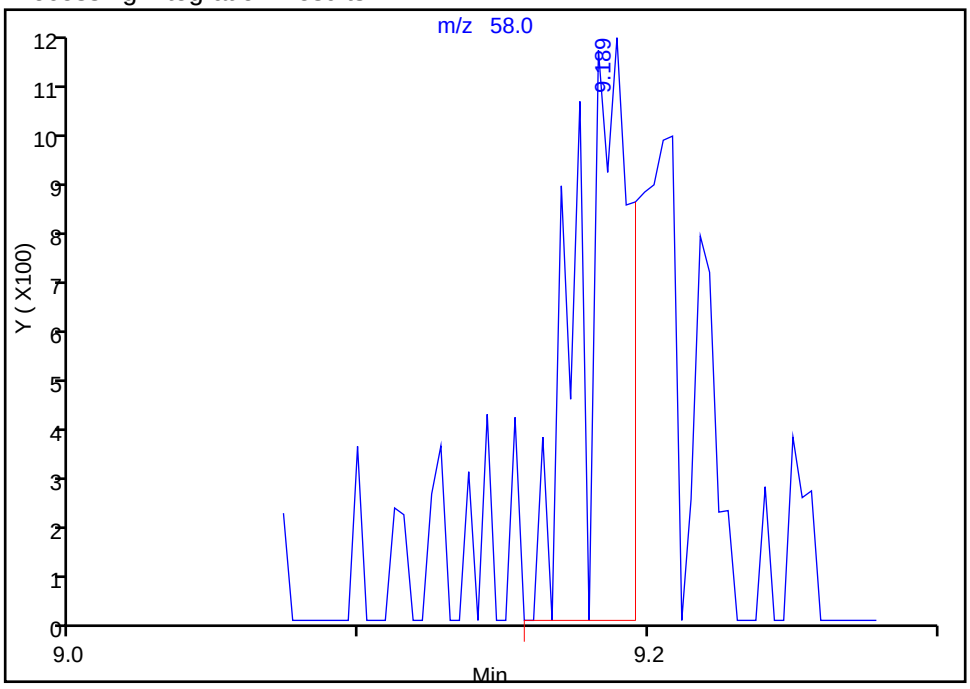
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11704.D
Injection Date: 26-Apr-2016 15:20:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

78 1,4-Dioxane, CAS: 123-91-1

Signal: 1

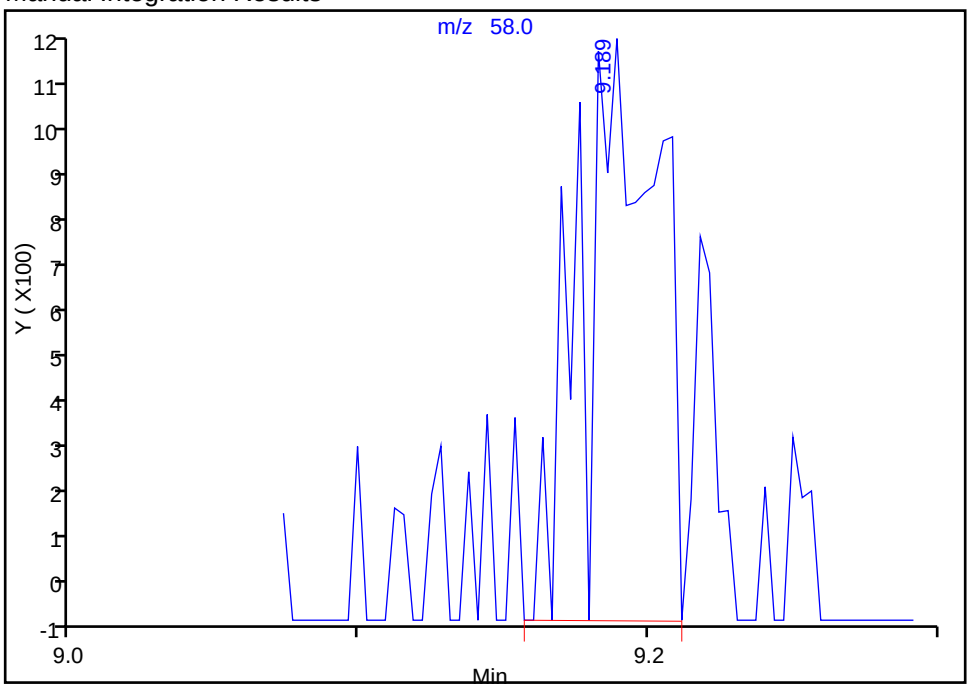
Processing Integration Results

RT: 9.19
Area: 1410
Amount: 238.6751
Amount Units: ug/l



Manual Integration Results

RT: 9.19
Area: 2093
Amount: 335.6687
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 16:59:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11705.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 26-Apr-2016 15:45:30 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Misc. Info.: 600-0011772-007
Operator ID: DT Instrument ID: CHVOAMS10
Sublist: chrom-8260w5_10*sub11

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 26-Apr-2016 18:22:32 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: tengd Date: 26-Apr-2016 16:13:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.757	8.757	0.000	99	338029	50.0	50.0	
2 Dichlorodifluoromethane	85	4.233	4.233	0.000	73	82053	50.0	46.8	
3 Chloromethane	50	4.612	4.612	0.000	98	141999	50.0	49.6	
4 Vinyl chloride	62	4.702	4.702	0.000	97	134380	50.0	45.3	
5 Butadiene	39	4.830	4.830	0.000	87	94575	50.0	48.1	
10 Ethylene oxide	44	5.067	5.067	0.000	99	201277	500.0	510.6	
8 Ethanol	45	5.106	5.106	0.000	9	870	NC	NC	
7 Bromomethane	94	5.154	5.154	0.000	90	64941	50.0	45.2	
11 Chloroethane	64	5.286	5.286	0.000	78	49553	50.0	48.4	
13 Dichlorofluoromethane	67	5.327	5.327	0.000	74	130931	50.0	47.4	
24 Acrolein	56	5.809	5.809	0.000	91	42503	250.0	241.4	
16 Acetonitrile	41	5.815	5.815	0.000	98	81197	500.0	463.3	
19 Isopropyl alcohol	45	5.837	5.837	0.000	51	19714	500.0	393.8	
12 Trichlorofluoromethane	101	5.841	5.841	0.000	97	106794	50.0	49.2	
18 Propionaldehyde	58	5.902	5.902	0.000	75	150685	502.7	479.5	
27 Acetone	43	5.918	5.918	0.000	86	44603	100.0	99.4	
15 Ethyl ether	59	6.033	6.033	0.000	83	62644	50.0	50.1	
31 2-Methyl-2-propanol	59	6.271	6.271	0.000	94	35406	500.0	419.7	
20 1,1-Dichloroethene	96	6.306	6.306	0.000	94	70419	50.0	52.7	
37 Acrylonitrile	52	6.312	6.312	0.000	100	236646	500.0	508.8	
23 Iodomethane	142	6.351	6.351	0.000	99	109139	50.0	53.5	
26 Methylene Chloride	84	6.409	6.409	0.000	88	80271	50.0	46.3	
28 Methyl acetate	43	6.418	6.418	0.000	96	249598	250.0	236.8	
21 1,1,2-Trichloro-1,2,2-trif	151	6.460	6.460	0.000	77	34499	50.0	41.5	
25 3-Chloro-1-propene	76	6.495	6.495	0.000	87	41462	50.0	53.4	
22 Carbon disulfide	76	6.656	6.656	0.000	100	236042	50.0	48.4	
29 trans-1,2-Dichloroethene	96	6.961	6.961	0.000	65	81828	50.0	49.6	
44 cis-1,2-Dichloroethene	96	6.961	6.961	0.000	55	81828	50.0	49.0	
30 Methyl tert-butyl ether	73	7.012	7.012	0.000	94	231718	50.0	50.8	
35 Propionitrile	54	7.124	7.124	0.000	99	93349	500.0	506.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	7.153	7.153	0.000	95	135295	50.0	48.9	
40 Vinyl acetate	43	7.192	7.192	0.000	98	232755	100.0	100.0	
36 2-Chloro-1,3-butadiene	53	7.432	7.432	0.000	93	114329	50.0	49.5	
56 2-Butanone (MEK)	72	7.435	7.435	0.000	82	16991	100.0	91.8	
58 Hexane	57	7.439	7.439	0.000	61	67671	50.0	49.9	
32 Isopropyl ether	45	7.439	7.439	0.000	82	258482	50.0	50.1	
61 Methacrylonitrile	66	7.519	7.519	0.000	89	130028	500.0	505.9	
S 43 1,2-Dichloroethene, Total	96				0		100.0	98.5	
47 Chlorobromomethane	128	7.711	7.711	0.000	84	50138	50.0	54.0	
45 Methyl acrylate	55	7.721	7.721	0.000	80	154688	100.0	99.9	
41 Tert-butyl ethyl ether	59	7.734	7.734	0.000	96	273942	50.0	49.3	
39 Isobutyl alcohol	43	7.744	7.744	0.000	90	94795	1250.0	1248.6	
46 2,2-Dichloropropane	77	7.821	7.821	0.000	90	90102	50.0	51.0	
$ 52 Dibromofluoromethane	113	7.833	7.833	0.000	93	81411	50.0	50.4	
53 Tetrahydrofuran	42	7.981	7.981	0.000	81	43325	100.0	102.4	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.180	8.180	0.000	0	93953	50.0	52.3	
65 1,2-Dichloroethane	62	8.228	8.228	0.000	96	122593	50.0	52.7	
38 n-Butanol	56	8.279	8.279	0.000	85	32052	1250.0	1198.8	
55 1,1,1-Trichloroethane	97	8.324	8.324	0.000	90	114729	50.0	51.8	
33 Ethyl acetate	43	8.366	8.366	0.000	92	140450	100.0	100.3	
57 1,1-Dichloropropene	75	8.443	8.443	0.000	96	104872	50.0	49.4	
69 Cyclohexane	84	8.539	8.539	0.000	88	87913	50.0	48.4	
54 Carbon tetrachloride	119	8.597	8.597	0.000	97	96928	50.0	51.4	
63 Benzene	78	8.616	8.616	0.000	96	328995	50.0	49.3	
62 Tert-amyl methyl ether	73	8.680	8.680	0.000	98	245334	50.0	50.9	
60 n-Heptane	43	8.680	8.680	0.000	47	70918	50.0	50.2	
68 Isopropyl acetate	43	8.680	8.680	0.000	52	70918	50.0	50.2	
59 Isooctane	57	8.905	8.905	0.000	94	120002	50.0	46.4	
72 Ethyl acrylate	55	8.924	8.924	0.000	96	114184	50.0	52.0	
66 2-Nitropropane	43	8.953	8.953	0.000	86	47680	100.0	92.6	
73 Dibromomethane	93	9.059	9.059	0.000	80	59842	50.0	54.7	
79 1,2-Dichloropropane	63	9.069	9.069	0.000	88	85699	50.0	49.6	
70 Trichloroethene	130	9.098	9.098	0.000	94	96069	50.0	49.8	
76 n-Propyl acetate	43	9.139	9.139	0.000	97	110423	50.0	52.6	
75 Dichlorobromomethane	83	9.146	9.146	0.000	82	112674	50.0	50.8	
77 Methyl methacrylate	41	9.168	9.168	0.000	85	143154	100.0	100.7	
78 1,4-Dioxane	58	9.194	9.194	0.000	25	6888	1000.0	1056.3	
71 Methylcyclohexane	83	9.534	9.534	0.000	86	76075	50.0	48.4	
80 4-Methyl-2-pentanone (MIBK	43	9.685	9.685	0.000	95	153395	100.0	103.0	
48 Chloroform	83	12.579	12.579	0.000	84	104411	50.0	49.9	
* 85 Chlorobenzene-d5	82	11.745	11.745	0.000	84	138642	50.0	50.0	
89 2-Chloroethyl vinyl ether	63	9.406	9.406	0.000	93	104680	100.0	100.3	
90 cis-1,3-Dichloropropene	75	9.640	9.640	0.000	95	144201	50.0	51.0	
96 trans-1,3-Dichloropropene	75	9.996	9.996	0.000	93	122303	50.0	52.3	
100 1,1,2-Trichloroethane	97	10.169	10.169	0.000	92	78198	50.0	49.8	
$ 93 Toluene-d8 (Surr)	98	10.282	10.282	0.000	93	308514	50.0	50.3	
97 Ethyl methacrylate	69	10.311	10.311	0.000	86	114449	50.0	52.4	
94 Toluene	92	10.352	10.352	0.000	97	222260	50.0	49.9	
102 1,3-Dichloropropane	76	10.388	10.388	0.000	90	138238	50.0	50.4	
106 2-Hexanone	43	10.461	10.461	0.000	94	105653	100.0	108.5	
101 Chlorodibromomethane	129	10.696	10.696	0.000	89	97755	50.0	52.8	
103 n-Butyl acetate	43	10.741	10.741	0.000	98	114404	50.0	53.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 104 Xylenes, Total	106				0		100.0	98.1	
105 Ethylene Dibromide	107	10.949	10.949	0.000	98	83111	50.0	52.0	
107 Tetrahydrothiophene	60	11.004	11.004	0.000	0	73688	50.0	52.0	
98 Tetrachloroethene	164	11.087	11.087	0.000	94	62403	50.0	49.7	
113 1-Chlorohexane	55	11.623	11.623	0.000	94	53093	50.0	52.0	
110 1,1,1,2-Tetrachloroethane	131	11.690	11.690	0.000	92	98711	50.0	51.6	
109 Chlorobenzene	112	11.780	11.780	0.000	96	254334	50.0	49.3	
108 Ethylbenzene	106	11.947	11.947	0.000	98	121807	50.0	49.6	
111 m-Xylene & p-Xylene	91	12.140	12.140	0.000	0	300527	50.0	48.4	
115 Amyl acetate (mixed isomer	43	12.371	12.371	0.000	92	132509	50.0	50.1	
114 Styrene	104	12.502	12.502	0.000	95	262152	50.0	50.5	
116 Cyclohexanone	55	12.544	12.544	0.000	90	91456	2500.0	2381.9	
112 o-Xylene	106	12.582	12.582	0.000	96	154247	50.0	49.7	
* 117 1,4-Dichlorobenzene-d4	152	14.306	14.306	0.000	94	141782	50.0	50.0	
120 n-Butyl acrylate	55	12.130	12.130	0.000	98	334490	100.0	100.8	
119 Bromoform	173	12.339	12.339	0.000	94	58424	50.0	53.6	
124 1,1,2,2-Tetrachloroethane	83	12.579	12.579	0.000	85	104179	50.0	48.7	
129 trans-1,4-Dichloro-2-buten	53	12.717	12.717	0.000	80	27294	50.0	51.5	
128 1,2,3-Trichloropropane	110	12.733	12.733	0.000	86	30718	50.0	49.4	
121 Isopropylbenzene	105	12.951	12.951	0.000	95	330864	50.0	50.2	
$ 122 4-Bromofluorobenzene	95	13.016	13.016	0.000	91	100035	50.0	48.2	
125 Bromobenzene	156	13.250	13.250	0.000	91	107870	50.0	48.9	
123 N-Propylbenzene	120	13.394	13.394	0.000	98	91612	50.0	48.5	
134 Butyl Methacrylate	69	13.413	13.413	0.000	84	303661	100.0	102.1	
127 2-Chlorotoluene	126	13.519	13.519	0.000	96	88668	50.0	48.4	
130 4-Chlorotoluene	91	13.590	13.590	0.000	97	261723	50.0	50.6	
126 1,3,5-Trimethylbenzene	105	13.661	13.661	0.000	96	259347	50.0	49.8	
131 tert-Butylbenzene	119	13.953	13.953	0.000	92	200159	50.0	48.1	
133 1,2,4-Trimethylbenzene	105	14.052	14.052	0.000	96	267926	50.0	49.8	
135 sec-Butylbenzene	105	14.164	14.164	0.000	94	269854	50.0	49.4	
143 Benzyl chloride	91	14.164	14.164	0.000	53	40472	50.0	48.2	
142 n-Butylbenzene	91	14.257	14.257	0.000	30	190137	50.0	46.1	
137 1,3-Dichlorobenzene	146	14.264	14.264	0.000	98	176294	50.0	49.4	
140 1,4-Dichlorobenzene	146	14.331	14.331	0.000	85	189984	50.0	48.1	
136 4-Isopropyltoluene	119	14.331	14.331	0.000	96	263158	50.0	48.9	
139 1,2,3-Trimethylbenzene	105	14.482	14.482	0.000	97	286300	50.0	49.5	
144 1,2-Dichlorobenzene	146	14.687	14.687	0.000	98	168869	50.0	49.4	
146 1,2-Dibromo-3-Chloropropan	157	15.165	15.165	0.000	88	17166	50.0	49.5	
149 1,2,4-Trichlorobenzene	180	16.029	16.029	0.000	93	75480	50.0	49.4	
147 1,3,5-Trichlorobenzene	180	16.645	16.645	0.000	96	56903	50.0	51.4	
150 Naphthalene	128	16.956	16.956	0.000	97	135342	50.0	47.7	
148 Hexachlorobutadiene	190	16.982	16.982	0.000	88	13739	50.0	50.6	
151 1,2,3-Trichlorobenzene	180	17.193	17.193	0.000	95	32617	50.0	50.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

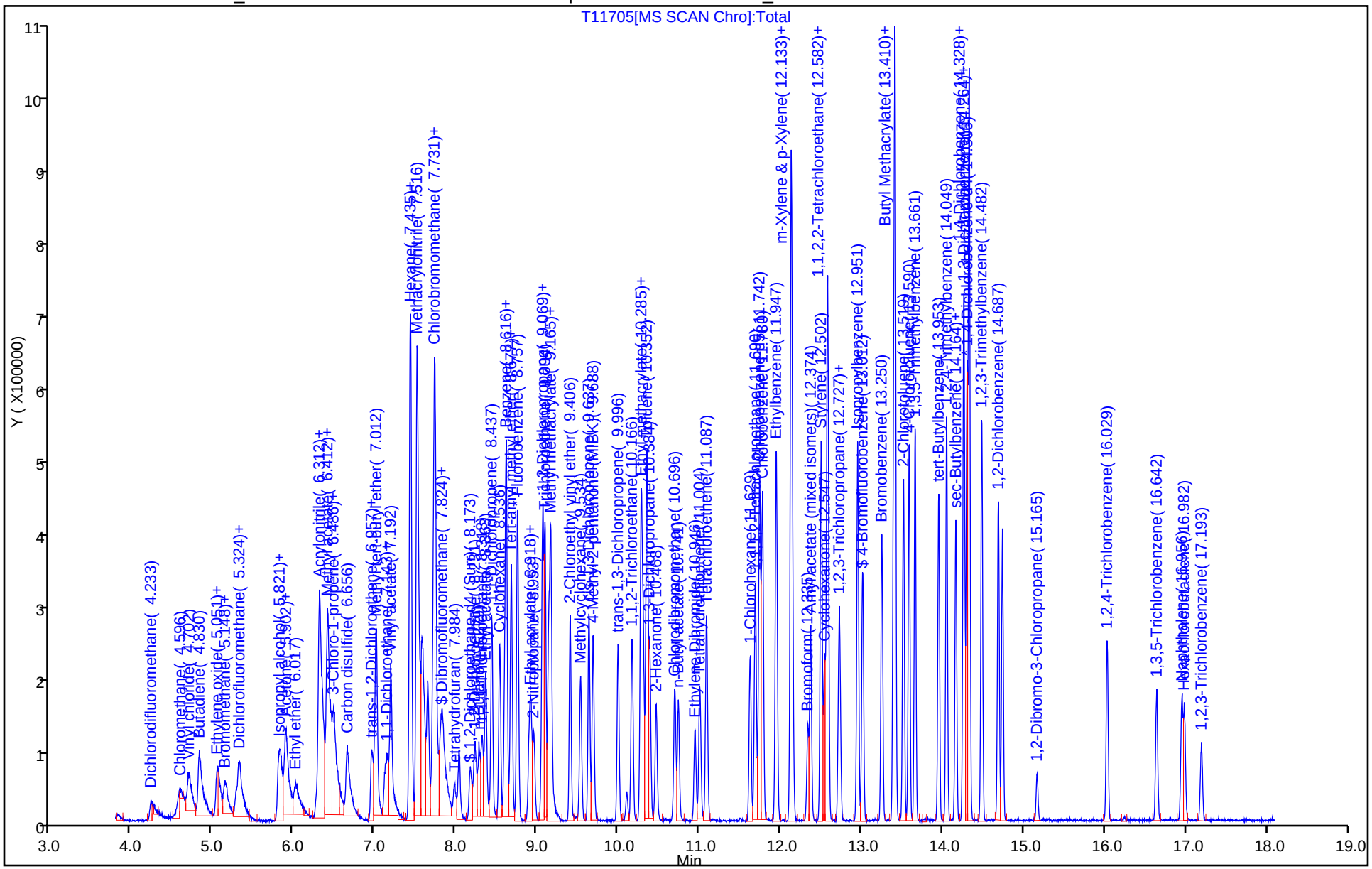
VOAIS250PPM_00046	Amount Added:	1.00	Units: uL
VOASTDGASPT_00164	Amount Added:	5.00	Units: uL
VOASTDPT2_00055	Amount Added:	5.00	Units: uL
6NRStd_00055	Amount Added:	5.00	Units: uL
EOxideStd_00070	Amount Added:	5.00	Units: uL
PropHydeSTDW_00051	Amount Added:	5.00	Units: uL

Report Date: 26-Apr-2016 18:22:33 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11705.D

Injection Date:	26-Apr-2016 15:45:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	ICIS			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11706.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 26-Apr-2016 16:10:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 600-0011772-008
Operator ID: DT Instrument ID: CHVOAMS10
Sublist: chrom-8260w5_10*sub11

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 26-Apr-2016 18:22:36 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: tengd Date: 26-Apr-2016 17:01:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.755	8.757	-0.002	99	367879	50.0	50.0	
2 Dichlorodifluoromethane	85	4.243	4.233	0.010	99	198560	100.0	104.0	
3 Chloromethane	50	4.612	4.612	0.000	99	358748	100.0	115.1	
4 Vinyl chloride	62	4.702	4.702	0.000	97	348010	100.0	107.9	
5 Butadiene	39	4.827	4.830	-0.003	92	235769	100.0	110.1	
10 Ethylene oxide	44	5.055	5.067	-0.012	100	426223	1000.0	1016.9	
8 Ethanol	45	5.113	5.106	0.007	1	855	NC	NC	
7 Bromomethane	94	5.148	5.154	-0.006	93	165055	100.0	105.6	
11 Chloroethane	64	5.283	5.286	-0.003	85	118992	100.0	106.8	
13 Dichlorofluoromethane	67	5.328	5.327	0.001	98	312089	100.0	103.8	
24 Acrolein	56	5.803	5.809	-0.006	61	99406	500.0	518.8	
16 Acetonitrile	41	5.806	5.815	-0.009	99	193919	1000.0	1016.6	
19 Isopropyl alcohol	45	5.844	5.837	0.007	51	59662	1000.0	1016.1	M
12 Trichlorofluoromethane	101	5.835	5.841	-0.006	99	272836	100.0	115.4	
18 Propionaldehyde	58	5.896	5.902	-0.006	98	357611	1005.5	1045.5	
27 Acetone	43	5.912	5.918	-0.006	85	96768	200.0	198.2	
15 Ethyl ether	59	6.027	6.033	-0.006	89	140145	100.0	102.9	
31 2-Methyl-2-propanol	59	6.274	6.271	0.003	99	90427	1000.0	985.1	
20 1,1-Dichloroethene	96	6.303	6.306	-0.003	98	163505	100.0	112.4	
37 Acrylonitrile	52	6.313	6.312	0.001	97	524650	1000.0	1036.5	
23 Iodomethane	142	6.348	6.351	-0.003	99	248356	100.0	111.9	
26 Methylene Chloride	84	6.406	6.409	-0.003	63	195679	100.0	103.7	
28 Methyl acetate	43	6.412	6.418	-0.006	97	588614	500.0	513.1	
21 1,1,2-Trichloro-1,2,2-trif	151	6.464	6.460	0.004	90	96865	100.0	95.4	
25 3-Chloro-1-propene	76	6.493	6.495	-0.002	86	91636	100.0	108.5	
22 Carbon disulfide	76	6.656	6.656	0.000	99	562645	100.0	106.0	
29 trans-1,2-Dichloroethene	96	6.958	6.961	-0.003	96	185862	100.0	103.4	
44 cis-1,2-Dichloroethene	96	6.958	6.961	-0.003	80	185862	100.0	100.8	
30 Methyl tert-butyl ether	73	7.012	7.012	0.000	93	478346	100.0	96.3	
35 Propionitrile	54	7.118	7.124	-0.006	98	204218	1000.0	1017.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	7.150	7.153	-0.003	95	303513	100.0	100.8	
40 Vinyl acetate	43	7.195	7.192	0.003	94	524485	200.0	207.0	
36 2-Chloro-1,3-butadiene	53	7.430	7.432	-0.002	92	270434	100.0	107.5	
56 2-Butanone (MEK)	72	7.436	7.435	0.001	78	39305	200.0	195.2	
58 Hexane	57	7.439	7.439	0.000	62	162007	100.0	109.7	
32 Isopropyl ether	45	7.439	7.439	0.000	81	563094	100.0	100.4	
61 Methacrylonitrile	66	7.516	7.519	-0.003	90	289818	1000.0	1014.0	
S 43 1,2-Dichloroethene, Total	96				0		200.0	204.2	
47 Chlorobromomethane	128	7.709	7.711	-0.002	70	105780	100.0	104.7	
45 Methyl acrylate	55	7.725	7.721	0.004	47	350585	200.0	208.0	
41 Tert-butyl ethyl ether	59	7.734	7.734	0.000	95	622958	100.0	103.0	
39 Isobutyl alcohol	43	7.741	7.744	-0.003	42	224130	2500.0	2712.6	
46 2,2-Dichloropropane	77	7.815	7.821	-0.006	52	214029	100.0	111.3	
$ 52 Dibromofluoromethane	113	7.837	7.833	0.004	92	181194	100.0	103.0	
53 Tetrahydrofuran	42	7.978	7.981	-0.003	88	89022	200.0	193.3	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.177	8.180	-0.003	0	191503	100.0	97.9	
65 1,2-Dichloroethane	62	8.232	8.228	0.004	98	257001	100.0	101.4	
38 n-Butanol	56	8.286	8.279	0.007	85	75975	2500.0	2611.0	
55 1,1,1-Trichloroethane	97	8.318	8.324	-0.006	96	259027	100.0	107.6	
33 Ethyl acetate	43	8.363	8.366	-0.003	92	305226	200.0	200.3	
57 1,1-Dichloropropene	75	8.440	8.443	-0.003	95	234918	100.0	101.7	
69 Cyclohexane	84	8.540	8.539	0.001	87	204133	100.0	103.3	
54 Carbon tetrachloride	119	8.604	8.597	0.007	98	214500	100.0	104.5	
63 Benzene	78	8.617	8.616	0.001	96	732208	100.0	100.8	
62 Tert-amyl methyl ether	73	8.678	8.680	-0.002	98	527653	100.0	100.6	
60 n-Heptane	43	8.681	8.680	0.001	46	153839	100.0	100.1	
68 Isopropyl acetate	43	8.681	8.680	0.001	51	153839	100.0	100.1	
59 Isooctane	57	8.906	8.905	0.001	95	286456	100.0	101.8	
72 Ethyl acrylate	55	8.922	8.924	-0.002	97	247678	100.0	103.7	
66 2-Nitropropane	43	8.960	8.953	0.007	85	110599	200.0	196.9	
73 Dibromomethane	93	9.063	9.059	0.004	78	121700	100.0	102.1	
79 1,2-Dichloropropane	63	9.069	9.069	0.000	88	185601	100.0	98.8	
70 Trichloroethene	130	9.098	9.098	0.000	94	217339	100.0	103.6	
76 n-Propyl acetate	43	9.140	9.139	0.001	96	236703	100.0	103.5	
75 Dichlorobromomethane	83	9.143	9.146	-0.003	73	249005	100.0	103.2	
77 Methyl methacrylate	41	9.166	9.168	-0.002	87	310504	200.0	200.8	
78 1,4-Dioxane	58	9.188	9.194	-0.006	40	13589	2000.0	1914.8	
71 Methylcyclohexane	83	9.535	9.534	0.001	87	172737	100.0	101.0	
80 4-Methyl-2-pentanone (MIBK	43	9.685	9.685	0.000	94	322914	200.0	199.3	
48 Chloroform	83	12.580	12.579	0.001	53	236650	100.0	104.0	
* 85 Chlorobenzene-d5	82	11.742	11.745	-0.003	84	152459	50.0	50.0	
89 2-Chloroethyl vinyl ether	63	9.406	9.406	0.000	93	228188	200.0	198.9	
90 cis-1,3-Dichloropropene	75	9.637	9.640	-0.003	96	313356	100.0	100.8	
96 trans-1,3-Dichloropropene	75	9.997	9.996	0.001	93	268800	100.0	104.5	
100 1,1,2-Trichloroethane	97	10.170	10.169	0.001	93	170761	100.0	98.9	
$ 93 Toluene-d8 (Surr)	98	10.282	10.282	0.000	92	685513	100.0	101.7	
97 Ethyl methacrylate	69	10.305	10.311	-0.006	87	247126	100.0	102.9	
94 Toluene	92	10.350	10.352	-0.002	97	492644	100.0	100.6	
102 1,3-Dichloropropane	76	10.388	10.388	0.000	86	291229	100.0	96.6	
106 2-Hexanone	43	10.465	10.461	0.004	94	215637	200.0	201.4	
101 Chlorodibromomethane	129	10.696	10.696	0.000	89	217236	100.0	106.7	
103 n-Butyl acetate	43	10.741	10.741	0.000	99	241371	100.0	101.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 104 Xylenes, Total	106				0		200.0	209.3	
105 Ethylene Dibromide	107	10.943	10.949	-0.006	96	175521	100.0	99.9	
107 Tetrahydrothiophene	60	11.004	11.004	0.000	0	159056	100.0	100.7	
98 Tetrachloroethene	164	11.091	11.087	0.004	95	138367	100.0	100.3	
113 1-Chlorohexane	55	11.624	11.623	0.001	94	118937	100.0	106.0	
110 1,1,1,2-Tetrachloroethane	131	11.688	11.690	-0.002	92	214661	100.0	102.1	
109 Chlorobenzene	112	11.778	11.780	-0.002	97	554957	100.0	97.8	
108 Ethylbenzene	106	11.948	11.947	0.001	98	273093	100.0	101.1	
111 m-Xylene & p-Xylene	91	12.140	12.140	0.000	0	711259	100.0	104.1	
115 Amyl acetate (mixed isomer	43	12.371	12.371	0.000	92	287426	100.0	98.8	
114 Styrene	104	12.503	12.502	0.001	94	589365	100.0	103.3	
116 Cyclohexanone	55	12.544	12.544	0.000	89	201979	5000.0	4783.6	
112 o-Xylene	106	12.586	12.582	0.004	96	358864	100.0	105.2	
* 117 1,4-Dichlorobenzene-d4	152	14.300	14.306	-0.006	94	158833	50.0	50.0	
120 n-Butyl acrylate	55	12.134	12.130	0.004	98	773309	200.0	208.1	
119 Bromoform	173	12.339	12.339	0.000	94	128597	100.0	105.3	
124 1,1,2,2-Tetrachloroethane	83	12.580	12.579	0.001	64	236578	100.0	98.8	
129 trans-1,4-Dichloro-2-buten	53	12.721	12.717	0.004	82	59527	100.0	100.2	
128 1,2,3-Trichloropropane	110	12.731	12.733	-0.002	87	69740	100.0	100.1	
121 Isopropylbenzene	105	12.952	12.951	0.001	95	748163	100.0	101.4	
$ 122 4-Bromofluorobenzene	95	13.013	13.016	-0.003	89	226374	100.0	97.4	
125 Bromobenzene	156	13.250	13.250	0.000	89	234638	100.0	94.9	
123 N-Propylbenzene	120	13.395	13.394	0.001	98	216479	100.0	102.2	
134 Butyl Methacrylate	69	13.414	13.413	0.001	83	709319	200.0	212.9	
127 2-Chlorotoluene	126	13.517	13.519	-0.002	96	206326	100.0	100.6	
130 4-Chlorotoluene	91	13.587	13.590	-0.003	97	581842	100.0	100.4	
126 1,3,5-Trimethylbenzene	105	13.658	13.661	-0.003	96	601568	100.0	103.2	
131 tert-Butylbenzene	119	13.950	13.953	-0.003	92	477368	100.0	102.4	
133 1,2,4-Trimethylbenzene	105	14.049	14.052	-0.003	96	628595	100.0	104.3	
135 sec-Butylbenzene	105	14.165	14.164	0.001	94	627918	100.0	102.5	
143 Benzyl chloride	91	14.165	14.164	0.001	53	97022	100.0	103.2	
142 n-Butylbenzene	91	14.258	14.257	0.001	33	468763	100.0	98.4	
137 1,3-Dichlorobenzene	146	14.264	14.264	0.000	98	407252	100.0	101.8	
140 1,4-Dichlorobenzene	146	14.329	14.331	-0.002	83	446506	100.0	101.0	
136 4-Isopropyltoluene	119	14.329	14.331	-0.002	96	625690	100.0	103.8	
139 1,2,3-Trimethylbenzene	105	14.486	14.482	0.004	97	658086	100.0	101.6	
144 1,2-Dichlorobenzene	146	14.688	14.687	0.001	98	377970	100.0	98.8	
146 1,2-Dibromo-3-Chloropropan	157	15.166	15.165	0.001	89	37919	100.0	97.6	
149 1,2,4-Trichlorobenzene	180	16.032	16.029	0.003	94	166854	100.0	97.6	
147 1,3,5-Trichlorobenzene	180	16.642	16.645	-0.003	96	123671	100.0	101.5	
150 Naphthalene	128	16.950	16.956	-0.006	97	321902	100.0	103.6	
148 Hexachlorobutadiene	190	16.982	16.982	0.000	93	31904	100.0	104.9	
151 1,2,3-Trichlorobenzene	180	17.194	17.193	0.001	95	74326	100.0	105.8	
S 162 Trihalomethanes, Total	1				0			419.1	
S 159 1,3-Dichloropropene, Total	1				0			205.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

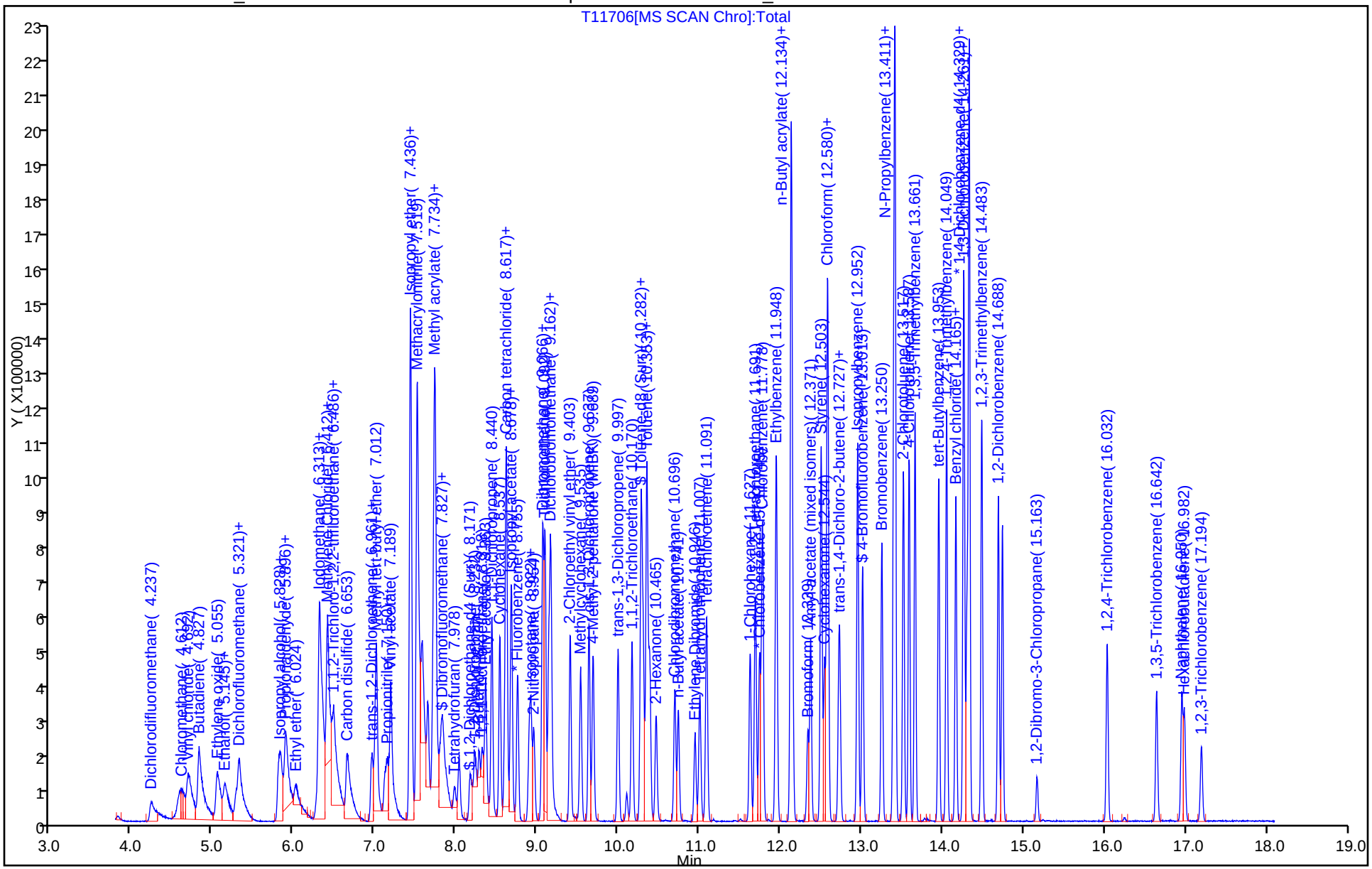
VOAIS250PPM_00046	Amount Added:	1.00	Units: uL
VOASTDGASPT_00164	Amount Added:	10.00	Units: uL
VOASTDPT2_00055	Amount Added:	10.00	Units: uL
6NRStd_00055	Amount Added:	10.00	Units: uL
EOxideStd_00070	Amount Added:	10.00	Units: uL
PropHydeSTDW_00051	Amount Added:	10.00	Units: uL

Report Date: 26-Apr-2016 18:22:37 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11706.D

Injection Date:	26-Apr-2016 16:10:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	IC			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

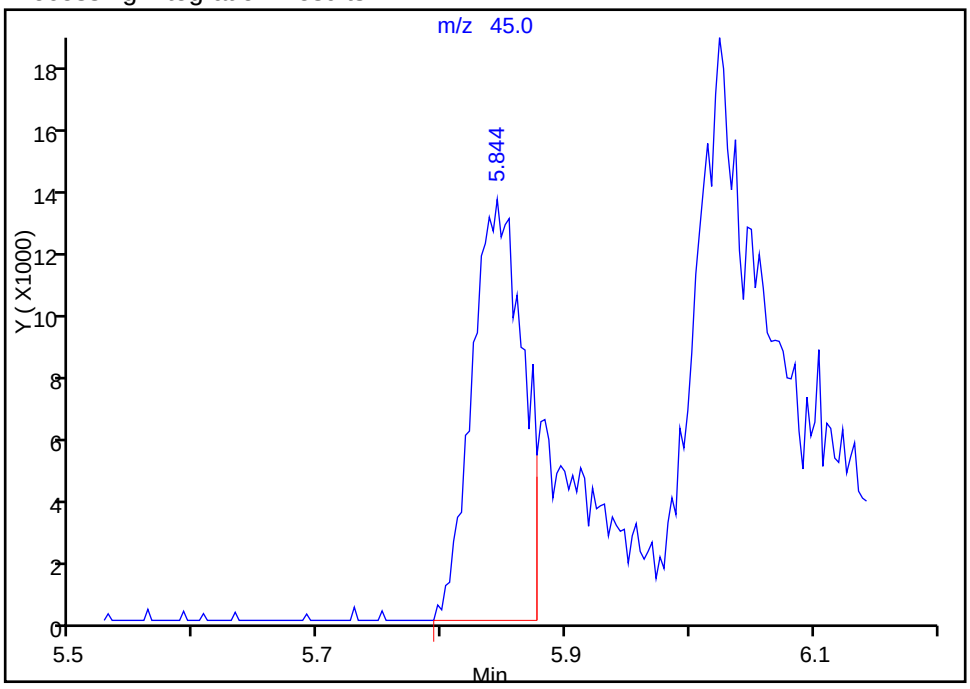
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11706.D
Injection Date: 26-Apr-2016 16:10:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

19 Isopropyl alcohol, CAS: 67-63-0

Signal: 1

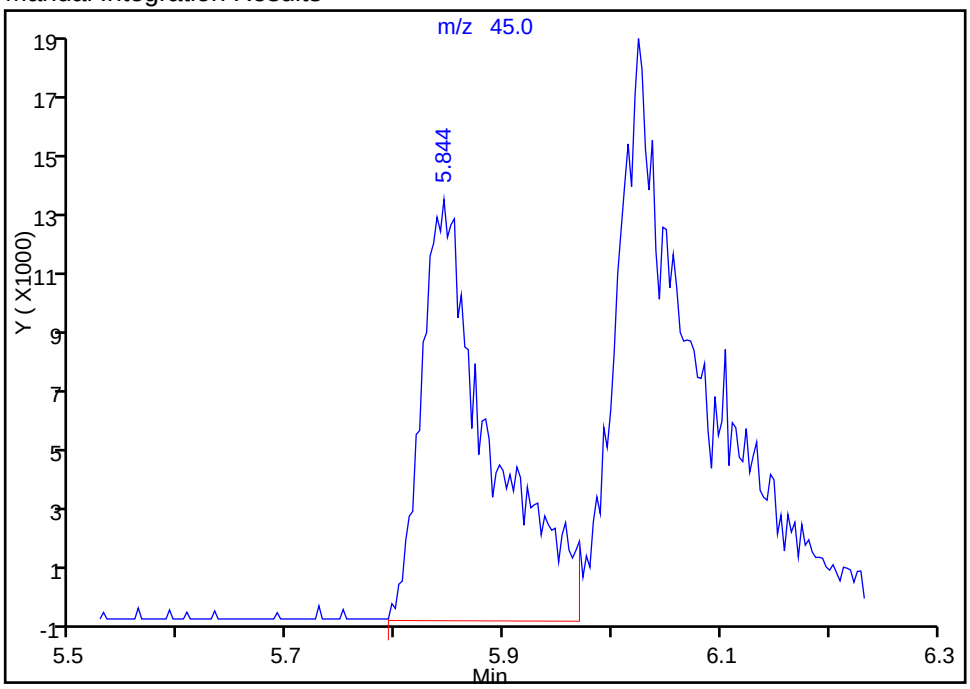
Processing Integration Results

RT: 5.84
Area: 38221
Amount: 941.6295
Amount Units: ug/l



Manual Integration Results

RT: 5.84
Area: 59662
Amount: 1016.1483
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 17:01:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 26-Apr-2016 16:36:30 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 600-0011772-009
Operator ID: DT Instrument ID: CHVOAMS10
Sublist: chrom-8260w5_10*sub11

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 26-Apr-2016 18:22:40 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK026

First Level Reviewer: tengd Date: 26-Apr-2016 17:04:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.758	8.757	0.001	99	401307	50.0	50.0	
2 Dichlorodifluoromethane	85	4.233	4.233	0.000	100	401247	200.0	192.7	
3 Chloromethane	50	4.580	4.612	-0.032	99	596886	200.0	175.5	
4 Vinyl chloride	62	4.692	4.702	-0.010	97	742201	200.0	210.9	
5 Butadiene	39	4.820	4.830	-0.010	90	499213	200.0	213.7	
10 Ethylene oxide	44	5.051	5.067	-0.016	100	920920	2000.0	2038.6	
8 Ethanol	45	5.087	5.106	-0.019	19	7346	NC	NC	
7 Bromomethane	94	5.144	5.154	-0.010	89	346868	200.0	203.5	
11 Chloroethane	64	5.286	5.286	0.000	97	247724	200.0	203.8	
13 Dichlorofluoromethane	67	5.324	5.327	-0.003	99	655681	200.0	199.9	
24 Acrolein	56	5.805	5.809	-0.004	62	218175	1000.0	1043.8	
16 Acetonitrile	41	5.812	5.815	-0.003	98	423541	2000.0	2035.4	
19 Isopropyl alcohol	45	5.844	5.837	0.007	96	132090	2000.0	2016.7	M
12 Trichlorofluoromethane	101	5.831	5.841	-0.010	99	561805	200.0	217.8	
18 Propionaldehyde	58	5.892	5.902	-0.010	98	776454	2011.0	2081.0	
27 Acetone	43	5.908	5.918	-0.010	94	212241	400.0	398.5	
15 Ethyl ether	59	6.024	6.033	-0.009	87	305932	200.0	206.0	
31 2-Methyl-2-propanol	59	6.280	6.271	0.009	99	228935	2000.0	2286.1	
20 1,1-Dichloroethene	96	6.303	6.306	-0.003	66	366422	200.0	230.8	
37 Acrylonitrile	52	6.319	6.312	0.007	99	1168829	2000.0	2116.9	
23 Iodomethane	142	6.351	6.351	0.000	100	523160	200.0	216.1	
26 Methylene Chloride	84	6.409	6.409	0.000	56	432041	200.0	209.8	
28 Methyl acetate	43	6.415	6.418	-0.003	96	1344076	1000.0	1074.1	
21 1,1,2-Trichloro-1,2,2-trif	151	6.460	6.460	0.000	93	236091	200.0	204.2	
25 3-Chloro-1-propene	76	6.486	6.495	-0.009	89	192456	200.0	209.0	
22 Carbon disulfide	76	6.649	6.656	-0.007	100	1208442	200.0	208.7	
29 trans-1,2-Dichloroethene	96	6.957	6.961	-0.004	95	408139	200.0	208.2	
44 cis-1,2-Dichloroethene	96	6.957	6.961	-0.004	79	408139	200.0	201.5	
30 Methyl tert-butyl ether	73	7.012	7.012	0.000	93	1046718	200.0	193.1	
35 Propionitrile	54	7.124	7.124	0.000	97	455605	2000.0	2081.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
34 1,1-Dichloroethane	63	7.147	7.153	-0.006	96	659011	200.0	200.7	
40 Vinyl acetate	43	7.195	7.192	0.003	94	1160299	400.0	419.9	
36 2-Chloro-1,3-butadiene	53	7.432	7.432	0.000	93	627441	200.0	228.7	
56 2-Butanone (MEK)	72	7.436	7.435	0.001	79	109106	400.0	496.8	
58 Hexane	57	7.439	7.439	0.000	62	391302	200.0	242.8	
32 Isopropyl ether	45	7.439	7.439	0.000	82	1325885	200.0	216.6	
61 Methacrylonitrile	66	7.519	7.519	0.000	89	632579	2000.0	2007.7	
S 43 1,2-Dichloroethene, Total	96				0		400.0	409.7	
47 Chlorobromomethane	128	7.711	7.711	0.000	91	241974	200.0	219.5	
45 Methyl acrylate	55	7.724	7.721	0.003	57	792123	400.0	430.7	
41 Tert-butyl ethyl ether	59	7.737	7.734	0.003	95	1440518	200.0	218.4	
39 Isobutyl alcohol	43	7.744	7.744	0.000	89	496326	5000.0	5506.6	
46 2,2-Dichloropropane	77	7.817	7.821	-0.004	56	492308	200.0	234.7	
$ 52 Dibromofluoromethane	113	7.837	7.833	0.004	91	400599	200.0	208.8	
53 Tetrahydrofuran	42	7.978	7.981	-0.003	83	190428	400.0	379.0	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.174	8.180	-0.006	0	435399	200.0	204.0	
65 1,2-Dichloroethane	62	8.231	8.228	0.003	96	552022	200.0	199.7	
38 n-Butanol	56	8.283	8.279	0.004	85	168118	5000.0	5296.3	
55 1,1,1-Trichloroethane	97	8.324	8.324	0.000	82	559460	200.0	212.9	
33 Ethyl acetate	43	8.363	8.366	-0.003	92	655293	400.0	394.3	
57 1,1-Dichloropropene	75	8.440	8.443	-0.003	97	531707	200.0	211.1	
69 Cyclohexane	84	8.539	8.539	0.000	88	431995	200.0	200.3	
54 Carbon tetrachloride	119	8.604	8.597	0.007	88	454545	200.0	203.0	
63 Benzene	78	8.616	8.616	0.000	97	1649723	200.0	208.3	
62 Tert-amyl methyl ether	73	8.681	8.680	0.001	98	1189621	200.0	207.9	
60 n-Heptane	43	8.681	8.680	0.001	47	338486	200.0	201.8	
68 Isopropyl acetate	43	8.681	8.680	0.001	52	338486	200.0	201.8	
59 Isooctane	57	8.902	8.905	-0.003	94	626343	200.0	204.1	
72 Ethyl acrylate	55	8.924	8.924	0.000	97	549999	200.0	211.0	
66 2-Nitropropane	43	8.953	8.953	0.000	88	253716	400.0	413.6	
73 Dibromomethane	93	9.066	9.059	0.007	40	247718	200.0	190.6	
79 1,2-Dichloropropane	63	9.069	9.069	0.000	87	433116	200.0	211.3	
70 Trichloroethene	130	9.098	9.098	0.000	94	503085	200.0	219.8	
76 n-Propyl acetate	43	9.139	9.139	0.000	96	533847	200.0	214.1	
75 Dichlorobromomethane	83	9.146	9.146	0.000	85	560272	200.0	212.8	
77 Methyl methacrylate	41	9.165	9.168	-0.003	86	709051	400.0	420.3	
78 1,4-Dioxane	58	9.194	9.194	0.000	87	30316	4000.0	3915.9	
71 Methylcyclohexane	83	9.534	9.534	0.000	87	393627	200.0	211.0	
80 4-Methyl-2-pentanone (MIBK	43	9.685	9.685	0.000	94	713225	400.0	403.6	
48 Chloroform	83	12.579	12.579	0.000	87	553645	200.0	223.0	
* 85 Chlorobenzene-d5	82	11.742	11.745	-0.003	83	164847	50.0	50.0	
89 2-Chloroethyl vinyl ether	63	9.406	9.406	0.000	93	520903	400.0	419.9	
90 cis-1,3-Dichloropropene	75	9.637	9.640	-0.003	96	700367	200.0	208.3	
96 trans-1,3-Dichloropropene	75	9.996	9.996	0.000	92	601516	200.0	216.4	
100 1,1,2-Trichloroethane	97	10.169	10.169	0.000	91	374002	200.0	200.4	
$ 93 Toluene-d8 (Surr)	98	10.282	10.282	0.000	92	1542521	200.0	211.6	
97 Ethyl methacrylate	69	10.307	10.311	-0.004	87	560406	200.0	215.8	
94 Toluene	92	10.349	10.352	-0.003	97	1126944	200.0	212.8	
102 1,3-Dichloropropane	76	10.388	10.388	0.000	89	652913	200.0	200.3	
106 2-Hexanone	43	10.465	10.461	0.004	94	475952	400.0	411.2	
101 Chlorodibromomethane	129	10.699	10.696	0.003	89	475604	200.0	216.0	
103 n-Butyl acetate	43	10.741	10.741	0.000	98	516021	200.0	200.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 104 Xylenes, Total	106				0		400.0	448.2	
105 Ethylene Dibromide	107	10.943	10.949	-0.006	97	385876	200.0	203.2	
107 Tetrahydrothiophene	60	11.004	11.004	0.000	0	347986	200.0	202.4	
98 Tetrachloroethene	164	11.090	11.087	0.003	95	311980	200.0	209.2	
113 1-Chlorohexane	55	11.626	11.623	0.003	93	268706	200.0	221.5	
110 1,1,1,2-Tetrachloroethane	131	11.687	11.690	-0.003	94	478406	200.0	210.4	
109 Chlorobenzene	112	11.777	11.780	-0.003	97	1243429	200.0	202.6	
108 Ethylbenzene	106	11.947	11.947	0.000	98	621545	200.0	212.9	
111 m-Xylene & p-Xylene	91	12.136	12.140	-0.004	0	1670425	200.0	226.1	
115 Amyl acetate (mixed isomer	43	12.371	12.371	0.000	96	645115	200.0	205.1	
114 Styrene	104	12.502	12.502	0.000	94	1325151	200.0	214.9	
116 Cyclohexanone	55	12.544	12.544	0.000	89	442446	10000	9691.2	
112 o-Xylene	106	12.582	12.582	0.000	96	818767	200.0	222.1	
* 117 1,4-Dichlorobenzene-d4	152	14.302	14.306	-0.004	86	179620	50.0	50.0	
120 n-Butyl acrylate	55	12.130	12.130	0.000	98	1836707	400.0	437.1	
119 Bromoform	173	12.335	12.339	-0.004	94	294512	200.0	213.2	
124 1,1,2,2-Tetrachloroethane	83	12.579	12.579	0.000	93	553676	200.0	204.4	
129 trans-1,4-Dichloro-2-buten	53	12.717	12.717	0.000	87	135745	200.0	202.1	
128 1,2,3-Trichloropropane	110	12.730	12.733	-0.003	87	148699	200.0	188.7	
121 Isopropylbenzene	105	12.951	12.951	0.000	95	1686382	200.0	202.0	
$ 122 4-Bromofluorobenzene	95	13.016	13.016	0.000	90	521490	200.0	198.4	
125 Bromobenzene	156	13.250	13.250	0.000	90	524867	200.0	187.8	
123 N-Propylbenzene	120	13.397	13.394	0.003	98	518696	200.0	216.6	
134 Butyl Methacrylate	69	13.414	13.413	0.001	83	1696835	400.0	450.3	
127 2-Chlorotoluene	126	13.516	13.519	-0.003	97	466954	200.0	201.4	
130 4-Chlorotoluene	91	13.587	13.590	-0.003	97	1328386	200.0	202.8	
126 1,3,5-Trimethylbenzene	105	13.661	13.661	0.000	96	1349510	200.0	204.7	
131 tert-Butylbenzene	119	13.953	13.953	0.000	92	1079435	200.0	204.8	
133 1,2,4-Trimethylbenzene	105	14.049	14.052	-0.003	96	1402735	200.0	205.8	
135 sec-Butylbenzene	105	14.164	14.164	0.000	94	1398683	200.0	202.0	
143 Benzyl chloride	91	14.161	14.164	-0.003	90	220495	200.0	207.5	
142 n-Butylbenzene	91	14.257	14.257	0.000	39	1134233	200.0	207.5	
137 1,3-Dichlorobenzene	146	14.264	14.264	0.000	97	946443	200.0	209.3	
140 1,4-Dichlorobenzene	146	14.328	14.331	-0.003	84	1054432	200.0	210.9	
136 4-Isopropyltoluene	119	14.328	14.331	-0.003	96	1505148	200.0	220.9	
139 1,2,3-Trimethylbenzene	105	14.482	14.482	0.000	97	1481105	200.0	202.2	
144 1,2-Dichlorobenzene	146	14.687	14.687	0.000	98	858612	200.0	198.4	
146 1,2-Dibromo-3-Chloropropan	157	15.162	15.165	-0.003	89	83335	200.0	189.8	
149 1,2,4-Trichlorobenzene	180	16.032	16.029	0.003	91	368072	200.0	190.3	
147 1,3,5-Trichlorobenzene	180	16.642	16.645	-0.003	97	272174	200.0	199.5	
150 Naphthalene	128	16.950	16.956	-0.006	97	699523	200.0	200.8	
148 Hexachlorobutadiene	190	16.985	16.982	0.003	94	67968	200.0	197.7	
151 1,2,3-Trichlorobenzene	180	17.190	17.193	-0.003	95	164574	200.0	210.7	
S 162 Trihalomethanes, Total	1				0			865.0	
S 159 1,3-Dichloropropene, Total	1				0			424.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

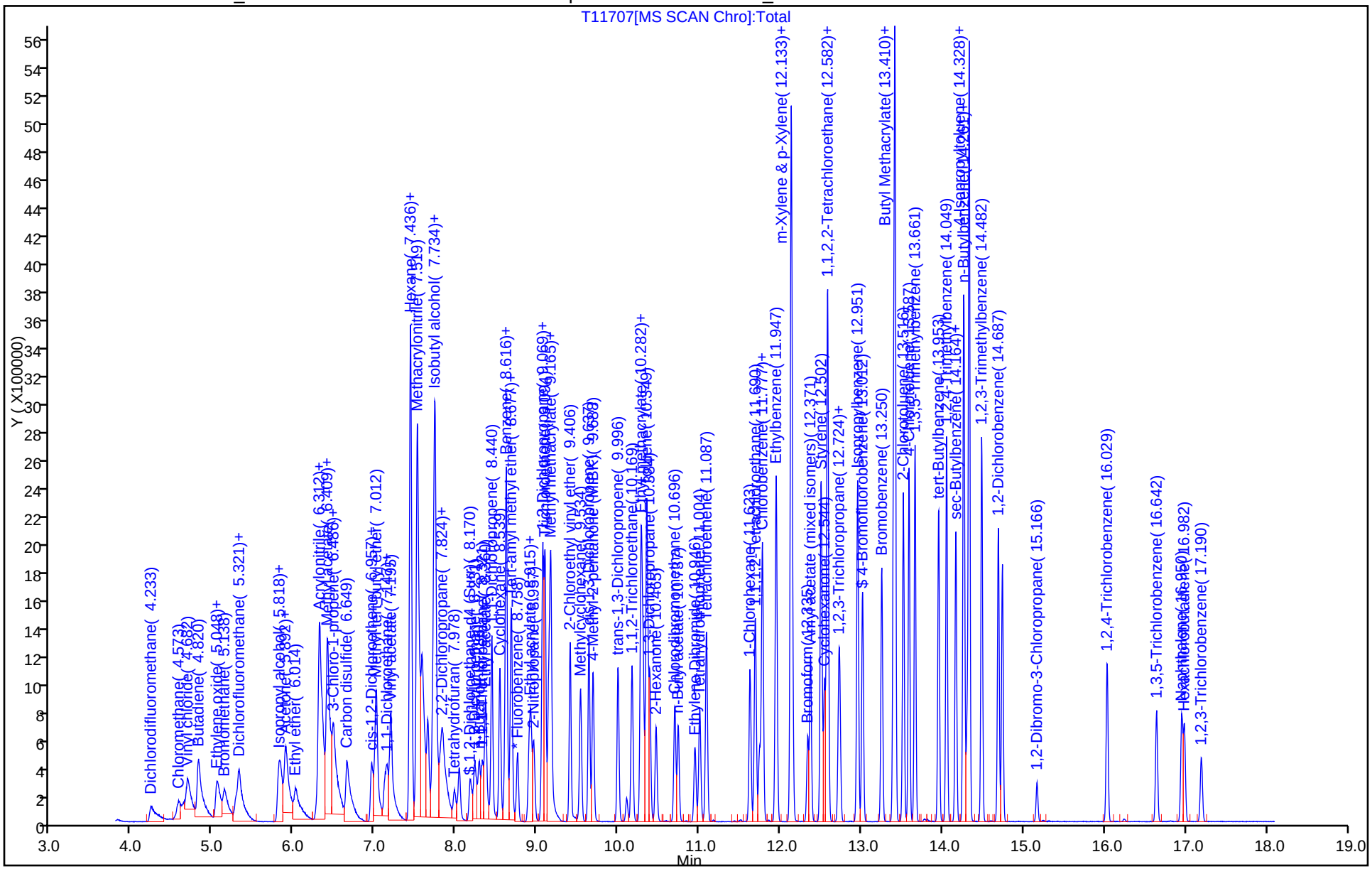
VOAIS250PPM_00046	Amount Added:	1.00	Units: uL
VOASTDGASPT_00164	Amount Added:	20.00	Units: uL
VOASTDPT2_00055	Amount Added:	20.00	Units: uL
6NRStd_00055	Amount Added:	20.00	Units: uL
EOxideStd_00070	Amount Added:	20.00	Units: uL
PropHydeSTDW_00051	Amount Added:	20.00	Units: uL

Report Date: 26-Apr-2016 18:22:41 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Injection Date:	26-Apr-2016 16:36:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	IC			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

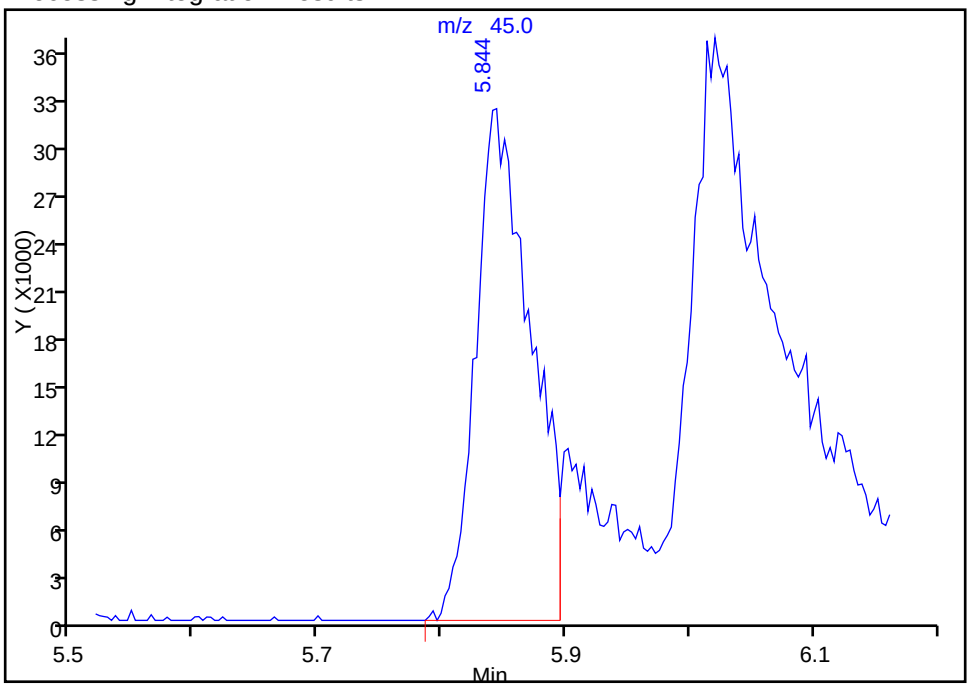
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D
Injection Date: 26-Apr-2016 16:36:30 Instrument ID: CHVOAMS10
Lims ID: IC
Client ID:
Operator ID: DT ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

19 Isopropyl alcohol, CAS: 67-63-0

Signal: 1

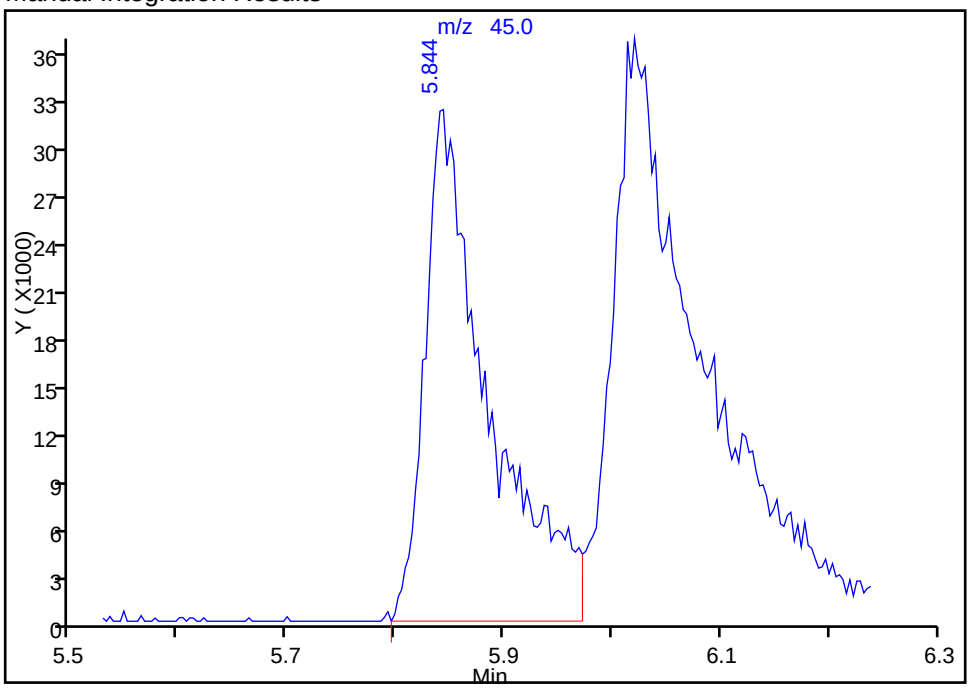
Processing Integration Results

RT: 5.84
Area: 100493
Amount: 1741.5257
Amount Units: ug/l



Manual Integration Results

RT: 5.84
Area: 132090
Amount: 2016.6665
Amount Units: ug/l



Reviewer: tengd, 26-Apr-2016 17:07:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188369/2 Calibration Date: 05/12/2016 08:48

Instrument ID: CHVOAMS09 Calib Start Date: 05/06/2016 10:15

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 05/06/2016 12:17

Lab File ID: k13301.d Conc. Units: ug/Kg Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4845	0.4278		44.2	50.0	-11.7	35.0
Chloromethane	Ave	0.5124	0.4484	0.1000	43.8	50.0	-12.5	35.0
Vinyl chloride	Ave	0.4270	0.3705		43.4	50.0	-13.2	20.0
Butadiene	Ave	0.3589	0.3305		46.1	50.0	-7.9	35.0
Ethylene oxide	Lin2		0.0544		622	500	24.3	35.0
Bromomethane	Ave	0.3732	0.3051		40.9	50.0	-18.2	35.0
Chloroethane	Ave	0.2391	0.2190		45.8	50.0	-8.4	35.0
Acrolein	Lin		0.0024		425	250	70.0*	50.0
Acetonitrile	Ave	0.0411	0.0483		614	500	17.5	50.0
Trichlorofluoromethane	Ave	0.5878	0.5462		46.5	50.0	-7.1	35.0
Isopropyl alcohol	Ave	0.0227	0.0298		746	500	31.4	50.0
Acetone	Ave	0.0929	0.1026		107	100	10.5	50.0
Ethyl ether	Ave	0.2898	0.2955		51.0	50.0	2.0	35.0
2-Methyl-2-propanol	Ave	0.0463	0.0565		679	500	22.0	35.0
1,1-Dichloroethene	Ave	0.3706	0.3709		50.0	50.0	0.0	20.0
Acrylonitrile	Ave	0.0873	0.1021		578	500	16.9	50.0
Iodomethane	Ave	0.8846	0.8854		50.1	50.0	0.1	35.0
Methylene Chloride	Lin2		0.4713		51.6	50.0	3.3	50.0
Methyl acetate	Ave	0.2665	0.2949		277	250	10.7	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3319	0.3228		48.6	50.0	-2.7	35.0
3-Chloro-1-propene	Ave	0.1764	0.1818		51.5	50.0	3.0	35.0
Carbon disulfide	Ave	1.294	1.312		50.7	50.0	1.4	35.0
trans-1,2-Dichloroethene	Ave	0.3711	0.3529		47.5	50.0	-4.9	35.0
Methyl tert-butyl ether	Ave	0.8989	0.9094		50.6	50.0	1.2	35.0
Propionitrile	Ave	0.0482	0.0508		520	500	5.4	35.0
1,1-Dichloroethane	Ave	0.5922	0.5704	0.1000	48.2	50.0	-3.7	35.0
Vinyl acetate	Ave	0.5596	0.6022		108	100	7.6	50.0
2-Chloro-1,3-butadiene	Ave	0.5201	0.4762		45.8	50.0	-8.5	35.0
Hexane	Ave	0.5213	0.4665		44.7	50.0	-10.5	35.0
2-Butanone (MEK)	Ave	0.0350	0.0378		105	100	7.9	50.0
Isopropyl ether	Ave	1.204	1.167		48.5	50.0	-3.1	35.0
Methacrylonitrile	Ave	0.0405	0.0415		512	500	2.5	35.0
cis-1,2-Dichloroethene	Ave	0.4084	0.3882		47.5	50.0	-5.0	35.0
Ethyl acetate	Ave	0.3343	0.3127		93.5	100	-6.5	35.0
Bromochloromethane	Ave	0.2542	0.2310		45.4	50.0	-9.1	35.0
Chloroform	Ave	0.6417	0.5798		45.2	50.0	-9.7	20.0
Isobutyl alcohol	Ave	0.0263	0.0237		1124	1250	-10.1	50.0
2,2-Dichloropropane	Ave	0.3821	0.3401		44.5	50.0	-11.0	35.0
Tetrahydrofuran	Ave	0.1314	0.1157		88.0	100	-11.9	35.0
1,2-Dichloroethane	Ave	0.4276	0.4353		50.9	50.0	1.8	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188369/2 Calibration Date: 05/12/2016 08:48

Instrument ID: CHVOAMS09 Calib Start Date: 05/06/2016 10:15

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 05/06/2016 12:17

Lab File ID: k13301.d Conc. Units: ug/Kg Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
n-Butanol	Ave	0.0114	0.0134		1567	1250	17.3	35.0
1,1,1-Trichloroethane	Ave	0.5503	0.5345		48.6	50.0	-2.9	35.0
1,1-Dichloropropene	Ave	0.4289	0.4071		47.5	50.0	-5.1	35.0
Cyclohexane	Ave	0.4292	0.3964		46.2	50.0	-7.6	35.0
Carbon tetrachloride	Ave	0.5330	0.5345		50.1	50.0	0.3	35.0
Benzene	Ave	1.288	1.314		51.0	50.0	2.0	35.0
tert-Amyl Methyl Ether (TAME)	Ave	0.8901	0.9577		53.8	50.0	7.6	35.0
Isooctane	Ave	1.295	1.305		50.4	50.0	0.8	35.0
Ethyl acrylate	Ave	0.5332	0.5837		54.7	50.0	9.5	35.0
n-Heptane	Ave	0.6004	0.6125		51.0	50.0	2.0	35.0
Dibromomethane	Ave	0.2484	0.2663		53.6	50.0	7.2	35.0
1,2-Dichloropropane	Ave	0.3345	0.3572		53.4	50.0	6.8	20.0
2-Nitropropane	Ave	0.0882	0.0970		110	100	10.0	35.0
Trichloroethene	Ave	0.5020	0.4952		49.3	50.0	-1.4	35.0
Bromodichloromethane	Ave	0.5002	0.5246		52.4	50.0	4.9	35.0
Methyl methacrylate	Ave	0.3050	0.3372		111	100	10.5	50.0
1,4-Dioxane	Qua		0.0019		1189	1000	18.9	50.0
2-Chloroethyl vinyl ether	Ave	0.5293	0.5467		103	100	3.3	35.0
Methylcyclohexane	Ave	0.5682	0.5606		49.3	50.0	-1.3	35.0
cis-1,3-Dichloropropene	Ave	1.428	1.474		51.6	50.0	3.2	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3845	0.4096		107	100	6.5	50.0
trans-1,3-Dichloropropene	Ave	1.270	1.316		51.8	50.0	3.6	35.0
1,1,2-Trichloroethane	Ave	0.9090	0.9302		51.2	50.0	2.3	35.0
Ethyl methacrylate	Ave	1.033	1.088		52.7	50.0	5.4	50.0
Toluene	Ave	2.297	2.241		48.8	50.0	-2.4	20.0
1,3-Dichloropropane	Ave	1.303	1.338		51.4	50.0	2.7	35.0
2-Hexanone	Ave	0.7340	0.7655		104	100	4.3	50.0
Dibromochloromethane	Ave	1.330	1.377		51.8	50.0	3.5	35.0
n-Butyl acetate	Ave	1.653	1.733		52.4	50.0	4.9	35.0
1,2-Dibromoethane	Ave	1.037	1.069		51.5	50.0	3.1	35.0
Tetrachloroethene	Ave	0.9602	0.9162		47.7	50.0	-4.6	35.0
1-Chlorohexane	Ave	0.8383	0.8178		48.8	50.0	-2.4	35.0
1,1,1,2-Tetrachloroethane	Ave	1.221	1.255		51.4	50.0	2.8	35.0
Chlorobenzene	Ave	3.014	3.001	0.3000	49.8	50.0	-0.4	35.0
Ethylbenzene	Ave	1.490	1.456		48.8	50.0	-2.3	20.0
m-Xylene & p-Xylene	Ave	3.426	3.420		49.9	50.0	-0.2	35.0
Bromoform	Ave	0.5985	0.6273	0.1000	52.4	50.0	4.8	35.0
Styrene	Ave	2.982	3.035		50.9	50.0	1.8	35.0
Cyclohexanone	Ave	0.0432	0.0435		2517	2500	0.7	35.0
1,1,2,2-Tetrachloroethane	Ave	0.9792	1.045	0.3000	53.4	50.0	6.7	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188369/2 Calibration Date: 05/12/2016 08:48

Instrument ID: CHVOAMS09 Calib Start Date: 05/06/2016 10:15

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 05/06/2016 12:17

Lab File ID: k13301.d Conc. Units: ug/Kg Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
o-Xylene	Ave	1.909	1.891		49.5	50.0	-1.0	35.0
trans-1,4-Dichloro-2-butene	Ave	0.2326	0.2464		53.0	50.0	5.9	50.0
1,2,3-Trichloropropane	Ave	0.2658	0.2729		51.3	50.0	2.7	35.0
Isopropylbenzene	Ave	3.475	3.494		50.3	50.0	0.5	35.0
Bromobenzene	Ave	1.076	1.015		47.2	50.0	-5.7	35.0
N-Propylbenzene	Ave	1.021	0.9853		48.3	50.0	-3.5	35.0
2-Chlorotoluene	Ave	0.9921	0.9298		46.9	50.0	-6.3	35.0
4-Chlorotoluene	Ave	2.532	2.455		48.5	50.0	-3.0	35.0
1,3,5-Trimethylbenzene	Ave	3.016	2.954		49.0	50.0	-2.1	35.0
tert-Butylbenzene	Ave	2.745	2.733		49.8	50.0	-0.4	35.0
1,2,4-Trimethylbenzene	Ave	3.227	3.246		50.3	50.0	0.6	35.0
sec-Butylbenzene	Ave	4.110	4.110		50.0	50.0	0.0	35.0
Benzyl chloride	Ave	1.775	1.967		55.4	50.0	10.8	35.0
1,3-Dichlorobenzene	Ave	2.148	2.151		50.1	50.0	0.1	35.0
1,4-Dichlorobenzene	Ave	2.182	2.221		50.9	50.0	1.8	35.0
4-Isopropyltoluene	Ave	3.709	3.717		50.1	50.0	0.2	35.0
1,2,3-Trimethylbenzene	Ave	3.351	3.444		51.4	50.0	2.8	35.0
1,2-Dichlorobenzene	Ave	2.143	2.177		50.8	50.0	1.5	35.0
n-Butylbenzene	Ave	3.234	3.228		49.9	50.0	-0.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.2845	0.2909		51.1	50.0	2.2	35.0
1,3,5-Trichlorobenzene	Ave	1.767	1.694		47.9	50.0	-4.1	35.0
1,2,4-Trichlorobenzene	Ave	1.729	1.619		46.8	50.0	-6.3	35.0
Naphthalene	Ave	4.306	3.917		45.5	50.0	-9.0	35.0
Hexachlorobutadiene	Ave	0.3898	0.3536		45.4	50.0	-9.3	35.0
1,2,3-Trichlorobenzene	Ave	1.651	1.571		47.6	50.0	-4.9	35.0
Dibromofluoromethane	Ave	0.3993	0.3713		46.5	50.0	-7.0	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3508	0.3497		49.8	50.0	-0.3	35.0
Toluene-d8 (Surr)	Ave	3.326	3.327		50.0	50.0	0.0	35.0
4-Bromofluorobenzene	Ave	0.9727	1.005		51.7	50.0	3.3	35.0

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13301.d
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 12-May-2016 08:48:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ccvis
Operator ID: ws Instrument ID: CHVOAMS09
Sublist: chrom-8260s_9*sub20

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 12-May-2016 12:21:19 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: shenw Date: 12-May-2016 09:50:15

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.454	8.454	0.000	100	370477	50.0	50.0	
2 Dichlorodifluoromethane	85	3.894	3.894	0.000	100	158503	50.0	44.2	
3 Chloromethane	50	4.132	4.132	0.000	100	166138	50.0	43.8	
4 Vinyl chloride	62	4.357	4.357	0.000	97	137253	50.0	43.4	
5 Butadiene	39	4.479	4.479	0.000	97	122445	50.0	46.0	
6 Ethylene oxide	44	4.699	4.699	0.000	99	201483	500.0	621.5	
7 Bromomethane	94	4.802	4.802	0.000	91	113043	50.0	40.9	
8 Chloroethane	64	4.943	4.943	0.000	98	81121	50.0	45.8	
10 Dichlorofluoromethane	67	4.979	4.979	0.000	97	219367	50.0	46.2	
9 Ethanol	45	5.150	5.150	0.000	17	1064	NC	NC	
13 Acrolein	56	5.461	5.461	0.000	30	4345	250.0	425.0	
14 Acetonitrile	41	5.467	5.467	0.000	99	178851	500.0	614.4	
15 Trichlorofluoromethane	101	5.485	5.485	0.000	99	202342	50.0	46.5	
16 Isopropyl alcohol	45	5.504	5.504	0.000	99	110493	500.0	746.0	
18 Acetone	43	5.571	5.571	0.000	99	76052	100.0	107.4	
19 Ethyl ether	59	5.674	5.674	0.000	97	109457	50.0	51.0	
21 2-Methyl-2-propanol	59	5.949	5.949	0.000	99	209213	500.0	679.2	
22 1,1-Dichloroethene	96	5.961	5.961	0.000	97	137406	50.0	50.0	
23 Acrylonitrile	52	5.979	5.979	0.000	99	378171	500.0	577.6	
24 Iodomethane	142	6.010	6.010	0.000	99	328028	50.0	50.0	
25 Methylene Chloride	84	6.070	6.070	0.000	95	174621	50.0	51.6	
26 Methyl acetate	43	6.089	6.089	0.000	100	546306	250.0	276.7	
27 1,1,2-Trichloro-1,2,2-trif	151	6.119	6.119	0.000	90	119594	50.0	48.6	
28 3-Chloro-1-propene	76	6.150	6.150	0.000	92	67354	50.0	51.5	
29 Carbon disulfide	76	6.308	6.308	0.000	99	486090	50.0	50.7	
30 trans-1,2-Dichloroethene	96	6.625	6.625	0.000	98	130729	50.0	47.5	
31 Methyl tert-butyl ether	73	6.692	6.692	0.000	97	336920	50.0	50.6	
32 Propionitrile	54	6.802	6.802	0.000	99	188087	500.0	520.0	
33 1,1-Dichloroethane	63	6.820	6.820	0.000	96	211329	50.0	48.2	
34 Vinyl acetate	43	6.881	6.881	0.000	97	446187	100.0	107.6	
35 2-Chloro-1,3-butadiene	53	7.107	7.107	0.000	91	176402	50.0	45.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 Hexane	57	7.119	7.119	0.000	88	172839	50.0	44.7	
38 2-Butanone (MEK)	72	7.125	7.125	0.000	92	27990	100.0	104.8	
37 Isopropyl ether	45	7.125	7.125	0.000	93	432243	50.0	48.5	
39 Methacrylonitrile	66	7.204	7.204	0.000	95	153808	500.0	512.4	
40 cis-1,2-Dichloroethene	96	7.265	7.265	0.000	77	143803	50.0	47.5	
41 Ethyl acetate	43	7.357	7.357	0.000	99	231668	100.0	93.5	
42 Chlorobromomethane	128	7.393	7.393	0.000	87	85565	50.0	45.4	
44 Chloroform	83	7.424	7.424	0.000	92	214789	50.0	45.2	
45 Tert-butyl ethyl ether	59	7.430	7.430	0.000	97	358756	50.0	46.1	
46 Isobutyl alcohol	43	7.448	7.448	0.000	96	219149	1250.0	1123.8	
47 2,2-Dichloropropane	77	7.485	7.485	0.000	89	125998	50.0	44.5	
$ 48 Dibromofluoromethane	113	7.515	7.515	0.000	93	137571	50.0	46.5	
S 50 1,2-Dichloroethene, Total	96				0		100.0	95.1	
51 Tetrahydrofuran	42	7.674	7.674	0.000	91	85708	100.0	87.9	
$ 55 1,2-Dichloroethane-d4 (Sur	65	7.863	7.863	0.000	0	129543	50.0	49.8	
56 1,2-Dichloroethane	62	7.924	7.924	0.000	97	161284	50.0	50.9	
57 n-Butanol	56	7.997	7.997	0.000	90	123708	1250.0	1567.4	
58 1,1,1-Trichloroethane	97	8.003	8.003	0.000	97	198030	50.0	48.6	
60 1,1-Dichloropropene	75	8.137	8.137	0.000	93	150824	50.0	47.5	
61 Cyclohexane	84	8.235	8.235	0.000	93	146865	50.0	46.2	
62 Carbon tetrachloride	119	8.290	8.290	0.000	96	198027	50.0	50.1	
63 Benzene	78	8.314	8.314	0.000	97	486634	50.0	51.0	
64 Tert-amyl methyl ether	73	8.393	8.393	0.000	97	354816	50.0	53.8	
66 Isooctane	57	8.607	8.607	0.000	96	483647	50.0	50.4	
67 Ethyl acrylate	55	8.643	8.643	0.000	96	216261	50.0	54.7	
68 n-Heptane	43	8.668	8.668	0.000	97	226923	50.0	51.0	
69 Dibromomethane	93	8.747	8.747	0.000	91	98674	50.0	53.6	
70 1,2-Dichloropropane	63	8.765	8.765	0.000	93	132339	50.0	53.4	
71 2-Nitropropane	43	8.765	8.765	0.000	77	71901	100.0	110.0	
72 Trichloroethene	130	8.796	8.796	0.000	93	183469	50.0	49.3	
73 Dichlorobromomethane	83	8.832	8.832	0.000	99	194344	50.0	52.4	
75 Methyl methacrylate	41	8.881	8.881	0.000	96	249812	100.0	110.5	
76 1,4-Dioxane	58	8.899	8.899	0.000	94	14049	1000.0	1189.0	
78 Methylcyclohexane	83	9.222	9.222	0.000	92	207678	50.0	49.3	
79 4-Methyl-2-pentanone (MIBK	43	9.393	9.393	0.000	97	303526	100.0	106.5	
* 80 Chlorobenzene-d5	82	11.411	11.411	0.000	82	142617	50.0	50.0	
84 2-Chloroethyl vinyl ether	63	9.113	9.113	0.000	93	155944	100.0	103.3	
85 cis-1,3-Dichloropropene	75	9.332	9.332	0.000	94	210257	50.0	51.6	
86 trans-1,3-Dichloropropene	75	9.686	9.686	0.000	93	187654	50.0	51.8	
89 1,1,2-Trichloroethane	97	9.850	9.850	0.000	88	132666	50.0	51.2	
$ 90 Toluene-d8 (Surr)	98	9.954	9.954	0.000	93	474447	50.0	50.0	
91 Ethyl methacrylate	69	10.003	10.003	0.000	92	155171	50.0	52.7	
92 Toluene	92	10.021	10.021	0.000	98	319644	50.0	48.8	
93 1,3-Dichloropropane	76	10.064	10.064	0.000	93	190874	50.0	51.4	
95 2-Hexanone	43	10.155	10.155	0.000	99	218346	100.0	104.3	
96 Chlorodibromomethane	129	10.356	10.356	0.000	89	196365	50.0	51.7	
98 n-Butyl acetate	43	10.429	10.429	0.000	98	247196	50.0	52.4	
99 Ethylene Dibromide	107	10.606	10.606	0.000	98	152475	50.0	51.5	
100 Tetrachloroethene	164	10.759	10.759	0.000	96	130662	50.0	47.7	
S 101 Xylenes, Total	106				0		100.0	99.4	
103 1-Chlorohexane	55	11.313	11.313	0.000	97	116633	50.0	48.8	
104 1,1,1,2-Tetrachloroethane	131	11.362	11.362	0.000	93	178929	50.0	51.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 Chlorobenzene	112	11.447	11.447	0.000	98	427972	50.0	49.8	
106 Ethylbenzene	106	11.630	11.630	0.000	98	207598	50.0	48.8	
107 m-Xylene & p-Xylene	91	11.819	11.819	0.000	0	487773	50.0	49.9	
108 Styrene	104	12.179	12.179	0.000	95	432892	50.0	50.9	
109 Cyclohexanone	55	12.222	12.222	0.000	92	310108	2500.0	2517.3	
110 o-Xylene	106	12.264	12.264	0.000	96	269622	50.0	49.5	
* 112 1,4-Dichlorobenzene-d4	152	14.026	14.026	0.000	91	193549	50.0	50.0	
115 Bromoform	173	12.002	12.002	0.000	97	121407	50.0	52.4	
116 1,1,2,2-Tetrachloroethane	83	12.258	12.258	0.000	95	202230	50.0	53.3	
117 trans-1,4-Dichloro-2-buten	53	12.405	12.405	0.000	95	47689	50.0	53.0	
118 1,2,3-Trichloropropane	110	12.417	12.417	0.000	86	52813	50.0	51.3	
119 Isopropylbenzene	105	12.655	12.655	0.000	95	676181	50.0	50.3	
$ 120 4-Bromofluorobenzene	95	12.709	12.709	0.000	97	194517	50.0	51.7	
121 Bromobenzene	156	12.953	12.953	0.000	84	196498	50.0	47.2	
122 N-Propylbenzene	120	13.112	13.112	0.000	99	190712	50.0	48.2	
124 2-Chlorotoluene	126	13.234	13.234	0.000	99	179962	50.0	46.9	
125 4-Chlorotoluene	91	13.301	13.301	0.000	96	475160	50.0	48.5	
126 1,3,5-Trimethylbenzene	105	13.386	13.386	0.000	96	571666	50.0	49.0	
128 tert-Butylbenzene	119	13.685	13.685	0.000	92	529033	50.0	49.8	
129 1,2,4-Trimethylbenzene	105	13.782	13.782	0.000	97	628265	50.0	50.3	
131 sec-Butylbenzene	105	13.898	13.898	0.000	93	795527	50.0	50.0	
133 Benzyl chloride	91	13.977	13.977	0.000	98	380739	50.0	55.4	
134 1,3-Dichlorobenzene	146	13.984	13.984	0.000	97	416245	50.0	50.1	
135 1,4-Dichlorobenzene	146	14.051	14.051	0.000	97	429940	50.0	50.9	
136 4-Isopropyltoluene	119	14.063	14.063	0.000	97	719513	50.0	50.1	
137 1,2,3-Trimethylbenzene	105	14.209	14.209	0.000	97	666589	50.0	51.4	
138 1,2-Dichlorobenzene	146	14.398	14.398	0.000	99	421268	50.0	50.8	
139 n-Butylbenzene	91	14.465	14.465	0.000	97	624778	50.0	49.9	
141 1,2-Dibromo-3-Chloropropan	157	14.868	14.868	0.000	93	56296	50.0	51.1	
142 1,3,5-Trichlorobenzene	180	15.721	15.721	0.000	98	327783	50.0	47.9	
143 1,2,4-Trichlorobenzene	180	16.306	16.306	0.000	95	313443	50.0	46.8	
144 Naphthalene	128	16.599	16.599	0.000	96	758058	50.0	45.5	
145 Hexachlorobutadiene	190	16.648	16.648	0.000	98	68443	50.0	45.4	
146 1,2,3-Trichlorobenzene	180	16.837	16.837	0.000	97	304064	50.0	47.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

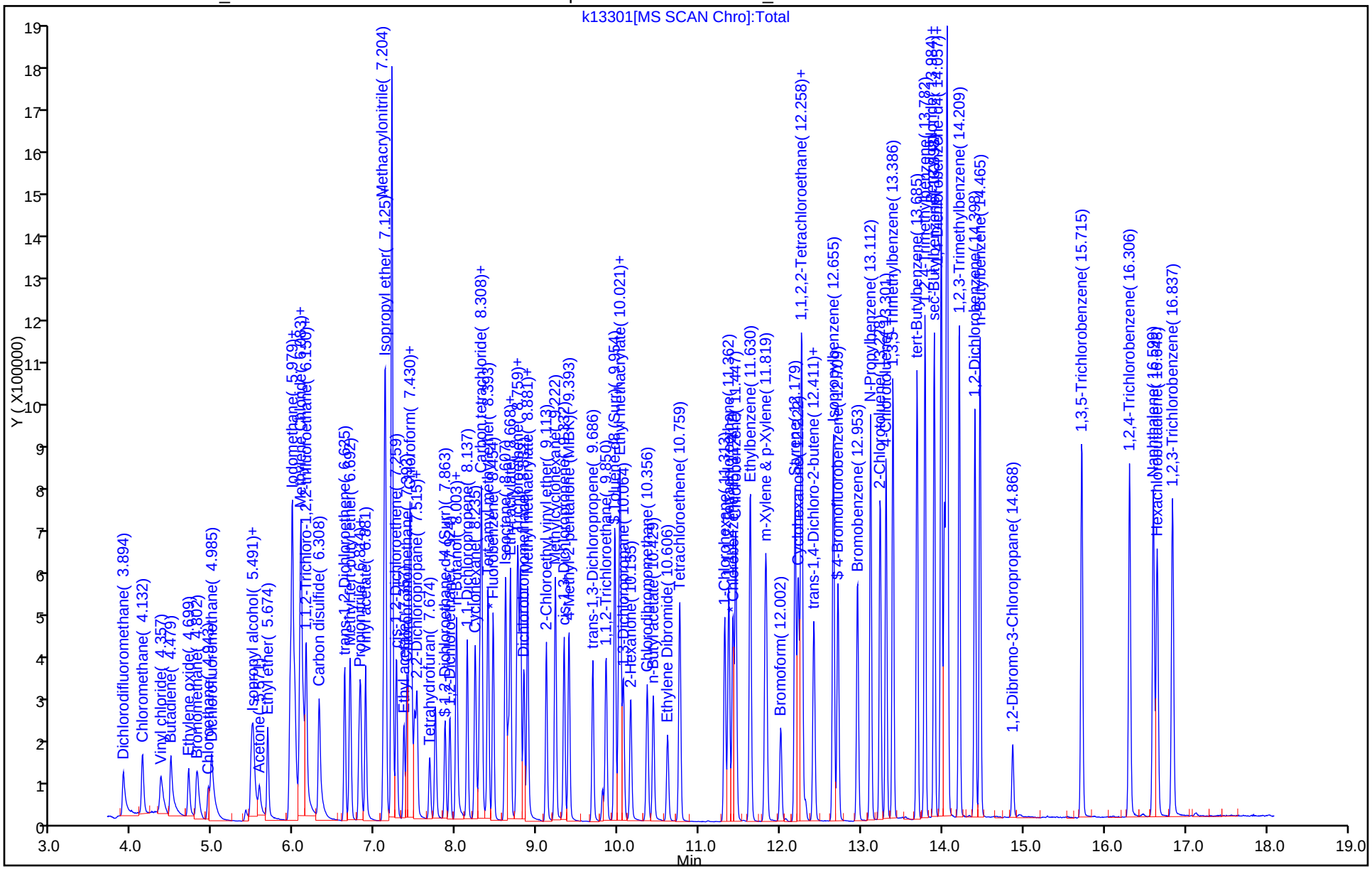
VOASTDGASPT_00167	Amount Added:	5.00	Units: uL
VOAIS50PPM_00172	Amount Added:	5.00	Units: uL
EOxideStd_00072	Amount Added:	5.00	Units: uL
VOASTDPT2_00057	Amount Added:	5.00	Units: uL

Report Date: 12-May-2016 12:21:20 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13301.d

Injection Date:	12-May-2016 08:48:30	Instrument ID:	CHVOAMS09	Operator ID:	ws
Lims ID:	ccvis			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188838/3 Calibration Date: 05/19/2016 09:47

Instrument ID: CHVOAMS10 Calib Start Date: 04/26/2016 14:29

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 04/26/2016 16:36

Lab File ID: T14001A.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2594	0.1911		36.8	50.0	-26.3	35.0
Chloromethane	Ave	0.4238	0.3466	0.1000	40.9	50.0	-18.2	35.0
Vinyl chloride	Ave	0.4384	0.3561		40.6	50.0	-18.8	20.0
Butadiene	Ave	0.2910	0.2252		38.7	50.0	-22.6	35.0
Ethylene oxide	Lin2		0.0576		493	500	-1.3	35.0
Bromomethane	Ave	0.2123	0.2028		47.8	50.0	-4.5	35.0
Chloroethane	Ave	0.1514	0.1535		50.7	50.0	1.3	35.0
Acrolein	Ave	0.0260	0.0190		182	250	-27.1	50.0
Acetonitrile	Ave	0.0259	0.0232		448	500	-10.5	50.0
Trichlorofluoromethane	Ave	0.3213	0.3491		54.3	50.0	8.6	35.0
Isopropyl alcohol	Lin		0.0082		535	500	6.9	50.0
Propionaldehyde	Ave	0.0465	0.0369		399	503	-20.6	35.0
Acetone	Ave	0.0664	0.0525		79.1	100	-21.0	50.0
Ethyl ether	Ave	0.1850	0.1588		42.9	50.0	-14.2	35.0
2-Methyl-2-propanol	Ave	0.0125	0.0096		386	500	-22.8	35.0
1,1-Dichloroethene	Ave	0.1978	0.1952		49.3	50.0	-1.3	20.0
Acrylonitrile	Ave	0.0688	0.0558		406	500	-18.9	50.0
Iodomethane	Ave	0.3016	0.3320		55.0	50.0	10.1	35.0
Methylene Chloride	Ave	0.2565	0.2322		45.3	50.0	-9.5	50.0
Methyl acetate	Ave	0.1559	0.1269		204	250	-18.6	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Lin		0.1176		46.6	50.0	-6.7	35.0
3-Chloro-1-propene	Ave	0.1148	0.1091		47.6	50.0	-4.9	35.0
Carbon disulfide	Ave	0.7215	0.6403		44.4	50.0	-11.2	35.0
cis-1,2-Dichloroethene	Lin1		0.2312		46.9	50.0	-6.3	35.0
trans-1,2-Dichloroethene	Ave	0.2443	0.2312		47.3	50.0	-5.3	35.0
Methyl tert-butyl ether	Ave	0.6754	0.5683		42.1	50.0	-15.9	35.0
Propionitrile	Ave	0.0273	0.0232		425	500	-15.1	35.0
1,1-Dichloroethane	Ave	0.4092	0.3565	0.1000	43.6	50.0	-12.9	35.0
Vinyl acetate	Ave	0.3443	0.2842		82.5	100	-17.5	50.0
2-Chloro-1,3-butadiene	Ave	0.3418	0.2934		42.9	50.0	-14.2	35.0
2-Butanone (MEK)	Ave	0.0274	0.0165		60.4	100	-39.6	50.0
Hexane	Ave	0.2008	0.1554		38.7	50.0	-22.6	35.0
Isopropyl ether	Ave	0.7626	0.6342		41.6	50.0	-16.8	35.0
Methacrylonitrile	Lin1		0.0281		375	500	-25.0	35.0
Bromochloromethane	Ave	0.1373	0.1422		51.8	50.0	3.5	35.0
Methyl acrylate	Ave	0.2291	0.1787		78.0	100	-22.0	35.0
Ethyl tert-Butyl Ether (ETBE)	Ave	0.8219	0.6830		41.6	50.0	-16.9	35.0
Isobutyl alcohol	Ave	0.0112	0.0094		1048	1250	-16.2	50.0
2,2-Dichloropropane	Ave	0.2613	0.2603		49.8	50.0	-0.4	35.0
Tetrahydrofuran	Ave	0.0626	0.0504		80.5	100	-19.5	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188838/3 Calibration Date: 05/19/2016 09:47

Instrument ID: CHVOAMS10 Calib Start Date: 04/26/2016 14:29

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 04/26/2016 16:36

Lab File ID: T14001A.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane	Ave	0.3444	0.3105		45.1	50.0	-9.8	35.0
n-Butanol	Ave	0.0040	0.0039		1241	1250	-0.7	35.0
1,1,1-Trichloroethane	Ave	0.3273	0.3271		50.0	50.0	-0.0	35.0
Ethyl acetate	Ave	0.2071	0.1638		79.1	100	-20.9	35.0
1,1-Dichloropropene	Ave	0.3138	0.2810		44.8	50.0	-10.4	35.0
Cyclohexane	Lin1		0.2263		42.1	50.0	-15.8	35.0
Carbon tetrachloride	Ave	0.2790	0.2604		46.7	50.0	-6.7	35.0
Benzene	Ave	0.9868	0.9033		45.8	50.0	-8.5	35.0
Isopropyl acetate	Ave	0.2090	0.1801		43.1	50.0	-13.8	35.0
n-Heptane	Ave	0.2090	0.1801		50.0	50.0	-13.8	35.0
tert-Amyl Methyl Ether (TAME)	Ave	0.7130	0.6624		46.5	50.0	-7.1	35.0
Isooctane	Lin1		0.3355		43.9	50.0	-12.2	35.0
Ethyl acrylate	Ave	0.3248	0.2821		43.4	50.0	-13.1	35.0
2-Nitropropane	Lin1		0.0647		85.0	100	-15.0	35.0
Dibromomethane	Ave	0.1620	0.1409		43.5	50.0	-13.0	35.0
1,2-Dichloropropane	Ave	0.2554	0.2264		44.3	50.0	-11.4	20.0
Trichloroethene	Ave	0.2852	0.2824		49.5	50.0	-1.0	35.0
n-Propyl acetate	Ave	0.3107	0.2608		42.0	50.0	-16.1	35.0
Bromodichloromethane	Ave	0.3280	0.2925		44.6	50.0	-10.8	35.0
Methyl methacrylate	Ave	0.2102	0.1791		85.2	100	-14.8	50.0
1,4-Dioxane	Ave	0.0010	0.0012		1198	1000	19.8	50.0
2-Chloroethyl vinyl ether	Ave	0.3763	0.3502		93.1	100	-6.9	35.0
Methylcyclohexane	Ave	0.2324	0.2034		43.8	50.0	-12.5	35.0
cis-1,3-Dichloropropene	Ave	1.020	1.004		49.2	50.0	-1.6	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.2202	0.1825		82.9	100	-17.1	50.0
trans-1,3-Dichloropropene	Ave	0.8432	0.8433		50.0	50.0	0.0	35.0
1,1,2-Trichloroethane	Ave	0.5661	0.5790		51.1	50.0	2.3	35.0
Ethyl methacrylate	Ave	0.7875	0.7487		47.5	50.0	-4.9	50.0
Toluene	Ave	1.607	1.593		49.6	50.0	-0.8	20.0
1,3-Dichloropropane	Ave	0.9887	0.9207		46.6	50.0	-6.9	35.0
2-Hexanone	Ave	0.3511	0.2991		85.2	100	-14.8	50.0
Dibromochloromethane	Ave	0.6678	0.7375		55.2	50.0	10.4	35.0
n-Butyl acetate	Ave	0.7791	0.6901		44.3	50.0	-11.4	35.0
1,2-Dibromoethane	Ave	0.5760	0.6107		53.0	50.0	6.0	35.0
Tetrahydrothiophene	Lin1		0.4619		45.4	50.0	-9.2	50.0
Tetrachloroethene	Ave	0.4524	0.4759		52.6	50.0	5.2	35.0
1-Chlorohexane	Ave	0.3680	0.3579		48.6	50.0	-2.7	35.0
1,1,1,2-Tetrachloroethane	Ave	0.6896	0.7534		54.6	50.0	9.2	35.0
Chlorobenzene	Ave	1.861	1.889	0.3000	50.7	50.0	1.5	35.0
Ethylbenzene	Ave	0.8856	0.8832		49.9	50.0	-0.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188838/3 Calibration Date: 05/19/2016 09:47

Instrument ID: CHVOAMS10 Calib Start Date: 04/26/2016 14:29

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 04/26/2016 16:36

Lab File ID: T14001A.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Butyl acrylate	Ave	1.170	0.9743		83.3	100	-16.7	35.0
m-Xylene & p-Xylene	Ave	2.241	2.146		47.9	50.0	-4.2	35.0
Bromoform	Ave	0.3845	0.4140	0.1000	53.8	50.0	7.7	35.0
Amyl acetate (mixed isomers)	Ave	0.9541	0.8183		42.9	50.0	-14.2	35.0
Styrene	Ave	1.870	1.915		51.2	50.0	2.4	35.0
Cyclohexanone	Ave	0.0138	0.0149		2687	2500	7.5	35.0
1,1,2,2-Tetrachloroethane	Ave	0.7539	0.6593	0.3000	43.7	50.0	-12.5	35.0
Chloroform	Ave	0.3094	0.2772		44.8	50.0	-10.4	20.0
o-Xylene	Ave	1.118	1.118		50.0	50.0	-0.0	35.0
trans-1,4-Dichloro-2-butene	Ave	0.1869	0.1639		43.8	50.0	-12.3	50.0
1,2,3-Trichloropropane	Ave	0.2194	0.2003		45.6	50.0	-8.7	35.0
Isopropylbenzene	Ave	2.323	2.230		48.0	50.0	-4.0	35.0
Bromobenzene	Ave	0.7782	0.7608		48.9	50.0	-2.2	35.0
N-Propylbenzene	Ave	0.6666	0.6248		46.9	50.0	-6.3	35.0
Butyl Methacrylate	Ave	1.049	0.9285		88.5	100	-11.5	35.0
2-Chlorotoluene	Ave	0.6455	0.6249		48.4	50.0	-3.2	35.0
4-Chlorotoluene	Ave	1.824	1.731		47.5	50.0	-5.1	35.0
1,3,5-Trimethylbenzene	Ave	1.835	1.787		48.7	50.0	-2.6	35.0
tert-Butylbenzene	Ave	1.467	1.468		50.0	50.0	0.0	35.0
1,2,4-Trimethylbenzene	Ave	1.897	1.814		47.8	50.0	-4.4	35.0
Benzyl chloride	Ave	0.2958	0.2668		45.1	50.0	-9.8	35.0
sec-Butylbenzene	Ave	1.928	1.836		47.6	50.0	-4.8	35.0
n-Butylbenzene	Lin1		1.251		43.2	50.0	-13.6	35.0
1,3-Dichlorobenzene	Ave	1.259	1.210		48.1	50.0	-3.9	35.0
1,4-Dichlorobenzene	Ave	1.391	1.295		46.6	50.0	-6.9	35.0
4-Isopropyltoluene	Ave	1.897	1.808		47.7	50.0	-4.7	35.0
1,2,3-Trimethylbenzene	Ave	2.039	1.948		47.8	50.0	-4.5	35.0
1,2-Dichlorobenzene	Ave	1.205	1.145		47.5	50.0	-5.0	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.1223	0.1321		54.1	50.0	8.1	35.0
1,2,4-Trichlorobenzene	Ave	0.5383	0.5051		46.9	50.0	-6.2	35.0
1,3,5-Trichlorobenzene	Lin1		0.4476		57.5	50.0	15.0	35.0
Naphthalene	Lin1		1.406		71.3	50.0	42.5*	35.0
Hexachlorobutadiene	Ave	0.0957	0.1111		58.1	50.0	16.1	35.0
1,2,3-Trichlorobenzene	Lin2		0.3795		85.1	50.0	70.2*	35.0
Dibromofluoromethane	Ave	0.2390	0.2614		54.7	50.0	9.4	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2659	0.2707		50.9	50.0	1.8	35.0
Toluene-d8 (Surr)	Ave	2.211	2.647		59.9	50.0	19.7	35.0
4-Bromofluorobenzene	Ave	0.7318	0.7856		53.7	50.0	7.3	35.0

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14001A.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 19-May-2016 09:47:30 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 600-0012131-003
Operator ID: DT Instrument ID: CHVOAMS10
Sublist: chrom-8260w5_10*sub11

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 19-May-2016 12:11:08 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: tengd Date: 19-May-2016 10:15:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.754	8.754	0.000	99	312938	50.0	50.0	
2 Dichlorodifluoromethane	85	4.261	4.261	0.000	63	59802	50.0	36.8	
3 Chloromethane	50	4.608	4.608	0.000	92	108458	50.0	40.9	
4 Vinyl chloride	62	4.710	4.710	0.000	98	111440	50.0	40.6	
5 Butadiene	39	4.826	4.826	0.000	98	70469	50.0	38.7	
10 Ethylene oxide	44	5.063	5.063	0.000	99	180362	500.0	493.4	
7 Bromomethane	94	5.150	5.150	0.000	90	63476	50.0	47.8	
11 Chloroethane	64	5.285	5.285	0.000	71	48030	50.0	50.7	
13 Dichlorofluoromethane	67	5.323	5.323	0.000	98	132312	50.0	51.7	
24 Acrolein	56	5.808	5.808	0.000	70	29717	250.0	182.3	
16 Acetonitrile	41	5.817	5.817	0.000	98	72629	500.0	447.6	
12 Trichlorofluoromethane	101	5.837	5.837	0.000	97	109249	50.0	54.3	
19 Isopropyl alcohol	45	5.843	5.843	0.000	98	25606	500.0	534.7	
18 Propionaldehyde	58	5.898	5.898	0.000	99	116084	502.7	399.0	
27 Acetone	43	5.920	5.920	0.000	37	32833	100.0	79.0	
15 Ethyl ether	59	6.026	6.026	0.000	70	49687	50.0	42.9	
31 2-Methyl-2-propanol	59	6.280	6.280	0.000	98	30152	500.0	386.1	
20 1,1-Dichloroethene	96	6.302	6.302	0.000	91	61078	50.0	49.3	
37 Acrylonitrile	52	6.312	6.312	0.000	98	174684	500.0	405.7	
23 Iodomethane	142	6.350	6.350	0.000	99	103905	50.0	55.0	
26 Methylene Chloride	84	6.405	6.405	0.000	85	72665	50.0	45.3	
28 Methyl acetate	43	6.418	6.418	0.000	97	198552	250.0	203.5	
21 1,1,2-Trichloro-1,2,2-trif	151	6.459	6.459	0.000	85	36788	50.0	46.6	
25 3-Chloro-1-propene	76	6.488	6.488	0.000	68	34150	50.0	47.5	
22 Carbon disulfide	76	6.652	6.652	0.000	99	200387	50.0	44.4	
29 trans-1,2-Dichloroethene	96	6.960	6.960	0.000	95	72356	50.0	47.3	
44 cis-1,2-Dichloroethene	96	6.960	6.960	0.000	83	72356	50.0	46.9	
30 Methyl tert-butyl ether	73	7.011	7.011	0.000	93	177831	50.0	42.1	
35 Propionitrile	54	7.117	7.117	0.000	97	72478	500.0	424.6	
34 1,1-Dichloroethane	63	7.152	7.152	0.000	95	111556	50.0	43.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 Vinyl acetate	43	7.191	7.191	0.000	94	177866	100.0	82.5	
36 2-Chloro-1,3-butadiene	53	7.428	7.428	0.000	91	91823	50.0	42.9	
32 Isopropyl ether	45	7.435	7.435	0.000	79	198457	50.0	41.6	
56 2-Butanone (MEK)	72	7.435	7.435	0.000	91	10341	100.0	60.4	
58 Hexane	57	7.435	7.435	0.000	61	48632	50.0	38.7	
61 Methacrylonitrile	66	7.512	7.512	0.000	88	87854	500.0	374.9	
S 43 1,2-Dichloroethene, Total	96				0		100.0	94.2	
47 Chlorobromomethane	128	7.704	7.704	0.000	86	44503	50.0	51.8	
45 Methyl acrylate	55	7.720	7.720	0.000	54	111836	100.0	78.0	
41 Tert-butyl ethyl ether	59	7.733	7.733	0.000	95	213722	50.0	41.5	
39 Isobutyl alcohol	43	7.740	7.740	0.000	42	73668	1250.0	1048.1	
46 2,2-Dichloropropane	77	7.813	7.813	0.000	43	81446	50.0	49.8	
$ 52 Dibromofluoromethane	113	7.829	7.829	0.000	93	81791	50.0	54.7	
53 Tetrahydrofuran	42	7.974	7.974	0.000	86	31540	100.0	80.5	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.170	8.170	0.000	0	84711	50.0	50.9	
65 1,2-Dichloroethane	62	8.230	8.230	0.000	94	97174	50.0	45.1	
38 n-Butanol	56	8.282	8.282	0.000	88	30729	1250.0	1241.4	
55 1,1,1-Trichloroethane	97	8.330	8.330	0.000	99	102355	50.0	50.0	
33 Ethyl acetate	43	8.365	8.365	0.000	92	102501	100.0	79.1	
57 1,1-Dichloropropene	75	8.436	8.436	0.000	96	87946	50.0	44.8	
69 Cyclohexane	84	8.532	8.532	0.000	86	70820	50.0	42.1	
54 Carbon tetrachloride	119	8.600	8.600	0.000	95	81501	50.0	46.7	
63 Benzene	78	8.616	8.616	0.000	95	282688	50.0	45.8	
68 Isopropyl acetate	43	8.673	8.673	0.000	50	56357	50.0	43.1	
60 n-Heptane	43	8.673	8.673	0.000	46	56357	50.0	43.1	
62 Tert-amyl methyl ether	73	8.680	8.680	0.000	98	207290	50.0	46.5	
59 Isooctane	57	8.898	8.898	0.000	93	104976	50.0	43.9	
72 Ethyl acrylate	55	8.920	8.920	0.000	96	88266	50.0	43.4	
66 2-Nitropropane	43	8.952	8.952	0.000	90	40502	100.0	85.0	
73 Dibromomethane	93	9.058	9.058	0.000	70	44084	50.0	43.5	
79 1,2-Dichloropropane	63	9.068	9.068	0.000	90	70832	50.0	44.3	
70 Trichloroethene	130	9.097	9.097	0.000	92	88365	50.0	49.5	
76 n-Propyl acetate	43	9.135	9.135	0.000	95	81623	50.0	42.0	
75 Dichlorobromomethane	83	9.142	9.142	0.000	83	91536	50.0	44.6	
77 Methyl methacrylate	41	9.164	9.164	0.000	88	112088	100.0	85.2	
78 1,4-Dioxane	58	9.193	9.193	0.000	83	7234	1000.0	1198.3	
71 Methylcyclohexane	83	9.530	9.530	0.000	84	63656	50.0	43.8	
80 4-Methyl-2-pentanone (MIBK	43	9.687	9.687	0.000	94	114246	100.0	82.9	
48 Chloroform	83	12.578	12.578	0.000	47	86736	50.0	44.8	
* 85 Chlorobenzene-d5	82	11.741	11.741	0.000	83	122941	50.0	50.0	
89 2-Chloroethyl vinyl ether	63	9.405	9.405	0.000	94	86096	100.0	93.1	
90 cis-1,3-Dichloropropene	75	9.636	9.636	0.000	96	123418	50.0	49.2	
96 trans-1,3-Dichloropropene	75	9.999	9.999	0.000	91	103670	50.0	50.0	
100 1,1,2-Trichloroethane	97	10.165	10.165	0.000	90	71182	50.0	51.1	
$ 93 Toluene-d8 (Surr)	98	10.278	10.278	0.000	92	325466	50.0	59.9	
97 Ethyl methacrylate	69	10.307	10.307	0.000	85	92047	50.0	47.5	
94 Toluene	92	10.352	10.352	0.000	97	195858	50.0	49.6	
102 1,3-Dichloropropane	76	10.387	10.387	0.000	88	113191	50.0	46.6	
106 2-Hexanone	43	10.461	10.461	0.000	90	73541	100.0	85.2	
101 Chlorodibromomethane	129	10.698	10.698	0.000	89	90663	50.0	55.2	
103 n-Butyl acetate	43	10.740	10.740	0.000	97	84836	50.0	44.3	
S 104 Xylenes, Total	106				0		100.0	97.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 Ethylene Dibromide	107	10.945	10.945	0.000	99	75084	50.0	53.0	
107 Tetrahydrothiophene	60	11.003	11.003	0.000	0	56784	50.0	45.4	M
98 Tetrachloroethene	164	11.086	11.086	0.000	98	58510	50.0	52.6	
113 1-Chlorohexane	55	11.622	11.622	0.000	91	43998	50.0	48.6	
110 1,1,1,2-Tetrachloroethane	131	11.690	11.690	0.000	93	92621	50.0	54.6	
109 Chlorobenzene	112	11.776	11.776	0.000	98	232205	50.0	50.7	
108 Ethylbenzene	106	11.946	11.946	0.000	98	108587	50.0	49.9	
111 m-Xylene & p-Xylene	91	12.139	12.139	0.000	0	263776	50.0	47.9	
115 Amyl acetate (mixed isomer	43	12.370	12.370	0.000	93	100603	50.0	42.9	
114 Styrene	104	12.501	12.501	0.000	94	235459	50.0	51.2	
116 Cyclohexanone	55	12.540	12.540	0.000	88	91486	2500.0	2686.9	
112 o-Xylene	106	12.582	12.582	0.000	96	137461	50.0	50.0	
* 117 1,4-Dichlorobenzene-d4	152	14.302	14.302	0.000	92	131486	50.0	50.0	
120 n-Butyl acrylate	55	12.129	12.129	0.000	98	256212	100.0	83.3	
119 Bromoform	173	12.338	12.338	0.000	95	54428	50.0	53.8	
124 1,1,2,2-Tetrachloroethane	83	12.578	12.578	0.000	59	86690	50.0	43.7	
129 trans-1,4-Dichloro-2-buten	53	12.716	12.716	0.000	86	21545	50.0	43.8	
128 1,2,3-Trichloropropane	110	12.732	12.732	0.000	85	26331	50.0	45.6	
121 Isopropylbenzene	105	12.951	12.951	0.000	95	293178	50.0	48.0	
$ 122 4-Bromofluorobenzene	95	13.015	13.015	0.000	95	103290	50.0	53.7	
125 Bromobenzene	156	13.249	13.249	0.000	86	100040	50.0	48.9	
123 N-Propylbenzene	120	13.393	13.393	0.000	98	82148	50.0	46.9	
134 Butyl Methacrylate	69	13.413	13.413	0.000	82	244168	100.0	88.5	
127 2-Chlorotoluene	126	13.519	13.519	0.000	98	82167	50.0	48.4	
130 4-Chlorotoluene	91	13.586	13.586	0.000	97	227592	50.0	47.5	
126 1,3,5-Trimethylbenzene	105	13.660	13.660	0.000	95	234916	50.0	48.7	
131 tert-Butylbenzene	119	13.952	13.952	0.000	90	193037	50.0	50.0	
133 1,2,4-Trimethylbenzene	105	14.048	14.048	0.000	96	238494	50.0	47.8	
135 sec-Butylbenzene	105	14.164	14.164	0.000	93	241361	50.0	47.6	
143 Benzyl chloride	91	14.164	14.164	0.000	52	35078	50.0	45.1	
142 n-Butylbenzene	91	14.253	14.253	0.000	29	164449	50.0	43.2	
137 1,3-Dichlorobenzene	146	14.263	14.263	0.000	97	159128	50.0	48.1	
140 1,4-Dichlorobenzene	146	14.327	14.327	0.000	84	170338	50.0	46.6	
136 4-Isopropyltoluene	119	14.327	14.327	0.000	97	237763	50.0	47.7	
139 1,2,3-Trimethylbenzene	105	14.481	14.481	0.000	97	256100	50.0	47.8	
144 1,2-Dichlorobenzene	146	14.687	14.687	0.000	98	150509	50.0	47.5	
146 1,2-Dibromo-3-Chloropropan	157	15.165	15.165	0.000	91	17375	50.0	54.0	
149 1,2,4-Trichlorobenzene	180	16.028	16.028	0.000	95	66418	50.0	46.9	
147 1,3,5-Trichlorobenzene	180	16.641	16.641	0.000	97	58849	50.0	57.5	
150 Naphthalene	128	16.952	16.952	0.000	98	184929	50.0	71.3	
148 Hexachlorobutadiene	190	16.984	16.984	0.000	96	14612	50.0	58.1	
151 1,2,3-Trichlorobenzene	180	17.196	17.196	0.000	96	49900	50.0	85.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

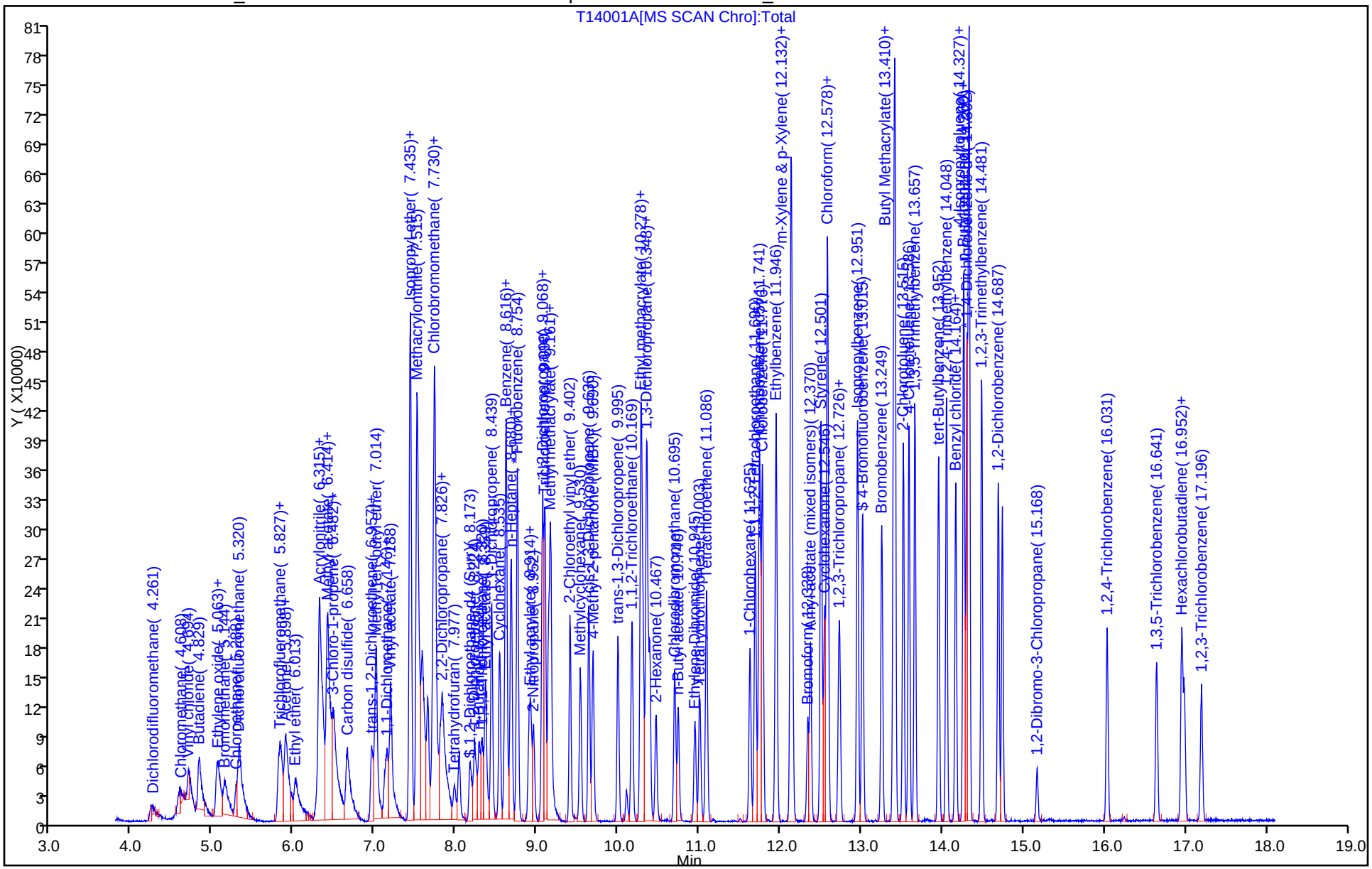
VOASTDPT2_00057	Amount Added:	5.00	Units: uL
6NRStd_00057	Amount Added:	5.00	Units: uL
PropHydeSTDW_00053	Amount Added:	5.00	Units: uL
EOxideStd_00072	Amount Added:	5.00	Units: uL
VOAIS250PPM_00048	Amount Added:	1.00	Units: uL
VOASTDGASPT_00168	Amount Added:	5.00	Units: uL

Report Date: 19-May-2016 12:11:09 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14001A.D

Injection Date:	19-May-2016 09:47:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

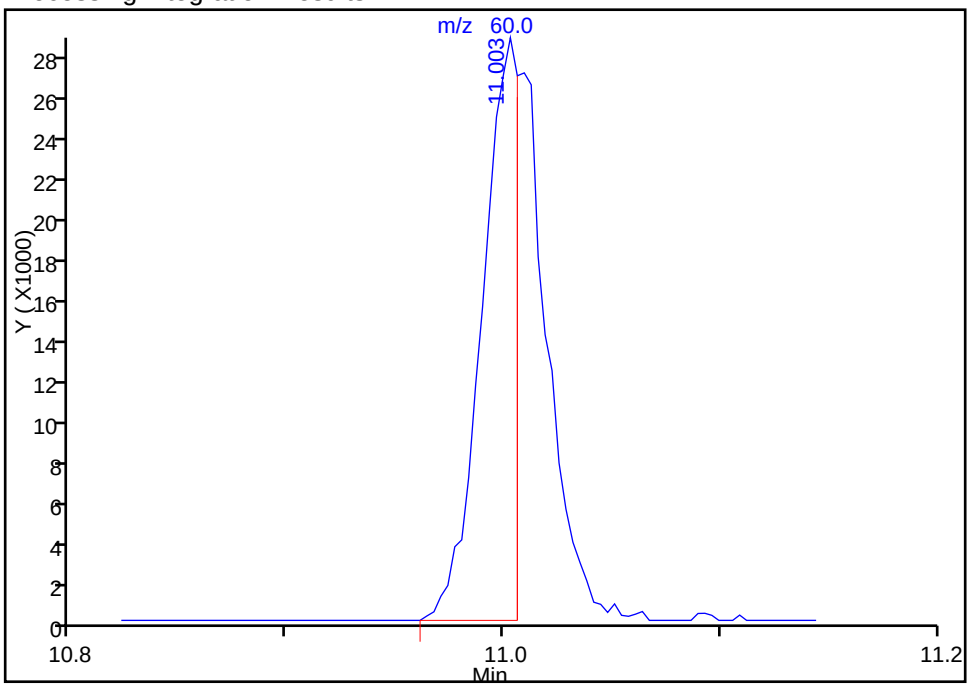
Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14001A.D
Injection Date: 19-May-2016 09:47:30 Instrument ID: CHVOAMS10
Lims ID: CCVIS
Client ID:
Operator ID: DT ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

107 Tetrahydrothiophene, CAS: 110-01-0

Signal: 1

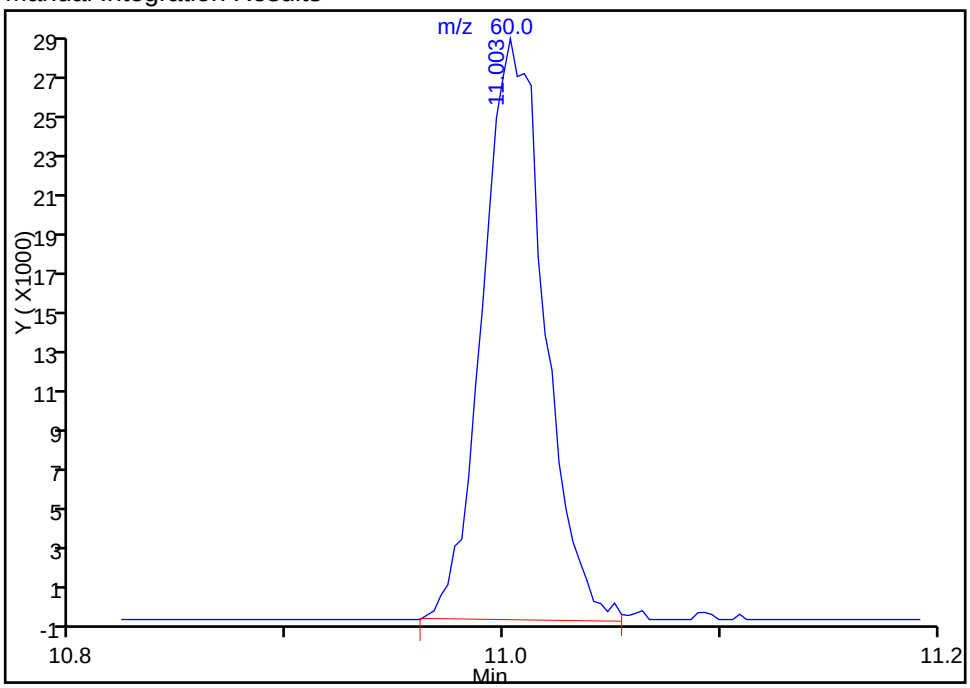
Processing Integration Results

RT: 11.00
Area: 33147
Amount: 27.115609
Amount Units: ug/l



Manual Integration Results

RT: 11.00
Area: 56784
Amount: 45.413932
Amount Units: ug/l



Reviewer: tengd, 19-May-2016 10:18:09
Audit Action: Manually Integrated Audit Reason: Split Peak

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12700a.d
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 06-May-2016 08:32:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 g Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 600-0011949-001
Operator ID: WS Instrument ID: CHVOAMS09

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 06-May-2016 13:59:41 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK052

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 172 BFB	95	6.419	6.419	0.000	0	235777	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

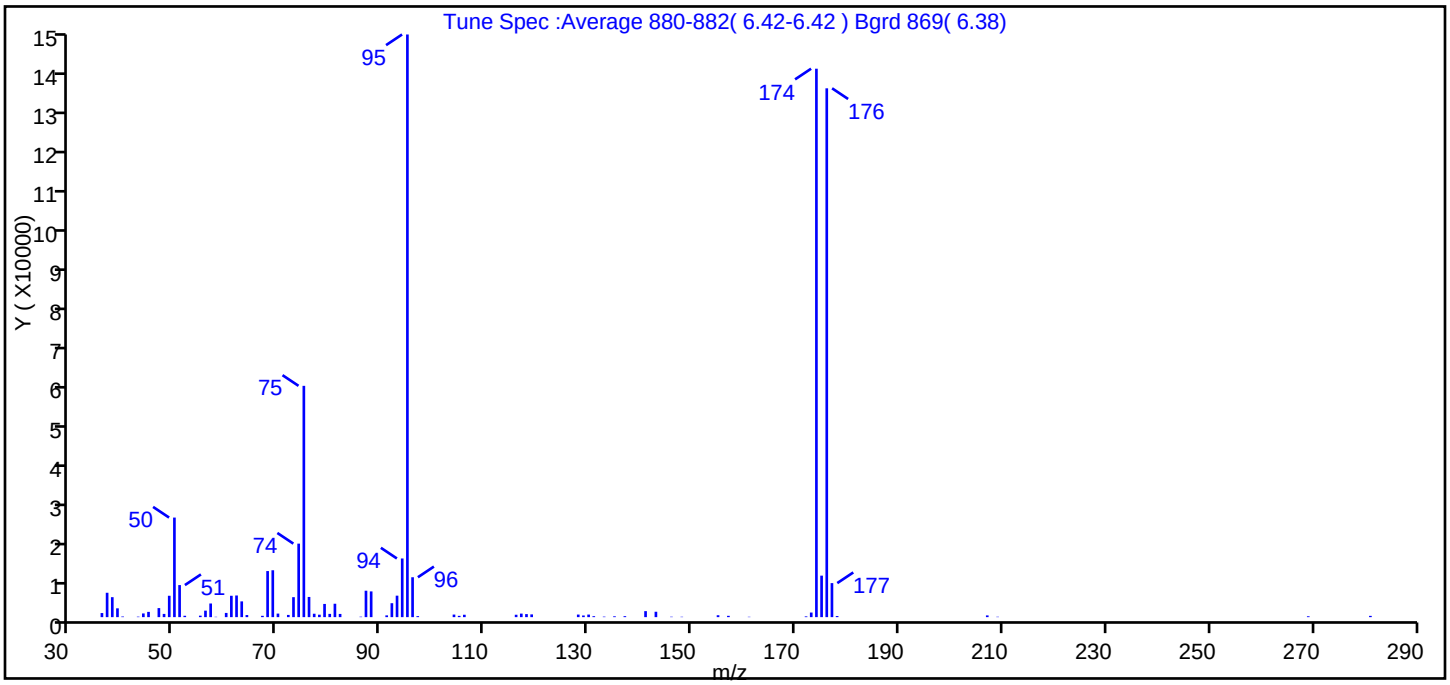
BFB_00203 Amount Added: 2.00 Units: uL

MS Tune Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12700a.d
Injection Date: 06-May-2016 08:32:30 Instrument ID: CHVOAMS09
Lims ID: BFB
Client ID:
Operator ID: WS ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 g Dil. Factor: 1.0000
Method: 8260s_9 Limit Group: VOA - 8260B_8260BLL
Tune Method: BFB Method 8260

$ 172 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.1
75	30 to 60% of m/z 95	39.7
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.8 (0.8)
174	50 to 120% of m/z 95	94.1
175	5 to 9% of m/z 174	7.1 (7.6)
176	Greater than 95% but less than 101% of m/z 174	90.8 (96.4)
177	5 to 9% of m/z 176	5.8 (6.4)

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12700a.d\8260s_9.rslt\spectra.d
Injection Date: 06-May-2016 08:32:30
Spectrum: Tune Spec :Average 880-882(6.42-6.42) Bgrd 869(6.38)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 80

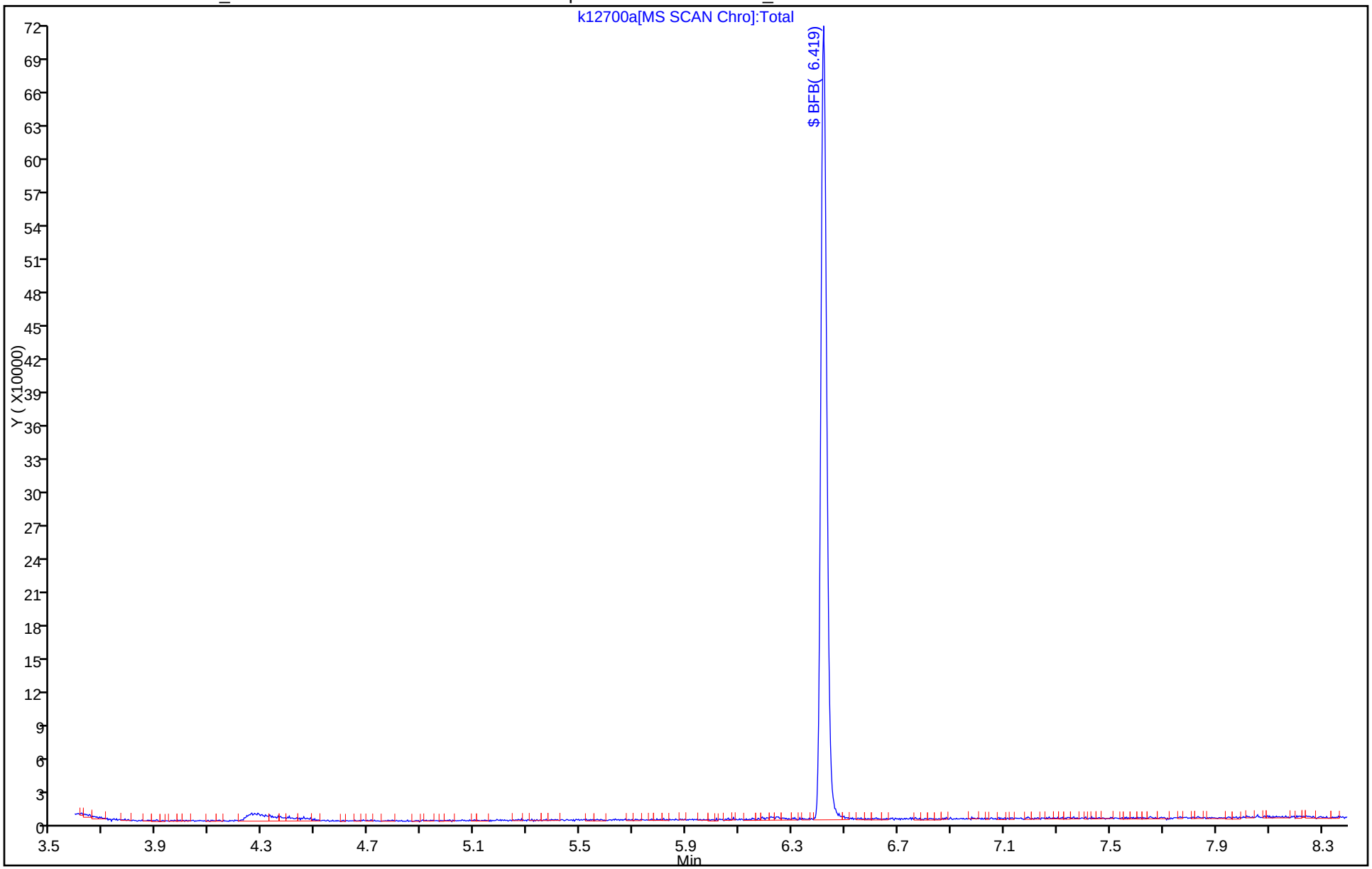
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1011	62.00	5345	88.00	6353	135.00	206
37.00	6016	63.00	3892	91.00	437	137.00	240
38.00	4928	64.00	515	92.00	3441	141.00	1482
39.00	2178	67.00	326	93.00	5301	143.00	1331
40.00	155	68.00	11373	94.00	14480	146.00	104
43.00	121	69.00	11572	95.00	143808	148.00	93
44.00	914	70.00	877	96.00	9846	155.00	469
45.00	1300	72.00	548	97.00	246	157.00	327
47.00	2233	73.00	4930	104.00	636	161.00	88
48.00	798	74.00	18144	105.00	322	172.00	188
49.00	5278	75.00	57088	106.00	592	173.00	1135
50.00	24576	76.00	4982	116.00	592	174.00	135360
51.00	7915	77.00	841	117.00	874	175.00	10242
52.00	339	78.00	605	118.00	749	176.00	130520
55.00	362	79.00	3259	119.00	681	177.00	8401
56.00	1601	80.00	804	128.00	636	178.00	268
57.00	3369	81.00	3309	129.00	407	207.00	427
58.00	83	82.00	792	130.00	635	209.00	95
60.00	1040	86.00	113	131.00	235	269.00	213
61.00	5276	87.00	6521	133.00	126	281.00	316

Report Date: 06-May-2016 13:59:42 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12700a.d

Injection Date:	06-May-2016 08:32:30	Instrument ID:	CHVOAMS09	Operator ID:	WS
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 g	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13300.d
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 12-May-2016 08:12:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 g Dil. Factor: 1.0000
Sample Info: BFB
Operator ID: ws Instrument ID: CHVOAMS09

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 12-May-2016 10:31:18 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK029

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 172 BFB	95	6.413	6.413	0.000	0	291806	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

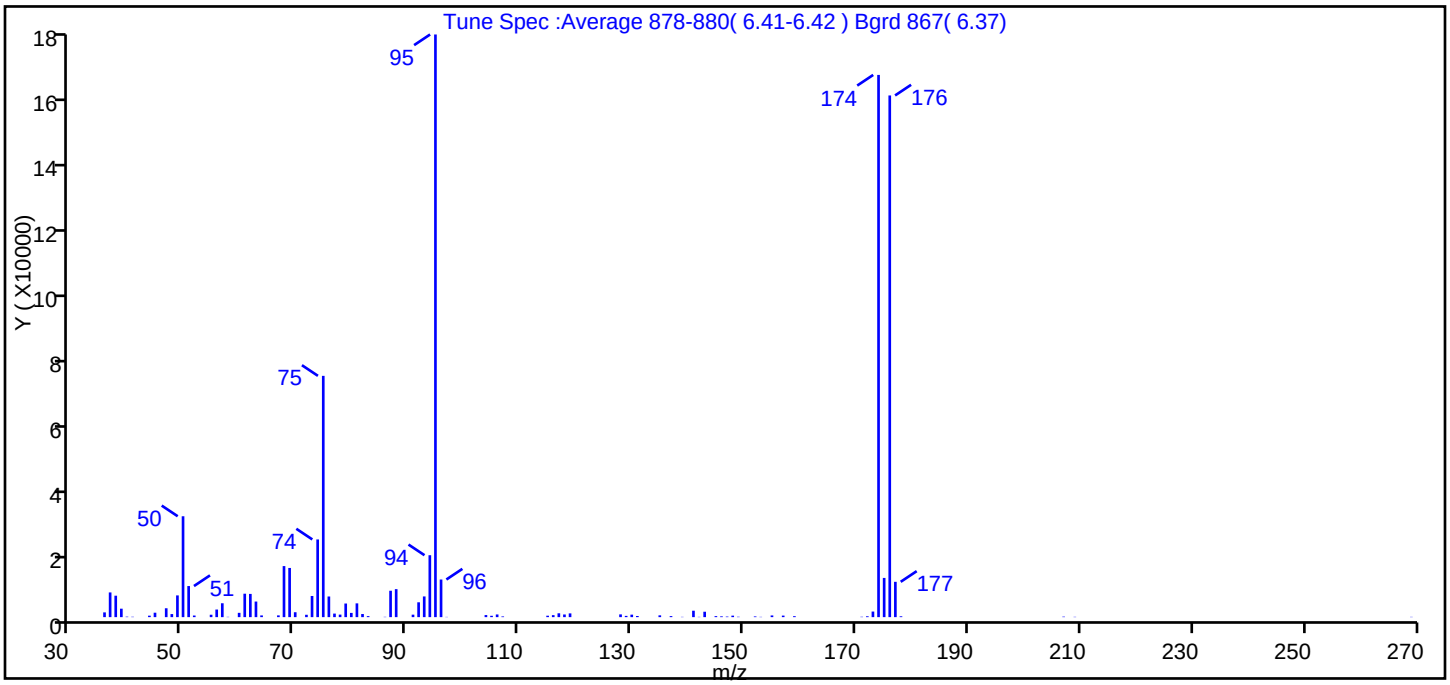
BFB_00204 Amount Added: 2.00 Units: uL

MS Tune Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13300.d
Injection Date: 12-May-2016 08:12:30 Instrument ID: CHVOAMS09
Lims ID: BFB
Client ID:
Operator ID: ws ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 g Dil. Factor: 1.0000
Method: 8260s_9 Limit Group: VOA - 8260B_8260BLL
Tune Method: BFB Method 8260

$ 172 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.3
75	30 to 60% of m/z 95	41.4
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	1.0 (1.0)
174	50 to 120% of m/z 95	93.1
175	5 to 9% of m/z 174	6.7 (7.2)
176	Greater than 95% but less than 101% of m/z 174	89.5 (96.2)
177	5 to 9% of m/z 176	6.1 (6.8)

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13300.d\8260s_9.rslt\spectra.d
Injection Date: 12-May-2016 08:12:30
Spectrum: Tune Spec :Average 878-880(6.41-6.42) Bgrd 867(6.37)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 89

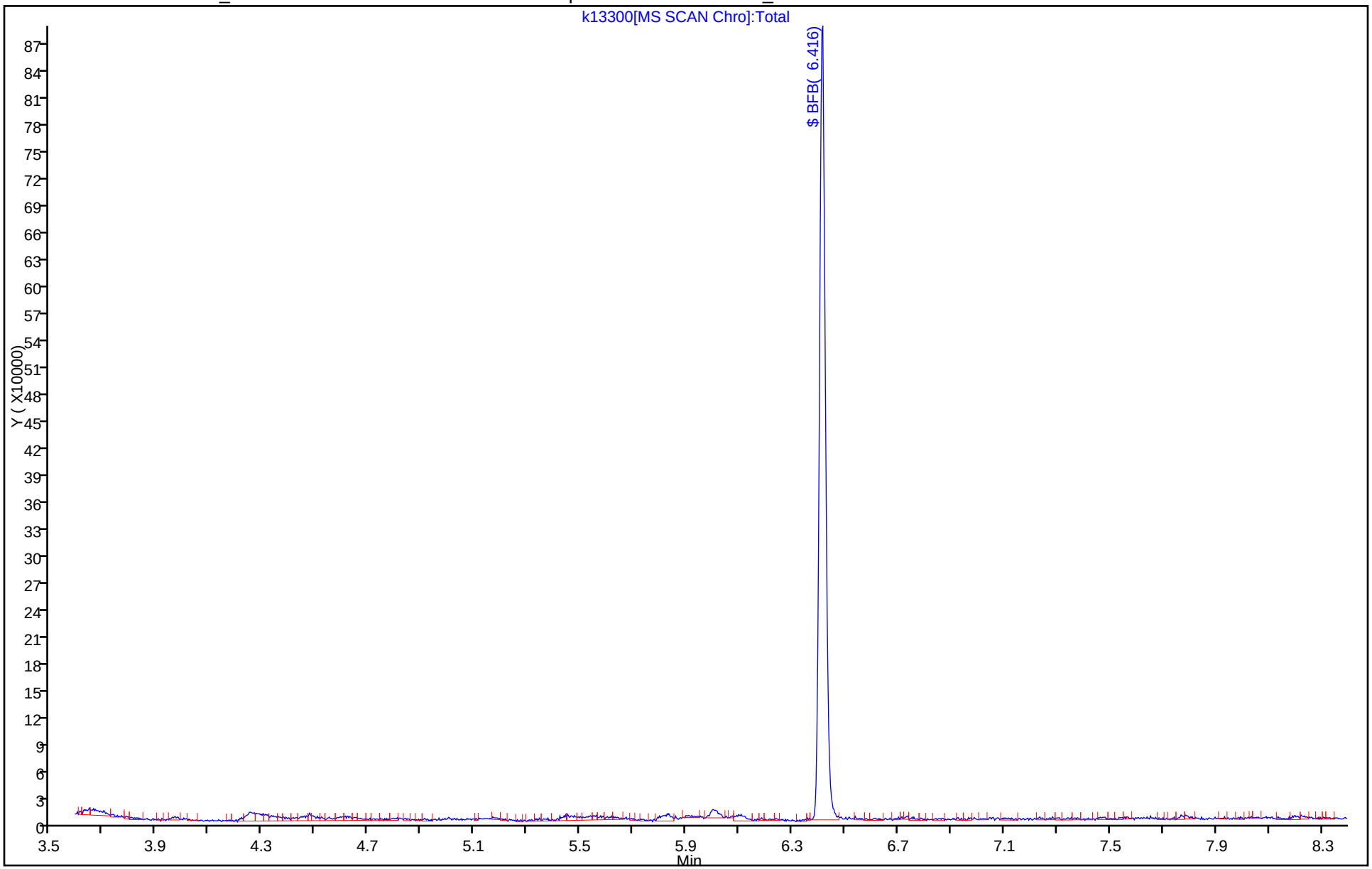
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1439	67.00	533	95.00	176128	146.00	237
37.00	7471	68.00	15432	96.00	11375	147.00	175
38.00	6482	69.00	14869	97.00	72	148.00	452
39.00	2557	70.00	1484	104.00	627	149.00	118
40.00	147	72.00	716	105.00	409	152.00	215
41.00	112	73.00	6394	106.00	810	153.00	84
44.00	447	74.00	23488	107.00	215	155.00	513
45.00	1341	75.00	72936	115.00	432	157.00	465
47.00	2685	76.00	6243	116.00	604	159.00	287
48.00	929	77.00	1074	117.00	1166	171.00	114
49.00	6572	78.00	767	118.00	806	172.00	259
50.00	30496	79.00	4118	119.00	1136	173.00	1691
51.00	9401	80.00	1280	128.00	832	174.00	163904
52.00	488	81.00	4165	129.00	381	175.00	11854
55.00	729	82.00	944	130.00	755	176.00	157696
56.00	2299	83.00	304	131.00	346	177.00	10679
57.00	4197	86.00	91	135.00	544	178.00	252
58.00	92	87.00	7978	137.00	312	207.00	149
60.00	1302	88.00	8465	139.00	86	209.00	93
61.00	7086	91.00	750	141.00	1943	269.00	83
62.00	7023	92.00	4488	142.00	85		
63.00	4715	93.00	6259	143.00	1635		
64.00	520	94.00	18720	145.00	310		

Report Date: 12-May-2016 10:31:19 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13300.d

Injection Date:	12-May-2016 08:12:30	Instrument ID:	CHVOAMS09	Operator ID:	ws
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 g	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11700A.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 26-Apr-2016 13:48:30 ALS Bottle#: 51 Worklist Smp#: 2
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 600-0011772-002
Operator ID: DT Instrument ID: CHVOAMS10

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 26-Apr-2016 15:18:11 Calib Date: 26-Apr-2016 14:54:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11703.D

Column 1 : Det: MS SCAN
Process Host: XAWRK026

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 173 BFB	95	6.658	6.658	0.000	0	94624	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

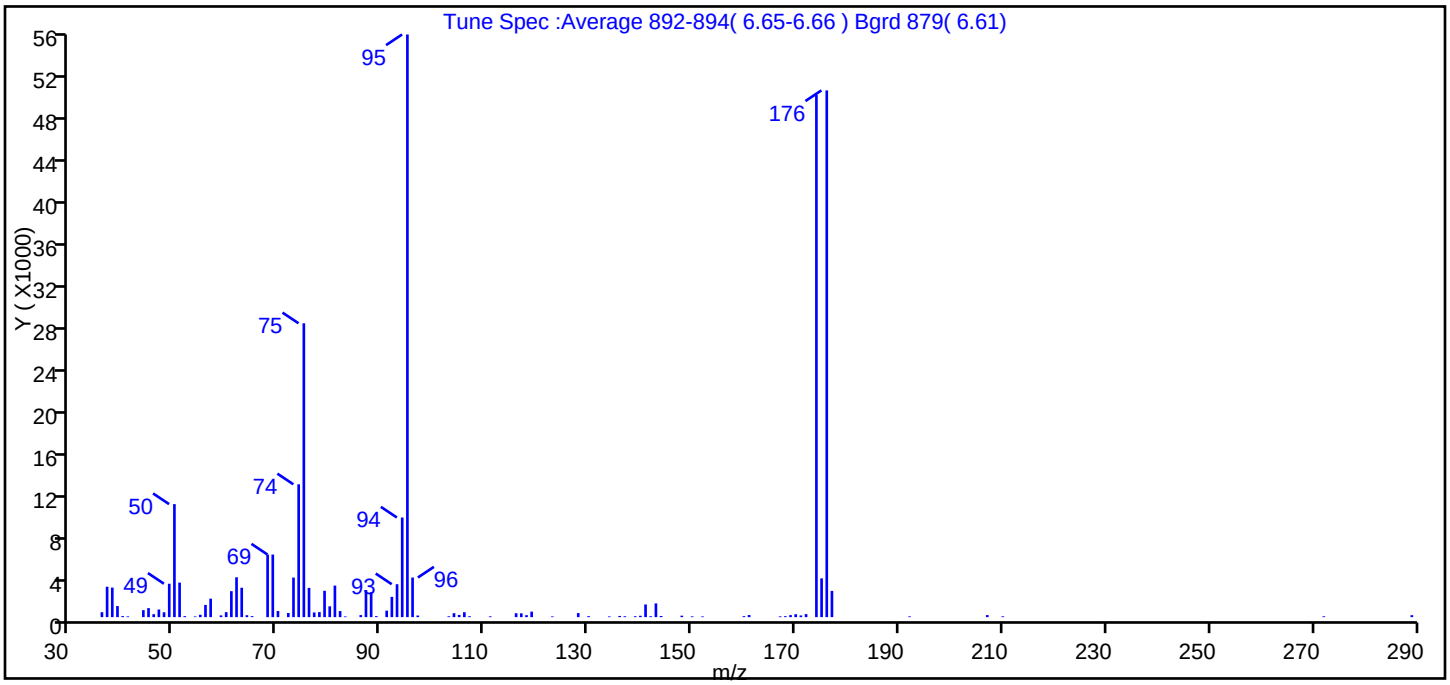
BFB_00202 Amount Added: 2.00 Units: uL

MS Tune Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11700A.D
Injection Date: 26-Apr-2016 13:48:30 Instrument ID: CHVOAMS10
Lims ID: BFB
Client ID:
Operator ID: DT ALS Bottle#: 51 Worklist Smp#: 2
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Tune Method: BFB Method 8260

$ 173 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.4
75	30 to 60% of m/z 95	50.4
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	89.6
175	5 to 9% of m/z 174	6.7 (7.4)
176	Greater than 95% but less than 101% of m/z 174	90.4 (100.9)
177	5 to 9% of m/z 176	4.5 (5.0)

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11700A.D\8260w5_10.rslt\spectra.d
Injection Date: 26-Apr-2016 13:48:30
Spectrum: Tune Spec :Average 892-894(6.65-6.66) Bgrd 879(6.61)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 94

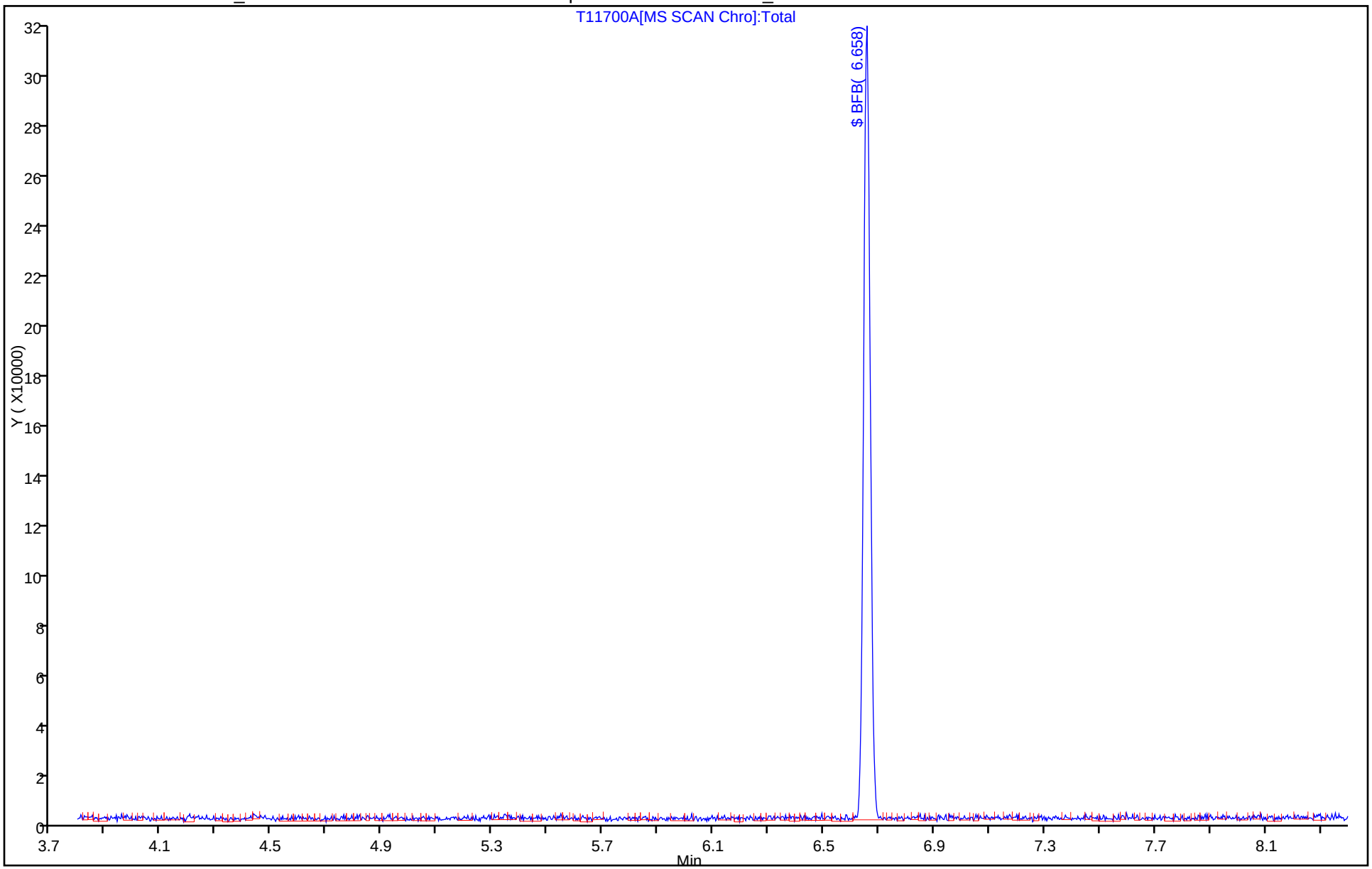
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	468	64.00	183	94.00	9439	143.00	1301
37.00	2882	65.00	97	95.00	55200	144.00	110
38.00	2800	68.00	5927	96.00	3753	148.00	139
39.00	1052	69.00	5931	97.00	153	150.00	75
40.00	100	70.00	585	103.00	79	152.00	67
41.00	70	72.00	390	104.00	375	160.00	92
44.00	663	73.00	3750	105.00	211	161.00	202
45.00	856	74.00	12585	106.00	465	167.00	74
46.00	281	75.00	27840	107.00	85	168.00	89
47.00	724	76.00	2771	111.00	76	169.00	192
48.00	463	77.00	444	116.00	371	170.00	277
49.00	3166	78.00	477	117.00	359	171.00	160
50.00	10708	79.00	2499	118.00	187	172.00	289
51.00	3273	80.00	1024	119.00	522	174.00	49464
52.00	95	81.00	2990	123.00	69	175.00	3671
54.00	67	82.00	575	128.00	384	176.00	49904
55.00	225	83.00	67	130.00	92	177.00	2488
56.00	1158	86.00	194	134.00	68	192.00	72
57.00	1752	87.00	2559	136.00	113	207.00	195
59.00	167	88.00	2360	137.00	83	210.00	78
60.00	472	89.00	94	139.00	87	272.00	79
61.00	2462	91.00	614	140.00	131	289.00	187
62.00	3777	92.00	1921	141.00	1201		
63.00	2787	93.00	3120	142.00	85		

Report Date: 26-Apr-2016 15:18:12 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11700A.D

Injection Date:	26-Apr-2016 13:48:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	BFB			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	51
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14000A.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 19-May-2016 09:06:30 ALS Bottle#: 51 Worklist Smp#: 2
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 600-0012131-002
Operator ID: DT Instrument ID: CHVOAMS10

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 19-May-2016 12:11:06 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: tengd Date: 19-May-2016 10:16:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 173 BFB	95	6.658	6.658	0.000	0	78740	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

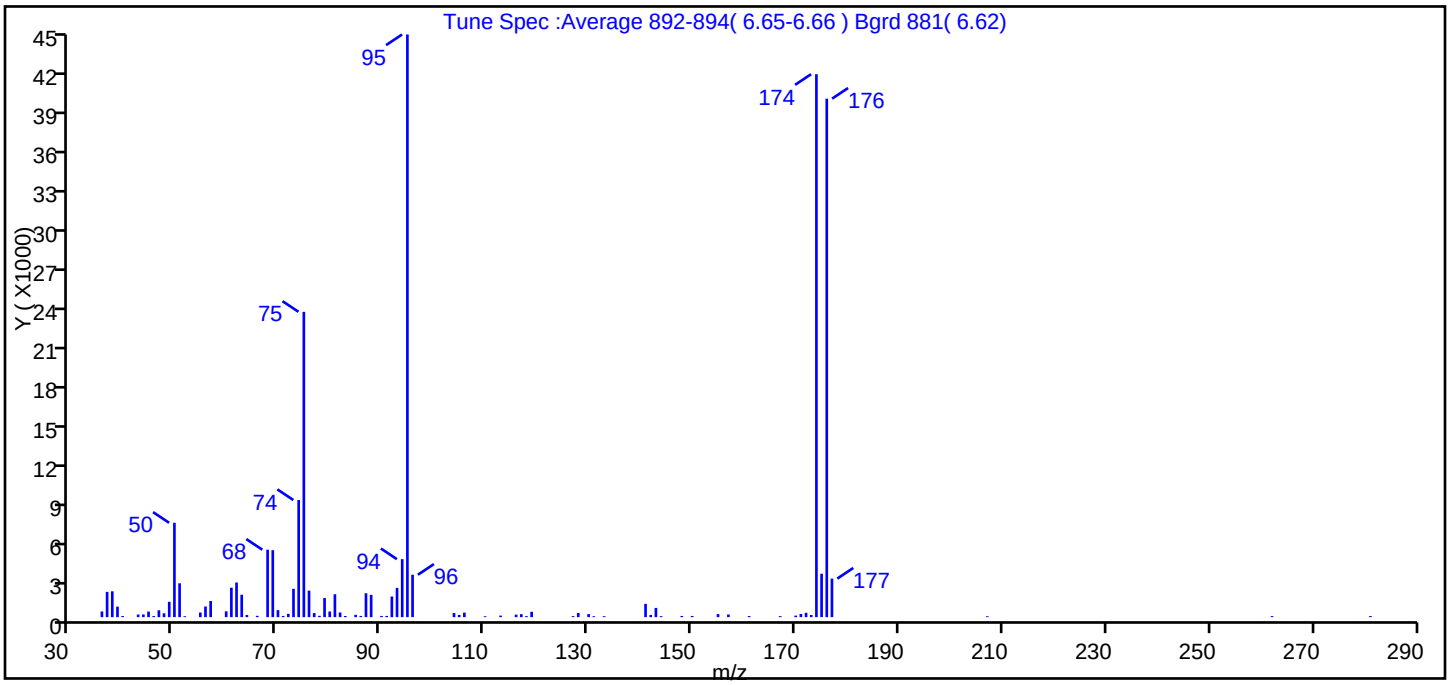
BFB_00204 Amount Added: 2.00 Units: uL

MS Tune Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14000A.D
Injection Date: 19-May-2016 09:06:30 Instrument ID: CHVOAMS10
Lims ID: BFB
Client ID:
Operator ID: DT ALS Bottle#: 51 Worklist Smp#: 2
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260w5_10 Limit Group: VOA - 8260B_8260BLL
Tune Method: BFB Method 8260

$ 173 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.2
75	30 to 60% of m/z 95	52.4
96	5 to 9% of m/z 95	7.3
173	Less than 2% of m/z 174	0.4 (0.4)
174	50 to 120% of m/z 95	93.2
175	5 to 9% of m/z 174	7.5 (8.0)
176	Greater than 95% but less than 101% of m/z 174	89.0 (95.5)
177	5 to 9% of m/z 176	6.6 (7.4)

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14000A.D\8260w5_10.rslt\spectra.d
Injection Date: 19-May-2016 09:06:30
Spectrum: Tune Spec :Average 892-894(6.65-6.66) Bgrd 881(6.62)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 86

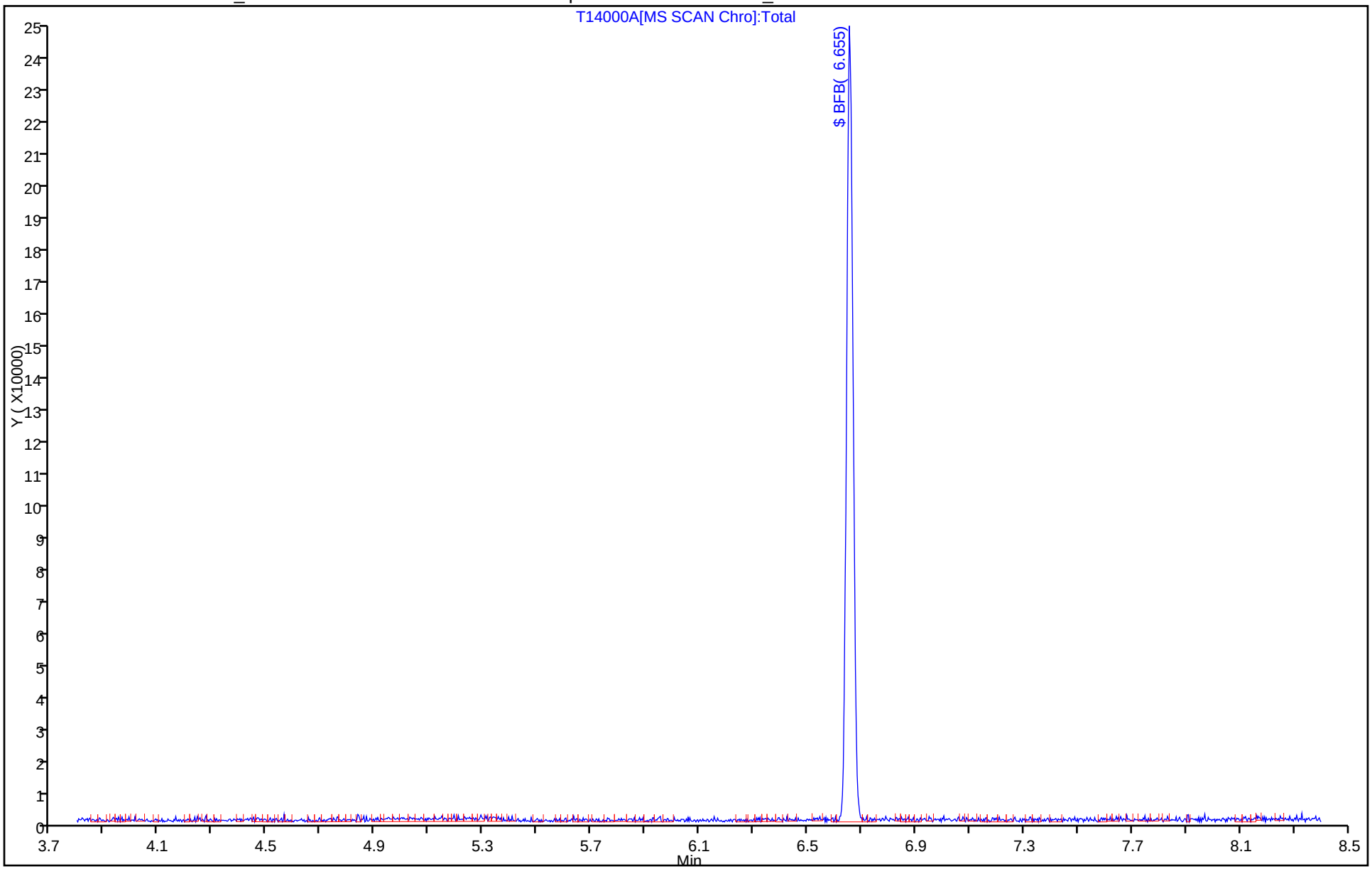
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	433	64.00	164	90.00	92	142.00	164
37.00	1924	66.00	101	91.00	92	143.00	701
38.00	1967	68.00	5136	92.00	1570	144.00	75
39.00	799	69.00	5098	93.00	2228	148.00	92
40.00	84	70.00	534	94.00	4415	150.00	92
43.00	199	71.00	92	95.00	44368	155.00	234
44.00	205	72.00	250	96.00	3228	157.00	202
45.00	424	73.00	2158	104.00	314	161.00	83
46.00	82	74.00	8918	105.00	168	167.00	76
47.00	524	75.00	23248	106.00	345	170.00	118
48.00	292	76.00	2021	110.00	67	171.00	243
49.00	1168	77.00	310	113.00	118	172.00	332
50.00	7185	78.00	101	116.00	191	173.00	163
51.00	2579	79.00	1459	117.00	227	174.00	41344
52.00	70	80.00	431	118.00	77	175.00	3306
55.00	352	81.00	1744	119.00	408	176.00	39480
56.00	812	82.00	355	127.00	75	177.00	2934
57.00	1231	83.00	87	128.00	320	207.00	68
60.00	443	85.00	176	130.00	234	262.00	77
61.00	2245	86.00	92	131.00	70	281.00	80
62.00	2637	87.00	1819	133.00	72		
63.00	1707	88.00	1697	141.00	1012		

Report Date: 19-May-2016 12:11:07 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14000A.D

Injection Date:	19-May-2016 09:06:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	BFB			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	51
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 600-188369/6

Matrix: Solid | Lab File ID: k13305.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 05/12/2016 11:00

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188369 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.630	U	5.00	0.630
100-41-4	Ethylbenzene	1.02	U	5.00	1.02
108-88-3	Toluene	1.38	U	5.00	1.38
1330-20-7	Xylenes, Total	1.13	U	5.00	1.13
179601-23-1	m-Xylene & p-Xylene	1.52	U	5.00	1.52
95-47-6	o-Xylene	1.13	U	5.00	1.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene	103		57-140
1868-53-7	Dibromofluoromethane	85		68-140
2037-26-5	Toluene-d8 (Surr)	84		50-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		61-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13305.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 12-May-2016 11:00:30 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 600-0012035-006
Operator ID: ws Instrument ID: CHVOAMS09

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 12-May-2016 11:43:11 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: shenw Date: 12-May-2016 11:43:11

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	8.460	8.454	0.006	100	345441	50.0	50.0	
	2 Dichlorodifluoromethane	85		3.894					ND	
	3 Chloromethane	50		4.132					ND	
	4 Vinyl chloride	62		4.357					ND	
	5 Butadiene	39		4.479					ND	
	6 Ethylene oxide	44		4.699					ND	
	7 Bromomethane	94		4.802					ND	
	8 Chloroethane	64		4.943					ND	
	10 Dichlorofluoromethane	67		4.979					ND	
	11 Vinyl bromide	106		5.106					ND	
	9 Ethanol	45		5.150					ND	
	12 Acetaldehyde	44	5.174	5.156	0.018	30	1339		NC	
	13 Acrolein	56		5.461					ND	
	14 Acetonitrile	41		5.467					ND	
	15 Trichlorofluoromethane	101		5.485					ND	
	16 Isopropyl alcohol	45		5.504					ND	
	17 Pentane	43		5.548					ND	
	18 Acetone	43		5.571					ND	
	19 Ethyl ether	59		5.674					ND	
	20 Propene oxide	58		5.865					ND	
	21 2-Methyl-2-propanol	59		5.949					ND	
	22 1,1-Dichloroethene	96		5.961					ND	
	23 Acrylonitrile	52		5.979					ND	
	24 Iodomethane	142		6.010					ND	
	25 Methylene Chloride	84		6.070					ND	
	26 Methyl acetate	43		6.089					ND	
	27 1,1,2-Trichloro-1,2,2-trif	151		6.119					ND	
	28 3-Chloro-1-propene	76		6.150					ND	
	29 Carbon disulfide	76		6.308					ND	
	30 trans-1,2-Dichloroethene	96		6.625					ND	
	31 Methyl tert-butyl ether	73		6.692					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Propionitrile	54		6.802					ND	
33 1,1-Dichloroethane	63		6.820					ND	
34 Vinyl acetate	43		6.881					ND	
35 2-Chloro-1,3-butadiene	53		7.107					ND	
36 Hexane	57		7.119					ND	
38 2-Butanone (MEK)	72		7.125					ND	
37 Isopropyl ether	45		7.125					ND	
39 Methacrylonitrile	66		7.204					ND	
40 cis-1,2-Dichloroethene	96		7.265					ND	
41 Ethyl acetate	43		7.357					ND	
42 Chlorobromomethane	128		7.393					ND	
44 Chloroform	83		7.424					ND	
45 Tert-butyl ethyl ether	59		7.430					ND	
43 Methyl acrylate	55		7.436					ND	
46 Isobutyl alcohol	43		7.448					ND	
47 2,2-Dichloropropane	77		7.485					ND	
49 1,1 Dichloropropane	77		7.491					ND	
$ 48 Dibromofluoromethane	113	7.521	7.515	0.006	93	116648	50.0		42.3
S 50 1,2-Dichloroethene, Total	96		7.590					ND	
51 Tetrahydrofuran	42		7.674					ND	
52 Epichlorohydrin TIC	57		7.814					ND	
$ 55 1,2-Dichloroethane-d4 (Sur	65	7.863	7.863	0.000	0	115413	50.0		47.6
53 2-Pentanone	43		7.863					ND	
54 trans-1,2-dibromoethene	186		7.874					ND	
56 1,2-Dichloroethane	62		7.924					ND	
57 n-Butanol	56		7.997					ND	
58 1,1,1-Trichloroethane	97		8.003					ND	
59 Isopropyl acetate	43		8.015					ND	
60 1,1-Dichloropropene	75		8.137					ND	
61 Cyclohexane	84		8.235					ND	
62 Carbon tetrachloride	119		8.290					ND	
63 Benzene	78		8.314					ND	
64 Tert-amyl methyl ether	73		8.393					ND	
65 2-Methyltetrahydrofuran	71		8.509					ND	
66 Isooctane	57		8.607					ND	
67 Ethyl acrylate	55		8.643					ND	
68 n-Heptane	43		8.668					ND	
69 Dibromomethane	93		8.747					ND	
70 1,2-Dichloropropane	63		8.765					ND	
71 2-Nitropropane	43		8.765					ND	
72 Trichloroethene	130		8.796					ND	
73 Dichlorobromomethane	83		8.832					ND	
75 Methyl methacrylate	41		8.881					ND	
74 n-Propyl acetate	43		8.887					ND	
76 1,4-Dioxane	58		8.899					ND	
78 Methylcyclohexane	83		9.222					ND	
77 Tetrahydropyran	41		9.222					ND	
79 4-Methyl-2-pentanone (MIBK	43		9.393					ND	
* 80 Chlorobenzene-d5	82	11.417	11.411	0.006	82	133344	50.0		50.0
81 1-Bromo-2-chloroethane	63		8.198					ND	
82 cis-1,2-dibromoethene	186		8.744					ND	
S 83 1,2-Dibromoethene	186		8.880					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
84 2-Chloroethyl vinyl ether	63		9.113					ND	
85 cis-1,3-Dichloropropene	75		9.332					ND	
86 trans-1,3-Dichloropropene	75		9.686					ND	
87 2-Methyltetrahydropyran	85		9.787					ND	
S 88 2,3-dichlorobutane	63		9.800					ND	
89 1,1,2-Trichloroethane	97		9.850					ND	
$ 90 Toluene-d8 (Surr)	98	9.960	9.954	0.006	93	373230	50.0		42.1
91 Ethyl methacrylate	69		10.003					ND	
111 Tetrahydrothiophene	60	10.015	10.015	0.000	0	15			NC
92 Toluene	92		10.021					ND	
93 1,3-Dichloropropane	76		10.064					ND	
94 trans 2,3-dichlorobutane	63		10.143					ND	
95 2-Hexanone	43		10.155					ND	
96 Chlorodibromomethane	129		10.356					ND	
98 n-Butyl acetate	43		10.429					ND	
97 cis 2,3-dichlorobutane	63		10.430					ND	
99 Ethylene Dibromide	107		10.606					ND	
100 Tetrachloroethene	164		10.759					ND	
S 101 Xylenes, Total	106		10.900					ND	
103 1-Chlorohexane	55		11.313					ND	
104 1,1,1,2-Tetrachloroethane	131		11.362					ND	
105 Chlorobenzene	112		11.447					ND	
106 Ethylbenzene	106		11.630					ND	
107 m-Xylene & p-Xylene	91		11.819					ND	
102 Amyl acetate (mixed isomer	43		12.081					ND	
108 Styrene	104		12.179					ND	
109 Cyclohexanone	55		12.222					ND	
110 o-Xylene	106		12.264					ND	
* 112 1,4-Dichlorobenzene-d4	152	14.026	14.026	0.000	93	180020	50.0		50.0
113 cis-1,4-Dichloro-2-butene	53		11.516					ND	
114 n-Butyl acrylate	55		11.850					ND	
115 Bromoform	173		12.002					ND	
116 1,1,2,2-Tetrachloroethane	83		12.258					ND	
117 trans-1,4-Dichloro-2-buten	53		12.405					ND	
118 1,2,3-Trichloropropane	110		12.417					ND	
119 Isopropylbenzene	105		12.655					ND	
$ 120 4-Bromofluorobenzene	95	12.709	12.709	0.000	96	179764	50.0		51.3
121 Bromobenzene	156		12.953					ND	
122 N-Propylbenzene	120		13.112					ND	
123 Butyl Methacrylate	69		13.154					ND	
124 2-Chlorotoluene	126		13.234					ND	
125 4-Chlorotoluene	91		13.301					ND	
126 1,3,5-Trimethylbenzene	105		13.386					ND	
127 Pentachloroethane	167		13.630					ND	
128 tert-Butylbenzene	119		13.685					ND	
129 1,2,4-Trimethylbenzene	105		13.782					ND	
130 2-Ethyl-2-hexenal	55		13.877					ND	
131 sec-Butylbenzene	105		13.898					ND	
133 Benzyl chloride	91		13.977					ND	
134 1,3-Dichlorobenzene	146		13.984					ND	
132 2-Ethyl-1-Hexanol	57		14.026					ND	
135 1,4-Dichlorobenzene	146		14.051					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
136 4-Isopropyltoluene	119		14.063					ND	
137 1,2,3-Trimethylbenzene	105		14.209					ND	
138 1,2-Dichlorobenzene	146		14.398					ND	
140 2,6-Dimethyltetrahydropyra	128		14.465					ND	
139 n-Butylbenzene	91		14.465					ND	
141 1,2-Dibromo-3-Chloropropan	157		14.868					ND	
142 1,3,5-Trichlorobenzene	180		15.721					ND	
143 1,2,4-Trichlorobenzene	180		16.306					ND	
144 Naphthalene	128		16.599					ND	
145 Hexachlorobutadiene	190		16.648					ND	
146 1,2,3-Trichlorobenzene	180		16.837					ND	
147 Diazomethane TIC	1		0.000					ND	
150 2-Ethylhexyl acrylate TIC	1		0.000					ND	
155 2-Methylbutane TIC	1		0.000					ND	
168 Hexachloroethane	117		0.000					ND	
149 Propionaldehyde TIC	1		0.000					ND	
151 Styrene oxide TIC	1		0.000					ND	
156 2-Chloro-1,3-butadiene TIC	1		0.000					ND	
154 2-Ethyl-1-hexanol TIC	1		0.000					ND	
181 Mesityl oxide TIC	1		0.000					ND	
182 Isobutyl acetate	43		0.000					ND	
157 Chloromethyl methyl ether	1		0.000					ND	
152 Vinyl bromide TIC	1		0.000					ND	
153 Methyl Isocyanate TIC	1		0.000					ND	
148 Methyl n-amyl ketone	1		0.000					ND	
158 Cyclohexanol TIC	1		0.000					ND	
164 1,3-Dichloro-2-propanol TI	1		0.000					ND	
159 Propene oxide TIC	1		0.000					ND	
160 Acetone cyanohydrin TIC	1		0.000					ND	
162 Propargyl alcohol TIC	1		0.000					ND	
S 163 1,3-Dichloropropene, Total	1		0.000					ND	
161 Nitrobenzene	77		0.000					ND	
171 1-octyloxy-(1-piperidinyl)	1		0.000					ND	
S 166 Total Volatile Organic Com	1		0.000					ND	
167 2-Methyl-1,3-butadiene	1		0.000					ND	
169 Phosgene TIC	1		0.000					ND	
165 Acetaldehyde TIC	1		0.000					ND	
S 170 Trihalomethanes, Total	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

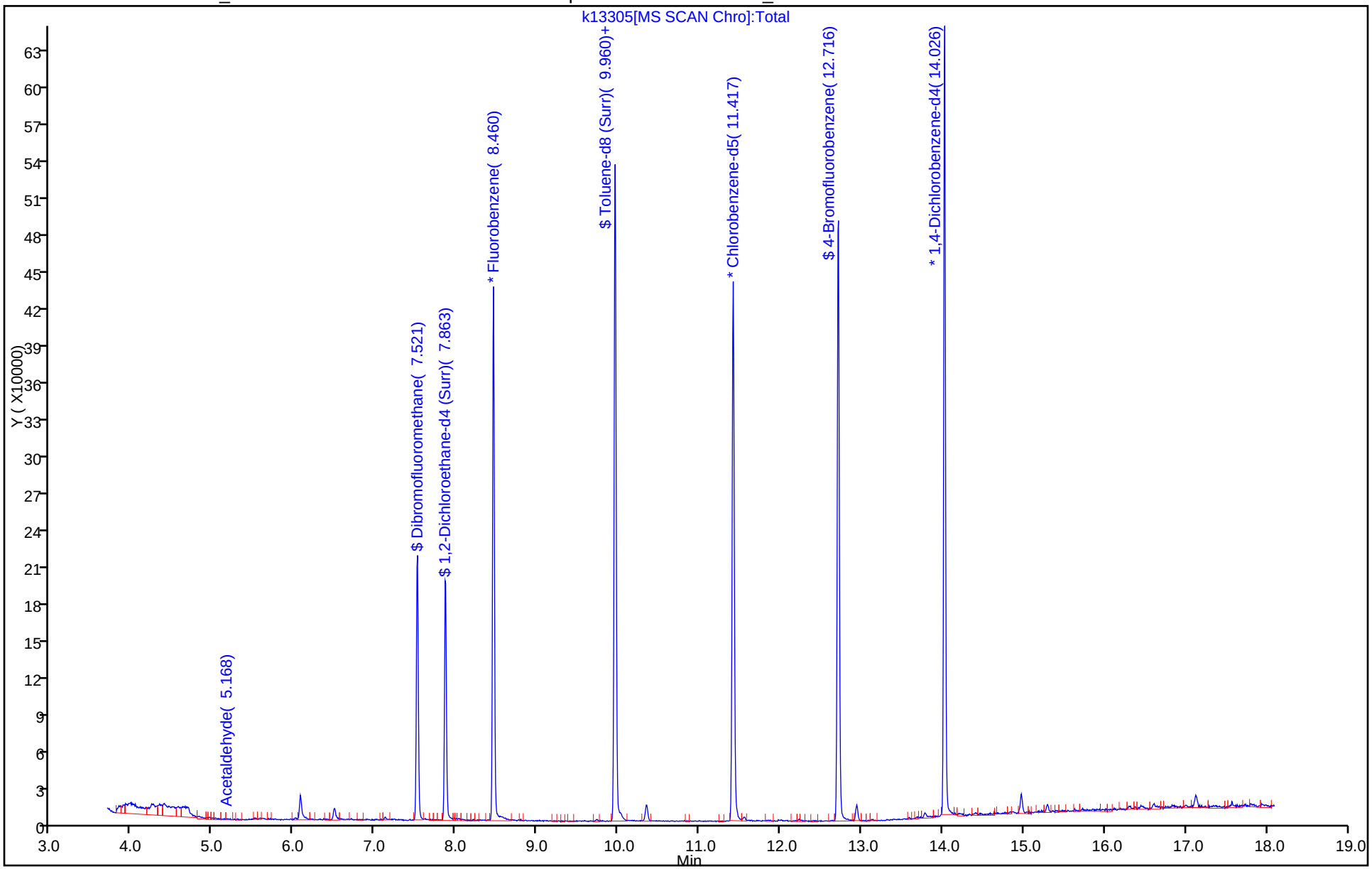
VOAIS50PPM_00172	Amount Added:	5.00	Units: uL	Run Reagent
VOASS50PPM_00210	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 12-May-2016 11:43:21 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13305.d

Injection Date:	12-May-2016 11:00:30	Instrument ID:	CHVOAMS09	Operator ID:	ws
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 600-188838/7

Matrix: Solid | Lab File ID: T14005.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/19/2016 11:54

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188838 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	0.000920	U	0.00500	0.000920
108-90-7	Chlorobenzene	0.000820	U	0.00500	0.000820
67-66-3	Chloroform	0.000820	U	0.00500	0.000820
107-06-2	1,2-Dichloroethane	0.00101	U	0.00500	0.00101
71-43-2	Benzene	0.000560	U	0.00500	0.000560
75-35-4	1,1-Dichloroethene	0.000760	U	0.00500	0.000760
78-93-3	2-Butanone (MEK)	0.00157	U	0.0100	0.00157
127-18-4	Tetrachloroethene	0.00124	U	0.00500	0.00124
79-01-6	Trichloroethene	0.00158	U	0.00500	0.00158
75-01-4	Vinyl chloride	0.000850	U	0.00500	0.000850
106-46-7	1,4-Dichlorobenzene	0.000910	U	0.00500	0.000910

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene	112		67-139
1868-53-7	Dibromofluoromethane	107		62-130
2037-26-5	Toluene-d8 (Surr)	117		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		50-134

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14005.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 19-May-2016 11:54:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 600-0012131-007
Operator ID: DT Instrument ID: CHVOAMS10

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 19-May-2016 12:22:49 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: tengd Date: 19-May-2016 12:22:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.754	8.754	0.000	99	307263	50.0	50.0	
2 Dichlorodifluoromethane	85		4.261					ND	
3 Chloromethane	50		4.608					ND	
4 Vinyl chloride	62		4.710					ND	
5 Butadiene	39		4.826					ND	
6 Acetaldehyde	44		5.038					ND	
10 Ethylene oxide	44		5.063					ND	
T 83 Acetaldehyde TIC	44		5.104					ND	
7 Bromomethane	94		5.150					ND	
9 Vinyl bromide	106		5.162					ND	
11 Chloroethane	64		5.285					ND	
13 Dichlorofluoromethane	67		5.323					ND	
24 Acrolein	56		5.808					ND	
16 Acetonitrile	41		5.817					ND	
12 Trichlorofluoromethane	101		5.837					ND	
19 Isopropyl alcohol	45		5.843					ND	
T 84 Propene oxide TIC	58		5.865					ND	
17 Propene oxide	58		5.889					ND	
18 Propionaldehyde	58		5.898					ND	
27 Acetone	43		5.920					ND	
15 Ethyl ether	59		6.026					ND	
31 2-Methyl-2-propanol	59		6.280					ND	
20 1,1-Dichloroethene	96		6.302					ND	
37 Acrylonitrile	52		6.312					ND	
23 Iodomethane	142		6.350					ND	
26 Methylene Chloride	84		6.405					ND	
28 Methyl acetate	43		6.418					ND	
21 1,1,2-Trichloro-1,2,2-trif	151		6.459					ND	
25 3-Chloro-1-propene	76		6.488					ND	
22 Carbon disulfide	76		6.652					ND	
29 trans-1,2-Dichloroethene	96		6.960					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
44 cis-1,2-Dichloroethene	96		6.960					ND	
30 Methyl tert-butyl ether	73		7.011					ND	
35 Propionitrile	54		7.117					ND	
34 1,1-Dichloroethane	63		7.152					ND	
40 Vinyl acetate	43		7.191					ND	
36 2-Chloro-1,3-butadiene	53		7.428					ND	
56 2-Butanone (MEK)	72		7.435					ND	
58 Hexane	57		7.435					ND	
32 Isopropyl ether	45		7.435					ND	
61 Methacrylonitrile	66		7.512					ND	
S 43 1,2-Dichloroethene, Total	96		7.590					ND	
47 Chlorobromomethane	128		7.704					ND	
45 Methyl acrylate	55		7.720					ND	
41 Tert-butyl ethyl ether	59		7.733					ND	
39 Isobutyl alcohol	43		7.740					ND	
46 2,2-Dichloropropane	77		7.813					ND	
$ 52 Dibromofluoromethane	113	7.833	7.829	0.004	92	78285	50.0		53.3
T 51 Epichlorohydrin TIC	57		7.898					ND	
53 Tetrahydrofuran	42		7.974					ND	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.167	8.170	-0.003	0	79760	50.0		48.8
65 1,2-Dichloroethane	62		8.230					ND	
38 n-Butanol	56		8.282					ND	
55 1,1,1-Trichloroethane	97		8.330					ND	
33 Ethyl acetate	43		8.365					ND	
57 1,1-Dichloropropene	75		8.436					ND	
69 Cyclohexane	84		8.532					ND	
67 2-Methyltetrahydrofuran	71		8.542					ND	
54 Carbon tetrachloride	119		8.600					ND	
63 Benzene	78		8.616					ND	
68 Isopropyl acetate	43		8.673					ND	
60 n-Heptane	43		8.673					ND	
62 Tert-amyl methyl ether	73		8.680					ND	
59 Isooctane	57		8.898					ND	
72 Ethyl acrylate	55		8.920					ND	
66 2-Nitropropane	43		8.952					ND	
73 Dibromomethane	93		9.058					ND	
79 1,2-Dichloropropane	63		9.068					ND	
70 Trichloroethene	130		9.097					ND	
76 n-Propyl acetate	43		9.135					ND	
75 Dichlorobromomethane	83		9.142					ND	
74 Tetrahydropyran	41		9.149					ND	
77 Methyl methacrylate	41		9.164					ND	
78 1,4-Dioxane	58		9.193					ND	
71 Methylcyclohexane	83		9.530					ND	
80 4-Methyl-2-pentanone (MIBK	43		9.687					ND	
48 Chloroform	83		12.578					ND	
T 81 Chloromethyl methyl ether	45		0.000					ND	
T 82 Vinyl bromide TIC	106		0.000					ND	
* 85 Chlorobenzene-d5	82	11.742	11.741	0.001	83	118244	50.0		50.0
89 2-Chloroethyl vinyl ether	63		9.405					ND	
90 cis-1,3-Dichloropropene	75		9.636					ND	
91 2-Methyltetrahydropyran	85		9.787					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 92 2,3-dichlorobutane	63		9.800					ND	
96 trans-1,3-Dichloropropene	75		9.999					ND	
95 trans 2,3-dichlorobutane	63		10.143					ND	
100 1,1,2-Trichloroethane	97		10.165					ND	
$ 93 Toluene-d8 (Surr)	98	10.282	10.278	0.004	92	305984	50.0	58.5	
97 Ethyl methacrylate	69		10.307					ND	
94 Toluene	92		10.352					ND	
102 1,3-Dichloropropane	76		10.387					ND	
99 cis 2,3-dichlorobutane	63		10.430					ND	
106 2-Hexanone	43		10.461					ND	
101 Chlorodibromomethane	129		10.698					ND	
103 n-Butyl acetate	43		10.740					ND	
S 104 Xylenes, Total	106		10.900					ND	
105 Ethylene Dibromide	107		10.945					ND	
107 Tetrahydrothiophene	60		11.003					ND	
98 Tetrachloroethene	164		11.086					ND	
113 1-Chlorohexane	55		11.622					ND	
110 1,1,1,2-Tetrachloroethane	131		11.690					ND	
109 Chlorobenzene	112		11.776					ND	
108 Ethylbenzene	106		11.946					ND	
111 m-Xylene & p-Xylene	91		12.139					ND	
115 Amyl acetate (mixed isomer	43		12.370					ND	
114 Styrene	104		12.501					ND	
116 Cyclohexanone	55		12.540					ND	
112 o-Xylene	106		12.582					ND	
* 117 1,4-Dichlorobenzene-d4	152	14.299	14.302	-0.003	93	118985	50.0	50.0	
120 n-Butyl acrylate	55		12.129					ND	
119 Bromoform	173		12.338					ND	
124 1,1,2,2-Tetrachloroethane	83		12.578					ND	
129 trans-1,4-Dichloro-2-buten	53		12.716					ND	
128 1,2,3-Trichloropropane	110		12.732					ND	
121 Isopropylbenzene	105		12.951					ND	
$ 122 4-Bromofluorobenzene	95	13.012	13.015	-0.003	93	97795	50.0	56.2	
125 Bromobenzene	156		13.249					ND	
123 N-Propylbenzene	120		13.393					ND	
134 Butyl Methacrylate	69		13.413					ND	
127 2-Chlorotoluene	126		13.519					ND	
130 4-Chlorotoluene	91		13.586					ND	
126 1,3,5-Trimethylbenzene	105		13.660					ND	
138 2-Ethyl-2-hexenal	55		13.877					ND	
131 tert-Butylbenzene	119		13.952					ND	
141 2-Ethyl-1-Hexanol	57		13.976					ND	
133 1,2,4-Trimethylbenzene	105		14.048					ND	
135 sec-Butylbenzene	105		14.164					ND	
143 Benzyl chloride	91		14.164					ND	
142 n-Butylbenzene	91		14.253					ND	
137 1,3-Dichlorobenzene	146		14.263					ND	
140 1,4-Dichlorobenzene	146		14.327					ND	
136 4-Isopropyltoluene	119		14.327					ND	
139 1,2,3-Trimethylbenzene	105		14.481					ND	
T 145 2,6-Dimethyltetrahydropyra	128		14.500					ND	
144 1,2-Dichlorobenzene	146		14.687					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
146 1,2-Dibromo-3-Chloropropan	157		15.165					ND	
149 1,2,4-Trichlorobenzene	180		16.028					ND	
147 1,3,5-Trichlorobenzene	180		16.641					ND	
150 Naphthalene	128		16.952					ND	
148 Hexachlorobutadiene	190		16.984					ND	
151 1,2,3-Trichlorobenzene	180		17.196					ND	
T 153 Styrene oxide TIC	120		0.000					ND	
T 155 Phosgene TIC	99		0.000					ND	
T 154 Methyl Isocyanate TIC	57		0.000					ND	
T 152 Diazomethane TIC	42		0.000					ND	
S 160 Total Volatile Organic Com	1		0.000					ND	
166 2-Methyl-1,3-butadiene	1		0.000					ND	
S 162 Trihalomethanes, Total	1		0.000					ND	
S 159 1,3-Dichloropropene, Total	1		0.000					ND	
182 Alpha Methyl Styrene	1		0.000					ND	
T 183 1,2 Epoxybutane TIC	42		7.900					ND	

Reagents:

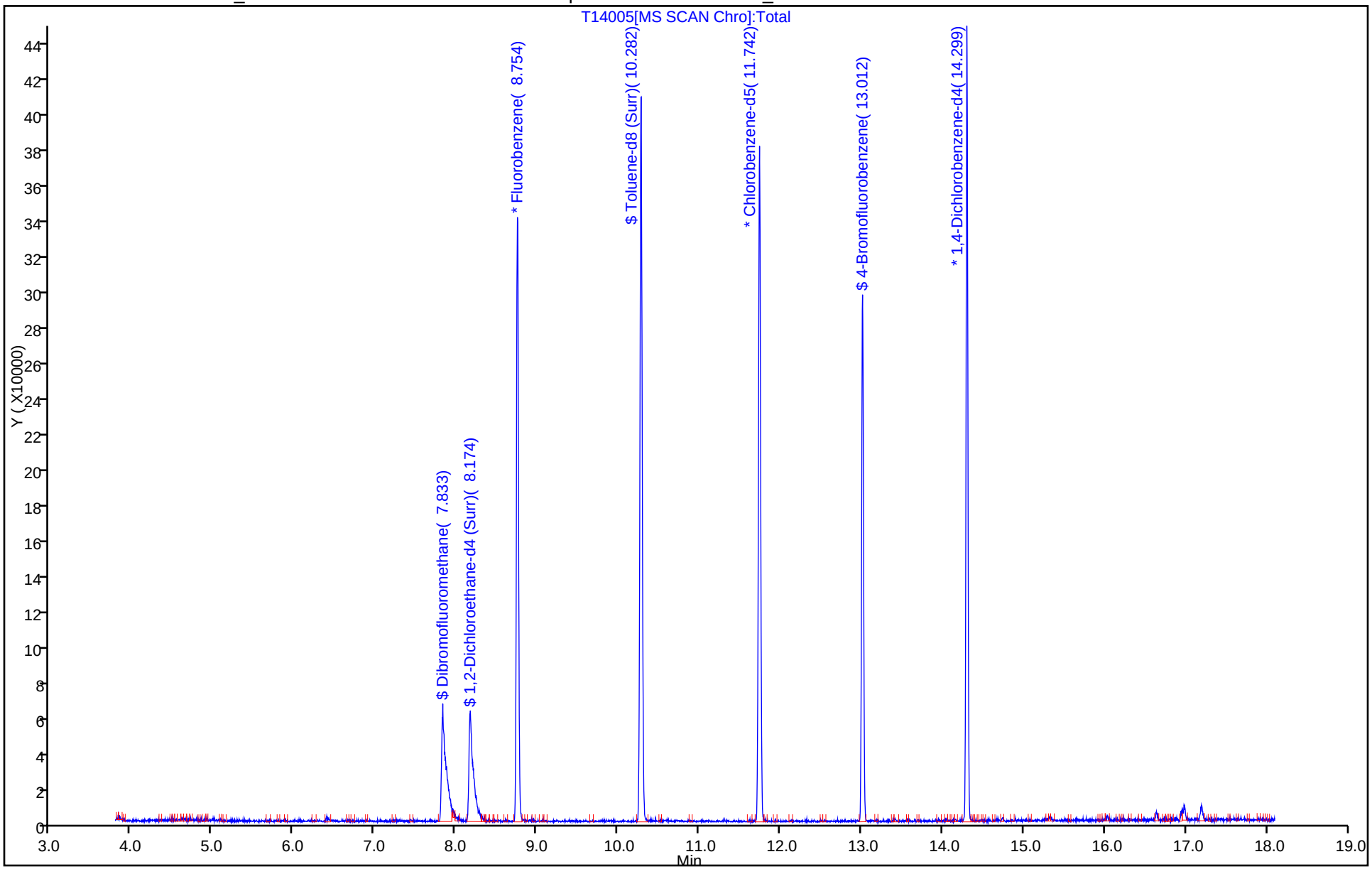
VOAIS250PPM_00048	Amount Added:	1.00	Units: uL	Run Reagent
VOASS250PPM_00024	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 19-May-2016 12:22:52 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14005.D

Injection Date:	19-May-2016 11:54:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LB 600-188875/1-A

Matrix: Solid (TCLP) | Lab File ID: T14013.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/19/2016 15:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188838 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	0.000920	U	0.00500	0.000920
108-90-7	Chlorobenzene	0.000820	U	0.00500	0.000820
67-66-3	Chloroform	0.000820	U	0.00500	0.000820
107-06-2	1,2-Dichloroethane	0.00101	U	0.00500	0.00101
71-43-2	Benzene	0.000560	U	0.00500	0.000560
75-35-4	1,1-Dichloroethene	0.000760	U	0.00500	0.000760
78-93-3	2-Butanone (MEK)	0.00157	U	0.0100	0.00157
127-18-4	Tetrachloroethene	0.00124	U	0.00500	0.00124
79-01-6	Trichloroethene	0.00158	U	0.00500	0.00158
75-01-4	Vinyl chloride	0.000850	U	0.00500	0.000850
106-46-7	1,4-Dichlorobenzene	0.000910	U	0.00500	0.000910

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene	110		67-139
1868-53-7	Dibromofluoromethane	109		62-130
2037-26-5	Toluene-d8 (Surr)	116		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		50-134

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14013.D
Lims ID: LB 600-188875/1-A
Client ID:
Sample Type: LB
Inject. Date: 19-May-2016 15:15:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lb 600-188875/1-a
Misc. Info.: 600-0012131-015
Operator ID: DT Instrument ID: CHVOAMS10

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 20-May-2016 08:24:11 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: tengd Date: 20-May-2016 08:24:11

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	8.758	8.754	0.004	99	265296	50.0	50.0	
	2 Dichlorodifluoromethane	85		4.261					ND	
	3 Chloromethane	50		4.608					ND	
	4 Vinyl chloride	62		4.710					ND	
	5 Butadiene	39		4.826					ND	
	6 Acetaldehyde	44		5.038					ND	
	10 Ethylene oxide	44		5.063					ND	
T	83 Acetaldehyde TIC	44		5.104					ND	
	7 Bromomethane	94		5.150					ND	
	9 Vinyl bromide	106		5.162					ND	
	11 Chloroethane	64		5.285					ND	
	13 Dichlorofluoromethane	67		5.323					ND	
	24 Acrolein	56		5.808					ND	
	16 Acetonitrile	41		5.817					ND	
	12 Trichlorofluoromethane	101		5.837					ND	
	19 Isopropyl alcohol	45		5.843					ND	
T	84 Propene oxide TIC	58		5.865					ND	
	17 Propene oxide	58		5.889					ND	
	18 Propionaldehyde	58		5.898					ND	
	27 Acetone	43	5.915	5.920	-0.005	99	39599		112.5	
	15 Ethyl ether	59		6.026					ND	
	31 2-Methyl-2-propanol	59		6.280					ND	
	20 1,1-Dichloroethene	96		6.302					ND	
	37 Acrylonitrile	52		6.312					ND	
	23 Iodomethane	142		6.350					ND	
	26 Methylene Chloride	84		6.405					ND	
	28 Methyl acetate	43		6.418					ND	
	21 1,1,2-Trichloro-1,2,2-trif	151		6.459					ND	
	25 3-Chloro-1-propene	76		6.488					ND	
	22 Carbon disulfide	76		6.652					ND	
	44 cis-1,2-Dichloroethene	96		6.960					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
29 trans-1,2-Dichloroethene	96		6.960					ND	
30 Methyl tert-butyl ether	73		7.011					ND	
35 Propionitrile	54		7.117					ND	
34 1,1-Dichloroethane	63		7.152					ND	
40 Vinyl acetate	43		7.191					ND	
36 2-Chloro-1,3-butadiene	53		7.428					ND	
58 Hexane	57		7.435					ND	
32 Isopropyl ether	45		7.435					ND	
56 2-Butanone (MEK)	72		7.435					ND	
61 Methacrylonitrile	66		7.512					ND	
S 43 1,2-Dichloroethene, Total	96		7.590					ND	
47 Chlorobromomethane	128		7.704					ND	
45 Methyl acrylate	55		7.720					ND	
41 Tert-butyl ethyl ether	59		7.733					ND	
39 Isobutyl alcohol	43		7.740					ND	
46 2,2-Dichloropropane	77		7.813					ND	
$ 52 Dibromofluoromethane	113	7.834	7.829	0.005	91	68869	50.0	54.3	
T 51 Epichlorohydrin TIC	57		7.898					ND	
53 Tetrahydrofuran	42		7.974					ND	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.174	8.170	0.004	0	71396	50.0	50.6	
65 1,2-Dichloroethane	62		8.230					ND	
38 n-Butanol	56		8.282					ND	
55 1,1,1-Trichloroethane	97		8.330					ND	
33 Ethyl acetate	43		8.365					ND	
57 1,1-Dichloropropene	75		8.436					ND	
69 Cyclohexane	84		8.532					ND	
67 2-Methyltetrahydrofuran	71		8.542					ND	
54 Carbon tetrachloride	119		8.600					ND	
63 Benzene	78		8.616					ND	
68 Isopropyl acetate	43		8.673					ND	
60 n-Heptane	43		8.673					ND	
62 Tert-amyl methyl ether	73		8.680					ND	
59 Isooctane	57		8.898					ND	
72 Ethyl acrylate	55		8.920					ND	
66 2-Nitropropane	43		8.952					ND	
73 Dibromomethane	93		9.058					ND	
79 1,2-Dichloropropane	63		9.068					ND	
70 Trichloroethene	130		9.097					ND	
76 n-Propyl acetate	43		9.135					ND	
75 Dichlorobromomethane	83		9.142					ND	
74 Tetrahydropyran	41		9.149					ND	
77 Methyl methacrylate	41		9.164					ND	
78 1,4-Dioxane	58		9.193					ND	
71 Methylcyclohexane	83		9.530					ND	
80 4-Methyl-2-pentanone (MIBK	43		9.687					ND	
48 Chloroform	83		12.578					ND	
T 82 Vinyl bromide TIC	106		0.000					ND	
T 81 Chloromethyl methyl ether	45		0.000					ND	
* 85 Chlorobenzene-d5	82	11.745	11.741	0.004	83	102353	50.0	50.0	
89 2-Chloroethyl vinyl ether	63		9.405					ND	
90 cis-1,3-Dichloropropene	75		9.636					ND	
91 2-Methyltetrahydropyran	85		9.787					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 92 2,3-dichlorobutane	63		9.800					ND	
96 trans-1,3-Dichloropropene	75		9.999					ND	
95 trans 2,3-dichlorobutane	63		10.143					ND	
100 1,1,2-Trichloroethane	97		10.165					ND	
$ 93 Toluene-d8 (Surr)	98	10.282	10.278	0.004	93	263221	50.0	58.2	
97 Ethyl methacrylate	69		10.307					ND	
94 Toluene	92		10.352					ND	
102 1,3-Dichloropropane	76		10.387					ND	
99 cis 2,3-dichlorobutane	63		10.430					ND	
106 2-Hexanone	43		10.461					ND	
101 Chlorodibromomethane	129		10.698					ND	
103 n-Butyl acetate	43		10.740					ND	
S 104 Xylenes, Total	106		10.900					ND	
105 Ethylene Dibromide	107		10.945					ND	
107 Tetrahydrothiophene	60		11.003					ND	
98 Tetrachloroethene	164		11.086					ND	
113 1-Chlorohexane	55		11.622					ND	
110 1,1,1,2-Tetrachloroethane	131		11.690					ND	
109 Chlorobenzene	112		11.776					ND	
108 Ethylbenzene	106		11.946					ND	
111 m-Xylene & p-Xylene	91		12.139					ND	
115 Amyl acetate (mixed isomer	43		12.370					ND	
114 Styrene	104		12.501					ND	
116 Cyclohexanone	55		12.540					ND	
112 o-Xylene	106		12.582					ND	
* 117 1,4-Dichlorobenzene-d4	152	14.303	14.302	0.001	94	99943	50.0	50.0	
120 n-Butyl acrylate	55		12.129					ND	
119 Bromoform	173		12.338					ND	
124 1,1,2,2-Tetrachloroethane	83		12.578					ND	
129 trans-1,4-Dichloro-2-buten	53		12.716					ND	
128 1,2,3-Trichloropropane	110		12.732					ND	
121 Isopropylbenzene	105		12.951					ND	
$ 122 4-Bromofluorobenzene	95	13.013	13.015	-0.002	92	80365	50.0	54.9	
125 Bromobenzene	156		13.249					ND	
123 N-Propylbenzene	120		13.393					ND	
134 Butyl Methacrylate	69		13.413					ND	
127 2-Chlorotoluene	126		13.519					ND	
130 4-Chlorotoluene	91		13.586					ND	
126 1,3,5-Trimethylbenzene	105		13.660					ND	
138 2-Ethyl-2-hexenal	55		13.877					ND	
131 tert-Butylbenzene	119		13.952					ND	
141 2-Ethyl-1-Hexanol	57		13.976					ND	
133 1,2,4-Trimethylbenzene	105		14.048					ND	
143 Benzyl chloride	91		14.164					ND	
135 sec-Butylbenzene	105		14.164					ND	
142 n-Butylbenzene	91		14.253					ND	
137 1,3-Dichlorobenzene	146		14.263					ND	
136 4-Isopropyltoluene	119		14.327					ND	
140 1,4-Dichlorobenzene	146		14.327					ND	
139 1,2,3-Trimethylbenzene	105		14.481					ND	
T 145 2,6-Dimethyltetrahydropyra	128		14.500					ND	
144 1,2-Dichlorobenzene	146		14.687					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
146 1,2-Dibromo-3-Chloropropan	157		15.165					ND	
149 1,2,4-Trichlorobenzene	180		16.028					ND	
147 1,3,5-Trichlorobenzene	180		16.641					ND	
150 Naphthalene	128		16.952					ND	
148 Hexachlorobutadiene	190		16.984					ND	
151 1,2,3-Trichlorobenzene	180		17.196					ND	
T 152 Diazomethane TIC	42		0.000					ND	
T 153 Styrene oxide TIC	120		0.000					ND	
T 154 Methyl Isocyanate TIC	57		0.000					ND	
T 155 Phosgene TIC	99		0.000					ND	
166 2-Methyl-1,3-butadiene	1		0.000					ND	
S 160 Total Volatile Organic Com	1		0.000					ND	
S 162 Trihalomethanes, Total	1		0.000					ND	
182 Alpha Methyl Styrene	1		0.000					ND	
S 159 1,3-Dichloropropene, Total	1		0.000					ND	
T 183 1,2 Epoxybutane TIC	42		7.900					ND	

Reagents:

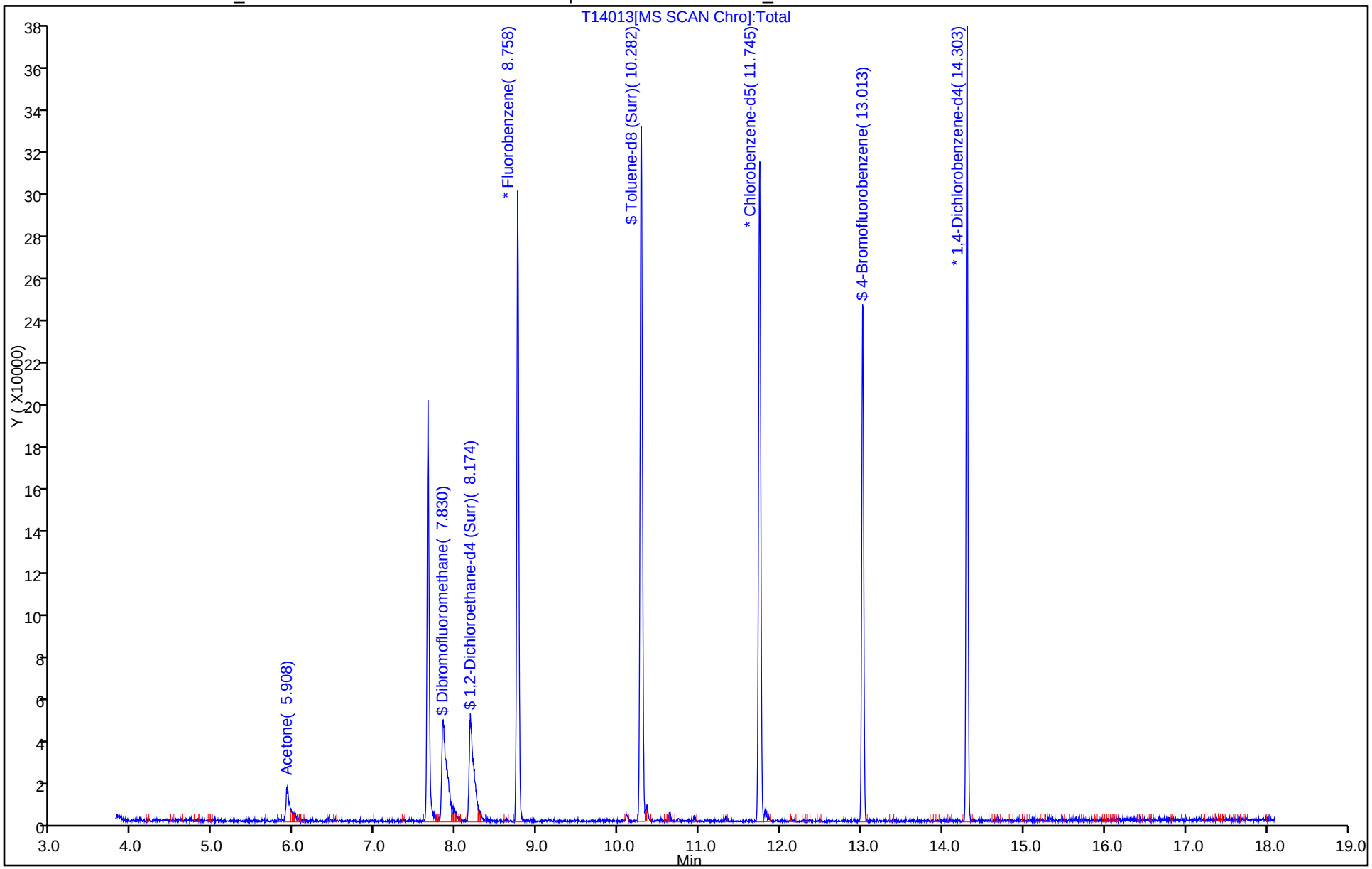
VOAIS250PPM_00048	Amount Added:	1.00	Units: uL	Run Reagent
VOASS250PPM_00024	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 20-May-2016 08:24:12 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14013.D

Injection Date:	19-May-2016 15:15:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	LB 600-188875/1-A			Worklist Smp#:	15
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 600-188369/3

Matrix: Solid | Lab File ID: k13302.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 05/12/2016 09:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188369 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	50.98		5.00	0.630
100-41-4	Ethylbenzene	48.43		5.00	1.02
108-88-3	Toluene	54.51		5.00	1.38
1330-20-7	Xylenes, Total	103.9		5.00	1.13
179601-23-1	m-Xylene & p-Xylene	50.40		5.00	1.52
95-47-6	o-Xylene	53.46		5.00	1.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene	102		57-140
1868-53-7	Dibromofluoromethane	97		68-140
2037-26-5	Toluene-d8 (Surr)	94		50-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	76		61-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13302.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 12-May-2016 09:47:30 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 600-0012035-003
Operator ID: ws Instrument ID: CHVOAMS09

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 13-May-2016 14:21:26 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: shenw Date: 12-May-2016 10:26:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.454	8.454	0.000	100	370765	50.0	50.0	
2 Dichlorodifluoromethane	85	3.894	3.894	0.000	99	172631	50.0	48.0	
3 Chloromethane	50	4.126	4.132	-0.006	100	168267	50.0	44.3	
4 Vinyl chloride	62	4.358	4.357	0.001	98	141688	50.0	44.7	
5 Butadiene	39	4.479	4.479	0.000	94	124699	50.0	46.9	
6 Ethylene oxide	44	4.699	4.699	0.000	98	134358	500.0	382.2	
7 Bromomethane	94	4.803	4.802	0.001	89	128652	50.0	46.5	
8 Chloroethane	64	4.943	4.943	0.000	99	85717	50.0	48.3	
10 Dichlorofluoromethane	67	4.979	4.979	0.000	98	230086	50.0	48.4	
9 Ethanol	45	5.187	5.150	0.037	21	3111	NC	NC	
13 Acrolein	56	5.473	5.461	0.012	25	2585	250.0	261.4	
14 Acetonitrile	41	5.467	5.467	0.000	99	129433	500.0	455.4	
15 Trichlorofluoromethane	101	5.485	5.485	0.000	98	217831	50.0	50.0	
16 Isopropyl alcohol	45	5.504	5.504	0.000	98	69433	500.0	522.4	
18 Acetone	43	5.571	5.571	0.000	99	51554	100.0	72.7	
19 Ethyl ether	59	5.674	5.674	0.000	96	93485	50.0	43.5	
21 2-Methyl-2-propanol	59	5.949	5.949	0.000	99	129095	500.0	438.2	
22 1,1-Dichloroethene	96	5.955	5.961	-0.006	97	140035	50.0	51.0	
23 Acrylonitrile	52	5.979	5.979	0.000	98	252233	500.0	385.0	
24 Iodomethane	142	6.004	6.010	-0.006	99	321594	50.0	49.0	
25 Methylene Chloride	84	6.071	6.070	0.001	96	181449	50.0	53.9	
26 Methyl acetate	43	6.089	6.089	0.000	100	362515	250.0	183.5	
27 1,1,2-Trichloro-1,2,2-trif	151	6.113	6.119	-0.006	89	121241	50.0	49.3	
28 3-Chloro-1-propene	76	6.150	6.150	0.000	93	68960	50.0	52.7	
29 Carbon disulfide	76	6.308	6.308	0.000	99	487477	50.0	50.8	
30 trans-1,2-Dichloroethene	96	6.625	6.625	0.000	98	137713	50.0	50.0	
31 Methyl tert-butyl ether	73	6.692	6.692	0.000	97	299709	50.0	45.0	
32 Propionitrile	54	6.802	6.802	0.000	99	126900	500.0	350.6	
33 1,1-Dichloroethane	63	6.820	6.820	0.000	95	221994	50.0	50.6	
34 Vinyl acetate	43	6.881	6.881	0.000	97	404445	100.0	97.5	
35 2-Chloro-1,3-butadiene	53	7.107	7.107	0.000	91	200777	50.0	52.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 Hexane	57	7.119	7.119	0.000	92	199927	50.0	51.7	
37 Isopropyl ether	45	7.125	7.125	0.000	93	461947	50.0	51.8	
38 2-Butanone (MEK)	72	7.125	7.125	0.000	92	21674	100.0	81.1	
39 Methacrylonitrile	66	7.205	7.204	0.001	95	114450	500.0	381.0	
40 cis-1,2-Dichloroethene	96	7.259	7.265	-0.006	79	150658	50.0	49.7	
41 Ethyl acetate	43	7.357	7.357	0.000	99	188309	100.0	76.0	
42 Chlorobromomethane	128	7.394	7.393	0.001	87	86000	50.0	45.6	
44 Chloroform	83	7.424	7.424	0.000	92	241384	50.0	50.7	
45 Tert-butyl ethyl ether	59	7.430	7.430	0.000	99	384597	50.0	49.4	
46 Isobutyl alcohol	43	7.448	7.448	0.000	93	191679	1250.0	982.1	
47 2,2-Dichloropropane	77	7.485	7.485	0.000	89	144571	50.0	51.0	
$ 48 Dibromofluoromethane	113	7.515	7.515	0.000	93	143437	50.0	48.4	
S 50 1,2-Dichloroethene, Total	96				0		100.0	99.8	
51 Tetrahydrofuran	42	7.674	7.674	0.000	91	65108	100.0	66.8	
$ 55 1,2-Dichloroethane-d4 (Sur	65	7.863	7.863	0.000	0	99264	50.0	38.2	
56 1,2-Dichloroethane	62	7.924	7.924	0.000	96	146445	50.0	46.2	
57 n-Butanol	56	7.997	7.997	0.000	90	83575	1250.0	1109.6	
58 1,1,1-Trichloroethane	97	8.003	8.003	0.000	97	213642	50.0	52.4	
60 1,1-Dichloropropene	75	8.137	8.137	0.000	92	161829	50.0	50.9	
61 Cyclohexane	84	8.235	8.235	0.000	93	159139	50.0	50.0	
62 Carbon tetrachloride	119	8.290	8.290	0.000	96	206710	50.0	52.3	
63 Benzene	78	8.314	8.314	0.000	97	486960	50.0	51.0	
64 Tert-amyl methyl ether	73	8.393	8.393	0.000	98	311444	50.0	47.2	
66 Isooctane	57	8.607	8.607	0.000	96	495305	50.0	51.6	
67 Ethyl acrylate	55	8.643	8.643	0.000	97	179176	50.0	45.3	
68 n-Heptane	43	8.668	8.668	0.000	97	242521	50.0	54.5	
69 Dibromomethane	93	8.747	8.747	0.000	92	81188	50.0	44.1	
70 1,2-Dichloropropane	63	8.765	8.765	0.000	94	123836	50.0	49.9	
71 2-Nitropropane	43	8.771	8.765	0.006	86	49000	100.0	74.9	
72 Trichloroethene	130	8.796	8.796	0.000	94	186843	50.0	50.2	
73 Dichlorobromomethane	83	8.832	8.832	0.000	99	183800	50.0	49.6	
75 Methyl methacrylate	41	8.881	8.881	0.000	96	184400	100.0	81.5	
76 1,4-Dioxane	58	8.899	8.899	0.000	92	13668	1000.0	1161.8	
78 Methylcyclohexane	83	9.222	9.222	0.000	92	219783	50.0	52.2	
79 4-Methyl-2-pentanone (MIBK	43	9.393	9.393	0.000	97	216392	100.0	75.9	
* 80 Chlorobenzene-d5	82	11.411	11.411	0.000	82	130414	50.0	50.0	
84 2-Chloroethyl vinyl ether	63	9.113	9.113	0.000	93	123474	100.0	89.4	
85 cis-1,3-Dichloropropene	75	9.332	9.332	0.000	94	191328	50.0	51.4	
86 trans-1,3-Dichloropropene	75	9.686	9.686	0.000	93	166295	50.0	50.2	
89 1,1,2-Trichloroethane	97	9.850	9.850	0.000	88	113588	50.0	47.9	
$ 90 Toluene-d8 (Surr)	98	9.954	9.954	0.000	93	406789	50.0	46.9	
91 Ethyl methacrylate	69	10.003	10.003	0.000	93	125585	50.0	46.6	
92 Toluene	92	10.021	10.021	0.000	98	326551	50.0	54.5	
93 1,3-Dichloropropane	76	10.064	10.064	0.000	92	161965	50.0	47.7	
95 2-Hexanone	43	10.155	10.155	0.000	99	150792	100.0	78.8	
96 Chlorodibromomethane	129	10.356	10.356	0.000	90	164314	50.0	47.4	
98 n-Butyl acetate	43	10.430	10.429	0.001	98	172826	50.0	40.1	
99 Ethylene Dibromide	107	10.606	10.606	0.000	98	119726	50.0	44.3	
100 Tetrachloroethene	164	10.759	10.759	0.000	96	128165	50.0	51.2	
S 101 Xylenes, Total	106				0		100.0	103.9	
103 1-Chlorohexane	55	11.314	11.313	0.001	96	116112	50.0	53.1	
104 1,1,1,2-Tetrachloroethane	131	11.362	11.362	0.000	93	158638	50.0	49.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 Chlorobenzene	112	11.448	11.447	0.001	99	368714	50.0	46.9	
106 Ethylbenzene	106	11.631	11.630	0.001	97	188271	50.0	48.4	
107 m-Xylene & p-Xylene	91	11.820	11.819	0.001	0	450363	50.0	50.4	
108 Styrene	104	12.179	12.179	0.000	95	425000	50.0	54.6	
109 Cyclohexanone	55	12.222	12.222	0.000	92	207343	2500.0	1840.6	
110 o-Xylene	106	12.265	12.264	0.001	96	266179	50.0	53.5	
* 112 1,4-Dichlorobenzene-d4	152	14.020	14.026	-0.006	91	188050	50.0	50.0	
115 Bromoform	173	12.002	12.002	0.000	98	93395	50.0	41.5	
116 1,1,2,2-Tetrachloroethane	83	12.258	12.258	0.000	94	148659	50.0	40.4	
117 trans-1,4-Dichloro-2-buten	53	12.411	12.405	0.006	83	35729	50.0	40.8	
118 1,2,3-Trichloropropane	110	12.417	12.417	0.000	86	39252	50.0	39.3	
119 Isopropylbenzene	105	12.655	12.655	0.000	95	689239	50.0	52.7	
$ 120 4-Bromofluorobenzene	95	12.710	12.709	0.001	97	186100	50.0	50.9	
121 Bromobenzene	156	12.953	12.953	0.000	85	197162	50.0	48.7	
122 N-Propylbenzene	120	13.112	13.112	0.000	99	202467	50.0	52.7	
124 2-Chlorotoluene	126	13.234	13.234	0.000	99	189698	50.0	50.8	
125 4-Chlorotoluene	91	13.301	13.301	0.000	95	493588	50.0	51.8	
126 1,3,5-Trimethylbenzene	105	13.386	13.386	0.000	95	596661	50.0	52.6	
128 tert-Butylbenzene	119	13.685	13.685	0.000	92	542190	50.0	52.5	
129 1,2,4-Trimethylbenzene	105	13.783	13.782	0.001	97	631976	50.0	52.1	
131 sec-Butylbenzene	105	13.898	13.898	0.000	93	828236	50.0	53.6	
133 Benzyl chloride	91	13.978	13.977	0.001	98	288071	50.0	43.1	
134 1,3-Dichlorobenzene	146	13.984	13.984	0.000	97	405294	50.0	50.2	
135 1,4-Dichlorobenzene	146	14.051	14.051	0.000	97	410299	50.0	50.0	
136 4-Isopropyltoluene	119	14.063	14.063	0.000	98	739826	50.0	53.0	
137 1,2,3-Trimethylbenzene	105	14.209	14.209	0.000	97	644541	50.0	51.1	
138 1,2-Dichlorobenzene	146	14.398	14.398	0.000	99	386479	50.0	47.9	
139 n-Butylbenzene	91	14.465	14.465	0.000	97	650952	50.0	53.5	
141 1,2-Dibromo-3-Chloropropan	157	14.868	14.868	0.000	93	38508	50.0	36.0	
142 1,3,5-Trichlorobenzene	180	15.721	15.721	0.000	98	332243	50.0	50.0	
143 1,2,4-Trichlorobenzene	180	16.306	16.306	0.000	95	312408	50.0	48.1	
144 Naphthalene	128	16.599	16.599	0.000	96	612069	50.0	37.8	
145 Hexachlorobutadiene	190	16.648	16.648	0.000	98	76472	50.0	52.2	
146 1,2,3-Trichlorobenzene	180	16.837	16.837	0.000	97	283929	50.0	45.7	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

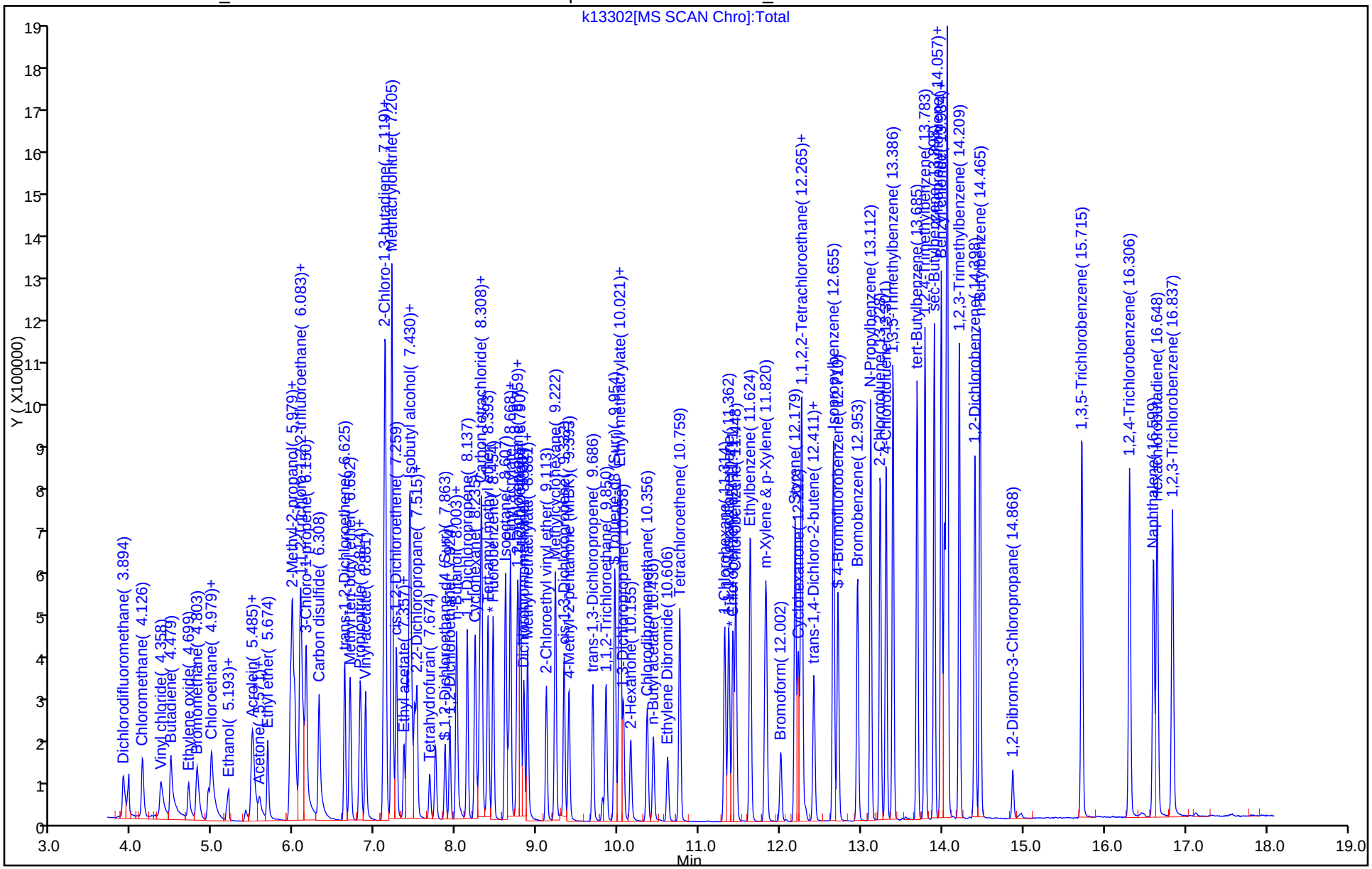
EOxideLcs_00072	Amount Added:	5.00	Units: uL	
VOALCSPT2_00057	Amount Added:	5.00	Units: uL	
VOALCSGASPT_00167	Amount Added:	5.00	Units: uL	
VOAIS50PPM_00172	Amount Added:	5.00	Units: uL	Run Reagent
VOASS50PPM_00210	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 13-May-2016 14:21:41 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13302.d

Injection Date:	12-May-2016 09:47:30	Instrument ID:	CHVOAMS09	Operator ID:	ws
Lims ID:	lcs			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 600-188838/4

Matrix: Solid | Lab File ID: T14002.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/19/2016 10:13

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188838 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	0.04596		0.00500	0.000920
108-90-7	Chlorobenzene	0.05054		0.00500	0.000820
67-66-3	Chloroform	0.04575		0.00500	0.000820
107-06-2	1,2-Dichloroethane	0.04680		0.00500	0.00101
71-43-2	Benzene	0.04488		0.00500	0.000560
75-35-4	1,1-Dichloroethene	0.04981		0.00500	0.000760
78-93-3	2-Butanone (MEK)	0.08868		0.0100	0.00157
127-18-4	Tetrachloroethene	0.05293		0.00500	0.00124
79-01-6	Trichloroethene	0.05017		0.00500	0.00158
75-01-4	Vinyl chloride	0.05406		0.00500	0.000850
106-46-7	1,4-Dichlorobenzene	0.04677		0.00500	0.000910

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene	108		67-139
1868-53-7	Dibromofluoromethane	115		62-130
2037-26-5	Toluene-d8 (Surr)	120		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		50-134

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14002.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-May-2016 10:13:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 600-0012131-004
Operator ID: DT Instrument ID: CHVOAMS10

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 20-May-2016 10:44:10 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: tengd Date: 20-May-2016 10:44:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.756	8.754	0.002	99	323321	50.0	50.0	
2 Dichlorodifluoromethane	85	4.254	4.261	-0.007	65	61908	50.0	36.9	
3 Chloromethane	50	4.610	4.608	0.002	98	116033	50.0	42.3	
4 Vinyl chloride	62	4.697	4.710	-0.013	98	153261	50.0	54.1	
5 Butadiene	39	4.832	4.826	0.006	91	73244	50.0	38.9	
10 Ethylene oxide	44	5.060	5.063	-0.003	99	187731	500.0	497.2	
7 Bromomethane	94	5.156	5.150	0.006	83	64831	50.0	47.2	
11 Chloroethane	64	5.284	5.285	-0.001	92	48869	50.0	49.9	
13 Dichlorofluoromethane	67	5.326	5.323	0.003	98	133449	50.0	50.5	
24 Acrolein	56	5.801	5.808	-0.007	59	35936	250.0	213.4	
16 Acetonitrile	41	5.814	5.817	-0.003	99	79253	500.0	472.7	
12 Trichlorofluoromethane	101	5.836	5.837	-0.001	90	119806	50.0	57.7	
19 Isopropyl alcohol	45	5.852	5.843	0.009	62	27584	500.0	555.6	
18 Propionaldehyde	58	5.891	5.898	-0.007	81	136293	502.7	453.4	
27 Acetone	43	5.916	5.920	-0.004	33	33310	100.0	77.6	
15 Ethyl ether	59	6.032	6.026	0.006	88	53316	50.0	44.6	
31 2-Methyl-2-propanol	59	6.276	6.280	-0.004	98	39407	500.0	488.4	
20 1,1-Dichloroethene	96	6.308	6.302	0.006	96	63703	50.0	49.8	
37 Acrylonitrile	52	6.314	6.312	0.002	99	187971	500.0	422.6	
23 Iodomethane	142	6.356	6.350	0.006	99	108427	50.0	55.6	
26 Methylene Chloride	84	6.410	6.405	0.005	59	73912	50.0	44.6	
28 Methyl acetate	43	6.417	6.418	-0.001	94	220299	250.0	218.5	
21 1,1,2-Trichloro-1,2,2-trif	151	6.471	6.459	0.012	58	38455	50.0	47.1	
25 3-Chloro-1-propene	76	6.491	6.490	0.003	67	35162	50.0	47.4	
22 Carbon disulfide	76	6.661	6.652	0.009	98	200362	50.0	42.9	
29 trans-1,2-Dichloroethene	96	6.956	6.960	-0.004	74	76041	50.0	48.1	
44 cis-1,2-Dichloroethene	96	6.956	6.960	-0.004	65	76041	50.0	47.6	
30 Methyl tert-butyl ether	73	7.007	7.011	-0.004	93	184757	50.0	42.3	
35 Propionitrile	54	7.116	7.117	-0.001	98	79901	500.0	453.0	
34 1,1-Dichloroethane	63	7.155	7.152	0.003	71	116674	50.0	44.1	
40 Vinyl acetate	43	7.193	7.191	0.002	94	193685	100.0	87.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Chloro-1,3-butadiene	53	7.431	7.428	0.003	92	93186	50.0	42.2	
56 2-Butanone (MEK)	72	7.434	7.435	-0.001	77	15690	100.0	88.7	
58 Hexane	57	7.437	7.435	0.002	60	50161	50.0	38.6	
32 Isopropyl ether	45	7.437	7.435	0.002	89	210961	50.0	42.8	
61 Methacrylonitrile	66	7.518	7.512	0.006	88	107249	500.0	439.1	
S 43 1,2-Dichloroethene, Total	96				0		100.0	95.8	
47 Chlorobromomethane	128	7.713	7.704	0.009	84	46679	50.0	52.6	
45 Methyl acrylate	55	7.720	7.720	0.000	63	123850	100.0	83.6	
41 Tert-butyl ethyl ether	59	7.736	7.733	0.003	93	230873	50.0	43.4	
39 Isobutyl alcohol	43	7.739	7.740	-0.001	94	82840	1250.0	1140.8	
46 2,2-Dichloropropane	77	7.813	7.813	0.000	38	81479	50.0	48.2	
$ 52 Dibromofluoromethane	113	7.838	7.829	0.009	94	89136	50.0	57.7	
53 Tetrahydrofuran	42	7.983	7.974	0.009	86	34543	100.0	85.3	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.172	8.170	0.002	0	89934	50.0	52.3	
65 1,2-Dichloroethane	62	8.230	8.230	0.000	96	104221	50.0	46.8	
38 n-Butanol	56	8.284	8.282	0.002	91	35712	1250.0	1396.4	
55 1,1,1-Trichloroethane	97	8.320	8.330	-0.010	90	104641	50.0	49.4	
33 Ethyl acetate	43	8.365	8.365	0.000	92	106822	100.0	79.8	
57 1,1-Dichloropropene	75	8.438	8.436	0.002	98	90647	50.0	44.7	
69 Cyclohexane	84	8.535	8.532	0.003	87	72611	50.0	41.8	
54 Carbon tetrachloride	119	8.602	8.600	0.002	97	82922	50.0	46.0	
63 Benzene	78	8.615	8.616	-0.001	96	286358	50.0	44.9	
68 Isopropyl acetate	43	8.676	8.673	0.003	51	60258	50.0	44.6	
60 n-Heptane	43	8.676	8.673	0.003	46	60258	50.0	44.6	
62 Tert-amyl methyl ether	73	8.679	8.680	-0.001	98	213316	50.0	46.3	
59 Isooctane	57	8.904	8.898	0.006	95	104378	50.0	42.2	
72 Ethyl acrylate	55	8.923	8.920	0.003	97	93371	50.0	44.5	
66 2-Nitropropane	43	8.955	8.952	0.003	89	39612	100.0	80.5	
73 Dibromomethane	93	9.055	9.058	-0.003	80	50892	50.0	48.6	
79 1,2-Dichloropropane	63	9.067	9.068	-0.001	88	72075	50.0	43.6	
70 Trichloroethene	130	9.093	9.097	-0.004	93	92510	50.0	50.2	
76 n-Propyl acetate	43	9.141	9.135	0.006	96	85885	50.0	42.7	
75 Dichlorobromomethane	83	9.141	9.142	-0.001	93	104876	50.0	49.4	
77 Methyl methacrylate	41	9.164	9.164	0.000	90	117547	100.0	86.5	
78 1,4-Dioxane	58	9.199	9.193	0.006	27	8539	1000.0	1369.0	
71 Methylcyclohexane	83	9.529	9.530	-0.001	85	64566	50.0	43.0	
80 4-Methyl-2-pentanone (MIBK	43	9.690	9.687	0.003	94	119213	100.0	83.7	
48 Chloroform	83	12.578	12.578	0.000	48	91513	50.0	45.7	
* 85 Chlorobenzene-d5	82	11.740	11.741	-0.001	82	124166	50.0	50.0	
89 2-Chloroethyl vinyl ether	63	9.407	9.405	0.002	93	89538	100.0	95.8	
90 cis-1,3-Dichloropropene	75	9.635	9.636	-0.001	95	125980	50.0	49.7	
96 trans-1,3-Dichloropropene	75	9.995	9.999	-0.004	91	108592	50.0	51.9	
100 1,1,2-Trichloroethane	97	10.171	10.165	0.006	90	71200	50.0	50.6	
$ 93 Toluene-d8 (Surr)	98	10.280	10.278	0.002	92	329317	50.0	60.0	
97 Ethyl methacrylate	69	10.306	10.307	-0.001	87	95200	50.0	48.7	
94 Toluene	92	10.351	10.352	-0.001	97	192934	50.0	48.4	
102 1,3-Dichloropropane	76	10.386	10.387	-0.001	86	115681	50.0	47.1	
106 2-Hexanone	43	10.466	10.461	0.005	94	78374	100.0	89.9	
101 Chlorodibromomethane	129	10.697	10.698	-0.001	89	93193	50.0	56.2	
103 n-Butyl acetate	43	10.739	10.740	-0.001	98	90875	50.0	47.0	
S 104 Xylenes, Total	106				0		100.0	95.7	
105 Ethylene Dibromide	107	10.948	10.945	0.003	96	78522	50.0	54.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 Tetrahydrothiophene	60	11.005	11.003	0.002	0	59262	50.0	46.9	
98 Tetrachloroethene	164	11.089	11.086	0.003	95	59466	50.0	52.9	
113 1-Chlorohexane	55	11.628	11.622	0.006	91	42105	50.0	46.1	
110 1,1,1,2-Tetrachloroethane	131	11.692	11.690	0.002	92	95251	50.0	55.6	
109 Chlorobenzene	112	11.779	11.776	0.003	98	233645	50.0	50.5	
108 Ethylbenzene	106	11.949	11.946	0.003	97	108891	50.0	49.5	
111 m-Xylene & p-Xylene	91	12.141	12.139	0.002	0	260562	50.0	46.8	
115 Amyl acetate (mixed isomer	43	12.372	12.370	0.002	92	103782	50.0	43.8	
114 Styrene	104	12.498	12.501	-0.003	94	237421	50.0	51.1	
116 Cyclohexanone	55	12.542	12.540	0.002	87	100307	2500.0	2916.9	
112 o-Xylene	106	12.581	12.582	-0.001	96	135747	50.0	48.9	
* 117 1,4-Dichlorobenzene-d4	152	14.301	14.302	-0.001	91	132915	50.0	50.0	
120 n-Butyl acrylate	55	12.132	12.129	0.003	98	270542	100.0	87.0	
119 Bromoform	173	12.337	12.338	-0.001	95	57486	50.0	56.2	
124 1,1,2,2-Tetrachloroethane	83	12.578	12.578	0.000	60	91460	50.0	45.6	
129 trans-1,4-Dichloro-2-buten	53	12.719	12.716	0.003	84	22660	50.0	45.6	
128 1,2,3-Trichloropropane	110	12.735	12.732	0.003	81	28441	50.0	48.8	
121 Isopropylbenzene	105	12.953	12.951	0.002	95	292799	50.0	47.4	
$ 122 4-Bromofluorobenzene	95	13.014	13.015	-0.001	93	105419	50.0	54.2	
125 Bromobenzene	156	13.248	13.249	-0.001	86	103517	50.0	50.0	
123 N-Propylbenzene	120	13.396	13.393	0.003	98	81573	50.0	46.0	
134 Butyl Methacrylate	69	13.412	13.413	-0.001	82	246803	100.0	88.5	
127 2-Chlorotoluene	126	13.518	13.519	-0.001	97	80929	50.0	47.2	
130 4-Chlorotoluene	91	13.585	13.586	-0.001	96	226478	50.0	46.7	
126 1,3,5-Trimethylbenzene	105	13.659	13.660	-0.001	96	231795	50.0	47.5	
131 tert-Butylbenzene	119	13.951	13.952	-0.001	91	192298	50.0	49.3	
133 1,2,4-Trimethylbenzene	105	14.051	14.048	0.003	96	241087	50.0	47.8	
135 sec-Butylbenzene	105	14.166	14.164	0.002	93	236037	50.0	46.1	
143 Benzyl chloride	91	14.163	14.164	-0.001	53	36227	50.0	46.1	
142 n-Butylbenzene	91	14.259	14.253	0.006	29	172220	50.0	44.7	
137 1,3-Dichlorobenzene	146	14.266	14.263	0.003	97	162558	50.0	48.6	
140 1,4-Dichlorobenzene	146	14.330	14.327	0.003	85	172984	50.0	46.8	
136 4-Isopropyltoluene	119	14.330	14.327	0.003	96	229056	50.0	45.4	
139 1,2,3-Trimethylbenzene	105	14.484	14.481	0.003	97	257328	50.0	47.5	
144 1,2-Dichlorobenzene	146	14.689	14.687	0.002	99	157110	50.0	49.1	
146 1,2-Dibromo-3-Chloropropan	157	15.174	15.165	0.009	79	18668	50.0	57.4	
149 1,2,4-Trichlorobenzene	180	16.030	16.028	0.002	94	70804	50.0	49.5	
147 1,3,5-Trichlorobenzene	180	16.640	16.641	-0.001	98	58692	50.0	56.7	
150 Naphthalene	128	16.955	16.952	0.003	97	187045	50.0	71.3	
148 Hexachlorobutadiene	190	16.990	16.984	0.006	91	13333	50.0	52.4	
151 1,2,3-Trichlorobenzene	180	17.198	17.196	0.002	96	49974	50.0	84.3	

Reagents:

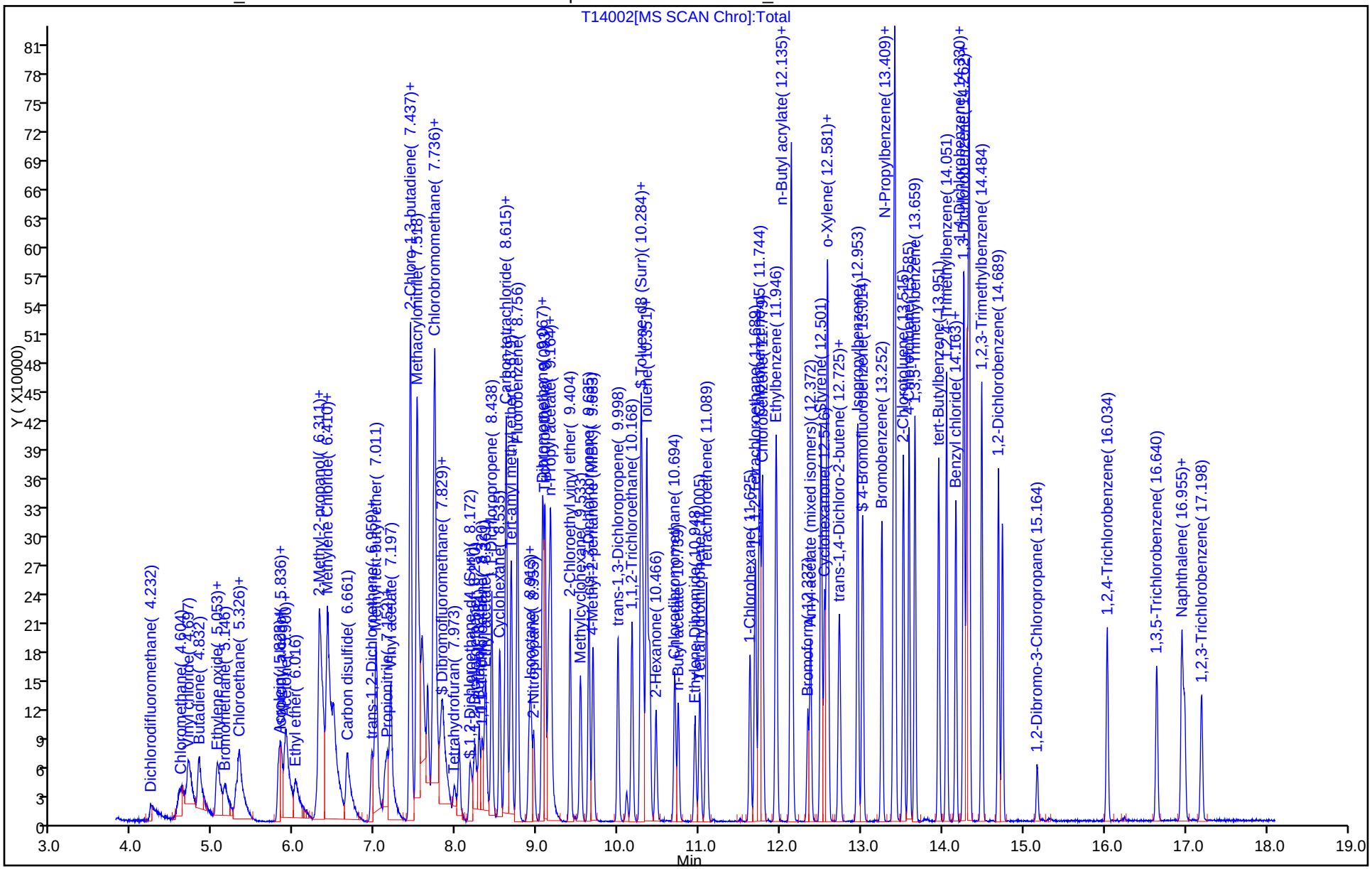
6NRLCS_00057	Amount Added:	5.00	Units: uL	
EOxideLcs_00072	Amount Added:	5.00	Units: uL	
PropHydeLCSW_00053	Amount Added:	5.00	Units: uL	
VOALCSPT2_00057	Amount Added:	5.00	Units: uL	
VOALCSGASPT_00168	Amount Added:	5.00	Units: uL	
VOAIS250PPM_00048	Amount Added:	1.00	Units: uL	Run Reagent
VOASS250PPM_00024	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 20-May-2016 10:44:11 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14002.D

Injection Date:	19-May-2016 10:13:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 600-188369/4

Matrix: Solid | Lab File ID: k13303.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 05/12/2016 10:11

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188369 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	48.23		5.00	0.630
100-41-4	Ethylbenzene	44.09		5.00	1.02
108-88-3	Toluene	45.47		5.00	1.38
1330-20-7	Xylenes, Total	89.49		5.00	1.13
179601-23-1	m-Xylene & p-Xylene	45.08		5.00	1.52
95-47-6	o-Xylene	44.41		5.00	1.13

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene	109		57-140
1868-53-7	Dibromofluoromethane	95		68-140
2037-26-5	Toluene-d8 (Surr)	86		50-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		61-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13303.d
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 12-May-2016 10:11:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcsd
Misc. Info.: 600-0012035-004
Operator ID: ws Instrument ID: CHVOAMS09

Method: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\8260s_9.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 13-May-2016 14:21:26 Calib Date: 06-May-2016 12:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160506-11949.b\k12707.d

Column 1 : Det: MS SCAN
Process Host: XAWRK010

First Level Reviewer: shenw Date: 12-May-2016 10:48:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.460	8.454	0.006	100	372807	50.0	50.0	
2 Dichlorodifluoromethane	85	3.894	3.894	0.000	99	170020	50.0	47.1	
3 Chloromethane	50	4.126	4.132	-0.006	99	168263	50.0	44.0	
4 Vinyl chloride	62	4.358	4.357	0.001	98	143333	50.0	45.0	
5 Butadiene	39	4.479	4.479	0.000	95	127321	50.0	47.6	
6 Ethylene oxide	44	4.699	4.699	0.000	98	162981	500.0	480.9	
7 Bromomethane	94	4.803	4.802	0.001	90	134500	50.0	48.3	
8 Chloroethane	64	4.949	4.943	0.006	98	89310	50.0	50.1	
10 Dichlorofluoromethane	67	4.985	4.979	0.006	97	238013	50.0	49.8	
9 Ethanol	45	5.181	5.150	0.031	1	1154	NC	NC	
13 Acrolein	56	5.467	5.461	0.006	26	3748	250.0	367.4	
14 Acetonitrile	41	5.473	5.467	0.006	99	149790	500.0	519.7	
15 Trichlorofluoromethane	101	5.491	5.485	0.006	99	226752	50.0	51.7	
16 Isopropyl alcohol	45	5.504	5.504	0.000	99	81268	500.0	590.2	
18 Acetone	43	5.577	5.571	0.006	99	62839	100.0	88.2	
19 Ethyl ether	59	5.680	5.674	0.006	97	104127	50.0	48.2	
21 2-Methyl-2-propanol	59	5.949	5.949	0.000	100	161839	500.0	539.1	
22 1,1-Dichloroethene	96	5.961	5.961	0.000	96	127580	50.0	46.2	
23 Acrylonitrile	52	5.979	5.979	0.000	99	326763	500.0	496.0	
24 Iodomethane	142	6.010	6.010	0.000	100	313302	50.0	47.5	
25 Methylene Chloride	84	6.077	6.070	0.007	96	186074	50.0	55.1	
26 Methyl acetate	43	6.089	6.089	0.000	100	473581	250.0	238.4	
27 1,1,2-Trichloro-1,2,2-trif	151	6.119	6.119	0.000	89	117093	50.0	47.3	
28 3-Chloro-1-propene	76	6.150	6.150	0.000	93	63381	50.0	48.2	
29 Carbon disulfide	76	6.308	6.308	0.000	99	448430	50.0	46.5	
30 trans-1,2-Dichloroethene	96	6.625	6.625	0.000	98	128877	50.0	46.6	
31 Methyl tert-butyl ether	73	6.692	6.692	0.000	97	333042	50.0	49.7	
32 Propionitrile	54	6.802	6.802	0.000	99	158342	500.0	435.0	
33 1,1-Dichloroethane	63	6.820	6.820	0.000	97	205776	50.0	46.6	
34 Vinyl acetate	43	6.888	6.881	0.007	96	443500	100.0	106.3	
35 2-Chloro-1,3-butadiene	53	7.107	7.107	0.000	92	160573	50.0	41.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 Hexane	57	7.125	7.119	0.006	96	157089	50.0	40.4	
37 Isopropyl ether	45	7.131	7.125	0.006	93	397253	50.0	44.3	
38 2-Butanone (MEK)	72	7.131	7.125	0.006	93	21845	100.0	81.3	
39 Methacrylonitrile	66	7.211	7.204	0.007	95	124089	500.0	410.8	
40 cis-1,2-Dichloroethene	96	7.266	7.265	0.001	78	135253	50.0	44.4	
41 Ethyl acetate	43	7.357	7.357	0.000	99	213799	100.0	85.8	
42 Chlorobromomethane	128	7.394	7.393	0.001	88	84902	50.0	44.8	
44 Chloroform	83	7.424	7.424	0.000	93	216256	50.0	45.2	
45 Tert-butyl ethyl ether	59	7.436	7.430	0.006	98	371507	50.0	47.4	
46 Isobutyl alcohol	43	7.455	7.448	0.006	96	196873	1250.0	1003.2	
47 2,2-Dichloropropane	77	7.491	7.485	0.006	86	129439	50.0	45.4	
$ 48 Dibromofluoromethane	113	7.515	7.515	0.000	93	141919	50.0	47.7	
S 50 1,2-Dichloroethene, Total	96				0		100.0	91.0	
51 Tetrahydrofuran	42	7.674	7.674	0.000	92	78237	100.0	79.8	
$ 55 1,2-Dichloroethane-d4 (Sur	65	7.863	7.863	0.000	0	103982	50.0	39.8	
56 1,2-Dichloroethane	62	7.924	7.924	0.000	97	141617	50.0	44.4	
57 n-Butanol	56	8.003	7.997	0.006	90	96151	1250.0	1253.9	
58 1,1,1-Trichloroethane	97	8.009	8.003	0.006	97	182800	50.0	44.6	
60 1,1-Dichloropropene	75	8.137	8.137	0.000	93	147874	50.0	46.2	
61 Cyclohexane	84	8.235	8.235	0.000	93	149252	50.0	46.6	
62 Carbon tetrachloride	119	8.296	8.290	0.006	96	191215	50.0	48.1	
63 Benzene	78	8.314	8.314	0.000	97	463310	50.0	48.2	
64 Tert-amyl methyl ether	73	8.393	8.393	0.000	97	336666	50.0	50.7	
66 Isooctane	57	8.613	8.607	0.006	97	458607	50.0	47.5	
67 Ethyl acrylate	55	8.643	8.643	0.000	94	190884	50.0	48.0	
68 n-Heptane	43	8.674	8.668	0.006	97	214096	50.0	47.8	
69 Dibromomethane	93	8.753	8.747	0.006	91	91611	50.0	49.5	
70 1,2-Dichloropropane	63	8.765	8.765	0.000	91	125083	50.0	50.2	
71 2-Nitropropane	43	8.771	8.765	0.006	73	61200	100.0	93.1	
72 Trichloroethene	130	8.796	8.796	0.000	94	172196	50.0	46.0	
73 Dichlorobromomethane	83	8.838	8.832	0.006	99	180375	50.0	48.4	
75 Methyl methacrylate	41	8.881	8.881	0.000	96	218299	100.0	96.0	
76 1,4-Dioxane	58	8.899	8.899	0.000	93	15340	1000.0	1269.9	
78 Methylcyclohexane	83	9.229	9.222	0.007	91	201628	50.0	47.6	
79 4-Methyl-2-pentanone (MIBK	43	9.393	9.393	0.000	97	269364	100.0	94.0	
* 80 Chlorobenzene-d5	82	11.417	11.411	0.006	82	142357	50.0	50.0	
84 2-Chloroethyl vinyl ether	63	9.113	9.113	0.000	93	138633	100.0	92.0	
85 cis-1,3-Dichloropropene	75	9.332	9.332	0.000	95	198820	50.0	48.9	
86 trans-1,3-Dichloropropene	75	9.686	9.686	0.000	93	169858	50.0	47.0	
89 1,1,2-Trichloroethane	97	9.850	9.850	0.000	88	120805	50.0	46.7	
$ 90 Toluene-d8 (Surr)	98	9.960	9.954	0.006	93	407193	50.0	43.0	
91 Ethyl methacrylate	69	10.009	10.003	0.006	92	140985	50.0	48.0	
92 Toluene	92	10.027	10.021	0.006	98	297341	50.0	45.5	
93 1,3-Dichloropropane	76	10.064	10.064	0.000	93	174332	50.0	47.0	
95 2-Hexanone	43	10.155	10.155	0.000	100	189408	100.0	90.6	
96 Chlorodibromomethane	129	10.356	10.356	0.000	89	179859	50.0	47.5	
98 n-Butyl acetate	43	10.436	10.429	0.007	98	215836	50.0	45.9	
99 Ethylene Dibromide	107	10.612	10.606	0.006	98	136619	50.0	46.3	
100 Tetrachloroethene	164	10.759	10.759	0.000	96	117243	50.0	42.9	
S 101 Xylenes, Total	106				0		100.0	89.5	
103 1-Chlorohexane	55	11.314	11.313	0.001	97	102367	50.0	42.9	
104 1,1,1,2-Tetrachloroethane	131	11.368	11.362	0.006	94	165425	50.0	47.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 Chlorobenzene	112	11.454	11.447	0.007	98	390840	50.0	45.5	
106 Ethylbenzene	106	11.631	11.630	0.001	97	187089	50.0	44.1	
107 m-Xylene & p-Xylene	91	11.820	11.819	0.001	0	439784	50.0	45.1	
108 Styrene	104	12.185	12.179	0.006	95	389170	50.0	45.8	
109 Cyclohexanone	55	12.222	12.222	0.000	92	255929	2500.0	2081.3	
110 o-Xylene	106	12.265	12.264	0.001	96	241330	50.0	44.4	
* 112 1,4-Dichlorobenzene-d4	152	14.026	14.026	0.000	92	178673	50.0	50.0	
115 Bromoform	173	12.008	12.002	0.006	98	107221	50.0	50.1	
116 1,1,2,2-Tetrachloroethane	83	12.258	12.258	0.000	94	171851	50.0	49.1	
117 trans-1,4-Dichloro-2-buten	53	12.411	12.405	0.006	96	42644	50.0	51.3	
118 1,2,3-Trichloropropane	110	12.417	12.417	0.000	86	45774	50.0	48.2	
119 Isopropylbenzene	105	12.655	12.655	0.000	95	595634	50.0	48.0	
$ 120 4-Bromofluorobenzene	95	12.710	12.709	0.001	97	188746	50.0	54.3	
121 Bromobenzene	156	12.953	12.953	0.000	85	187297	50.0	48.7	
122 N-Propylbenzene	120	13.118	13.112	0.006	98	168272	50.0	46.1	
124 2-Chlorotoluene	126	13.234	13.234	0.000	99	162862	50.0	45.9	
125 4-Chlorotoluene	91	13.307	13.301	0.006	95	388043	50.0	42.9	
126 1,3,5-Trimethylbenzene	105	13.392	13.386	0.006	95	466316	50.0	43.3	
128 tert-Butylbenzene	119	13.685	13.685	0.000	93	440560	50.0	44.9	
129 1,2,4-Trimethylbenzene	105	13.783	13.782	0.001	97	525322	50.0	45.6	
131 sec-Butylbenzene	105	13.898	13.898	0.000	93	624585	50.0	42.5	
133 Benzyl chloride	91	13.984	13.977	0.007	98	299223	50.0	47.2	
134 1,3-Dichlorobenzene	146	13.990	13.984	0.006	97	345453	50.0	45.0	
135 1,4-Dichlorobenzene	146	14.051	14.051	0.000	97	359968	50.0	46.2	
136 4-Isopropyltoluene	119	14.063	14.063	0.000	98	607639	50.0	45.9	
137 1,2,3-Trimethylbenzene	105	14.209	14.209	0.000	97	575881	50.0	48.1	
138 1,2-Dichlorobenzene	146	14.404	14.398	0.006	100	365482	50.0	47.7	
139 n-Butylbenzene	91	14.465	14.465	0.000	97	525852	50.0	45.5	
141 1,2-Dibromo-3-Chloropropan	157	14.868	14.868	0.000	92	47932	50.0	47.1	
142 1,3,5-Trichlorobenzene	180	15.721	15.721	0.000	98	293309	50.0	46.5	
143 1,2,4-Trichlorobenzene	180	16.306	16.306	0.000	94	294328	50.0	47.6	
144 Naphthalene	128	16.605	16.599	0.006	96	698220	50.0	45.4	
145 Hexachlorobutadiene	190	16.648	16.648	0.000	98	59415	50.0	42.6	
146 1,2,3-Trichlorobenzene	180	16.837	16.837	0.000	97	278845	50.0	47.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

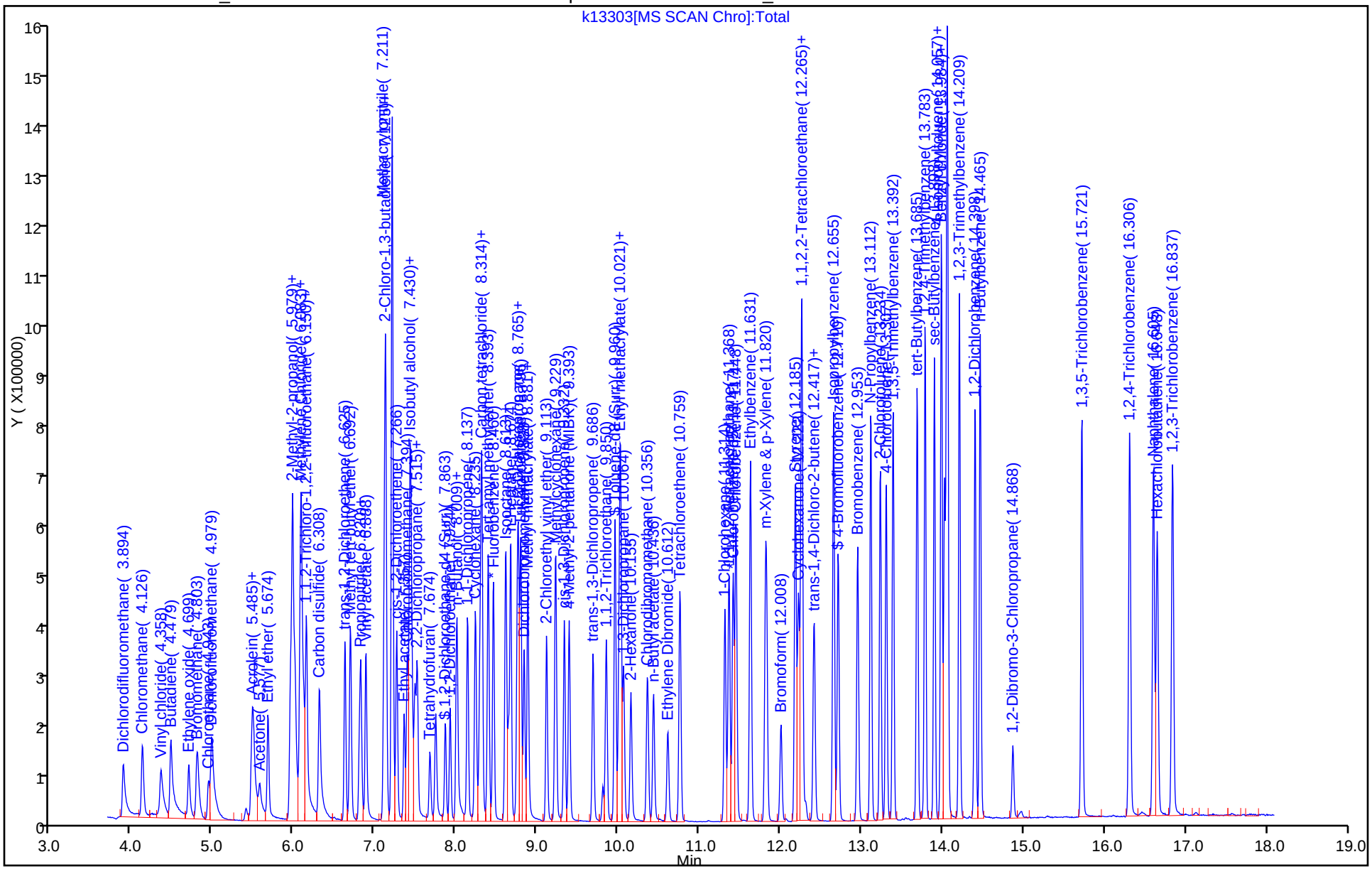
EOxideLcs_00072	Amount Added:	5.00	Units: uL	
VOALCSPT2_00057	Amount Added:	5.00	Units: uL	
VOALCSGASPT_00167	Amount Added:	5.00	Units: uL	
VOAIS50PPM_00172	Amount Added:	5.00	Units: uL	Run Reagent
VOASS50PPM_00210	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 13-May-2016 14:21:42 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS09\20160512-12035.b\k13303.d

Injection Date:	12-May-2016 10:11:30	Instrument ID:	CHVOAMS09	Operator ID:	ws
Lims ID:	lcsd			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260s_9	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 600-188838/5

Matrix: Solid Lab File ID: T14003.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/19/2016 10:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188838 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	0.04264		0.00500	0.000920
108-90-7	Chlorobenzene	0.04846		0.00500	0.000820
67-66-3	Chloroform	0.04392		0.00500	0.000820
107-06-2	1,2-Dichloroethane	0.04677		0.00500	0.00101
71-43-2	Benzene	0.04458		0.00500	0.000560
75-35-4	1,1-Dichloroethene	0.04711		0.00500	0.000760
78-93-3	2-Butanone (MEK)	0.07810		0.0100	0.00157
127-18-4	Tetrachloroethene	0.04944		0.00500	0.00124
79-01-6	Trichloroethene	0.04736		0.00500	0.00158
75-01-4	Vinyl chloride	0.05290		0.00500	0.000850
106-46-7	1,4-Dichlorobenzene	0.04401		0.00500	0.000910

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene	110		67-139
1868-53-7	Dibromofluoromethane	111		62-130
2037-26-5	Toluene-d8 (Surr)	119		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		50-134

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14003.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 19-May-2016 10:38:30 ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCSD
Misc. Info.: 600-0012131-005
Operator ID: DT Instrument ID: CHVOAMS10

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 20-May-2016 10:44:10 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: tengd Date: 20-May-2016 10:44:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.757	8.754	0.003	99	339449	50.0	50.0	
2 Dichlorodifluoromethane	85	4.249	4.261	-0.012	64	59883	50.0	34.0	
3 Chloromethane	50	4.612	4.608	0.004	93	112288	50.0	39.0	
4 Vinyl chloride	62	4.708	4.710	-0.002	98	157448	50.0	52.9	
5 Butadiene	39	4.827	4.826	0.001	90	72850	50.0	36.9	
10 Ethylene oxide	44	5.058	5.063	-0.005	99	174370	500.0	437.0	
7 Bromomethane	94	5.154	5.150	0.004	88	64565	50.0	44.8	
11 Chloroethane	64	5.292	5.285	0.007	97	49770	50.0	48.4	
13 Dichlorofluoromethane	67	5.324	5.323	0.001	97	137544	50.0	49.6	
24 Acrolein	56	5.809	5.808	0.001	66	35226	250.0	199.2	
16 Acetonitrile	41	5.809	5.817	-0.008	99	78441	500.0	445.7	
12 Trichlorofluoromethane	101	5.837	5.837	0.000	96	112845	50.0	51.7	
19 Isopropyl alcohol	45	5.847	5.843	0.004	62	30216	500.0	577.7	
18 Propionaldehyde	58	5.895	5.898	-0.003	98	136923	502.7	433.9	
27 Acetone	43	5.911	5.920	-0.009	30	37171	100.0	82.5	
15 Ethyl ether	59	6.020	6.026	-0.006	87	52088	50.0	41.5	
31 2-Methyl-2-propanol	59	6.274	6.280	-0.006	98	40951	500.0	483.5	
20 1,1-Dichloroethene	96	6.312	6.302	0.010	35	63257	50.0	47.1	
37 Acrylonitrile	52	6.312	6.312	0.000	97	204111	500.0	437.0	
23 Iodomethane	142	6.354	6.350	0.004	98	112857	50.0	55.1	
26 Methylene Chloride	84	6.415	6.405	0.010	68	82396	50.0	47.3	
28 Methyl acetate	43	6.415	6.418	-0.003	96	239449	250.0	226.2	
21 1,1,2-Trichloro-1,2,2-trif	151	6.463	6.459	0.004	84	42726	50.0	49.4	
25 3-Chloro-1-propene	76	6.489	6.488	0.001	72	37272	50.0	47.8	
22 Carbon disulfide	76	6.656	6.652	0.004	97	201048	50.0	41.0	
29 trans-1,2-Dichloroethene	96	6.964	6.960	0.004	90	77810	50.0	46.9	
44 cis-1,2-Dichloroethene	96	6.964	6.960	0.004	76	77810	50.0	46.5	
30 Methyl tert-butyl ether	73	7.015	7.011	0.004	93	191821	50.0	41.8	
35 Propionitrile	54	7.118	7.117	0.001	99	87708	500.0	473.7	
34 1,1-Dichloroethane	63	7.156	7.152	0.004	60	120023	50.0	43.2	
40 Vinyl acetate	43	7.192	7.191	0.001	94	195203	100.0	83.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Chloro-1,3-butadiene	53	7.432	7.428	0.004	95	95293	50.0	41.1	
32 Isopropyl ether	45	7.442	7.435	0.007	83	215914	50.0	41.7	
56 2-Butanone (MEK)	72	7.445	7.435	0.010	75	14508	100.0	78.1	
58 Hexane	57	7.445	7.435	0.010	57	49216	50.0	36.1	
61 Methacrylonitrile	66	7.519	7.512	0.007	89	113283	500.0	441.7	
S 43 1,2-Dichloroethene, Total	96				0		100.0	93.4	
47 Chlorobromomethane	128	7.705	7.704	0.001	82	48432	50.0	51.9	
45 Methyl acrylate	55	7.721	7.720	0.001	65	124095	100.0	79.8	
41 Tert-butyl ethyl ether	59	7.737	7.733	0.004	95	238630	50.0	42.8	
39 Isobutyl alcohol	43	7.747	7.740	0.007	45	72674	1250.0	953.2	
46 2,2-Dichloropropane	77	7.817	7.813	0.004	34	81506	50.0	45.9	
$ 52 Dibromofluoromethane	113	7.833	7.829	0.004	93	89898	50.0	55.4	
53 Tetrahydrofuran	42	7.974	7.974	0.000	90	35372	100.0	83.2	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.173	8.170	0.003	0	90080	50.0	49.9	
65 1,2-Dichloroethane	62	8.238	8.230	0.008	96	109333	50.0	46.8	
38 n-Butanol	56	8.289	8.282	0.007	83	39372	1250.0	1466.4	
55 1,1,1-Trichloroethane	97	8.318	8.330	-0.012	77	108807	50.0	49.0	
33 Ethyl acetate	43	8.366	8.365	0.001	92	115237	100.0	82.0	
57 1,1-Dichloropropene	75	8.443	8.436	0.007	97	89791	50.0	42.1	
69 Cyclohexane	84	8.539	8.532	0.007	87	70005	50.0	38.4	
54 Carbon tetrachloride	119	8.603	8.600	0.003	91	80762	50.0	42.6	
63 Benzene	78	8.619	8.616	0.003	96	298683	50.0	44.6	
68 Isopropyl acetate	43	8.677	8.673	0.004	51	61436	50.0	43.3	
60 n-Heptane	43	8.677	8.673	0.004	46	61436	50.0	43.3	
62 Tert-amyl methyl ether	73	8.680	8.680	0.000	98	223828	50.0	46.2	
59 Isooctane	57	8.905	8.898	0.007	94	103891	50.0	40.1	
72 Ethyl acrylate	55	8.924	8.920	0.004	95	94218	50.0	42.7	
66 2-Nitropropane	43	8.956	8.952	0.004	86	39845	100.0	77.2	
73 Dibromomethane	93	9.059	9.058	0.001	76	49343	50.0	44.9	
79 1,2-Dichloropropane	63	9.065	9.068	-0.003	88	74534	50.0	43.0	
70 Trichloroethene	130	9.098	9.097	0.001	92	91692	50.0	47.4	
76 n-Propyl acetate	43	9.139	9.135	0.004	95	88215	50.0	41.8	
75 Dichlorobromomethane	83	9.149	9.142	0.007	74	106069	50.0	47.6	
77 Methyl methacrylate	41	9.168	9.164	0.004	84	121672	100.0	85.3	
78 1,4-Dioxane	58	9.197	9.193	0.004	52	8727	1000.0	1332.7	
71 Methylcyclohexane	83	9.531	9.530	0.001	87	62212	50.0	39.4	
80 4-Methyl-2-pentanone (MIBK	43	9.688	9.687	0.001	93	123545	100.0	82.6	
48 Chloroform	83	12.576	12.578	-0.002	48	92242	50.0	43.9	
* 85 Chlorobenzene-d5	82	11.745	11.741	0.004	82	129108	50.0	50.0	
89 2-Chloroethyl vinyl ether	63	9.406	9.405	0.001	93	96716	100.0	99.5	
90 cis-1,3-Dichloropropene	75	9.637	9.636	0.001	96	129335	50.0	49.1	
96 trans-1,3-Dichloropropene	75	9.996	9.999	-0.003	90	113626	50.0	52.2	
100 1,1,2-Trichloroethane	97	10.166	10.165	0.001	90	75651	50.0	51.8	
$ 93 Toluene-d8 (Surr)	98	10.285	10.278	0.007	92	339847	50.0	59.5	
97 Ethyl methacrylate	69	10.304	10.307	-0.003	86	98884	50.0	48.6	
94 Toluene	92	10.352	10.352	0.000	97	197514	50.0	47.6	
102 1,3-Dichloropropane	76	10.387	10.387	0.000	84	119903	50.0	47.0	
106 2-Hexanone	43	10.468	10.461	0.007	93	79723	100.0	87.9	
101 Chlorodibromomethane	129	10.696	10.698	-0.002	88	95397	50.0	55.3	
103 n-Butyl acetate	43	10.740	10.740	0.000	98	91433	50.0	45.4	
S 104 Xylenes, Total	106				0		100.0	92.9	
105 Ethylene Dibromide	107	10.949	10.945	0.004	97	77808	50.0	52.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
107 Tetrahydrothiophene	60	11.004	11.003	0.001	0	59778	50.0	45.5	
98 Tetrachloroethene	164	11.090	11.086	0.004	97	57761	50.0	49.4	
113 1-Chlorohexane	55	11.626	11.622	0.004	90	40793	50.0	42.9	
110 1,1,1,2-Tetrachloroethane	131	11.690	11.690	0.000	93	92580	50.0	52.0	
109 Chlorobenzene	112	11.780	11.776	0.004	98	232943	50.0	48.5	
108 Ethylbenzene	106	11.947	11.946	0.001	97	109255	50.0	47.8	
111 m-Xylene & p-Xylene	91	12.139	12.139	0.000	0	262783	50.0	45.4	
115 Amyl acetate (mixed isomer	43	12.371	12.370	0.000	93	108189	50.0	43.9	
114 Styrene	104	12.502	12.501	0.001	93	234152	50.0	48.5	
116 Cyclohexanone	55	12.550	12.540	0.010	90	106217	2500.0	2970.6	
112 o-Xylene	106	12.579	12.582	-0.003	96	137044	50.0	47.5	
* 117 1,4-Dichlorobenzene-d4	152	14.299	14.302	-0.003	91	132919	50.0	50.0	
120 n-Butyl acrylate	55	12.130	12.129	0.001	98	272929	100.0	87.8	
119 Bromoform	173	12.335	12.338	-0.003	95	58357	50.0	57.1	
124 1,1,2,2-Tetrachloroethane	83	12.576	12.578	-0.002	60	92242	50.0	46.0	
129 trans-1,4-Dichloro-2-buten	53	12.714	12.716	-0.002	81	23600	50.0	47.5	
128 1,2,3-Trichloropropane	110	12.733	12.732	0.001	86	29583	50.0	50.7	
121 Isopropylbenzene	105	12.951	12.951	0.000	95	282199	50.0	45.7	
$ 122 4-Bromofluorobenzene	95	13.009	13.015	-0.006	93	107324	50.0	55.2	
125 Bromobenzene	156	13.253	13.249	0.004	85	102775	50.0	49.7	
123 N-Propylbenzene	120	13.397	13.393	0.004	98	79476	50.0	44.8	
134 Butyl Methacrylate	69	13.413	13.413	0.000	82	253765	100.0	91.0	
127 2-Chlorotoluene	126	13.516	13.519	-0.003	97	81598	50.0	47.6	
130 4-Chlorotoluene	91	13.587	13.586	0.001	96	221910	50.0	45.8	
126 1,3,5-Trimethylbenzene	105	13.660	13.660	0.000	96	228787	50.0	46.9	
131 tert-Butylbenzene	119	13.949	13.952	-0.003	91	180985	50.0	46.4	
133 1,2,4-Trimethylbenzene	105	14.049	14.048	0.001	96	238770	50.0	47.3	
135 sec-Butylbenzene	105	14.161	14.164	-0.003	93	229609	50.0	44.8	
143 Benzyl chloride	91	14.161	14.164	-0.003	53	35519	50.0	45.2	
142 n-Butylbenzene	91	14.257	14.253	0.004	30	173905	50.0	45.1	
137 1,3-Dichlorobenzene	146	14.264	14.263	0.001	97	162825	50.0	48.6	
140 1,4-Dichlorobenzene	146	14.325	14.327	-0.002	95	162789	50.0	44.0	
136 4-Isopropyltoluene	119	14.328	14.327	0.001	96	220879	50.0	43.8	
139 1,2,3-Trimethylbenzene	105	14.482	14.481	0.001	97	258489	50.0	47.7	
144 1,2-Dichlorobenzene	146	14.690	14.687	0.003	99	152981	50.0	47.8	
146 1,2-Dibromo-3-Chloropropan	157	15.165	15.165	0.000	90	18096	50.0	55.7	
149 1,2,4-Trichlorobenzene	180	16.032	16.028	0.004	93	72472	50.0	50.6	
147 1,3,5-Trichlorobenzene	180	16.645	16.641	0.004	96	60673	50.0	58.7	
150 Naphthalene	128	16.953	16.952	0.001	96	187173	50.0	71.4	
148 Hexachlorobutadiene	190	16.985	16.984	0.001	93	14756	50.0	58.0	
151 1,2,3-Trichlorobenzene	180	17.197	17.196	0.001	91	48046	50.0	80.9	

Reagents:

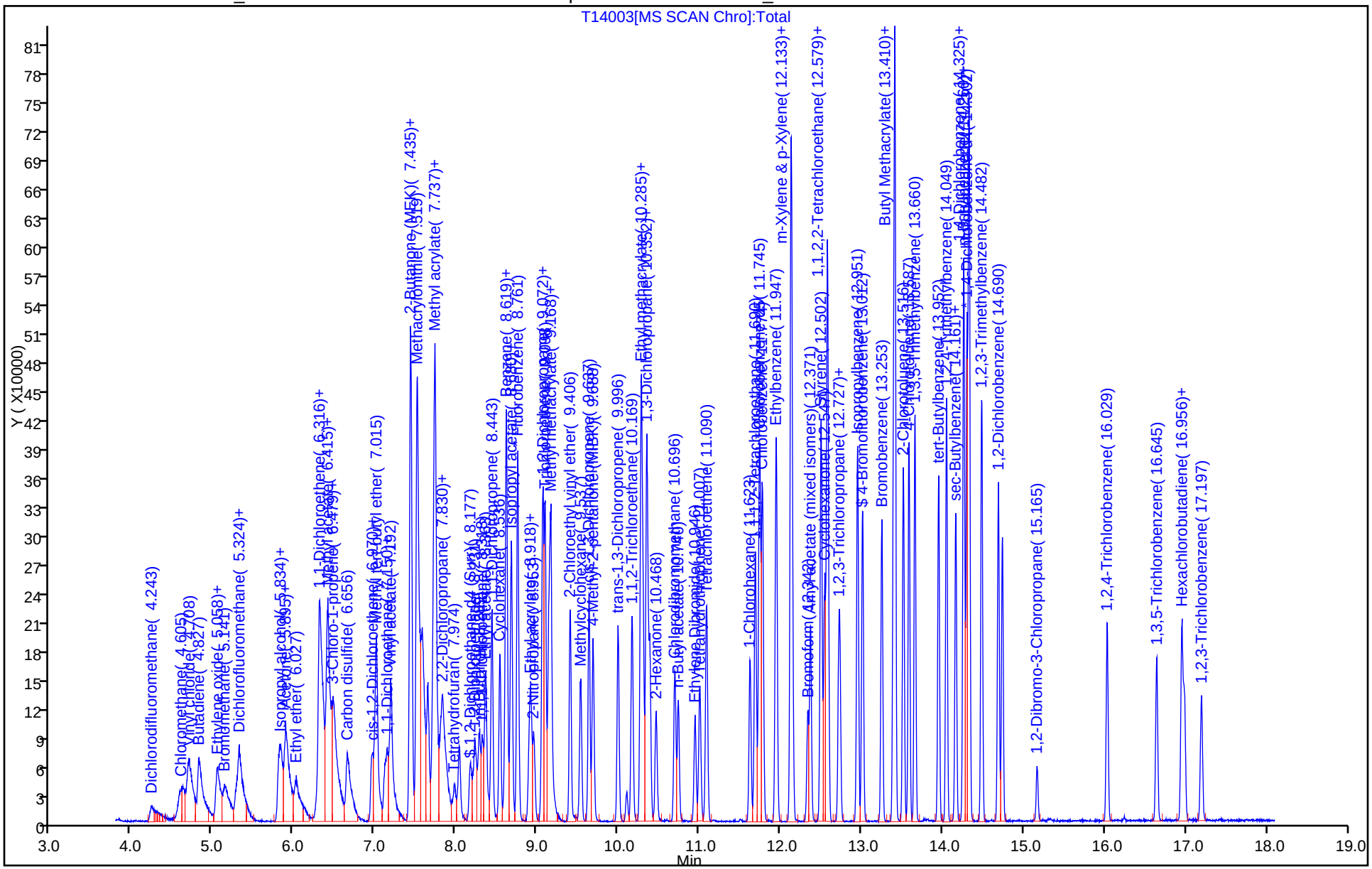
6NRLCS_00057	Amount Added:	5.00	Units: uL	
EOxideLcs_00072	Amount Added:	5.00	Units: uL	
PropHydeLCSW_00053	Amount Added:	5.00	Units: uL	
VOALCSPT2_00057	Amount Added:	5.00	Units: uL	
VOALCSGASPT_00168	Amount Added:	5.00	Units: uL	
VOAIS250PPM_00048	Amount Added:	1.00	Units: uL	Run Reagent
VOASS250PPM_00024	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 20-May-2016 10:44:31 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14003.D

Injection Date:	19-May-2016 10:38:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: 600-130604-A-2-B MS

Matrix: Solid (TCLP) | Lab File ID: T14015.D

Analysis Method: 8260B | Date Collected: 05/09/2016 11:16

Sample wt/vol: 5(mL) | Date Analyzed: 05/19/2016 16:05

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188838 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	0.9901		0.100	0.0184
108-90-7	Chlorobenzene	0.9700		0.100	0.0164
67-66-3	Chloroform	0.9027		0.100	0.0164
107-06-2	1,2-Dichloroethane	0.9052		0.100	0.0202
71-43-2	Benzene	0.8942		0.100	0.0112
75-35-4	1,1-Dichloroethene	1.004		0.100	0.0152
78-93-3	2-Butanone (MEK)	1.567		0.200	0.0314
127-18-4	Tetrachloroethene	1.064		0.100	0.0248
79-01-6	Trichloroethene	0.9895		0.100	0.0316
75-01-4	Vinyl chloride	0.8622		0.100	0.0170
106-46-7	1,4-Dichlorobenzene	0.8894		0.100	0.0182

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene	107		67-139
1868-53-7	Dibromofluoromethane	115		62-130
2037-26-5	Toluene-d8 (Surr)	116		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		50-134

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14015.D
Lims ID: 600-130604-A-2-B MS
Client ID:
Sample Type: MS
Inject. Date: 19-May-2016 16:05:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 600-130604-a-2-b ms
Misc. Info.: 600-0012131-017
Operator ID: DT Instrument ID: CHVOAMS10

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 20-May-2016 08:45:37 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: tengd Date: 20-May-2016 08:45:37

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	8.757	8.754	0.003	99	298683	50.0	50.0	
	2 Dichlorodifluoromethane	85	4.243	4.261	-0.018	98	61563	50.0	39.7	
	3 Chloromethane	50	4.615	4.608	0.007	80	108804	50.0	43.0	
	4 Vinyl chloride	62	4.721	4.721	0.011	78	112898	50.0	43.1	
	5 Butadiene	39	4.840	4.826	0.014	92	73801	50.0	42.5	
	6 Acetaldehyde	44	5.058	5.038	0.020	86	139353		NC	
	10 Ethylene oxide	44	5.058	5.063	-0.005	98	142695	500.0	404.7	
T	83 Acetaldehyde TIC	44	5.122	5.106	0.018	0	2214		0.3706	
	7 Bromomethane	94	5.160	5.160	0.010	87	56007	50.0	44.2	
	9 Vinyl bromide	106		5.162					ND	
	11 Chloroethane	64	5.305	5.285	0.020	94	45673	50.0	50.5	
	13 Dichlorofluoromethane	67	5.330	5.323	0.007	99	124467	50.0	51.0	
	24 Acrolein	56	5.821	5.808	0.013	53	21336	250.0	137.2	
	16 Acetonitrile	41	5.818	5.817	0.001	98	70332	500.0	454.1	
	12 Trichlorofluoromethane	101	5.844	5.837	0.007	97	111419	50.0	58.0	
	19 Isopropyl alcohol	45	5.850	5.843	0.007	47	24447	500.0	534.8	
T	84 Propene oxide TIC	58	5.898	5.867	0.033	0	74781		12.5	
	17 Propene oxide	58	5.898	5.889	0.009	96	98792		NC	
	18 Propionaldehyde	58	5.898	5.898	0.000	99	123498	502.7	444.7	
	27 Acetone	43	5.918	5.920	-0.002	21	29566	100.0	74.6	
	15 Ethyl ether	59	6.027	6.027	0.001	50	33802	50.0	30.6	
	31 2-Methyl-2-propanol	59	6.271	6.280	-0.009	99	36440	500.0	488.9	
	20 1,1-Dichloroethene	96	6.306	6.302	0.004	97	59323	50.0	50.2	
	37 Acrylonitrile	52	6.319	6.312	0.007	98	162187	500.0	394.7	
	23 Iodomethane	142	6.354	6.354	0.004	95	82807	50.0	46.0	
	26 Methylene Chloride	84	6.412	6.405	0.007	83	68960	50.0	45.0	
	28 Methyl acetate	43	6.418	6.418	0.000	96	199643	250.0	214.4	
	21 1,1,2-Trichloro-1,2,2-trif	151	6.470	6.459	0.011	83	43859	50.0	56.4	
	25 3-Chloro-1-propene	76	6.495	6.488	0.007	86	30673	50.0	44.7	
	22 Carbon disulfide	76	6.665	6.652	0.013	99	186337	50.0	43.2	
	29 trans-1,2-Dichloroethene	96	6.970	6.960	0.010	92	67864	50.0	46.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
44 cis-1,2-Dichloroethene	96	6.970	6.960	0.010	77	67864	50.0	46.1	
30 Methyl tert-butyl ether	73	7.015	7.011	0.004	92	158359	50.0	39.3	
35 Propionitrile	54	7.124	7.117	0.007	98	72195	500.0	443.1	
34 1,1-Dichloroethane	63	7.159	7.152	0.007	88	102930	50.0	42.1	
40 Vinyl acetate	43	7.198	7.191	0.007	94	162788	100.0	79.1	
36 2-Chloro-1,3-butadiene	53	7.432	7.428	0.004	93	89855	50.0	44.0	
58 Hexane	57	7.442	7.435	0.007	71	62608	50.0	52.2	
32 Isopropyl ether	45	7.442	7.435	0.007	79	187392	50.0	41.1	
56 2-Butanone (MEK)	72	7.432	7.435	-0.003	79	12803	100.0	78.3	
61 Methacrylonitrile	66	7.522	7.512	0.010	89	89617	500.0	399.2	
S 43 1,2-Dichloroethene, Total	96				0		100.0	92.6	
47 Chlorobromomethane	128	7.708	7.704	0.004	79	40921	50.0	49.9	
45 Methyl acrylate	55	7.724	7.720	0.004	98	112482	100.0	82.2	
41 Tert-butyl ethyl ether	59	7.737	7.733	0.004	95	204784	50.0	41.7	
39 Isobutyl alcohol	43	7.743	7.740	0.003	46	69171	1250.0	1031.1	
46 2,2-Dichloropropane	77	7.821	7.813	0.007	85	75783	50.0	48.5	
$ 52 Dibromofluoromethane	113	7.843	7.829	0.014	91	82134	50.0	57.5	
T 51 Epichlorohydrin TIC	57	8.029	7.901	0.131	1	638		0.1068	
53 Tetrahydrofuran	42	7.984	7.974	0.010	77	22630	100.0	60.5	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.180	8.170	0.010	0	82894	50.0	52.2	
65 1,2-Dichloroethane	62	8.231	8.230	0.001	95	93103	50.0	45.3	
38 n-Butanol	56	8.283	8.282	0.001	84	32621	1250.0	1380.8	
55 1,1,1-Trichloroethane	97	8.318	8.330	-0.012	94	102744	50.0	52.5	
33 Ethyl acetate	43	8.363	8.365	-0.002	92	101264	100.0	81.9	
57 1,1-Dichloropropene	75	8.440	8.436	0.004	96	86840	50.0	46.3	
69 Cyclohexane	84	8.536	8.532	0.004	87	80312	50.0	50.0	
67 2-Methyltetrahydrofuran	71		8.542					ND	
54 Carbon tetrachloride	119	8.603	8.600	0.003	33	82513	50.0	49.5	
63 Benzene	78	8.620	8.616	0.004	96	263562	50.0	44.7	
68 Isopropyl acetate	43	8.684	8.673	0.011	51	55565	50.0	44.5	
60 n-Heptane	43	8.684	8.673	0.011	47	55565	50.0	44.5	
62 Tert-amyl methyl ether	73	8.680	8.680	0.000	98	197686	50.0	46.4	
59 Isooctane	57	8.905	8.898	0.007	94	134276	50.0	58.8	
72 Ethyl acrylate	55	8.928	8.920	0.008	98	91102	50.0	47.0	
66 2-Nitropropane	43	8.960	8.952	0.008	85	47041	100.0	103.4	
73 Dibromomethane	93	9.066	9.058	0.008	51	47374	50.0	49.0	
79 1,2-Dichloropropane	63	9.072	9.068	0.004	85	64947	50.0	42.6	
70 Trichloroethene	130	9.098	9.097	0.001	93	84275	50.0	49.5	
76 n-Propyl acetate	43	9.143	9.135	0.008	95	79658	50.0	42.9	
75 Dichlorobromomethane	83	9.146	9.142	0.004	94	92545	50.0	47.2	
74 Tetrahydropyran	41		9.149					ND	
77 Methyl methacrylate	41	9.165	9.164	0.001	87	110812	100.0	88.2	
78 1,4-Dioxane	58	9.191	9.191	-0.002	26	7602	1000.0	1319.3	
71 Methylcyclohexane	83	9.537	9.530	0.007	85	75688	50.0	54.5	
80 4-Methyl-2-pentanone (MIBK	43	9.688	9.687	0.001	94	109058	100.0	82.9	
48 Chloroform	83	12.579	12.578	0.001	48	83414	50.0	45.1	
T 81 Chloromethyl methyl ether	45	5.035	0.000	5.035	0	335		0.0561	
T 82 Vinyl bromide TIC	106	9.374	0.000	9.374	0	160		0.0268	
* 85 Chlorobenzene-d5	82	11.745	11.741	0.004	82	118215	50.0	50.0	
89 2-Chloroethyl vinyl ether	63	9.409	9.405	0.004	94	81184	100.0	91.3	
90 cis-1,3-Dichloropropene	75	9.640	9.636	0.004	97	115047	50.0	47.7	
91 2-Methyltetrahydropyran	85		9.787					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 92 2,3-dichlorobutane	63		9.800					ND	
96 trans-1,3-Dichloropropene	75	9.999	9.999	0.000	90	98904	50.0	49.6	
95 trans 2,3-dichlorobutane	63		10.143					ND	
100 1,1,2-Trichloroethane	97	10.169	10.165	0.004	90	65911	50.0	49.2	
$ 93 Toluene-d8 (Surr)	98	10.282	10.278	0.004	93	304423	50.0	58.2	
97 Ethyl methacrylate	69	10.311	10.307	0.004	85	85962	50.0	46.2	
94 Toluene	92	10.355	10.352	0.003	97	178801	50.0	47.1	
102 1,3-Dichloropropane	76	10.391	10.387	0.004	84	106332	50.0	45.5	
99 cis 2,3-dichlorobutane	63		10.430					ND	
106 2-Hexanone	43	10.468	10.461	0.007	94	72270	100.0	87.1	
101 Chlorodibromomethane	129	10.699	10.698	0.001	89	85996	50.0	54.5	
103 n-Butyl acetate	43	10.741	10.740	0.000	98	81778	50.0	44.4	
S 104 Xylenes, Total	106				0		100.0	93.7	
105 Ethylene Dibromide	107	10.946	10.945	0.001	100	69942	50.0	51.4	
107 Tetrahydrothiophene	60	11.004	11.003	0.001	0	54704	50.0	45.5	
98 Tetrachloroethene	164	11.087	11.086	0.001	96	56914	50.0	53.2	
113 1-Chlorohexane	55	11.623	11.622	0.001	89	41359	50.0	47.5	
110 1,1,1,2-Tetrachloroethane	131	11.690	11.690	0.000	94	84695	50.0	51.9	
109 Chlorobenzene	112	11.780	11.776	0.004	98	213463	50.0	48.5	
108 Ethylbenzene	106	11.950	11.946	0.004	97	100514	50.0	48.0	
111 m-Xylene & p-Xylene	91	12.140	12.139	0.001	0	243437	50.0	46.0	
115 Amyl acetate (mixed isomer	43	12.371	12.370	0.001	92	99543	50.0	44.1	
114 Styrene	104	12.502	12.501	0.001	94	216764	50.0	49.0	
116 Cyclohexanone	55	12.544	12.540	0.004	90	91551	2500.0	2796.3	
112 o-Xylene	106	12.586	12.582	0.004	96	126218	50.0	47.7	
* 117 1,4-Dichlorobenzene-d4	152	14.302	14.302	0.000	93	125535	50.0	50.0	
120 n-Butyl acrylate	55	12.130	12.129	0.001	98	247676	100.0	84.3	
119 Bromoform	173	12.339	12.338	0.000	96	50366	50.0	52.2	
124 1,1,2,2-Tetrachloroethane	83	12.579	12.578	0.001	60	83415	50.0	44.1	
129 trans-1,4-Dichloro-2-buten	53	12.720	12.716	0.004	89	20992	50.0	44.7	
128 1,2,3-Trichloropropane	110	12.733	12.732	0.001	86	27162	50.0	49.3	
121 Isopropylbenzene	105	12.951	12.951	0.000	95	267606	50.0	45.9	
$ 122 4-Bromofluorobenzene	95	13.016	13.015	0.001	93	98366	50.0	53.5	
125 Bromobenzene	156	13.253	13.249	0.004	86	93579	50.0	47.9	
123 N-Propylbenzene	120	13.397	13.393	0.004	98	78343	50.0	46.8	
134 Butyl Methacrylate	69	13.413	13.413	0.000	83	227623	100.0	86.4	
127 2-Chlorotoluene	126	13.516	13.519	-0.003	97	74461	50.0	45.9	
130 4-Chlorotoluene	91	13.590	13.586	0.004	97	207969	50.0	45.4	
126 1,3,5-Trimethylbenzene	105	13.661	13.660	0.001	96	211271	50.0	45.9	
138 2-Ethyl-2-hexenal	55		13.877					ND	
131 tert-Butylbenzene	119	13.956	13.952	0.004	91	174810	50.0	47.5	
141 2-Ethyl-1-Hexanol	57		13.976					ND	
133 1,2,4-Trimethylbenzene	105	14.049	14.048	0.001	96	217493	50.0	45.7	
135 sec-Butylbenzene	105	14.164	14.164	0.000	93	223403	50.0	46.2	
143 Benzyl chloride	91	14.161	14.164	-0.003	53	34774	50.0	46.8	
142 n-Butylbenzene	91	14.257	14.257	0.004	24	158835	50.0	43.7	
137 1,3-Dichlorobenzene	146	14.267	14.263	0.004	97	144282	50.0	45.6	
140 1,4-Dichlorobenzene	146	14.328	14.327	0.001	83	155362	50.0	44.5	
136 4-Isopropyltoluene	119	14.328	14.327	0.001	97	217181	50.0	45.6	
139 1,2,3-Trimethylbenzene	105	14.485	14.481	0.004	97	233341	50.0	45.6	
T 145 2,6-Dimethyltetrahydropyra	128	14.325	14.500	-0.175	0	845		0.3366	
144 1,2-Dichlorobenzene	146	14.691	14.687	0.004	99	140796	50.0	46.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
146 1,2-Dibromo-3-Chloropropan	157	15.169	15.165	0.004	89	16175	50.0	52.7	
149 1,2,4-Trichlorobenzene	180	16.032	16.028	0.004	94	56754	50.0	42.0	
147 1,3,5-Trichlorobenzene	180	16.645	16.641	0.004	97	42837	50.0	43.4	
150 Naphthalene	128	16.950	16.952	-0.002	97	121626	50.0	48.5	
148 Hexachlorobutadiene	190	16.982	16.984	-0.002	93	10545	50.0	43.9	
151 1,2,3-Trichlorobenzene	180	17.197	17.196	0.001	96	24736	50.0	42.4	
T 152 Diazomethane TIC	42	4.669	0.000	4.669	0	406		0.1617	
T 153 Styrene oxide TIC	120	7.724	0.000	7.724	0	95		0.0378	
T 154 Methyl Isocyanate TIC	57	5.892	0.000	5.892	0	10382		4.14	
T 155 Phosgene TIC	99	5.847	0.000	5.847	0	186		0.0741	
S 160 Total Volatile Organic Com	1		0.000					ND	
166 2-Methyl-1,3-butadiene	1		0.000					ND	
S 162 Trihalomethanes, Total	1				0			199.0	
S 159 1,3-Dichloropropene, Total	1				0			97.3	
182 Alpha Methyl Styrene	1		0.000					ND	
T 183 1,2 Epoxybutane TIC	42	7.984	7.900	0.084	74	17928		0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

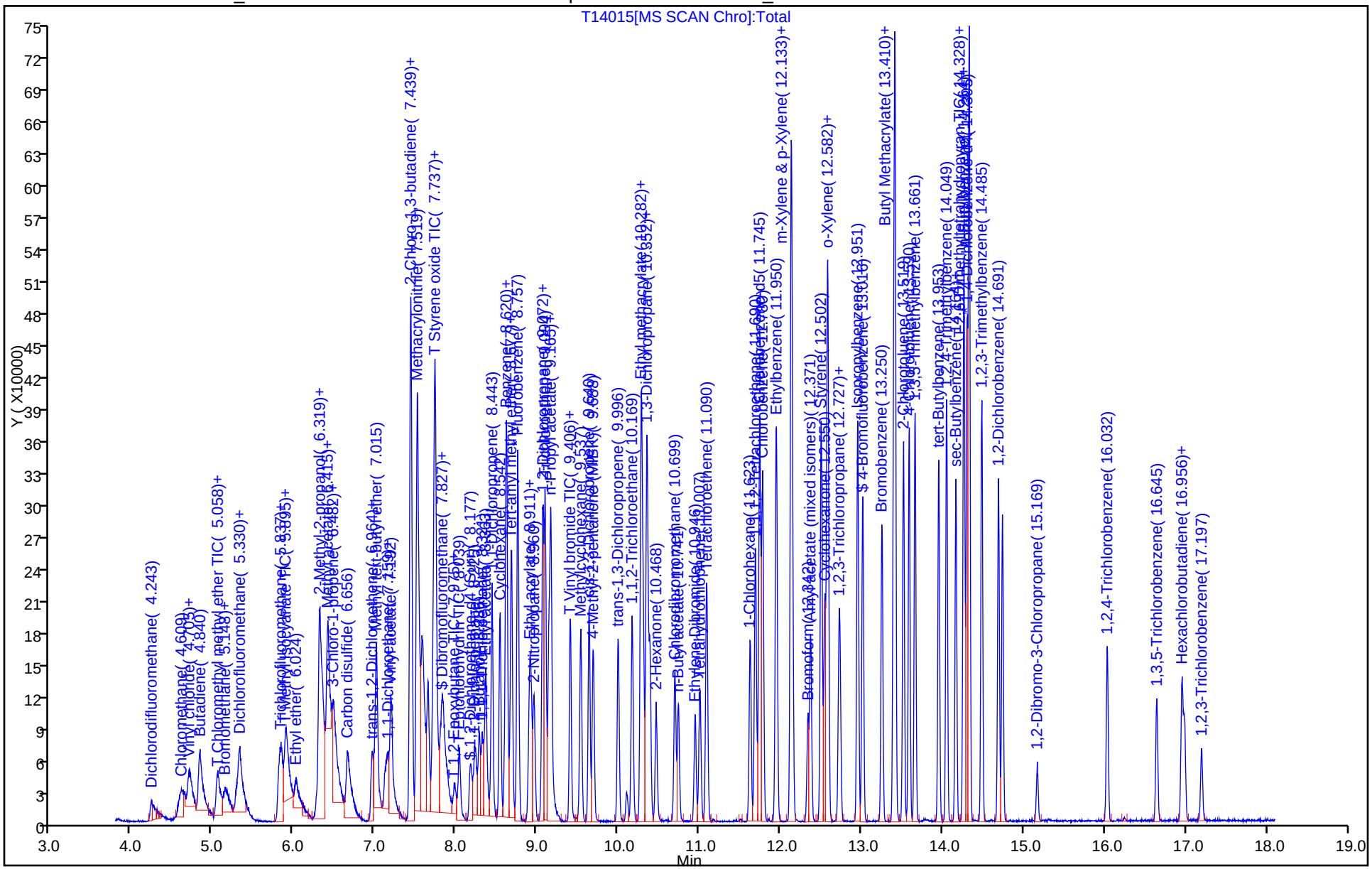
6NRLCS_00057	Amount Added:	5.00	Units: uL	
EOxideLcs_00072	Amount Added:	5.00	Units: uL	
PropHydeLCSW_00053	Amount Added:	5.00	Units: uL	
VOALCSPT2_00057	Amount Added:	5.00	Units: uL	
VOALCSGASPT_00168	Amount Added:	5.00	Units: uL	
VOAIS250PPM_00048	Amount Added:	1.00	Units: uL	Run Reagent
VOASS250PPM_00024	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 20-May-2016 08:45:38 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14015.D

Injection Date:	19-May-2016 16:05:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	600-130604-A-2-B MS			Worklist Smp#:	17
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	20.0000	ALS Bottle#:	16
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: 600-130604-A-2-A MSD

Matrix: Solid (TCLP) | Lab File ID: T14016.D

Analysis Method: 8260B | Date Collected: 05/09/2016 11:16

Sample wt/vol: 5(mL) | Date Analyzed: 05/19/2016 16:30

Soil Aliquot Vol: | Dilution Factor: 20

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188838 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	0.8738		0.100	0.0184
108-90-7	Chlorobenzene	1.017		0.100	0.0164
67-66-3	Chloroform	0.8904		0.100	0.0164
107-06-2	1,2-Dichloroethane	0.9472		0.100	0.0202
71-43-2	Benzene	0.8970		0.100	0.0112
75-35-4	1,1-Dichloroethene	0.9924		0.100	0.0152
78-93-3	2-Butanone (MEK)	1.617		0.200	0.0314
127-18-4	Tetrachloroethene	1.060		0.100	0.0248
79-01-6	Trichloroethene	1.004		0.100	0.0316
75-01-4	Vinyl chloride	0.8555		0.100	0.0170
106-46-7	1,4-Dichlorobenzene	0.8964		0.100	0.0182

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene	109		67-139
1868-53-7	Dibromofluoromethane	112		62-130
2037-26-5	Toluene-d8 (Surr)	119		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		50-134

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14016.D
Lims ID: 600-130604-A-2-A MSD
Client ID:
Sample Type: MSD
Inject. Date: 19-May-2016 16:30:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 20.0000
Sample Info: 600-130604-a-2-a msd
Misc. Info.: 600-0012131-018
Operator ID: DT Instrument ID: CHVOAMS10

Method: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\8260w5_10.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 20-May-2016 08:47:25 Calib Date: 26-Apr-2016 16:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160426-11772.b\T11707.D

Column 1 : Det: MS SCAN
Process Host: XAWRK052

First Level Reviewer: tengd Date: 20-May-2016 08:47:24

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
*	1 Fluorobenzene	96	8.760	8.754	0.006	99	312325	50.0	50.0	
	2 Dichlorodifluoromethane	85	4.235	4.261	-0.026	92	58112	50.0	35.9	
	3 Chloromethane	50	4.620	4.620	0.012	85	112542	50.0	42.5	
	4 Vinyl chloride	62	4.704	4.704	-0.006	97	117150	50.0	42.8	
	5 Butadiene	39	4.829	4.826	0.003	94	71083	50.0	39.1	
	6 Acetaldehyde	44	5.060	5.038	0.022	88	154233		NC	
	10 Ethylene oxide	44	5.060	5.063	-0.003	98	156986	500.0	427.1	
T	83 Acetaldehyde TIC	44	5.050	5.106	-0.054	0	47235		7.56	
	7 Bromomethane	94	5.156	5.156	0.006	80	63280	50.0	47.7	
	9 Vinyl bromide	106		5.162					ND	
	11 Chloroethane	64	5.291	5.291	0.006	93	49567	50.0	52.4	
	13 Dichlorofluoromethane	67	5.326	5.323	0.003	99	132205	50.0	51.8	
	24 Acrolein	56	5.814	5.808	0.006	45	24746	250.0	152.1	
	16 Acetonitrile	41	5.814	5.817	-0.003	98	65045	500.0	401.7	
	12 Trichlorofluoromethane	101	5.849	5.837	0.012	99	109214	50.0	54.4	
	19 Isopropyl alcohol	45	5.843	5.843	0.000	54	19657	500.0	421.5	
T	84 Propene oxide TIC	58	5.898	5.867	0.033	0	84358		13.5	
	17 Propene oxide	58	5.898	5.889	0.009	95	119251		NC	
	18 Propionaldehyde	58	5.898	5.898	0.000	98	130319	502.7	448.8	
	27 Acetone	43	5.907	5.920	-0.013	95	33494	100.0	80.8	
	15 Ethyl ether	59	6.029	6.026	0.003	77	48731	50.0	42.2	
	31 2-Methyl-2-propanol	59	6.279	6.280	-0.001	99	34500	500.0	442.7	
	20 1,1-Dichloroethene	96	6.305	6.302	0.003	96	61302	50.0	49.6	
	37 Acrylonitrile	52	6.318	6.312	0.006	98	189460	500.0	440.9	
	23 Iodomethane	142	6.356	6.350	0.006	98	107607	50.0	57.1	
	26 Methylene Chloride	84	6.411	6.405	0.006	77	77409	50.0	48.3	
	28 Methyl acetate	43	6.421	6.418	0.003	95	204339	250.0	209.8	
	21 1,1,2-Trichloro-1,2,2-trif	151	6.466	6.466	0.007	49	45594	50.0	56.2	
	25 3-Chloro-1-propene	76	6.498	6.488	0.010	88	32615	50.0	45.5	
	22 Carbon disulfide	76	6.664	6.664	0.012	97	196089	50.0	43.5	
	29 trans-1,2-Dichloroethene	96	6.969	6.969	0.009	64	75362	50.0	49.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
44 cis-1,2-Dichloroethene	96	6.969	6.969	0.009	46	75362	50.0	48.8	
30 Methyl tert-butyl ether	73	7.017	7.011	0.006	94	183009	50.0	43.4	
35 Propionitrile	54	7.123	7.117	0.006	97	78483	500.0	460.7	
34 1,1-Dichloroethane	63	7.149	7.152	-0.003	61	114401	50.0	44.8	
40 Vinyl acetate	43	7.194	7.194	0.003	70	184775	100.0	85.9	
36 2-Chloro-1,3-butadiene	53	7.435	7.428	0.007	82	92579	50.0	43.4	
56 2-Butanone (MEK)	72	7.438	7.435	0.003	74	13823	100.0	80.9	
58 Hexane	57	7.441	7.435	0.006	57	48519	50.0	38.7	
32 Isopropyl ether	45	7.441	7.435	0.006	80	208995	50.0	43.9	
61 Methacrylonitrile	66	7.518	7.512	0.006	89	105846	500.0	448.2	
S 43 1,2-Dichloroethene, Total	96				0		100.0	98.2	
47 Chlorobromomethane	128	7.720	7.720	0.016	43	45750	50.0	53.3	
45 Methyl acrylate	55	7.723	7.723	0.003	62	116640	100.0	81.5	
41 Tert-butyl ethyl ether	59	7.736	7.733	0.003	93	226593	50.0	44.1	
39 Isobutyl alcohol	43	7.746	7.740	0.006	47	69498	1250.0	990.7	
46 2,2-Dichloropropane	77	7.820	7.813	0.007	87	76277	50.0	46.7	
$ 52 Dibromofluoromethane	113	7.836	7.829	0.007	94	83644	50.0	56.0	
T 51 Epichlorohydrin TIC	57	8.044	7.901	0.146	1	1130		0.1809	
53 Tetrahydrofuran	42	7.980	7.974	0.006	82	31592	100.0	80.8	
$ 64 1,2-Dichloroethane-d4 (Sur	65	8.179	8.170	0.009	0	84495	50.0	50.9	
65 1,2-Dichloroethane	62	8.230	8.230	0.000	96	101875	50.0	47.4	
38 n-Butanol	56	8.288	8.282	0.006	85	36517	1250.0	1478.2	
55 1,1,1-Trichloroethane	97	8.330	8.330	0.000	88	102593	50.0	50.2	
33 Ethyl acetate	43	8.368	8.365	0.003	92	106754	100.0	82.5	
57 1,1-Dichloropropene	75	8.442	8.436	0.006	97	84358	50.0	43.0	
69 Cyclohexane	84	8.538	8.532	0.006	86	67553	50.0	40.3	
67 2-Methyltetrahydrofuran	71		8.542					ND	
54 Carbon tetrachloride	119	8.609	8.600	0.009	94	76144	50.0	43.7	
63 Benzene	78	8.619	8.616	0.003	96	276455	50.0	44.8	
68 Isopropyl acetate	43	8.683	8.673	0.010	51	58299	50.0	44.7	
60 n-Heptane	43	8.683	8.673	0.010	46	58299	50.0	44.7	
62 Tert-amyl methyl ether	73	8.680	8.680	0.000	98	210281	50.0	47.2	
59 Isooctane	57	8.907	8.898	0.009	94	96655	50.0	40.5	
72 Ethyl acrylate	55	8.927	8.920	0.007	97	87492	50.0	43.1	
66 2-Nitropropane	43	8.962	8.952	0.010	86	37630	100.0	79.2	
73 Dibromomethane	93	9.061	9.058	0.003	52	49077	50.0	48.5	
79 1,2-Dichloropropane	63	9.068	9.068	0.000	87	70219	50.0	44.0	
70 Trichloroethene	130	9.100	9.097	0.003	94	89453	50.0	50.2	
76 n-Propyl acetate	43	9.145	9.135	0.010	97	82870	50.0	42.7	
75 Dichlorobromomethane	83	9.148	9.142	0.006	92	100217	50.0	48.9	
74 Tetrahydropyran	41	9.167	9.149	0.018	63	114397		NC	
77 Methyl methacrylate	41	9.167	9.164	0.003	87	114397	100.0	87.1	
78 1,4-Dioxane	58	9.196	9.193	0.003	28	8021	1000.0	1331.3	
71 Methylcyclohexane	83	9.536	9.530	0.006	85	61800	50.0	42.6	
80 4-Methyl-2-pentanone (MIBK	43	9.690	9.687	0.003	93	116667	100.0	84.8	
48 Chloroform	83	12.578	12.578	0.000	48	86035	50.0	44.5	
T 81 Chloromethyl methyl ether	45	4.489	0.000	4.489	0	286		0.0458	
T 82 Vinyl bromide TIC	106	9.408	0.000	9.408	0	31301		5.01	
* 85 Chlorobenzene-d5	82	11.741	11.741	0.000	82	120740	50.0	50.0	
89 2-Chloroethyl vinyl ether	63	9.405	9.405	0.000	93	87324	100.0	96.1	
90 cis-1,3-Dichloropropene	75	9.639	9.636	0.003	96	122233	50.0	49.6	
91 2-Methyltetrahydropyran	85		9.787					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 92 2,3-dichlorobutane	63		9.800					ND	
96 trans-1,3-Dichloropropene	75	9.995	9.999	-0.004	91	105070	50.0	51.6	
95 trans 2,3-dichlorobutane	63		10.143					ND	
100 1,1,2-Trichloroethane	97	10.168	10.165	0.003	89	70788	50.0	51.8	
$ 93 Toluene-d8 (Surr)	98	10.281	10.278	0.003	93	317360	50.0	59.4	
97 Ethyl methacrylate	69	10.306	10.307	-0.001	85	94306	50.0	49.6	
94 Toluene	92	10.351	10.352	-0.001	98	191499	50.0	49.4	
102 1,3-Dichloropropane	76	10.387	10.387	0.000	84	115066	50.0	48.2	
99 cis 2,3-dichlorobutane	63		10.430					ND	
106 2-Hexanone	43	10.464	10.461	0.003	95	75954	100.0	89.6	
101 Chlorodibromomethane	129	10.698	10.698	0.000	88	91967	50.0	57.0	
103 n-Butyl acetate	43	10.740	10.740	0.000	98	89974	50.0	47.8	
S 104 Xylenes, Total	106				0		100.0	96.2	
105 Ethylene Dibromide	107	10.945	10.945	0.000	98	76021	50.0	54.7	
107 Tetrahydrothiophene	60	11.006	11.003	0.003	0	57477	50.0	46.8	
98 Tetrachloroethene	164	11.093	11.086	0.007	97	57889	50.0	53.0	
113 1-Chlorohexane	55	11.628	11.622	0.006	90	40566	50.0	45.7	
110 1,1,1,2-Tetrachloroethane	131	11.689	11.690	-0.001	92	91709	50.0	55.1	
109 Chlorobenzene	112	11.779	11.776	0.003	98	228553	50.0	50.8	
108 Ethylbenzene	106	11.949	11.946	0.003	97	108667	50.0	50.8	
111 m-Xylene & p-Xylene	91	12.139	12.139	0.000	0	252856	50.0	46.7	
115 Amyl acetate (mixed isomer	43	12.370	12.370	0.000	93	102959	50.0	44.7	
114 Styrene	104	12.501	12.501	0.000	94	226293	50.0	50.1	
116 Cyclohexanone	55	12.546	12.540	0.006	89	97515	2500.0	2916.2	
112 o-Xylene	106	12.578	12.582	-0.004	96	133546	50.0	49.5	
* 117 1,4-Dichlorobenzene-d4	152	14.301	14.302	-0.001	90	130814	50.0	50.0	
120 n-Butyl acrylate	55	12.132	12.129	0.003	99	261852	100.0	85.6	
119 Bromoform	173	12.338	12.338	0.000	95	54992	50.0	54.7	
124 1,1,2,2-Tetrachloroethane	83	12.578	12.578	0.000	59	85899	50.0	43.5	
129 trans-1,4-Dichloro-2-buten	53	12.719	12.716	0.003	89	21876	50.0	44.7	
128 1,2,3-Trichloropropane	110	12.739	12.739	0.007	83	27071	50.0	47.2	
121 Isopropylbenzene	105	12.954	12.951	0.003	95	281882	50.0	46.4	
$ 122 4-Bromofluorobenzene	95	13.015	13.015	0.000	92	104130	50.0	54.4	
125 Bromobenzene	156	13.255	13.249	0.006	86	99712	50.0	49.0	
123 N-Propylbenzene	120	13.397	13.393	0.004	98	81238	50.0	46.6	
134 Butyl Methacrylate	69	13.413	13.413	0.000	82	245087	100.0	89.3	
127 2-Chlorotoluene	126	13.515	13.519	-0.004	97	78515	50.0	46.5	
130 4-Chlorotoluene	91	13.586	13.586	0.000	96	221897	50.0	46.5	
126 1,3,5-Trimethylbenzene	105	13.660	13.660	0.000	96	220204	50.0	45.9	
138 2-Ethyl-2-hexenal	55		13.877					ND	
131 tert-Butylbenzene	119	13.952	13.952	0.000	90	184024	50.0	47.9	
141 2-Ethyl-1-Hexanol	57		13.976					ND	
133 1,2,4-Trimethylbenzene	105	14.051	14.048	0.003	96	234512	50.0	47.2	
135 sec-Butylbenzene	105	14.163	14.164	-0.001	93	227989	50.0	45.2	
143 Benzyl chloride	91	14.163	14.164	-0.001	52	34693	50.0	44.8	
142 n-Butylbenzene	91	14.260	14.260	0.007	24	165261	50.0	43.6	
137 1,3-Dichlorobenzene	146	14.266	14.263	0.003	97	156058	50.0	47.4	
140 1,4-Dichlorobenzene	146	14.327	14.327	0.000	83	163167	50.0	44.8	
136 4-Isopropyltoluene	119	14.330	14.327	0.003	97	223625	50.0	45.1	
139 1,2,3-Trimethylbenzene	105	14.484	14.481	0.003	97	248664	50.0	46.6	
T 145 2,6-Dimethyltetrahydropyra	128	14.256	14.500	-0.244	0	11947		4.57	
144 1,2-Dichlorobenzene	146	14.690	14.687	0.003	99	148693	50.0	47.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
146 1,2-Dibromo-3-Chloropropan	157	15.165	15.165	0.000	92	17394	50.0	54.4	
149 1,2,4-Trichlorobenzene	180	16.031	16.028	0.003	93	63613	50.0	45.2	
147 1,3,5-Trichlorobenzene	180	16.641	16.641	0.000	94	50815	50.0	49.6	
150 Naphthalene	128	16.952	16.952	0.000	97	159493	50.0	61.5	
148 Hexachlorobutadiene	190	16.987	16.984	0.003	95	11466	50.0	45.8	
151 1,2,3-Trichlorobenzene	180	17.199	17.196	0.003	96	37474	50.0	63.3	
T 153 Styrene oxide TIC	120	7.711	0.000	7.711	0	41		0.0157	
T 155 Phosgene TIC	99	5.827	0.000	5.827	0	121		0.0462	
T 154 Methyl Isocyanate TIC	57	5.894	0.000	5.894	0	10716		4.10	
T 152 Diazomethane TIC	42	4.659	0.000	4.659	0	593		0.2267	
S 160 Total Volatile Organic Com	1		0.000					ND	
166 2-Methyl-1,3-butadiene	1		0.000					ND	
S 162 Trihalomethanes, Total	1				0			205.1	
S 159 1,3-Dichloropropene, Total	1				0			101.2	
182 Alpha Methyl Styrene	1		0.000					ND	
T 183 1,2 Epoxybutane TIC	42		7.900					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

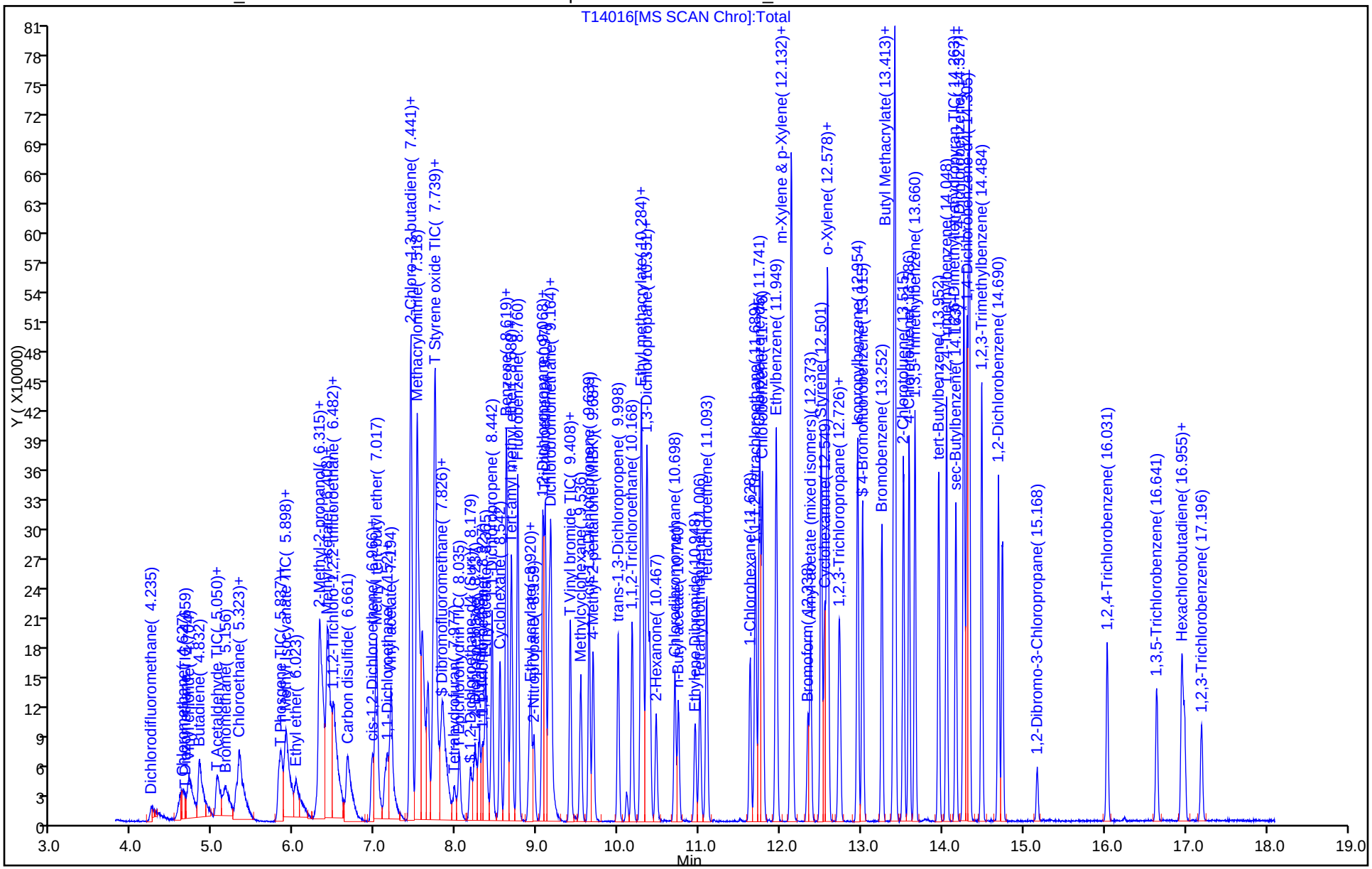
6NRLCS_00057	Amount Added:	5.00	Units: uL	
EOxideLcs_00072	Amount Added:	5.00	Units: uL	
PropHydeLCSW_00053	Amount Added:	5.00	Units: uL	
VOALCSPT2_00057	Amount Added:	5.00	Units: uL	
VOALCSGASPT_00168	Amount Added:	5.00	Units: uL	
VOAIS250PPM_00048	Amount Added:	1.00	Units: uL	Run Reagent
VOASS250PPM_00024	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 20-May-2016 08:47:26 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS10\20160519-12131.b\T14016.D

Injection Date:	19-May-2016 16:30:30	Instrument ID:	CHVOAMS10	Operator ID:	DT
Lims ID:	600-130604-A-2-A MSD			Worklist Smp#:	18
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	20.0000	ALS Bottle#:	17
Method:	8260w5_10	Limit Group:	VOA - 8260B_8260BLL		



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHVOAMS10 Start Date: 04/26/2016 13:48

Analysis Batch Number: 187178 End Date: 04/27/2016 00:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-187178/2		04/26/2016 13:48	1	T11700A.D	DB-VRX 60 0.25(mm)
IC 600-187178/4		04/26/2016 14:29	1	T11702.D	DB-VRX 60 0.25(mm)
IC 600-187178/5		04/26/2016 14:54	1	T11703.D	DB-VRX 60 0.25(mm)
IC 600-187178/6		04/26/2016 15:20	1	T11704.D	DB-VRX 60 0.25(mm)
ICIS 600-187178/7		04/26/2016 15:45	1	T11705.D	DB-VRX 60 0.25(mm)
IC 600-187178/8		04/26/2016 16:10	1	T11706.D	DB-VRX 60 0.25(mm)
IC 600-187178/9		04/26/2016 16:36	1	T11707.D	DB-VRX 60 0.25(mm)
ICV 600-187178/11		04/26/2016 17:27	1		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 17:27	1		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 17:52	1		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 19:08	1		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 19:33	20		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 19:58	20		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 20:24	1		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 20:49	1		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 21:14	1		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 21:39	1		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 22:05	1		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 22:30	1		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 22:55	200		DB-VRX 60 0.25(mm)
ZZZZZ		04/26/2016 23:46	1		DB-VRX 60 0.25(mm)
ZZZZZ		04/27/2016 00:11	1		DB-VRX 60 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHVOAMS09 Start Date: 05/06/2016 08:32

Analysis Batch Number: 187980 End Date: 05/06/2016 20:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-187980/1		05/06/2016 08:32	1	k12700a.d	DB-VRX 60 0.25(mm)
IC 600-187980/3		05/06/2016 10:15	1	k12702.d	DB-VRX 60 0.25(mm)
IC 600-187980/4		05/06/2016 10:40	1	k12703.d	DB-VRX 60 0.25(mm)
IC 600-187980/5		05/06/2016 11:04	1	k12704.d	DB-VRX 60 0.25(mm)
ICIS 600-187980/6		05/06/2016 11:29	1	k12705.d	DB-VRX 60 0.25(mm)
IC 600-187980/7		05/06/2016 11:53	1	k12706.d	DB-VRX 60 0.25(mm)
IC 600-187980/8		05/06/2016 12:17	1	k12707.d	DB-VRX 60 0.25(mm)
ICV 600-187980/10		05/06/2016 13:06	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 13:06	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 13:31	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 14:20	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 14:44	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 15:32	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 15:57	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 16:21	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 16:46	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 18:32	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 18:57	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 19:21	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 19:45	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/06/2016 20:10	1		DB-VRX 60 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHVOAMS09 Start Date: 05/12/2016 08:12

Analysis Batch Number: 188369 End Date: 05/12/2016 19:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-188369/1		05/12/2016 08:12	1	k13300.d	DB-VRX 60 0.25(mm)
CCVIS 600-188369/2		05/12/2016 08:48	1	k13301.d	DB-VRX 60 0.25(mm)
LCS 600-188369/3		05/12/2016 09:47	1	k13302.d	DB-VRX 60 0.25(mm)
LCSD 600-188369/4		05/12/2016 10:11	1	k13303.d	DB-VRX 60 0.25(mm)
MB 600-188369/6		05/12/2016 11:00	1	k13305.d	DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 11:24	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 11:48	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 12:13	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 12:37	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 13:01	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 13:25	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 13:50	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 14:14	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 14:38	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 15:02	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 15:27	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 15:51	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 16:15	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 16:39	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 17:04	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 17:28	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 17:52	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 18:17	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 18:41	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/12/2016 19:05	1		DB-VRX 60 0.25(mm)
600-130758-1		05/12/2016 19:29	1	k13326.d	DB-VRX 60 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHVOAMS10 Start Date: 05/19/2016 09:06

Analysis Batch Number: 188838 End Date: 05/19/2016 21:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-188838/2		05/19/2016 09:06	1	T14000A.D	DB-VRX 60 0.25(mm)
CCVIS 600-188838/3		05/19/2016 09:47	1	T14001A.D	DB-VRX 60 0.25(mm)
LCS 600-188838/4		05/19/2016 10:13	1	T14002.D	DB-VRX 60 0.25(mm)
LCSD 600-188838/5		05/19/2016 10:38	1	T14003.D	DB-VRX 60 0.25(mm)
MB 600-188838/7		05/19/2016 11:54	1	T14005.D	DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 12:19	20		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 12:44	500		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 13:09	50		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 13:34	10		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 14:00	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 14:25	100		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 14:50	1000		DB-VRX 60 0.25(mm)
LB 600-188875/1-A		05/19/2016 15:15	1	T14013.D	DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 15:40	20		DB-VRX 60 0.25(mm)
600-130604-A-2-B MS		05/19/2016 16:05	20	T14015.D	DB-VRX 60 0.25(mm)
600-130604-A-2-A MSD		05/19/2016 16:30	20	T14016.D	DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 16:55	20		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 17:20	20		DB-VRX 60 0.25(mm)
600-130758-1		05/19/2016 17:45	20	T14019.D	DB-VRX 60 0.25(mm)
600-130758-2		05/19/2016 18:10	20	T14020.D	DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 18:36	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 19:01	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 19:26	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 19:51	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 20:16	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 20:42	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/19/2016 21:57	1		DB-VRX 60 0.25(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188431 Batch Start Date: 05/12/16 11:36 Batch Analyst: Shen, Wei

Batch Method: 5035 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	TareWeight	Vial&SampleWt	InitialAmount	FinalAmount		
600-130758-N-1	PC-IDW Soil	5035, 8260B	T	+026.445 g	33.57 g	7.125 g	5 mL		

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method 8260B Low Level

Volatile Organic Compounds (GC/MS) by Method 8260B Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-VRX 60 ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
PC-IDW Water	600-130758-2	86	104	79	120
PC-IDW Water DL	600-130758-2 DL	84	96	80	124
	MB 600-188556/6	85	104	80	121
	LCS 600-188556/3	80	105	82	120
	LCSD 600-188556/4	85	93	84	120

	QC LIMITS
DBFM = Dibromofluoromethane	62-130
DCA = 1,2-Dichloroethane-d4 (Surr)	50-134
TOL = Toluene-d8 (Surr)	70-130
BFB = 4-Bromofluorobenzene	67-139

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low Lab File ID: C13702A.D

Lab ID: LCS 600-188556/3 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Benzene	0.0100	0.008452	85	70-130	
Toluene	0.0100	0.009854	99	70-130	
Ethylbenzene	0.0100	0.01004	100	70-130	
m-Xylene & p-Xylene	0.0100	0.01091	109	70-130	
Xylenes, Total	0.0200	0.02069	103	70-130	
o-Xylene	0.0100	0.009778	98	70-130	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low Lab File ID: C13703.D

Lab ID: LCSD 600-188556/4 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Benzene	0.0100	0.008182	82	3	20	70-130	
Toluene	0.0100	0.009547	95	3	20	70-130	
Ethylbenzene	0.0100	0.009710	97	3	20	70-130	
m-Xylene & p-Xylene	0.0100	0.01049	105	4	20	70-130	
Xylenes, Total	0.0200	0.02007	100	3	20	70-130	
o-Xylene	0.0100	0.009575	96	2	20	70-130	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: C13705.D Lab Sample ID: MB 600-188556/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: CHVOAMS01 Date Analyzed: 05/16/2016 11:54

GC Column: DB-VRX 60 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCSD 600-188556/4	C13703.D	05/16/2016 11:03
	LCS 600-188556/3	C13702A.D	05/16/2016 12:20
PC-IDW Water	600-130758-2	C13710.D	05/16/2016 14:27
PC-IDW Water DL	600-130758-2 DL	C13722.D	05/16/2016 19:35

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: C02200A.D BFB Injection Date: 01/22/2016

Instrument ID: CHVOAMS01 BFB Injection Time: 11:16

Analysis Batch No.: 181051

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.1	
75	30.0 - 60.0 % of mass 95	44.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	73.4	
175	5.0 - 9.0 % of mass 174	5.4	(7.3) 1
176	95.0 - 101.0 % of mass 174	71.2	(96.9) 1
177	5.0 - 9.0 % of mass 176	4.7	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-181051/2	C02201.D	01/22/2016	11:43
	IC 600-181051/3	C02202.D	01/22/2016	12:09
	IC 600-181051/4	C02203A.D	01/22/2016	14:22
	IC 600-181051/5	C02204A.D	01/22/2016	14:48
	ICIS 600-181051/6	C02205A.D	01/22/2016	15:14
	IC 600-181051/7	C02206.D	01/22/2016	15:40
	IC 600-181051/8	C02207.D	01/22/2016	16:06

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: C13700.D BFB Injection Date: 05/16/2016

Instrument ID: CHVOAMS01 BFB Injection Time: 09:01

Analysis Batch No.: 188556

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.0	
75	30.0 - 60.0 % of mass 95	51.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	73.7	
175	5.0 - 9.0 % of mass 174	5.2	(7.0) 1
176	95.0 - 101.0 % of mass 174	71.3	(96.7) 1
177	5.0 - 9.0 % of mass 176	4.7	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-188556/2	C13701A.D	05/16/2016	10:12
	LCSD 600-188556/4	C13703.D	05/16/2016	11:03
	MB 600-188556/6	C13705.D	05/16/2016	11:54
	LCS 600-188556/3	C13702A.D	05/16/2016	12:20
PC-IDW Water	600-130758-2	C13710.D	05/16/2016	14:27
PC-IDW Water DL	600-130758-2 DL	C13722.D	05/16/2016	19:35

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: CCVIS 600-188556/2 Date Analyzed: 05/16/2016 10:12

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm)

Lab File ID (Standard): C13701A.D Heated Purge: (Y/N) N

Calibration ID: 9203

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		337064	8.42	184395	11.35	145814	13.97
UPPER LIMIT		674128	8.92	368790	11.85	291628	14.47
LOWER LIMIT		168532	7.92	92198	10.85	72907	13.47
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCSD 600-188556/4		357610	8.42	179205	11.35	160171	13.97
MB 600-188556/6		347779	8.42	182619	11.36	153901	13.98
LCS 600-188556/3		348997	8.42	176757	11.35	154850	13.97
600-130758-2	PC-IDW Water	319255	8.42	169207	11.36	143036	13.97
600-130758-2 DL	PC-IDW Water DL	372338	8.42	200237	11.35	164148	13.97

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Water | Lab Sample ID: 600-130758-2

Matrix: Water | Lab File ID: C13710.D

Analysis Method: 8260B | Date Collected: 05/11/2016 10:00

Sample wt/vol: 20(mL) | Date Analyzed: 05/16/2016 14:27

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188556 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
108-88-3	Toluene	0.000198	U	0.00100	0.000198
100-41-4	Ethylbenzene	0.000367	J	0.00100	0.000212
179601-23-1	m-Xylene & p-Xylene	0.00168		0.00100	0.000205
1330-20-7	Xylenes, Total	0.00228		0.00200	0.000366
95-47-6	o-Xylene	0.000596	J	0.00100	0.000192

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		50-134
1868-53-7	Dibromofluoromethane	86		62-130
2037-26-5	Toluene-d8 (Surr)	79		70-130
460-00-4	4-Bromofluorobenzene	120		67-139

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13710.D
Lims ID: 600-130758-H-2
Client ID: PC-IDW Water
Sample Type: Client
Inject. Date: 16-May-2016 14:27:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 600-130758-H-2
Misc. Info.: 600-0012076-011
Operator ID: yx Instrument ID: CHVOAMS01

Method: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 16-May-2016 16:24:12 Calib Date: 07-May-2016 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160507-11966.b\C12711.D

Column 1 : Det: MS SCAN
Process Host: XAWRK053

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.418	8.417	0.001	98	319255	12.5	
$ 51 Dibromofluoromethane	113	7.487	7.486	0.001	92	76852	10.7	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.832	7.831	0.001	0	78185	13.0	
64 Benzene	78	8.276	8.270	0.006	97	1720958	52.1	E
* 80 Chlorobenzene-d5	82	11.357	11.351	0.006	89	169207	12.5	
$ 90 Toluene-d8 (Surr)	98	9.903	9.902	0.001	93	317729	9.84	
93 Toluene	92	9.976	9.965	0.011	98	1888	0.0865	
S 100 Xylenes, Total	106				0		2.27	
105 Ethylbenzene	106	11.571	11.565	0.006	99	5134	0.3669	
106 m-Xylene & p-Xylene	91	11.760	11.759	0.001	0	57968	1.68	
109 o-Xylene	106	12.204	12.198	0.006	98	10511	0.5960	
* 110 1,4-Dichlorobenzene-d4	152	13.972	13.971	0.001	98	143036	12.5	
$ 119 4-Bromofluorobenzene	95	12.654	12.653	0.001	83	161536	15.0	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

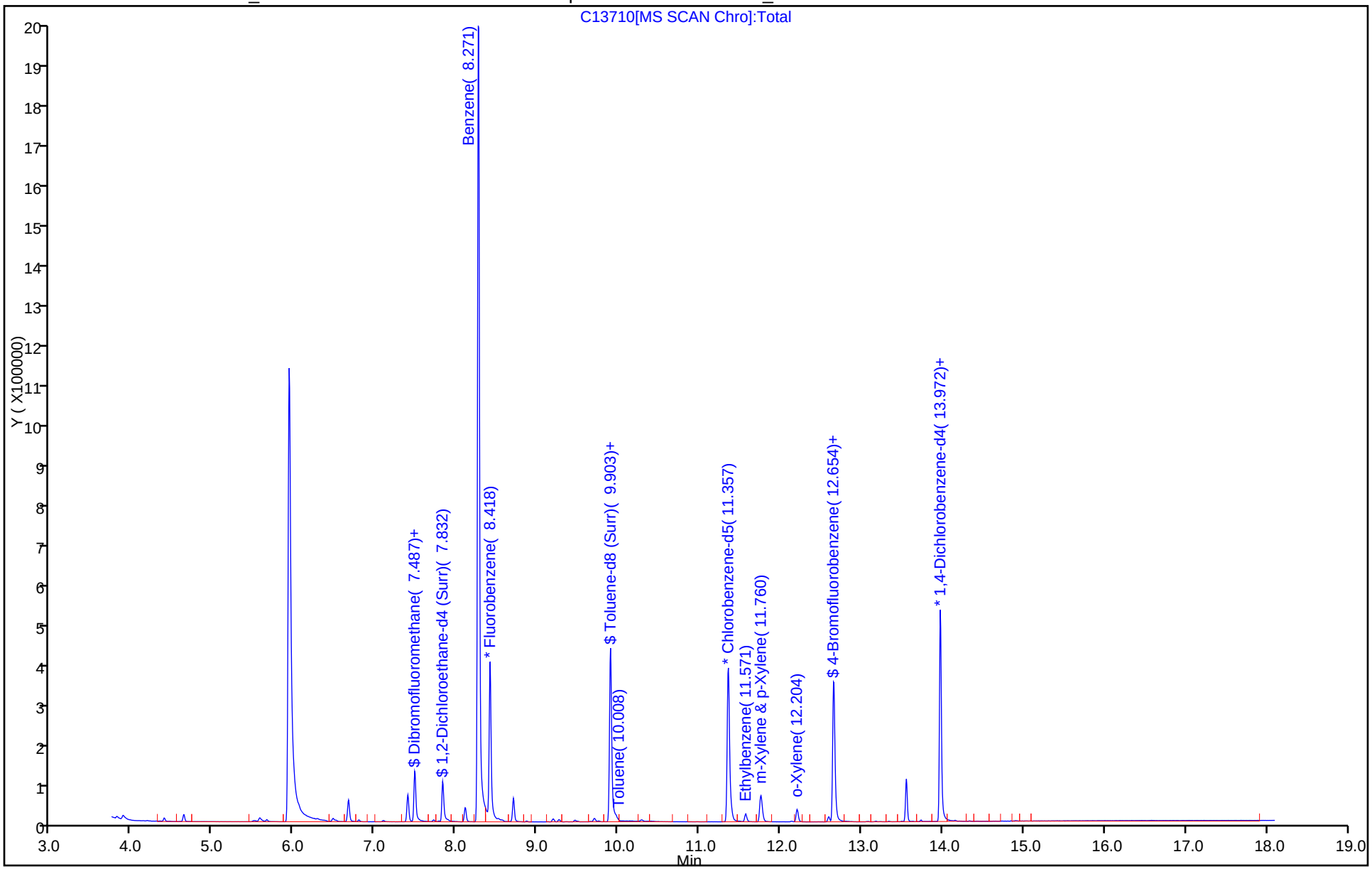
Reagents:

VOASS50PPM_00210	Amount Added:	5.00	Units: uL	Run Reagent
VOAIS50PPM_00172	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 16-May-2016 16:24:25 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13710.D				
Injection Date:	16-May-2016 14:27:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	600-130758-H-2	Lab Sample ID:	600-130758-2	Worklist Smp#:	11
Client ID:	PC-IDW Water				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



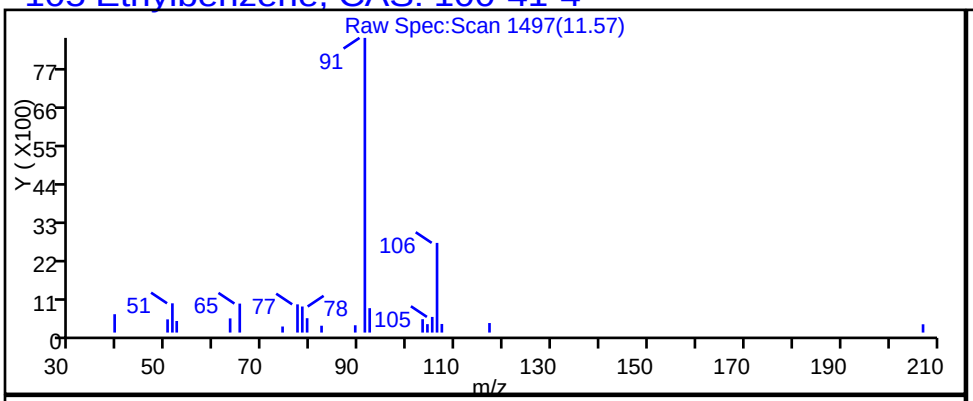
Report Date: 16-May-2016 16:24:25 Chrom Revision: 2.2 20-Apr-2016 13:59:46

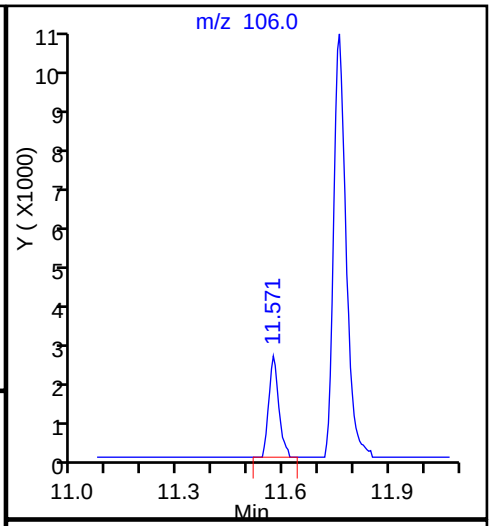
TestAmerica Houston

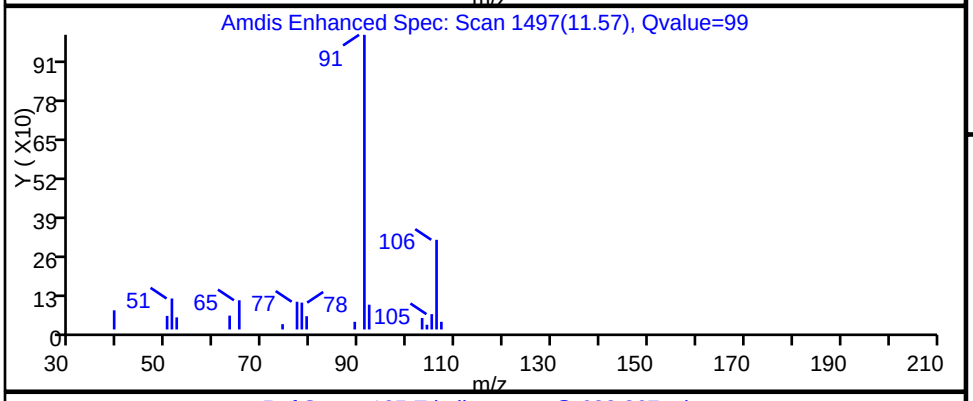
Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13710.D

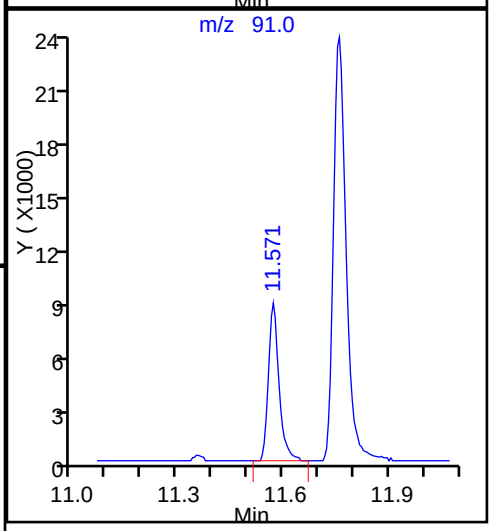
Injection Date:	16-May-2016 14:27:30	Instrument ID:	CHVOAMS01		
Lims ID:	600-130758-H-2	Lab Sample ID:	600-130758-2		
Client ID:	PC-IDW Water				
Operator ID:	yx	ALS Bottle#:	10	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		
Column:		Detector	MS SCAN		

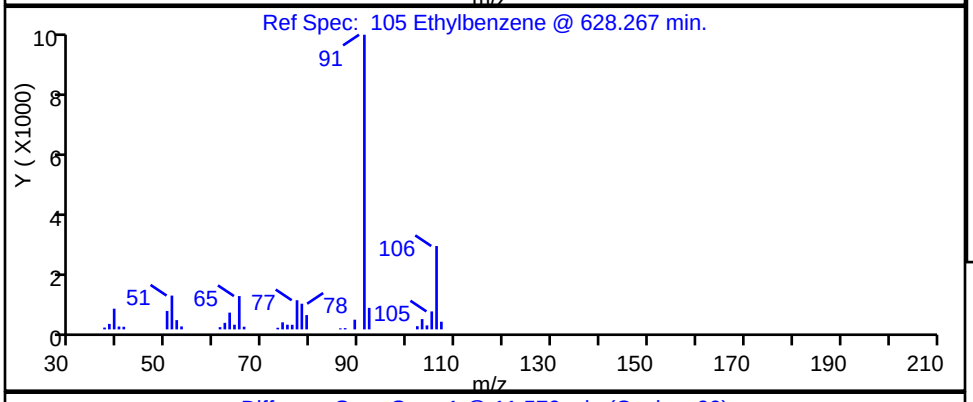
105 Ethylbenzene, CAS: 100-41-4

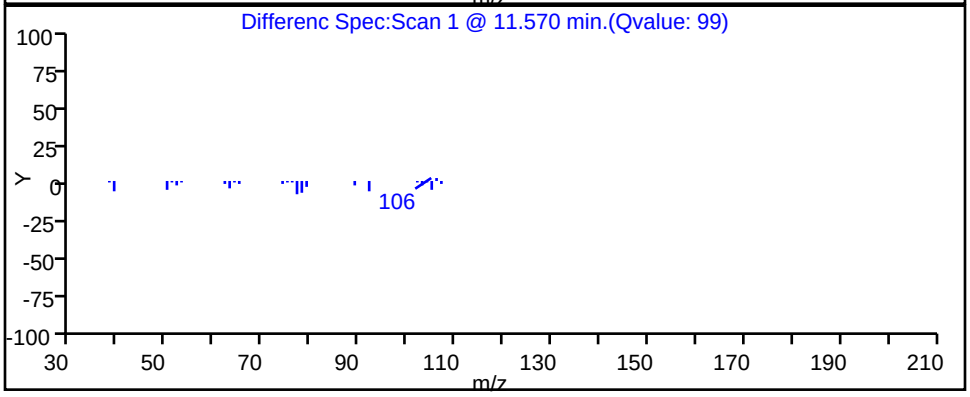






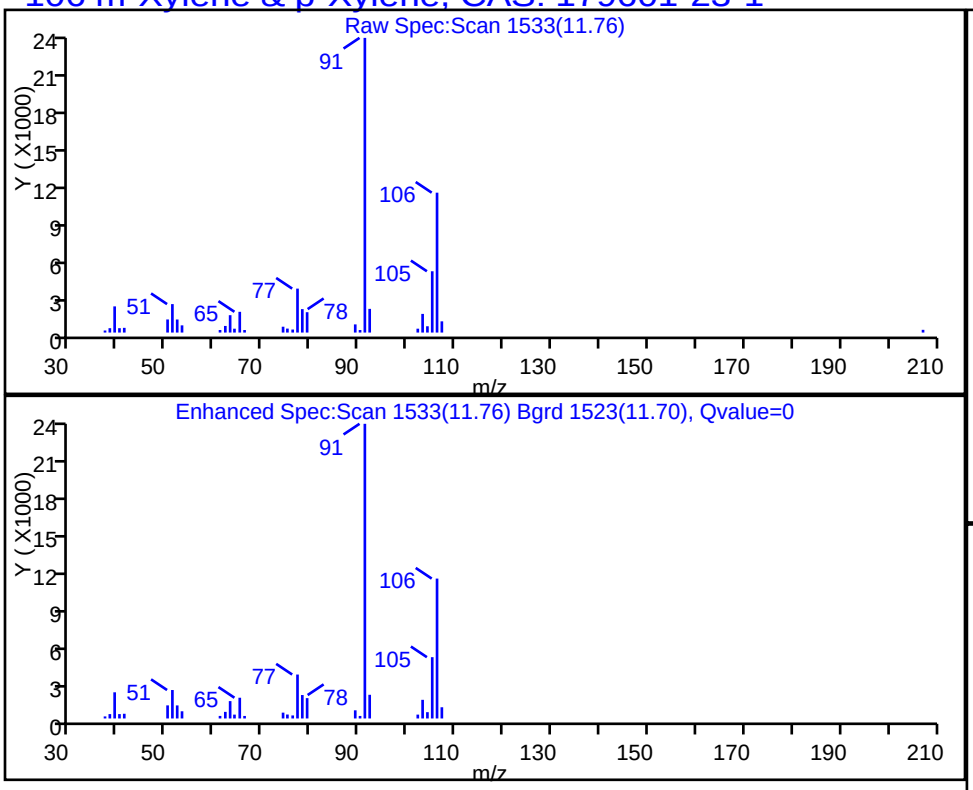


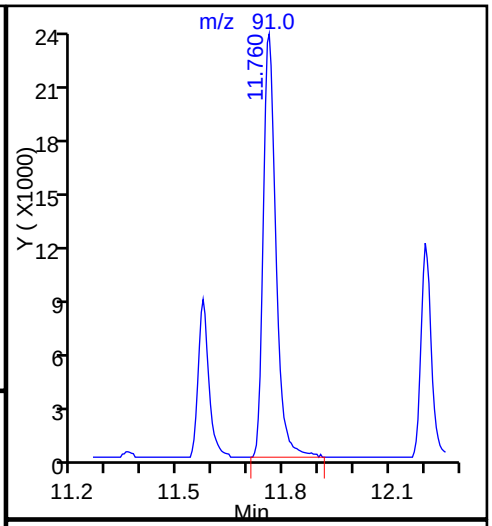


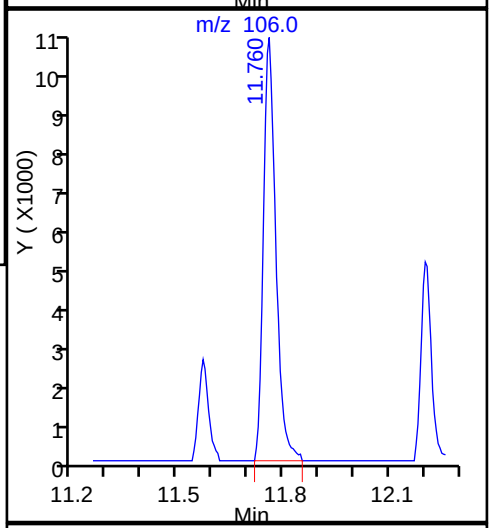


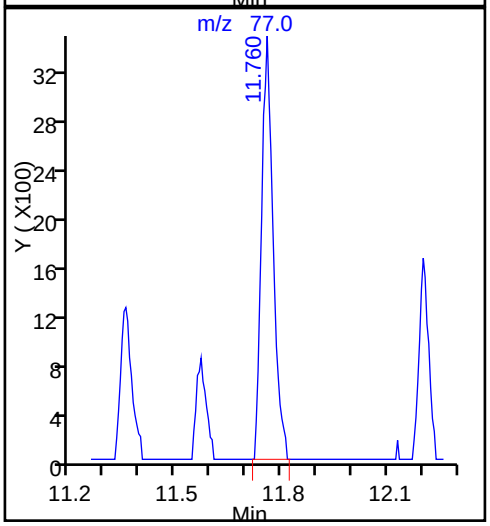
Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13710.D
Injection Date: 16-May-2016 14:27:30 Instrument ID: CHVOAMS01
Lims ID: 600-130758-H-2 Lab Sample ID: 600-130758-2
Client ID: PC-IDW Water
Operator ID: yx ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: 8260W20_1 Limit Group: VOA - 8260B_8260BLL
Column: Detector MS SCAN

106 m-Xylene & p-Xylene, CAS: 179601-23-1









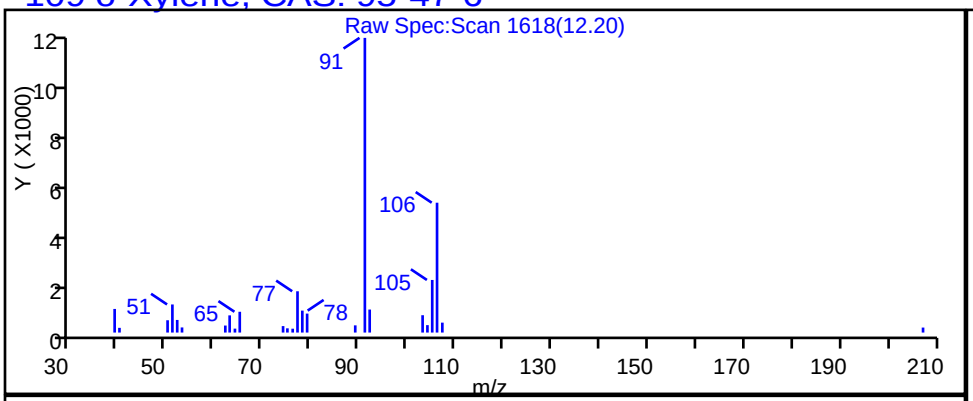
Report Date: 16-May-2016 16:24:25 Chrom Revision: 2.2 20-Apr-2016 13:59:46

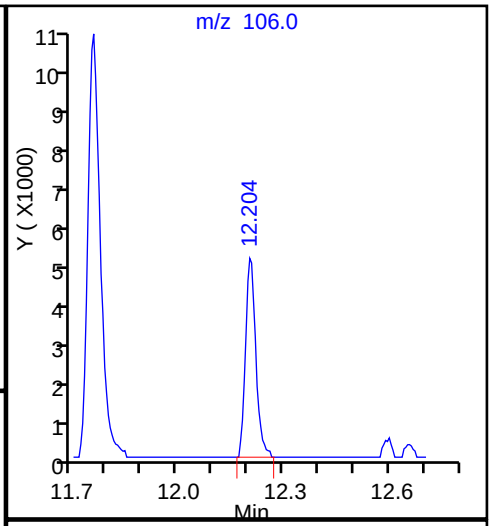
TestAmerica Houston

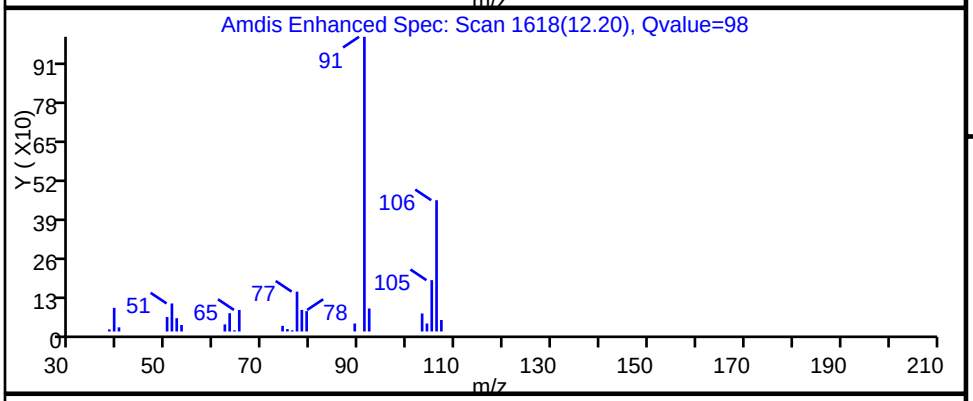
Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13710.D

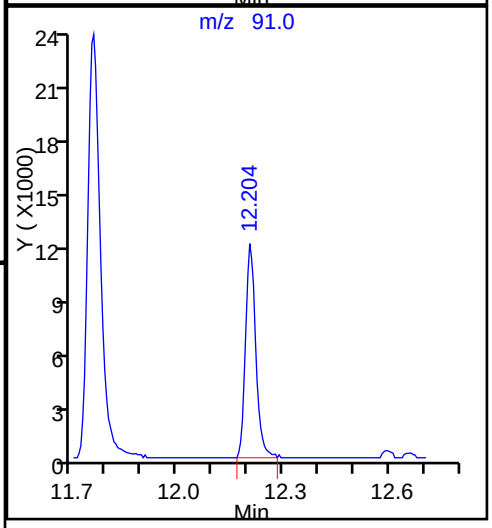
Injection Date:	16-May-2016 14:27:30	Instrument ID:	CHVOAMS01
Lims ID:	600-130758-H-2	Lab Sample ID:	600-130758-2
Client ID:	PC-IDW Water		
Operator ID:	yx	ALS Bottle#:	10 Worklist Smp#: 11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL
Column:		Detector	MS SCAN

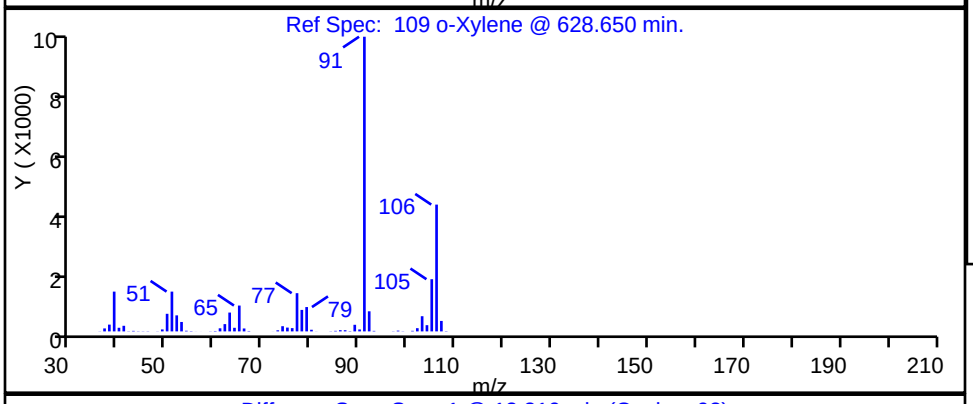
109 o-Xylene, CAS: 95-47-6

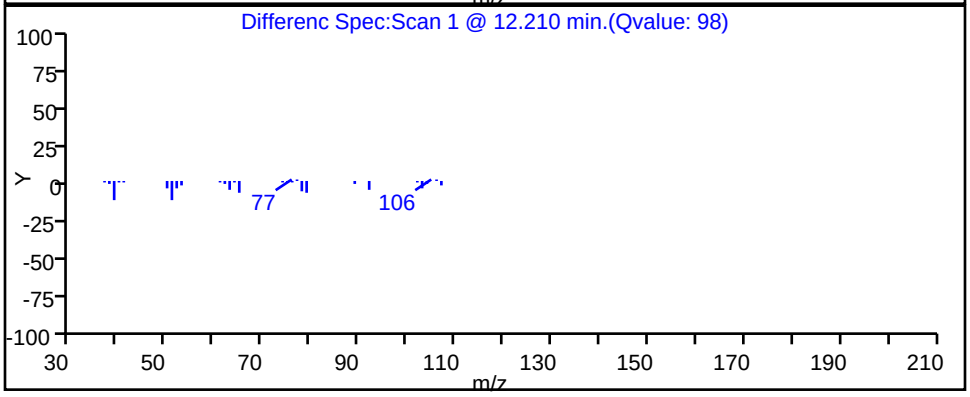












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Water DL Lab Sample ID: 600-130758-2 DL

Matrix: Water Lab File ID: C13722.D

Analysis Method: 8260B Date Collected: 05/11/2016 10:00

Sample wt/vol: 20(mL) Date Analyzed: 05/16/2016 19:35

Soil Aliquot Vol: Dilution Factor: 5

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188556 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.0564		0.00500	0.000880

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		50-134
1868-53-7	Dibromofluoromethane	84		62-130
2037-26-5	Toluene-d8 (Surr)	80		70-130
460-00-4	4-Bromofluorobenzene	124		67-139

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13722.D
Lims ID: 600-130758-I-2
Client ID: PC-IDW Water
Sample Type: Client
Inject. Date: 16-May-2016 19:35:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 20.000 mL Dil. Factor: 5.0000
Sample Info: 600-130758-I-2
Misc. Info.: 600-0012076-023
Operator ID: yx Instrument ID: CHVOAMS01

Method: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 17-May-2016 10:00:23 Calib Date: 07-May-2016 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160507-11966.b\C12711.D

Column 1 : Det: MS SCAN
Process Host: XAWRK033

First Level Reviewer: xiey Date: 17-May-2016 09:57:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.420	8.417	0.003	99	372338	12.5	
$ 51 Dibromofluoromethane	113	7.489	7.486	0.003	93	88088	10.5	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.834	7.831	0.003	0	83977	12.0	
64 Benzene	78	8.273	8.270	0.003	95	434948	11.3	
* 80 Chlorobenzene-d5	82	11.354	11.351	0.003	88	200237	12.5	
$ 90 Toluene-d8 (Surr)	98	9.900	9.902	-0.002	93	384182	10.1	
93 Toluene	92	9.973	9.965	0.008	97	620	0.0240	
S 100 Xylenes, Total	106				0		0.4921	
105 Ethylbenzene	106	11.574	11.565	0.009	97	1460	0.0882	
106 m-Xylene & p-Xylene	91	11.762	11.759	0.003	0	14786	0.3619	
109 o-Xylene	106	12.206	12.198	0.008	96	2719	0.1303	
* 110 1,4-Dichlorobenzene-d4	152	13.974	13.971	0.003	97	164148	12.5	
$ 119 4-Bromofluorobenzene	95	12.656	12.653	0.003	85	191720	15.5	

Reagents:

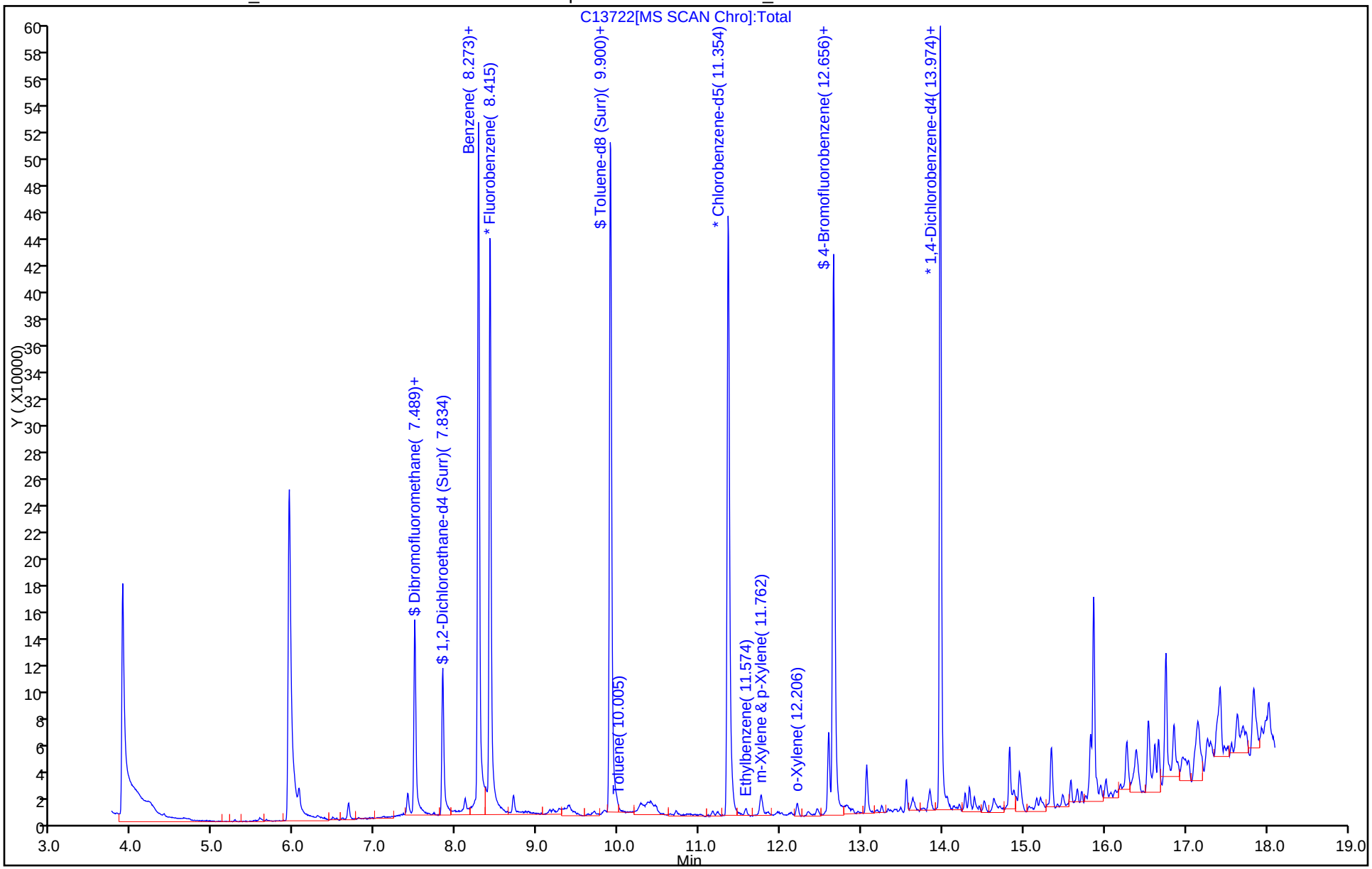
VOASS50PPM_00210	Amount Added: 5.00	Units: uL	Run Reagent
VOAIS50PPM_00172	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 17-May-2016 10:00:42 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13722.D

Injection Date:	16-May-2016 19:35:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	600-130758-I-2	Lab Sample ID:	600-130758-2	Worklist Smp#:	23
Client ID:	PC-IDW Water				
Purge Vol:	20.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	22
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



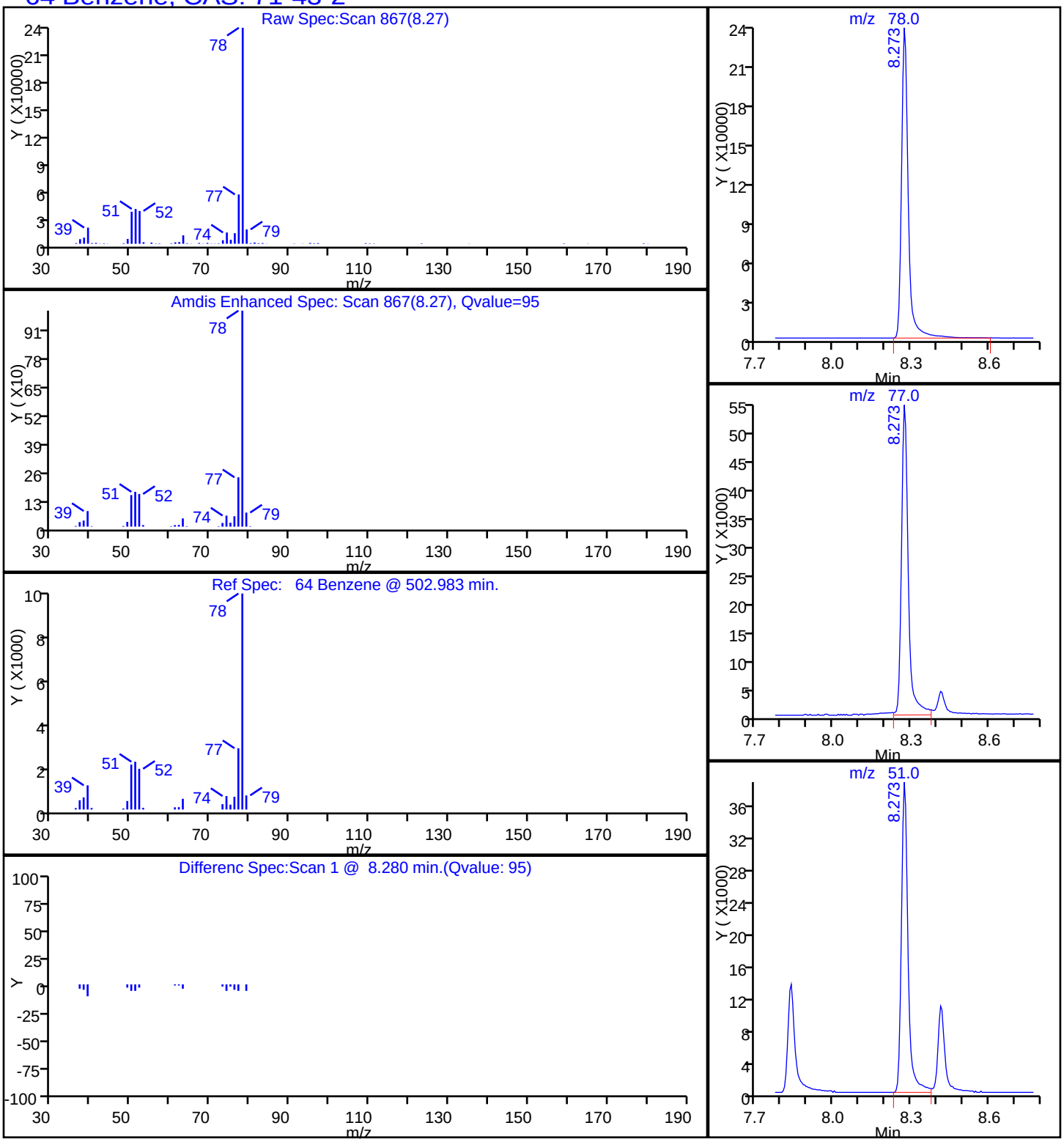
Report Date: 17-May-2016 10:00:42 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13722.D

Injection Date:	16-May-2016 19:35:30	Instrument ID:	CHVOAMS01
Lims ID:	600-130758-I-2	Lab Sample ID:	600-130758-2
Client ID:	PC-IDW Water		
Operator ID:	yx	ALS Bottle#:	22 Worklist Smp#: 23
Purge Vol:	20.000 mL	Dil. Factor:	5.0000
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL
Column:		Detector	MS SCAN

64 Benzene, CAS: 71-43-2



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-181051/2	C02201.D
Level 2	IC 600-181051/3	C02202.D
Level 3	IC 600-181051/4	C02203A.D
Level 4	IC 600-181051/5	C02204A.D
Level 5	ICIS 600-181051/6	C02205A.D
Level 6	IC 600-181051/7	C02206.D
Level 7	IC 600-181051/8	C02207.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.1850 0.2290	0.1903 0.2248	0.1849	0.2142	0.2159	Ave		0.2063				9.2		15.0			
Chloromethane	0.2864 0.2723	0.2667 0.2608	0.2469	0.2709	0.2647	Ave		0.2670			0.1000	4.5		15.0			
Vinyl chloride	0.1882 0.1555	0.1927 +++++	0.1874	0.2083	0.1869	Ave		0.1865				9.2		15.0			
Butadiene	0.1771 0.1817	0.1678 0.1569	0.1636	0.1866	0.1885	Ave		0.1746				6.9		15.0			
Bromomethane	0.1209 0.1932	0.1217 0.2092	0.1457	0.1631	0.1713	Lin1	-0.074	0.2016							0.9950		0.9900
Chloroethane	0.2048 0.2222	0.2001 0.2111	0.1932	0.2195	0.2187	Ave		0.2099				5.2		15.0			
Dichlorofluoromethane	0.4720 0.5528	0.4880 0.5341	0.4823	0.5399	0.5501	Ave		0.5170				6.7		15.0			
Acrolein	0.0165 0.0153	0.0168 0.0156	0.0152	0.0162	0.0155	Ave		0.0159				4.1		15.0			
Acetonitrile	0.0275 0.0158	0.0248 0.0157	0.0172	0.0169	0.0161	Lin1	0.0653	0.0156							0.9990		0.9900
Trichlorofluoromethane	0.3480 0.4405	0.3521 0.4614	0.3650	0.4274	0.4321	Ave		0.4038				11.7		15.0			
Isopropyl alcohol	0.0101 0.0066	0.0089 0.0068	0.0068	0.0070	0.0065	Lin2	0.0187	0.0065							0.9960		0.9900
Acetone	0.0836 0.0288	0.0602 0.0326	0.0402	0.0326	0.0295	Lin1	0.0497	0.0302							0.9930		0.9900
Ethyl ether	0.1564 0.1659	0.1791 0.1679	0.1553	0.1704	0.1668	Ave		0.1660				4.9		15.0			
t-Butanol	0.0106 0.0115	0.0135 0.0116	0.0110	0.0121	0.0115	Ave		0.0117				7.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1-Dichloroethene	0.2514 0.2712	0.2968 0.2707	0.2570	0.2838	0.2747	Ave		0.2722				5.6		15.0			
Acrylonitrile	0.0311 0.0354	0.0389 0.0348	0.0328	0.0361	0.0358	Ave		0.0350				7.1		15.0			
Iodomethane	0.3101 0.4092	0.3508 0.3946	0.3560	0.4147	0.4154	Ave		0.3787				10.7		15.0			
Methylene Chloride	+++++ 0.3116	0.8013 0.3005	0.4566	0.3798	0.3341	Lin1	0.4521	0.2897							0.9980		0.9900
Methyl acetate	0.1091 0.0929	0.1185 0.0874	0.0958	0.0988	0.0944	Ave		0.0995				10.7		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.1994 0.2117	0.2238 0.2113	0.2015	0.2217	0.2174	Ave		0.2124				4.4		15.0			
3-Chloro-1-propene	0.1558 0.1709	0.1768 0.1349	0.1596	0.1801	0.1757	Ave		0.1648				9.7		15.0			
Carbon disulfide	0.9580 0.9212	0.9741 0.9359	0.8388	0.9302	0.9192	Ave		0.9253				4.7		15.0			
trans-1,2-Dichloroethene	0.2896 0.3014	0.3259 0.3023	0.2897	0.3155	0.3067	Ave		0.3045				4.3		15.0			
Methyl tert-butyl ether	0.5203 0.5659	0.6197 0.5809	0.5285	0.5832	0.5729	Ave		0.5673				6.0		15.0			
Propionitrile	0.0149 0.0181	0.0191 0.0184	0.0163	0.0183	0.0180	Ave		0.0176				8.3		15.0			
1,1-Dichloroethane	0.5072 0.5225	0.5737 0.5142	0.5079	0.5499	0.5357	Ave		0.5302			0.1000	4.7		15.0			
Vinyl acetate	0.2813 0.2833	0.3440 0.2722	0.2755	0.2959	0.2872	Ave		0.2913				8.4		15.0			
2-Chloro-1,3-butadiene	0.4360 0.4400	0.4907 0.4197	0.4306	0.4736	0.4565	Ave		0.4496				5.6		15.0			
Hexane	0.4354 0.4001	0.4785 0.3606	0.4180	0.4568	0.4358	Ave		0.4265				9.0		15.0			
Isopropyl ether	0.8377 0.7991	0.9560 0.7199	0.8192	0.8886	0.8281	Ave		0.8355				8.8		15.0			
2-Butanone (MEK)	0.0114 0.0163	0.0165 0.0158	0.0142	0.0171	0.0165	Ave		0.0154				12.9		15.0			
Methacrylonitrile	0.0183 0.0214	0.0237 0.0206	0.0210	0.0231	0.0225	Ave		0.0215				8.4		15.0			
cis-1,2-Dichloroethene	0.3194 0.3331	0.3662 0.3337	0.3260	0.3516	0.3410	Ave		0.3387				4.7		15.0			
Ethyl acetate	0.0784 0.0875	0.0985 0.0922	0.0816	0.0856	0.0878	Ave		0.0874				7.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorobromomethane	0.1080 0.1251	0.1277 0.1261	0.1165	0.1307	0.1270	Ave		0.1230				6.5		15.0			
Chloroform	0.4910 0.4912	0.5457 0.4769	0.4886	0.5301	0.5081	Ave		0.5045				5.0		15.0			
Tert-butyl ethyl ether	0.7176 0.7482	0.8488 0.7128	0.7299	0.8007	0.7693	Ave		0.7610				6.5		15.0			
Isobutyl alcohol	0.0059 0.0074	0.0092 0.0077	0.0087	0.0085	0.0080	Ave		0.0079				13.4		15.0			
2,2-Dichloropropane	0.4633 0.4403	0.5028 0.4390	0.4499	0.4894	0.4703	Ave		0.4650				5.2		15.0			
Tetrahydrofuran	0.0520 0.0338	0.0452 0.0349	0.0396	0.0367	0.0350	Lin2	0.0184	0.0345							0.9990		0.9900
1,2-Dichloroethane	0.2434 0.2645	0.2974 0.2754	0.2442	0.2729	0.2649	Ave		0.2661				7.0		15.0			
1,1,1-Trichloroethane	0.4174 0.4428	0.4721 0.4483	0.4252	0.4644	0.4520	Ave		0.4460				4.4		15.0			
n-Butanol	0.0031 0.0037	0.0042 0.0037	0.0038	0.0038	0.0036	Ave		0.0037				9.4		15.0			
1,1-Dichloropropene	0.4153 0.4346	0.4684 0.4354	0.4154	0.4591	0.4429	Ave		0.4388				4.6		15.0			
Cyclohexane	0.4992 0.4981	0.5367 0.4982	0.4780	0.5268	0.5093	Ave		0.5066				3.9		15.0			
Carbon tetrachloride	0.3347 0.3613	0.3803 0.3649	0.3371	0.3774	0.3685	Ave		0.3606				5.0		15.0			
Benzene	1.3256 1.2553	1.4067 1.2055	1.2388	1.3375	1.2885	Ave		1.2940				5.3		15.0			
Tert-amyl methyl ether	0.6442 0.6836	0.7528 0.6991	0.6559	0.7087	0.6951	Ave		0.6914				5.2		15.0			
Isooctane	1.0160 1.0042	1.1325 0.9714	1.0017	1.0887	1.0490	Ave		1.0377				5.4		15.0			
Ethyl acrylate	0.2373 0.2582	0.3088 0.2635	0.2567	0.2765	0.2676	Ave		0.2669				8.3		15.0			
n-Heptane	0.3879 0.3850	0.4516 0.3735	0.3945	0.4321	0.4123	Ave		0.4053				6.9		15.0			
Dibromomethane	0.1150 0.1279	0.1390 0.1294	0.1222	0.1324	0.1304	Ave		0.1280				6.0		15.0			
1,2-Dichloropropane	0.2817 0.2909	0.3185 0.2774	0.2867	0.3167	0.3032	Ave		0.2964				5.6		15.0			
2-Nitropropane	0.0341 0.0406	0.0519 0.0405	0.0422	0.0448	0.0408	Ave		0.0421				12.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Trichloroethene	0.3103 0.3350	0.3563 0.3337	0.3233	0.3525	0.3433	Ave		0.3363				4.8		15.0			
Bromodichloromethane	0.3432 0.3819	0.4030 0.3920	0.3530	0.3920	0.3868	Ave		0.3789				5.8		15.0			
Methyl methacrylate	0.1738 0.1393	0.1625 0.1422	0.1373	0.1428	0.1421	Ave		0.1486				9.4		15.0			
1,4-Dioxane	+++++ 0.0009	0.0011 0.0010	0.0009	0.0009	0.0010	Ave		0.0010				7.1		15.0			
2-Chloroethyl vinyl ether	0.1015 0.1907	0.1460 0.1968	0.1429	0.1805	0.1849	Lin2	-0.091	0.1884							0.9960		0.9900
Methylcyclohexane	0.5709 0.5838	0.6369 0.5795	0.5642	0.6171	0.6002	Ave		0.5932				4.4		15.0			
cis-1,3-Dichloropropene	0.8258 0.8692	0.9591 0.8404	0.8525	0.9551	0.9242	Ave		0.8895				6.3		15.0			
4-Methyl-2-pentanone (MIBK)	0.1249 0.1225	0.1518 0.1286	0.1198	0.1284	0.1216	Ave		0.1282				8.5		15.0			
trans-1,3-Dichloropropene	0.6183 0.6877	0.7231 0.6791	0.6531	0.7445	0.7179	Ave		0.6891				6.3		15.0			
1,1,2-Trichloroethane	0.3362 0.3629	0.4031 0.3610	0.3537	0.3940	0.3781	Ave		0.3699				6.3		15.0			
Ethyl methacrylate	0.4308 0.4470	0.5114 0.4229	0.4353	0.4921	0.4681	Ave		0.4582				7.3		15.0			
Toluene	1.5889 1.5352	1.7594 1.3919	1.6029	1.7496	1.6564	Ave		1.6120				7.9		15.0			
1,3-Dichloropropane	0.6192 0.6632	0.7272 0.6531	0.6605	0.7341	0.7017	Ave		0.6798				6.2		15.0			
2-Hexanone	0.2221 0.1499	0.1888 0.1577	0.1630	0.1816	0.1672	Ave		0.1757				13.9		15.0			
n-Butyl acetate	0.3858 0.3628	0.5290 0.1346	0.3806	0.4128	0.3891	Qua	-0.152	0.5062	-0.007361						0.9960		0.9900
Dibromochloromethane	0.3781 0.4521	0.4553 0.4638	0.4039	0.4696	0.4607	Ave		0.4405				8.0		15.0			
1,2-Dibromoethane	0.3142 0.3567	0.3741 0.3620	0.3381	0.3777	0.3683	Ave		0.3559				6.3		15.0			
Tetrachloroethene	0.4481 0.4743	0.5280 0.4536	0.4699	0.5242	0.5037	Ave		0.4860				6.7		15.0			
1-Chlorohexane	0.6816 0.6037	0.7194 0.5775	0.6300	0.6830	0.6428	Ave		0.6483				7.6		15.0			
1,1,1,2-Tetrachloroethane	0.5330 0.5673	0.6056 0.5659	0.5513	0.6095	0.5877	Ave		0.5743				4.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorobenzene	1.8443 1.8357	2.0500 1.7535	1.8426	2.0149	1.9380	Ave		1.8970			0.3000	5.7		15.0			
Ethylbenzene	0.9993 0.9972	1.1093 0.9534	1.0129	1.1063	1.0569	Ave		1.0336				5.7		15.0			
m-Xylene & p-Xylene	2.5344 2.4332	2.7682 2.3390	2.4972	2.7194	2.5643	Ave		2.5508				5.9		15.0			
Bromoform	0.1715 0.2299	0.2086 0.2487	0.1788	0.2120	0.2149	Ave		0.2092			0.1000	12.9		15.0			
Styrene	1.9558 2.0395	2.1975 1.9317	2.0151	2.2303	2.1527	Ave		2.0747				5.7		15.0			
1,1,2,2-Tetrachloroethane	0.4325 0.4116	0.5025 0.3697	0.4215	0.4579	0.4370	Ave		0.4332			0.3000	9.5		15.0			
o-Xylene	1.2766 1.2558	1.4176 1.1656	1.2746	1.4016	1.3284	Ave		1.3029				6.7		15.0			
trans-1,4-Dichloro-2-butene	0.0634 0.0942	0.0862 0.0968	0.0763	0.0904	0.0911	Ave		0.0855				13.8		15.0			
1,2,3-Trichloropropane	0.0971 0.1171	0.1193 0.1209	0.1050	0.1182	0.1147	Ave		0.1132				7.8		15.0			
Isopropylbenzene	3.0669 3.0671	3.3330 2.9726	2.9783	3.2528	3.1170	Ave		3.1125				4.4		15.0			
Bromobenzene	0.6753 0.7159	0.7501 0.7015	0.6779	0.7459	0.7213	Ave		0.7125				4.2		15.0			
N-Propylbenzene	0.8981 0.9229	1.0003 0.8798	0.8908	0.9788	0.9433	Ave		0.9306				4.9		15.0			
2-Chlorotoluene	0.7879 0.7959	0.8650 0.7596	0.7772	0.8418	0.8096	Ave		0.8053				4.6		15.0			
4-Chlorotoluene	2.3744 2.4315	2.6941 2.2819	2.3873	2.6028	2.5046	Ave		2.4681				5.8		15.0			
1,3,5-Trimethylbenzene	2.8874 2.7253	3.0901 2.5181	2.7179	2.9534	2.7816	Ave		2.8105				6.6		15.0			
Alpha Methyl Styrene	1.7217 2.0003	2.0336 1.7159	2.3093	1.9976	2.0273	Ave		1.9722				10.4		15.0			
tert-Butylbenzene	2.3803 2.3310	2.5839 2.1609	2.2967	2.4831	2.3763	Ave		2.3732				5.7		15.0			
1,2,4-Trimethylbenzene	2.9276 2.8469	3.2255 2.5848	2.8825	3.1204	2.9346	Ave		2.9317				7.0		15.0			
sec-Butylbenzene	3.5685 3.5135	3.8927 3.1859	3.5415	3.7966	3.5990	Ave		3.5854				6.3		15.0			
Benzyl chloride	0.9691 0.8913	1.0701 0.8194	0.9289	0.9993	0.9592	Ave		0.9482				8.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.4482 1.4361	1.5947 1.2837	1.4164	1.5603	1.4773	Ave		1.4595				7.0		15.0			
1,4-Dichlorobenzene	1.4629 1.3654	1.6385 1.1403	1.4613	1.5648	1.4771	Ave		1.4443				11.0		15.0			
4-Isopropyltoluene	3.1468 2.9559	3.4178 2.4770	3.1279	3.3262	3.1475	Ave		3.0856				9.9		15.0			
1,2,3-Trimethylbenzene	3.2215 3.0758	3.4769 2.7486	3.0975	3.3264	3.1875	Ave		3.1620				7.2		15.0			
1,2-Dichlorobenzene	1.1965 1.2312	1.3589 1.1393	1.2145	1.3223	1.2548	Ave		1.2454				6.0		15.0			
n-Butylbenzene	2.8583 2.7802	3.1625 2.4934	2.8259	3.0857	2.9278	Ave		2.8762				7.6		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.0614	0.0689 0.0629	0.0585	0.0623	0.0619	Ave		0.0626				5.5		15.0			
1,3,5-Trichlorobenzene	1.0175 1.0347	1.1438 0.9194	1.0373	1.1136	1.0739	Ave		1.0486				7.0		15.0			
1,2,4-Trichlorobenzene	0.5588 0.6164	0.6799 0.5502	0.6234	0.6580	0.6374	Ave		0.6177				7.8		15.0			
Naphthalene	0.7374 0.8043	0.9370 0.7255	0.9137	0.8817	0.8477	Ave		0.8353				9.9		15.0			
Hexachlorobutadiene	0.1664 0.1567	0.1810 0.1428	0.1656	0.1737	0.1639	Ave		0.1643				7.4		15.0			
1,2,3-Trichlorobenzene	0.3898 0.3132	0.3616 0.2666	0.3625	0.3448	0.3328	Ave		0.3387				11.8		15.0			
Dibromofluoromethane	0.2822 0.2764	0.2933 0.2791	0.2631	0.2886	0.2798	Ave		0.2804				3.4		15.0			
1,2-Dichloroethane-d4 (Surr)	0.2500 0.2283	0.2472 0.2356	0.2171	0.2355	0.2316	Ave		0.2351				4.8		15.0			
Toluene-d8 (Surr)	2.7665 2.1996	2.5502 2.0733	2.2720	2.4756	2.3644	Ave		2.3859				9.8		15.0			
4-Bromofluorobenzene	1.5094 0.9690	1.1414 0.9501	0.9388	1.0203	0.9756	Lin2	0.2686	0.9236							0.9940		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-181051/2	C02201.D
Level 2	IC 600-181051/3	C02202.D
Level 3	IC 600-181051/4	C02203A.D
Level 4	IC 600-181051/5	C02204A.D
Level 5	ICIS 600-181051/6	C02205A.D
Level 6	IC 600-181051/7	C02206.D
Level 7	IC 600-181051/8	C02207.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	2823 135413	5678 323735	11120	32274	64588	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloromethane	FB	Ave	4369 161054	7960 375574	14848	40830	79187	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	2871 91940	5750 +++++	11271	31390	55925	0.500 20.0	1.00 +++++	2.00	5.00	10.0
Butadiene	FB	Ave	2702 107471	5009 225959	9840	28119	56396	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromomethane	FB	Lin1	1844 114283	3633 301336	8761	24578	51251	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroethane	FB	Ave	3125 131391	5971 304061	11617	33073	65432	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dichlorofluoromethane	FB	Ave	7201 326935	14562 769316	28999	81357	164576	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Acrolein	FB	Ave	1260 45286	2513 112656	4556	12171	23127	2.50 100	5.00 250	10.0	25.0	50.0
Acetonitrile	FB	Lin1	4203 93375	7409 226825	10328	25507	48311	5.00 200	10.0 500	20.0	50.0	100
Trichlorofluoromethane	FB	Ave	5309 260552	10509 664539	21949	64410	129286	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl alcohol	FB	Lin2	1546 39233	2648 97555	4115	10612	19384	5.00 200	10.0 500	20.0	50.0	100
Acetone	FB	Lin1	2550 34082	3595 93895	4833	9840	17652	1.00 40.0	2.00 100	4.00	10.0	20.0
Ethyl ether	FB	Ave	2386 98127	5346 241895	9339	25684	49911	0.500 20.0	1.00 50.0	2.00	5.00	10.0
t-Butanol	FB	Ave	1614 68238	4023 167162	6641	18190	34339	5.00 200	10.0 500	20.0	50.0	100
1,1-Dichloroethene	FB	Ave	3836 160395	8856 389853	15453	42765	82186	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Acrylonitrile	FB	Ave	4752 209150	11605 501850	19731	54460	107163	5.00 200	10.0 500	20.0	50.0	100
Iodomethane	FB	Ave	4731 242006	10470 568300	21407	62497	124284	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methylene Chloride	FB	Lin1	+++++ 184295	23914 432770	27458	57234	99943	+++++ 20.0	1.00 50.0	2.00	5.00	10.0
Methyl acetate	FB	Ave	8324 274585	17675 629476	28800	74461	141221	2.50 100	5.00 250	10.0	25.0	50.0
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	3042 125215	6678 304322	12119	33413	65036	0.500 20.0	1.00 50.0	2.00	5.00	10.0
3-Chloro-1-propene	FB	Ave	2377 101071	5276 194293	9597	27138	52570	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon disulfide	FB	Ave	14617 544834	29071 1347998	50436	140175	275007	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,2-Dichloroethene	FB	Ave	4419 178243	9727 435388	17423	47548	91765	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl tert-butyl ether	FB	Ave	7938 334692	18494 836726	31780	87891	171397	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Propionitrile	FB	Ave	2273 106898	5695 264938	9814	27590	53716	5.00 200	10.0 500	20.0	50.0	100
1,1-Dichloroethane	FB	Ave	7738 309054	17120 740625	30541	82860	160282	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Vinyl acetate	FB	Ave	8585 335126	20532 784190	33129	89178	171821	1.00 40.0	2.00 100	4.00	10.0	20.0
2-Chloro-1,3-butadiene	FB	Ave	6652 260218	14645 604532	25893	71370	136570	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexane	FB	Ave	6643 236648	14281 519378	25133	68835	130396	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropyl ether	FB	Ave	12781 472621	28531 1036908	49258	133904	247766	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Ave	348 19276	987 45629	1708	5141	9866	1.00 40.0	2.00 100	4.00	10.0	20.0
Methacrylonitrile	FB	Ave	2795 126479	7075 296895	12626	34802	67286	5.00 200	10.0 500	20.0	50.0	100
cis-1,2-Dichloroethene	FB	Ave	4874 197027	10927 480657	19604	52989	102021	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acetate	FB	Ave	2391 103487	5879 265738	9809	25794	52522	1.00 40.0	2.00 100	4.00	10.0	20.0
Chlorobromomethane	FB	Ave	1648 74009	3812 181658	7003	19690	37990	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chloroform	FB	Ave	7491 290500	16286 686952	29378	79882	152009	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Tert-butyl ethyl ether	FB	Ave	10949 442542	25331 1026669	43887	120665	230148	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isobutyl alcohol	FB	Ave	2268 109307	6871 276721	13029	31866	59509	12.5 500	25.0 1250	50.0	125	250
2,2-Dichloropropane	FB	Ave	7069 260424	15005 632312	27056	73751	140701	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrahydrofuran	FB	Lin2	1588 40009	2695 100435	4757	11046	20918	1.00 40.0	2.00 100	4.00	10.0	20.0
1,2-Dichloroethane	FB	Ave	3714 156414	8875 396695	14687	41126	79257	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	6369 261891	14089 645756	25569	69977	135231	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Butanol	FB	Ave	1173 54459	3163 134380	5772	14497	26840	12.5 500	25.0 1250	50.0	125	250
1,1-Dichloropropene	FB	Ave	6337 257060	13979 627192	24981	69188	132512	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Cyclohexane	FB	Ave	7617 294568	16016 717526	28741	79379	152372	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	5106 213671	11350 525545	20271	56866	110254	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzene	FB	Ave	20226 742442	41981 1736401	74490	201550	385502	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tert-amyl methyl ether	FB	Ave	9829 404318	22465 1007002	39442	106802	207967	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isooctane	FB	Ave	15502 593938	33798 1399148	60232	164066	313842	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl acrylate	FB	Ave	3621 152685	9216 379601	15433	41671	80061	0.500 20.0	1.00 50.0	2.00	5.00	10.0
n-Heptane	FB	Ave	5918 227732	13477 538001	23724	65118	123344	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromomethane	FB	Ave	1754 75673	4147 186337	7346	19949	39011	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	4298 172038	9505 399537	17240	47726	90706	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Nitropropane	FB	Ave	1040 48041	3098 116724	5079	13493	24420	1.00 40.0	2.00 100	4.00	10.0	20.0
Trichloroethene	FB	Ave	4734 198120	10632 480582	19439	53120	102706	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromodichloromethane	FB	Ave	5237 225889	12027 564548	21229	59074	115737	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Methyl methacrylate	FB	Ave	5305 164831	9696 409710	16515	43027	85019	1.00 40.0	2.00 100	4.00	10.0	20.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane	FB	Ave	+++++ 11232	638 28008	1036	2798	5700	+++++ 400	20.0 1000	40.0	100	200
2-Chloroethyl vinyl ether	CBZ	Lin2	1672 126254	4708 333505	9176	28616	59129	1.00 40.0	2.00 100	4.00	10.0	20.0
Methylcyclohexane	FB	Ave	8710 345307	19006 834632	33929	92990	179559	0.500 20.0	1.00 50.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	CBZ	Ave	6802 287747	15469 712018	27380	75691	147783	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Ave	3812 144872	9058 370352	14410	38706	72779	1.00 40.0	2.00 100	4.00	10.0	20.0
trans-1,3-Dichloropropene	CBZ	Ave	5093 227675	11662 575393	20976	58998	114804	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2-Trichloroethane	CBZ	Ave	2769 120139	6502 305833	11359	31225	60467	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethyl methacrylate	CBZ	Ave	3548 147965	8248 358334	13980	38996	74855	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene	CBZ	Ave	13087 508216	28377 1179245	51481	138656	264868	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichloropropane	CBZ	Ave	5100 219536	11729 553367	21213	58176	112204	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Hexanone	CBZ	Ave	3658 99217	6090 267138	10468	28780	53468	1.00 40.0	2.00 100	4.00	10.0	20.0
n-Butyl acetate	CBZ	Qua	3178 120114	8532 114040	12225	32717	62218	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromochloromethane	CBZ	Ave	3114 149658	7343 392928	12972	37215	73671	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromoethane	CBZ	Ave	2588 118076	6034 306676	10859	29936	58899	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Tetrachloroethene	CBZ	Ave	3691 157029	8516 384276	15093	41543	80542	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1-Chlorohexane	CBZ	Ave	5614 199843	11603 489278	20235	54129	102794	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	4390 187810	9768 479450	17705	48304	93973	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Chlorobenzene	CBZ	Ave	15191 607701	33063 1485594	59179	159684	309907	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Ethylbenzene	CBZ	Ave	8231 330127	17891 807728	32530	87675	169002	0.500 20.0	1.00 50.0	2.00	5.00	10.0
m-Xylene & p-Xylene	CBZ	Ave	20875 805491	44646 1981697	80204	215512	410051	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromoform	DCB	Ave	1472 78236	3556 210682	6186	18076	36725	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Styrene	CBZ	Ave	16109 675164	35442 1636594	64721	176754	344232	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,1,2,2-Tetrachloroethane	CBZ	Ave	3562 136275	8105 313224	13536	36286	69873	0.500 20.0	1.00 50.0	2.00	5.00	10.0
o-Xylene	CBZ	Ave	10515 415730	22864 987500	40936	111078	212425	0.500 20.0	1.00 50.0	2.00	5.00	10.0
trans-1,4-Dichloro-2-butene	DCB	Ave	544 32048	1470 82045	2638	7710	15577	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichloropropane	DCB	Ave	833 39834	2034 102461	3633	10084	19606	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Isopropylbenzene	DCB	Ave	26318 1043652	56813 2518229	103025	277412	532724	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Bromobenzene	DCB	Ave	5795 243590	12786 594241	23449	63615	123282	0.500 20.0	1.00 50.0	2.00	5.00	10.0
N-Propylbenzene	DCB	Ave	7707 314037	17051 745316	30813	83472	161228	0.500 20.0	1.00 50.0	2.00	5.00	10.0
2-Chlorotoluene	DCB	Ave	6761 270843	14745 643486	26886	71790	138370	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Chlorotoluene	DCB	Ave	20376 827378	45923 1933169	82581	221979	428061	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCB	Ave	24778 927360	52672 2133203	94018	251874	475409	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Alpha Methyl Styrene	DCB	Ave	14773 680588	34661 1453464	79875	170341	346454	0.500 20.0	1.000 50.0	2.00	5.00	10.00
tert-Butylbenzene	DCB	Ave	20426 793196	44044 1830669	79448	211764	406139	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCB	Ave	25123 968732	54981 2189770	99709	266115	501546	0.500 20.0	1.00 50.0	2.00	5.00	10.0
sec-Butylbenzene	DCB	Ave	30623 1195560	66353 2698938	122505	323790	615110	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Benzyl chloride	DCB	Ave	8316 303300	18241 694188	32133	85223	163930	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCB	Ave	12428 488680	27182 1087484	48996	133066	252480	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCB	Ave	12554 464600	27930 966019	50550	133452	252455	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Isopropyltoluene	DCB	Ave	27004 1005838	58259 2098386	108198	283670	537932	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trimethylbenzene	DCB	Ave	27645 1046636	59265 2328539	107149	283690	544769	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCB	Ave	10268 418960	23164 965200	42010	112770	214465	0.500 20.0	1.00 50.0	2.00	5.00	10.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 181051

SDG No.:

Instrument ID: CHVOAMS01 GC Column: DB-VRX 60 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 01/22/2016 11:43 Calibration End Date: 01/22/2016 16:06 Calibration ID: 8402

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCB	Ave	24528 946022	53907 2112305	97754	263155	500385	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCB	Ave	+++++ 20881	1175 53255	2023	5316	10573	+++++ 20.0	1.00 50.0	2.00	5.00	10.0
1,3,5-Trichlorobenzene	DCB	Ave	8732 352097	19497 778892	35881	94970	183537	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCB	Ave	4795 209734	11590 466098	21565	56119	108939	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Naphthalene	DCB	Ave	6328 273684	15972 614581	31608	75192	144886	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Hexachlorobutadiene	DCB	Ave	1428 53336	3086 120960	5729	14816	28015	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCB	Ave	3345 106560	6164 225820	12539	29405	56881	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Dibromofluoromethane	FB	Ave	4305 163501	8754 402070	15823	43483	83708	0.500 20.0	1.00 50.0	2.00	5.00	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	3815 135021	7378 339371	13056	35487	69289	0.500 20.0	1.00 50.0	2.00	5.00	10.0
Toluene-d8 (Surr)	CBZ	Ave	22787 728160	41130 1756535	72969	196195	378089	0.500 20.0	1.00 50.0	2.00	5.00	10.0
4-Bromofluorobenzene	DCB	Lin2	12953 329729	19455 804898	32475	87013	166736	0.500 20.0	1.00 50.0	2.00	5.00	10.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02201.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 22-Jan-2016 11:43:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 600-0010400-002
Operator ID: yx Instrument ID: CHVOAMS01
Sublist: chrom-8260W20_1*sub30

Method: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 22-Jan-2016 16:40:16 Calib Date: 22-Jan-2016 16:06:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02207.D

Column 1 : Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: xiey Date: 22-Jan-2016 12:53:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.415	8.419	-0.004	100	381437	12.5	12.5	
2 Dichlorodifluoromethane	85	3.901	3.900	0.001	96	2823	0.5000	0.4485	
3 Chloromethane	50	4.136	4.141	-0.005	95	4369	0.5000	0.5363	
4 Vinyl chloride	62	4.351	4.355	-0.004	97	2871	0.5000	0.5045	
5 Butadiene	39	4.476	4.481	-0.005	89	2702	0.5000	0.5071	
6 Bromomethane	94	4.795	4.795	0.000	93	1844	0.5000	0.6666	
9 Chloroethane	64	4.931	4.936	-0.005	97	3125	0.5000	0.4878	
11 Dichlorofluoromethane	67	4.973	4.978	-0.005	97	7201	0.5000	0.4564	
10 Ethanol	45		5.120				ND	ND	
14 Acrolein	56	5.465	5.464	0.001	97	1260	2.50	2.60	
15 Acetonitrile	41	5.481	5.474	0.007	35	4203	5.00	4.65	
16 Trichlorofluoromethane	101	5.475	5.474	0.001	99	5309	0.5000	0.4309	
17 Isopropyl alcohol	45	5.507	5.506	0.001	95	1546	5.00	4.92	
18 Acetone	43	5.570	5.569	0.001	95	2550	1.00	1.12	
19 Ethyl ether	59	5.664	5.668	-0.004	88	2386	0.5000	0.4711	
21 2-Methyl-2-propanol	59	5.941	5.940	0.001	41	1614	5.00	4.53	
22 1,1-Dichloroethene	96	5.946	5.945	0.001	96	3836	0.5000	0.4618	
23 Acrylonitrile	52	5.977	5.977	0.000	99	4752	5.00	4.45	
24 Iodomethane	142	5.993	5.997	-0.004	97	4731	0.5000	0.4094	
25 Methylene Chloride	84	6.061	6.060	0.001	89	20724	0.5000	0.7835	
26 Methyl acetate	43	6.077	6.076	0.001	96	8324	2.50	2.74	
27 1,1,2-Trichloro-1,2,2-trif	151	6.093	6.097	-0.004	90	3042	0.5000	0.4693	
28 3-Chloro-1-propene	76	6.134	6.139	-0.005	94	2377	0.5000	0.4726	
29 Carbon disulfide	76	6.291	6.290	0.001	99	14617	0.5000	0.5177	
30 trans-1,2-Dichloroethene	96	6.605	6.604	0.001	79	4419	0.5000	0.4756	
31 Methyl tert-butyl ether	73	6.668	6.672	-0.004	93	7938	0.5000	0.4585	
32 Propionitrile	54	6.793	6.792	0.001	7	2273	5.00	4.24	
33 1,1-Dichloroethane	63	6.799	6.798	0.001	70	7738	0.5000	0.4783	
34 Vinyl acetate	43	6.861	6.860	0.001	97	8585	1.00	0.9657	
36 2-Chloro-1,3-butadiene	53	7.081	7.080	0.001	90	6652	0.5000	0.4849	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Hexane	57	7.091	7.096	-0.005	89	6643	0.5000	0.5105	
38 Isopropyl ether	45	7.097	7.101	-0.004	92	12781	0.5000	0.5013	
39 2-Butanone (MEK)	72	7.107	7.106	0.001	71	348	1.00	0.7404	
40 Methacrylonitrile	66	7.186	7.185	0.001	89	2795	5.00	4.26	
41 cis-1,2-Dichloroethene	96	7.238	7.237	0.001	78	4874	0.5000	0.4715	
42 Ethyl acetate	43	7.332	7.331	0.001	94	2391	1.00	0.8969	
44 Chlorobromomethane	128	7.369	7.368	0.001	89	1648	0.5000	0.4390	
45 Chloroform	83	7.395	7.394	0.001	70	7491	0.5000	0.4866	
46 Tert-butyl ethyl ether	59	7.400	7.404	-0.004	95	10949	0.5000	0.4715	
48 Isobutyl alcohol	43	7.431	7.431	0.000	62	2268	12.5	9.41	
49 2,2-Dichloropropane	77	7.452	7.457	-0.005	63	7069	0.5000	0.4982	
$ 51 Dibromofluoromethane	113	7.489	7.488	0.001	93	4305	0.5000	0.5032	
S 47 1,2-Dichloroethene, Total	96				0		1.00	0.9472	
53 Tetrahydrofuran	42	7.646	7.650	-0.004	87	1588	1.00	0.9759	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.829	7.833	-0.004	0	3815	0.5000	0.5319	
57 1,2-Dichloroethane	62	7.892	7.891	0.001	51	3714	0.5000	0.4574	
58 1,1,1-Trichloroethane	97	7.970	7.974	-0.004	70	6369	0.5000	0.4679	
59 n-Butanol	56	7.981	7.980	0.001	52	1173	12.5	10.3	
61 1,1-Dichloropropene	75	8.101	8.100	0.001	98	6337	0.5000	0.4733	
62 Cyclohexane	84	8.195	8.194	0.001	86	7617	0.5000	0.4927	
63 Carbon tetrachloride	119	8.253	8.257	-0.004	97	5106	0.5000	0.4640	
64 Benzene	78	8.274	8.278	-0.004	95	20226	0.5000	0.5122	
66 Tert-amyl methyl ether	73	8.357	8.356	0.001	98	9829	0.5000	0.4659	
67 Isooctane	57	8.566	8.565	0.001	95	15502	0.5000	0.4896	
68 Ethyl acrylate	55	8.613	8.607	0.006	93	3621	0.5000	0.4445	
69 n-Heptane	43	8.624	8.628	-0.004	90	5918	0.5000	0.4785	
70 Dibromomethane	93	8.708	8.712	-0.004	89	1754	0.5000	0.4490	
71 1,2-Dichloropropane	63	8.723	8.722	0.001	93	4298	0.5000	0.4751	
72 2-Nitropropane	43	8.729	8.733	-0.004	69	1040	1.00	0.8089	
73 Trichloroethene	130	8.755	8.754	0.001	96	4734	0.5000	0.4613	
74 Dichlorobromomethane	83	8.797	8.796	0.001	98	5237	0.5000	0.4530	
75 Methyl methacrylate	41	8.838	8.843	-0.005	88	5305	1.00	1.17	
76 1,4-Dioxane	58		8.858				ND	ND	
78 Methylcyclohexane	83	9.178	9.177	0.001	86	8710	0.5000	0.4812	
79 4-Methyl-2-pentanone (MIBK	43	9.346	9.350	-0.004	93	3812	1.00	0.9742	
* 80 Chlorobenzene-d5	82	11.354	11.353	0.001	85	205917	12.5	12.5	
84 2-Chloroethyl vinyl ether	63	9.074	9.073	0.001	58	1672	1.00	1.02	
85 cis-1,3-Dichloropropene	75	9.288	9.287	0.001	97	6802	0.5000	0.4642	
88 trans-1,3-Dichloropropene	75	9.644	9.643	0.001	89	5093	0.5000	0.4486	
89 1,1,2-Trichloroethane	97	9.801	9.800	0.001	86	2769	0.5000	0.4545	
$ 90 Toluene-d8 (Surr)	98	9.905	9.904	0.001	92	22787	0.5000	0.5798	
92 Ethyl methacrylate	69	9.958	9.957	0.001	85	3548	0.5000	0.4700	
93 Toluene	92	9.973	9.972	0.001	99	13087	0.5000	0.4928	
94 1,3-Dichloropropane	76	10.015	10.014	0.001	90	5100	0.5000	0.4554	
95 2-Hexanone	43	10.115	10.108	0.006	91	3658	1.00	1.26	
97 Chlorodibromomethane	129	10.303	10.307	-0.004	89	3114	0.5000	0.4291	
98 n-Butyl acetate	43	10.381	10.380	0.001	98	3178	0.5000	0.6892	
99 Ethylene Dibromide	107	10.559	10.558	0.001	96	2588	0.5000	0.4414	
101 Tetrachloroethene	164	10.700	10.699	0.001	96	3691	0.5000	0.4610	
S 100 Xylenes, Total	106				0		1.00	0.9867	
102 1-Chlorohexane	55	11.255	11.254	0.001	93	5614	0.5000	0.5257	
103 1,1,1,2-Tetrachloroethane	131	11.307	11.306	0.001	86	4390	0.5000	0.4640	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Chlorobenzene	112	11.391	11.395	-0.004	96	15191	0.5000	0.4861	
105 Ethylbenzene	106	11.568	11.568	0.000	98	8231	0.5000	0.4834	
106 m-Xylene & p-Xylene	91	11.762	11.761	0.001	0	20875	0.5000	0.4968	
107 Styrene	104	12.128	12.127	0.001	94	16109	0.5000	0.4713	
109 o-Xylene	106	12.201	12.206	-0.005	97	10515	0.5000	0.4899	
108 1,1,2,2-Tetrachloroethane	83	12.201	12.206	-0.005	53	3562	0.5000	0.4991	
* 110 1,4-Dichlorobenzene-d4	152	13.974	13.973	0.001	95	214535	12.5	12.5	
115 Bromoform	173	11.945	11.949	-0.004	89	1472	0.5000	0.4100	
116 trans-1,4-Dichloro-2-buten	53	12.358	12.357	0.001	1	544	0.5000	0.3707	
117 1,2,3-Trichloropropane	110	12.363	12.363	0.000	83	833	0.5000	0.4288	
118 Isopropylbenzene	105	12.594	12.598	-0.004	95	26318	0.5000	0.4927	
$ 119 4-Bromofluorobenzene	95	12.656	12.655	0.001	87	12953	0.5000	0.5263	
120 Bromobenzene	156	12.902	12.901	0.001	93	5795	0.5000	0.4739	
121 N-Propylbenzene	120	13.059	13.058	0.001	99	7707	0.5000	0.4826	
122 2-Chlorotoluene	126	13.179	13.178	0.001	97	6761	0.5000	0.4892	
123 4-Chlorotoluene	91	13.253	13.252	0.001	97	20376	0.5000	0.4810	
124 1,3,5-Trimethylbenzene	105	13.336	13.335	0.001	95	24778	0.5000	0.5137	
111 Alpha Methyl Styrene	118	13.451	13.450	0.001	91	14773	0.5000	0.4364	
126 tert-Butylbenzene	119	13.634	13.633	0.001	93	20426	0.5000	0.5015	
128 1,2,4-Trimethylbenzene	105	13.734	13.733	0.001	97	25123	0.5000	0.4993	
130 sec-Butylbenzene	105	13.844	13.848	-0.004	94	30623	0.5000	0.4976	
131 Benzyl chloride	91	13.933	13.932	0.000	97	8316	0.5000	0.5110	
132 1,3-Dichlorobenzene	146	13.938	13.937	0.001	96	12428	0.5000	0.4961	
133 1,4-Dichlorobenzene	146	14.000	14.000	0.000	93	12554	0.5000	0.5064	
134 4-Isopropyltoluene	119	14.006	14.010	-0.004	96	27004	0.5000	0.5099	
135 1,2,3-Trimethylbenzene	105	14.152	14.156	-0.004	98	27645	0.5000	0.5094	
137 1,2-Dichlorobenzene	146	14.351	14.350	0.001	97	10268	0.5000	0.4804	
138 n-Butylbenzene	91	14.408	14.413	-0.005	97	24528	0.5000	0.4969	
139 1,2-Dibromo-3-Chloropropan	157	14.820	14.821	-0.001	1	0	0.5000	0	
140 1,3,5-Trichlorobenzene	180	15.664	15.663	0.001	97	8732	0.5000	0.4852	
141 1,2,4-Trichlorobenzene	180	16.255	16.249	0.006	92	4795	0.5000	0.4523	
142 Naphthalene	128	16.542	16.541	0.001	97	6328	0.5000	0.4414	
143 Hexachlorobutadiene	190	16.579	16.583	-0.004	93	1428	0.5000	0.5063	
144 1,2,3-Trichlorobenzene	180	16.778	16.777	0.001	90	3345	0.5000	0.5754	
S 145 1,3-Dichloropropene, Total	1				0			0.9129	
S 146 Trihalomethanes, Total	1				0			1.78	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

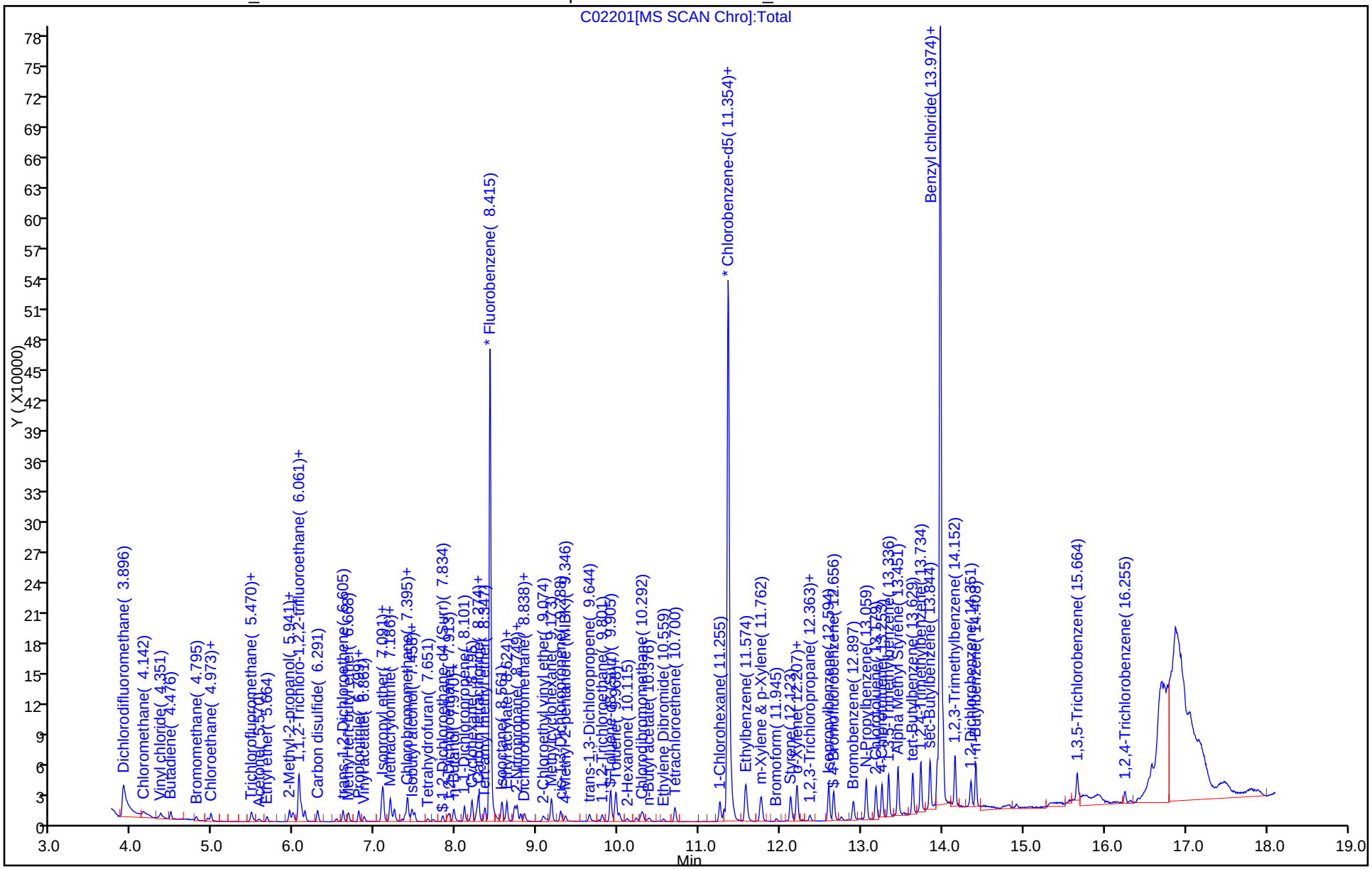
VOAIS50PPM_00164	Amount Added:	5.00	Units: uL
VOASTDst_00022	Amount Added:	0.20	Units: uL
VOASTDGASPT_00151	Amount Added:	0.20	Units: uL
aMeStyaene50T_00001	Amount Added:	0.20	Units: uL

Report Date: 22-Jan-2016 16:40:16 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02201.D

Injection Date:	22-Jan-2016 11:43:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	ic			Worklist Smp#:	2
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02202.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 22-Jan-2016 12:09:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 600-0010400-003
Operator ID: yx Instrument ID: CHVOAMS01
Sublist: chrom-8260W20_1*sub30

Method: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 22-Jan-2016 16:40:17 Calib Date: 22-Jan-2016 16:06:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02207.D

Column 1 : Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: xiey Date: 22-Jan-2016 12:55:20

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.420	8.419	0.001	100	373033	12.5	12.5	
2 Dichlorodifluoromethane	85	3.901	3.900	0.001	99	5678	1.00	0.9223	
3 Chloromethane	50	4.142	4.141	0.001	98	7960	1.00	1.00	
4 Vinyl chloride	62	4.356	4.355	0.001	97	5750	1.00	1.03	
5 Butadiene	39	4.481	4.481	0.000	89	5009	1.00	0.9613	
6 Bromomethane	94	4.795	4.795	0.000	89	3633	1.00	0.9707	
9 Chloroethane	64	4.936	4.936	0.000	98	5971	1.00	0.9531	
11 Dichlorofluoromethane	67	4.978	4.978	0.000	97	14562	1.00	0.9438	
10 Ethanol	45		5.120				ND	ND	
14 Acrolein	56	5.465	5.464	0.001	95	2513	5.00	5.31	
15 Acetonitrile	41	5.480	5.474	0.006	48	7409	10.0	11.8	
16 Trichlorofluoromethane	101	5.475	5.474	0.001	99	10509	1.00	0.8721	
17 Isopropyl alcohol	45	5.501	5.506	-0.005	96	2648	10.0	10.8	
18 Acetone	43	5.569	5.569	0.000	96	3595	2.00	2.34	
19 Ethyl ether	59	5.669	5.668	0.001	88	5346	1.00	1.08	
21 2-Methyl-2-propanol	59	5.941	5.940	0.001	46	4023	10.0	11.5	
22 1,1-Dichloroethene	96	5.946	5.945	0.001	96	8856	1.00	1.09	
23 Acrylonitrile	52	5.983	5.977	0.005	99	11605	10.0	11.1	
24 Iodomethane	142	5.998	5.997	0.001	98	10470	1.00	0.9265	
25 Methylene Chloride	84	6.061	6.060	0.001	89	23914	1.00	1.21	
26 Methyl acetate	43	6.077	6.076	0.001	97	17675	5.00	5.95	
27 1,1,2-Trichloro-1,2,2-trif	151	6.098	6.097	0.001	92	6678	1.00	1.05	
28 3-Chloro-1-propene	76	6.139	6.139	0.000	92	5276	1.00	1.07	
29 Carbon disulfide	76	6.291	6.290	0.001	99	29071	1.00	1.05	
30 trans-1,2-Dichloroethene	96	6.605	6.604	0.001	98	9727	1.00	1.07	
31 Methyl tert-butyl ether	73	6.673	6.672	0.001	93	18494	1.00	1.09	
32 Propionitrile	54	6.798	6.792	0.006	45	5695	10.0	10.9	
33 1,1-Dichloroethane	63	6.798	6.798	0.000	96	17120	1.00	1.08	
34 Vinyl acetate	43	6.866	6.860	0.006	97	20532	2.00	2.36	
36 2-Chloro-1,3-butadiene	53	7.081	7.080	0.001	89	14645	1.00	1.09	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Hexane	57	7.091	7.096	-0.005	92	14281	1.00	1.12	
38 Isopropyl ether	45	7.102	7.101	0.001	92	28531	1.00	1.14	
39 2-Butanone (MEK)	72	7.107	7.106	0.001	90	987	2.00	2.15	
40 Methacrylonitrile	66	7.185	7.185	0.000	89	7075	10.0	11.0	
41 cis-1,2-Dichloroethene	96	7.238	7.237	0.001	78	10927	1.00	1.08	
42 Ethyl acetate	43	7.332	7.331	0.001	97	5879	2.00	2.26	
44 Chlorobromomethane	128	7.368	7.368	0.000	91	3812	1.00	1.04	
45 Chloroform	83	7.395	7.394	0.001	93	16286	1.00	1.08	
46 Tert-butyl ethyl ether	59	7.405	7.404	0.001	96	25331	1.00	1.12	
48 Isobutyl alcohol	43	7.431	7.431	0.000	91	6871	25.0	29.1	
49 2,2-Dichloropropane	77	7.457	7.457	0.000	72	15005	1.00	1.08	
$ 51 Dibromofluoromethane	113	7.489	7.488	0.001	93	8754	1.00	1.05	
S 47 1,2-Dichloroethene, Total	96				0		2.00	2.15	
53 Tetrahydrofuran	42	7.646	7.650	-0.004	84	2695	2.00	2.09	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.834	7.833	0.001	0	7378	1.00	1.05	
57 1,2-Dichloroethane	62	7.892	7.891	0.001	96	8875	1.00	1.12	
58 1,1,1-Trichloroethane	97	7.970	7.974	-0.004	98	14089	1.00	1.06	
59 n-Butanol	56	7.980	7.980	0.000	22	3163	25.0	28.5	
61 1,1-Dichloropropene	75	8.101	8.100	0.001	98	13979	1.00	1.07	
62 Cyclohexane	84	8.195	8.194	0.001	86	16016	1.00	1.06	
63 Carbon tetrachloride	119	8.252	8.257	-0.005	98	11350	1.00	1.05	
64 Benzene	78	8.279	8.278	0.001	95	41981	1.00	1.09	
66 Tert-amyl methyl ether	73	8.357	8.356	0.001	99	22465	1.00	1.09	
67 Isooctane	57	8.566	8.565	0.001	95	33798	1.00	1.09	
68 Ethyl acrylate	55	8.613	8.607	0.006	96	9216	1.00	1.16	
69 n-Heptane	43	8.624	8.628	-0.004	88	13477	1.00	1.11	
70 Dibromomethane	93	8.713	8.712	0.001	90	4147	1.00	1.09	
71 1,2-Dichloropropane	63	8.723	8.722	0.001	93	9505	1.00	1.07	
72 2-Nitropropane	43	8.734	8.733	0.001	62	3098	2.00	2.46	
73 Trichloroethene	130	8.754	8.754	0.000	98	10632	1.00	1.06	
74 Dichlorobromomethane	83	8.796	8.796	0.000	99	12027	1.00	1.06	
75 Methyl methacrylate	41	8.843	8.843	0.000	88	9696	2.00	2.19	
76 1,4-Dioxane	58	8.864	8.858	0.006	89	638	20.0	22.4	
78 Methylcyclohexane	83	9.178	9.177	0.001	86	19006	1.00	1.07	
79 4-Methyl-2-pentanone (MIBK	43	9.345	9.350	-0.005	93	9058	2.00	2.37	
* 80 Chlorobenzene-d5	82	11.354	11.353	0.001	85	201605	12.5	12.5	
84 2-Chloroethyl vinyl ether	63	9.074	9.073	0.001	94	4708	2.00	2.03	
85 cis-1,3-Dichloropropene	75	9.288	9.287	0.001	97	15469	1.00	1.08	
88 trans-1,3-Dichloropropene	75	9.644	9.643	0.001	91	11662	1.00	1.05	
89 1,1,2-Trichloroethane	97	9.801	9.800	0.000	90	6502	1.00	1.09	
$ 90 Toluene-d8 (Surr)	98	9.905	9.904	0.001	92	41130	1.00	1.07	
92 Ethyl methacrylate	69	9.957	9.957	0.000	88	8248	1.00	1.12	
93 Toluene	92	9.973	9.972	0.001	99	28377	1.00	1.09	
94 1,3-Dichloropropane	76	10.015	10.014	0.001	90	11729	1.00	1.07	
95 2-Hexanone	43	10.109	10.108	0.001	92	6090	2.00	2.15	
97 Chlorodibromomethane	129	10.308	10.307	0.001	89	7343	1.00	1.03	
98 n-Butyl acetate	43	10.381	10.380	0.001	97	8532	1.00	1.37	
99 Ethylene Dibromide	107	10.559	10.558	0.001	97	6034	1.00	1.05	
101 Tetrachloroethene	164	10.700	10.699	0.001	97	8516	1.00	1.09	
S 100 Xylenes, Total	106				0		2.00	2.17	
102 1-Chlorohexane	55	11.254	11.254	0.000	93	11603	1.00	1.11	
103 1,1,1,2-Tetrachloroethane	131	11.307	11.306	0.001	89	9768	1.00	1.05	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Chlorobenzene	112	11.390	11.395	-0.005	96	33063	1.00	1.08	
105 Ethylbenzene	106	11.568	11.568	0.000	98	17891	1.00	1.07	
106 m-Xylene & p-Xylene	91	11.762	11.761	0.001	0	44646	1.00	1.09	
107 Styrene	104	12.128	12.127	0.001	95	35442	1.00	1.06	
109 o-Xylene	106	12.206	12.206	0.000	96	22864	1.00	1.09	
108 1,1,2,2-Tetrachloroethane	83	12.206	12.206	0.000	53	8105	1.00	1.16	
* 110 1,4-Dichlorobenzene-d4	152	13.974	13.973	0.001	95	213070	12.5	12.5	
115 Bromoform	173	11.950	11.949	0.001	92	3556	1.00	1.00	
116 trans-1,4-Dichloro-2-buten	53	12.363	12.357	0.006	68	1470	1.00	1.01	
117 1,2,3-Trichloropropane	110	12.363	12.363	0.000	84	2034	1.00	1.05	
118 Isopropylbenzene	105	12.593	12.598	-0.005	95	56813	1.00	1.07	
$ 119 4-Bromofluorobenzene	95	12.656	12.655	0.001	87	19455	1.00	0.9450	
120 Bromobenzene	156	12.902	12.901	0.001	93	12786	1.00	1.05	
121 N-Propylbenzene	120	13.059	13.058	0.001	99	17051	1.00	1.07	
122 2-Chlorotoluene	126	13.179	13.178	0.001	97	14745	1.00	1.07	
123 4-Chlorotoluene	91	13.252	13.252	0.000	97	45923	1.00	1.09	
124 1,3,5-Trimethylbenzene	105	13.336	13.335	0.001	95	52672	1.00	1.10	
111 Alpha Methyl Styrene	118	13.451	13.450	0.001	91	34661	1.00	1.03	
126 tert-Butylbenzene	119	13.634	13.633	0.001	93	44044	1.00	1.09	
128 1,2,4-Trimethylbenzene	105	13.734	13.733	0.001	97	54981	1.00	1.10	
130 sec-Butylbenzene	105	13.843	13.848	-0.005	94	66353	1.00	1.09	
131 Benzyl chloride	91	13.932	13.932	0.000	96	18241	1.00	1.13	
132 1,3-Dichlorobenzene	146	13.938	13.937	0.001	96	27182	1.00	1.09	
133 1,4-Dichlorobenzene	146	14.000	14.000	0.000	93	27930	1.00	1.13	
134 4-Isopropyltoluene	119	14.011	14.010	0.001	97	58259	1.00	1.11	
135 1,2,3-Trimethylbenzene	105	14.152	14.156	-0.004	98	59265	1.00	1.10	
137 1,2-Dichlorobenzene	146	14.351	14.350	0.001	97	23164	1.00	1.09	
138 n-Butylbenzene	91	14.408	14.413	-0.005	98	53907	1.00	1.10	
139 1,2-Dibromo-3-Chloropropan	157	14.821	14.821	0.000	86	1175	1.00	1.10	
140 1,3,5-Trichlorobenzene	180	15.658	15.663	-0.005	97	19497	1.00	1.09	
141 1,2,4-Trichlorobenzene	180	16.249	16.249	0.000	93	11590	1.00	1.10	
142 Naphthalene	128	16.542	16.541	0.001	97	15972	1.00	1.12	
143 Hexachlorobutadiene	190	16.584	16.583	0.001	95	3086	1.00	1.10	
144 1,2,3-Trichlorobenzene	180	16.778	16.777	0.001	94	6164	1.00	1.07	
S 145 1,3-Dichloropropene, Total	1				0			2.13	
S 146 Trihalomethanes, Total	1				0			4.18	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

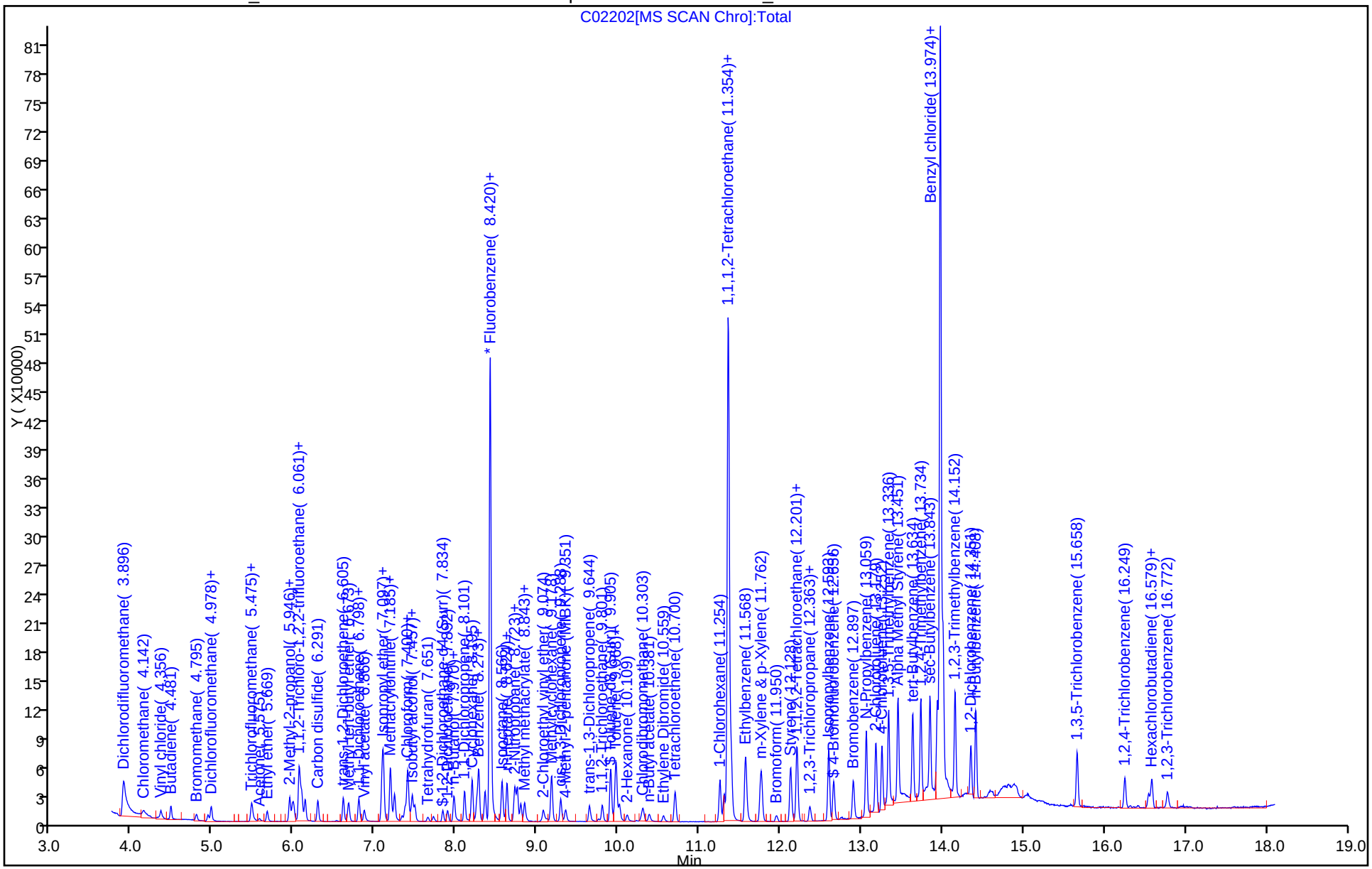
VOASTDGASPT_00151	Amount Added:	0.40	Units: uL
VOAIS50PPM_00164	Amount Added:	5.00	Units: uL
VOASTDst_00022	Amount Added:	0.40	Units: uL
aMeStyaene50T_00001	Amount Added:	0.40	Units: uL

Report Date: 22-Jan-2016 16:40:17 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02202.D

Injection Date:	22-Jan-2016 12:09:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02203A.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 22-Jan-2016 14:22:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 600-0010400-004
Operator ID: yx Instrument ID: CHVOAMS01
Sublist: chrom-8260W20_1*sub30

Method: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 22-Jan-2016 16:40:18 Calib Date: 22-Jan-2016 16:06:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02207.D

Column 1 : Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: xiey Date: 22-Jan-2016 14:50:08

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.421	8.419	0.002	99	375820	12.5	12.5	
2 Dichlorodifluoromethane	85	3.902	3.900	0.002	61	11120	2.00	1.79	
3 Chloromethane	50	4.143	4.141	0.002	99	14848	2.00	1.85	
4 Vinyl chloride	62	4.357	4.355	0.002	80	11271	2.00	2.01	
5 Butadiene	39	4.478	4.481	-0.003	89	9840	2.00	1.87	
6 Bromomethane	94	4.797	4.795	0.002	80	8761	2.00	1.81	
9 Chloroethane	64	4.938	4.936	0.002	98	11617	2.00	1.84	
11 Dichlorofluoromethane	67	4.974	4.978	-0.004	98	28999	2.00	1.87	
10 Ethanol	45		5.120				ND	ND	
14 Acrolein	56	5.466	5.464	0.002	97	4556	10.0	9.55	
15 Acetonitrile	41	5.482	5.474	0.008	74	10328	20.0	17.9	
16 Trichlorofluoromethane	101	5.477	5.474	0.003	100	21949	2.00	1.81	
17 Isopropyl alcohol	45	5.503	5.506	-0.003	98	4115	20.0	18.2	
18 Acetone	43	5.571	5.569	0.002	96	4833	4.00	3.68	
19 Ethyl ether	59	5.665	5.668	-0.003	88	9339	2.00	1.87	
21 2-Methyl-2-propanol	59	5.942	5.940	0.002	45	6641	20.0	18.9	
22 1,1-Dichloroethene	96	5.947	5.945	0.002	96	15453	2.00	1.89	
23 Acrylonitrile	52	5.979	5.977	0.002	99	19731	20.0	18.7	
24 Iodomethane	142	5.994	5.997	-0.003	98	21407	2.00	1.88	
25 Methylene Chloride	84	6.062	6.060	0.002	89	27458	2.00	1.59	
26 Methyl acetate	43	6.078	6.076	0.002	97	28800	10.0	9.62	
27 1,1,2-Trichloro-1,2,2-trif	151	6.094	6.097	-0.003	92	12119	2.00	1.90	
28 3-Chloro-1-propene	76	6.136	6.139	-0.003	93	9597	2.00	1.94	
29 Carbon disulfide	76	6.292	6.290	0.002	99	50436	2.00	1.81	
30 trans-1,2-Dichloroethene	96	6.606	6.604	0.002	99	17423	2.00	1.90	
31 Methyl tert-butyl ether	73	6.674	6.672	0.002	93	31780	2.00	1.86	
32 Propionitrile	54	6.795	6.792	0.003	99	9814	20.0	18.6	
33 1,1-Dichloroethane	63	6.800	6.798	0.002	96	30541	2.00	1.92	
34 Vinyl acetate	43	6.863	6.860	0.003	97	33129	4.00	3.78	
36 2-Chloro-1,3-butadiene	53	7.082	7.080	0.002	89	25893	2.00	1.92	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Hexane	57	7.093	7.096	-0.003	89	25133	2.00	1.96	
38 Isopropyl ether	45	7.103	7.101	0.002	93	49258	2.00	1.96	
39 2-Butanone (MEK)	72	7.114	7.106	0.008	91	1708	4.00	3.69	
40 Methacrylonitrile	66	7.187	7.185	0.002	89	12626	20.0	19.5	
41 cis-1,2-Dichloroethene	96	7.239	7.237	0.002	78	19604	2.00	1.92	
42 Ethyl acetate	43	7.333	7.331	0.002	98	9809	4.00	3.73	
44 Chlorobromomethane	128	7.370	7.368	0.002	89	7003	2.00	1.89	
45 Chloroform	83	7.396	7.394	0.002	92	29378	2.00	1.94	
46 Tert-butyl ethyl ether	59	7.406	7.404	0.002	95	43887	2.00	1.92	
48 Isobutyl alcohol	43	7.433	7.431	0.002	94	13029	50.0	54.8	
49 2,2-Dichloropropane	77	7.459	7.457	0.002	78	27056	2.00	1.94	
$ 51 Dibromofluoromethane	113	7.490	7.488	0.002	93	15823	2.00	1.88	
S 47 1,2-Dichloroethene, Total	96				0		4.00	3.83	
53 Tetrahydrofuran	42	7.647	7.650	-0.003	87	4757	4.00	4.05	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.835	7.833	0.002	0	13056	2.00	1.85	
57 1,2-Dichloroethane	62	7.893	7.891	0.002	97	14687	2.00	1.84	
58 1,1,1-Trichloroethane	97	7.971	7.974	-0.003	98	25569	2.00	1.91	
59 n-Butanol	56	7.982	7.980	0.002	84	5772	50.0	51.7	
61 1,1-Dichloropropene	75	8.102	8.100	0.002	98	24981	2.00	1.89	
62 Cyclohexane	84	8.196	8.194	0.002	86	28741	2.00	1.89	
63 Carbon tetrachloride	119	8.254	8.257	-0.003	98	20271	2.00	1.87	
64 Benzene	78	8.280	8.278	0.002	94	74490	2.00	1.91	
66 Tert-amyl methyl ether	73	8.358	8.356	0.002	98	39442	2.00	1.90	
67 Isooctane	57	8.568	8.565	0.003	95	60232	2.00	1.93	
68 Ethyl acrylate	55	8.615	8.607	0.008	94	15433	2.00	1.92	
69 n-Heptane	43	8.625	8.628	-0.003	89	23724	2.00	1.95	
70 Dibromomethane	93	8.714	8.712	0.002	90	7346	2.00	1.91	
71 1,2-Dichloropropane	63	8.724	8.722	0.002	96	17240	2.00	1.93	
72 2-Nitropropane	43	8.735	8.733	0.002	91	5079	4.00	4.01	
73 Trichloroethene	130	8.756	8.754	0.002	98	19439	2.00	1.92	
74 Dichlorobromomethane	83	8.798	8.796	0.002	99	21229	2.00	1.86	
75 Methyl methacrylate	41	8.845	8.843	0.002	87	16515	4.00	3.70	
76 1,4-Dioxane	58	8.860	8.858	0.002	51	1036	40.0	36.1	
78 Methylcyclohexane	83	9.174	9.177	-0.003	85	33929	2.00	1.90	
79 4-Methyl-2-pentanone (MIBK	43	9.347	9.350	-0.003	94	14410	4.00	3.74	
* 80 Chlorobenzene-d5	82	11.355	11.353	0.002	85	200733	12.5	12.5	
84 2-Chloroethyl vinyl ether	63	9.075	9.073	0.002	93	9176	4.00	3.51	
85 cis-1,3-Dichloropropene	75	9.289	9.287	0.002	97	27380	2.00	1.92	
88 trans-1,3-Dichloropropene	75	9.645	9.643	0.002	91	20976	2.00	1.90	
89 1,1,2-Trichloroethane	97	9.802	9.800	0.002	90	11359	2.00	1.91	
$ 90 Toluene-d8 (Surr)	98	9.906	9.904	0.002	92	72969	2.00	1.90	
92 Ethyl methacrylate	69	9.954	9.957	-0.003	87	13980	2.00	1.90	
93 Toluene	92	9.974	9.972	0.002	100	51481	2.00	1.99	
94 1,3-Dichloropropane	76	10.016	10.014	0.002	88	21213	2.00	1.94	
95 2-Hexanone	43	10.110	10.108	0.002	94	10468	4.00	3.71	
97 Chlorodibromomethane	129	10.304	10.307	-0.003	89	12972	2.00	1.83	
98 n-Butyl acetate	43	10.382	10.380	0.002	97	12225	2.00	1.86	
99 Ethylene Dibromide	107	10.560	10.558	0.002	97	10859	2.00	1.90	
101 Tetrachloroethene	164	10.701	10.699	0.002	97	15093	2.00	1.93	
S 100 Xylenes, Total	106				0		4.00	3.91	
102 1-Chlorohexane	55	11.256	11.254	0.002	93	20235	2.00	1.94	
103 1,1,1,2-Tetrachloroethane	131	11.308	11.306	0.002	92	17705	2.00	1.92	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Chlorobenzene	112	11.392	11.395	-0.003	97	59179	2.00	1.94	
105 Ethylbenzene	106	11.570	11.568	0.002	97	32530	2.00	1.96	
106 m-Xylene & p-Xylene	91	11.763	11.761	0.002	0	80204	2.00	1.96	
107 Styrene	104	12.124	12.127	-0.003	94	64721	2.00	1.94	
109 o-Xylene	106	12.203	12.206	-0.004	97	40936	2.00	1.96	
108 1,1,2,2-Tetrachloroethane	83	12.203	12.206	-0.004	89	13536	2.00	1.95	
* 110 1,4-Dichlorobenzene-d4	152	13.970	13.973	-0.003	95	216198	12.5	12.5	
115 Bromoform	173	11.951	11.949	0.002	76	6186	2.00	1.71	
116 trans-1,4-Dichloro-2-buten	53	12.365	12.357	0.008	69	2638	2.00	1.78	
117 1,2,3-Trichloropropane	110	12.365	12.363	0.002	84	3633	2.00	1.86	
118 Isopropylbenzene	105	12.595	12.598	-0.003	95	103025	2.00	1.91	
$ 119 4-Bromofluorobenzene	95	12.658	12.655	0.003	87	32475	2.00	1.74	
120 Bromobenzene	156	12.898	12.901	-0.003	93	23449	2.00	1.90	
121 N-Propylbenzene	120	13.060	13.058	0.002	99	30813	2.00	1.91	
122 2-Chlorotoluene	126	13.181	13.178	0.003	97	26886	2.00	1.93	
123 4-Chlorotoluene	91	13.254	13.252	0.002	97	82581	2.00	1.93	
124 1,3,5-Trimethylbenzene	105	13.337	13.335	0.002	95	94018	2.00	1.93	
111 Alpha Methyl Styrene	118	13.453	13.450	0.003	91	79875	2.00	2.34	
126 tert-Butylbenzene	119	13.636	13.633	0.003	93	79448	2.00	1.94	
128 1,2,4-Trimethylbenzene	105	13.735	13.733	0.002	97	99709	2.00	1.97	
130 sec-Butylbenzene	105	13.845	13.848	-0.003	94	122505	2.00	1.98	
131 Benzyl chloride	91	13.934	13.932	0.002	98	32133	2.00	1.96	
132 1,3-Dichlorobenzene	146	13.939	13.937	0.002	97	48996	2.00	1.94	
133 1,4-Dichlorobenzene	146	14.002	14.000	0.002	94	50550	2.00	2.02	
134 4-Isopropyltoluene	119	14.007	14.010	-0.003	97	108198	2.00	2.03	
135 1,2,3-Trimethylbenzene	105	14.153	14.156	-0.003	98	107149	2.00	1.96	
137 1,2-Dichlorobenzene	146	14.352	14.350	0.002	98	42010	2.00	1.95	
138 n-Butylbenzene	91	14.410	14.413	-0.003	97	97754	2.00	1.97	
139 1,2-Dibromo-3-Chloropropan	157	14.823	14.821	0.002	86	2023	2.00	1.87	
140 1,3,5-Trichlorobenzene	180	15.660	15.663	-0.003	97	35881	2.00	1.98	
141 1,2,4-Trichlorobenzene	180	16.251	16.249	0.002	94	21565	2.00	2.02	
142 Naphthalene	128	16.544	16.541	0.003	97	31608	2.00	2.19	
143 Hexachlorobutadiene	190	16.580	16.583	-0.003	96	5729	2.00	2.02	
144 1,2,3-Trichlorobenzene	180	16.779	16.777	0.002	95	12539	2.00	2.14	
S 145 1,3-Dichloropropene, Total	1				0			3.81	
S 146 Trihalomethanes, Total	1				0			7.34	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

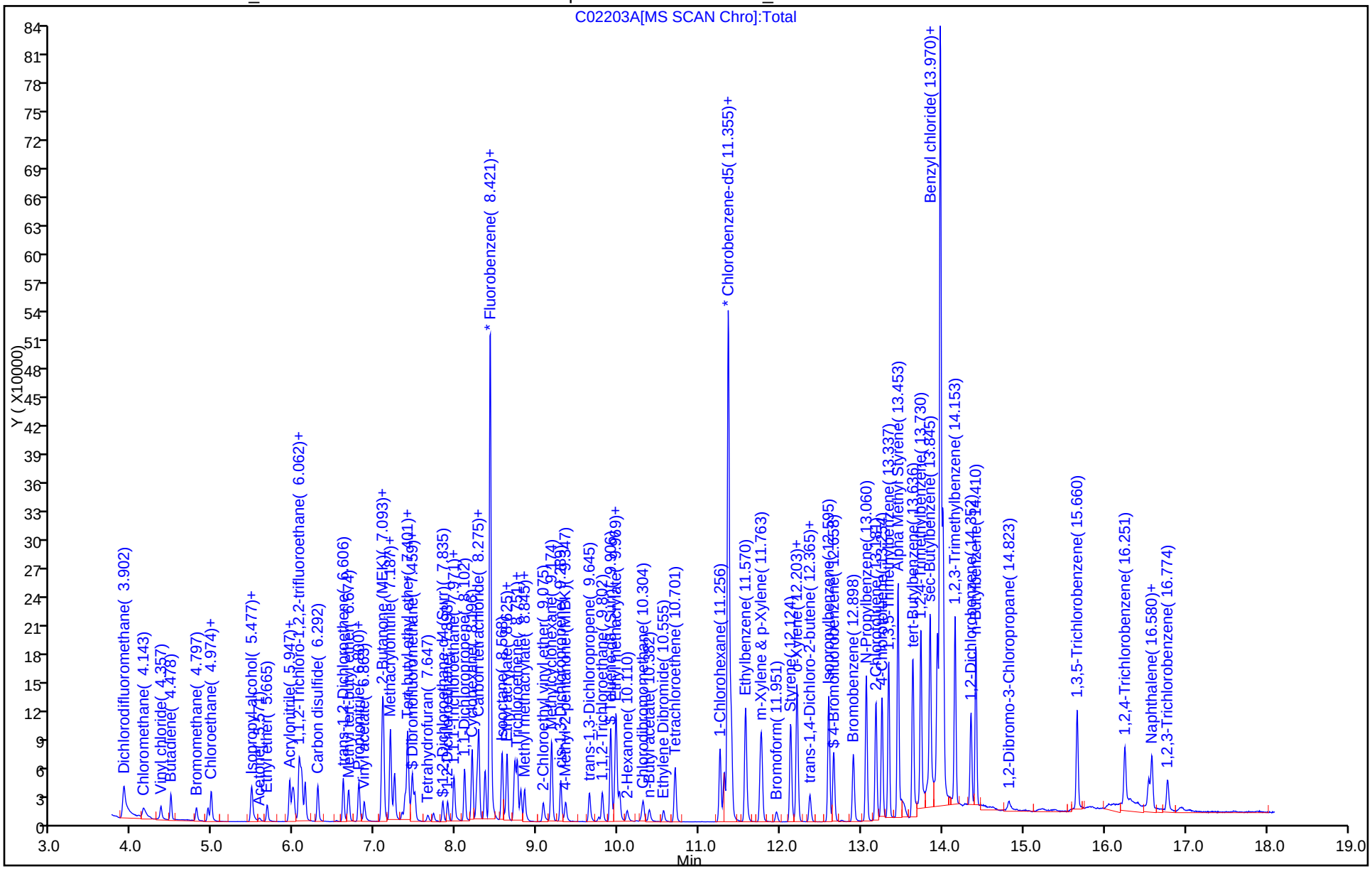
VOASTDst_00022	Amount Added:	0.80	Units: uL
VOAIS50PPM_00164	Amount Added:	5.00	Units: uL
VOASTDGASPT_00151	Amount Added:	0.80	Units: uL
aMeStyaene50T_00001	Amount Added:	0.80	Units: uL

Report Date: 22-Jan-2016 16:40:19 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02203A.D

Injection Date:	22-Jan-2016 14:22:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02204A.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 22-Jan-2016 14:48:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 600-0010400-005
Operator ID: yx Instrument ID: CHVOAMS01
Sublist: chrom-8260W20_1*sub30

Method: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 22-Jan-2016 16:40:20 Calib Date: 22-Jan-2016 16:06:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02207.D

Column 1 : Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: xiey Date: 22-Jan-2016 15:46:37

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.419	8.419	0.000	99	376737	12.5	12.5	
2 Dichlorodifluoromethane	85	3.900	3.900	0.000	100	32274	5.00	5.19	
3 Chloromethane	50	4.141	4.141	0.000	100	40830	5.00	5.07	
4 Vinyl chloride	62	4.355	4.355	0.000	99	31390	5.00	5.58	
5 Butadiene	39	4.481	4.481	0.000	90	28119	5.00	5.34	
6 Bromomethane	94	4.795	4.795	0.000	90	24578	5.00	4.41	
9 Chloroethane	64	4.936	4.936	0.000	98	33073	5.00	5.23	
11 Dichlorofluoromethane	67	4.978	4.978	0.000	97	81357	5.00	5.22	
10 Ethanol	45		5.120				ND	ND	
14 Acrolein	56	5.464	5.464	0.000	99	12171	25.0	25.4	
15 Acetonitrile	41	5.474	5.474	0.000	38	25507	50.0	50.2	
16 Trichlorofluoromethane	101	5.474	5.474	0.000	99	64410	5.00	5.29	
17 Isopropyl alcohol	45	5.506	5.506	0.000	99	10612	50.0	51.2	
18 Acetone	43	5.569	5.569	0.000	98	9840	10.0	9.17	
19 Ethyl ether	59	5.668	5.668	0.000	88	25684	5.00	5.13	
21 2-Methyl-2-propanol	59	5.940	5.940	0.000	100	18190	50.0	51.7	
22 1,1-Dichloroethene	96	5.945	5.945	0.000	97	42765	5.00	5.21	
23 Acrylonitrile	52	5.977	5.977	0.000	99	54460	50.0	51.6	
24 Iodomethane	142	5.997	5.997	0.000	98	62497	5.00	5.48	
25 Methylene Chloride	84	6.060	6.060	0.000	90	57234	5.00	4.99	
26 Methyl acetate	43	6.076	6.076	0.000	97	74461	25.0	24.8	
27 1,1,2-Trichloro-1,2,2-trif	151	6.097	6.097	0.000	92	33413	5.00	5.22	
28 3-Chloro-1-propene	76	6.139	6.139	0.000	93	27138	5.00	5.46	
29 Carbon disulfide	76	6.290	6.290	0.000	98	140175	5.00	5.03	
30 trans-1,2-Dichloroethene	96	6.604	6.604	0.000	98	47548	5.00	5.18	
31 Methyl tert-butyl ether	73	6.672	6.672	0.000	93	87891	5.00	5.14	
32 Propionitrile	54	6.792	6.792	0.000	99	27590	50.0	52.1	
33 1,1-Dichloroethane	63	6.798	6.798	0.000	96	82860	5.00	5.19	
34 Vinyl acetate	43	6.860	6.860	0.000	97	89178	10.0	10.2	
36 2-Chloro-1,3-butadiene	53	7.080	7.080	0.000	89	71370	5.00	5.27	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Hexane	57	7.096	7.096	0.000	93	68835	5.00	5.36	
38 Isopropyl ether	45	7.101	7.101	0.000	92	133904	5.00	5.32	
39 2-Butanone (MEK)	72	7.106	7.106	0.000	92	5141	10.0	11.1	
40 Methacrylonitrile	66	7.185	7.185	0.000	89	34802	50.0	53.7	
41 cis-1,2-Dichloroethene	96	7.237	7.237	0.000	78	52989	5.00	5.19	
42 Ethyl acetate	43	7.331	7.331	0.000	98	25794	10.0	9.80	
44 Chlorobromomethane	128	7.368	7.368	0.000	90	19690	5.00	5.31	
45 Chloroform	83	7.394	7.394	0.000	92	79882	5.00	5.25	
46 Tert-butyl ethyl ether	59	7.404	7.404	0.000	95	120665	5.00	5.26	
48 Isobutyl alcohol	43	7.431	7.431	0.000	94	31866	125.0	133.8	
49 2,2-Dichloropropane	77	7.457	7.457	0.000	85	73751	5.00	5.26	
$ 51 Dibromofluoromethane	113	7.488	7.488	0.000	93	43483	5.00	5.15	
S 47 1,2-Dichloroethene, Total	96				0		10.0	10.4	
53 Tetrahydrofuran	42	7.650	7.650	0.000	86	11046	10.0	10.1	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.833	7.833	0.000	0	35487	5.00	5.01	
57 1,2-Dichloroethane	62	7.891	7.891	0.000	97	41126	5.00	5.13	
58 1,1,1-Trichloroethane	97	7.974	7.974	0.000	98	69977	5.00	5.21	
59 n-Butanol	56	7.980	7.980	0.000	90	14497	125.0	129.5	
61 1,1-Dichloropropene	75	8.100	8.100	0.000	99	69188	5.00	5.23	
62 Cyclohexane	84	8.194	8.194	0.000	87	79379	5.00	5.20	
63 Carbon tetrachloride	119	8.257	8.257	0.000	98	56866	5.00	5.23	
64 Benzene	78	8.278	8.278	0.000	94	201550	5.00	5.17	
66 Tert-amyl methyl ether	73	8.356	8.356	0.000	99	106802	5.00	5.13	
67 Isooctane	57	8.565	8.565	0.000	95	164066	5.00	5.25	
68 Ethyl acrylate	55	8.607	8.607	0.000	94	41671	5.00	5.18	
69 n-Heptane	43	8.628	8.628	0.000	89	65118	5.00	5.33	
70 Dibromomethane	93	8.712	8.712	0.000	89	19949	5.00	5.17	
71 1,2-Dichloropropane	63	8.722	8.722	0.000	96	47726	5.00	5.34	
72 2-Nitropropane	43	8.733	8.733	0.000	93	13493	10.0	10.6	
73 Trichloroethene	130	8.754	8.754	0.000	96	53120	5.00	5.24	
74 Dichlorobromomethane	83	8.796	8.796	0.000	99	59074	5.00	5.17	
75 Methyl methacrylate	41	8.843	8.843	0.000	88	43027	10.0	9.61	
76 1,4-Dioxane	58	8.858	8.858	0.000	89	2798	100.0	97.2	
78 Methylcyclohexane	83	9.177	9.177	0.000	85	92990	5.00	5.20	
79 4-Methyl-2-pentanone (MIBK	43	9.350	9.350	0.000	94	38706	10.0	10.0	
* 80 Chlorobenzene-d5	82	11.353	11.353	0.000	91	198125	12.5	12.5	
84 2-Chloroethyl vinyl ether	63	9.073	9.073	0.000	92	28616	10.0	10.1	
85 cis-1,3-Dichloropropene	75	9.287	9.287	0.000	97	75691	5.00	5.37	
88 trans-1,3-Dichloropropene	75	9.643	9.643	0.000	91	58998	5.00	5.40	
89 1,1,2-Trichloroethane	97	9.800	9.800	0.000	90	31225	5.00	5.33	
$ 90 Toluene-d8 (Surr)	98	9.904	9.904	0.000	92	196195	5.00	5.19	
92 Ethyl methacrylate	69	9.957	9.957	0.000	87	38996	5.00	5.37	
93 Toluene	92	9.972	9.972	0.000	99	138656	5.00	5.43	
94 1,3-Dichloropropane	76	10.014	10.014	0.000	89	58176	5.00	5.40	
95 2-Hexanone	43	10.108	10.108	0.000	94	28780	10.0	10.3	
97 Chlorodibromomethane	129	10.307	10.307	0.000	90	37215	5.00	5.33	
98 n-Butyl acetate	43	10.380	10.380	0.000	98	32717	5.00	4.70	
99 Ethylene Dibromide	107	10.558	10.558	0.000	99	29936	5.00	5.31	
101 Tetrachloroethene	164	10.699	10.699	0.000	98	41543	5.00	5.39	
S 100 Xylenes, Total	106				0		10.0	10.7	
102 1-Chlorohexane	55	11.254	11.254	0.000	93	54129	5.00	5.27	
103 1,1,1,2-Tetrachloroethane	131	11.306	11.306	0.000	94	48304	5.00	5.31	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Chlorobenzene	112	11.395	11.395	0.000	96	159684	5.00	5.31	
105 Ethylbenzene	106	11.568	11.568	0.000	98	87675	5.00	5.35	
106 m-Xylene & p-Xylene	91	11.761	11.761	0.000	0	215512	5.00	5.33	
107 Styrene	104	12.127	12.127	0.000	94	176754	5.00	5.38	
109 o-Xylene	106	12.206	12.206	0.000	96	111078	5.00	5.38	
108 1,1,2,2-Tetrachloroethane	83	12.206	12.206	0.000	53	36286	5.00	5.28	
* 110 1,4-Dichlorobenzene-d4	152	13.973	13.973	0.000	94	213208	12.5	12.5	
115 Bromoform	173	11.949	11.949	0.000	95	18076	5.00	5.07	
116 trans-1,4-Dichloro-2-buten	53	12.357	12.357	0.000	86	7710	5.00	5.29	
117 1,2,3-Trichloropropane	110	12.363	12.363	0.000	84	10084	5.00	5.22	
118 Isopropylbenzene	105	12.598	12.598	0.000	95	277412	5.00	5.23	
$ 119 4-Bromofluorobenzene	95	12.655	12.655	0.000	87	87013	5.00	5.23	
120 Bromobenzene	156	12.901	12.901	0.000	93	63615	5.00	5.23	
121 N-Propylbenzene	120	13.058	13.058	0.000	99	83472	5.00	5.26	
122 2-Chlorotoluene	126	13.178	13.178	0.000	97	71790	5.00	5.23	
123 4-Chlorotoluene	91	13.252	13.252	0.000	97	221979	5.00	5.27	
124 1,3,5-Trimethylbenzene	105	13.335	13.335	0.000	95	251874	5.00	5.25	
111 Alpha Methyl Styrene	118	13.450	13.450	0.000	91	170341	5.00	5.06	
126 tert-Butylbenzene	119	13.633	13.633	0.000	93	211764	5.00	5.23	
128 1,2,4-Trimethylbenzene	105	13.733	13.733	0.000	97	266115	5.00	5.32	
130 sec-Butylbenzene	105	13.848	13.848	0.000	94	323790	5.00	5.29	
131 Benzyl chloride	91	13.932	13.932	0.000	99	85223	5.00	5.27	
132 1,3-Dichlorobenzene	146	13.937	13.937	0.000	97	133066	5.00	5.35	
133 1,4-Dichlorobenzene	146	14.000	14.000	0.000	95	133452	5.00	5.42	
134 4-Isopropyltoluene	119	14.010	14.010	0.000	97	283670	5.00	5.39	
135 1,2,3-Trimethylbenzene	105	14.156	14.156	0.000	98	283690	5.00	5.26	
137 1,2-Dichlorobenzene	146	14.350	14.350	0.000	97	112770	5.00	5.31	
138 n-Butylbenzene	91	14.413	14.413	0.000	97	263155	5.00	5.36	
139 1,2-Dibromo-3-Chloropropan	157	14.821	14.821	0.000	87	5316	5.00	4.98	
140 1,3,5-Trichlorobenzene	180	15.663	15.663	0.000	97	94970	5.00	5.31	
141 1,2,4-Trichlorobenzene	180	16.249	16.249	0.000	94	56119	5.00	5.33	
142 Naphthalene	128	16.541	16.541	0.000	97	75192	5.00	5.28	
143 Hexachlorobutadiene	190	16.583	16.583	0.000	96	14816	5.00	5.29	
144 1,2,3-Trichlorobenzene	180	16.777	16.777	0.000	95	29405	5.00	5.09	
S 145 1,3-Dichloropropene, Total	1				0			10.8	
S 146 Trihalomethanes, Total	1				0			20.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

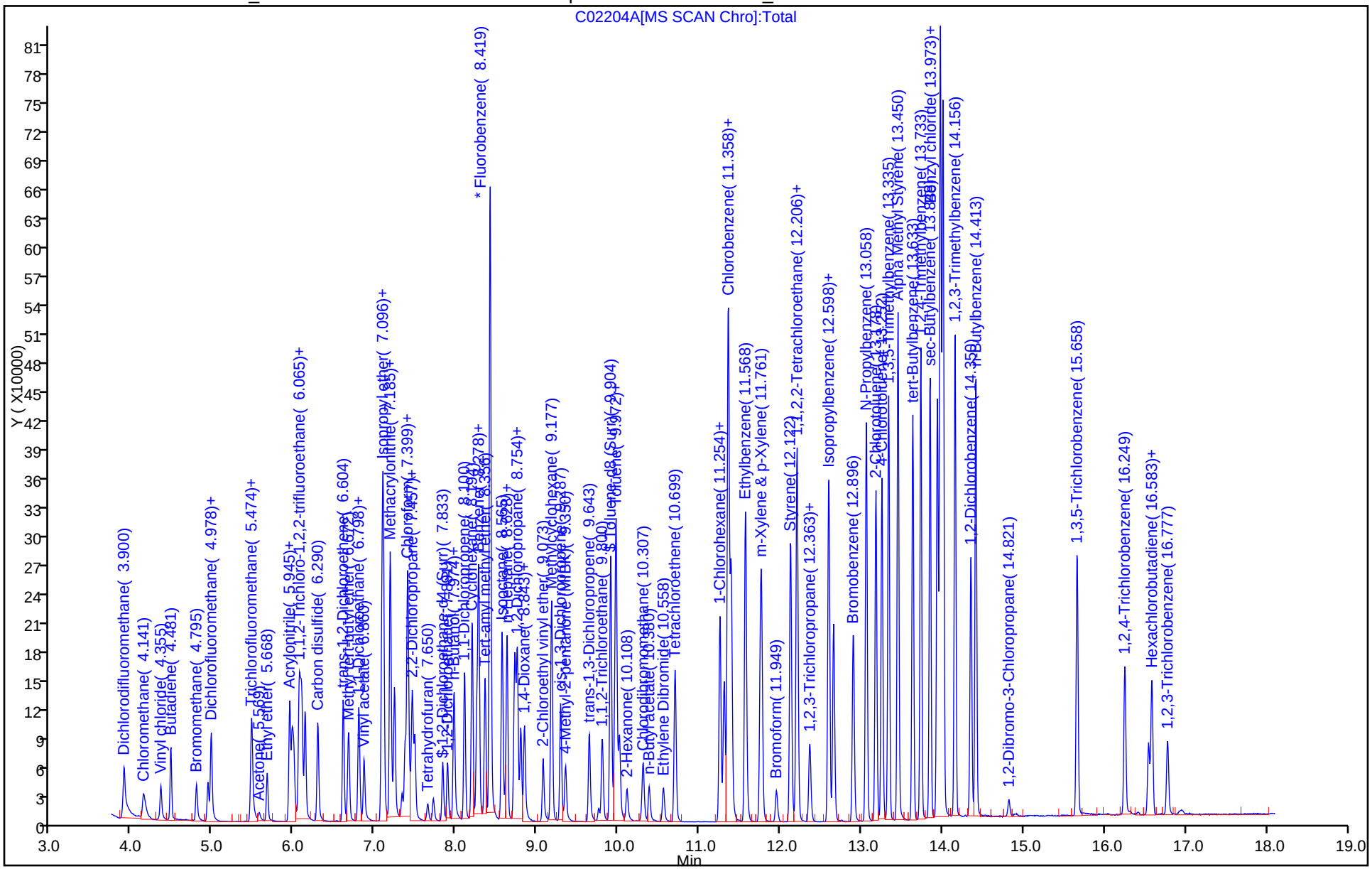
VOASTDst_00022	Amount Added:	2.00	Units: uL
VOAIS50PPM_00164	Amount Added:	5.00	Units: uL
VOASTDGASPT_00151	Amount Added:	2.00	Units: uL
aMeStyaene50T_00001	Amount Added:	2.00	Units: uL

Report Date: 22-Jan-2016 16:40:20 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02204A.D

Injection Date:	22-Jan-2016 14:48:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	ic			Worklist Smp#:	5
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02205A.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 22-Jan-2016 15:14:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: icis
Misc. Info.: 600-0010400-006
Operator ID: yx Instrument ID: CHVOAMS01
Sublist: chrom-8260W20_1*sub30

Method: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 22-Jan-2016 16:40:21 Calib Date: 22-Jan-2016 16:06:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02207.D

Column 1 : Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: xiey Date: 22-Jan-2016 16:07:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.417	8.417	0.000	100	373979	12.5	12.5	
2 Dichlorodifluoromethane	85	3.903	3.903	0.000	100	64588	10.0	10.5	
3 Chloromethane	50	4.144	4.144	0.000	99	79187	10.0	9.91	
4 Vinyl chloride	62	4.353	4.353	0.000	99	55925	10.0	10.0	
5 Butadiene	39	4.479	4.479	0.000	89	56396	10.0	10.8	
6 Bromomethane	94	4.792	4.792	0.000	90	51251	10.0	8.86	
9 Chloroethane	64	4.934	4.934	0.000	99	65432	10.0	10.4	
11 Dichlorofluoromethane	67	4.976	4.976	0.000	97	164576	10.0	10.6	
10 Ethanol	45		5.120				ND	ND	
14 Acrolein	56	5.462	5.462	0.000	99	23127	50.0	48.7	
15 Acetonitrile	41	5.472	5.472	0.000	98	48311	100.0	99.6	
16 Trichlorofluoromethane	101	5.478	5.478	0.000	99	129286	10.0	10.7	
17 Isopropyl alcohol	45	5.504	5.504	0.000	98	19384	100.0	96.7	
18 Acetone	43	5.572	5.572	0.000	99	17652	20.0	17.9	
19 Ethyl ether	59	5.666	5.666	0.000	89	49911	10.0	10.1	
21 2-Methyl-2-propanol	59	5.938	5.938	0.000	100	34339	100.0	98.2	
22 1,1-Dichloroethene	96	5.943	5.943	0.000	96	82186	10.0	10.1	
23 Acrylonitrile	52	5.975	5.975	0.000	100	107163	100.0	102.3	
24 Iodomethane	142	5.995	5.995	0.000	98	124284	10.0	11.0	
25 Methylene Chloride	84	6.063	6.063	0.000	89	99943	10.0	9.97	
26 Methyl acetate	43	6.074	6.074	0.000	97	141221	50.0	47.4	
27 1,1,2-Trichloro-1,2,2-trif	151	6.095	6.095	0.000	92	65036	10.0	10.2	
28 3-Chloro-1-propene	76	6.137	6.137	0.000	93	52570	10.0	10.7	
29 Carbon disulfide	76	6.294	6.294	0.000	98	275007	10.0	9.93	
30 trans-1,2-Dichloroethene	96	6.607	6.607	0.000	98	91765	10.0	10.1	
31 Methyl tert-butyl ether	73	6.670	6.670	0.000	93	171397	10.0	10.1	
32 Propionitrile	54	6.790	6.790	0.000	99	53716	100.0	102.2	
33 1,1-Dichloroethane	63	6.801	6.801	0.000	96	160282	10.0	10.1	
34 Vinyl acetate	43	6.858	6.858	0.000	97	171821	20.0	19.7	
36 2-Chloro-1,3-butadiene	53	7.078	7.078	0.000	89	136570	10.0	10.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Hexane	57	7.094	7.094	0.000	93	130396	10.0	10.2	
38 Isopropyl ether	45	7.099	7.099	0.000	91	247766	10.0	9.91	
39 2-Butanone (MEK)	72	7.104	7.104	0.000	91	9866	20.0	21.4	
40 Methacrylonitrile	66	7.183	7.183	0.000	89	67286	100.0	104.5	
41 cis-1,2-Dichloroethene	96	7.240	7.240	0.000	78	102021	10.0	10.1	
42 Ethyl acetate	43	7.329	7.329	0.000	98	52522	20.0	20.1	
44 Chlorobromomethane	128	7.366	7.366	0.000	94	37990	10.0	10.3	
45 Chloroform	83	7.397	7.397	0.000	92	152009	10.0	10.1	
46 Tert-butyl ethyl ether	59	7.402	7.402	0.000	95	230148	10.0	10.1	
48 Isobutyl alcohol	43	7.428	7.428	0.000	93	59509	250.0	251.7	
49 2,2-Dichloropropane	77	7.460	7.460	0.000	85	140701	10.0	10.1	
$ 51 Dibromofluoromethane	113	7.486	7.486	0.000	93	83708	10.0	9.98	
S 47 1,2-Dichloroethene, Total	96				0		20.0	20.1	
53 Tetrahydrofuran	42	7.648	7.648	0.000	87	20918	20.0	19.7	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.831	7.831	0.000	0	69289	10.0	9.85	
57 1,2-Dichloroethane	62	7.894	7.894	0.000	97	79257	10.0	9.95	
58 1,1,1-Trichloroethane	97	7.972	7.972	0.000	98	135231	10.0	10.1	
59 n-Butanol	56	7.978	7.978	0.000	89	26840	250.0	241.5	
61 1,1-Dichloropropene	75	8.103	8.103	0.000	99	132512	10.0	10.1	
62 Cyclohexane	84	8.197	8.197	0.000	86	152372	10.0	10.1	
63 Carbon tetrachloride	119	8.255	8.255	0.000	98	110254	10.0	10.2	
64 Benzene	78	8.276	8.276	0.000	94	385502	10.0	9.96	
66 Tert-amyl methyl ether	73	8.354	8.354	0.000	99	207967	10.0	10.1	
67 Isooctane	57	8.563	8.563	0.000	95	313842	10.0	10.1	
68 Ethyl acrylate	55	8.605	8.605	0.000	94	80061	10.0	10.0	
69 n-Heptane	43	8.626	8.626	0.000	88	123344	10.0	10.2	
70 Dibromomethane	93	8.710	8.710	0.000	91	39011	10.0	10.2	
71 1,2-Dichloropropane	63	8.726	8.726	0.000	97	90706	10.0	10.2	
72 2-Nitropropane	43	8.736	8.736	0.000	90	24420	20.0	19.4	
73 Trichloroethene	130	8.752	8.752	0.000	96	102706	10.0	10.2	
74 Dichlorobromomethane	83	8.794	8.794	0.000	99	115737	10.0	10.2	
75 Methyl methacrylate	41	8.841	8.841	0.000	87	85019	20.0	19.1	
76 1,4-Dioxane	58	8.856	8.856	0.000	90	5700	200.0	199.4	
78 Methylcyclohexane	83	9.175	9.175	0.000	85	179559	10.0	10.1	
79 4-Methyl-2-pentanone (MIBK	43	9.348	9.348	0.000	94	72779	20.0	19.0	
* 80 Chlorobenzene-d5	82	11.356	11.356	0.000	85	199887	12.5	12.5	
84 2-Chloroethyl vinyl ether	63	9.071	9.071	0.000	92	59129	20.0	20.1	
85 cis-1,3-Dichloropropene	75	9.285	9.285	0.000	97	147783	10.0	10.4	
88 trans-1,3-Dichloropropene	75	9.641	9.641	0.000	91	114804	10.0	10.4	
89 1,1,2-Trichloroethane	97	9.803	9.803	0.000	90	60467	10.0	10.2	
$ 90 Toluene-d8 (Surr)	98	9.902	9.902	0.000	92	378089	10.0	9.91	
92 Ethyl methacrylate	69	9.955	9.955	0.000	87	74855	10.0	10.2	
93 Toluene	92	9.970	9.970	0.000	99	264868	10.0	10.3	
94 1,3-Dichloropropane	76	10.012	10.012	0.000	88	112204	10.0	10.3	
95 2-Hexanone	43	10.106	10.106	0.000	94	53468	20.0	19.0	
97 Chlorodibromomethane	129	10.305	10.305	0.000	90	73671	10.0	10.5	
98 n-Butyl acetate	43	10.378	10.378	0.000	98	62218	10.0	9.23	
99 Ethylene Dibromide	107	10.556	10.556	0.000	98	58899	10.0	10.3	
101 Tetrachloroethene	164	10.697	10.697	0.000	98	80542	10.0	10.4	
S 100 Xylenes, Total	106				0		20.0	20.2	
102 1-Chlorohexane	55	11.252	11.252	0.000	92	102794	10.0	9.92	
103 1,1,1,2-Tetrachloroethane	131	11.304	11.304	0.000	94	93973	10.0	10.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Chlorobenzene	112	11.393	11.393	0.000	96	309907	10.0	10.2	
105 Ethylbenzene	106	11.571	11.571	0.000	97	169002	10.0	10.2	
106 m-Xylene & p-Xylene	91	11.759	11.759	0.000	0	410051	10.0	10.1	
107 Styrene	104	12.125	12.125	0.000	94	344232	10.0	10.4	
109 o-Xylene	106	12.204	12.204	0.000	97	212425	10.0	10.2	
108 1,1,2,2-Tetrachloroethane	83	12.204	12.204	0.000	94	69873	10.0	10.1	
* 110 1,4-Dichlorobenzene-d4	152	13.971	13.971	0.000	94	213638	12.5	12.5	
115 Bromoform	173	11.947	11.947	0.000	96	36725	10.0	10.3	
116 trans-1,4-Dichloro-2-buten	53	12.355	12.355	0.000	93	15577	10.0	10.7	
117 1,2,3-Trichloropropane	110	12.366	12.366	0.000	84	19606	10.0	10.1	
118 Isopropylbenzene	105	12.596	12.596	0.000	95	532724	10.0	10.0	
$ 119 4-Bromofluorobenzene	95	12.653	12.653	0.000	87	166736	10.0	10.3	
120 Bromobenzene	156	12.899	12.899	0.000	93	123282	10.0	10.1	
121 N-Propylbenzene	120	13.061	13.061	0.000	99	161228	10.0	10.1	
122 2-Chlorotoluene	126	13.176	13.176	0.000	97	138370	10.0	10.1	
123 4-Chlorotoluene	91	13.250	13.250	0.000	97	428061	10.0	10.1	
124 1,3,5-Trimethylbenzene	105	13.333	13.333	0.000	96	475409	10.0	9.90	
111 Alpha Methyl Styrene	118	13.448	13.448	0.000	91	346454	10.0	10.3	
126 tert-Butylbenzene	119	13.631	13.631	0.000	93	406139	10.0	10.0	
128 1,2,4-Trimethylbenzene	105	13.731	13.731	0.000	97	501546	10.0	10.0	
130 sec-Butylbenzene	105	13.846	13.846	0.000	94	615110	10.0	10.0	
131 Benzyl chloride	91	13.935	13.935	0.000	98	163930	10.0	10.1	
132 1,3-Dichlorobenzene	146	13.940	13.940	0.000	97	252480	10.0	10.1	
133 1,4-Dichlorobenzene	146	13.998	13.998	0.000	95	252455	10.0	10.2	
134 4-Isopropyltoluene	119	14.008	14.008	0.000	97	537932	10.0	10.2	
135 1,2,3-Trimethylbenzene	105	14.154	14.154	0.000	98	544769	10.0	10.1	
137 1,2-Dichlorobenzene	146	14.353	14.353	0.000	97	214465	10.0	10.1	
138 n-Butylbenzene	91	14.411	14.411	0.000	97	500385	10.0	10.2	
139 1,2-Dibromo-3-Chloropropan	157	14.819	14.819	0.000	87	10573	10.0	9.88	
140 1,3,5-Trichlorobenzene	180	15.661	15.661	0.000	97	183537	10.0	10.2	
141 1,2,4-Trichlorobenzene	180	16.246	16.246	0.000	94	108939	10.0	10.3	
142 Naphthalene	128	16.539	16.539	0.000	97	144886	10.0	10.1	
143 Hexachlorobutadiene	190	16.581	16.581	0.000	96	28015	10.0	9.98	
144 1,2,3-Trichlorobenzene	180	16.775	16.775	0.000	95	56881	10.0	9.82	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

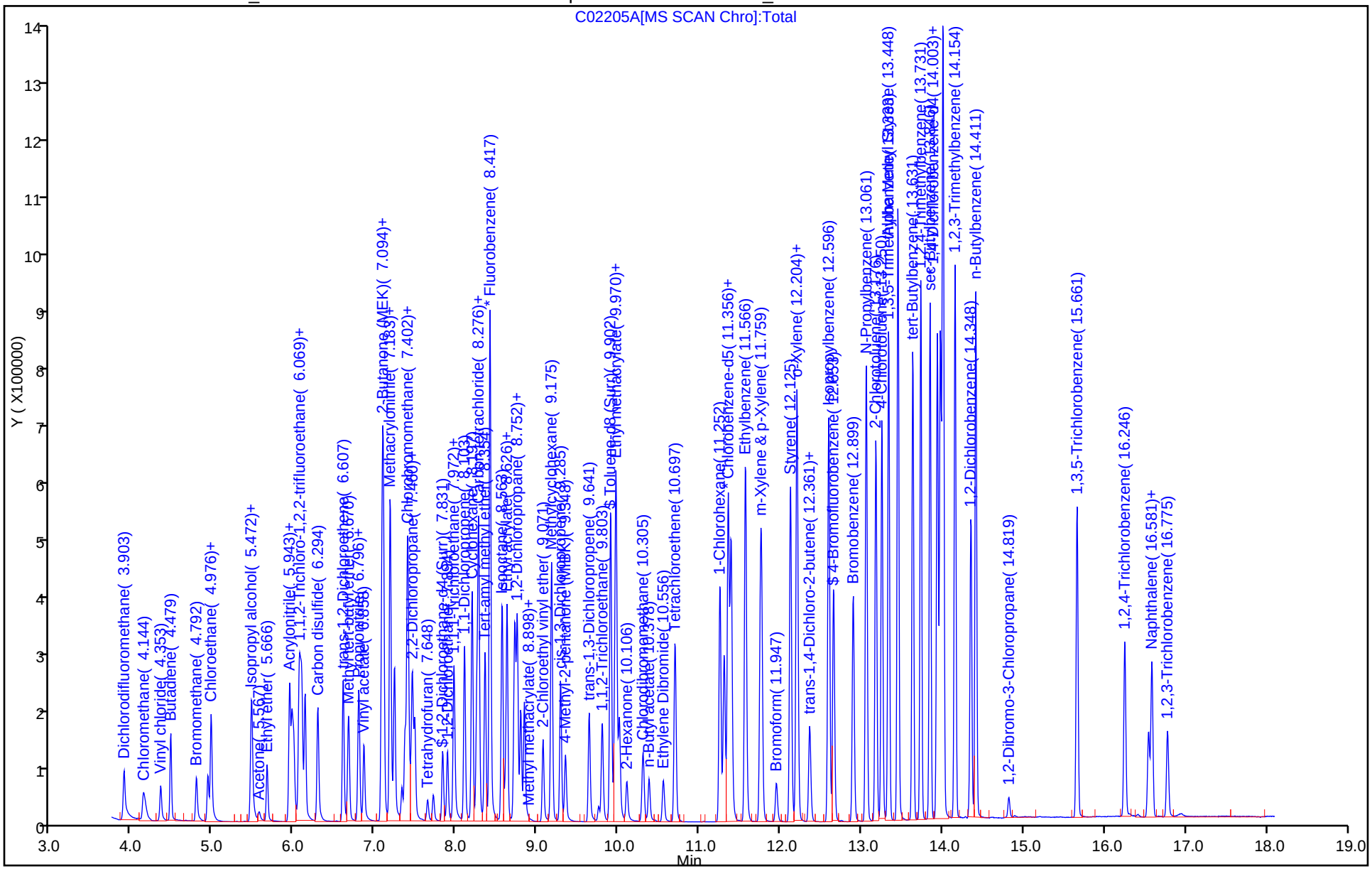
VOASTDst_00022	Amount Added:	4.00	Units: uL
VOAIS50PPM_00164	Amount Added:	5.00	Units: uL
VOASTDGASPT_00151	Amount Added:	4.00	Units: uL
aMeStyaene50T_00001	Amount Added:	4.00	Units: uL

Report Date: 22-Jan-2016 16:40:22 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02205A.D

Injection Date:	22-Jan-2016 15:14:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	icis			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02206.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 22-Jan-2016 15:40:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 600-0010400-007
Operator ID: yx Instrument ID: CHVOAMS01
Sublist: chrom-8260W20_1*sub30

Method: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 22-Jan-2016 16:40:23 Calib Date: 22-Jan-2016 16:06:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02207.D

Column 1 : Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: xiey Date: 22-Jan-2016 16:27:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.420	8.417	0.003	100	369651	12.5	12.5	
2 Dichlorodifluoromethane	85	3.901	3.903	-0.002	100	135413	20.0	22.2	
3 Chloromethane	50	4.142	4.144	-0.002	99	161054	20.0	20.4	
4 Vinyl chloride	62	4.351	4.353	-0.002	99	91940	20.0	16.7	
5 Butadiene	39	4.477	4.479	-0.002	90	107471	20.0	20.8	
6 Bromomethane	94	4.796	4.792	0.004	90	114283	20.0	19.5	
9 Chloroethane	64	4.932	4.934	-0.002	99	131391	20.0	21.2	
11 Dichlorofluoromethane	67	4.973	4.976	-0.003	97	326935	20.0	21.4	
10 Ethanol	45		5.120				ND	ND	
14 Acrolein	56	5.460	5.462	-0.002	98	45286	100.0	96.5	
15 Acetonitrile	41	5.470	5.472	-0.002	98	93375	200.0	198.8	
16 Trichlorofluoromethane	101	5.476	5.478	-0.002	99	260552	20.0	21.8	
17 Isopropyl alcohol	45	5.502	5.504	-0.002	99	39233	200.0	201.0	
18 Acetone	43	5.570	5.572	-0.002	99	34082	40.0	36.5	
19 Ethyl ether	59	5.664	5.666	-0.002	88	98127	20.0	20.0	
21 2-Methyl-2-propanol	59	5.941	5.938	0.003	100	68238	200.0	197.5	
22 1,1-Dichloroethene	96	5.946	5.943	0.003	96	160395	20.0	19.9	
23 Acrylonitrile	52	5.972	5.975	-0.002	100	209150	200.0	202.1	
24 Iodomethane	142	5.993	5.995	-0.002	98	242006	20.0	21.6	
25 Methylene Chloride	84	6.061	6.063	-0.002	88	184295	20.0	19.9	
26 Methyl acetate	43	6.072	6.074	-0.002	97	274585	100.0	93.3	
27 1,1,2-Trichloro-1,2,2-trif	151	6.093	6.095	-0.002	94	125215	20.0	19.9	
28 3-Chloro-1-propene	76	6.135	6.137	-0.002	93	101071	20.0	20.7	
29 Carbon disulfide	76	6.291	6.294	-0.003	98	544834	20.0	19.9	
30 trans-1,2-Dichloroethene	96	6.605	6.607	-0.002	98	178243	20.0	19.8	
31 Methyl tert-butyl ether	73	6.673	6.670	0.003	93	334692	20.0	19.9	
32 Propionitrile	54	6.788	6.790	-0.002	99	106898	200.0	205.7	
33 1,1-Dichloroethane	63	6.799	6.801	-0.002	96	309054	20.0	19.7	
34 Vinyl acetate	43	6.862	6.858	0.004	96	335126	40.0	38.9	
36 2-Chloro-1,3-butadiene	53	7.076	7.078	-0.002	88	260218	20.0	19.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Hexane	57	7.092	7.094	-0.002	93	236648	20.0	18.8	
38 Isopropyl ether	45	7.102	7.099	0.003	92	472621	20.0	19.1	
39 2-Butanone (MEK)	72	7.102	7.104	-0.002	89	19276	40.0	42.3	
40 Methacrylonitrile	66	7.186	7.183	0.003	89	126479	200.0	198.8	
41 cis-1,2-Dichloroethene	96	7.238	7.240	-0.002	78	197027	20.0	19.7	
42 Ethyl acetate	43	7.327	7.329	-0.002	98	103487	40.0	40.1	
44 Chlorobromomethane	128	7.369	7.366	0.003	93	74009	20.0	20.3	
45 Chloroform	83	7.395	7.397	-0.002	92	290500	20.0	19.5	
46 Tert-butyl ethyl ether	59	7.405	7.402	0.003	95	442542	20.0	19.7	
48 Isobutyl alcohol	43	7.426	7.428	-0.002	92	109307	500.0	467.8	
49 2,2-Dichloropropane	77	7.458	7.460	-0.002	85	260424	20.0	18.9	
$ 51 Dibromofluoromethane	113	7.489	7.486	0.003	93	163501	20.0	19.7	
S 47 1,2-Dichloroethene, Total	96				0		40.0	39.5	
53 Tetrahydrofuran	42	7.646	7.648	-0.002	85	40009	40.0	38.7	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.834	7.831	0.003	0	135021	20.0	19.4	
57 1,2-Dichloroethane	62	7.892	7.894	-0.002	97	156414	20.0	19.9	
58 1,1,1-Trichloroethane	97	7.970	7.972	-0.002	98	261891	20.0	19.9	
59 n-Butanol	56	7.976	7.978	-0.002	86	54459	500.0	495.7	
61 1,1-Dichloropropene	75	8.101	8.103	-0.002	99	257060	20.0	19.8	
62 Cyclohexane	84	8.195	8.197	-0.002	86	294568	20.0	19.7	
63 Carbon tetrachloride	119	8.253	8.255	-0.002	98	213671	20.0	20.0	
64 Benzene	78	8.279	8.276	0.003	94	742442	20.0	19.4	
66 Tert-amyl methyl ether	73	8.357	8.354	0.003	99	404318	20.0	19.8	
67 Isooctane	57	8.567	8.563	0.004	95	593938	20.0	19.4	
68 Ethyl acrylate	55	8.603	8.605	-0.002	94	152685	20.0	19.3	
69 n-Heptane	43	8.624	8.626	-0.002	88	227732	20.0	19.0	
70 Dibromomethane	93	8.708	8.710	-0.002	93	75673	20.0	20.0	
71 1,2-Dichloropropane	63	8.723	8.726	-0.003	95	172038	20.0	19.6	
72 2-Nitropropane	43	8.734	8.736	-0.002	90	48041	40.0	38.6	
73 Trichloroethene	130	8.755	8.752	0.003	98	198120	20.0	19.9	
74 Dichlorobromomethane	83	8.797	8.794	0.003	99	225889	20.0	20.2	
75 Methyl methacrylate	41	8.839	8.841	-0.002	87	164831	40.0	37.5	
76 1,4-Dioxane	58	8.859	8.856	0.003	89	11232	400.0	397.5	
78 Methylcyclohexane	83	9.178	9.175	0.003	85	345307	20.0	19.7	
79 4-Methyl-2-pentanone (MIBK	43	9.346	9.348	-0.002	94	144872	40.0	38.2	
* 80 Chlorobenzene-d5	82	11.354	11.356	-0.002	85	206905	12.5	12.5	
84 2-Chloroethyl vinyl ether	63	9.069	9.071	-0.002	92	126254	40.0	41.0	
85 cis-1,3-Dichloropropene	75	9.288	9.285	0.003	97	287747	20.0	19.5	
88 trans-1,3-Dichloropropene	75	9.639	9.641	-0.002	91	227675	20.0	20.0	
89 1,1,2-Trichloroethane	97	9.801	9.803	-0.002	90	120139	20.0	19.6	
$ 90 Toluene-d8 (Surr)	98	9.905	9.902	0.003	91	728160	20.0	18.4	
92 Ethyl methacrylate	69	9.953	9.955	-0.002	87	147965	20.0	19.5	
93 Toluene	92	9.973	9.970	0.003	99	508216	20.0	19.0	
94 1,3-Dichloropropane	76	10.010	10.012	-0.002	88	219536	20.0	19.5	
95 2-Hexanone	43	10.104	10.106	-0.002	94	99217	40.0	34.1	
97 Chlorodibromomethane	129	10.303	10.305	-0.002	90	149658	20.0	20.5	
98 n-Butyl acetate	43	10.376	10.378	-0.002	98	120114	20.0	21.1	
99 Ethylene Dibromide	107	10.554	10.556	-0.002	98	118076	20.0	20.0	
101 Tetrachloroethene	164	10.700	10.697	0.003	98	157029	20.0	19.5	
S 100 Xylenes, Total	106				0		40.0	38.4	
102 1-Chlorohexane	55	11.255	11.252	0.003	92	199843	20.0	18.6	
103 1,1,1,2-Tetrachloroethane	131	11.307	11.304	0.003	94	187810	20.0	19.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Chlorobenzene	112	11.391	11.393	-0.002	96	607701	20.0	19.4	
105 Ethylbenzene	106	11.569	11.571	-0.002	97	330127	20.0	19.3	
106 m-Xylene & p-Xylene	91	11.762	11.759	0.003	0	805491	20.0	19.1	
107 Styrene	104	12.123	12.125	-0.002	94	675164	20.0	19.7	
109 o-Xylene	106	12.202	12.204	-0.002	96	415730	20.0	19.3	
108 1,1,2,2-Tetrachloroethane	83	12.202	12.204	-0.002	53	136275	20.0	19.0	
* 110 1,4-Dichlorobenzene-d4	152	13.975	13.971	0.004	94	212673	12.5	12.5	
115 Bromoform	173	11.950	11.947	0.003	96	78236	20.0	22.0	
116 trans-1,4-Dichloro-2-buten	53	12.353	12.355	-0.002	91	32048	20.0	22.0	
117 1,2,3-Trichloropropane	110	12.364	12.366	-0.002	83	39834	20.0	20.7	
118 Isopropylbenzene	105	12.594	12.596	-0.002	95	1043652	20.0	19.7	
$ 119 4-Bromofluorobenzene	95	12.657	12.653	0.004	87	329729	20.0	20.7	
120 Bromobenzene	156	12.897	12.899	-0.002	93	243590	20.0	20.1	
121 N-Propylbenzene	120	13.059	13.061	-0.002	99	314037	20.0	19.8	
122 2-Chlorotoluene	126	13.180	13.176	0.004	97	270843	20.0	19.8	
123 4-Chlorotoluene	91	13.253	13.250	0.003	97	827378	20.0	19.7	
124 1,3,5-Trimethylbenzene	105	13.336	13.333	0.003	95	927360	20.0	19.4	
111 Alpha Methyl Styrene	118	13.452	13.448	0.004	91	680588	20.0	20.3	
126 tert-Butylbenzene	119	13.635	13.631	0.004	92	793196	20.0	19.6	
128 1,2,4-Trimethylbenzene	105	13.734	13.731	0.003	97	968732	20.0	19.4	
130 sec-Butylbenzene	105	13.844	13.846	-0.002	94	1195560	20.0	19.6	
131 Benzyl chloride	91	13.933	13.935	-0.002	99	303300	20.0	18.8	
132 1,3-Dichlorobenzene	146	13.938	13.940	-0.002	97	488680	20.0	19.7	
133 1,4-Dichlorobenzene	146	14.001	13.998	0.003	94	464600	20.0	18.9	
134 4-Isopropyltoluene	119	14.011	14.008	0.003	97	1005838	20.0	19.2	
135 1,2,3-Trimethylbenzene	105	14.152	14.154	-0.002	98	1046636	20.0	19.5	
137 1,2-Dichlorobenzene	146	14.351	14.353	-0.002	97	418960	20.0	19.8	
138 n-Butylbenzene	91	14.409	14.411	-0.002	97	946022	20.0	19.3	
139 1,2-Dibromo-3-Chloropropan	157	14.817	14.819	-0.002	87	20881	20.0	19.6	
140 1,3,5-Trichlorobenzene	180	15.659	15.661	-0.002	97	352097	20.0	19.7	
141 1,2,4-Trichlorobenzene	180	16.250	16.246	0.004	94	209734	20.0	20.0	
142 Naphthalene	128	16.543	16.539	0.004	96	273684	20.0	19.3	
143 Hexachlorobutadiene	190	16.584	16.581	0.003	96	53336	20.0	19.1	
144 1,2,3-Trichlorobenzene	180	16.778	16.775	0.003	96	106560	20.0	18.5	
S 145 1,3-Dichloropropene, Total	1				0			39.5	
S 146 Trihalomethanes, Total	1				0			82.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

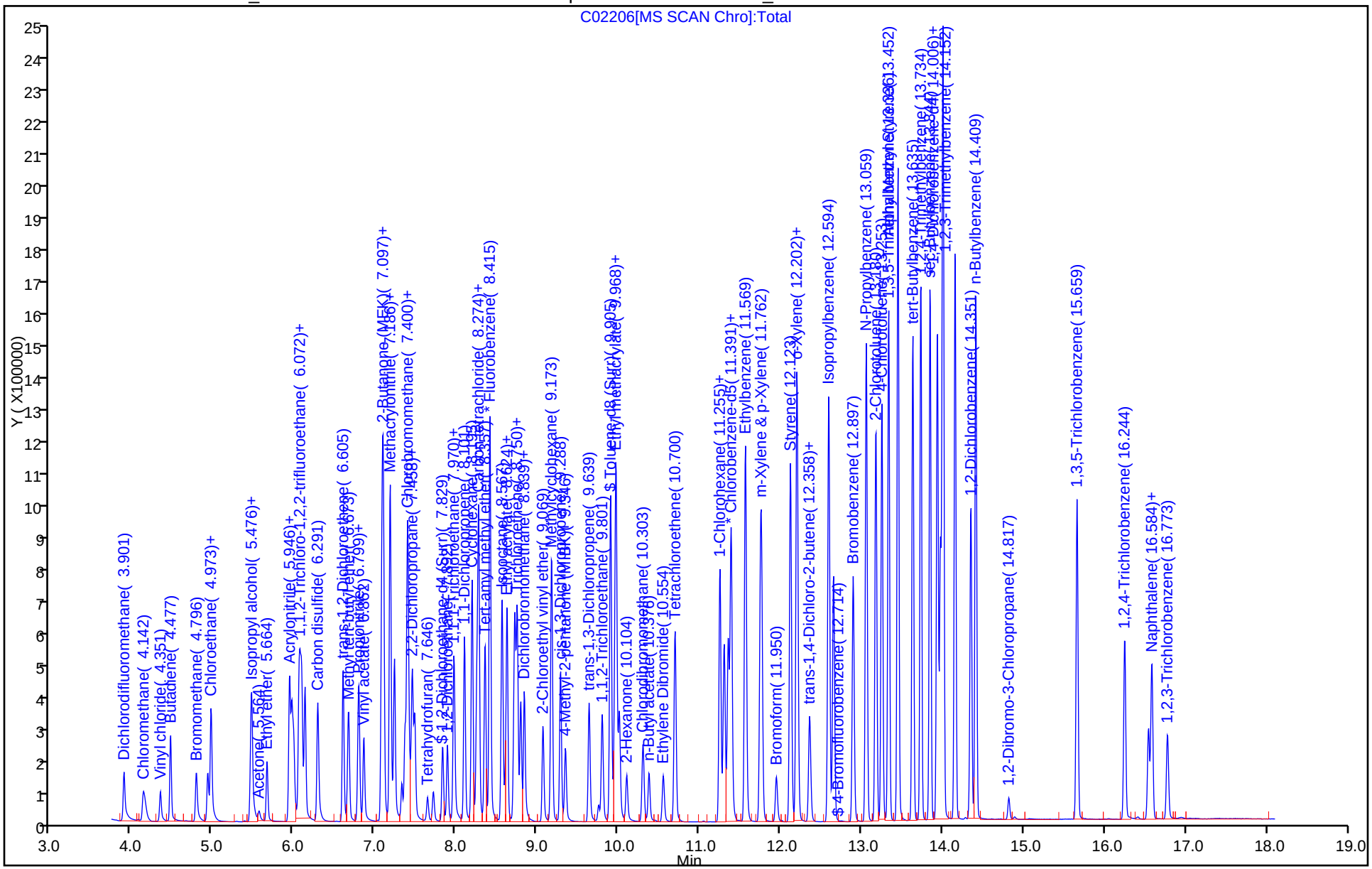
VOASTDst_00022	Amount Added:	8.00	Units: uL
VOAIS50PPM_00164	Amount Added:	5.00	Units: uL
VOASTDGASPT_00151	Amount Added:	8.00	Units: uL
aMeStyaene50T_00001	Amount Added:	8.00	Units: uL

Report Date: 22-Jan-2016 16:40:23 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02206.D

Injection Date:	22-Jan-2016 15:40:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02207.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 22-Jan-2016 16:06:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ic
Misc. Info.: 600-0010400-008
Operator ID: yx Instrument ID: CHVOAMS01
Sublist: chrom-8260W20_1*sub30

Method: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 22-Jan-2016 16:40:24 Calib Date: 22-Jan-2016 16:06:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02207.D

Column 1 : Det: MS SCAN
Process Host: XAWRK028

First Level Reviewer: xiey Date: 22-Jan-2016 16:31:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.419	8.417	0.002	99	360087	12.5	12.5	
2 Dichlorodifluoromethane	85	3.900	3.903	-0.003	100	323735	50.0	54.5	
3 Chloromethane	50	4.141	4.144	-0.003	99	375574	50.0	48.8	
4 Vinyl chloride	62	4.345	4.353	-0.008	99	128602	50.0	23.9	
5 Butadiene	39	4.470	4.479	-0.009	90	225959	50.0	44.9	
6 Bromomethane	94	4.789	4.792	-0.003	90	301336	50.0	52.2	
9 Chloroethane	64	4.930	4.934	-0.004	99	304061	50.0	50.3	
11 Dichlorofluoromethane	67	4.972	4.976	-0.004	97	769316	50.0	51.7	
10 Ethanol	45		5.120				ND	ND	
14 Acrolein	56	5.459	5.462	-0.003	99	112656	250.0	246.4	
15 Acetonitrile	41	5.469	5.472	-0.003	98	226825	500.0	502.1	
16 Trichlorofluoromethane	101	5.474	5.478	-0.004	99	664539	50.0	57.1	
17 Isopropyl alcohol	45	5.506	5.504	0.002	100	97555	500.0	517.5	
18 Acetone	43	5.569	5.572	-0.004	99	93895	100.0	106.3	
19 Ethyl ether	59	5.668	5.666	0.002	87	241895	50.0	50.6	
21 2-Methyl-2-propanol	59	5.940	5.938	0.002	97	167162	500.0	496.6	
22 1,1-Dichloroethene	96	5.945	5.943	0.002	96	389853	50.0	49.7	
23 Acrylonitrile	52	5.971	5.975	-0.003	100	501850	500.0	497.7	
24 Iodomethane	142	5.992	5.995	-0.003	98	568300	50.0	52.1	
25 Methylene Chloride	84	6.060	6.063	-0.003	87	432770	50.0	50.3	
26 Methyl acetate	43	6.076	6.074	0.002	97	629476	250.0	219.5	
27 1,1,2-Trichloro-1,2,2-trif	151	6.092	6.095	-0.003	94	304322	50.0	49.7	
28 3-Chloro-1-propene	76	6.133	6.137	-0.004	92	194293	50.0	40.9	
29 Carbon disulfide	76	6.290	6.294	-0.004	98	1347998	50.0	50.6	
30 trans-1,2-Dichloroethene	96	6.604	6.607	-0.003	98	435388	50.0	49.6	
31 Methyl tert-butyl ether	73	6.672	6.670	0.002	93	836726	50.0	51.2	
32 Propionitrile	54	6.787	6.790	-0.003	99	264938	500.0	523.3	
33 1,1-Dichloroethane	63	6.798	6.801	-0.003	96	740625	50.0	48.5	
34 Vinyl acetate	43	6.860	6.858	0.002	96	784190	100.0	93.4	
36 2-Chloro-1,3-butadiene	53	7.080	7.078	0.002	89	604532	50.0	46.7	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Hexane	57	7.090	7.094	-0.004	92	519378	50.0	42.3	
38 Isopropyl ether	45	7.101	7.099	0.002	92	1036908	50.0	43.1	
39 2-Butanone (MEK)	72	7.106	7.104	0.002	88	45629	100.0	102.8	
40 Methacrylonitrile	66	7.185	7.183	0.002	88	296895	500.0	479.0	
41 cis-1,2-Dichloroethene	96	7.237	7.240	-0.003	78	480657	50.0	49.3	
42 Ethyl acetate	43	7.331	7.329	0.002	98	265738	100.0	105.6	
44 Chlorobromomethane	128	7.368	7.366	0.002	93	181658	50.0	51.3	
45 Chloroform	83	7.394	7.397	-0.003	92	686952	50.0	47.3	
46 Tert-butyl ethyl ether	59	7.404	7.402	0.002	95	1026669	50.0	46.8	
48 Isobutyl alcohol	43	7.430	7.428	0.002	91	276721	1250.0	1215.6	
49 2,2-Dichloropropane	77	7.457	7.460	-0.003	84	632312	50.0	47.2	
$ 51 Dibromofluoromethane	113	7.488	7.486	0.002	93	402070	50.0	49.8	
S 47 1,2-Dichloroethene, Total	96				0		100.0	98.9	
53 Tetrahydrofuran	42	7.645	7.648	-0.003	86	100435	100.0	100.5	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.833	7.831	0.002	0	339371	50.0	50.1	
57 1,2-Dichloroethane	62	7.891	7.894	-0.003	97	396695	50.0	51.7	
58 1,1,1-Trichloroethane	97	7.969	7.972	-0.003	97	645756	50.0	50.3	
59 n-Butanol	56	7.980	7.978	0.002	86	134380	1250.0	1255.6	
61 1,1-Dichloropropene	75	8.100	8.103	-0.003	99	627192	50.0	49.6	
62 Cyclohexane	84	8.194	8.197	-0.003	86	717526	50.0	49.2	
63 Carbon tetrachloride	119	8.252	8.255	-0.003	98	525545	50.0	50.6	
64 Benzene	78	8.278	8.276	0.002	94	1736401	50.0	46.6	
66 Tert-amyl methyl ether	73	8.356	8.354	0.002	98	1007002	50.0	50.6	
67 Isooctane	57	8.565	8.563	0.002	90	1399148	50.0	46.8	
68 Ethyl acrylate	55	8.607	8.605	0.002	95	379601	50.0	49.4	
69 n-Heptane	43	8.628	8.626	0.002	88	538001	50.0	46.1	
70 Dibromomethane	93	8.712	8.710	0.002	93	186337	50.0	50.5	
71 1,2-Dichloropropane	63	8.722	8.726	-0.004	96	399537	50.0	46.8	
72 2-Nitropropane	43	8.733	8.736	-0.003	91	116724	100.0	96.2	
73 Trichloroethene	130	8.754	8.752	0.002	98	480582	50.0	49.6	
74 Dichlorobromomethane	83	8.796	8.794	0.002	99	564548	50.0	51.7	
75 Methyl methacrylate	41	8.837	8.841	-0.004	89	409710	100.0	95.7	
76 1,4-Dioxane	58	8.863	8.856	0.007	90	28008	1000.0	1017.5	
78 Methylcyclohexane	83	9.177	9.175	0.002	85	834632	50.0	48.8	
79 4-Methyl-2-pentanone (MIBK	43	9.350	9.348	0.002	94	370352	100.0	100.3	
* 80 Chlorobenzene-d5	82	11.358	11.356	0.002	76	211809	12.5	12.5	
84 2-Chloroethyl vinyl ether	63	9.067	9.071	-0.004	84	333505	100.0	104.9	
85 cis-1,3-Dichloropropene	75	9.287	9.285	0.002	95	712018	50.0	47.2	
88 trans-1,3-Dichloropropene	75	9.638	9.641	-0.003	91	575393	50.0	49.3	
89 1,1,2-Trichloroethane	97	9.800	9.803	-0.003	77	305833	50.0	48.8	
$ 90 Toluene-d8 (Surr)	98	9.904	9.902	0.002	89	1756535	50.0	43.4	
92 Ethyl methacrylate	69	9.951	9.955	-0.004	55	358334	50.0	46.2	
93 Toluene	92	9.972	9.970	0.002	99	1179245	50.0	43.2	
94 1,3-Dichloropropane	76	10.014	10.012	0.002	56	553367	50.0	48.0	
95 2-Hexanone	43	10.103	10.106	-0.003	94	267138	100.0	89.7	
97 Chlorodibromomethane	129	10.307	10.305	0.002	90	392928	50.0	52.6	
98 n-Butyl acetate	43	9.758	10.378	-0.620	93	114040	50.0	18.7	
99 Ethylene Dibromide	107	10.553	10.556	-0.003	98	306676	50.0	50.9	
101 Tetrachloroethene	164	10.699	10.697	0.002	97	384276	50.0	46.7	
S 100 Xylenes, Total	106				0		100.0	90.6	
102 1-Chlorohexane	55	11.254	11.252	0.002	92	489278	50.0	44.5	
103 1,1,1,2-Tetrachloroethane	131	11.306	11.304	0.002	94	479450	50.0	49.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Chlorobenzene	112	11.390	11.393	-0.003	94	1485594	50.0	46.2	
105 Ethylbenzene	106	11.567	11.571	-0.004	97	807728	50.0	46.1	
106 m-Xylene & p-Xylene	91	11.761	11.759	0.002	0	1981697	50.0	45.8	
107 Styrene	104	12.122	12.125	-0.003	92	1636594	50.0	46.6	
109 o-Xylene	106	12.206	12.204	0.002	91	987500	50.0	44.7	
108 1,1,2,2-Tetrachloroethane	83	12.206	12.204	0.002	94	313224	50.0	42.7	
* 110 1,4-Dichlorobenzene-d4	152	13.973	13.971	0.002	97	211790	12.5	12.5	
115 Bromoform	173	11.949	11.947	0.002	96	210682	50.0	59.4	
116 trans-1,4-Dichloro-2-buten	53	12.357	12.355	0.002	92	82045	50.0	56.6	
117 1,2,3-Trichloropropane	110	12.362	12.366	-0.004	83	102461	50.0	53.4	
118 Isopropylbenzene	105	12.598	12.596	0.002	95	2518229	50.0	47.8	
$ 119 4-Bromofluorobenzene	95	12.655	12.653	0.002	87	804898	50.0	51.1	
120 Bromobenzene	156	12.901	12.899	0.002	92	594241	50.0	49.2	
121 N-Propylbenzene	120	13.058	13.061	-0.003	98	745316	50.0	47.3	
122 2-Chlorotoluene	126	13.178	13.176	0.002	97	643486	50.0	47.2	
123 4-Chlorotoluene	91	13.252	13.250	0.002	97	1933169	50.0	46.2	
124 1,3,5-Trimethylbenzene	105	13.335	13.333	0.002	95	2133203	50.0	44.8	
111 Alpha Methyl Styrene	118	13.450	13.448	0.002	91	1453464	50.0	43.5	
126 tert-Butylbenzene	119	13.633	13.631	0.002	93	1830669	50.0	45.5	
128 1,2,4-Trimethylbenzene	105	13.733	13.731	0.002	97	2189770	50.0	44.1	
130 sec-Butylbenzene	105	13.848	13.846	0.002	94	2698938	50.0	44.4	
131 Benzyl chloride	91	13.931	13.935	-0.004	98	694188	50.0	43.2	
132 1,3-Dichlorobenzene	146	13.942	13.940	0.002	96	1087484	50.0	44.0	
133 1,4-Dichlorobenzene	146	13.999	13.998	0.001	94	966019	50.0	39.5	
134 4-Isopropyltoluene	119	14.010	14.008	0.002	97	2098386	50.0	40.1	
135 1,2,3-Trimethylbenzene	105	14.156	14.154	0.002	98	2328539	50.0	43.5	
137 1,2-Dichlorobenzene	146	14.350	14.353	-0.003	97	965200	50.0	45.7	
138 n-Butylbenzene	91	14.413	14.411	0.002	97	2112305	50.0	43.3	
139 1,2-Dibromo-3-Chloropropan	157	14.821	14.819	0.002	88	53255	50.0	50.2	
140 1,3,5-Trichlorobenzene	180	15.663	15.661	0.002	97	778892	50.0	43.8	
141 1,2,4-Trichlorobenzene	180	16.248	16.246	0.002	94	466098	50.0	44.5	
142 Naphthalene	128	16.541	16.539	0.002	97	614581	50.0	43.4	
143 Hexachlorobutadiene	190	16.583	16.581	0.002	97	120960	50.0	43.4	
144 1,2,3-Trichlorobenzene	180	16.777	16.775	0.002	96	225820	50.0	39.3	
S 145 1,3-Dichloropropene, Total	1				0			96.5	
S 146 Trihalomethanes, Total	1				0			211.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

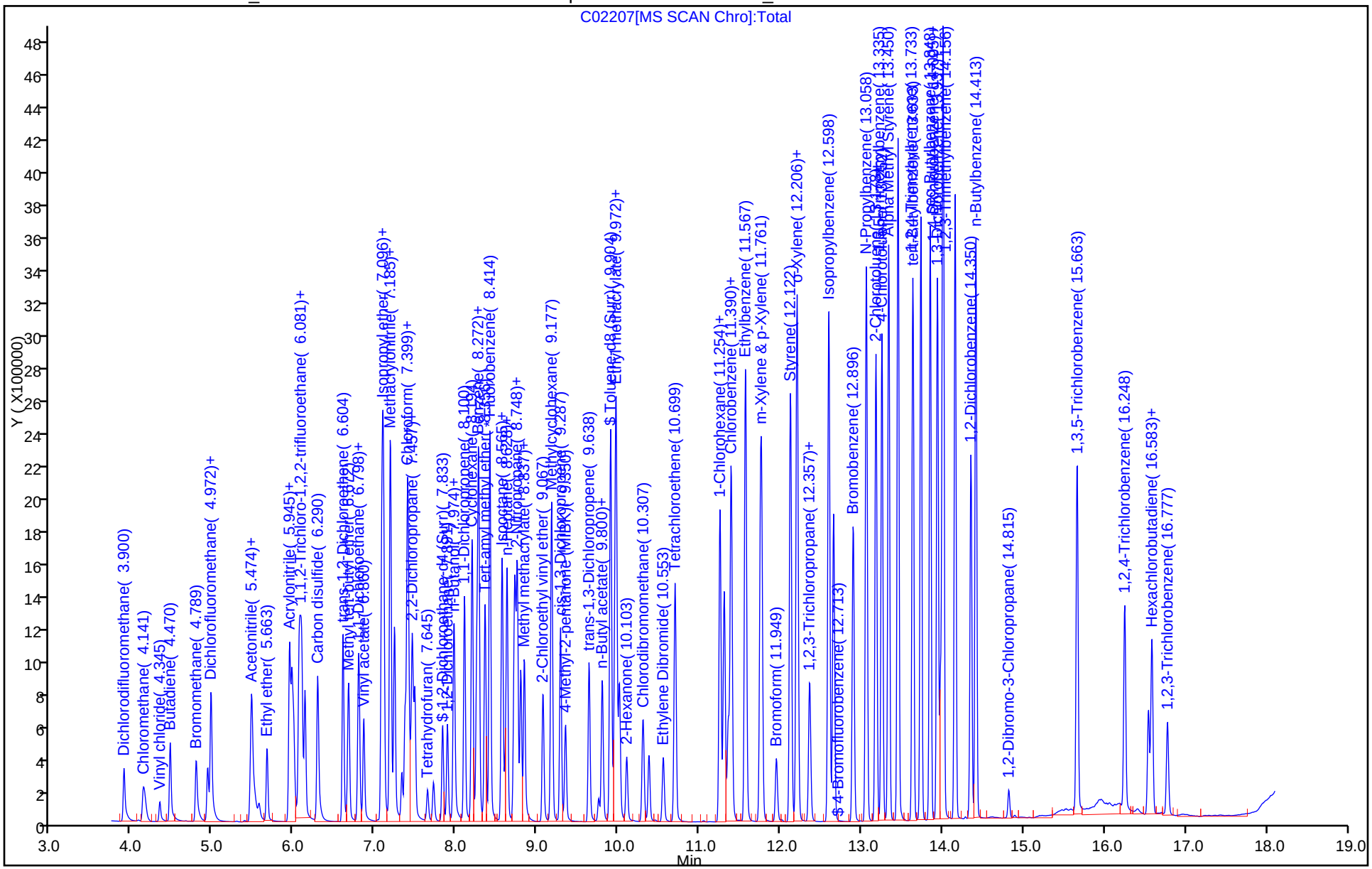
VOASTDst_00022	Amount Added: 20.00	Units: uL
VOAIS50PPM_00164	Amount Added: 5.00	Units: uL
VOASTDGASPT_00151	Amount Added: 20.00	Units: uL
aMeStyaene50T_00001	Amount Added: 20.00	Units: uL

Report Date: 22-Jan-2016 16:40:24 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02207.D

Injection Date:	22-Jan-2016 16:06:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188556/2 Calibration Date: 05/16/2016 10:12

Instrument ID: CHVOAMS01 Calib Start Date: 01/22/2016 11:43

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 01/22/2016 16:06

Lab File ID: C13701A.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2063	0.1595		7.73	10.0	-22.7	35.0
Chloromethane	Ave	0.2670	0.3284	0.1000	12.3	10.0	23.0	35.0
Vinyl chloride	Ave	0.1865	0.2092		11.2	10.0	12.2	20.0
Butadiene	Ave	0.1746	0.1968		11.3	10.0	12.7	35.0
Bromomethane	Lin1		0.2567		13.1	10.0	31.0	35.0
Chloroethane	Ave	0.2099	0.1808		8.61	10.0	-13.9	35.0
Dichlorofluoromethane	Ave	0.5170	0.6506		12.6	10.0	25.8	35.0
Acrolein	Ave	0.0159	0.0136		42.7	50.0	-14.6	50.0
Acetonitrile	Lin1		0.0147		90.0	100	-10.0	50.0
Trichlorofluoromethane	Ave	0.4038	0.5777		14.3	10.0	43.1*	35.0
Isopropyl alcohol	Lin2		0.0064		94.9	100	-5.1	50.0
Acetone	Lin1		0.0328		20.1	20.0	0.4	35.0
Ethyl ether	Ave	0.1660	0.1338		8.06	10.0	-19.4	35.0
t-Butanol	Ave	0.0117	0.0123		105	100	5.4	35.0
1,1-Dichloroethene	Ave	0.2722	0.2642		9.71	10.0	-2.9	20.0
Acrylonitrile	Ave	0.0350	0.0316		90.3	100	-9.7	50.0
Iodomethane	Ave	0.3787	0.4181		11.0	10.0	10.4	35.0
Methylene Chloride	Lin1		0.2907		8.47	10.0	-15.3	50.0
Methyl acetate	Ave	0.0995	0.0912		45.8	50.0	-8.4	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2124	0.1787		8.41	10.0	-15.9	35.0
3-Chloro-1-propene	Ave	0.1648	0.1221		7.41	10.0	-25.9	35.0
Carbon disulfide	Ave	0.9253	0.7718		8.34	10.0	-16.6	35.0
trans-1,2-Dichloroethene	Ave	0.3045	0.2725		8.95	10.0	-10.5	35.0
Methyl tert-butyl ether	Ave	0.5673	0.5108		9.00	10.0	-10.0	35.0
Propionitrile	Ave	0.0176	0.0167		94.9	100	-5.1	35.0
1,1-Dichloroethane	Ave	0.5302	0.5067	0.1000	9.56	10.0	-4.4	35.0
Vinyl acetate	Ave	0.2913	0.2847		19.5	20.0	-2.3	50.0
2-Chloro-1,3-butadiene	Ave	0.4496	0.4666		10.4	10.0	3.8	35.0
Hexane	Ave	0.4265	0.3779		8.86	10.0	-11.4	35.0
Isopropyl ether	Ave	0.8355	0.8079		9.67	10.0	-3.3	35.0
2-Butanone (MEK)	Ave	0.0154	0.0151		19.7	20.0	-1.7	50.0
Methacrylonitrile	Ave	0.0215	0.0181		83.9	100	-16.1	35.0
cis-1,2-Dichloroethene	Ave	0.3387	0.2917		8.61	10.0	-13.9	35.0
Ethyl acetate	Ave	0.0874	0.0432		9.88	20.0	-50.6*	35.0
Chlorobromomethane	Ave	0.1230	0.0994		8.08	10.0	-19.2	35.0
Chloroform	Ave	0.5045	0.5318		10.5	10.0	5.4	20.0
Tert-butyl ethyl ether	Ave	0.7610	0.7319		9.62	10.0	-3.8	35.0
Isobutyl alcohol	Ave	0.0079	0.0044		141	250	-43.8	50.0
2,2-Dichloropropane	Ave	0.4650	0.4937		10.6	10.0	6.2	35.0
Tetrahydrofuran	Lin2		0.0281		15.7	20.0	-21.3	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188556/2 Calibration Date: 05/16/2016 10:12

Instrument ID: CHVOAMS01 Calib Start Date: 01/22/2016 11:43

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 01/22/2016 16:06

Lab File ID: C13701A.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethane	Ave	0.2661	0.2844		10.7	10.0	6.9	35.0
1,1,1-Trichloroethane	Ave	0.4460	0.4945		11.1	10.0	10.9	35.0
1,1-Dichloropropene	Ave	0.4388	0.4264		9.72	10.0	-2.8	35.0
Cyclohexane	Ave	0.5066	0.4171		8.23	10.0	-17.7	35.0
Carbon tetrachloride	Ave	0.3606	0.3853		10.7	10.0	6.9	35.0
Benzene	Ave	1.294	1.173		9.07	10.0	-9.3	35.0
Tert-amyl methyl ether	Ave	0.6914	0.6099		8.82	10.0	-11.8	35.0
Isooctane	Ave	1.038	0.8999		8.67	10.0	-13.3	35.0
Ethyl acrylate	Ave	0.2669	0.2189		8.20	10.0	-18.0	35.0
n-Heptane	Ave	0.4053	0.3785		9.34	10.0	-6.6	35.0
Dibromomethane	Ave	0.1280	0.1142		8.92	10.0	-10.8	35.0
1,2-Dichloropropane	Ave	0.2964	0.3018		10.2	10.0	1.8	20.0
2-Nitropropane	Ave	0.0421	0.0397		18.8	20.0	-5.9	35.0
Trichloroethene	Ave	0.3363	0.2945		8.76	10.0	-12.4	35.0
Bromodichloromethane	Ave	0.3789	0.3923		10.4	10.0	3.5	35.0
Methyl methacrylate	Ave	0.1486	0.1315		17.7	20.0	-11.5	50.0
1,4-Dioxane	Ave	0.0010	0.0010		207	200	3.5	50.0
2-Chloroethyl vinyl ether	Lin2		0.0788		8.85	20.0	-55.8*	35.0
Methylcyclohexane	Ave	0.5932	0.5049		8.51	10.0	-14.9	35.0
cis-1,3-Dichloropropene	Ave	0.8895	0.7759		8.72	10.0	-12.8	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.1282	0.1200		18.7	20.0	-6.4	50.0
trans-1,3-Dichloropropene	Ave	0.6891	0.6057		8.79	10.0	-12.1	35.0
1,1,2-Trichloroethane	Ave	0.3699	0.3110		8.41	10.0	-15.9	35.0
Ethyl methacrylate	Ave	0.4582	0.3686		8.05	10.0	-19.5	50.0
Toluene	Ave	1.612	1.593		9.88	10.0	-1.2	20.0
1,3-Dichloropropane	Ave	0.6798	0.5973		8.79	10.0	-12.1	35.0
2-Hexanone	Ave	0.1757	0.1476		16.8	20.0	-16.0	50.0
Dibromochloromethane	Ave	0.4405	0.3864		8.77	10.0	-12.3	35.0
n-Butyl acetate	Qua		0.1983		4.52	10.0	-54.9*	35.0
1,2-Dibromoethane	Ave	0.3559	0.3027		8.51	10.0	-14.9	35.0
Tetrachloroethene	Ave	0.4860	0.4214		8.67	10.0	-13.3	35.0
1-Chlorohexane	Ave	0.6483	0.5897		9.10	10.0	-9.0	35.0
1,1,1,2-Tetrachloroethane	Ave	0.5743	0.4906		8.54	10.0	-14.6	35.0
Chlorobenzene	Ave	1.897	1.552	0.3000	8.18	10.0	-18.2	35.0
Ethylbenzene	Ave	1.034	1.013		9.80	10.0	-2.0	20.0
m-Xylene & p-Xylene	Ave	2.551	2.256		8.84	10.0	-11.6	35.0
Bromoform	Ave	0.2092	0.2325	0.1000	11.1	10.0	11.2	35.0
Styrene	Ave	2.075	1.601		7.72	10.0	-22.8	35.0
o-Xylene	Ave	1.303	1.033		7.93	10.0	-20.7	35.0
1,1,2,2-Tetrachloroethane	Ave	0.4332	0.3343	0.3000	7.72	10.0	-22.8	35.0
1,2,3-Trichloropropane	Ave	0.1132	0.1298		11.5	10.0	14.7	35.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188556/2 Calibration Date: 05/16/2016 10:12

Instrument ID: CHVOAMS01 Calib Start Date: 01/22/2016 11:43

GC Column: DB-VRX 60 ID: 0.25(mm) Calib End Date: 01/22/2016 16:06

Lab File ID: C13701A.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
trans-1,4-Dichloro-2-butene	Ave	0.0855	0.0790		9.24	10.0	-7.6	50.0
Isopropylbenzene	Ave	3.113	3.547		11.4	10.0	14.0	35.0
Bromobenzene	Ave	0.7125	0.7722		10.8	10.0	8.4	35.0
N-Propylbenzene	Ave	0.9306	0.9648		10.4	10.0	3.7	35.0
2-Chlorotoluene	Ave	0.8053	0.8354		10.4	10.0	3.7	35.0
4-Chlorotoluene	Ave	2.468	2.914		11.8	10.0	18.1	35.0
1,3,5-Trimethylbenzene	Ave	2.811	3.043		10.8	10.0	8.3	35.0
tert-Butylbenzene	Ave	2.373	2.431		10.2	10.0	2.4	35.0
1,2,4-Trimethylbenzene	Ave	2.932	3.149		10.7	10.0	7.4	35.0
sec-Butylbenzene	Ave	3.585	3.683		10.3	10.0	2.7	35.0
Benzyl chloride	Ave	0.9482	0.7909		8.34	10.0	-16.6	35.0
1,3-Dichlorobenzene	Ave	1.460	1.522		10.4	10.0	4.3	35.0
1,4-Dichlorobenzene	Ave	1.444	1.539		10.7	10.0	6.5	35.0
4-Isopropyltoluene	Ave	3.086	3.165		10.3	10.0	2.6	35.0
1,2,3-Trimethylbenzene	Ave	3.162	3.194		10.1	10.0	1.0	35.0
1,2-Dichlorobenzene	Ave	1.245	1.246		10.0	10.0	0.0	35.0
n-Butylbenzene	Ave	2.876	3.025		10.5	10.0	5.2	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.0626	0.0492		7.85	10.0	-21.5	35.0
1,3,5-Trichlorobenzene	Ave	1.049	0.8424		8.03	10.0	-19.7	35.0
1,2,4-Trichlorobenzene	Ave	0.6177	0.4448		7.20	10.0	-28.0	35.0
Naphthalene	Ave	0.8353	0.8292		9.93	10.0	-0.7	35.0
Hexachlorobutadiene	Ave	0.1643	0.1067		6.49	10.0	-35.1*	35.0
1,2,3-Trichlorobenzene	Ave	0.3387	0.1810		5.34	10.0	-46.6*	35.0
Dibromofluoromethane	Ave	0.2804	0.2563		9.14	10.0	-8.6	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2351	0.2593		11.0	10.0	10.3	35.0
Toluene-d8 (Surr)	Ave	2.386	2.029		8.50	10.0	-15.0	35.0
4-Bromofluorobenzene	Lin2		1.104		11.7	10.0	16.6	35.0

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13701A.D
Lims ID: ccvis
Client ID:
Sample Type: CCVIS
Inject. Date: 16-May-2016 10:12:30 ALS Bottle#: 1 Worklist Smp#: 2
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 600-0012076-002
Operator ID: yx Instrument ID: CHVOAMS01
Sublist: chrom-8260W20_1*sub24

Method: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 17-May-2016 10:00:23 Calib Date: 07-May-2016 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160507-11966.b\C12711.D

Column 1 : Det: MS SCAN
Process Host: XAWRK033

First Level Reviewer: xiey Date: 17-May-2016 10:00:22

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.417	8.417	0.000	98	337064	12.5	12.5	
2 Dichlorodifluoromethane	85	3.898	3.898	0.000	100	43006	10.0	7.73	
3 Chloromethane	50	4.128	4.128	0.000	100	88539	10.0	12.3	
4 Vinyl chloride	62	4.348	4.348	0.000	99	56416	10.0	11.2	
5 Butadiene	39	4.473	4.473	0.000	91	53057	10.0	11.3	
6 Bromomethane	94	4.787	4.787	0.000	92	69207	10.0	13.1	
9 Chloroethane	64	4.934	4.934	0.000	100	48746	10.0	8.61	
11 Dichlorofluoromethane	67	4.970	4.970	0.000	98	175438	10.0	12.6	
10 Ethanol	45		5.134				ND	ND	
14 Acrolein	56	5.462	5.462	0.000	98	18263	50.0	42.7	
15 Acetonitrile	41	5.472	5.472	0.000	91	39496	100.0	90.0	
16 Trichlorofluoromethane	101	5.472	5.472	0.000	99	155773	10.0	14.3	
17 Isopropyl alcohol	45	5.509	5.509	0.000	98	17150	100.0	94.9	
18 Acetone	43	5.572	5.572	0.000	99	17684	20.0	20.1	
19 Ethyl ether	59	5.661	5.661	0.000	90	36072	10.0	8.06	
21 2-Methyl-2-propanol	59	5.938	5.938	0.000	92	33217	100.0	105.4	
22 1,1-Dichloroethene	96	5.943	5.943	0.000	96	71238	10.0	9.71	
23 Acrylonitrile	52	5.974	5.974	0.000	98	85209	100.0	90.3	
24 Iodomethane	142	5.990	5.990	0.000	98	112729	10.0	11.0	
25 Methylene Chloride	84	6.058	6.058	0.000	91	78386	10.0	8.47	
26 Methyl acetate	43	6.074	6.074	0.000	98	122953	50.0	45.8	
27 1,1,2-Trichloro-1,2,2-trif	151	6.089	6.089	0.000	94	48187	10.0	8.41	
28 3-Chloro-1-propene	76	6.131	6.131	0.000	89	32927	10.0	7.41	
29 Carbon disulfide	76	6.288	6.288	0.000	99	208104	10.0	8.34	
30 trans-1,2-Dichloroethene	96	6.602	6.602	0.000	97	73484	10.0	8.95	
31 Methyl tert-butyl ether	73	6.670	6.670	0.000	94	137725	10.0	9.00	
32 Propionitrile	54	6.790	6.790	0.000	98	44958	100.0	94.9	
33 1,1-Dichloroethane	63	6.796	6.796	0.000	97	136642	10.0	9.56	
34 Vinyl acetate	43	6.858	6.858	0.000	97	153520	20.0	19.5	
36 2-Chloro-1,3-butadiene	53	7.078	7.078	0.000	93	125824	10.0	10.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Hexane	57	7.088	7.088	0.000	90	101900	10.0	8.86	
38 Isopropyl ether	45	7.099	7.099	0.000	94	217842	10.0	9.67	
39 2-Butanone (MEK)	72	7.109	7.109	0.000	91	8162	20.0	19.7	
40 Methacrylonitrile	66	7.183	7.183	0.000	91	48694	100.0	83.9	
41 cis-1,2-Dichloroethene	96	7.235	7.235	0.000	82	78664	10.0	8.61	
42 Ethyl acetate	43	7.329	7.329	0.000	99	23270	20.0	9.88	
44 Chlorobromomethane	128	7.366	7.366	0.000	97	26797	10.0	8.08	
45 Chloroform	83	7.392	7.392	0.000	93	143401	10.0	10.5	
46 Tert-butyl ethyl ether	59	7.402	7.402	0.000	96	197361	10.0	9.62	
48 Isobutyl alcohol	43	7.428	7.428	0.000	95	29957	250.0	140.6	
49 2,2-Dichloropropane	77	7.455	7.455	0.000	86	133117	10.0	10.6	
$ 51 Dibromofluoromethane	113	7.486	7.486	0.000	92	69113	10.0	9.14	
S 47 1,2-Dichloroethene, Total	96				0		20.0	17.6	
53 Tetrahydrofuran	42	7.643	7.643	0.000	85	15139	20.0	15.7	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.831	7.831	0.000	0	69928	10.0	11.0	
57 1,2-Dichloroethane	62	7.889	7.889	0.000	99	76696	10.0	10.7	
58 1,1,1-Trichloroethane	97	7.967	7.967	0.000	97	133339	10.0	11.1	
59 n-Butanol	56	7.983	7.983	0.000	89	18605	250.0	185.7	
61 1,1-Dichloropropene	75	8.098	8.098	0.000	97	114978	10.0	9.72	
62 Cyclohexane	84	8.192	8.192	0.000	89	112466	10.0	8.23	
63 Carbon tetrachloride	119	8.250	8.250	0.000	98	103903	10.0	10.7	
64 Benzene	78	8.270	8.270	0.000	96	316368	10.0	9.07	
66 Tert-amyl methyl ether	73	8.349	8.349	0.000	99	164447	10.0	8.82	
67 Isooctane	57	8.558	8.558	0.000	97	242655	10.0	8.67	
68 Ethyl acrylate	55	8.610	8.610	0.000	97	59020	10.0	8.20	
69 n-Heptane	43	8.621	8.621	0.000	90	102065	10.0	9.34	
70 Dibromomethane	93	8.710	8.710	0.000	86	30788	10.0	8.92	
71 1,2-Dichloropropane	63	8.720	8.720	0.000	91	81385	10.0	10.2	
72 2-Nitropropane	43	8.731	8.731	0.000	91	21385	20.0	18.8	
73 Trichloroethene	130	8.746	8.746	0.000	96	79402	10.0	8.76	
74 Dichlorobromomethane	83	8.793	8.793	0.000	99	105773	10.0	10.4	
75 Methyl methacrylate	41	8.841	8.841	0.000	90	70907	20.0	17.7	
76 1,4-Dioxane	58	8.867	8.867	0.000	92	5331	200.0	206.9	
78 Methylcyclohexane	83	9.170	9.170	0.000	89	136158	10.0	8.51	
79 4-Methyl-2-pentanone (MIBK	43	9.348	9.348	0.000	96	64740	20.0	18.7	
* 80 Chlorobenzene-d5	82	11.351	11.351	0.000	90	184395	12.5	12.5	
84 2-Chloroethyl vinyl ether	63	9.071	9.071	0.000	92	23249	20.0	8.85	
85 cis-1,3-Dichloropropene	75	9.285	9.285	0.000	95	114456	10.0	8.72	
88 trans-1,3-Dichloropropene	75	9.641	9.641	0.000	93	89344	10.0	8.79	
89 1,1,2-Trichloroethane	97	9.798	9.798	0.000	93	45884	10.0	8.41	
$ 90 Toluene-d8 (Surr)	98	9.902	9.902	0.000	93	299302	10.0	8.50	
92 Ethyl methacrylate	69	9.955	9.955	0.000	94	54380	10.0	8.05	
93 Toluene	92	9.965	9.965	0.000	99	234946	10.0	9.88	
94 1,3-Dichloropropane	76	10.012	10.012	0.000	92	88116	10.0	8.79	
95 2-Hexanone	43	10.106	10.106	0.000	96	43554	20.0	16.8	
97 Chlorodibromomethane	129	10.305	10.305	0.000	90	57001	10.0	8.77	
98 n-Butyl acetate	43	10.378	10.378	0.000	98	29251	10.0	4.51	
99 Ethylene Dibromide	107	10.551	10.551	0.000	99	44657	10.0	8.51	
101 Tetrachloroethene	164	10.697	10.697	0.000	95	62165	10.0	8.67	
S 100 Xylenes, Total	106				0		20.0	16.8	
102 1-Chlorohexane	55	11.252	11.252	0.000	97	86995	10.0	9.10	
103 1,1,1,2-Tetrachloroethane	131	11.304	11.304	0.000	91	72373	10.0	8.54	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Chlorobenzene	112	11.388	11.388	0.000	92	228984	10.0	8.18	
105 Ethylbenzene	106	11.565	11.565	0.000	99	149484	10.0	9.80	
106 m-Xylene & p-Xylene	91	11.759	11.759	0.000	0	332773	10.0	8.84	
107 Styrene	104	12.125	12.125	0.000	94	236156	10.0	7.72	
109 o-Xylene	106	12.198	12.198	0.000	99	152330	10.0	7.93	
108 1,1,2,2-Tetrachloroethane	83	12.203	12.203	0.000	96	49314	10.0	7.72	
* 110 1,4-Dichlorobenzene-d4	152	13.971	13.971	0.000	97	145814	12.5	12.5	
115 Bromoform	173	11.947	11.947	0.000	94	27126	10.0	11.1	
117 1,2,3-Trichloropropane	110	12.360	12.360	0.000	86	15146	10.0	11.5	
116 trans-1,4-Dichloro-2-buten	53	12.360	12.360	0.000	69	9219	10.0	9.24	
118 Isopropylbenzene	105	12.591	12.591	0.000	96	413768	10.0	11.4	
$ 119 4-Bromofluorobenzene	95	12.653	12.653	0.000	84	128804	10.0	11.7	
120 Bromobenzene	156	12.899	12.899	0.000	96	90081	10.0	10.8	
121 N-Propylbenzene	120	13.056	13.056	0.000	99	112539	10.0	10.4	
122 2-Chlorotoluene	126	13.176	13.176	0.000	95	97450	10.0	10.4	
123 4-Chlorotoluene	91	13.250	13.250	0.000	99	339882	10.0	11.8	
124 1,3,5-Trimethylbenzene	105	13.333	13.333	0.000	94	355025	10.0	10.8	
126 tert-Butylbenzene	119	13.631	13.631	0.000	92	283540	10.0	10.2	
128 1,2,4-Trimethylbenzene	105	13.731	13.731	0.000	98	367309	10.0	10.7	
130 sec-Butylbenzene	105	13.846	13.846	0.000	95	429677	10.0	10.3	
131 Benzyl chloride	91	13.929	13.929	0.000	98	92263	10.0	8.34	
132 1,3-Dichlorobenzene	146	13.935	13.935	0.000	96	177522	10.0	10.4	
133 1,4-Dichlorobenzene	146	13.997	13.997	0.000	92	179482	10.0	10.7	
134 4-Isopropyltoluene	119	14.008	14.008	0.000	97	369258	10.0	10.3	
135 1,2,3-Trimethylbenzene	105	14.149	14.149	0.000	99	372558	10.0	10.1	
137 1,2-Dichlorobenzene	146	14.348	14.348	0.000	95	145294	10.0	10.0	
138 n-Butylbenzene	91	14.405	14.405	0.000	98	352887	10.0	10.5	
139 1,2-Dibromo-3-Chloropropan	157	14.819	14.819	0.000	80	5735	10.0	7.85	
140 1,3,5-Trichlorobenzene	180	15.655	15.655	0.000	96	98269	10.0	8.03	
141 1,2,4-Trichlorobenzene	180	16.246	16.246	0.000	94	51881	10.0	7.20	
142 Naphthalene	128	16.539	16.539	0.000	97	96732	10.0	9.93	
143 Hexachlorobutadiene	190	16.576	16.576	0.000	95	12445	10.0	6.49	
144 1,2,3-Trichlorobenzene	180	16.775	16.775	0.000	94	21113	10.0	5.34	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

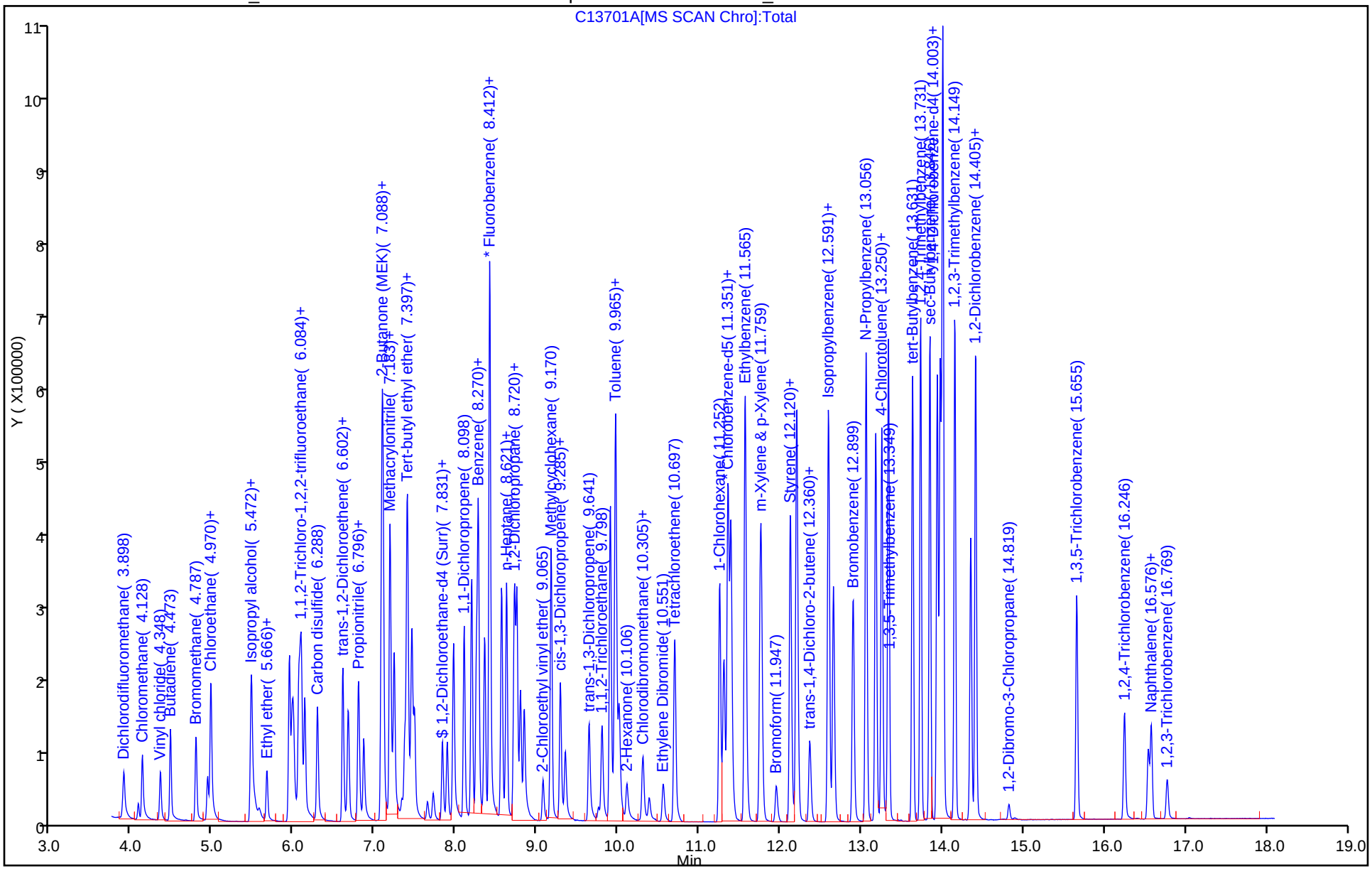
VOAIS50PPM_00172	Amount Added:	5.00	Units: uL
VOASTDGASPT_00167	Amount Added:	4.00	Units: uL
VOASTDst_00031	Amount Added:	4.00	Units: uL

Report Date: 17-May-2016 10:00:24 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13701A.D

Injection Date:	16-May-2016 10:12:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	ccvis			Worklist Smp#:	2
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File:	\\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02200A.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	22-Jan-2016 11:16:30	ALS Bottle#:	52	Worklist Smp#:	1
Injection Vol:	20.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	600-0010400-001				
Operator ID:	yx	Instrument ID:	CHVOAMS01		
Method:	\\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\8260W20_1.m				
Limit Group:	VOA - 8260B_8260BLL				
Last Update:	22-Jan-2016 16:40:14	Calib Date:	22-Jan-2016 16:06:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02207.D				
Column 1 :			Det: MS SCAN		
Process Host:	XAWRK028				
First Level Reviewer: shenw		Date:	22-Jan-2016 11:44:14		

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 170 BFB	95	5.649	5.649	0.000	0	214061	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

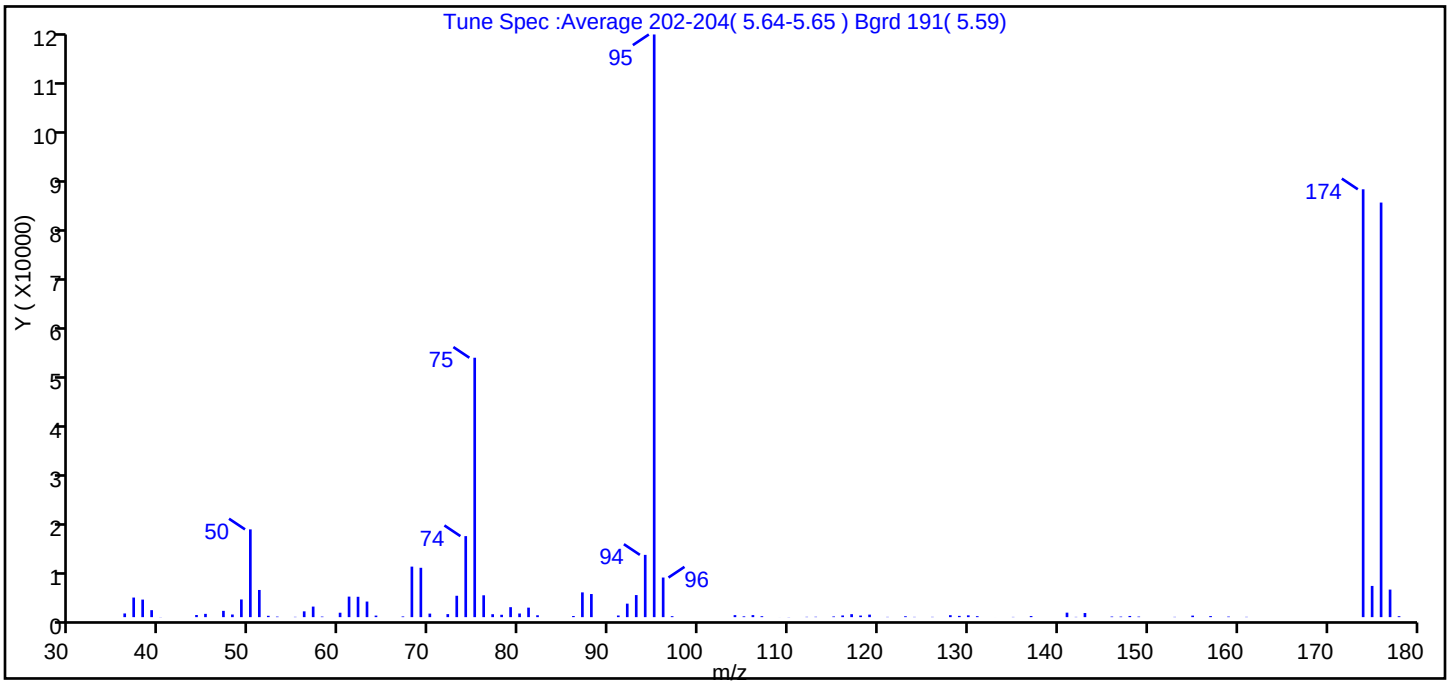
BFB_00196 Amount Added: 2.00 Units: uL

MS Tune Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02200A.D
Injection Date: 22-Jan-2016 11:16:30 Instrument ID: CHVOAMS01
Lims ID: BFB
Client ID:
Operator ID: yx ALS Bottle#: 52 Worklist Smp#: 1
Injection Vol: 20.0 mL Dil. Factor: 1.0000
Method: 8260W20_1 Limit Group: VOA - 8260B_8260BLL
Tune Method: BFB Method 8260

$ 170 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.1
75	30 to 60% of m/z 95	44.5
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	73.4
175	5 to 9% of m/z 174	5.4 (7.3)
176	Greater than 95% but less than 101% of m/z 174	71.2 (96.9)
177	5 to 9% of m/z 176	4.7 (6.6)

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02200A.D\8260W20_1.rslt\spectra.d
Injection Date: 22-Jan-2016 11:16:30
Spectrum: Tune Spec :Average 202-204(5.64-5.65) Bgrd 191(5.59)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 89

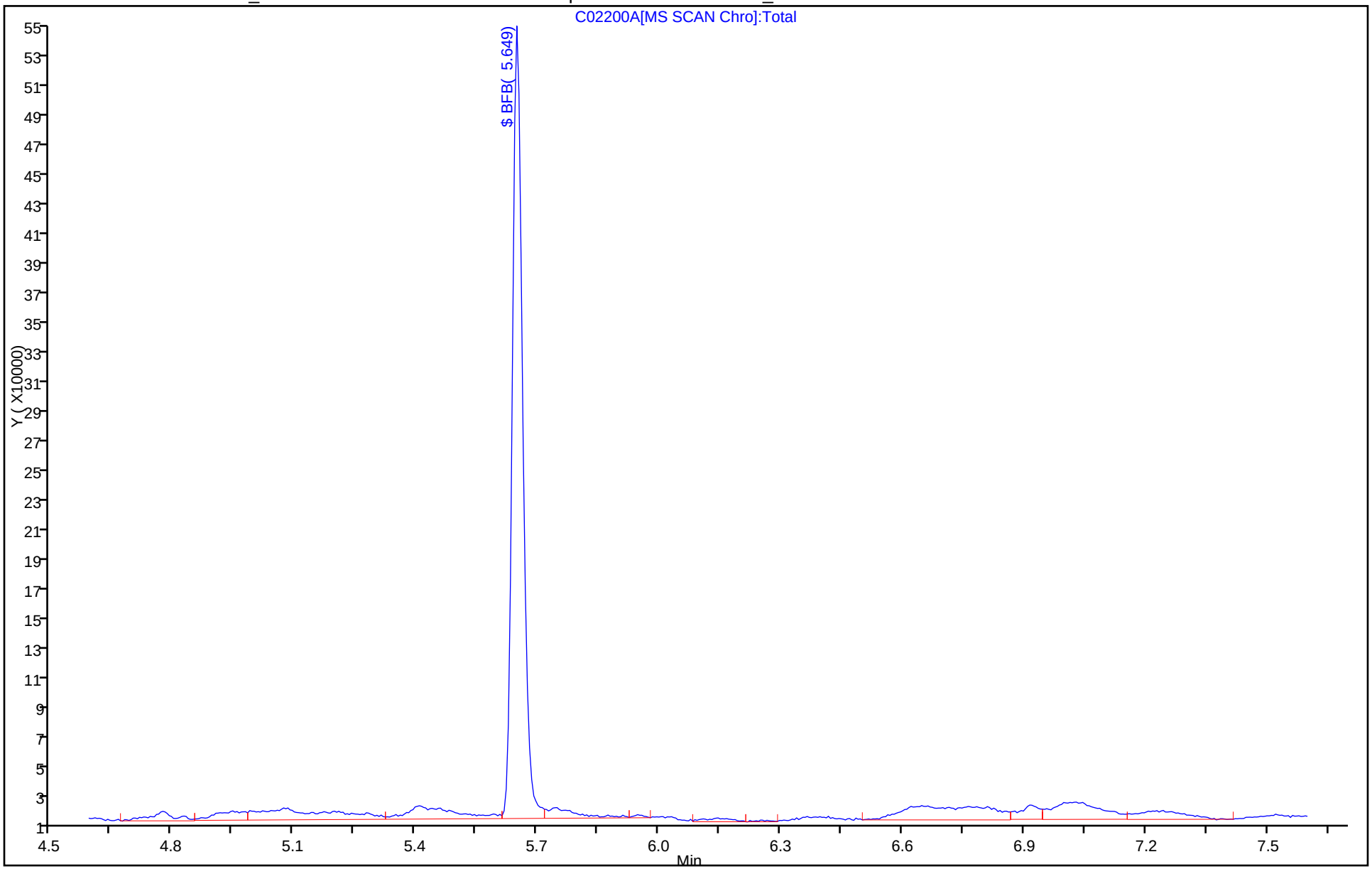
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	713	67.00	137	96.00	7662	133.00	2
37.00	3788	68.00	9772	97.00	185	135.00	46
38.00	3396	69.00	9546	104.00	389	137.00	212
39.00	1352	70.00	685	105.00	156	141.00	867
40.00	27	72.00	585	106.00	396	142.00	51
44.00	412	73.00	4135	107.00	180	143.00	797
45.00	635	74.00	15674	109.00	5	146.00	114
47.00	1217	75.00	50176	110.00	27	147.00	105
48.00	511	76.00	4226	112.00	61	148.00	227
49.00	3421	77.00	569	113.00	72	149.00	108
50.00	16976	78.00	459	115.00	134	153.00	53
51.00	5255	79.00	1930	116.00	325	155.00	295
52.00	260	80.00	703	117.00	577	157.00	205
53.00	104	81.00	1839	118.00	308	159.00	107
55.00	58	82.00	361	119.00	485	161.00	56
56.00	1122	86.00	217	121.00	50	174.00	82760
57.00	2042	87.00	4790	123.00	173	175.00	6038
58.00	107	88.00	4472	124.00	50	176.00	80192
60.00	856	91.00	316	126.00	55	177.00	5331
61.00	3972	92.00	2611	128.00	377	178.00	180
62.00	3938	93.00	4270	129.00	245		
63.00	3015	94.00	12045	130.00	348		
64.00	300	95.00	112704	131.00	189		

Report Date: 22-Jan-2016 16:40:15 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHVOAMS01\20160122-10400.b\C02200A.D

Injection Date:	22-Jan-2016 11:16:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	20.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	52
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13700.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 16-May-2016 09:01:30 ALS Bottle#: 52 Worklist Smp#: 1
Injection Vol: 20.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 600-0012076-001
Operator ID: yx Instrument ID: CHVOAMS01

Method: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 16-May-2016 14:25:30 Calib Date: 07-May-2016 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160507-11966.b\C12711.D

Column 1 : Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: xiey Date: 16-May-2016 09:28:01

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 170 BFB	95	5.655	5.655	0.000	0	111931	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

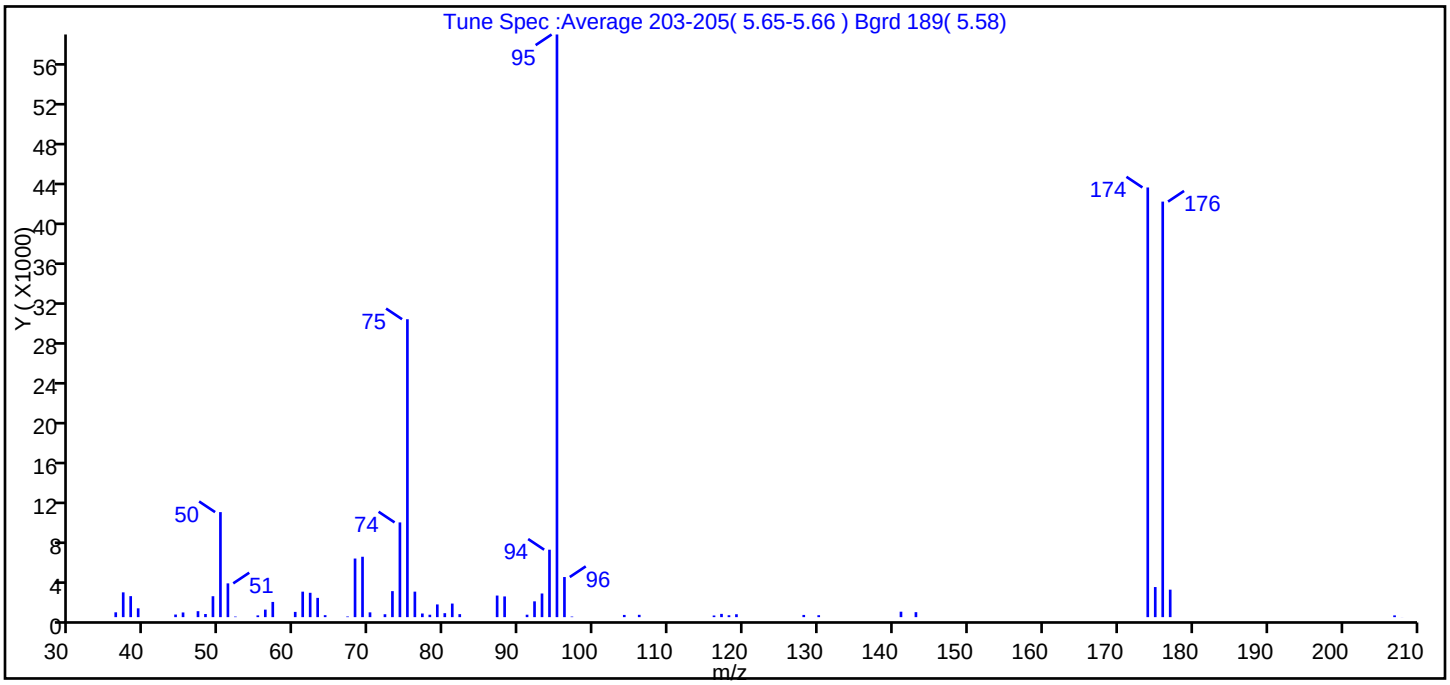
BFB_00204 Amount Added: 2.00 Units: uL

MS Tune Report

TestAmerica Houston

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13700.D
Injection Date: 16-May-2016 09:01:30 Instrument ID: CHVOAMS01
Lims ID: BFB
Client ID:
Operator ID: yx ALS Bottle#: 52 Worklist Smp#: 1
Injection Vol: 20.0 mL Dil. Factor: 1.0000
Method: 8260W20_1 Limit Group: VOA - 8260B_8260BLL
Tune Method: BFB Method 8260

$ 170 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.0
75	30 to 60% of m/z 95	51.1
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	73.7
175	5 to 9% of m/z 174	5.2 (7.0)
176	Greater than 95% but less than 101% of m/z 174	71.3 (96.7)
177	5 to 9% of m/z 176	4.7 (6.6)

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13700.D\8260W20_1.rslt\spectra.c
Injection Date: 16-May-2016 09:01:30
Spectrum: Tune Spec :Average 203-205(5.65-5.66) Bgrd 189(5.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 60

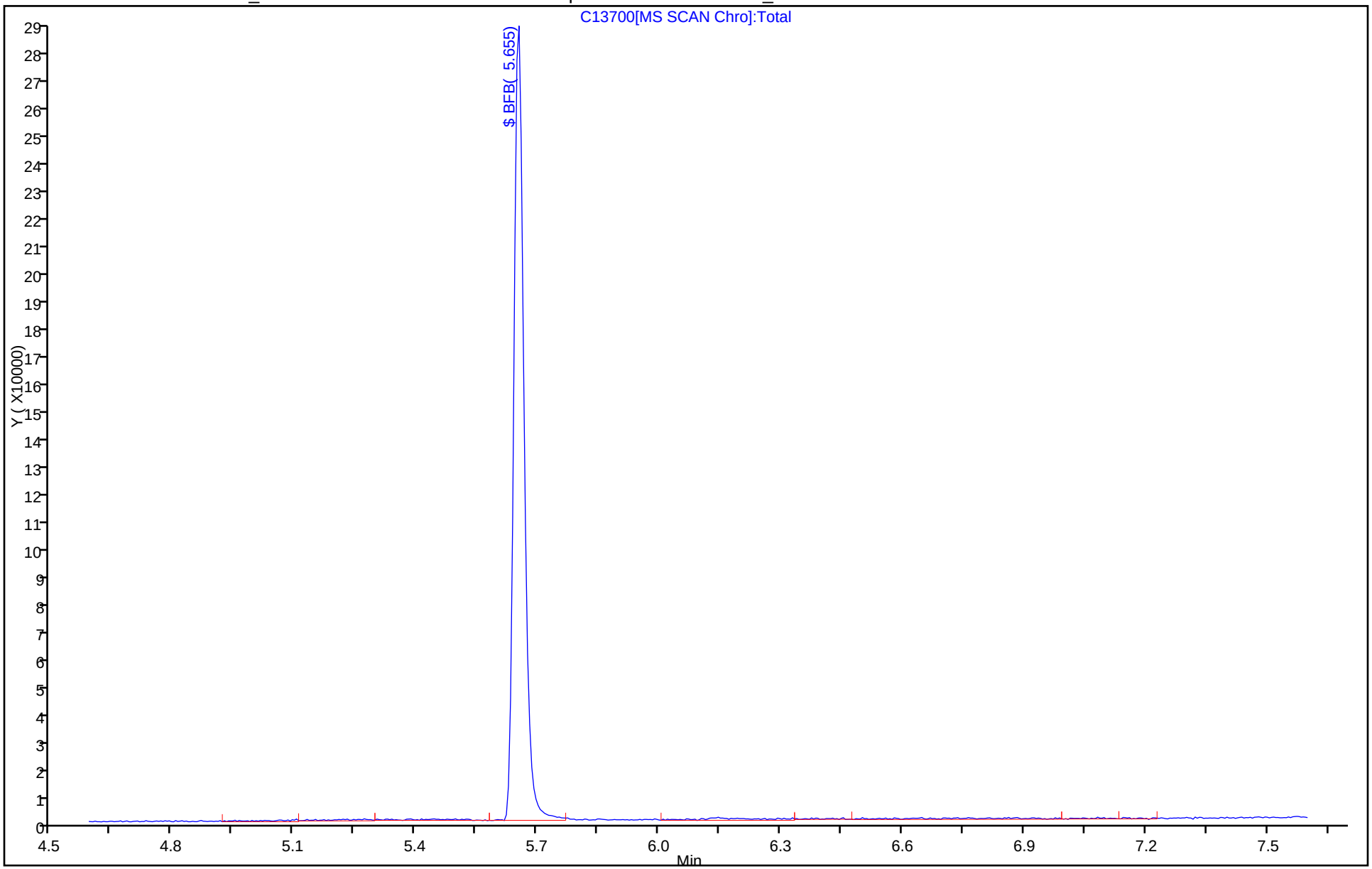
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	485	60.00	526	78.00	242	106.00	233
37.00	2484	61.00	2554	79.00	1274	116.00	165
38.00	2104	62.00	2440	80.00	397	117.00	327
39.00	884	63.00	1931	81.00	1361	118.00	191
44.00	261	64.00	197	82.00	301	119.00	291
45.00	470	67.00	66	87.00	2163	128.00	222
47.00	598	68.00	5872	88.00	2075	130.00	193
48.00	313	69.00	6050	91.00	245	141.00	546
49.00	2096	70.00	481	92.00	1582	143.00	500
50.00	10522	72.00	291	93.00	2369	174.00	43048
51.00	3384	73.00	2606	94.00	6757	175.00	3015
52.00	57	74.00	9491	95.00	58376	176.00	41632
55.00	176	75.00	29848	96.00	4019	177.00	2754
56.00	754	76.00	2555	97.00	57	207.00	176
57.00	1524	77.00	365	104.00	222	208.00	6

Report Date: 16-May-2016 14:25:32 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13700.D

Injection Date:	16-May-2016 09:01:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	20.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	52
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 600-188556/6

Matrix: Water Lab File ID: C13705.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/16/2016 11:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188556 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.000176	U	0.00100	0.000176
108-88-3	Toluene	0.000198	U	0.00100	0.000198
100-41-4	Ethylbenzene	0.000212	U	0.00100	0.000212
179601-23-1	m-Xylene & p-Xylene	0.000205	U	0.00100	0.000205
1330-20-7	Xylenes, Total	0.000366	U	0.00200	0.000366
95-47-6	o-Xylene	0.000192	U	0.00100	0.000192

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		50-134
1868-53-7	Dibromofluoromethane	85		62-130
2037-26-5	Toluene-d8 (Surr)	80		70-130
460-00-4	4-Bromofluorobenzene	121		67-139

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13705.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 16-May-2016 11:54:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 600-0012076-006
Operator ID: yx Instrument ID: CHVOAMS01

Method: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 16-May-2016 14:25:38 Calib Date: 07-May-2016 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160507-11966.b\C12711.D

Column 1 : Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: xiey Date: 16-May-2016 12:29:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.417	8.417	0.000	98	347779	12.5	12.5	
2 Dichlorodifluoromethane	85		3.898					ND	
3 Chloromethane	50		4.128					ND	
4 Vinyl chloride	62		4.348					ND	
5 Butadiene	39		4.473					ND	
6 Bromomethane	94		4.787					ND	
9 Chloroethane	64		4.934					ND	
11 Dichlorofluoromethane	67		4.970					ND	
7 Ethylene oxide	44	4.929	4.971	-0.042	27	561		NC	
8 Vinyl bromide	106		5.078					ND	
10 Ethanol	45		5.134					ND	
14 Acrolein	56		5.462					ND	
15 Acetonitrile	41		5.472					ND	
16 Trichlorofluoromethane	101		5.472					ND	
12 Acetaldehyde	44		5.482					ND	
17 Isopropyl alcohol	45		5.509					ND	
13 Pentane	43		5.548					ND	
18 Acetone	43		5.572					ND	
19 Ethyl ether	59		5.661					ND	
20 Propene oxide	58		5.863					ND	
21 2-Methyl-2-propanol	59		5.938					ND	
22 1,1-Dichloroethene	96		5.943					ND	
23 Acrylonitrile	52		5.974					ND	
24 Iodomethane	142		5.990					ND	
25 Methylene Chloride	84	6.064	6.058	0.006	91	6301		-0.7789	
26 Methyl acetate	43		6.074					ND	
27 1,1,2-Trichloro-1,2,2-trif	151		6.089					ND	
28 3-Chloro-1-propene	76		6.131					ND	
29 Carbon disulfide	76		6.288					ND	
30 trans-1,2-Dichloroethene	96		6.602					ND	
31 Methyl tert-butyl ether	73		6.670					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Propionitrile	54		6.790					ND	
33 1,1-Dichloroethane	63		6.796					ND	
34 Vinyl acetate	43		6.858					ND	
36 2-Chloro-1,3-butadiene	53		7.078					ND	
37 Hexane	57		7.088					ND	
38 Isopropyl ether	45		7.099					ND	
39 2-Butanone (MEK)	72		7.109					ND	
35 Isopropyl acetate	43		7.168					ND	
40 Methacrylonitrile	66		7.183					ND	
41 cis-1,2-Dichloroethene	96		7.235					ND	
42 Ethyl acetate	43		7.329					ND	
44 Chlorobromomethane	128		7.366					ND	
45 Chloroform	83		7.392					ND	
46 Tert-butyl ethyl ether	59		7.402					ND	
48 Isobutyl alcohol	43		7.428					ND	
49 2,2-Dichloropropane	77		7.455					ND	
43 1,1 Dichloropropane	77		7.460					ND	
$ 51 Dibromofluoromethane	113	7.491	7.486	0.005	92	83336	12.5		10.7
S 47 1,2-Dichloroethene, Total	96		7.590					ND	
53 Tetrahydrofuran	42		7.643					ND	
50 Methyl acrylate	55		7.644					ND	
52 Epichlorohydrin TIC	57		7.714					ND	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.831	7.831	0.000	0	84728	12.5		13.0
54 trans-1,2-dibromoethene	186		7.874					ND	
57 1,2-Dichloroethane	62		7.889					ND	
55 2-Pentanone	43		7.895					ND	
58 1,1,1-Trichloroethane	97		7.967					ND	
59 n-Butanol	56		7.983					ND	
61 1,1-Dichloropropene	75		8.098					ND	
62 Cyclohexane	84		8.192					ND	
60 n-Propyl acetate	43		8.193					ND	
63 Carbon tetrachloride	119		8.250					ND	
64 Benzene	78		8.270					ND	
65 2-Methyltetrahydrofuran	71		8.287					ND	
66 Tert-amyl methyl ether	73		8.349					ND	
67 Isooctane	57		8.558					ND	
68 Ethyl acrylate	55		8.610					ND	
69 n-Heptane	43		8.621					ND	
70 Dibromomethane	93		8.710					ND	
71 1,2-Dichloropropane	63		8.720					ND	
72 2-Nitropropane	43		8.731					ND	
73 Trichloroethene	130		8.746					ND	
74 Dichlorobromomethane	83		8.793					ND	
75 Methyl methacrylate	41		8.841					ND	
76 1,4-Dioxane	58		8.867					ND	
77 Tetrahydropyran	41		8.878					ND	
78 Methylcyclohexane	83		9.170					ND	
79 4-Methyl-2-pentanone (MIBK	43		9.348					ND	
* 80 Chlorobenzene-d5	82	11.356	11.351	0.005	92	182619	12.5		12.5
81 1-Bromo-2-chloroethane	63		8.136					ND	
82 cis-1,2-dibromoethene	186		8.744					ND	
S 83 1,2-Dibromoethene	186		8.880					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
84 2-Chloroethyl vinyl ether	63		9.071					ND	
85 cis-1,3-Dichloropropene	75		9.285					ND	
86 2-Methyltetrahydropyran	85		9.495					ND	
88 trans-1,3-Dichloropropene	75		9.641					ND	
89 1,1,2-Trichloroethane	97		9.798					ND	
S 87 2,3-dichlorobutane	63		9.800					ND	
91 trans 2,3-dichlorobutane	63		9.840					ND	
$ 90 Toluene-d8 (Surr)	98	9.903	9.902	0.000	93	348097	12.5	9.99	
92 Ethyl methacrylate	69		9.955					ND	
93 Toluene	92		9.965					ND	
94 1,3-Dichloropropane	76		10.012					ND	
95 2-Hexanone	43		10.106					ND	
96 cis 2,3-dichlorobutane	63		10.117					ND	
97 Chlorodibromomethane	129		10.305					ND	
98 n-Butyl acetate	43		10.378					ND	
99 Ethylene Dibromide	107		10.551					ND	
101 Tetrachloroethene	164		10.697					ND	
S 100 Xylenes, Total	106		10.900					ND	
102 1-Chlorohexane	55		11.252					ND	
103 1,1,1,2-Tetrachloroethane	131		11.304					ND	
104 Chlorobenzene	112		11.388					ND	
105 Ethylbenzene	106		11.565					ND	
106 m-Xylene & p-Xylene	91		11.759					ND	
107 Styrene	104		12.125					ND	
109 o-Xylene	106		12.198					ND	
108 1,1,2,2-Tetrachloroethane	83		12.203					ND	
* 110 1,4-Dichlorobenzene-d4	152	13.977	13.971	0.006	98	153901	12.5	12.5	
112 n-Butyl acrylate	55		10.672					ND	
113 cis-1,4-Dichloro-2-butene	53		11.516					ND	
115 Bromoform	173		11.947					ND	
114 Butyl Methacrylate	69		12.157					ND	
117 1,2,3-Trichloropropane	110		12.360					ND	
116 trans-1,4-Dichloro-2-buten	53		12.360					ND	
118 Isopropylbenzene	105		12.591					ND	
$ 119 4-Bromofluorobenzene	95	12.659	12.653	0.006	85	175447	12.5	15.1	
120 Bromobenzene	156		12.899					ND	
121 N-Propylbenzene	120		13.056					ND	
122 2-Chlorotoluene	126		13.176					ND	
123 4-Chlorotoluene	91		13.250					ND	
124 1,3,5-Trimethylbenzene	105		13.333					ND	
111 Alpha Methyl Styrene	118		13.451					ND	
127 2-Ethyl-2-hexenal	55		13.621					ND	
126 tert-Butylbenzene	119	13.637	13.631	0.006	88	1969		0.0674	
125 Pentachloroethane	167		13.716					ND	
128 1,2,4-Trimethylbenzene	105		13.731					ND	
129 2-Ethyl-1-Hexanol	57		13.736					ND	
130 sec-Butylbenzene	105		13.846					ND	
131 Benzyl chloride	91	13.935	13.929	0.006	73	846		0.0725	
132 1,3-Dichlorobenzene	146		13.935					ND	
133 1,4-Dichlorobenzene	146		13.997					ND	
134 4-Isopropyltoluene	119	14.013	14.008	0.005	93	2522		0.0664	
135 1,2,3-Trimethylbenzene	105	14.160	14.149	0.011	91	1572		0.0404	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
137 1,2-Dichlorobenzene	146		14.348					ND	
138 n-Butylbenzene	91		14.405					ND	
T 136 2,6-Dimethyltetrahydropyra	128		14.500					ND	
139 1,2-Dibromo-3-Chloropropan	157		14.819					ND	
140 1,3,5-Trichlorobenzene	180		15.655					ND	
141 1,2,4-Trichlorobenzene	180	16.257	16.246	0.011	90	2382		0.3132	
142 Naphthalene	128	16.555	16.539	0.016	95	6459		0.6280	
143 Hexachlorobutadiene	190	16.571	16.576	-0.005	87	870		0.4300	
144 1,2,3-Trichlorobenzene	180	16.785	16.775	0.010	92	2935		0.7037	
S 145 1,3-Dichloropropene, Total	1		0.000					ND	
S 146 Trihalomethanes, Total	1		0.000					ND	
147 1,3-Dichloro-2-propanol TI	1		0.000					ND	
148 Acetone cyanohydrin TIC	1		0.000					ND	
149 Propargyl alcohol TIC	1		0.000					ND	
150 1-octyloxy-(1-piperidinyl)	1		0.000					ND	
151 Acetaldehyde TIC	1		0.000					ND	
152 4-Methyl-1,3-dioxolane-2-o	1		0.000					ND	
S 153 Total Volatile Organic Com	1		0.000					ND	
154 Pentafluorobenzene	168		0.000					ND	
155 Propene oxide TIC	1		0.000					ND	
156 2-Methyl-1,3-butadiene	1		0.000					ND	
157 Phosgene TIC	1		0.000					ND	
158 2-Methylbutane TIC	1		0.000					ND	
159 Methyl n-amyl ketone	1		0.000					ND	
160 Tetrahydrothiophene	1		0.000					ND	
161 Isobutyl acetate	43		0.000					ND	
162 Diazomethane TIC	1		0.000					ND	
163 Mesityl oxide TIC	1		0.000					ND	
164 Vinyl bromide TIC	1		0.000					ND	
165 Methyl Isocyanate TIC	1		0.000					ND	
166 Styrene oxide TIC	1		0.000					ND	
167 Chloromethyl methyl ether	1		0.000					ND	
168 Cyclohexanol TIC	1		0.000					ND	
169 2-Ethylhexyl acrylate TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

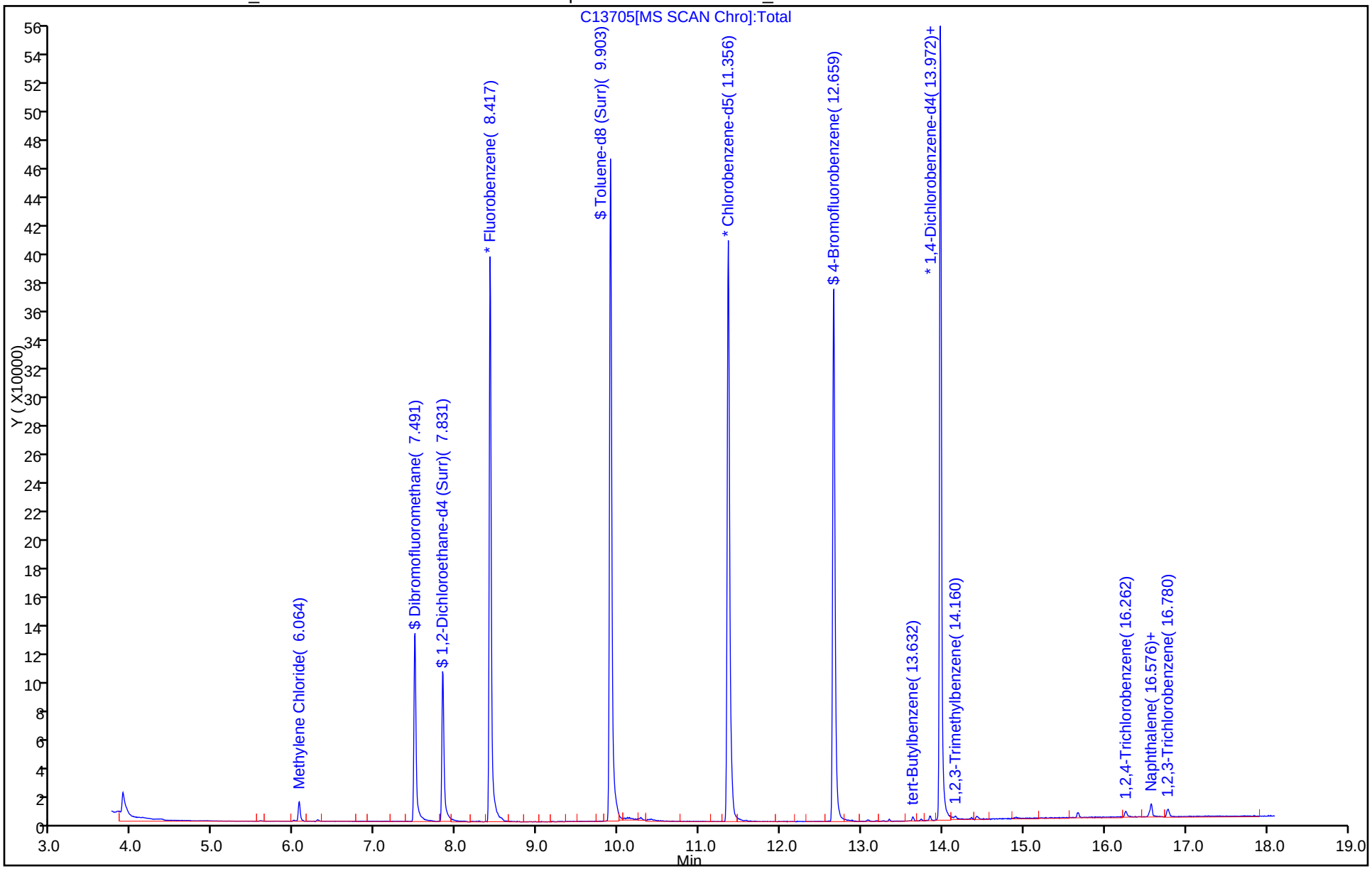
VOASS50PPM_00210	Amount Added:	5.00	Units: uL	Run Reagent
VOAIS50PPM_00172	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 16-May-2016 14:26:54 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13705.D

Injection Date:	16-May-2016 11:54:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 600-188556/3

Matrix: Water Lab File ID: C13702A.D

Analysis Method: 8260B Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/16/2016 12:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188556 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.008452		0.00100	0.000176
108-88-3	Toluene	0.009854		0.00100	0.000198
100-41-4	Ethylbenzene	0.01004		0.00100	0.000212
179601-23-1	m-Xylene & p-Xylene	0.01091		0.00100	0.000205
1330-20-7	Xylenes, Total	0.02069		0.00200	0.000366
95-47-6	o-Xylene	0.009778		0.00100	0.000192

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		50-134
1868-53-7	Dibromofluoromethane	80		62-130
2037-26-5	Toluene-d8 (Surr)	82		70-130
460-00-4	4-Bromofluorobenzene	120		67-139

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13702A.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 16-May-2016 12:20:30 ALS Bottle#: 5 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 600-0012076-003
Operator ID: yx Instrument ID: CHVOAMS01

Method: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 16-May-2016 14:25:38 Calib Date: 07-May-2016 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160507-11966.b\C12711.D

Column 1 : Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: xiey Date: 16-May-2016 13:09:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.419	8.417	0.002	99	348997	12.5	12.5	
2 Dichlorodifluoromethane	85	3.900	3.898	0.002	100	44409	10.0	7.71	
3 Chloromethane	50	4.130	4.128	0.002	99	87428	10.0	11.7	
4 Vinyl chloride	62	4.350	4.348	0.002	99	58743	10.0	11.3	
5 Butadiene	39	4.476	4.473	0.003	91	53915	10.0	11.1	
6 Bromomethane	94	4.789	4.787	0.002	91	57881	10.0	10.6	
9 Chloroethane	64	4.936	4.934	0.002	100	50715	10.0	8.65	
11 Dichlorofluoromethane	67	4.978	4.970	0.008	98	179082	10.0	12.4	
10 Ethanol	45		5.134				ND	ND	
14 Acrolein	56	5.464	5.462	0.002	98	14095	50.0	31.8	
15 Acetonitrile	41	5.475	5.472	0.002	94	32446	100.0	70.5	
16 Trichlorofluoromethane	101	5.475	5.472	0.002	100	164414	10.0	14.6	
17 Isopropyl alcohol	45	5.506	5.509	-0.003	97	19572	100.0	104.9	
18 Acetone	43	5.574	5.572	0.002	98	18443	20.0	20.2	
19 Ethyl ether	59	5.668	5.661	0.007	91	26355	10.0	5.69	
21 2-Methyl-2-propanol	59	5.945	5.938	0.007	48	37032	100.0	113.5	
22 1,1-Dichloroethene	96	5.945	5.943	0.002	96	49491	10.0	6.51	
23 Acrylonitrile	52	5.977	5.974	0.003	99	78658	100.0	80.5	
24 Iodomethane	142	5.992	5.990	0.002	98	100827	10.0	9.54	
25 Methylene Chloride	84	6.060	6.058	0.002	91	63506	10.0	6.29	
26 Methyl acetate	43	6.081	6.074	0.007	97	105986	50.0	38.1	
27 1,1,2-Trichloro-1,2,2-trif	151	6.092	6.089	0.003	94	35754	10.0	6.03	
28 3-Chloro-1-propene	76	6.133	6.131	0.002	90	26445	10.0	5.75	
29 Carbon disulfide	76	6.290	6.288	0.002	99	248997	10.0	9.64	
30 trans-1,2-Dichloroethene	96	6.604	6.602	0.002	97	63659	10.0	7.49	
31 Methyl tert-butyl ether	73	6.672	6.670	0.002	94	124513	10.0	7.86	
32 Propionitrile	54	6.792	6.790	0.002	98	41724	100.0	85.0	
33 1,1-Dichloroethane	63	6.798	6.796	0.002	97	127226	10.0	8.60	
34 Vinyl acetate	43	6.860	6.858	0.002	97	139415	20.0	17.1	
36 2-Chloro-1,3-butadiene	53	7.080	7.078	0.002	93	117223	10.0	9.34	
37 Hexane	57	7.091	7.088	0.003	83	73574	10.0	6.18	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Isopropyl ether	45	7.101	7.099	0.002	90	208884	10.0	8.95	
39 2-Butanone (MEK)	72	7.112	7.109	0.003	93	9732	20.0	22.6	
40 Methacrylonitrile	66	7.185	7.183	0.002	91	50652	100.0	84.3	
41 cis-1,2-Dichloroethene	96	7.237	7.235	0.002	83	76276	10.0	8.07	
42 Ethyl acetate	43	7.331	7.329	0.002	99	23731	20.0	9.73	
44 Chlorobromomethane	128	7.368	7.366	0.002	97	26206	10.0	7.63	
45 Chloroform	83	7.394	7.392	0.002	93	153596	10.0	10.9	
46 Tert-butyl ethyl ether	59	7.404	7.402	0.002	96	190154	10.0	8.95	
48 Isobutyl alcohol	43	7.431	7.428	0.003	90	33932	250.0	153.8	
49 2,2-Dichloropropane	77	7.457	7.455	0.002	86	132789	10.0	10.2	
$ 51 Dibromofluoromethane	113	7.488	7.486	0.002	92	78526	12.5	10.0	
S 47 1,2-Dichloroethene, Total	96				0		20.0	15.6	
53 Tetrahydrofuran	42	7.650	7.643	0.007	84	14903	20.0	14.9	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.833	7.831	0.002	0	85789	12.5	13.1	
57 1,2-Dichloroethane	62	7.891	7.889	0.002	99	85480	10.0	11.5	
58 1,1,1-Trichloroethane	97	7.969	7.967	0.002	97	134267	10.0	10.8	
59 n-Butanol	56	7.985	7.983	0.002	92	20516	250.0	197.8	
61 1,1-Dichloropropene	75	8.100	8.098	0.002	96	110782	10.0	9.04	
62 Cyclohexane	84	8.194	8.192	0.002	89	94707	10.0	6.70	
63 Carbon tetrachloride	119	8.252	8.250	0.002	98	103745	10.0	10.3	
64 Benzene	78	8.273	8.270	0.003	96	305374	10.0	8.45	
66 Tert-amyl methyl ether	73	8.351	8.349	0.002	99	162202	10.0	8.40	
67 Isooctane	57	8.560	8.558	0.002	97	236147	10.0	8.15	
68 Ethyl acrylate	55	8.613	8.610	0.003	96	64633	10.0	8.67	
69 n-Heptane	43	8.623	8.621	0.002	91	99059	10.0	8.75	
70 Dibromomethane	93	8.712	8.710	0.002	87	33763	10.0	9.45	
71 1,2-Dichloropropane	63	8.722	8.720	0.002	90	78842	10.0	9.53	
72 2-Nitropropane	43	8.733	8.731	0.002	89	25278	20.0	21.5	
73 Trichloroethene	130	8.749	8.746	0.003	96	83040	10.0	8.84	
74 Dichlorobromomethane	83	8.796	8.793	0.003	99	122058	10.0	11.5	
75 Methyl methacrylate	41	8.843	8.841	0.003	90	78036	20.0	18.8	
76 1,4-Dioxane	58	8.858	8.867	-0.009	92	5008	200.0	187.7	
78 Methylcyclohexane	83	9.172	9.170	0.002	89	132260	10.0	7.99	
79 4-Methyl-2-pentanone (MIBK	43	9.345	9.348	-0.003	96	95304	20.0	26.6	
* 80 Chlorobenzene-d5	82	11.353	11.351	0.002	89	176757	12.5	12.5	
84 2-Chloroethyl vinyl ether	63	9.073	9.071	0.002	93	26900	20.0	10.6	
85 cis-1,3-Dichloropropene	75	9.287	9.285	0.002	95	130880	10.0	10.4	
88 trans-1,3-Dichloropropene	75	9.643	9.641	0.002	94	106814	10.0	11.0	
89 1,1,2-Trichloroethane	97	9.800	9.798	0.002	93	55249	10.0	10.6	
$ 90 Toluene-d8 (Surr)	98	9.899	9.902	-0.003	93	347883	12.5	10.3	
92 Ethyl methacrylate	69	9.951	9.955	-0.004	88	66065	10.0	10.2	
93 Toluene	92	9.967	9.965	0.002	98	224627	10.0	9.85	
94 1,3-Dichloropropane	76	10.009	10.012	-0.003	92	104125	10.0	10.8	
95 2-Hexanone	43	10.108	10.106	0.002	96	66291	20.0	26.7	
97 Chlorodibromomethane	129	10.302	10.305	-0.003	90	70915	10.0	11.4	
98 n-Butyl acetate	43	10.380	10.378	0.002	98	35404	10.0	5.72	
99 Ethylene Dibromide	107	10.553	10.551	0.002	98	53340	10.0	10.6	
101 Tetrachloroethene	164	10.699	10.697	0.002	95	68614	10.0	9.98	
S 100 Xylenes, Total	106				0		20.0	20.7	
102 1-Chlorohexane	55	11.254	11.252	0.002	98	104233	10.0	11.4	
103 1,1,1,2-Tetrachloroethane	131	11.306	11.304	0.002	91	89294	10.0	11.0	
104 Chlorobenzene	112	11.390	11.388	0.002	92	268583	10.0	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 Ethylbenzene	106	11.568	11.565	0.003	99	146710	10.0	10.0	
106 m-Xylene & p-Xylene	91	11.761	11.759	0.002	0	393496	10.0	10.9	
107 Styrene	104	12.122	12.125	-0.003	94	285113	10.0	9.72	
109 o-Xylene	106	12.200	12.198	0.002	99	180153	10.0	9.78	
108 1,1,2,2-Tetrachloroethane	83	12.206	12.203	0.003	95	61688	10.0	10.1	
* 110 1,4-Dichlorobenzene-d4	152	13.973	13.971	0.002	97	154850	12.5	12.5	
115 Bromoform	173	11.949	11.947	0.002	94	35469	10.0	13.7	
117 1,2,3-Trichloropropane	110	12.368	12.360	0.008	86	19407	10.0	13.8	
116 trans-1,4-Dichloro-2-buten	53	12.357	12.360	-0.003	87	12307	10.0	11.6	
118 Isopropylbenzene	105	12.593	12.591	0.002	96	501172	10.0	13.0	
$ 119 4-Bromofluorobenzene	95	12.655	12.653	0.002	84	175115	12.5	15.0	
120 Bromobenzene	156	12.896	12.899	-0.003	97	109896	10.0	12.4	
121 N-Propylbenzene	120	13.058	13.056	0.002	99	136842	10.0	11.9	
122 2-Chlorotoluene	126	13.178	13.176	0.002	95	118204	10.0	11.8	
123 4-Chlorotoluene	91	13.252	13.250	0.002	99	416142	10.0	13.6	
124 1,3,5-Trimethylbenzene	105	13.335	13.333	0.002	94	428880	10.0	12.3	
126 tert-Butylbenzene	119	13.634	13.631	0.003	92	342185	10.0	11.6	
128 1,2,4-Trimethylbenzene	105	13.728	13.731	-0.003	98	446864	10.0	12.3	
130 sec-Butylbenzene	105	13.843	13.846	-0.003	95	524546	10.0	11.8	
131 Benzyl chloride	91	13.932	13.929	0.003	98	114129	10.0	9.72	
132 1,3-Dichlorobenzene	146	13.937	13.935	0.002	96	217548	10.0	12.0	
133 1,4-Dichlorobenzene	146	14.000	13.997	0.003	92	218152	10.0	12.2	
134 4-Isopropyltoluene	119	14.005	14.008	-0.003	97	448003	10.0	11.7	
135 1,2,3-Trimethylbenzene	105	14.151	14.149	0.002	99	458016	10.0	11.7	
137 1,2-Dichlorobenzene	146	14.350	14.348	0.002	95	181102	10.0	11.7	
138 n-Butylbenzene	91	14.408	14.405	0.003	98	430283	10.0	12.1	
139 1,2-Dibromo-3-Chloropropan	157	14.821	14.819	0.002	80	6765	10.0	8.72	
140 1,3,5-Trichlorobenzene	180	15.658	15.655	0.003	96	115006	10.0	8.85	
141 1,2,4-Trichlorobenzene	180	16.243	16.246	-0.003	94	55151	10.0	7.21	
142 Naphthalene	128	16.541	16.539	0.002	97	60221	10.0	5.82	
143 Hexachlorobutadiene	190	16.578	16.576	0.002	95	13080	10.0	6.43	
144 1,2,3-Trichlorobenzene	180	16.772	16.775	-0.003	94	19836	10.0	4.73	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

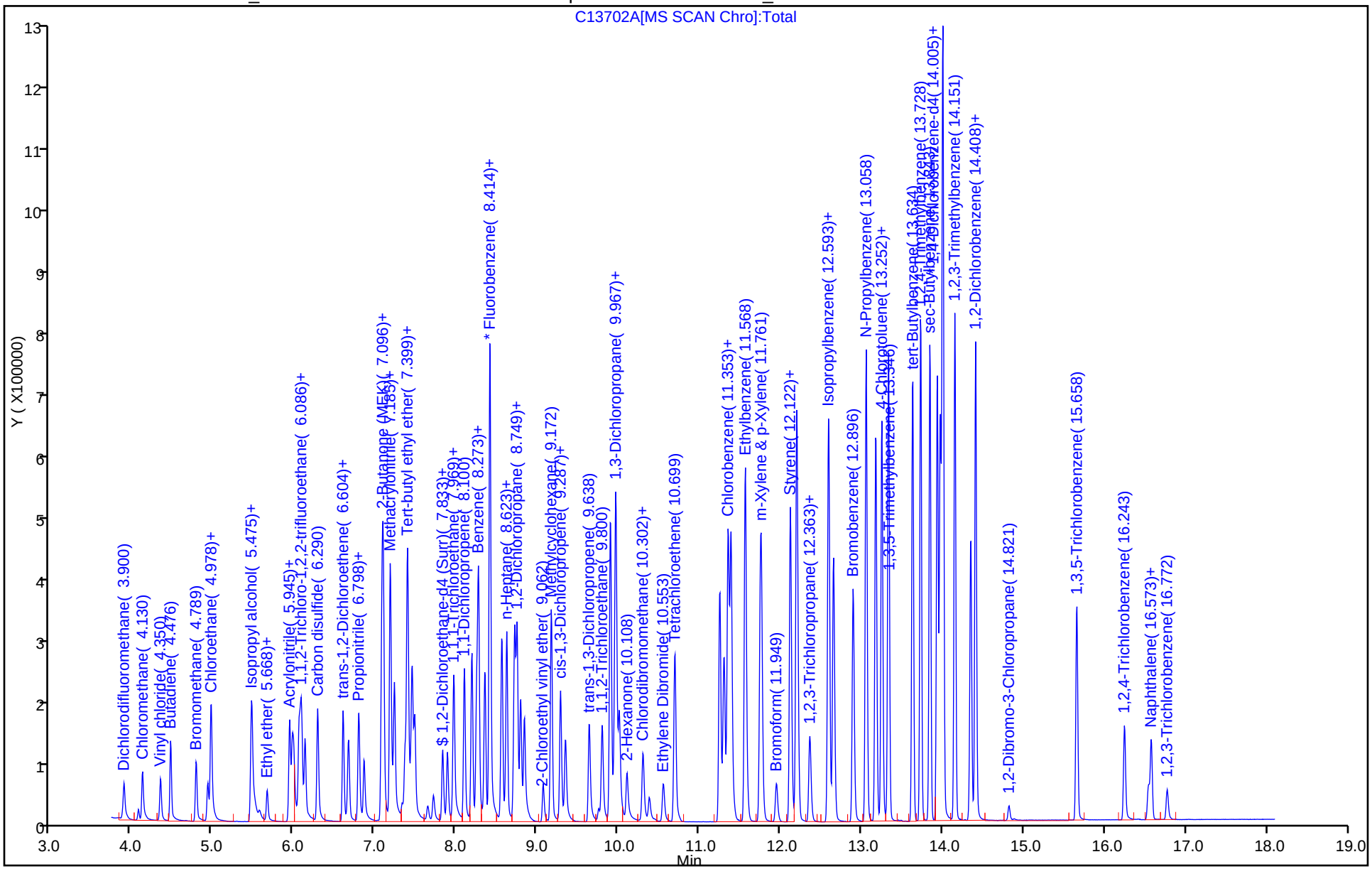
VOALCSGASPT_00167	Amount Added:	4.00	Units: uL	
VOALCSPT2_00057	Amount Added:	4.00	Units: uL	
VOASS50PPM_00210	Amount Added:	5.00	Units: uL	Run Reagent
VOAIS50PPM_00172	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 16-May-2016 14:25:44 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13702A.D

Injection Date:	16-May-2016 12:20:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	lcs			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 600-188556/4

Matrix: Water | Lab File ID: C13703.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 05/16/2016 11:03

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-VRX 60 ID: 0.25(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 188556 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	0.008182		0.00100	0.000176
108-88-3	Toluene	0.009547		0.00100	0.000198
100-41-4	Ethylbenzene	0.009710		0.00100	0.000212
179601-23-1	m-Xylene & p-Xylene	0.01049		0.00100	0.000205
1330-20-7	Xylenes, Total	0.02007		0.00200	0.000366
95-47-6	o-Xylene	0.009575		0.00100	0.000192

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		50-134
1868-53-7	Dibromofluoromethane	85		62-130
2037-26-5	Toluene-d8 (Surr)	84		70-130
460-00-4	4-Bromofluorobenzene	120		67-139

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13703.D
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 16-May-2016 11:03:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcsd
Misc. Info.: 600-0012076-004
Operator ID: yx Instrument ID: CHVOAMS01

Method: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\8260W20_1.m
Limit Group: VOA - 8260B_8260BLL
Last Update: 16-May-2016 14:25:38 Calib Date: 07-May-2016 14:39:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160507-11966.b\C12711.D

Column 1 : Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: xiey Date: 16-May-2016 11:30:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
* 1 Fluorobenzene	96	8.419	8.417	0.002	99	357610	12.5	12.5	
2 Dichlorodifluoromethane	85	3.900	3.898	0.002	100	44396	10.0	7.52	
3 Chloromethane	50	4.130	4.128	0.002	100	45283	10.0	5.93	
4 Vinyl chloride	62	4.350	4.348	0.002	99	61817	10.0	11.6	
5 Butadiene	39	4.475	4.473	0.002	90	56565	10.0	11.3	
6 Bromomethane	94	4.789	4.787	0.002	92	23465	10.0	4.43	
9 Chloroethane	64	4.935	4.934	0.001	99	48462	10.0	8.07	
11 Dichlorofluoromethane	67	4.972	4.970	0.002	98	187511	10.0	12.7	
10 Ethanol	45		5.134				ND	ND	
14 Acrolein	56	5.464	5.462	0.002	98	15695	50.0	34.6	
15 Acetonitrile	41	5.474	5.472	0.002	88	35033	100.0	74.5	
16 Trichlorofluoromethane	101	5.474	5.472	0.002	100	167393	10.0	14.5	
17 Isopropyl alcohol	45	5.511	5.509	0.002	98	21566	100.0	113.0	
18 Acetone	43	5.573	5.572	0.001	98	19726	20.0	21.2	
19 Ethyl ether	59	5.668	5.661	0.007	91	27404	10.0	5.77	
21 2-Methyl-2-propanol	59	5.945	5.938	0.007	49	40560	100.0	121.3	
22 1,1-Dichloroethene	96	5.945	5.943	0.002	96	46165	10.0	5.93	
23 Acrylonitrile	52	5.976	5.974	0.002	98	84141	100.0	84.0	
24 Iodomethane	142	5.992	5.990	0.002	99	52245	10.0	4.82	
25 Methylene Chloride	84	6.060	6.058	0.002	92	67897	10.0	6.63	
26 Methyl acetate	43	6.081	6.074	0.007	97	108765	50.0	38.2	
27 1,1,2-Trichloro-1,2,2-trif	151	6.091	6.089	0.002	94	35195	10.0	5.79	
28 3-Chloro-1-propene	76	6.133	6.131	0.002	90	25889	10.0	5.49	
29 Carbon disulfide	76	6.290	6.288	0.002	99	222256	10.0	8.40	
30 trans-1,2-Dichloroethene	96	6.604	6.602	0.002	98	61554	10.0	7.07	
31 Methyl tert-butyl ether	73	6.672	6.670	0.002	94	127443	10.0	7.85	
32 Propionitrile	54	6.792	6.790	0.002	99	45287	100.0	90.1	
33 1,1-Dichloroethane	63	6.797	6.796	0.001	97	122075	10.0	8.05	
34 Vinyl acetate	43	6.860	6.858	0.002	97	147802	20.0	17.7	
36 2-Chloro-1,3-butadiene	53	7.080	7.078	0.002	93	115259	10.0	8.96	
37 Hexane	57	7.090	7.088	0.002	83	71736	10.0	5.88	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Isopropyl ether	45	7.101	7.099	0.002	90	210094	10.0	8.79	
39 2-Butanone (MEK)	72	7.111	7.109	0.002	96	10464	20.0	23.7	
40 Methacrylonitrile	66	7.184	7.183	0.001	91	53161	100.0	86.4	
41 cis-1,2-Dichloroethene	96	7.237	7.235	0.002	82	76369	10.0	7.88	
42 Ethyl acetate	43	7.331	7.329	0.002	99	23795	20.0	9.52	
44 Chlorobromomethane	128	7.367	7.366	0.001	97	26254	10.0	7.46	
45 Chloroform	83	7.394	7.392	0.002	93	145002	10.0	10.0	
46 Tert-butyl ethyl ether	59	7.404	7.402	0.002	95	192950	10.0	8.86	
48 Isobutyl alcohol	43	7.430	7.428	0.002	95	39984	250.0	176.9	
49 2,2-Dichloropropane	77	7.456	7.455	0.001	86	121297	10.0	9.12	
$ 51 Dibromofluoromethane	113	7.488	7.486	0.002	92	85367	12.5	10.6	
S 47 1,2-Dichloroethene, Total	96				0		20.0	14.9	
53 Tetrahydrofuran	42	7.650	7.643	0.007	83	14785	20.0	14.4	
$ 56 1,2-Dichloroethane-d4 (Sur	65	7.833	7.831	0.002	0	78083	12.5	11.6	
57 1,2-Dichloroethane	62	7.890	7.889	0.001	99	79590	10.0	10.5	
58 1,1,1-Trichloroethane	97	7.969	7.967	0.002	97	126491	10.0	9.91	
59 n-Butanol	56	7.985	7.983	0.002	91	26236	250.0	246.8	
61 1,1-Dichloropropene	75	8.100	8.098	0.002	97	108593	10.0	8.65	
62 Cyclohexane	84	8.194	8.192	0.002	89	94675	10.0	6.53	
63 Carbon tetrachloride	119	8.251	8.250	0.001	98	100301	10.0	9.72	
64 Benzene	78	8.272	8.270	0.002	96	302905	10.0	8.18	
66 Tert-amyl methyl ether	73	8.351	8.349	0.002	99	167932	10.0	8.49	
67 Isooctane	57	8.560	8.558	0.002	97	229934	10.0	7.75	
68 Ethyl acrylate	55	8.607	8.610	-0.003	96	65083	10.0	8.52	
69 n-Heptane	43	8.623	8.621	0.002	90	96240	10.0	8.30	
70 Dibromomethane	93	8.712	8.710	0.002	89	34103	10.0	9.31	
71 1,2-Dichloropropane	63	8.722	8.720	0.002	91	80136	10.0	9.45	
72 2-Nitropropane	43	8.732	8.731	0.001	92	26039	20.0	21.6	
73 Trichloroethene	130	8.753	8.746	0.007	96	81516	10.0	8.47	
74 Dichlorobromomethane	83	8.795	8.793	0.002	99	120210	10.0	11.1	
75 Methyl methacrylate	41	8.842	8.841	0.002	90	77689	20.0	18.3	
76 1,4-Dioxane	58	8.858	8.867	-0.009	91	5689	200.0	208.1	
78 Methylcyclohexane	83	9.172	9.170	0.002	88	129991	10.0	7.66	
79 4-Methyl-2-pentanone (MIBK	43	9.350	9.348	0.002	96	95936	20.0	26.2	
* 80 Chlorobenzene-d5	82	11.353	11.351	0.002	88	179205	12.5	12.5	
84 2-Chloroethyl vinyl ether	63	9.072	9.071	0.001	93	29465	20.0	11.4	
85 cis-1,3-Dichloropropene	75	9.287	9.285	0.002	95	128519	10.0	10.1	
88 trans-1,3-Dichloropropene	75	9.642	9.641	0.001	93	106391	10.0	10.8	
89 1,1,2-Trichloroethane	97	9.799	9.798	0.001	93	55507	10.0	10.5	
$ 90 Toluene-d8 (Surr)	98	9.904	9.902	0.002	93	358829	12.5	10.5	
92 Ethyl methacrylate	69	9.951	9.955	-0.004	87	67717	10.0	10.3	
93 Toluene	92	9.967	9.965	0.002	99	220633	10.0	9.55	
94 1,3-Dichloropropane	76	10.014	10.012	0.002	91	105023	10.0	10.8	
95 2-Hexanone	43	10.108	10.106	0.002	96	68971	20.0	27.4	
97 Chlorodibromomethane	129	10.307	10.305	0.002	90	70479	10.0	11.2	
98 n-Butyl acetate	43	10.385	10.378	0.007	98	37093	10.0	5.92	
99 Ethylene Dibromide	107	10.553	10.551	0.002	98	53727	10.0	10.5	
101 Tetrachloroethene	164	10.699	10.697	0.002	95	66759	10.0	9.58	
S 100 Xylenes, Total	106				0		20.0	20.1	
102 1-Chlorohexane	55	11.253	11.252	0.001	97	100434	10.0	10.8	
103 1,1,1,2-Tetrachloroethane	131	11.306	11.304	0.002	92	87718	10.0	10.7	
104 Chlorobenzene	112	11.389	11.388	0.001	92	264386	10.0	9.72	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 Ethylbenzene	106	11.567	11.565	0.002	99	143877	10.0	9.71	
106 m-Xylene & p-Xylene	91	11.761	11.759	0.002	0	383721	10.0	10.5	
107 Styrene	104	12.122	12.125	-0.003	94	285843	10.0	9.61	
109 o-Xylene	106	12.200	12.198	0.002	98	178847	10.0	9.57	
108 1,1,2,2-Tetrachloroethane	83	12.205	12.203	0.002	95	64433	10.0	10.4	
* 110 1,4-Dichlorobenzene-d4	152	13.973	13.971	0.002	97	160171	12.5	12.5	
115 Bromoform	173	11.949	11.947	0.002	94	35851	10.0	13.4	
117 1,2,3-Trichloropropane	110	12.362	12.360	0.002	86	20019	10.0	13.8	
116 trans-1,4-Dichloro-2-buten	53	12.362	12.360	0.002	70	12466	10.0	11.4	
118 Isopropylbenzene	105	12.592	12.591	0.001	96	493719	10.0	12.4	
$ 119 4-Bromofluorobenzene	95	12.655	12.653	0.002	84	181697	12.5	15.1	
120 Bromobenzene	156	12.896	12.899	-0.003	96	109329	10.0	12.0	
121 N-Propylbenzene	120	13.058	13.056	0.002	99	134455	10.0	11.3	
122 2-Chlorotoluene	126	13.178	13.176	0.002	95	117378	10.0	11.4	
123 4-Chlorotoluene	91	13.251	13.250	0.001	99	409978	10.0	13.0	
124 1,3,5-Trimethylbenzene	105	13.335	13.333	0.002	94	426349	10.0	11.8	
126 tert-Butylbenzene	119	13.633	13.631	0.002	92	344191	10.0	11.3	
128 1,2,4-Trimethylbenzene	105	13.732	13.731	0.001	98	445195	10.0	11.9	
130 sec-Butylbenzene	105	13.842	13.846	-0.004	95	522076	10.0	11.4	
131 Benzyl chloride	91	13.931	13.929	0.002	98	114516	10.0	9.43	
132 1,3-Dichlorobenzene	146	13.936	13.935	0.001	96	219337	10.0	11.7	
133 1,4-Dichlorobenzene	146	13.999	13.997	0.002	92	224891	10.0	12.2	
134 4-Isopropyltoluene	119	14.004	14.008	-0.004	97	449075	10.0	11.4	
135 1,2,3-Trimethylbenzene	105	14.151	14.149	0.002	99	457450	10.0	11.3	
137 1,2-Dichlorobenzene	146	14.350	14.348	0.002	95	185787	10.0	11.6	
138 n-Butylbenzene	91	14.407	14.405	0.002	98	424746	10.0	11.5	
139 1,2-Dibromo-3-Chloropropan	157	14.820	14.819	0.001	80	7975	10.0	9.94	
140 1,3,5-Trichlorobenzene	180	15.657	15.655	0.002	96	122724	10.0	9.13	
141 1,2,4-Trichlorobenzene	180	16.243	16.246	-0.003	94	68592	10.0	8.67	
142 Naphthalene	128	16.536	16.539	-0.003	97	96439	10.0	9.01	
143 Hexachlorobutadiene	190	16.572	16.576	-0.004	95	15226	10.0	7.23	
144 1,2,3-Trichlorobenzene	180	16.771	16.775	-0.004	94	30576	10.0	7.04	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

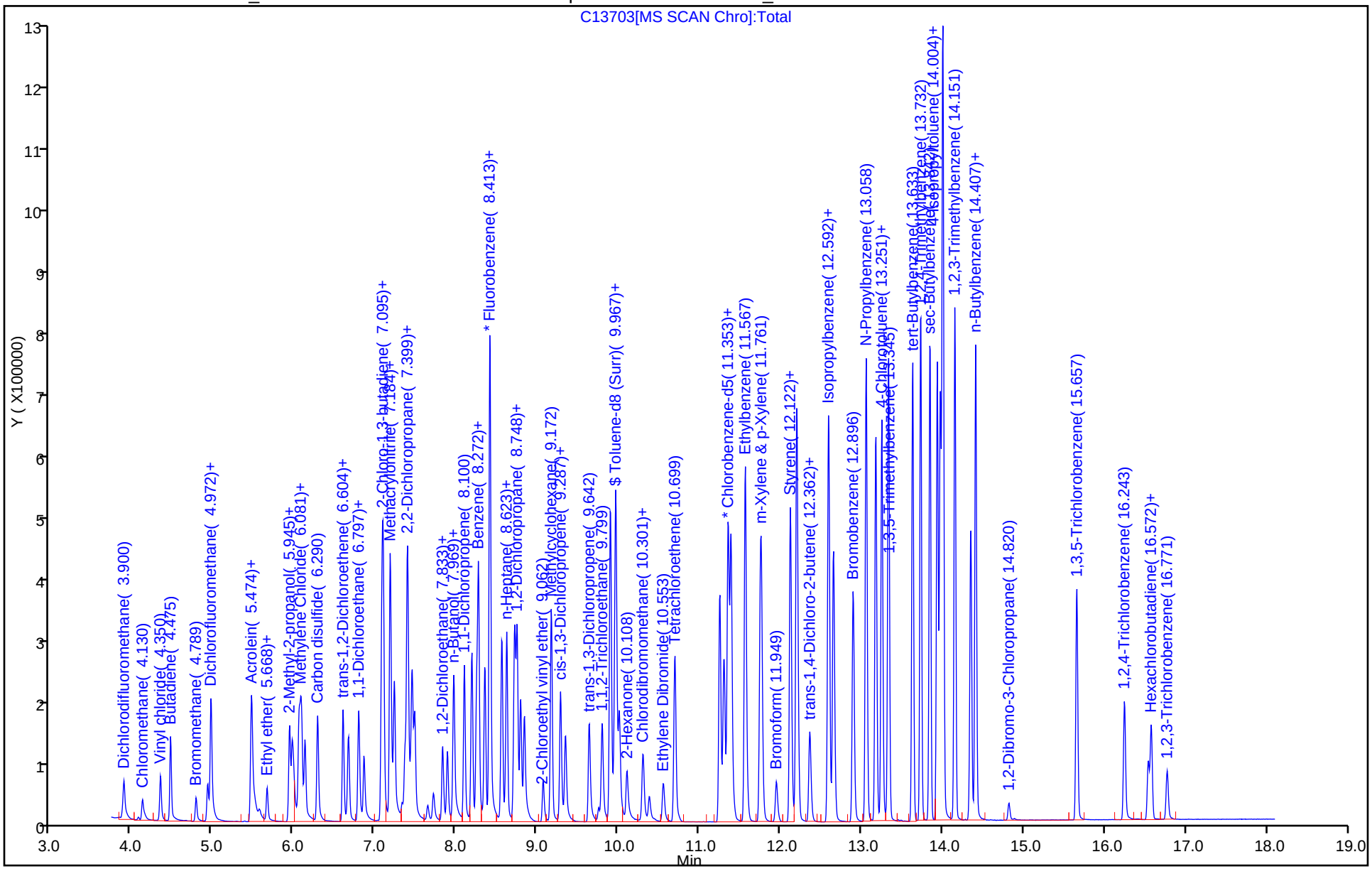
VOALCSGASPT_00167	Amount Added:	4.00	Units: uL	
VOALCSPT2_00057	Amount Added:	4.00	Units: uL	
VOASS50PPM_00210	Amount Added:	5.00	Units: uL	Run Reagent
VOAIS50PPM_00172	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 16-May-2016 14:25:51 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\HOUSTON\ChromData\CHVOAMS01\20160516-12076.b\C13703.D

Injection Date:	16-May-2016 11:03:30	Instrument ID:	CHVOAMS01	Operator ID:	yx
Lims ID:	lcsd			Worklist Smp#:	4
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260W20_1	Limit Group:	VOA - 8260B_8260BLL		



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHVOAMS01 Start Date: 01/22/2016 11:16

Analysis Batch Number: 181051 End Date: 01/22/2016 23:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-181051/1		01/22/2016 11:16	1	C02200A.D	DB-VRX 60 0.25(mm)
IC 600-181051/2		01/22/2016 11:43	1	C02201.D	DB-VRX 60 0.25(mm)
IC 600-181051/3		01/22/2016 12:09	1	C02202.D	DB-VRX 60 0.25(mm)
IC 600-181051/4		01/22/2016 14:22	1	C02203A.D	DB-VRX 60 0.25(mm)
IC 600-181051/5		01/22/2016 14:48	1	C02204A.D	DB-VRX 60 0.25(mm)
ICIS 600-181051/6		01/22/2016 15:14	1	C02205A.D	DB-VRX 60 0.25(mm)
IC 600-181051/7		01/22/2016 15:40	1	C02206.D	DB-VRX 60 0.25(mm)
IC 600-181051/8		01/22/2016 16:06	1	C02207.D	DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 16:58	1		DB-VRX 60 0.25(mm)
ICV 600-181051/1010		01/22/2016 16:58	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 17:24	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 18:16	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 18:43	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 19:09	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 19:35	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 20:02	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 20:28	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 20:54	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 21:21	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 21:47	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 22:13	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 22:40	1		DB-VRX 60 0.25(mm)
ZZZZZ		01/22/2016 23:06	1		DB-VRX 60 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHVOAMS01 Start Date: 05/16/2016 09:01

Analysis Batch Number: 188556 End Date: 05/16/2016 20:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 600-188556/1		05/16/2016 09:01	1	C13700.D	DB-VRX 60 0.25(mm)
CCVIS 600-188556/2		05/16/2016 10:12	1	C13701A.D	DB-VRX 60 0.25(mm)
LCSD 600-188556/4		05/16/2016 11:03	1	C13703.D	DB-VRX 60 0.25(mm)
MB 600-188556/6		05/16/2016 11:54	1	C13705.D	DB-VRX 60 0.25(mm)
LCS 600-188556/3		05/16/2016 12:20	1	C13702A.D	DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 12:46	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 13:11	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 13:36	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 14:02	1		DB-VRX 60 0.25(mm)
600-130758-2		05/16/2016 14:27	1	C13710.D	DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 14:53	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 15:19	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 15:44	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 16:10	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 16:36	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 17:01	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 17:27	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 17:52	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 18:18	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 18:44	1		DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 19:09	1		DB-VRX 60 0.25(mm)
600-130758-2 DL		05/16/2016 19:35	5	C13722.D	DB-VRX 60 0.25(mm)
ZZZZZ		05/16/2016 20:01	1		DB-VRX 60 0.25(mm)

Method 8270C

Semivolatile Organic Compounds (GC/MS) by Method 8270C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid (TCLP) Level: Low

GC Column (1): RXi-5Sil MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
PC-IDW Soil	600-130758-1	45	29	66	64	74	76
	MB 600-188545/1-A	60	57	61	62	65	73
	LB 600-188518/1-C	59	44	57	55	63	63
	LCS 600-188545/2-A	72	72	71	70	68	82

	QC LIMITS
2FP = 2-Fluorophenol	10-130
PHL = Phenol-d5 (Surr)	10-130
NBZ = Nitrobenzene-d5	24-150
FBP = 2-Fluorobiphenyl	38-133
TBP = 2,4,6-Tribromophenol	19-150
TPH = Terphenyl-d14	35-150

Column to be used to flag recovery values

FORM II 8270C

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water (TCLP) Level: Low

GC Column (1): RXi-5Sil MS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
PC-IDW Water	600-130758-2	80	71	85	83	81	92
	MB 600-188525/1-A	89	72	86	83	89	96
	LB 600-188519/1-B	83	73	83	81	88	92
	LCS 600-188525/2-A	86	83	85	82	86	83
PC-IDW Water MS	600-130758-2 MS	84	85	84	83	88	82

	QC LIMITS
2FP = 2-Fluorophenol	10-130
PHL = Phenol-d5	10-130
NBZ = Nitrobenzene-d5	35-130
FBP = 2-Fluorobiphenyl	41-130
TBP = 2,4,6-Tribromophenol	12-138
TPH = Terphenyl-d14	43-130

Column to be used to flag recovery values

FORM II 8270C

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05171619.D

Lab ID: LCS 600-188525/2-A Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,4-Dichlorobenzene	0.0500	0.04158	83	57-130	
2,4-Dinitrotoluene	0.0500	0.04436	89	60-130	
2,4,5-Trichlorophenol	0.0500	0.04459	89	51-130	
2,4,6-Trichlorophenol	0.0500	0.04557	91	49-130	
2-Methylphenol	0.0500	0.04315	86	39-130	
3 & 4 Methylphenol	0.0500	0.04303	86	29-130	
Hexachlorobenzene	0.0500	0.04468	89	61-130	
Hexachlorobutadiene	0.0500	0.04219	84	52-130	
Hexachloroethane	0.0500	0.04119	82	52-130	
Nitrobenzene	0.0500	0.04363	87	55-130	
Pentachlorophenol	0.100	0.07223	72	46-130	
Pyridine	0.0500	0.04044	81	10-130	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 05191616.D

Lab ID: LCS 600-188545/2-A Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
1,4-Dichlorobenzene	0.0500	0.03369	67	28-136	
2,4-Dinitrotoluene	0.0500	0.03395	68	59-133	
2,4,5-Trichlorophenol	0.0500	0.03343	67	49-130	
2,4,6-Trichlorophenol	0.0500	0.03137	63	53-130	
2-Methylphenol	0.0500	0.03383	68	38-136	
3 & 4 Methylphenol	0.0500	0.03420	68	42-123	
Hexachlorobenzene	0.0500	0.03272	65	49-142	
Hexachlorobutadiene	0.0500	0.03193	64	29-144	
Hexachloroethane	0.0500	0.03324	66	26-141	
Nitrobenzene	0.0500	0.03276	66	58-130	
Pentachlorophenol	0.100	0.06181	62	29-130	
Pyridine	0.0500	0.03112	62	10-130	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water (TCLP) Level: Low Lab File ID: 05171624.D

Lab ID: 600-130758-2 MS Client ID: PC-IDW Water MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
1,4-Dichlorobenzene	0.250	0.00890 U	0.1986	79	57-130	
2,4-Dinitrotoluene	0.250	0.0132 U	0.2157	86	60-130	
2,4,5-Trichlorophenol	0.250	0.0136 U	0.2235	89	51-130	
2,4,6-Trichlorophenol	0.250	0.0129 U	0.2133	85	49-130	
2-Methylphenol	0.250	0.00905 U	0.2084	83	39-130	
3 & 4 Methylphenol	0.250	0.00940 U	0.2094	84	29-130	
Hexachlorobenzene	0.250	0.0130 U	0.2255	90	61-130	
Hexachlorobutadiene	0.250	0.0106 U	0.2112	84	52-130	
Hexachloroethane	0.250	0.0110 U	0.1970	79	52-130	
Nitrobenzene	0.250	0.0124 U	0.2178	87	55-130	
Pentachlorophenol	0.500	0.0231 U	0.4140	83	46-130	
Pyridine	0.250	0.0108 U	0.1973	79	10-130	

Column to be used to flag recovery and RPD values

FORM III 8270C

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: 05171618.D Lab Sample ID: MB 600-188525/1-A

Matrix: Water Date Extracted: 05/14/2016 09:18

Instrument ID: CHSVMS09 Date Analyzed: 05/17/2016 14:08

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-188525/2-A	05171619.D	05/17/2016 14:32
	LB 600-188519/1-B	05171621.D	05/17/2016 15:19
PC-IDW Water	600-130758-2	05171623.D	05/17/2016 16:06
PC-IDW Water MS	600-130758-2 MS	05171624.D	05/17/2016 16:30

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: 05191615.D Lab Sample ID: MB 600-188545/1-A

Matrix: Water Date Extracted: 05/16/2016 06:26

Instrument ID: CHSVMS09 Date Analyzed: 05/19/2016 11:42

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-188545/2-A	05191616.D	05/19/2016 12:05
	LB 600-188518/1-C	05191617.D	05/19/2016 12:29
PC-IDW Soil	600-130758-1	05191626.D	05/19/2016 16:04

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: 05171601.D DFTPP Injection Date: 05/17/2016

Instrument ID: CHSVMS09 DFTPP Injection Time: 07:41

Analysis Batch No.: 188634

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	47.6	
68	Less than 2.0 % of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	48.9	
70	Less than 2.0 % of mass 69	0.1	(0.2) 1
127	40.0 - 60.0 % of mass 198	49.7	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.9	
275	10.0 - 30.0 % of mass 198	28.8	
365	Greater than 1.0 % of mass 198	4.7	
441	Present but less than mass 443	17.0	(90.1) 3
442	Greater than 40.0 % of mass 198	96.0	
443	17.0 - 23.0 % of mass 442	18.8	(19.6) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-188634/2	05171602.D	05/17/2016	07:57
	IC 600-188634/3	05171603.D	05/17/2016	08:21
	IC 600-188634/4	05171604.D	05/17/2016	08:45
	ICIS 600-188634/5	05171605.D	05/17/2016	09:08
	IC 600-188634/6	05171606.D	05/17/2016	09:32
	IC 600-188634/7	05171607.D	05/17/2016	09:56
	IC 600-188634/8	05171608.D	05/17/2016	10:19

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: 05171611.D DFTPP Injection Date: 05/17/2016

Instrument ID: CHSVMS09 DFTPP Injection Time: 11:30

Analysis Batch No.: 188677

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	48.6	
68	Less than 2.0 % of mass 69	0.0	(0.0) 1
69	Mass 69 relative abundance	53.0	
70	Less than 2.0 % of mass 69	0.2	(0.4) 1
127	40.0 - 60.0 % of mass 198	49.8	
197	Less than 1.0 % of mass 198	0.9	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.5	
275	10.0 - 30.0 % of mass 198	28.2	
365	Greater than 1.0 % of mass 198	4.1	
441	Present but less than mass 443	16.0	(84.2) 3
442	Greater than 40.0 % of mass 198	94.0	
443	17.0 - 23.0 % of mass 442	19.0	(20.2) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 600-188677/2	05171612.D	05/17/2016	11:46
	MB 600-188525/1-A	05171618.D	05/17/2016	14:08
	LCS 600-188525/2-A	05171619.D	05/17/2016	14:32
	LB 600-188519/1-B	05171621.D	05/17/2016	15:19
PC-IDW Water	600-130758-2	05171623.D	05/17/2016	16:06
PC-IDW Water MS	600-130758-2 MS	05171624.D	05/17/2016	16:30

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: 05191602.D DFTPP Injection Date: 05/19/2016

Instrument ID: CHSVMS09 DFTPP Injection Time: 06:38

Analysis Batch No.: 188802

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	49.2	
68	Less than 2.0 % of mass 69	0.3	(0.6) 1
69	Mass 69 relative abundance	50.8	
70	Less than 2.0 % of mass 69	0.3	(0.7) 1
127	40.0 - 60.0 % of mass 198	49.5	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.5	
275	10.0 - 30.0 % of mass 198	27.0	
365	Greater than 1.0 % of mass 198	4.2	
441	Present but less than mass 443	15.8	(84.3) 3
442	Greater than 40.0 % of mass 198	96.8	
443	17.0 - 23.0 % of mass 442	18.7	(19.4) 2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 600-188802/2	05191603.D	05/19/2016	06:54
	IC 600-188802/3	05191604.D	05/19/2016	07:19
	IC 600-188802/4	05191605.D	05/19/2016	07:43
	ICIS 600-188802/5	05191606.D	05/19/2016	08:07
	IC 600-188802/6	05191607.D	05/19/2016	08:32
	IC 600-188802/7	05191608.D	05/19/2016	08:56
	IC 600-188802/8	05191609.D	05/19/2016	09:21
	CCVIS 600-188802/10	05191611.D	05/19/2016	10:08
	MB 600-188545/1-A	05191615.D	05/19/2016	11:42
	LCS 600-188545/2-A	05191616.D	05/19/2016	12:05
	LB 600-188518/1-C	05191617.D	05/19/2016	12:29
PC-IDW Soil	600-130758-1	05191626.D	05/19/2016	16:04

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: ICIS 600-188634/5 Date Analyzed: 05/17/2016 09:08

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): 05171605.D Heated Purge: (Y/N) N

Calibration ID: 9386

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		152101	5.19	647668	6.34	349945	7.80
UPPER LIMIT		304202	5.69	1295336	6.84	699890	8.30
LOWER LIMIT		76051	4.69	323834	5.84	174973	7.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVIS 600-188677/2		137523	5.19	578435	6.34	308442	7.80

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: ICIS 600-188634/5 Date Analyzed: 05/17/2016 09:08

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): 05171605.D Heated Purge: (Y/N) N

Calibration ID: 9386

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		459989	9.01	496224	11.21	413227	13.00
UPPER LIMIT		919978	9.51	992448	11.71	826454	13.50
LOWER LIMIT		229995	8.51	248112	10.71	206614	12.50
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVIS 600-188677/2		411375	9.01	433344	11.21	369987	13.01

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: CCVIS 600-188677/2 Date Analyzed: 05/17/2016 11:46

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): 05171612.D Heated Purge: (Y/N) N

Calibration ID: 9386

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		137523	5.19	578435	6.34	308442	7.80
UPPER LIMIT		275046	5.69	1156870	6.84	616884	8.30
LOWER LIMIT		68762	4.69	289218	5.84	154221	7.30
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 600-188525/1-A		120515	5.18	506627	6.33	296131	7.79
LCS 600-188525/2-A		123042	5.19	521064	6.34	281064	7.79
LB 600-188519/1-B		119032	5.18	512017	6.33	282618	7.79
600-130758-2	PC-IDW Water	120442	5.19	523009	6.33	292965	7.79
600-130758-2 MS	PC-IDW Water MS	119974	5.19	499234	6.34	269918	7.79

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: CCVIS 600-188677/2 Date Analyzed: 05/17/2016 11:46

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): 05171612.D Heated Purge: (Y/N) N

Calibration ID: 9386

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		411375	9.01	433344	11.21	369987	13.01
UPPER LIMIT		822750	9.51	866688	11.71	739974	13.51
LOWER LIMIT		205688	8.51	216672	10.71	184994	12.51
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 600-188525/1-A		450284	9.00	434070	11.22	396238	13.02
LCS 600-188525/2-A		364000	9.01	384451	11.22	347160	13.02
LB 600-188519/1-B		408422	9.00	375153	11.22	366652	13.02
600-130758-2	PC-IDW Water	439988	9.00	417604	11.21	381600	13.01
600-130758-2 MS	PC-IDW Water MS	338472	9.01	360706	11.25	330957	13.06

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: ICIS 600-188802/5 Date Analyzed: 05/19/2016 08:07

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): 05191606.D Heated Purge: (Y/N) N

Calibration ID: 9398

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		123320	5.17	509827	6.31	273326	7.76
UPPER LIMIT		246640	5.67	1019654	6.81	546652	8.26
LOWER LIMIT		61660	4.67	254914	5.81	136663	7.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVIS 600-188802/10		103359	5.17	431008	6.31	238446	7.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: ICIS 600-188802/5 Date Analyzed: 05/19/2016 08:07

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): 05191606.D Heated Purge: (Y/N) N

Calibration ID: 9398

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		410042	8.98	433748	11.15	417644	12.91
UPPER LIMIT		820084	9.48	867496	11.65	835288	13.41
LOWER LIMIT		205021	8.48	216874	10.65	208822	12.41
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVIS 600-188802/10		354549	8.98	380313	11.16	373555	12.92

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: CCVIS 600-188802/10 Date Analyzed: 05/19/2016 10:08

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): 05191611.D Heated Purge: (Y/N) N

Calibration ID: 9398

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		103359	5.17	431008	6.31	238446	7.76
UPPER LIMIT		206718	5.67	862016	6.81	476892	8.26
LOWER LIMIT		51680	4.67	215504	5.81	119223	7.26
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 600-188545/1-A		105699	5.17	432087	6.30	242036	7.76
LCS 600-188545/2-A		104761	5.17	451023	6.31	254259	7.77
LB 600-188518/1-C		103612	5.17	449622	6.30	250858	7.76
600-130758-1	PC-IDW Soil	112710	5.17	462810	6.30	256410	7.76

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: CCVIS 600-188802/10 Date Analyzed: 05/19/2016 10:08

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): 05191611.D Heated Purge: (Y/N) N

Calibration ID: 9398

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		354549	8.98	380313	11.16	373555	12.92
UPPER LIMIT		709098	9.48	760626	11.66	747110	13.42
LOWER LIMIT		177275	8.48	190157	10.66	186778	12.42
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 600-188545/1-A		372462	8.97	380351	11.15	340653	12.91
LCS 600-188545/2-A		368845	8.97	368361	11.16	346810	12.92
LB 600-188518/1-C		358998	8.97	349611	11.16	358668	12.91
600-130758-1	PC-IDW Soil	371574	8.97	343404	11.15	316524	12.90

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Soil | Lab Sample ID: 600-130758-1

Matrix: Solid (TCLP) | Lab File ID: 05191626.D

Analysis Method: 8270C | Date Collected: 05/11/2016 10:00

Extract. Method: 3510C LVI | Date Extracted: 05/16/2016 06:29

Sample wt/vol: 200(mL) | Date Analyzed: 05/19/2016 16:04

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188802 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.00243	U	0.0125	0.00243
121-14-2	2,4-Dinitrotoluene	0.00264	U	0.0125	0.00264
95-95-4	2,4,5-Trichlorophenol	0.00525	U	0.0125	0.00525
88-06-2	2,4,6-Trichlorophenol	0.00415	U	0.0125	0.00415
95-48-7	2-Methylphenol	0.00178	U	0.0125	0.00178
15831-10-4	3 & 4 Methylphenol	0.00169	U	0.0125	0.00169
118-74-1	Hexachlorobenzene	0.00410	U	0.0125	0.00410
87-68-3	Hexachlorobutadiene	0.00321	U	0.0125	0.00321
67-72-1	Hexachloroethane	0.00411	U	0.0125	0.00411
98-95-3	Nitrobenzene	0.00324	U	0.0125	0.00324
87-86-5	Pentachlorophenol	0.00394	U	0.0125	0.00394
110-86-1	Pyridine	0.00270	U	0.0125	0.00270

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	66		24-150
367-12-4	2-Fluorophenol	45		10-130
321-60-8	2-Fluorobiphenyl	64		38-133
118-79-6	2,4,6-Tribromophenol	74		19-150
1718-51-0	Terphenyl-d14	76		35-150
4165-62-2	Phenol-d5 (Surr)	29		10-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191626.D
Lims ID: 600-130758-A-1-B
Client ID: PC-IDW Soil
Sample Type: Client
Inject. Date: 19-May-2016 16:04:30 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 600-130758-a-1-b
Misc. Info.: 600-0012123-025
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 20-May-2016 05:19:19 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: patelk Date: 20-May-2016 05:15:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
2 Pyridine	79		1.983				ND	
$ 7 2-Fluorophenol	112	4.077	4.023	0.054	93	102752	4.46	
$ 10 Phenol-d5	99	5.076	5.028	0.048	66	105963	2.89	
* 21 1,4-Dichlorobenzene-d4	152	5.172	5.172	0.000	89	112710	8.00	
22 1,4-Dichlorobenzene	146		5.188				ND	
25 2-Methylphenol	108		5.546				ND	
34 Hexachloroethane	117		5.626				ND	
$ 35 Nitrobenzene-d5	82	5.690	5.696	-0.006	92	251343	6.61	
30 3 & 4 Methylphenol	108		5.696				ND	
36 Nitrobenzene	77		5.712				ND	
* 50 Naphthalene-d8	136	6.304	6.305	-0.001	97	462810	8.00	
55 Hexachlorobutadiene	225		6.449				ND	
69 2,4,6-Trichlorophenol	196		7.186				ND	
$ 72 2-Fluorobiphenyl	172	7.218	7.223	-0.005	98	267413	6.44	
71 2,4,5-Trichlorophenol	196		7.261				ND	
* 90 Acenaphthene-d10	164	7.763	7.763	0.000	92	256410	8.00	
95 2,4-Dinitrotoluene	165		7.955				ND	
$ 113 2,4,6-Tribromophenol	330	8.425	8.425	0.000	85	48651	7.38	
122 Hexachlorobenzene	284		8.671				ND	
127 Pentachlorophenol	266		8.863				ND	
* 131 Phenanthrene-d10	188	8.970	8.976	-0.006	95	371574	8.00	
$ 149 Terphenyl-d14	244	10.279	10.279	0.000	96	257285	7.61	
* 160 Chrysene-d12	240	11.150	11.161	-0.011	96	343404	8.00	
* 169 Perylene-d12	264	12.902	12.923	-0.021	97	316524	8.00	

Reagents:

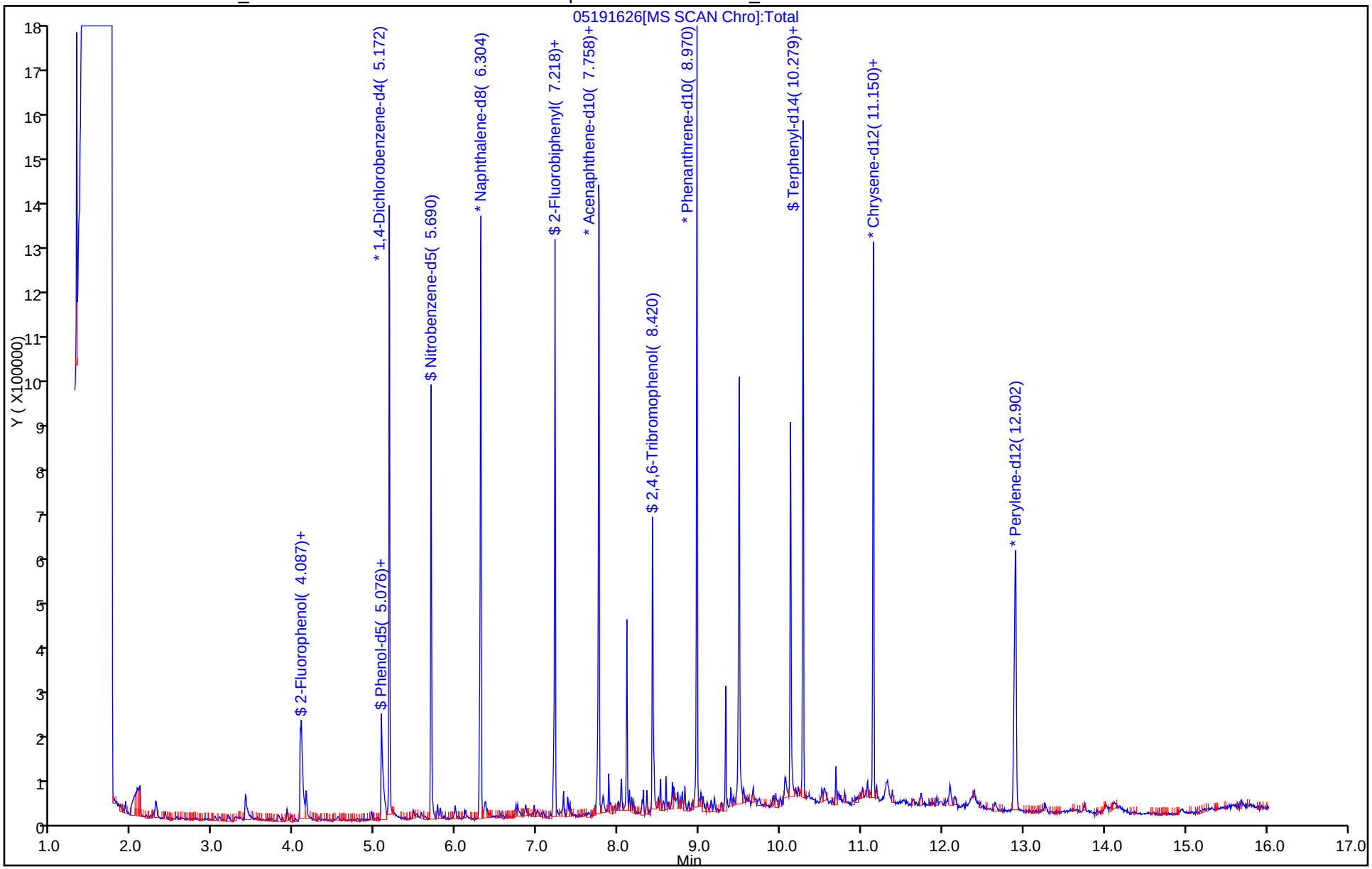
SV_8270ISTD_00009 Amount Added: 4.00 Units: uL Run Reagent

Report Date: 20-May-2016 05:20:12 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191626.D

Injection Date:	19-May-2016 16:04:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	600-130758-A-1-B	Lab Sample ID:	600-130758-1	Worklist Smp#:	25
Client ID:	PC-IDW Soil				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Water | Lab Sample ID: 600-130758-2

Matrix: Water (TCLP) | Lab File ID: 05171623.D

Analysis Method: 8270C | Date Collected: 05/11/2016 10:00

Extract. Method: 3510C | Date Extracted: 05/14/2016 09:21

Sample wt/vol: 200(mL) | Date Analyzed: 05/17/2016 16:06

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188677 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.00890	U	0.0500	0.00890
121-14-2	2,4-Dinitrotoluene	0.0132	U	0.0500	0.0132
95-95-4	2,4,5-Trichlorophenol	0.0136	U	0.0500	0.0136
88-06-2	2,4,6-Trichlorophenol	0.0129	U	0.0500	0.0129
95-48-7	2-Methylphenol	0.00905	U	0.0500	0.00905
15831-10-4	3 & 4 Methylphenol	0.00940	U	0.100	0.00940
118-74-1	Hexachlorobenzene	0.0130	U	0.0500	0.0130
87-68-3	Hexachlorobutadiene	0.0106	U	0.0500	0.0106
67-72-1	Hexachloroethane	0.0110	U	0.0500	0.0110
98-95-3	Nitrobenzene	0.0124	U	0.0500	0.0124
87-86-5	Pentachlorophenol	0.0231	U	0.250	0.0231
110-86-1	Pyridine	0.0108	U	0.0500	0.0108

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-62-2	Phenol-d5	71		10-130
4165-60-0	Nitrobenzene-d5	85		35-130
367-12-4	2-Fluorophenol	80		10-130
321-60-8	2-Fluorobiphenyl	83		41-130
118-79-6	2,4,6-Tribromophenol	81		12-138
1718-51-0	Terphenyl-d14	92		43-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171623.D
Lims ID: 600-130758-A-2-C
Client ID: PC-IDW Water
Sample Type: Client
Inject. Date: 17-May-2016 16:06:30 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-130758-a-2-c
Misc. Info.: 600-0012101-013
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 18-May-2016 09:48:48 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: somjitp Date: 18-May-2016 09:49:35

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/ml	Flags
2 Pyridine	79		1.698				ND	
$ 7 2-Fluorophenol	112	3.974	3.979	-0.005	93	205764	39.8	
$ 16 Phenol-d5	99	5.058	5.048	0.010	67	300673	35.5	
* 21 1,4-Dichlorobenzene-d4	152	5.186	5.186	0.000	88	120442	40.0	
22 1,4-Dichlorobenzene	146		5.203				ND	
28 2-Methylphenol	108		5.577				ND	
34 Hexachloroethane	117		5.651				ND	
$ 36 Nitrobenzene-d5	82	5.710	5.721	-0.011	93	393278	42.4	
37 3 & 4 Methylphenol	108		5.721				ND	
38 Nitrobenzene	77		5.737				ND	
* 50 Naphthalene-d8	136	6.330	6.329	0.001	97	523009	40.0	
57 Hexachlorobutadiene	225		6.474				ND	
72 2,4,6-Trichlorophenol	196		7.217				ND	
$ 73 2-Fluorobiphenyl	172	7.248	7.254	-0.006	97	408924	41.5	
74 2,4,5-Trichlorophenol	196		7.291				ND	
* 91 Acenaphthene-d10	164	7.788	7.793	-0.005	92	292965	40.0	
97 2,4-Dinitrotoluene	165		7.986				ND	
$ 115 2,4,6-Tribromophenol	330	8.450	8.456	-0.006	82	66374	40.7	
123 Hexachlorobenzene	284		8.707				ND	
128 Pentachlorophenol	266		8.899				ND	
* 131 Phenanthrene-d10	188	9.001	9.006	-0.005	95	439988	40.0	
$ 152 Terphenyl-d14	244	10.320	10.315	0.005	98	435844	46.2	
* 164 Chrysene-d12	240	11.212	11.201	0.011	97	417604	40.0	
* 173 Perylene-d12	264	13.013	12.996	0.017	97	381600	40.0	

Reagents:

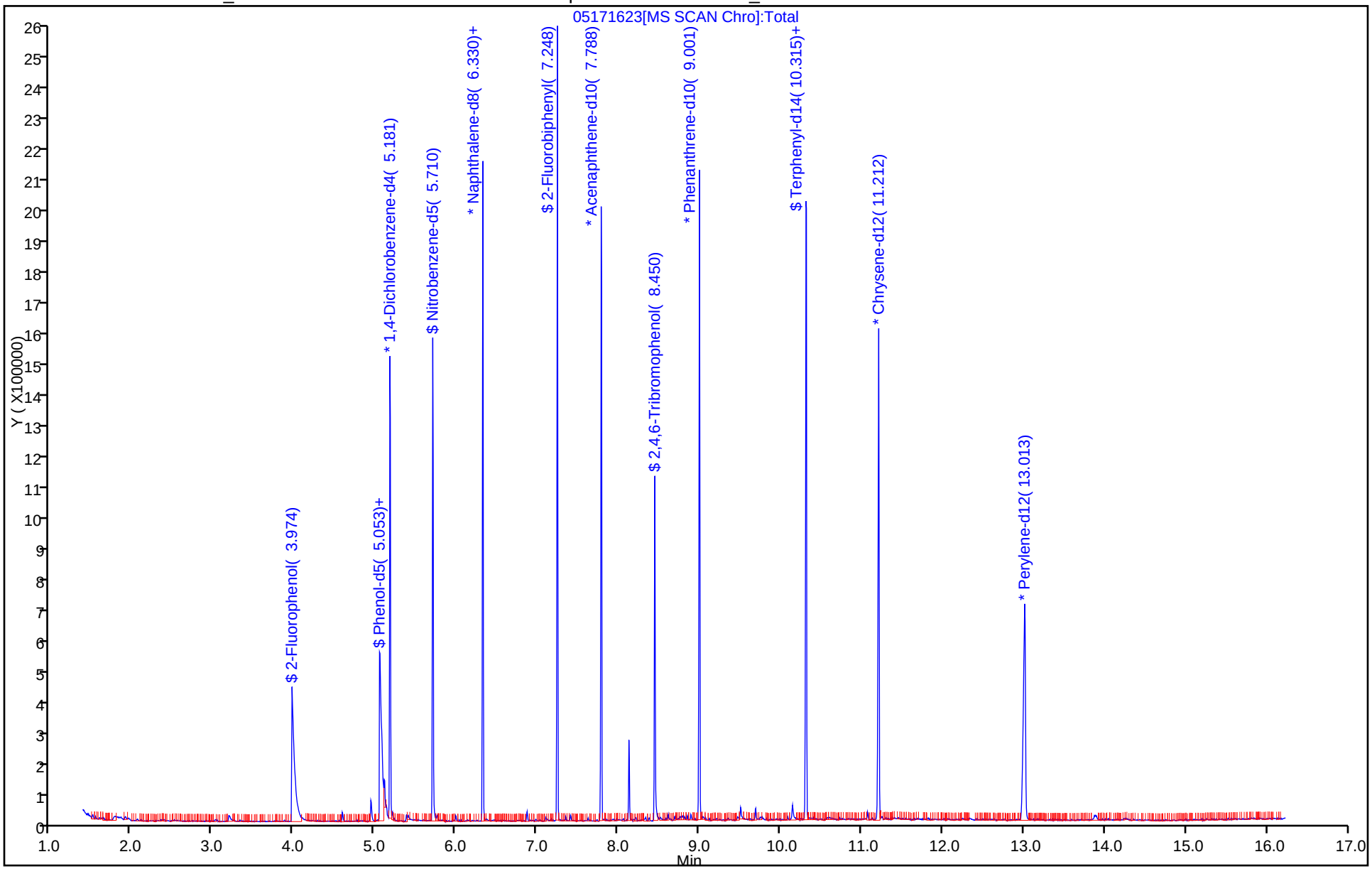
SV_8270ISTD_00009 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 18-May-2016 09:49:37 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171623.D

Injection Date:	17-May-2016 16:06:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	600-130758-A-2-C	Lab Sample ID:	600-130758-2	Worklist Smp#:	13
Client ID:	PC-IDW Water				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188634

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/17/2016 07:57 Calibration End Date: 05/17/2016 10:19 Calibration ID: 9386

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-188634/2	05171602.D
Level 2	IC 600-188634/3	05171603.D
Level 3	IC 600-188634/4	05171604.D
Level 4	ICIS 600-188634/5	05171605.D
Level 5	IC 600-188634/6	05171606.D
Level 6	IC 600-188634/7	05171607.D
Level 7	IC 600-188634/8	05171608.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
N-Nitrosodimethylamine	1.2924 1.3162	1.2801 1.2281	1.3083	1.2852	1.3293	Ave		1.2914				2.5		15.0			
Pyridine	2.2228 2.3251	2.0678 2.2179	2.2016	2.3991	2.3281	Ave		2.2517				4.8		15.0			
Aniline	3.2100 3.3084	3.2210 3.2221	3.1329	3.2342	3.3500	Ave		3.2398				2.2		15.0			
Bis(2-chloroethyl)ether	2.1795 2.2296	2.1147 2.1325	2.0516	2.1747	2.2109	Ave		2.1562				2.8		15.0			
2-Chlorophenol	1.6211 1.6618	1.5824 1.7665	1.5662	1.6611	1.7145	Ave		1.6534				4.3		15.0			
Phenol	2.4034 2.6222	2.4993 2.6950	2.4489	2.6486	2.6464	Ave		2.5663				4.4		15.0			
n-Decane	2.1708 2.8665	2.3675 2.8188	2.4622	2.6976	2.7700	Ave		2.5933				10.1		15.0			
1,3-Dichlorobenzene	1.6712 1.7049	1.6021 1.6687	1.5992	1.6633	1.7073	Ave		1.6595				2.6		15.0			
1,4-Dichlorobenzene	1.7114 1.7533	1.6396 1.7915	1.6634	1.6821	1.7996	Ave		1.7201				3.7		15.0			
1,2-Dichlorobenzene	1.5631 1.6415	1.5814 1.6145	1.5681	1.5965	1.6717	Ave		1.6052				2.5		15.0			
Benzyl alcohol	1.0409 1.2047	1.0620 1.2012	1.0485	1.1908	1.1930	Ave		1.1345				7.0		15.0			
Indene	3.1052 3.3585	3.0815 3.0404	3.0493	3.1870	3.3626	Ave		3.1692				4.4		15.0			
bis (2-Chloroisopropyl) ether	2.3313 2.8461	2.5255 2.7873	2.6124	2.7728	2.8926	Ave		2.6812				7.5		15.0			
2-Methylphenol	1.6142 1.7427	1.6853 1.6944	1.6904	1.6964	1.7616	Ave		1.6979				2.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188634

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/17/2016 07:57 Calibration End Date: 05/17/2016 10:19 Calibration ID: 9386

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetophenone	0.6525 0.7484	0.6780 0.7281	0.7005	0.7425	0.7502	Ave		0.7143				5.4		15.0			
N-Nitrosodi-n-propylamine	1.6426 1.8945	1.8198 1.8484	1.8183	1.9401	1.8945	Ave		1.8369			0.0500	5.3		15.0			
Hexachloroethane	1.0718 1.1580	1.0581 1.1660	1.0666	1.0828	1.1634	Ave		1.1095				4.5		15.0			
3 & 4 Methylphenol	1.7973 1.8999	1.8200 1.8672	1.8129	1.8389	1.9260	Ave		1.8517				2.6		15.0			
Nitrobenzene	0.8733 1.0395	0.8945 1.0312	0.9108	0.9946	1.0105	Ave		0.9649				7.2		15.0			
2,6-Dimethylphenol	0.3821 0.3872	0.3743 0.3653	0.3671	0.3755	0.3765	Ave		0.3754				2.1		15.0			
Isophorone	1.0147 1.1641	1.0730 1.1370	1.0922	1.1548	1.1546	Ave		1.1129				5.0		15.0			
2-Nitrophenol	0.2117 0.2173	0.2044 0.2019	0.1999	0.2012	0.2077	Ave		0.2063				3.1		15.0			
2,4-Dimethylphenol	0.4795 0.5604	0.4899 0.5547	0.5047	0.5380	0.5608	Ave		0.5269				6.6		15.0			
Bis(2-chloroethoxy)methane	0.6098 0.7067	0.6220 0.6897	0.6633	0.6927	0.7087	Ave		0.6704				6.0		15.0			
1,2,4-Trichlorobenzene	0.3145 0.3562	0.2863 0.3744	0.2901	0.3157	0.3419	Ave		0.3256				10.2		15.0			
2,4-Dichlorophenol	0.2968 0.3640	0.2761 0.3820	0.2998	0.3142	0.3480	Ave		0.3258				12.0		15.0			
Naphthalene	1.1185 1.1856	1.0415 1.1953	1.0482	1.1143	1.1574	Ave		1.1230				5.5		15.0			
Benzoic acid	0.1019 0.2453	0.1665 0.2434	0.1871	0.2210	0.2366	Lin2	-0.733	0.2428							0.9970		0.9900
4-Chloroaniline	0.4663 0.4831	0.4448 0.4344	0.4667	0.4699	0.4848	Ave		0.4643				4.0		15.0			
2,6-Dichlorophenol	0.2977 0.3207	0.3011 0.3203	0.2919	0.2933	0.3108	Ave		0.3051				4.0		15.0			
Hexachlorobutadiene	0.2212 0.2504	0.2172 0.2511	0.2247	0.2459	0.2521	Ave		0.2375				6.6		15.0			
4-Chloro-3-methylphenol	0.4384 0.4784	0.4242 0.4796	0.4557	0.4557	0.4793	Ave		0.4588				4.8		15.0			
2-Methylnaphthalene	0.9053 0.9827	0.8716 1.0096	0.8979	0.9472	0.9943	Ave		0.9441				5.7		15.0			
1-Methylnaphthalene	0.6057 0.6754	0.6109 0.6789	0.6286	0.6426	0.6741	Ave		0.6452				4.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188634

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/17/2016 07:57 Calibration End Date: 05/17/2016 10:19 Calibration ID: 9386

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Hexachlorocyclopentadiene	0.1323 0.4624	0.2102 0.4606	0.2806	0.4020	0.4501	Lin1	-2.267	0.4743			0.0500				0.9940		0.9900
1,2,4,5-Tetrachlorobenzene	0.5279 0.6547	0.5214 0.6522	0.5046	0.5848	0.6172	Ave		0.5804				10.9		15.0			
2,4,6-Trichlorophenol	0.3518 0.3679	0.3546 0.3823	0.3442	0.3692	0.3745	Ave		0.3635				3.8		15.0			
2,4,5-Trichlorophenol	0.3272 0.3758	0.3352 0.3881	0.3641	0.3885	0.3727	Ave		0.3645				6.7		15.0			
1,1'-Biphenyl	1.3614 1.8094	1.3342 1.8239	1.3485	1.5194	1.6459	Ave		1.5490				13.8		15.0			
2-Chloronaphthalene	1.2091 1.3730	1.1474 1.4256	1.1286	1.2754	1.2982	Ave		1.2653				8.8		15.0			
2-Nitroaniline	0.6572 0.7021	0.6834 0.7195	0.7125	0.7254	0.7210	Ave		0.7030				3.5		15.0			
Dimethyl phthalate	1.5248 1.3136	1.4384 1.2758	1.4274	1.3643	1.3208	Ave		1.3808				6.3		15.0			
1,3-Dinitrobenzene	0.2148 0.2107	0.2098 0.2178	0.2141	0.2041	0.2054	Ave		0.2110				2.4		15.0			
2,6-Dinitrotoluene	0.3411 0.2899	0.3066 0.3043	0.3164	0.3028	0.3007	Ave		0.3088				5.3		15.0			
Acenaphthylene	1.7969 1.9098	1.7611 1.7176	1.6831	1.8168	1.8121	Ave		1.7853				4.2		15.0			
1,2-Dinitrobenzene	0.1804 0.1419	0.1708 0.1394	0.1632	0.1448	0.1429	Ave		0.1548				10.6		15.0			
3-Nitroaniline	0.3870 0.3579	0.3768 0.3461	0.3588	0.3571	0.3568	Ave		0.3629				3.8		15.0			
Acenaphthene	1.0645 1.0731	1.0601 1.1832	1.0823	1.1123	1.1049	Ave		1.0972				3.9		15.0			
2,4-Dinitrophenol	0.1220 0.1796	0.1678 0.1849	0.1810	0.1965	0.1755	Ave		0.1725			0.0500	13.9		15.0			
Dibenzofuran	1.5059 1.7568	1.5578 1.6338	1.5126	1.6264	1.6155	Ave		1.6013				5.4		15.0			
2,4-Dinitrotoluene	0.4499 0.4274	0.4657 0.4303	0.4390	0.4435	0.4244	Ave		0.4400				3.3		15.0			
4-Nitrophenol	0.3844 0.4747	0.3948 0.4680	0.4221	0.4576	0.4600	Ave		0.4374			0.0500	8.4		15.0			
2,3,4,6-Tetrachlorophenol	0.2106 0.3180	0.2647 0.3013	0.2697	0.2829	0.2946	Ave		0.2774				12.5		15.0			
Diethyl phthalate	1.6120 1.6718	1.5833 1.6404	1.5489	1.5626	1.6544	Ave		1.6105				2.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188634

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/17/2016 07:57 Calibration End Date: 05/17/2016 10:19 Calibration ID: 9386

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Hexadecane	1.2707 1.5247	1.2885 1.4827	1.3246	1.4552	1.4599	Ave		1.4009				7.4		15.0			
Fluorene	1.3316 1.6665	1.1649 1.6411	1.2601	1.4865	1.6357	Ave		1.4552				14.0		15.0			
4-Chlorophenyl phenyl ether	0.5385 0.8194	0.5448 0.7817	0.5462	0.6794	0.7405	Lin1	-2.088	0.7857							0.9920		0.9900
4-Nitroaniline	0.3681 0.3198	0.3814 0.3321	0.3278	0.3360	0.3482	Ave		0.3448				6.5		15.0			
4,6-Dinitro-2-methylphenol	0.1572 0.1934	0.1612 0.2084	0.1696	0.1777	0.1845	Ave		0.1789				10.2		15.0			
Diphenylamine	0.7128 0.8726	0.6997 0.9388	0.7346	0.7986	0.8190	Ave		0.7966				11.1		15.0			
N-Nitrosodiphenylamine	0.6175 0.7417	0.5948 0.7980	0.6244	0.6788	0.6962	Ave		0.6788				10.8		15.0			
1,2-Diphenylhydrazine	1.7212 2.2961	1.8479 2.3005	2.0261	2.5006	2.1741	Ave		2.1238				12.9		15.0			
Azobenzene	1.7295 2.2961	1.8479 2.3005	2.0261	2.5006	2.1741	Ave		2.1250				12.8		15.0			
4-Bromophenyl phenyl ether	0.2467 0.2995	0.2215 0.3097	0.2290	0.2690	0.2808	Ave		0.2652				12.9		15.0			
Hexachlorobenzene	0.2950 0.3602	0.2720 0.3632	0.2869	0.3318	0.3264	Ave		0.3194				11.2		15.0			
Pentachlorophenol	0.1050 0.1967	0.1226 0.2076	0.1450	0.1762	0.1770	Lin1	-1.325	0.1999							0.9930		0.9900
n-Octadecane	0.9309 1.0900	0.8814 1.1060	0.9566	1.0204	1.0600	Ave		1.0065				8.5		15.0			
Phenanthrene	1.2331 1.4727	1.1222 1.4004	1.1626	1.2991	1.3937	Ave		1.2977				10.1		15.0			
Anthracene	1.2746 1.4426	1.1794 1.4209	1.1941	1.3192	1.3846	Ave		1.3165				8.0		15.0			
Carbazole	1.2398 1.3769	1.1792 1.3599	1.1980	1.2566	1.3157	Ave		1.2752				6.1		15.0			
Di-n-butyl phthalate	1.9181 2.0746	1.7798 2.1096	1.8502	1.9355	2.0213	Ave		1.9556				6.1		15.0			
Fluoranthene	1.2309 1.6236	1.2450 1.7055	1.2402	1.4813	1.5983	Ave		1.4464				14.2		15.0			
Pyrene	1.3203 1.4757	1.2508 1.4480	1.2834	1.3799	1.5346	Ave		1.3847				7.6		15.0			
Butyl benzyl phthalate	0.9047 0.8491	0.8108 0.8046	0.8149	0.8287	0.8547	Ave		0.8382				4.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188634

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/17/2016 07:57 Calibration End Date: 05/17/2016 10:19 Calibration ID: 9386

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzo[a]anthracene	1.1774 1.2934	1.1466 1.3797	1.2302	1.2478	1.3966	Ave		1.2674				7.5		15.0			
Chrysene	1.1357 1.4251	1.0785 1.4503	1.1118	1.1730	1.3317	Ave		1.2437				12.5		15.0			
Bis(2-ethylhexyl) phthalate	1.2379 1.2729	1.0941 1.2969	1.0963	1.1298	1.2209	Ave		1.1927				7.1		15.0			
Di-n-octyl phthalate	2.0645 1.8883	1.8770 1.8654	1.8891	1.8706	1.9019	Ave		1.9081				3.7		15.0			
Benzo[b]fluoranthene	1.1175 1.3372	1.1059 1.3465	1.1575	1.1747	1.2361	Ave		1.2108				8.2		15.0			
Benzo[k]fluoranthene	1.1662 0.9582	1.2451 1.0104	1.2003	1.1538	1.1962	Ave		1.1329				9.4		15.0			
Benzo[a]pyrene	1.0791 1.1490	1.1088 1.1086	1.0897	1.1129	1.1455	Ave		1.1134				2.3		15.0			
Indeno[1,2,3-cd]pyrene	1.3034 1.3304	1.2736 1.3036	1.2748	1.2903	1.3119	Ave		1.2983				1.6		15.0			
Dibenz(a,h)anthracene	1.0797 1.0940	1.0176 1.0598	0.9680	1.0131	1.0651	Ave		1.0425				4.3		15.0			
Benzo[g,h,i]perylene	1.0803 1.1116	1.0396 1.0785	1.0593	1.0553	1.0853	Ave		1.0729				2.2		15.0			
2-Fluorophenol	1.6161 1.7397	1.6807 1.7763	1.7036	1.7123	1.7880	Ave		1.7167				3.4		15.0			
Phenol-d5	2.6789 2.8083	2.7701 2.9543	2.6466	2.8000	3.0069	Ave		2.8093				4.7		15.0			
Nitrobenzene-d5	0.6445 0.7427	0.6364 0.7935	0.6821	0.7125	0.7568	Ave		0.7098				8.3		15.0			
2-Fluorobiphenyl	1.2565 1.4108	1.2812 1.4963	1.2453	1.3645	1.3627	Ave		1.3453				6.8		15.0			
2,4,6-Tribromophenol	0.2068 0.2342	0.2119 0.2448	0.2195	0.2191	0.2231	Ave		0.2228				5.8		15.0			
Terphenyl-d14	0.8443 1.0032	0.7641 1.0616	0.8034	0.8906	0.9575	Ave		0.9035				12.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188634

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/17/2016 07:57 Calibration End Date: 05/17/2016 10:19 Calibration ID: 9386

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-188634/2	05171602.D
Level 2	IC 600-188634/3	05171603.D
Level 3	IC 600-188634/4	05171604.D
Level 4	ICIS 600-188634/5	05171605.D
Level 5	IC 600-188634/6	05171606.D
Level 6	IC 600-188634/7	05171607.D
Level 7	IC 600-188634/8	05171608.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
N-Nitrosodimethylamine	DCB	Ave	21969 406584	48154 489146	97411	244351	357087	5.00 80.0	10.0 100	20.0	50.0	70.0
Pyridine	DCB	Ave	37783 718247	77783 883352	163929	456123	625382	5.00 80.0	10.0 100	20.0	50.0	70.0
Aniline	DCB	Ave	54564 1022011	121164 1283323	233275	614908	899884	5.00 80.0	10.0 100	20.0	50.0	70.0
Bis(2-chloroethyl)ether	DCB	Ave	37047 688755	79547 849356	152758	413472	593891	5.00 80.0	10.0 100	20.0	50.0	70.0
2-Chlorophenol	DCB	Ave	27555 513369	59527 703573	116615	315813	460560	5.00 80.0	10.0 100	20.0	50.0	70.0
Phenol	DCB	Ave	40854 810048	94015 1073370	182346	503573	710892	5.00 80.0	10.0 100	20.0	50.0	70.0
n-Decane	DCB	Ave	36900 885493	89057 1122678	183332	512888	744085	5.00 80.0	10.0 100	20.0	50.0	70.0
1,3-Dichlorobenzene	DCB	Ave	28408 526682	60267 664617	119072	316239	458627	5.00 80.0	10.0 100	20.0	50.0	70.0
1,4-Dichlorobenzene	DCB	Ave	29091 541629	61676 713517	123857	319812	483403	5.00 80.0	10.0 100	20.0	50.0	70.0
1,2-Dichlorobenzene	DCB	Ave	26570 507084	59486 643038	116756	303533	449058	5.00 80.0	10.0 100	20.0	50.0	70.0
Benzyl alcohol	DCB	Ave	17694 372159	39949 478436	78070	226408	320474	5.00 80.0	10.0 100	20.0	50.0	70.0
Indene	DCB	Ave	52783 1037499	115917 1210927	227045	605938	903273	5.00 80.0	10.0 100	20.0	50.0	70.0
bis (2-Chloroisopropyl) ether	DCB	Ave	39628 879202	95003 1110120	194519	527186	777028	5.00 80.0	10.0 100	20.0	50.0	70.0
2-Methylphenol	DCB	Ave	27439 538345	63395 674847	125865	322527	473208	5.00 80.0	10.0 100	20.0	50.0	70.0
Acetophenone	NPT	Ave	46374 976338	111592 1209373	219781	601145	863340	5.00 80.0	10.0 100	20.0	50.0	70.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188634

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/17/2016 07:57 Calibration End Date: 05/17/2016 10:19 Calibration ID: 9386

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
N-Nitrosodi-n-propylamine	DCB	Ave	27921 585231	68455 736183	135389	368871	508916	5.00 80.0	10.0 100	20.0	50.0	70.0
Hexachloroethane	DCB	Ave	18219 357716	39801 464414	79419	205864	312521	5.00 80.0	10.0 100	20.0	50.0	70.0
3 & 4 Methylphenol	DCB	Ave	30550 586915	68462 743674	134985	349625	517369	5.00 80.0	10.0 100	20.0	50.0	70.0
Nitrobenzene	NPT	Ave	62065 1356025	147236 1712732	285736	805188	1162949	5.00 80.0	10.0 100	20.0	50.0	70.0
2,6-Dimethylphenol	NPT	Ave	27154 505178	61610 606697	115163	304003	433321	5.00 80.0	10.0 100	20.0	50.0	70.0
Isophorone	NPT	Ave	72117 1518675	176621 1888566	342648	934902	1328800	5.00 80.0	10.0 100	20.0	50.0	70.0
2-Nitrophenol	NPT	Ave	15046 283522	33652 335327	62724	162850	239019	5.00 80.0	10.0 100	20.0	50.0	70.0
2,4-Dimethylphenol	NPT	Ave	34080 731040	80643 921375	158358	435565	645410	5.00 80.0	10.0 100	20.0	50.0	70.0
Bis(2-chloroethoxy)methane	NPT	Ave	43336 921968	102384 1145550	208100	560773	815681	5.00 80.0	10.0 100	20.0	50.0	70.0
1,2,4-Trichlorobenzene	NPT	Ave	22353 464621	47122 621798	91026	255548	393474	5.00 80.0	10.0 100	20.0	50.0	70.0
2,4-Dichlorophenol	NPT	Ave	21094 474827	45440 634442	94053	254339	400491	5.00 80.0	10.0 100	20.0	50.0	70.0
Naphthalene	NPT	Ave	79495 1546656	171430 1985373	328872	902110	1332034	5.00 80.0	10.0 100	20.0	50.0	70.0
Benzoic acid	NPT	Lin2	7244 320047	27403 404304	58693	178911	272348	5.00 80.0	10.0 100	20.0	50.0	70.0
4-Chloroaniline	NPT	Ave	33138 630184	73208 721530	146433	380424	557977	5.00 80.0	10.0 100	20.0	50.0	70.0
2,6-Dichlorophenol	NPT	Ave	21159 418319	49553 532006	91594	237444	357695	5.00 80.0	10.0 100	20.0	50.0	70.0
Hexachlorobutadiene	NPT	Ave	15719 326605	35751 417047	70507	199088	290194	5.00 80.0	10.0 100	20.0	50.0	70.0
4-Chloro-3-methylphenol	NPT	Ave	31159 624095	69817 796640	142965	368930	551619	5.00 80.0	10.0 100	20.0	50.0	70.0
2-Methylnaphthalene	NPT	Ave	64339 1282055	143461 1676969	281688	766831	1144366	5.00 80.0	10.0 100	20.0	50.0	70.0
1-Methylnaphthalene	NPT	Ave	43051 881123	100550 1127645	197224	520257	775754	5.00 80.0	10.0 100	20.0	50.0	70.0
Hexachlorocyclopentadiene	ANT	Lin1	5062 322775	18660 399830	48229	175863	285174	5.00 80.0	10.0 100	20.0	50.0	70.0
1,2,4,5-Tetrachlorobenzene	ANT	Ave	20203 456979	46293 566180	86750	255828	391071	5.00 80.0	10.0 100	20.0	50.0	70.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188634

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/17/2016 07:57 Calibration End Date: 05/17/2016 10:19 Calibration ID: 9386

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
2,4,6-Trichlorophenol	ANT	Ave	13461 256780	31478 331845	59168	161512	237297	5.00 80.0	10.0 100	20.0	50.0	70.0
2,4,5-Trichlorophenol	ANT	Ave	12523 262295	29757 336902	62585	169956	236156	5.00 80.0	10.0 100	20.0	50.0	70.0
1,1'-Biphenyl	ANT	Ave	52099 1262973	118453 1583326	231812	664637	1042913	5.00 80.0	10.0 100	20.0	50.0	70.0
2-Chloronaphthalene	ANT	Ave	46269 958332	101864 1237562	194006	557886	822607	5.00 80.0	10.0 100	20.0	50.0	70.0
2-Nitroaniline	ANT	Ave	25148 490039	60674 624611	122474	317333	456869	5.00 80.0	10.0 100	20.0	50.0	70.0
Dimethyl phthalate	ANT	Ave	58352 916874	127705 1107589	245383	596787	836936	5.00 80.0	10.0 100	20.0	50.0	70.0
1,3-Dinitrobenzene	ANT	Ave	8220 147062	18628 189119	36807	89261	130174	5.00 80.0	10.0 100	20.0	50.0	70.0
2,6-Dinitrotoluene	ANT	Ave	13054 202318	27221 264181	54384	132461	190515	5.00 80.0	10.0 100	20.0	50.0	70.0
Acenaphthylene	ANT	Ave	68762 1333012	156355 1491051	289336	794718	1148242	5.00 80.0	10.0 100	20.0	50.0	70.0
1,2-Dinitrobenzene	ANT	Ave	6903 99028	15164 120997	28051	63336	90542	5.00 80.0	10.0 100	20.0	50.0	70.0
3-Nitroaniline	ANT	Ave	14808 249799	33452 300414	61676	156193	226100	5.00 80.0	10.0 100	20.0	50.0	70.0
Acenaphthene	ANT	Ave	40738 749033	94112 1027145	186055	486560	700134	5.00 80.0	10.0 100	20.0	50.0	70.0
2,4-Dinitrophenol	ANT	Ave	9338 250704	29793 320965	62213	171906	222398	10.0 160	20.0 200	40.0	100	140
Dibenzofuran	ANT	Ave	57627 1226267	138304 1418302	260030	711434	1023638	5.00 80.0	10.0 100	20.0	50.0	70.0
2,4-Dinitrotoluene	ANT	Ave	17217 298324	41349 373578	75467	193985	268910	5.00 80.0	10.0 100	20.0	50.0	70.0
4-Nitrophenol	ANT	Ave	29418 662616	70105 812614	145121	400351	582913	10.0 160	20.0 200	40.0	100	140
2,3,4,6-Tetrachlorophenol	ANT	Ave	8059 221959	23497 261568	46357	123731	186660	5.00 80.0	10.0 100	20.0	50.0	70.0
Diethyl phthalate	ANT	Ave	61688 1166885	140563 1424092	266254	683514	1048283	5.00 80.0	10.0 100	20.0	50.0	70.0
Hexadecane	ANT	Ave	48629 1064222	114390 1287138	227697	636565	925063	5.00 80.0	10.0 100	20.0	50.0	70.0
Fluorene	ANT	Ave	50959 1163214	103423 1424710	216617	650220	1036422	5.00 80.0	10.0 100	20.0	50.0	70.0
4-Chlorophenyl phenyl ether	ANT	Lin1	20609 571958	48367 678626	93902	297212	469235	5.00 80.0	10.0 100	20.0	50.0	70.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188634

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/17/2016 07:57 Calibration End Date: 05/17/2016 10:19 Calibration ID: 9386

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
4-Nitroaniline	ANT	Ave	14086 223201	33863 288302	56358	146985	220621	5.00 80.0	10.0 100	20.0	50.0	70.0
4,6-Dinitro-2-methylphenol	PHN	Ave	17140 336427	42640 439775	81640	204312	296128	10.0 160	20.0 200	40.0	100	140
Diphenylamine	PHN	Ave	33030 645112	78682 841933	150258	390328	558591	4.25 68.0	8.50 85.0	17.0	42.5	59.5
N-Nitrosodiphenylamine	PHN	Ave	33667 645112	78682 841933	150258	390328	558591	5.00 80.0	10.0 100	20.0	50.0	70.0
1,2-Diphenylhydrazine	PHN	Ave	93839 1997036	244460 2427200	487530	1437838	1744492	5.00 80.0	10.0 100	20.0	50.0	70.0
Azobenzene	PHN	Ave	94290 1997036	244460 2427200	487530	1437838	1744492	5.00 80.0	10.0 100	20.0	50.0	70.0
4-Bromophenyl phenyl ether	PHN	Ave	13450 260444	29298 326744	55092	154672	225350	5.00 80.0	10.0 100	20.0	50.0	70.0
Hexachlorobenzene	PHN	Ave	16083 313267	35981 383218	69026	190774	261938	5.00 80.0	10.0 100	20.0	50.0	70.0
Pentachlorophenol	PHN	Lin1	11454 342081	32444 438124	69762	202570	284020	10.0 160	20.0 200	40.0	100	140
n-Octadecane	PHN	Ave	50754 947979	116603 1166875	230187	586688	850561	5.00 80.0	10.0 100	20.0	50.0	70.0
Phenanthrene	PHN	Ave	67228 1280857	148452 1477510	279755	746941	1118318	5.00 80.0	10.0 100	20.0	50.0	70.0
Anthracene	PHN	Ave	69489 1254650	156017 1499151	287326	758532	1110951	5.00 80.0	10.0 100	20.0	50.0	70.0
Carbazole	PHN	Ave	67591 1197524	156000 1434830	288266	722546	1055739	5.00 80.0	10.0 100	20.0	50.0	70.0
Di-n-butyl phthalate	PHN	Ave	104571 1804360	235448 2225824	445216	1112894	1621881	5.00 80.0	10.0 100	20.0	50.0	70.0
Fluoranthene	PHN	Ave	67106 1412109	164694 1799412	298423	851738	1282495	5.00 80.0	10.0 100	20.0	50.0	70.0
Pyrene	CRY	Ave	69618 1424234	166020 1757531	311482	855897	1305795	5.00 80.0	10.0 100	20.0	50.0	70.0
Butyl benzyl phthalate	CRY	Ave	47705 819497	107625 976542	197789	514057	727209	5.00 80.0	10.0 100	20.0	50.0	70.0
Benzo[a]anthracene	CRY	Ave	62083 1248331	152200 1674630	298572	773985	1188335	5.00 80.0	10.0 100	20.0	50.0	70.0
Chrysene	CRY	Ave	59884 1375417	143154 1760333	269837	727590	1133096	5.00 80.0	10.0 100	20.0	50.0	70.0
Bis(2-ethylhexyl) phthalate	CRY	Ave	65270 1228508	145221 1574063	266072	700771	1038837	5.00 80.0	10.0 100	20.0	50.0	70.0
Di-n-octyl phthalate	CRY	Ave	108855 1822507	249142 2264144	458494	1160322	1618315	5.00 80.0	10.0 100	20.0	50.0	70.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188634

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/17/2016 07:57 Calibration End Date: 05/17/2016 10:19 Calibration ID: 9386

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzo[b]fluoranthene	PRY	Ave	54211 1056704	125314 1362471	244784	606786	848528	5.00 80.0	10.0 100	20.0	50.0	70.0
Benzo[k]fluoranthene	PRY	Ave	56573 757224	141097 1022411	253844	595970	821138	5.00 80.0	10.0 100	20.0	50.0	70.0
Benzo[a]pyrene	PRY	Ave	52349 908041	125652 1121739	230457	574867	786351	5.00 80.0	10.0 100	20.0	50.0	70.0
Indeno[1,2,3-cd]pyrene	PRY	Ave	63226 1051359	144327 1319156	269587	666497	900573	5.00 80.0	10.0 100	20.0	50.0	70.0
Dibenz(a,h)anthracene	PRY	Ave	52375 864583	115312 1072401	204718	523312	731148	5.00 80.0	10.0 100	20.0	50.0	70.0
Benzo[g,h,i]perylene	PRY	Ave	52406 878474	117809 1091356	224027	545106	744972	5.00 80.0	10.0 100	20.0	50.0	70.0
2-Fluorophenol	DCB	Ave	27470 537415	63223 707456	126852	325545	480299	5.00 80.0	10.0 100	20.0	50.0	70.0
Phenol-d5	DCB	Ave	45537 867519	104201 1176647	197064	532347	807735	5.00 80.0	10.0 100	20.0	50.0	70.0
Nitrobenzene-d5	NPT	Ave	45803 968906	104752 1317995	214007	576822	871021	5.00 80.0	10.0 100	20.0	50.0	70.0
2-Fluorobiphenyl	ANT	Ave	48083 984706	113748 1298949	214068	596861	863476	5.00 80.0	10.0 100	20.0	50.0	70.0
2,4,6-Tribromophenol	ANT	Ave	7915 163501	18814 212532	37732	95821	141357	5.00 80.0	10.0 100	20.0	50.0	70.0
Terphenyl-d14	CRY	Ave	44518 968248	101426 1288527	194980	552391	814698	5.00 80.0	10.0 100	20.0	50.0	70.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171602.D
Lims ID: IC REG L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 17-May-2016 07:57:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS REG
Misc. Info.: 600-0012090-002
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270C_9*sub27

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 11:06:22 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: patelk Date: 17-May-2016 08:41:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.681	1.684	-0.003	84	21969	5.00	5.00	
2 Pyridine	79	1.729	1.706	0.023	94	37783	5.00	4.94	
$ 7 2-Fluorophenol	112	4.032	3.976	0.056	93	27470	5.00	4.71	
13 Aniline	93	4.897	4.900	-0.003	96	54564	5.00	4.95	
15 Bis(2-chloroethyl)ether	93	4.961	4.964	-0.003	96	37047	5.00	5.05	
$ 16 Phenol-d5	99	5.089	5.050	0.039	63	45537	5.00	4.77	
18 2-Chlorophenol	128	5.079	5.060	0.019	90	27555	5.00	4.90	
17 Phenol	94	5.100	5.060	0.040	85	40854	5.00	4.68	
19 n-Decane	57	5.084	5.087	-0.003	83	36900	5.00	4.19	
20 1,3-Dichlorobenzene	146	5.127	5.130	-0.003	84	28408	5.00	5.04	
* 21 1,4-Dichlorobenzene-d4	152	5.185	5.189	-0.004	90	135985	40.0	40.0	
22 1,4-Dichlorobenzene	146	5.201	5.205	-0.004	87	29091	5.00	4.97	
24 1,2-Dichlorobenzene	146	5.346	5.349	-0.003	81	26570	5.00	4.87	
25 Benzyl alcohol	108	5.394	5.402	-0.008	83	17694	5.00	4.59	
26 Indene	115	5.426	5.429	-0.003	89	52783	5.00	4.90	
27 2,2'-oxybis[1-chloropropan	45	5.485	5.488	-0.003	84	39628	5.00	4.35	
28 2-Methylphenol	108	5.591	5.579	0.012	87	27439	5.00	4.75	
30 Acetophenone	105	5.581	5.595	-0.014	81	46374	5.00	4.57	
32 N-Nitrosodi-n-propylamine	70	5.602	5.627	-0.025	86	27921	5.00	4.47	
34 Hexachloroethane	117	5.645	5.648	-0.003	87	18219	5.00	4.83	
$ 36 Nitrobenzene-d5	82	5.709	5.723	-0.014	93	45803	5.00	4.54	
37 3 & 4 Methylphenol	108	5.746	5.723	0.023	95	30550	5.00	4.85	
38 Nitrobenzene	77	5.725	5.739	-0.014	91	62065	5.00	4.53	
41 2,6-Dimethylphenol	122	5.880	5.883	-0.003	89	27154	5.00	5.09	
42 Isophorone	82	5.955	5.969	-0.014	98	72117	5.00	4.56	
43 2-Nitrophenol	139	6.013	6.022	-0.009	69	15046	5.00	5.13	
45 2,4-Dimethylphenol	107	6.147	6.145	0.002	93	34080	5.00	4.55	
46 Bis(2-chloroethoxy)methane	93	6.152	6.166	-0.014	94	43336	5.00	4.55	
48 1,2,4-Trichlorobenzene	180	6.291	6.294	-0.003	86	22353	5.00	4.83	
49 2,4-Dichlorophenol	162	6.313	6.294	0.019	85	21094	5.00	4.55	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.329	6.337	-0.008	97	568571	40.0	40.0	
51 Naphthalene	128	6.345	6.353	-0.008	97	79495	5.00	4.98	
52 Benzoic acid	122	6.334	6.396	-0.062	32	7244	5.00	5.12	
54 4-Chloroaniline	127	6.430	6.439	-0.009	90	33138	5.00	5.02	
56 2,6-Dichlorophenol	162	6.446	6.449	-0.003	82	21159	5.00	4.88	
57 Hexachlorobutadiene	225	6.473	6.476	-0.003	90	15719	5.00	4.66	
64 4-Chloro-3-methylphenol	107	6.938	6.925	0.013	82	31159	5.00	4.78	
65 2-Methylnaphthalene	142	6.932	6.941	-0.009	92	64339	5.00	4.79	
67 1-Methylnaphthalene	142	7.012	7.021	-0.009	87	43051	5.00	4.69	
68 Hexachlorocyclopentadiene	237	7.077	7.080	-0.003	68	5062	5.00	6.17	
69 1,2,4,5-Tetrachlorobenzene	216	7.082	7.085	-0.003	90	20203	5.00	4.55	
72 2,4,6-Trichlorophenol	196	7.215	7.219	-0.004	86	13461	5.00	4.84	
$ 73 2-Fluorobiphenyl	172	7.247	7.256	-0.009	98	48083	5.00	4.67	
74 2,4,5-Trichlorophenol	196	7.306	7.288	0.018	80	12523	5.00	4.49	
76 1,1'-Biphenyl	154	7.322	7.331	-0.009	95	52099	5.00	4.39	
77 2-Chloronaphthalene	162	7.333	7.341	-0.008	95	46269	5.00	4.78	
83 2-Nitroaniline	65	7.450	7.459	-0.009	71	25148	5.00	4.67	
86 Dimethyl phthalate	163	7.595	7.619	-0.024	93	58352	5.00	5.52	
87 1,3-Dinitrobenzene	168	7.621	7.641	-0.020	73	8220	5.00	5.09	
88 2,6-Dinitrotoluene	165	7.637	7.657	-0.020	75	13054	5.00	5.52	
89 Acenaphthylene	152	7.670	7.678	-0.008	92	68762	5.00	5.03	
90 1,2-Dinitrobenzene	168	7.686	7.705	-0.019	85	6903	5.00	5.83	
* 91 Acenaphthene-d10	164	7.792	7.796	-0.004	92	306144	40.0	40.0	
92 3-Nitroaniline	138	7.792	7.806	-0.014	38	14808	5.00	5.33	
93 Acenaphthene	153	7.814	7.828	-0.014	95	40738	5.00	4.85	
94 2,4-Dinitrophenol	184	7.889	7.897	-0.008	67	9338	10.0	7.07	
96 Dibenzofuran	168	7.958	7.967	-0.008	84	57627	5.00	4.70	
97 2,4-Dinitrotoluene	165	7.974	7.988	-0.014	77	17217	5.00	5.11	
100 4-Nitrophenol	109	8.108	8.079	0.029	82	29418	10.0	8.79	
101 2,3,4,6-Tetrachlorophenol	232	8.108	8.105	0.003	85	8059	5.00	3.80	
103 Diethyl phthalate	149	8.166	8.196	-0.030	93	61688	5.00	5.00	
104 Hexadecane	57	8.193	8.202	-0.009	97	48629	5.00	4.54	
106 Fluorene	166	8.236	8.250	-0.014	94	50959	5.00	4.58	
107 4-Chlorophenyl phenyl ethe	204	8.241	8.250	-0.009	79	20609	5.00	6.08	
109 4-Nitroaniline	138	8.295	8.330	-0.035	69	14086	5.00	5.34	
110 4,6-Dinitro-2-methylphenol	198	8.311	8.340	-0.029	49	17140	10.0	8.79	
111 N-Nitrosodiphenylamine	169	8.348	8.367	-0.019	67	33667	5.00	4.55	
112 Diphenylamine	169	8.348	8.367	-0.019	89	33030	4.25	3.80	
113 1,2-Diphenylhydrazine	77	8.369	8.383	-0.014	41	93839	5.00	4.05	
114 Azobenzene	77	8.369	8.383	-0.014	96	94290	5.00	4.07	
$ 115 2,4,6-Tribromophenol	330	8.449	8.458	-0.009	79	7915	5.00	4.64	
120 4-Bromophenyl phenyl ether	248	8.636	8.645	-0.009	74	13450	5.00	4.65	
123 Hexachlorobenzene	284	8.695	8.704	-0.009	87	16083	5.00	4.62	
128 Pentachlorophenol	266	8.898	8.901	-0.003	79	11454	10.0	11.9	
129 n-Octadecane	57	8.946	8.949	-0.003	97	50754	5.00	4.62	
* 131 Phenanthrene-d10	188	9.000	9.008	-0.008	95	436151	40.0	40.0	
133 Phenanthrene	178	9.016	9.030	-0.014	98	67228	5.00	4.75	
136 Anthracene	178	9.058	9.072	-0.014	99	69489	5.00	4.84	
137 Carbazole	167	9.213	9.222	-0.009	97	67591	5.00	4.86	
139 Di-n-butyl phthalate	149	9.502	9.505	-0.003	99	104571	5.00	4.90	
146 Fluoranthene	202	9.983	9.997	-0.014	98	67106	5.00	4.25	
149 Pyrene	202	10.164	10.178	-0.014	94	69618	5.00	4.77	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 152 Terphenyl-d14	244	10.309	10.317	-0.009	97	44518	5.00	4.67	
159 Butyl benzyl phthalate	149	10.720	10.728	-0.008	92	47705	5.00	5.40	
163 Benzo[a]anthracene	228	11.174	11.193	-0.019	99	62083	5.00	4.65	M
* 164 Chrysene-d12	240	11.190	11.209	-0.019	97	421825	40.0	40.0	
165 Chrysene	228	11.211	11.231	-0.020	96	59884	5.00	4.57	M
166 Bis(2-ethylhexyl) phthalat	149	11.227	11.247	-0.020	95	65270	5.00	5.19	
168 Di-n-octyl phthalate	149	11.927	11.952	-0.025	99	108855	5.00	5.41	
170 Benzo[b]fluoranthene	252	12.392	12.427	-0.035	97	54211	5.00	4.61	
171 Benzo[k]fluoranthene	252	12.429	12.470	-0.041	99	56573	5.00	5.15	
172 Benzo[a]pyrene	252	12.873	12.913	-0.040	82	52349	5.00	4.85	
* 173 Perylene-d12	264	12.985	13.004	-0.019	96	388080	40.0	40.0	
178 Indeno[1,2,3-cd]pyrene	276	15.148	15.200	-0.052	96	63226	5.00	5.02	
179 Dibenz(a,h)anthracene	278	15.191	15.259	-0.068	95	52375	5.00	5.18	
180 Benzo[g,h,i]perylene	276	15.608	15.665	-0.057	94	52406	5.00	5.03	
S 193 Methyl Phenols,Total	1				0			9.61	
S 194 Total Cresols	1				0			9.61	
S 195 Total Cresols, TCEQ Defini	1				0			18.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

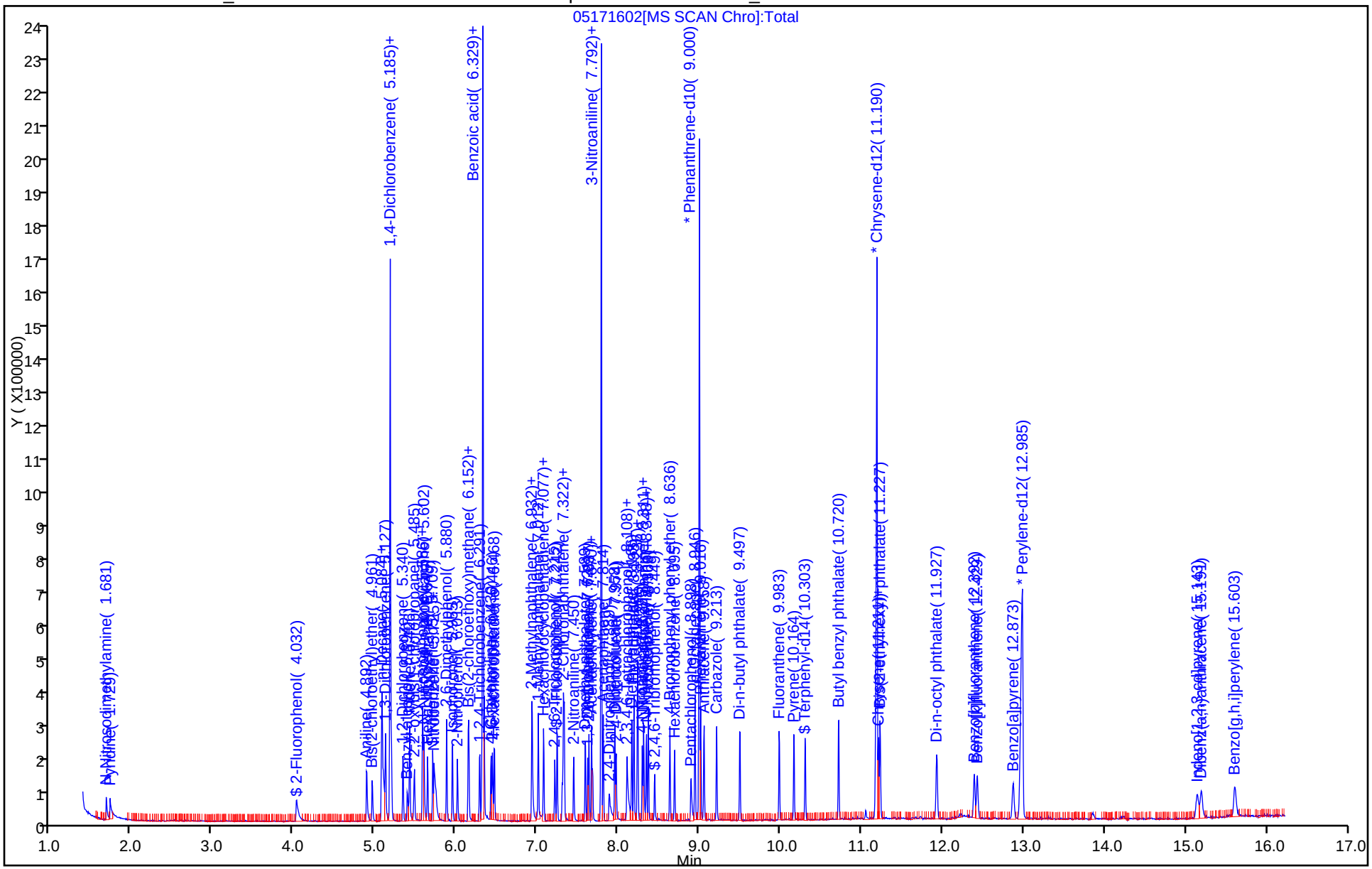
SV_REGICAL_00008	Amount Added: 25.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 20.00	Units: uL	Run Reagent

Report Date: 17-May-2016 11:06:24 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171602.D

Injection Date:	17-May-2016 07:57:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG L1			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

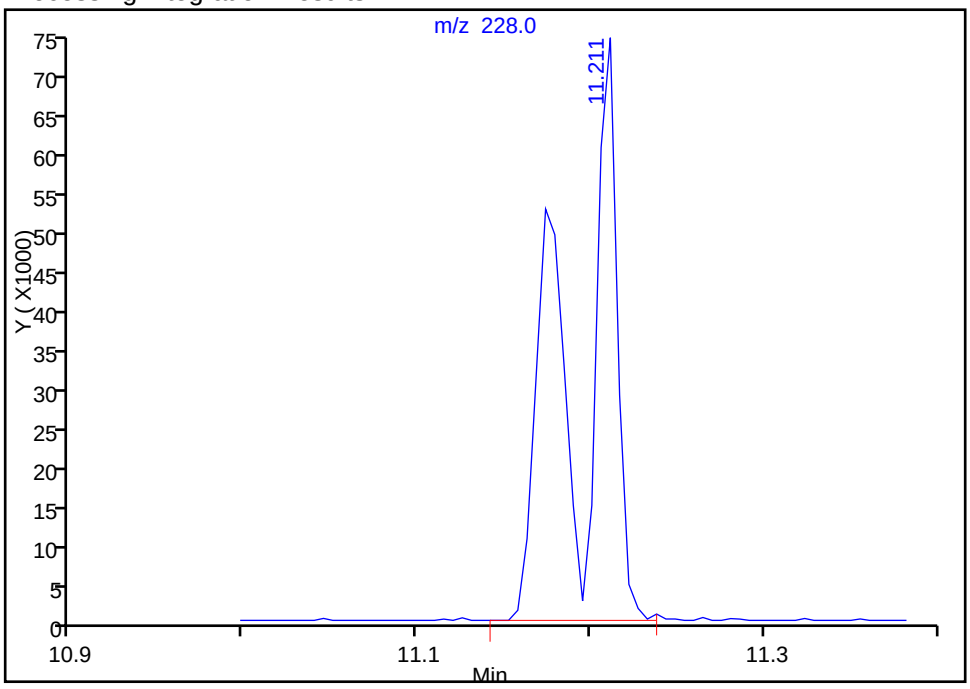
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171602.D
Injection Date: 17-May-2016 07:57:30 Instrument ID: CHSVMS09
Lims ID: IC REG L1
Client ID:
Operator ID: KP ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

163 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

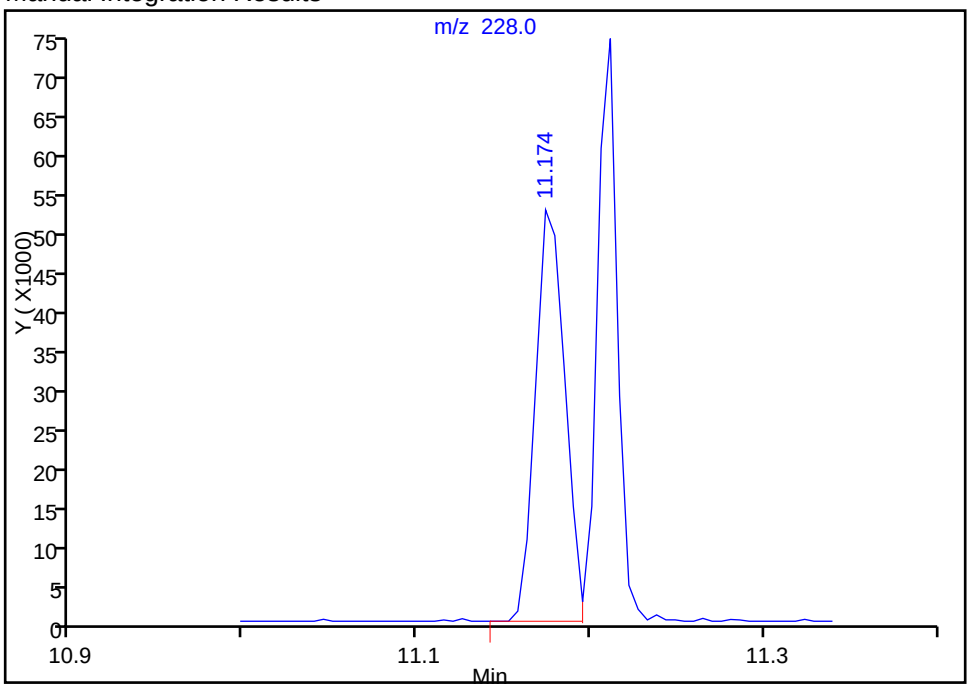
Processing Integration Results

RT: 11.21
Area: 121176
Amount: 9.294989
Amount Units: ug/ml



Manual Integration Results

RT: 11.17
Area: 62083
Amount: 4.645032
Amount Units: ug/ml



Reviewer: patelk, 17-May-2016 08:41:33
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Houston

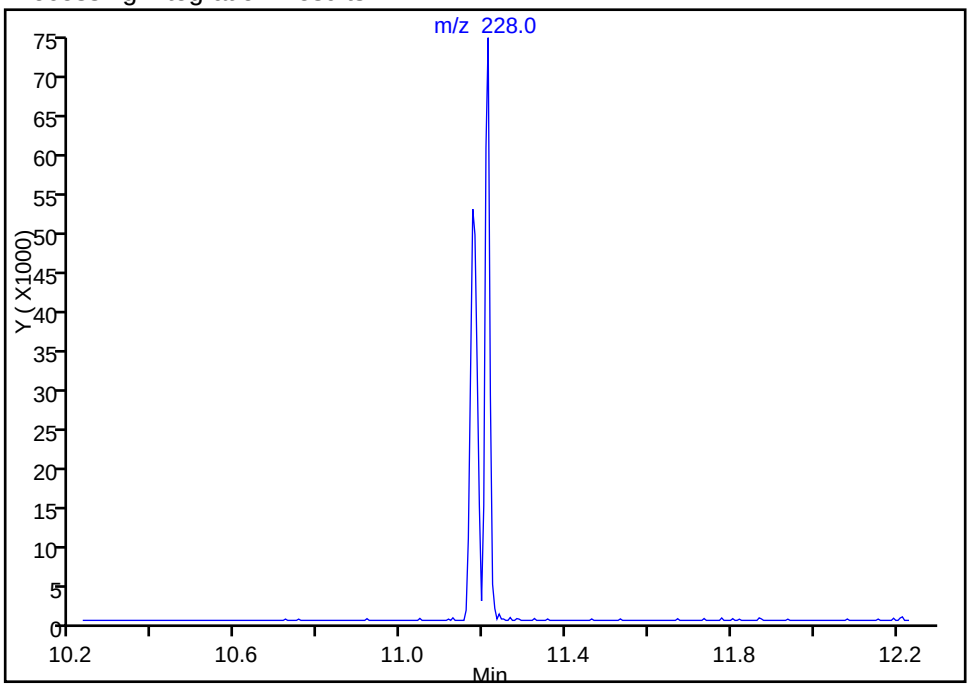
Data File:	\\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171602.D				
Injection Date:	17-May-2016 07:57:30	Instrument ID:	CHSVMS09		
Lims ID:	IC REG L1				
Client ID:					
Operator ID:	KP	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		
Column:		Detector	MS SCAN		

165 Chrysene, CAS: 218-01-9

Signal: 1

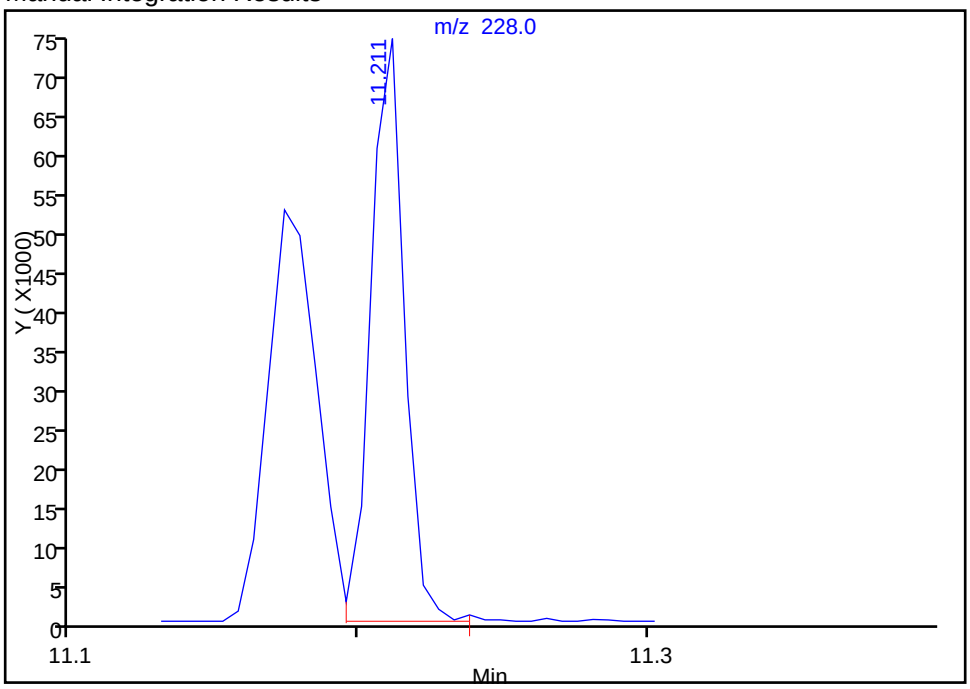
Not Detected
Expected RT: 11.23

Processing Integration Results



Manual Integration Results

RT: 11.21
Area: 59884
Amount: 4.565769
Amount Units: ug/ml



Reviewer: patelk, 17-May-2016 08:41:33
Audit Action: Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Houston

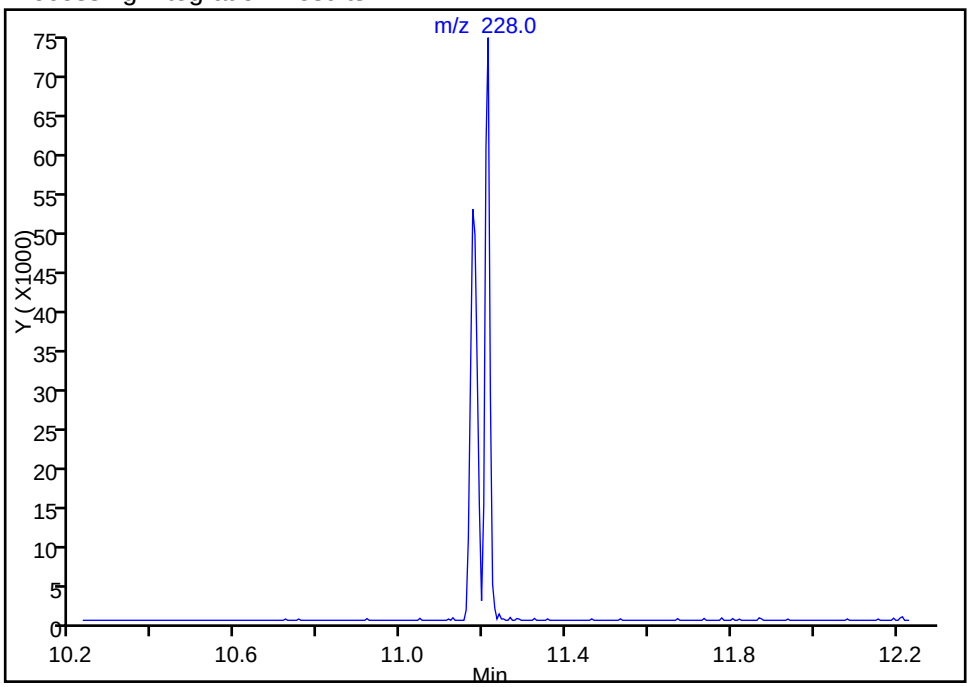
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171602.D
Injection Date: 17-May-2016 07:57:30 Instrument ID: CHSVMS09
Lims ID: IC REG L1
Client ID:
Operator ID: KP ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

165 Chrysene, CAS: 218-01-9

Signal: 1

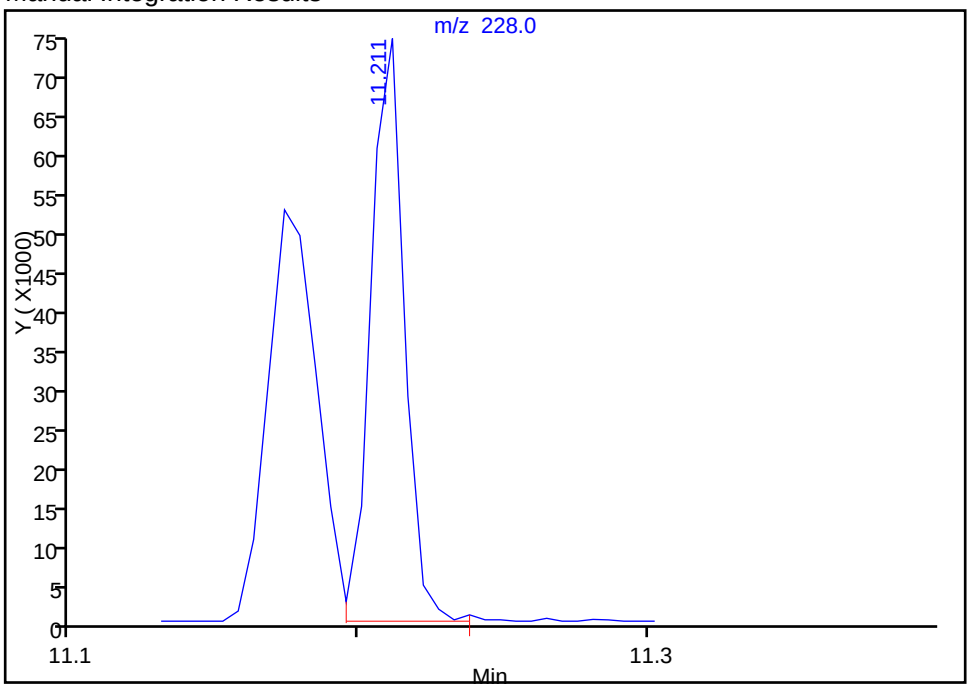
Not Detected
Expected RT: 11.23

Processing Integration Results



Manual Integration Results

RT: 11.21
Area: 59884
Amount: 4.565769
Amount Units: ug/ml



Reviewer: patelk, 17-May-2016 08:41:33
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171603.D
Lims ID: IC REG L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 17-May-2016 08:21:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC REG L2
Misc. Info.: 600-0012090-003
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270C_9*sub27

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 11:06:35 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: patelk Date: 17-May-2016 08:43:07

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.679	1.684	-0.005	84	48154	10.0	9.91	
2 Pyridine	79	1.716	1.706	0.010	92	77783	10.0	9.18	
$ 7 2-Fluorophenol	112	4.013	3.976	0.037	92	63223	10.0	9.79	
13 Aniline	93	4.895	4.900	-0.005	96	121164	10.0	9.94	
15 Bis(2-chloroethyl)ether	93	4.959	4.964	-0.005	94	79547	10.0	9.81	
$ 16 Phenol-d5	99	5.076	5.050	0.026	67	104201	10.0	9.86	
18 2-Chlorophenol	128	5.071	5.060	0.011	92	59527	10.0	9.57	
17 Phenol	94	5.087	5.060	0.027	75	94015	10.0	9.74	
19 n-Decane	57	5.082	5.087	-0.005	84	89057	10.0	9.13	
20 1,3-Dichlorobenzene	146	5.124	5.130	-0.006	80	60267	10.0	9.65	
* 21 1,4-Dichlorobenzene-d4	152	5.183	5.189	-0.006	87	150468	40.0	40.0	
22 1,4-Dichlorobenzene	146	5.199	5.205	-0.006	86	61676	10.0	9.53	
24 1,2-Dichlorobenzene	146	5.343	5.349	-0.006	82	59486	10.0	9.85	
25 Benzyl alcohol	108	5.391	5.402	-0.011	83	39949	10.0	9.36	
26 Indene	115	5.423	5.429	-0.006	88	115917	10.0	9.72	
27 2,2'-oxybis[1-chloropropan	45	5.482	5.488	-0.006	85	95003	10.0	9.42	
28 2-Methylphenol	108	5.584	5.579	0.005	56	63395	10.0	9.93	
30 Acetophenone	105	5.584	5.595	-0.011	80	111592	10.0	9.49	
32 N-Nitrosodi-n-propylamine	70	5.605	5.627	-0.022	89	68455	10.0	9.91	
34 Hexachloroethane	117	5.648	5.648	0.000	90	39801	10.0	9.54	
$ 36 Nitrobenzene-d5	82	5.712	5.723	-0.011	94	104752	10.0	8.97	
37 3 & 4 Methylphenol	108	5.739	5.723	0.016	91	68462	10.0	9.83	
38 Nitrobenzene	77	5.728	5.739	-0.011	89	147236	10.0	9.27	
41 2,6-Dimethylphenol	122	5.878	5.883	-0.005	89	61610	10.0	9.97	
42 Isophorone	82	5.952	5.969	-0.017	97	176621	10.0	9.64	
43 2-Nitrophenol	139	6.016	6.022	-0.006	76	33652	10.0	9.91	
45 2,4-Dimethylphenol	107	6.145	6.145	0.000	92	80643	10.0	9.30	
46 Bis(2-chloroethoxy)methane	93	6.155	6.166	-0.011	98	102384	10.0	9.28	
48 1,2,4-Trichlorobenzene	180	6.289	6.294	-0.005	88	47122	10.0	8.79	
49 2,4-Dichlorophenol	162	6.305	6.294	0.011	90	45440	10.0	8.47	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.332	6.337	-0.005	97	658400	40.0	40.0	
51 Naphthalene	128	6.348	6.353	-0.005	97	171430	10.0	9.27	
52 Benzoic acid	122	6.342	6.396	-0.054	79	27403	10.0	9.87	
54 4-Chloroaniline	127	6.428	6.439	-0.011	90	73208	10.0	9.58	
56 2,6-Dichlorophenol	162	6.444	6.449	-0.005	81	49553	10.0	9.87	
57 Hexachlorobutadiene	225	6.471	6.476	-0.006	89	35751	10.0	9.14	
64 4-Chloro-3-methylphenol	107	6.930	6.925	0.005	73	69817	10.0	9.25	
65 2-Methylnaphthalene	142	6.935	6.941	-0.006	92	143461	10.0	9.23	
67 1-Methylnaphthalene	142	7.015	7.021	-0.006	88	100550	10.0	9.47	
68 Hexachlorocyclopentadiene	237	7.074	7.080	-0.006	90	18660	10.0	9.21	
69 1,2,4,5-Tetrachlorobenzene	216	7.080	7.085	-0.005	92	46293	10.0	8.98	
72 2,4,6-Trichlorophenol	196	7.213	7.219	-0.006	85	31478	10.0	9.75	
$ 73 2-Fluorobiphenyl	172	7.245	7.256	-0.011	97	113748	10.0	9.52	
74 2,4,5-Trichlorophenol	196	7.304	7.288	0.016	84	29757	10.0	9.20	
76 1,1'-Biphenyl	154	7.325	7.331	-0.006	96	118453	10.0	8.61	
77 2-Chloronaphthalene	162	7.336	7.341	-0.005	95	101864	10.0	9.07	
83 2-Nitroaniline	65	7.448	7.459	-0.011	69	60674	10.0	9.72	
86 Dimethyl phthalate	163	7.598	7.619	-0.021	91	127705	10.0	10.4	
87 1,3-Dinitrobenzene	168	7.624	7.641	-0.017	76	18628	10.0	9.95	
88 2,6-Dinitrotoluene	165	7.640	7.657	-0.017	74	27221	10.0	9.93	
89 Acenaphthylene	152	7.672	7.678	-0.006	97	156355	10.0	9.86	
90 1,2-Dinitrobenzene	168	7.689	7.705	-0.017	84	15164	10.0	11.0	
* 91 Acenaphthene-d10	164	7.790	7.796	-0.006	90	355121	40.0	40.0	
92 3-Nitroaniline	138	7.790	7.806	-0.016	46	33452	10.0	10.4	
93 Acenaphthene	153	7.817	7.828	-0.011	96	94112	10.0	9.66	
94 2,4-Dinitrophenol	184	7.886	7.897	-0.011	70	29793	20.0	19.5	
96 Dibenzofuran	168	7.956	7.967	-0.010	91	138304	10.0	9.73	
97 2,4-Dinitrotoluene	165	7.972	7.988	-0.016	75	41349	10.0	10.6	
100 4-Nitrophenol	109	8.095	8.079	0.015	85	70105	20.0	18.1	
101 2,3,4,6-Tetrachlorophenol	232	8.105	8.105	0.000	85	23497	10.0	9.54	
103 Diethyl phthalate	149	8.169	8.196	-0.027	92	140563	10.0	9.83	
104 Hexadecane	57	8.191	8.202	-0.011	98	114390	10.0	9.20	
106 Fluorene	166	8.239	8.250	-0.011	89	103423	10.0	8.01	
107 4-Chlorophenyl phenyl ethe	204	8.244	8.250	-0.006	88	48367	10.0	9.59	
109 4-Nitroaniline	138	8.298	8.330	-0.032	71	33863	10.0	11.1	
110 4,6-Dinitro-2-methylphenol	198	8.314	8.340	-0.026	56	42640	20.0	18.0	
111 N-Nitrosodiphenylamine	169	8.346	8.367	-0.021	69	78682	10.0	8.76	
112 Diphenylamine	169	8.346	8.367	-0.021	89	78682	8.50	7.47	
113 1,2-Diphenylhydrazine	77	8.372	8.383	-0.011	45	244460	10.0	8.70	
114 Azobenzene	77	8.372	8.383	-0.011	96	244460	10.0	8.70	
$ 115 2,4,6-Tribromophenol	330	8.447	8.458	-0.011	82	18814	10.0	9.51	
120 4-Bromophenyl phenyl ether	248	8.639	8.645	-0.006	78	29298	10.0	8.35	
123 Hexachlorobenzene	284	8.693	8.704	-0.011	79	35981	10.0	8.52	
128 Pentachlorophenol	266	8.896	8.901	-0.005	80	32444	20.0	18.9	
129 n-Octadecane	57	8.944	8.949	-0.005	94	116603	10.0	8.76	
* 131 Phenanthrene-d10	188	9.003	9.008	-0.005	96	529156	40.0	40.0	
133 Phenanthrene	178	9.019	9.030	-0.011	99	148452	10.0	8.65	
136 Anthracene	178	9.056	9.072	-0.016	98	156017	10.0	8.96	
137 Carbazole	167	9.211	9.222	-0.011	97	156000	10.0	9.25	
139 Di-n-butyl phthalate	149	9.499	9.505	-0.006	98	235448	10.0	9.10	
146 Fluoranthene	202	9.986	9.997	-0.011	99	164694	10.0	8.61	
149 Pyrene	202	10.167	10.178	-0.011	96	166020	10.0	9.03	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 152 Terphenyl-d14	244	10.306	10.317	-0.011	97	101426	10.0	8.46	
159 Butyl benzyl phthalate	149	10.717	10.728	-0.011	89	107625	10.0	9.67	
163 Benzo[a]anthracene	228	11.177	11.193	-0.016	99	152200	10.0	9.05	M
* 164 Chrysene-d12	240	11.193	11.209	-0.016	98	530945	40.0	40.0	
165 Chrysene	228	11.209	11.231	-0.022	97	143154	10.0	8.67	
166 Bis(2-ethylhexyl) phthalat	149	11.230	11.247	-0.017	96	145221	10.0	9.17	
168 Di-n-octyl phthalate	149	11.930	11.952	-0.022	99	249142	10.0	9.84	
170 Benzo[b]fluoranthene	252	12.395	12.427	-0.032	97	125314	10.0	9.13	
171 Benzo[k]fluoranthene	252	12.432	12.470	-0.038	99	141097	10.0	11.0	
172 Benzo[a]pyrene	252	12.876	12.913	-0.037	80	125652	10.0	9.96	
* 173 Perylene-d12	264	12.983	13.004	-0.021	97	453274	40.0	40.0	
178 Indeno[1,2,3-cd]pyrene	276	15.146	15.200	-0.054	99	144327	10.0	9.81	
179 Dibenz(a,h)anthracene	278	15.194	15.259	-0.065	94	115312	10.0	9.76	
180 Benzo[g,h,i]perylene	276	15.606	15.665	-0.059	95	117809	10.0	9.69	
S 193 Methyl Phenols,Total	1				0			19.8	
S 194 Total Cresols	1				0			19.8	
S 195 Total Cresols, TCEQ Defini	1				0			37.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

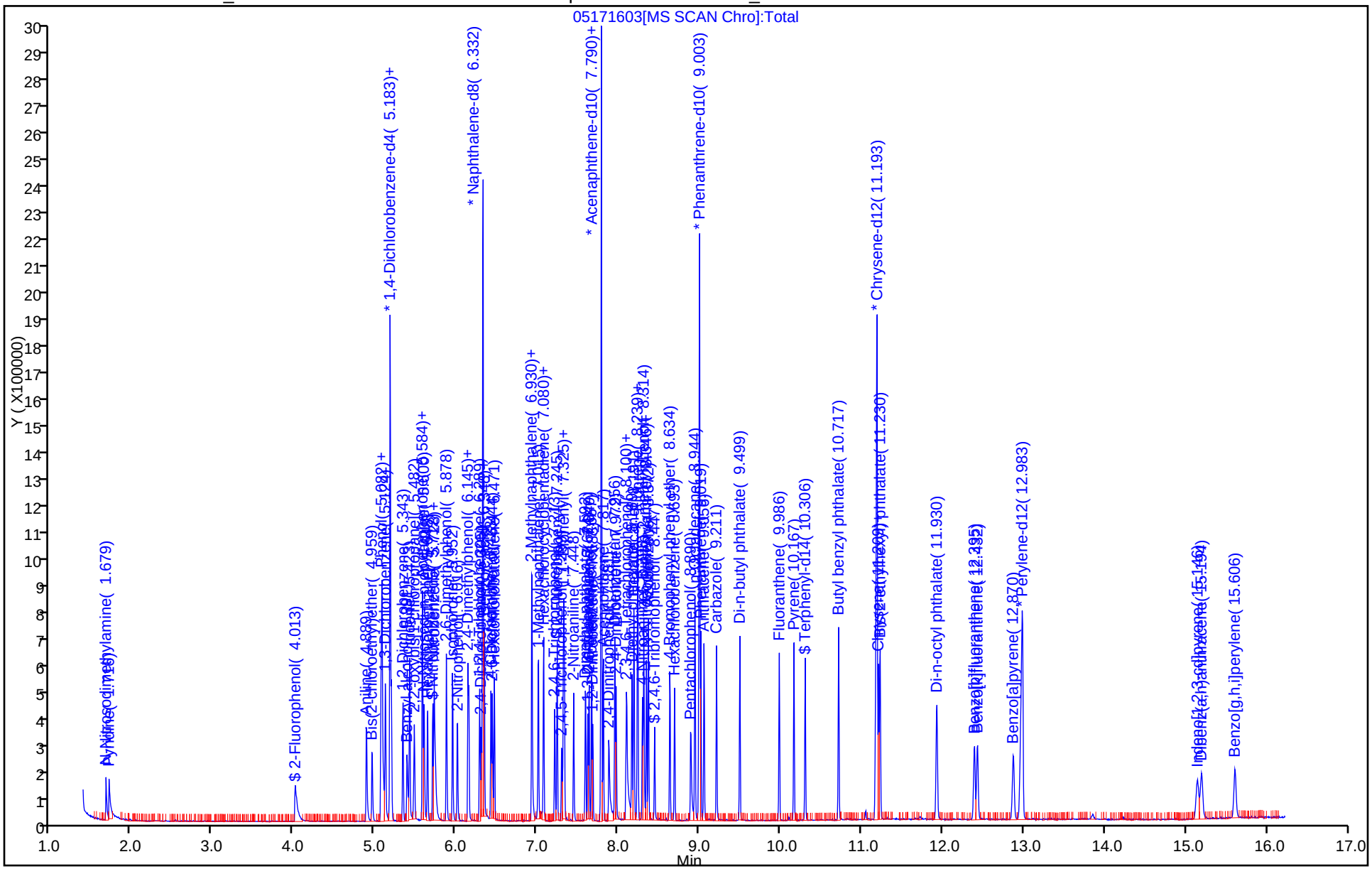
SV_REGICAL_00008	Amount Added: 50.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 20.00	Units: uL	Run Reagent

Report Date: 17-May-2016 11:06:37 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171603.D

Injection Date:	17-May-2016 08:21:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG L2			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

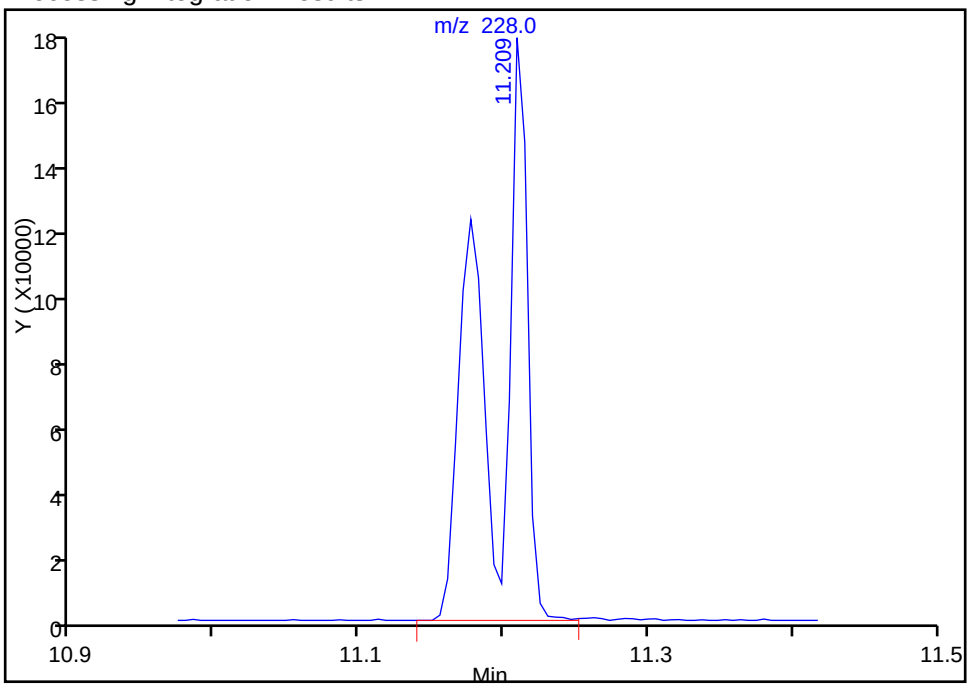
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171603.D
Injection Date: 17-May-2016 08:21:30 Instrument ID: CHSVMS09
Lims ID: IC REG L2
Client ID:
Operator ID: KP ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

163 Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

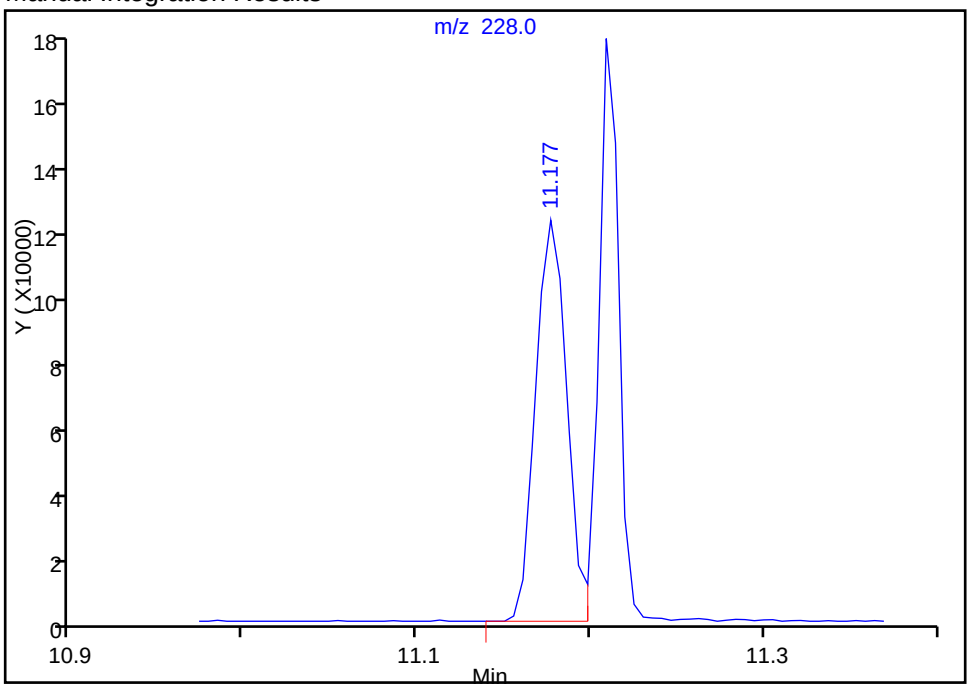
Processing Integration Results

RT: 11.21
Area: 288743
Amount: 15.858761
Amount Units: ug/ml



Manual Integration Results

RT: 11.18
Area: 152200
Amount: 9.047185
Amount Units: ug/ml



Reviewer: patelk, 17-May-2016 08:43:07
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171604.D
Lims ID: IC REG L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-May-2016 08:45:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC REG L3
Misc. Info.: 600-0012090-004
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270C_9*sub27

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 11:06:44 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: patelk Date: 17-May-2016 09:32:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.677	1.684	-0.007	81	97411	20.0	20.3	
2 Pyridine	79	1.709	1.706	0.003	95	163929	20.0	19.6	
$ 7 2-Fluorophenol	112	4.001	3.976	0.025	93	126852	20.0	19.8	
13 Aniline	93	4.893	4.900	-0.007	94	233275	20.0	19.3	
15 Bis(2-chloroethyl)ether	93	4.962	4.964	-0.002	96	152758	20.0	19.0	
$ 16 Phenol-d5	99	5.064	5.050	0.014	71	197064	20.0	18.8	
18 2-Chlorophenol	128	5.064	5.060	0.004	81	116615	20.0	18.9	
17 Phenol	94	5.080	5.060	0.020	73	182346	20.0	19.1	
19 n-Decane	57	5.085	5.087	-0.002	86	183332	20.0	19.0	
20 1,3-Dichlorobenzene	146	5.128	5.130	-0.002	82	119072	20.0	19.3	
* 21 1,4-Dichlorobenzene-d4	152	5.187	5.189	-0.002	87	148918	40.0	40.0	
22 1,4-Dichlorobenzene	146	5.203	5.205	-0.002	79	123857	20.0	19.3	
24 1,2-Dichlorobenzene	146	5.342	5.349	-0.007	83	116756	20.0	19.5	
25 Benzyl alcohol	108	5.395	5.402	-0.007	83	78070	20.0	18.5	
26 Indene	115	5.427	5.429	-0.002	90	227045	20.0	19.2	
27 2,2'-oxybis[1-chloropropan	45	5.486	5.488	-0.002	86	194519	20.0	19.5	
28 2-Methylphenol	108	5.577	5.579	-0.002	90	125865	20.0	19.9	
30 Acetophenone	105	5.582	5.595	-0.013	83	219781	20.0	19.6	
32 N-Nitrosodi-n-propylamine	70	5.609	5.627	-0.018	89	135389	20.0	19.8	
34 Hexachloroethane	117	5.646	5.648	-0.002	89	79419	20.0	19.2	
$ 36 Nitrobenzene-d5	82	5.710	5.723	-0.013	93	214007	20.0	19.2	
37 3 & 4 Methylphenol	108	5.737	5.723	0.014	92	134985	20.0	19.6	
38 Nitrobenzene	77	5.732	5.739	-0.007	89	285736	20.0	18.9	
41 2,6-Dimethylphenol	122	5.881	5.883	-0.002	89	115163	20.0	19.6	
42 Isophorone	82	5.956	5.969	-0.013	97	342648	20.0	19.6	
43 2-Nitrophenol	139	6.015	6.022	-0.007	65	62724	20.0	19.4	
45 2,4-Dimethylphenol	107	6.143	6.145	-0.002	92	158358	20.0	19.2	
46 Bis(2-chloroethoxy)methane	93	6.159	6.166	-0.007	98	208100	20.0	19.8	
48 1,2,4-Trichlorobenzene	180	6.292	6.294	-0.002	89	91026	20.0	17.8	
49 2,4-Dichlorophenol	162	6.303	6.294	0.009	87	94053	20.0	18.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.330	6.337	-0.007	97	627472	40.0	40.0	
51 Naphthalene	128	6.346	6.353	-0.007	97	328872	20.0	18.7	
52 Benzoic acid	122	6.362	6.396	-0.034	88	58693	20.0	18.4	
54 4-Chloroaniline	127	6.431	6.439	-0.008	89	146433	20.0	20.1	
56 2,6-Dichlorophenol	162	6.447	6.449	-0.002	83	91594	20.0	19.1	
57 Hexachlorobutadiene	225	6.474	6.476	-0.002	93	70507	20.0	18.9	
64 4-Chloro-3-methylphenol	107	6.928	6.925	0.003	78	142965	20.0	19.9	
65 2-Methylnaphthalene	142	6.934	6.941	-0.007	92	281688	20.0	19.0	
67 1-Methylnaphthalene	142	7.014	7.021	-0.007	88	197224	20.0	19.5	
68 Hexachlorocyclopentadiene	237	7.078	7.080	-0.002	84	48229	20.0	16.6	
69 1,2,4,5-Tetrachlorobenzene	216	7.083	7.085	-0.002	90	86750	20.0	17.4	
72 2,4,6-Trichlorophenol	196	7.217	7.219	-0.002	86	59168	20.0	18.9	
$ 73 2-Fluorobiphenyl	172	7.249	7.256	-0.007	98	214068	20.0	18.5	
74 2,4,5-Trichlorophenol	196	7.297	7.288	0.009	82	62585	20.0	20.0	
76 1,1'-Biphenyl	154	7.329	7.331	-0.002	96	231812	20.0	17.4	
77 2-Chloronaphthalene	162	7.334	7.341	-0.007	94	194006	20.0	17.8	
83 2-Nitroaniline	65	7.452	7.459	-0.007	69	122474	20.0	20.3	
86 Dimethyl phthalate	163	7.601	7.619	-0.018	90	245383	20.0	20.7	
87 1,3-Dinitrobenzene	168	7.628	7.641	-0.013	77	36807	20.0	20.3	
88 2,6-Dinitrotoluene	165	7.644	7.657	-0.013	73	54384	20.0	20.5	
89 Acenaphthylene	152	7.671	7.678	-0.007	98	289336	20.0	18.9	
90 1,2-Dinitrobenzene	168	7.692	7.705	-0.013	85	28051	20.0	21.1	
* 91 Acenaphthene-d10	164	7.794	7.796	-0.002	89	343808	40.0	40.0	
92 3-Nitroaniline	138	7.794	7.806	-0.012	55	61676	20.0	19.8	
93 Acenaphthene	153	7.820	7.828	-0.008	96	186055	20.0	19.7	
94 2,4-Dinitrophenol	184	7.884	7.897	-0.013	71	62213	40.0	42.0	
96 Dibenzofuran	168	7.959	7.967	-0.007	90	260030	20.0	18.9	
97 2,4-Dinitrotoluene	165	7.975	7.988	-0.013	78	75467	20.0	20.0	
100 4-Nitrophenol	109	8.082	8.079	0.003	87	145121	40.0	38.6	
101 2,3,4,6-Tetrachlorophenol	232	8.103	8.105	-0.002	86	46357	20.0	19.4	
103 Diethyl phthalate	149	8.173	8.196	-0.023	95	266254	20.0	19.2	
104 Hexadecane	57	8.194	8.202	-0.008	97	227697	20.0	18.9	
106 Fluorene	166	8.242	8.250	-0.008	92	216617	20.0	17.3	
107 4-Chlorophenyl phenyl ethe	204	8.242	8.250	-0.008	82	93902	20.0	16.6	
109 4-Nitroaniline	138	8.306	8.330	-0.024	68	56358	20.0	19.0	
110 4,6-Dinitro-2-methylphenol	198	8.323	8.340	-0.018	50	81640	40.0	37.9	
111 N-Nitrosodiphenylamine	169	8.355	8.367	-0.012	68	150258	20.0	18.4	
112 Diphenylamine	169	8.355	8.367	-0.012	89	150258	17.0	15.7	
113 1,2-Diphenylhydrazine	77	8.376	8.383	-0.007	45	487530	20.0	19.1	
114 Azobenzene	77	8.376	8.383	-0.007	96	487530	20.0	19.1	
$ 115 2,4,6-Tribromophenol	330	8.451	8.458	-0.007	80	37732	20.0	19.7	
120 4-Bromophenyl phenyl ether	248	8.638	8.645	-0.007	79	55092	20.0	17.3	
123 Hexachlorobenzene	284	8.696	8.704	-0.008	86	69026	20.0	18.0	
128 Pentachlorophenol	266	8.894	8.901	-0.007	82	69762	40.0	35.6	
129 n-Octadecane	57	8.948	8.949	-0.001	94	230187	20.0	19.0	
* 131 Phenanthrene-d10	188	9.001	9.008	-0.007	95	481252	40.0	40.0	
133 Phenanthrene	178	9.022	9.030	-0.008	99	279755	20.0	17.9	
136 Anthracene	178	9.060	9.072	-0.012	99	287326	20.0	18.1	
137 Carbazole	167	9.215	9.222	-0.007	97	288266	20.0	18.8	
139 Di-n-butyl phthalate	149	9.503	9.505	-0.002	99	445216	20.0	18.9	
146 Fluoranthene	202	9.989	9.997	-0.008	99	298423	20.0	17.1	
149 Pyrene	202	10.171	10.178	-0.007	96	311482	20.0	18.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 152 Terphenyl-d14	244	10.310	10.317	-0.007	98	194980	20.0	17.8	
159 Butyl benzyl phthalate	149	10.721	10.728	-0.007	89	197789	20.0	19.4	
163 Benzo[a]anthracene	228	11.186	11.193	-0.007	99	298572	20.0	19.4	
* 164 Chrysene-d12	240	11.197	11.209	-0.012	97	485413	40.0	40.0	
165 Chrysene	228	11.218	11.231	-0.013	97	269837	20.0	17.9	
166 Bis(2-ethylhexyl) phthalat	149	11.239	11.247	-0.008	95	266072	20.0	18.4	
168 Di-n-octyl phthalate	149	11.939	11.952	-0.013	99	458494	20.0	19.8	
170 Benzo[b]fluoranthene	252	12.409	12.427	-0.018	97	244784	20.0	19.1	
171 Benzo[k]fluoranthene	252	12.447	12.470	-0.023	99	253844	20.0	21.2	
172 Benzo[a]pyrene	252	12.890	12.913	-0.023	79	230457	20.0	19.6	
* 173 Perylene-d12	264	12.992	13.004	-0.012	97	422960	40.0	40.0	
178 Indeno[1,2,3-cd]pyrene	276	15.166	15.200	-0.034	98	269587	20.0	19.6	
179 Dibenz(a,h)anthracene	278	15.214	15.259	-0.045	92	204718	20.0	18.6	
180 Benzo[g,h,i]perylene	276	15.631	15.665	-0.034	97	224027	20.0	19.7	
S 193 Methyl Phenols,Total	1				0			39.5	
S 194 Total Cresols	1				0			39.5	
S 195 Total Cresols, TCEQ Defini	1				0			77.4	

Reagents:

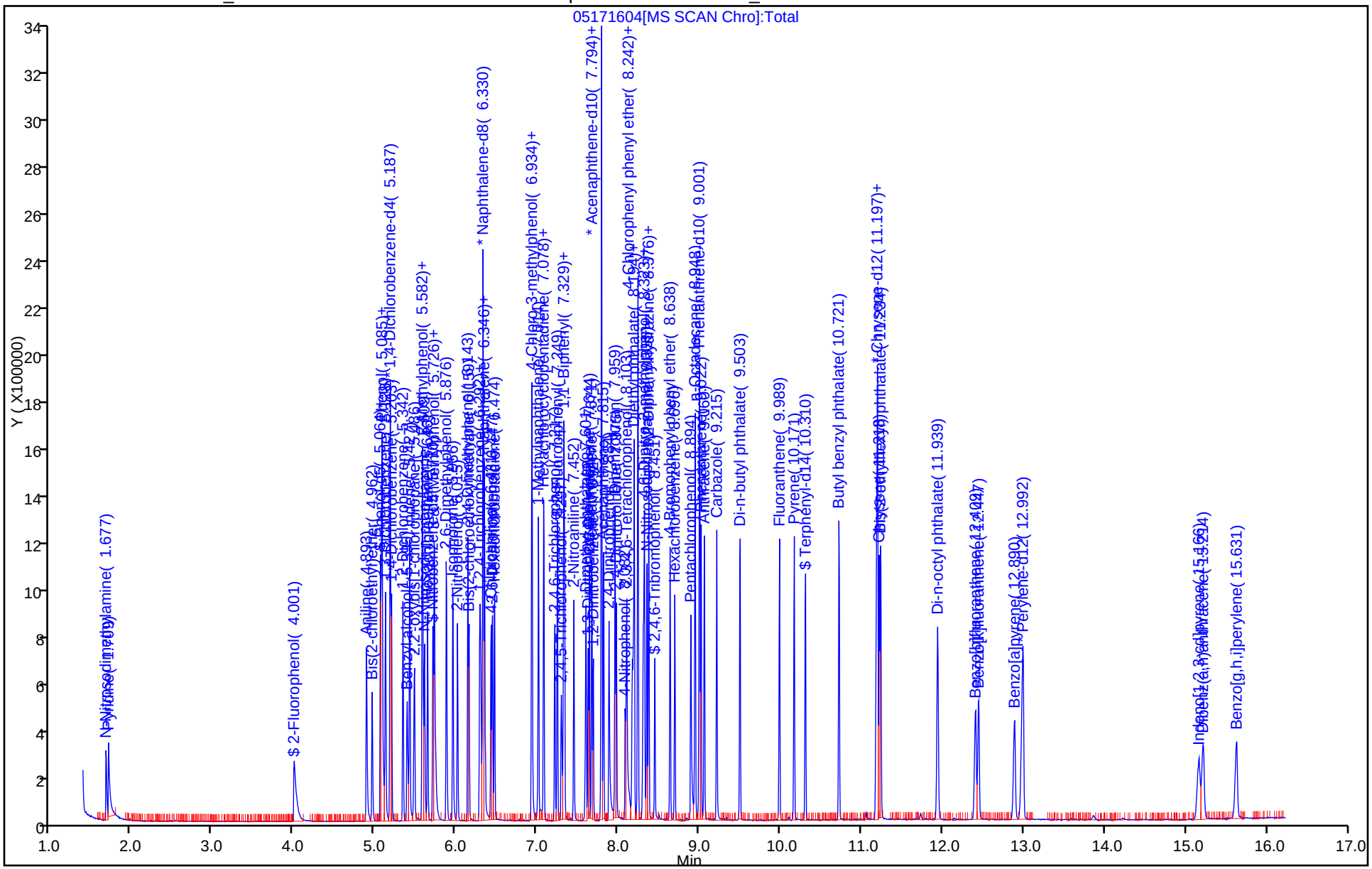
SV_REGICAL_00008	Amount Added: 100.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 20.00	Units: uL	Run Reagent

Report Date: 17-May-2016 11:06:45 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171604.D

Injection Date:	17-May-2016 08:45:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG L3			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171605.D
Lims ID: ICIS REG L4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 17-May-2016 09:08:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ICIS REG L4
Misc. Info.: 600-0012090-005
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270C_9*sub27

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 11:06:53 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: patelk Date: 17-May-2016 10:29:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.684	1.684	0.000	81	244351	50.0	49.8	
2 Pyridine	79	1.706	1.706	0.000	93	456123	50.0	53.3	
$ 7 2-Fluorophenol	112	3.976	3.976	0.000	93	325545	50.0	49.9	
13 Aniline	93	4.900	4.900	0.000	94	614908	50.0	49.9	
15 Bis(2-chloroethyl)ether	93	4.964	4.964	0.000	95	413472	50.0	50.4	
$ 16 Phenol-d5	99	5.050	5.050	0.000	68	532347	50.0	49.8	
18 2-Chlorophenol	128	5.060	5.060	0.000	74	315813	50.0	50.2	
17 Phenol	94	5.060	5.060	0.000	66	503573	50.0	51.6	
19 n-Decane	57	5.087	5.087	0.000	87	512888	50.0	52.0	
20 1,3-Dichlorobenzene	146	5.130	5.130	0.000	81	316239	50.0	50.1	
* 21 1,4-Dichlorobenzene-d4	152	5.189	5.189	0.000	88	152101	40.0	40.0	
22 1,4-Dichlorobenzene	146	5.205	5.205	0.000	78	319812	50.0	48.9	
24 1,2-Dichlorobenzene	146	5.349	5.349	0.000	84	303533	50.0	49.7	
25 Benzyl alcohol	108	5.402	5.402	0.000	82	226408	50.0	52.5	
26 Indene	115	5.429	5.429	0.000	89	605938	50.0	50.3	
27 2,2'-oxybis[1-chloropropan	45	5.488	5.488	0.000	86	527186	50.0	51.7	
28 2-Methylphenol	108	5.579	5.579	0.000	92	322527	50.0	50.0	
30 Acetophenone	105	5.595	5.595	0.000	94	601145	50.0	52.0	
32 N-Nitrosodi-n-propylamine	70	5.627	5.627	0.000	90	368871	50.0	52.8	
34 Hexachloroethane	117	5.648	5.648	0.000	89	205864	50.0	48.8	
$ 36 Nitrobenzene-d5	82	5.723	5.723	0.000	93	576822	50.0	50.2	
37 3 & 4 Methylphenol	108	5.723	5.723	0.000	90	349625	50.0	49.7	
38 Nitrobenzene	77	5.739	5.739	0.000	87	805188	50.0	51.5	
41 2,6-Dimethylphenol	122	5.883	5.883	0.000	88	304003	50.0	50.0	
42 Isophorone	82	5.969	5.969	0.000	97	934902	50.0	51.9	
43 2-Nitrophenol	139	6.022	6.022	0.000	63	162850	50.0	48.8	
45 2,4-Dimethylphenol	107	6.145	6.145	0.000	91	435565	50.0	51.1	
46 Bis(2-chloroethoxy)methane	93	6.166	6.166	0.000	98	560773	50.0	51.7	
48 1,2,4-Trichlorobenzene	180	6.294	6.294	0.000	81	255548	50.0	48.5	
49 2,4-Dichlorophenol	162	6.294	6.294	0.000	78	254339	50.0	48.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.337	6.337	0.000	97	647668	40.0	40.0	
51 Naphthalene	128	6.353	6.353	0.000	97	902110	50.0	49.6	
52 Benzoic acid	122	6.396	6.396	0.000	90	178911	50.0	48.5	
54 4-Chloroaniline	127	6.439	6.439	0.000	89	380424	50.0	50.6	
56 2,6-Dichlorophenol	162	6.449	6.449	0.000	78	237444	50.0	48.1	
57 Hexachlorobutadiene	225	6.476	6.476	0.000	93	199088	50.0	51.8	
64 4-Chloro-3-methylphenol	107	6.925	6.925	0.000	87	368930	50.0	49.7	
65 2-Methylnaphthalene	142	6.941	6.941	0.000	91	766831	50.0	50.2	
67 1-Methylnaphthalene	142	7.021	7.021	0.000	88	520257	50.0	49.8	
68 Hexachlorocyclopentadiene	237	7.080	7.080	0.000	93	175863	50.0	47.2	
69 1,2,4,5-Tetrachlorobenzene	216	7.085	7.085	0.000	88	255828	50.0	50.4	
72 2,4,6-Trichlorophenol	196	7.219	7.219	0.000	85	161512	50.0	50.8	
$ 73 2-Fluorobiphenyl	172	7.256	7.256	0.000	98	596861	50.0	50.7	
74 2,4,5-Trichlorophenol	196	7.288	7.288	0.000	82	169956	50.0	53.3	
76 1,1'-Biphenyl	154	7.331	7.331	0.000	97	664637	50.0	49.0	
77 2-Chloronaphthalene	162	7.341	7.341	0.000	95	557886	50.0	50.4	
83 2-Nitroaniline	65	7.459	7.459	0.000	68	317333	50.0	51.6	
86 Dimethyl phthalate	163	7.619	7.619	0.000	92	596787	50.0	49.4	
87 1,3-Dinitrobenzene	168	7.641	7.641	0.000	74	89261	50.0	48.4	
88 2,6-Dinitrotoluene	165	7.657	7.657	0.000	73	132461	50.0	49.0	
89 Acenaphthylene	152	7.678	7.678	0.000	98	794718	50.0	50.9	
90 1,2-Dinitrobenzene	168	7.705	7.705	0.000	83	63336	50.0	46.8	
* 91 Acenaphthene-d10	164	7.796	7.796	0.000	92	349945	40.0	40.0	
92 3-Nitroaniline	138	7.806	7.806	0.000	83	156193	50.0	49.2	
93 Acenaphthene	153	7.828	7.828	0.000	96	486560	50.0	50.7	
94 2,4-Dinitrophenol	184	7.897	7.897	0.000	69	171906	100.0	113.9	
96 Dibenzofuran	168	7.967	7.967	0.000	91	711434	50.0	50.8	
97 2,4-Dinitrotoluene	165	7.988	7.988	0.000	77	193985	50.0	50.4	
100 4-Nitrophenol	109	8.079	8.079	0.000	87	400351	100.0	104.6	
101 2,3,4,6-Tetrachlorophenol	232	8.105	8.105	0.000	86	123731	50.0	51.0	
103 Diethyl phthalate	149	8.196	8.196	0.000	92	683514	50.0	48.5	
104 Hexadecane	57	8.202	8.202	0.000	96	636565	50.0	51.9	
106 Fluorene	166	8.250	8.250	0.000	93	650220	50.0	51.1	
107 4-Chlorophenyl phenyl ethe	204	8.250	8.250	0.000	86	297212	50.0	45.9	
109 4-Nitroaniline	138	8.330	8.330	0.000	70	146985	50.0	48.7	
110 4,6-Dinitro-2-methylphenol	198	8.340	8.340	0.000	56	204312	100.0	99.3	
111 N-Nitrosodiphenylamine	169	8.367	8.367	0.000	66	390328	50.0	50.0	
112 Diphenylamine	169	8.367	8.367	0.000	92	390328	42.5	42.6	
113 1,2-Diphenylhydrazine	77	8.383	8.383	0.000	52	1437838	50.0	58.9	
114 Azobenzene	77	8.383	8.383	0.000	96	1437838	50.0	58.8	
$ 115 2,4,6-Tribromophenol	330	8.458	8.458	0.000	82	95821	50.0	49.2	
120 4-Bromophenyl phenyl ether	248	8.645	8.645	0.000	80	154672	50.0	50.7	
123 Hexachlorobenzene	284	8.704	8.704	0.000	88	190774	50.0	51.9	
128 Pentachlorophenol	266	8.901	8.901	0.000	86	202570	100.0	94.7	
129 n-Octadecane	57	8.949	8.949	0.000	94	586688	50.0	50.7	
* 131 Phenanthrene-d10	188	9.008	9.008	0.000	95	459989	40.0	40.0	
133 Phenanthrene	178	9.030	9.030	0.000	99	746941	50.0	50.1	
136 Anthracene	178	9.072	9.072	0.000	99	758532	50.0	50.1	
137 Carbazole	167	9.222	9.222	0.000	97	722546	50.0	49.3	
139 Di-n-butyl phthalate	149	9.505	9.505	0.000	98	1112894	50.0	49.5	
146 Fluoranthene	202	9.997	9.997	0.000	99	851738	50.0	51.2	
149 Pyrene	202	10.178	10.178	0.000	96	855897	50.0	49.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 152 Terphenyl-d14	244	10.317	10.317	0.000	98	552391	50.0	49.3	
159 Butyl benzyl phthalate	149	10.728	10.728	0.000	88	514057	50.0	49.4	
163 Benzo[a]anthracene	228	11.193	11.193	0.000	99	773985	50.0	49.2	
* 164 Chrysene-d12	240	11.209	11.209	0.000	99	496224	40.0	40.0	
165 Chrysene	228	11.231	11.231	0.000	97	727590	50.0	47.2	M
166 Bis(2-ethylhexyl) phthalat	149	11.247	11.247	0.000	95	700771	50.0	47.4	
168 Di-n-octyl phthalate	149	11.952	11.952	0.000	99	1160322	50.0	49.0	
170 Benzo[b]fluoranthene	252	12.427	12.427	0.000	97	606786	50.0	48.5	
171 Benzo[k]fluoranthene	252	12.470	12.470	0.000	98	595970	50.0	50.9	
172 Benzo[a]pyrene	252	12.913	12.913	0.000	80	574867	50.0	50.0	
* 173 Perylene-d12	264	13.004	13.004	0.000	97	413227	40.0	40.0	
178 Indeno[1,2,3-cd]pyrene	276	15.200	15.200	0.000	99	666497	50.0	49.7	
179 Dibenz(a,h)anthracene	278	15.259	15.259	0.000	95	523312	50.0	48.6	
180 Benzo[g,h,i]perylene	276	15.665	15.665	0.000	96	545106	50.0	49.2	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

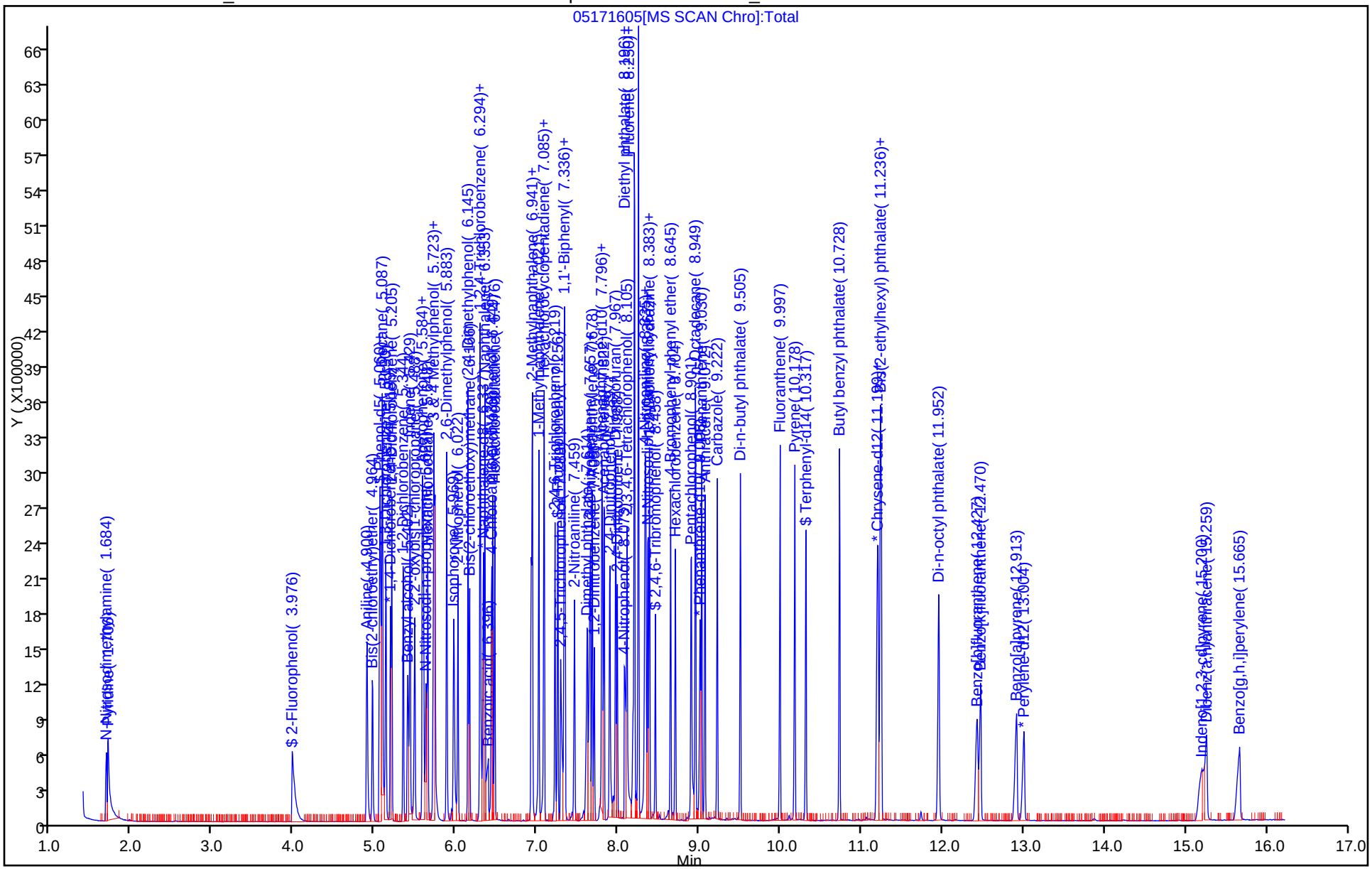
SV_REGICAL_00008	Amount Added: 250.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 20.00	Units: uL	Run Reagent

Report Date: 17-May-2016 11:06:55 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171605.D

Injection Date:	17-May-2016 09:08:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	ICIS REG L4			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

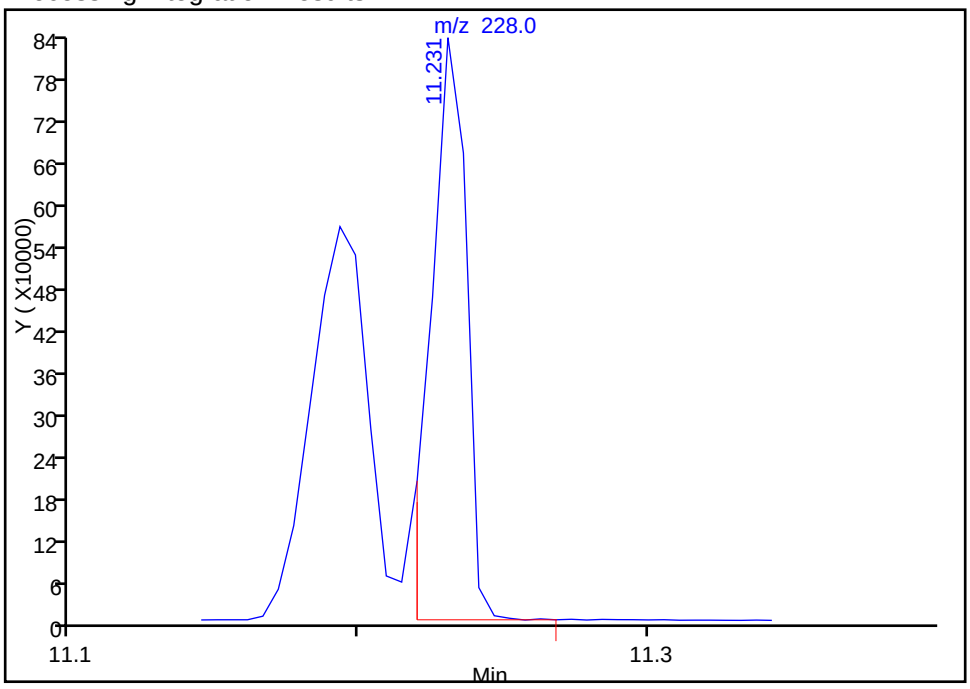
Data File:	\\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171605.D				
Injection Date:	17-May-2016 09:08:30	Instrument ID:	CHSVMS09		
Lims ID:	ICIS REG L4				
Client ID:					
Operator ID:	KP	ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		
Column:		Detector	MS SCAN		

165 Chrysene, CAS: 218-01-9

Signal: 1

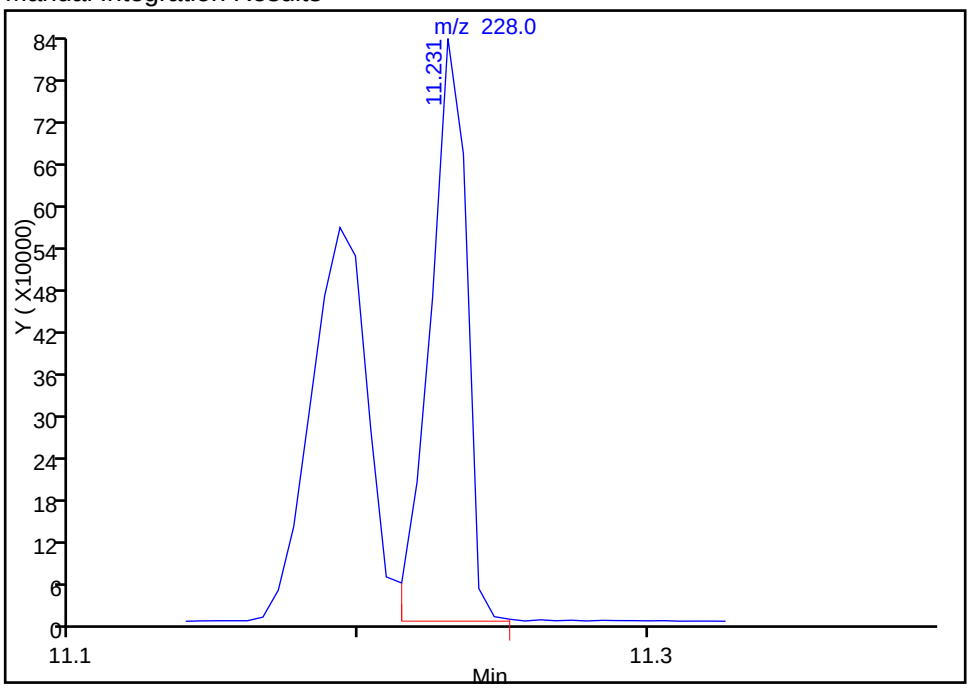
Processing Integration Results

RT: 11.23
Area: 708796
Amount: 49.402936
Amount Units: ug/ml



Manual Integration Results

RT: 11.23
Area: 727590
Amount: 47.156812
Amount Units: ug/ml



Reviewer: patelk, 17-May-2016 10:29:18
Audit Action: Split an Integrated Peak Audit Reason: Baseline

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171606.D
Lims ID: IC REG L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-May-2016 09:32:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC REG L5
Misc. Info.: 600-0012090-006
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270C_9*sub27

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 11:07:04 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: patelk Date: 17-May-2016 10:30:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.689	1.684	0.005	82	357087	70.0	72.1	
2 Pyridine	79	1.705	1.706	-0.001	93	625382	70.0	72.4	
$ 7 2-Fluorophenol	112	3.965	3.976	-0.011	93	480299	70.0	72.9	
13 Aniline	93	4.905	4.900	0.005	94	899884	70.0	72.4	
15 Bis(2-chloroethyl)ether	93	4.969	4.964	0.005	94	593891	70.0	71.8	
$ 16 Phenol-d5	99	5.044	5.050	-0.006	67	807735	70.0	74.9	
18 2-Chlorophenol	128	5.060	5.060	0.000	72	460560	70.0	72.6	
17 Phenol	94	5.060	5.060	0.000	66	710892	70.0	72.2	
19 n-Decane	57	5.092	5.087	0.005	87	744085	70.0	74.8	
20 1,3-Dichlorobenzene	146	5.135	5.130	0.005	81	458627	70.0	72.0	
* 21 1,4-Dichlorobenzene-d4	152	5.188	5.189	-0.001	87	153499	40.0	40.0	
22 1,4-Dichlorobenzene	146	5.210	5.205	0.005	82	483403	70.0	73.2	
24 1,2-Dichlorobenzene	146	5.348	5.349	-0.001	81	449058	70.0	72.9	
25 Benzyl alcohol	108	5.407	5.402	0.005	82	320474	70.0	73.6	
26 Indene	115	5.434	5.429	0.005	89	903273	70.0	74.3	
27 2,2'-oxybis[1-chloropropan	45	5.493	5.488	0.005	86	777028	70.0	75.5	
28 2-Methylphenol	108	5.584	5.579	0.005	83	473208	70.0	72.6	
30 Acetophenone	105	5.600	5.595	0.005	84	863340	70.0	73.5	
32 N-Nitrosodi-n-propylamine	70	5.648	5.627	0.021	88	508916	70.0	72.2	
34 Hexachloroethane	117	5.653	5.648	0.005	92	312521	70.0	73.4	
$ 36 Nitrobenzene-d5	82	5.728	5.723	0.005	93	871021	70.0	74.6	
37 3 & 4 Methylphenol	108	5.728	5.723	0.005	89	517369	70.0	72.8	
38 Nitrobenzene	77	5.744	5.739	0.005	88	1162949	70.0	73.3	
41 2,6-Dimethylphenol	122	5.888	5.883	0.005	87	433321	70.0	70.2	
42 Isophorone	82	5.979	5.969	0.010	98	1328800	70.0	72.6	
43 2-Nitrophenol	139	6.027	6.022	0.005	64	239019	70.0	70.5	
45 2,4-Dimethylphenol	107	6.150	6.145	0.005	91	645410	70.0	74.5	
46 Bis(2-chloroethoxy)methane	93	6.171	6.166	0.005	98	815681	70.0	74.0	
48 1,2,4-Trichlorobenzene	180	6.294	6.294	0.000	79	393474	70.0	73.5	
49 2,4-Dichlorophenol	162	6.294	6.294	0.000	81	400491	70.0	74.8	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.337	6.337	0.000	97	657646	40.0	40.0	
51 Naphthalene	128	6.358	6.353	0.005	97	1332034	70.0	72.1	
52 Benzoic acid	122	6.412	6.396	0.016	88	272348	70.0	71.2	
54 4-Chloroaniline	127	6.444	6.439	0.005	88	557977	70.0	73.1	
56 2,6-Dichlorophenol	162	6.454	6.449	0.005	79	357695	70.0	71.3	
57 Hexachlorobutadiene	225	6.476	6.476	0.000	93	290194	70.0	74.3	
64 4-Chloro-3-methylphenol	107	6.924	6.925	-0.001	87	551619	70.0	73.1	
65 2-Methylnaphthalene	142	6.940	6.941	-0.001	89	1144366	70.0	73.7	
67 1-Methylnaphthalene	142	7.021	7.021	0.000	89	775754	70.0	73.1	
68 Hexachlorocyclopentadiene	237	7.085	7.080	0.005	94	285174	70.0	71.2	
69 1,2,4,5-Tetrachlorobenzene	216	7.090	7.085	0.005	93	391071	70.0	74.4	
72 2,4,6-Trichlorophenol	196	7.224	7.219	0.005	88	237297	70.0	72.1	
$ 73 2-Fluorobiphenyl	172	7.256	7.256	0.000	97	863476	70.0	70.9	
74 2,4,5-Trichlorophenol	196	7.288	7.288	0.000	79	236156	70.0	71.6	
76 1,1'-Biphenyl	154	7.336	7.331	0.005	95	1042913	70.0	74.4	
77 2-Chloronaphthalene	162	7.346	7.341	0.005	95	822607	70.0	71.8	
83 2-Nitroaniline	65	7.464	7.459	0.005	68	456869	70.0	71.8	
86 Dimethyl phthalate	163	7.624	7.619	0.005	93	836936	70.0	67.0	
87 1,3-Dinitrobenzene	168	7.651	7.641	0.010	74	130174	70.0	68.2	
88 2,6-Dinitrotoluene	165	7.662	7.657	0.005	71	190515	70.0	68.2	
89 Acenaphthylene	152	7.683	7.678	0.005	98	1148242	70.0	71.1	
90 1,2-Dinitrobenzene	168	7.715	7.705	0.010	83	90542	70.0	64.6	
* 91 Acenaphthene-d10	164	7.801	7.796	0.005	91	362080	40.0	40.0	
92 3-Nitroaniline	138	7.811	7.806	0.005	84	226100	70.0	68.8	
93 Acenaphthene	153	7.827	7.828	-0.001	95	700134	70.0	70.5	
94 2,4-Dinitrophenol	184	7.902	7.897	0.005	68	222398	140.0	142.5	
96 Dibenzofuran	168	7.971	7.967	0.005	91	1023638	70.0	70.6	
97 2,4-Dinitrotoluene	165	7.993	7.988	0.005	75	268910	70.0	67.5	
100 4-Nitrophenol	109	8.073	8.079	-0.006	87	582913	140.0	147.2	
101 2,3,4,6-Tetrachlorophenol	232	8.110	8.105	0.005	86	186660	70.0	74.3	
103 Diethyl phthalate	149	8.207	8.196	0.011	95	1048283	70.0	71.9	
104 Hexadecane	57	8.201	8.202	-0.001	95	925063	70.0	72.9	
106 Fluorene	166	8.249	8.250	-0.001	93	1036422	70.0	78.7	
107 4-Chlorophenyl phenyl ethe	204	8.255	8.250	0.005	86	469235	70.0	68.6	
109 4-Nitroaniline	138	8.345	8.330	0.015	70	220621	70.0	70.7	
110 4,6-Dinitro-2-methylphenol	198	8.351	8.340	0.011	46	296128	140.0	144.4	
111 N-Nitrosodiphenylamine	169	8.372	8.367	0.005	67	558591	70.0	71.8	
112 Diphenylamine	169	8.372	8.367	0.005	91	558591	59.5	61.2	
113 1,2-Diphenylhydrazine	77	8.388	8.383	0.005	42	1744492	70.0	71.7	
114 Azobenzene	77	8.388	8.383	0.005	96	1744492	70.0	71.6	
$ 115 2,4,6-Tribromophenol	330	8.463	8.458	0.005	89	141357	70.0	70.1	
120 4-Bromophenyl phenyl ether	248	8.650	8.645	0.005	81	225350	70.0	74.1	
123 Hexachlorobenzene	284	8.709	8.704	0.005	90	261938	70.0	71.6	
128 Pentachlorophenol	266	8.901	8.901	0.000	84	284020	140.0	130.6	
129 n-Octadecane	57	8.954	8.949	0.005	94	850561	70.0	73.7	
* 131 Phenanthrene-d10	188	9.013	9.008	0.005	95	458509	40.0	40.0	
133 Phenanthrene	178	9.035	9.030	0.005	99	1118318	70.0	75.2	
136 Anthracene	178	9.077	9.072	0.005	99	1110951	70.0	73.6	
137 Carbazole	167	9.227	9.222	0.005	97	1055739	70.0	72.2	
139 Di-n-butyl phthalate	149	9.510	9.505	0.005	99	1621881	70.0	72.4	
146 Fluoranthene	202	10.001	9.997	0.004	98	1282495	70.0	77.4	
149 Pyrene	202	10.183	10.178	0.005	97	1305795	70.0	77.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 152 Terphenyl-d14	244	10.317	10.317	0.000	98	814698	70.0	74.2	
159 Butyl benzyl phthalate	149	10.733	10.728	0.005	90	727209	70.0	71.4	
163 Benzo[a]anthracene	228	11.193	11.193	0.000	99	1188335	70.0	77.1	
* 164 Chrysene-d12	240	11.203	11.209	-0.006	97	486218	40.0	40.0	
165 Chrysene	228	11.236	11.231	0.005	97	1133096	70.0	74.9	
166 Bis(2-ethylhexyl) phthalat	149	11.241	11.247	-0.006	93	1038837	70.0	71.7	
168 Di-n-octyl phthalate	149	11.951	11.952	-0.001	98	1618315	70.0	69.8	
170 Benzo[b]fluoranthene	252	12.427	12.427	0.000	97	848528	70.0	71.5	
171 Benzo[k]fluoranthene	252	12.475	12.470	0.005	99	821138	70.0	73.9	
172 Benzo[a]pyrene	252	12.918	12.913	0.005	79	786351	70.0	72.0	
* 173 Perylene-d12	264	13.004	13.004	0.000	96	392256	40.0	40.0	
178 Indeno[1,2,3-cd]pyrene	276	15.221	15.200	0.021	97	900573	70.0	70.7	
179 Dibenz(a,h)anthracene	278	15.274	15.259	0.015	92	731148	70.0	71.5	
180 Benzo[g,h,i]perylene	276	15.680	15.665	0.015	96	744972	70.0	70.8	
S 193 Methyl Phenols,Total	1				0			145.4	
S 194 Total Cresols	1				0			145.4	
S 195 Total Cresols, TCEQ Defini	1				0			290.4	

Reagents:

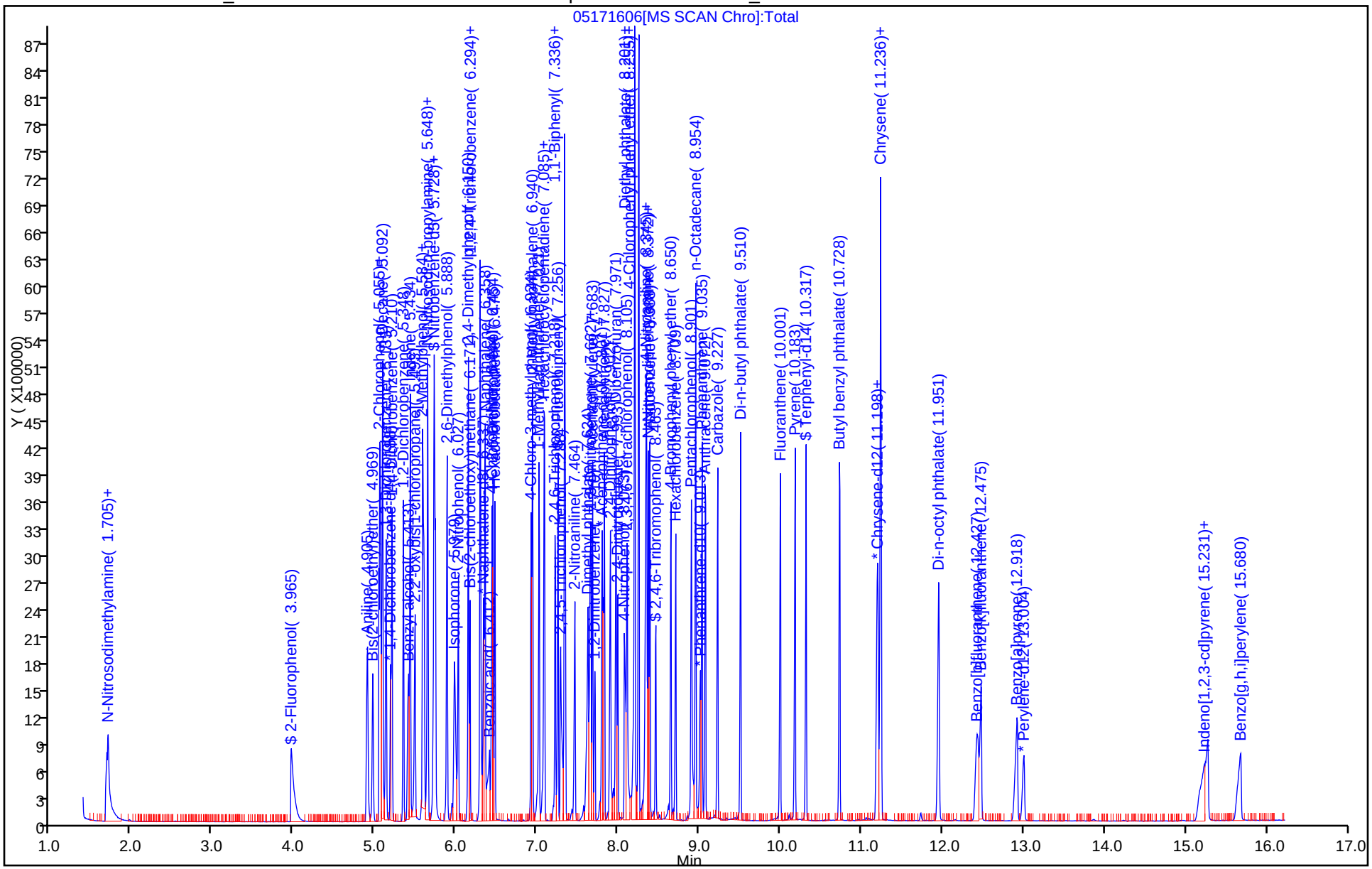
SV_REGICAL_00008	Amount Added: 350.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 20.00	Units: uL	Run Reagent

Report Date: 17-May-2016 11:07:05 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171606.D

Injection Date:	17-May-2016 09:32:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG L5			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171607.D
Lims ID: IC REG L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 17-May-2016 09:56:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC REG L6
Misc. Info.: 600-0012090-007
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270C_9*sub27

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 11:07:08 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: patelk Date: 17-May-2016 10:31:43

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.692	1.684	0.008	82	406584	80.0	81.5	
2 Pyridine	79	1.703	1.706	-0.003	93	718247	80.0	82.6	
$ 7 2-Fluorophenol	112	3.962	3.976	-0.014	94	537415	80.0	81.1	
13 Aniline	93	4.908	4.900	0.008	95	1022011	80.0	81.7	
15 Bis(2-chloroethyl)ether	93	4.972	4.964	0.008	95	688755	80.0	82.7	
$ 16 Phenol-d5	99	5.047	5.050	-0.003	68	867519	80.0	80.0	
18 2-Chlorophenol	128	5.057	5.060	-0.003	72	513369	80.0	80.4	
17 Phenol	94	5.057	5.060	-0.003	65	810048	80.0	81.7	
19 n-Decane	57	5.095	5.087	0.008	88	885493	80.0	88.4	
20 1,3-Dichlorobenzene	146	5.138	5.130	0.008	82	526682	80.0	82.2	
* 21 1,4-Dichlorobenzene-d4	152	5.191	5.189	0.002	89	154458	40.0	40.0	
22 1,4-Dichlorobenzene	146	5.207	5.205	0.002	78	541629	80.0	81.5	
24 1,2-Dichlorobenzene	146	5.351	5.349	0.002	81	507084	80.0	81.8	
25 Benzyl alcohol	108	5.415	5.402	0.013	82	372159	80.0	85.0	
26 Indene	115	5.437	5.429	0.008	89	1037499	80.0	84.8	
27 2,2'-oxybis[1-chloropropan	45	5.490	5.488	0.002	86	879202	80.0	84.9	
28 2-Methylphenol	108	5.586	5.579	0.007	89	538345	80.0	82.1	
30 Acetophenone	105	5.608	5.595	0.013	93	976338	80.0	83.8	
32 N-Nitrosodi-n-propylamine	70	5.650	5.627	0.023	89	585231	80.0	82.5	
34 Hexachloroethane	117	5.650	5.648	0.002	90	357716	80.0	83.5	
$ 36 Nitrobenzene-d5	82	5.731	5.723	0.008	94	968906	80.0	83.7	
37 3 & 4 Methylphenol	108	5.731	5.723	0.008	80	586915	80.0	82.1	
38 Nitrobenzene	77	5.747	5.739	0.008	88	1356025	80.0	86.2	
41 2,6-Dimethylphenol	122	5.891	5.883	0.008	87	505178	80.0	82.5	
42 Isophorone	82	5.982	5.969	0.013	98	1518675	80.0	83.7	
43 2-Nitrophenol	139	6.030	6.022	0.008	65	283522	80.0	84.3	
45 2,4-Dimethylphenol	107	6.153	6.145	0.008	92	731040	80.0	85.1	
46 Bis(2-chloroethoxy)methane	93	6.174	6.166	0.008	98	921968	80.0	84.3	
48 1,2,4-Trichlorobenzene	180	6.297	6.294	0.003	80	464621	80.0	87.5	
49 2,4-Dichlorophenol	162	6.297	6.294	0.003	83	474827	80.0	89.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.340	6.337	0.003	97	652280	40.0	40.0	
51 Naphthalene	128	6.361	6.353	0.008	97	1546656	80.0	84.5	
52 Benzoic acid	122	6.420	6.396	0.024	87	320047	80.0	83.8	
54 4-Chloroaniline	127	6.446	6.439	0.007	89	630184	80.0	83.2	
56 2,6-Dichlorophenol	162	6.457	6.449	0.008	83	418319	80.0	84.1	
57 Hexachlorobutadiene	225	6.478	6.476	0.002	94	326605	80.0	84.3	
64 4-Chloro-3-methylphenol	107	6.922	6.925	-0.003	84	624095	80.0	83.4	
65 2-Methylnaphthalene	142	6.943	6.941	0.002	89	1282055	80.0	83.3	
67 1-Methylnaphthalene	142	7.023	7.021	0.002	89	881123	80.0	83.7	
68 Hexachlorocyclopentadiene	237	7.087	7.080	0.007	94	322775	80.0	82.8	
69 1,2,4,5-Tetrachlorobenzene	216	7.093	7.085	0.008	95	456979	80.0	90.2	
72 2,4,6-Trichlorophenol	196	7.221	7.219	0.002	86	256780	80.0	81.0	
$ 73 2-Fluorobiphenyl	172	7.258	7.256	0.002	98	984706	80.0	83.9	
74 2,4,5-Trichlorophenol	196	7.285	7.288	-0.003	79	262295	80.0	82.5	
76 1,1'-Biphenyl	154	7.339	7.331	0.008	96	1262973	80.0	93.5	
77 2-Chloronaphthalene	162	7.349	7.341	0.008	96	958332	80.0	86.8	
83 2-Nitroaniline	65	7.467	7.459	0.008	68	490039	80.0	79.9	
86 Dimethyl phthalate	163	7.627	7.619	0.008	92	916874	80.0	76.1	
87 1,3-Dinitrobenzene	168	7.654	7.641	0.013	75	147062	80.0	79.9	
88 2,6-Dinitrotoluene	165	7.664	7.657	0.007	72	202318	80.0	75.1	
89 Acenaphthylene	152	7.686	7.678	0.008	98	1333012	80.0	85.6	
90 1,2-Dinitrobenzene	168	7.718	7.705	0.013	83	99028	80.0	73.3	
* 91 Acenaphthene-d10	164	7.798	7.796	0.002	92	348997	40.0	40.0	
92 3-Nitroaniline	138	7.814	7.806	0.008	85	249799	80.0	78.9	
93 Acenaphthene	153	7.830	7.828	0.002	95	749033	80.0	78.2	
94 2,4-Dinitrophenol	184	7.905	7.897	0.008	68	250704	160.0	166.6	
96 Dibenzofuran	168	7.974	7.967	0.008	93	1226267	80.0	87.8	
97 2,4-Dinitrotoluene	165	7.996	7.988	0.008	75	298324	80.0	77.7	
100 4-Nitrophenol	109	8.076	8.079	-0.003	88	662616	160.0	173.6	
101 2,3,4,6-Tetrachlorophenol	232	8.108	8.105	0.003	85	221959	80.0	91.7	
103 Diethyl phthalate	149	8.209	8.196	0.013	96	1166885	80.0	83.0	
104 Hexadecane	57	8.204	8.202	0.002	94	1064222	80.0	87.1	
106 Fluorene	166	8.252	8.250	0.002	91	1163214	80.0	91.6	
107 4-Chlorophenyl phenyl ethe	204	8.257	8.250	0.007	84	571958	80.0	86.1	
109 4-Nitroaniline	138	8.348	8.330	0.018	72	223201	80.0	74.2	
110 4,6-Dinitro-2-methylphenol	198	8.354	8.340	0.014	43	336427	160.0	173.0	
111 N-Nitrosodiphenylamine	169	8.375	8.367	0.008	66	645112	80.0	87.4	
112 Diphenylamine	169	8.375	8.367	0.008	93	645112	68.0	74.5	
113 1,2-Diphenylhydrazine	77	8.391	8.383	0.008	42	1997036	80.0	86.5	
114 Azobenzene	77	8.391	8.383	0.008	96	1997036	80.0	86.4	
$ 115 2,4,6-Tribromophenol	330	8.466	8.458	0.008	92	163501	80.0	84.1	
120 4-Bromophenyl phenyl ether	248	8.653	8.645	0.008	82	260444	80.0	90.3	
123 Hexachlorobenzene	284	8.711	8.704	0.007	92	313267	80.0	90.2	
128 Pentachlorophenol	266	8.904	8.901	0.003	88	342081	160.0	164.0	
129 n-Octadecane	57	8.957	8.949	0.008	94	947979	80.0	86.6	
* 131 Phenanthrene-d10	188	9.011	9.008	0.003	95	434867	40.0	40.0	
133 Phenanthrene	178	9.037	9.030	0.007	99	1280857	80.0	90.8	
136 Anthracene	178	9.075	9.072	0.003	99	1254650	80.0	87.7	
137 Carbazole	167	9.230	9.222	0.008	97	1197524	80.0	86.4	
139 Di-n-butyl phthalate	149	9.507	9.505	0.002	98	1804360	80.0	84.9	
146 Fluoranthene	202	9.999	9.997	0.002	99	1412109	80.0	89.8	
149 Pyrene	202	10.181	10.178	0.003	96	1424234	80.0	85.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 152 Terphenyl-d14	244	10.319	10.317	0.002	99	968248	80.0	88.8	
159 Butyl benzyl phthalate	149	10.731	10.728	0.003	90	819497	80.0	81.0	
163 Benzo[a]anthracene	228	11.190	11.193	-0.003	99	1248331	80.0	81.6	
* 164 Chrysene-d12	240	11.201	11.209	-0.008	97	482575	40.0	40.0	
165 Chrysene	228	11.233	11.231	0.002	98	1375417	80.0	91.7	
166 Bis(2-ethylhexyl) phthalat	149	11.238	11.247	-0.009	94	1228508	80.0	85.4	
168 Di-n-octyl phthalate	149	11.949	11.952	-0.003	98	1822507	80.0	79.2	
170 Benzo[b]fluoranthene	252	12.435	12.427	0.008	95	1056704	80.0	88.4	
171 Benzo[k]fluoranthene	252	12.478	12.470	0.008	98	757224	80.0	67.7	
172 Benzo[a]pyrene	252	12.916	12.913	0.003	79	908041	80.0	82.6	
* 173 Perylene-d12	264	13.001	13.004	-0.003	97	395132	40.0	40.0	
178 Indeno[1,2,3-cd]pyrene	276	15.229	15.200	0.029	98	1051359	80.0	82.0	
179 Dibenz(a,h)anthracene	278	15.277	15.259	0.018	93	864583	80.0	84.0	
180 Benzo[g,h,i]perylene	276	15.683	15.665	0.018	96	878474	80.0	82.9	
S 193 Methyl Phenols,Total	1				0			164.2	
S 194 Total Cresols	1				0			164.2	
S 195 Total Cresols, TCEQ Defini	1				0			338.5	

Reagents:

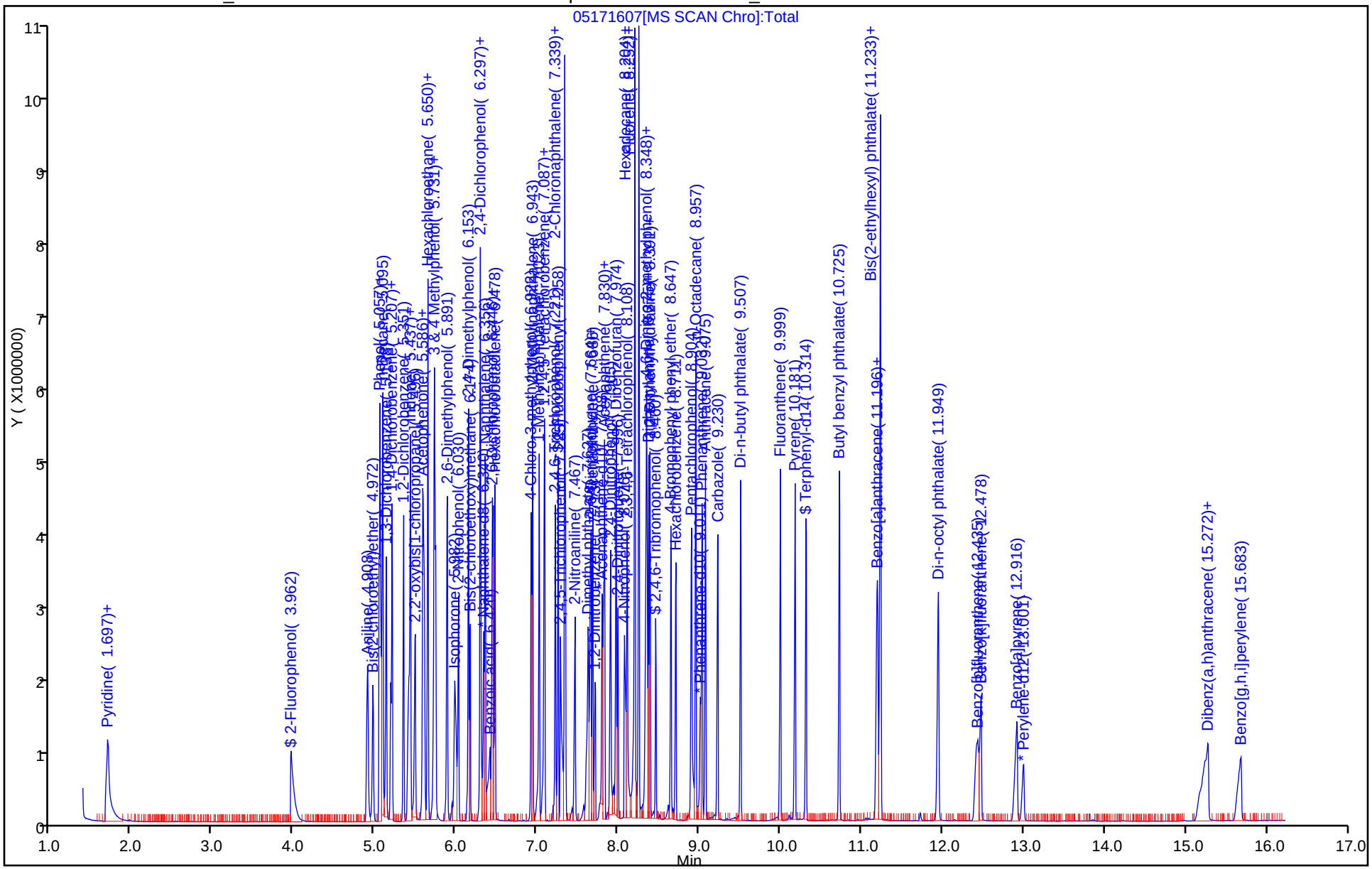
SV_REGICAL_00008	Amount Added: 400.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 20.00	Units: uL	Run Reagent

Report Date: 17-May-2016 11:07:10 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171607.D

Injection Date:	17-May-2016 09:56:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG L6			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D
Lims ID: IC REG L7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 17-May-2016 10:19:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: IC REG L7
Misc. Info.: 600-0012090-008
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270C_9*sub27

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 11:07:14 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: patelk Date: 17-May-2016 10:39:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.693	1.684	0.009	81	489146	100.0	95.1	
2 Pyridine	79	1.709	1.706	0.003	93	883352	100.0	98.5	
$ 7 2-Fluorophenol	112	3.958	3.976	-0.018	93	707456	100.0	103.5	
13 Aniline	93	4.909	4.900	0.009	93	1283323	100.0	99.5	
15 Bis(2-chloroethyl)ether	93	4.978	4.964	0.014	94	849356	100.0	98.9	
$ 16 Phenol-d5	99	5.048	5.050	-0.002	68	1176647	100.0	105.2	M
18 2-Chlorophenol	128	5.058	5.060	-0.002	75	703573	100.0	106.8	
17 Phenol	94	5.058	5.060	-0.002	87	1073370	100.0	105.0	
19 n-Decane	57	5.096	5.087	0.009	87	1122678	100.0	108.7	
20 1,3-Dichlorobenzene	146	5.139	5.130	0.009	82	664617	100.0	100.6	
* 21 1,4-Dichlorobenzene-d4	152	5.192	5.189	0.003	86	159314	40.0	40.0	
22 1,4-Dichlorobenzene	146	5.213	5.205	0.008	82	713517	100.0	104.1	
24 1,2-Dichlorobenzene	146	5.352	5.349	0.003	82	643038	100.0	100.6	
25 Benzyl alcohol	108	5.422	5.402	0.020	82	478436	100.0	105.9	
26 Indene	115	5.438	5.429	0.009	89	1210927	100.0	95.9	
27 2,2'-oxybis[1-chloropropan	45	5.496	5.488	0.008	86	1110120	100.0	104.0	
28 2-Methylphenol	108	5.593	5.579	0.014	91	674847	100.0	99.8	
30 Acetophenone	105	5.614	5.595	0.019	90	1209373	100.0	101.9	
32 N-Nitrosodi-n-propylamine	70	5.657	5.627	0.030	90	736183	100.0	100.6	
34 Hexachloroethane	117	5.651	5.648	0.003	89	464414	100.0	105.1	
$ 36 Nitrobenzene-d5	82	5.731	5.723	0.008	94	1317995	100.0	111.8	
37 3 & 4 Methylphenol	108	5.731	5.723	0.008	86	743674	100.0	100.8	
38 Nitrobenzene	77	5.753	5.739	0.014	88	1712732	100.0	106.9	
41 2,6-Dimethylphenol	122	5.892	5.883	0.009	87	606697	100.0	97.3	
42 Isophorone	82	5.988	5.969	0.019	97	1888566	100.0	102.2	
43 2-Nitrophenol	139	6.031	6.022	0.009	71	335327	100.0	97.9	
45 2,4-Dimethylphenol	107	6.154	6.145	0.009	93	921375	100.0	105.3	
46 Bis(2-chloroethoxy)methane	93	6.175	6.166	0.009	96	1145550	100.0	102.9	
48 1,2,4-Trichlorobenzene	180	6.298	6.294	0.004	78	621798	100.0	115.0	
49 2,4-Dichlorophenol	162	6.298	6.294	0.004	86	634442	100.0	117.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.341	6.337	0.003	97	664390	40.0	40.0	
51 Naphthalene	128	6.362	6.353	0.009	97	1985373	100.0	106.4	
52 Benzoic acid	122	6.421	6.396	0.025	91	404304	100.0	103.3	
54 4-Chloroaniline	127	6.447	6.439	0.008	88	721530	100.0	93.6	
56 2,6-Dichlorophenol	162	6.458	6.449	0.009	79	532006	100.0	105.0	
57 Hexachlorobutadiene	225	6.479	6.476	0.003	94	417047	100.0	105.7	
64 4-Chloro-3-methylphenol	107	6.928	6.925	0.003	88	796640	100.0	104.5	
65 2-Methylnaphthalene	142	6.944	6.941	0.003	88	1676969	100.0	106.9	
67 1-Methylnaphthalene	142	7.030	7.021	0.009	89	1127645	100.0	105.2	
68 Hexachlorocyclopentadiene	237	7.088	7.080	0.008	94	399830	100.0	101.9	
69 1,2,4,5-Tetrachlorobenzene	216	7.094	7.085	0.009	93	566180	100.0	112.4	
72 2,4,6-Trichlorophenol	196	7.227	7.219	0.008	89	331845	100.0	105.2	
$ 73 2-Fluorobiphenyl	172	7.259	7.256	0.003	98	1298949	100.0	111.2	
74 2,4,5-Trichlorophenol	196	7.286	7.288	-0.002	81	336902	100.0	106.5	
76 1,1'-Biphenyl	154	7.345	7.331	0.014	96	1583326	100.0	117.7	
77 2-Chloronaphthalene	162	7.350	7.341	0.009	96	1237562	100.0	112.7	
83 2-Nitroaniline	65	7.468	7.459	0.009	68	624611	100.0	102.3	
86 Dimethyl phthalate	163	7.633	7.619	0.014	93	1107589	100.0	92.4	
87 1,3-Dinitrobenzene	168	7.660	7.641	0.019	75	189119	100.0	103.3	
88 2,6-Dinitrotoluene	165	7.671	7.657	0.014	76	264181	100.0	98.5	
89 Acenaphthylene	152	7.687	7.678	0.009	99	1491051	100.0	96.2	
90 1,2-Dinitrobenzene	168	7.724	7.705	0.019	82	120997	100.0	90.1	
* 91 Acenaphthene-d10	164	7.804	7.796	0.008	92	347248	40.0	40.0	
92 3-Nitroaniline	138	7.820	7.806	0.014	83	300414	100.0	95.4	
93 Acenaphthene	153	7.836	7.828	0.008	96	1027145	100.0	107.8	
94 2,4-Dinitrophenol	184	7.911	7.897	0.014	68	320965	200.0	214.4	
96 Dibenzofuran	168	7.975	7.967	0.009	93	1418302	100.0	102.0	
97 2,4-Dinitrotoluene	165	8.002	7.988	0.014	74	373578	100.0	97.8	
100 4-Nitrophenol	109	8.077	8.079	-0.002	88	812614	200.0	214.0	
101 2,3,4,6-Tetrachlorophenol	232	8.114	8.105	0.009	83	261568	100.0	108.6	
103 Diethyl phthalate	149	8.210	8.196	0.014	94	1424092	100.0	101.9	
104 Hexadecane	57	8.205	8.202	0.003	94	1287138	100.0	105.8	
106 Fluorene	166	8.258	8.250	0.008	92	1424710	100.0	112.8	
107 4-Chlorophenyl phenyl ethe	204	8.258	8.250	0.008	82	678626	100.0	102.1	
109 4-Nitroaniline	138	8.360	8.330	0.030	72	288302	100.0	96.3	
110 4,6-Dinitro-2-methylphenol	198	8.365	8.340	0.025	49	439775	200.0	233.0	
111 N-Nitrosodiphenylamine	169	8.381	8.367	0.014	62	841933	100.0	117.6	
112 Diphenylamine	169	8.381	8.367	0.014	95	841933	85.0	100.2	
113 1,2-Diphenylhydrazine	77	8.397	8.383	0.014	41	2427200	100.0	108.3	
114 Azobenzene	77	8.397	8.383	0.014	96	2427200	100.0	108.3	
$ 115 2,4,6-Tribromophenol	330	8.467	8.458	0.009	81	212532	100.0	109.9	
120 4-Bromophenyl phenyl ether	248	8.654	8.645	0.009	81	326744	100.0	116.8	
123 Hexachlorobenzene	284	8.712	8.704	0.008	91	383218	100.0	113.7	
128 Pentachlorophenol	266	8.905	8.901	0.004	86	438124	200.0	214.3	
129 n-Octadecane	57	8.958	8.949	0.009	94	1166875	100.0	109.9	
* 131 Phenanthrene-d10	188	9.017	9.008	0.009	95	422031	40.0	40.0	
133 Phenanthrene	178	9.038	9.030	0.008	99	1477510	100.0	107.9	
136 Anthracene	178	9.081	9.072	0.009	99	1499151	100.0	107.9	
137 Carbazole	167	9.231	9.222	0.009	97	1434830	100.0	106.6	
139 Di-n-butyl phthalate	149	9.514	9.505	0.009	99	2225824	100.0	107.9	
146 Fluoranthene	202	10.005	9.997	0.008	99	1799412	100.0	117.9	
149 Pyrene	202	10.187	10.178	0.009	96	1757531	100.0	104.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 152 Terphenyl-d14	244	10.320	10.317	0.003	99	1288527	100.0	117.5	
159 Butyl benzyl phthalate	149	10.737	10.728	0.009	87	976542	100.0	96.0	
163 Benzo[a]anthracene	228	11.202	11.193	0.009	99	1674630	100.0	108.9	
* 164 Chrysene-d12	240	11.218	11.209	0.009	98	485495	40.0	40.0	
165 Chrysene	228	11.245	11.231	0.014	97	1760333	100.0	116.6	
166 Bis(2-ethylhexyl) phthalat	149	11.250	11.247	0.003	94	1574063	100.0	108.7	
168 Di-n-octyl phthalate	149	11.966	11.952	0.014	99	2264144	100.0	97.8	
170 Benzo[b]fluoranthene	252	12.463	12.427	0.036	95	1362471	100.0	111.2	
171 Benzo[k]fluoranthene	252	12.500	12.470	0.030	99	1022411	100.0	89.2	M
172 Benzo[a]pyrene	252	12.938	12.913	0.025	80	1121739	100.0	99.6	
* 173 Perylene-d12	264	13.018	13.004	0.014	97	404758	40.0	40.0	
178 Indeno[1,2,3-cd]pyrene	276	15.267	15.200	0.067	97	1319156	100.0	100.4	
179 Dibenz(a,h)anthracene	278	15.305	15.259	0.046	95	1072401	100.0	101.7	
180 Benzo[g,h,i]perylene	276	15.711	15.665	0.046	96	1091356	100.0	100.5	
S 193 Methyl Phenols,Total	1				0			200.6	
S 194 Total Cresols	1				0			200.6	
S 195 Total Cresols, TCEQ Defini	1				0			438.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

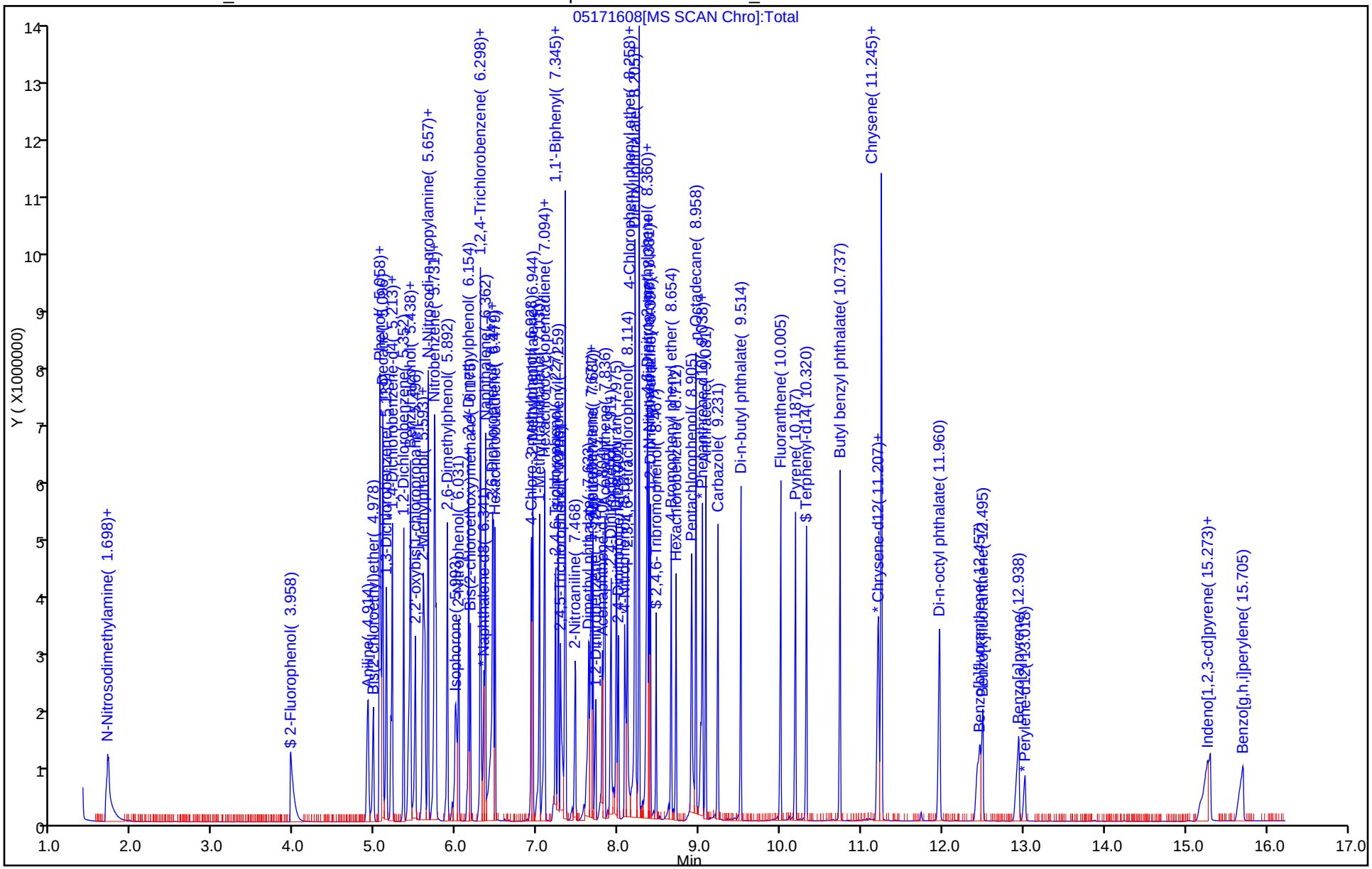
SV_REGICAL_00008	Amount Added: 500.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 20.00	Units: uL	Run Reagent

Report Date: 17-May-2016 11:07:15 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Injection Date:	17-May-2016 10:19:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG L7			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

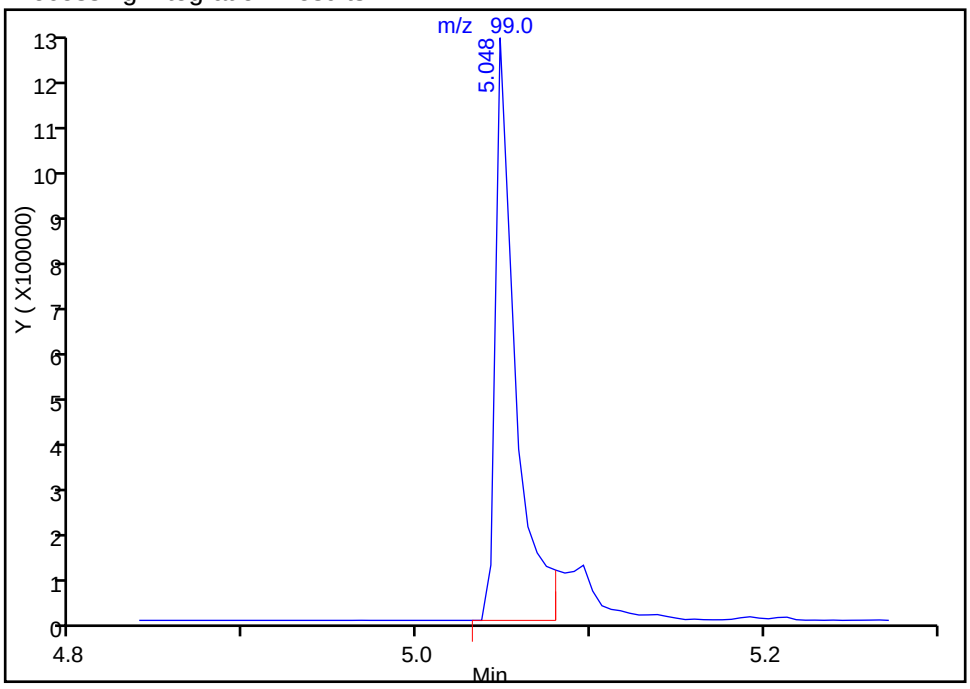
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D
Injection Date: 17-May-2016 10:19:30 Instrument ID: CHSVMS09
Lims ID: IC REG L7
Client ID:
Operator ID: KP ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

$ 16 Phenol-d5, CAS: 4165-62-2

Signal: 1

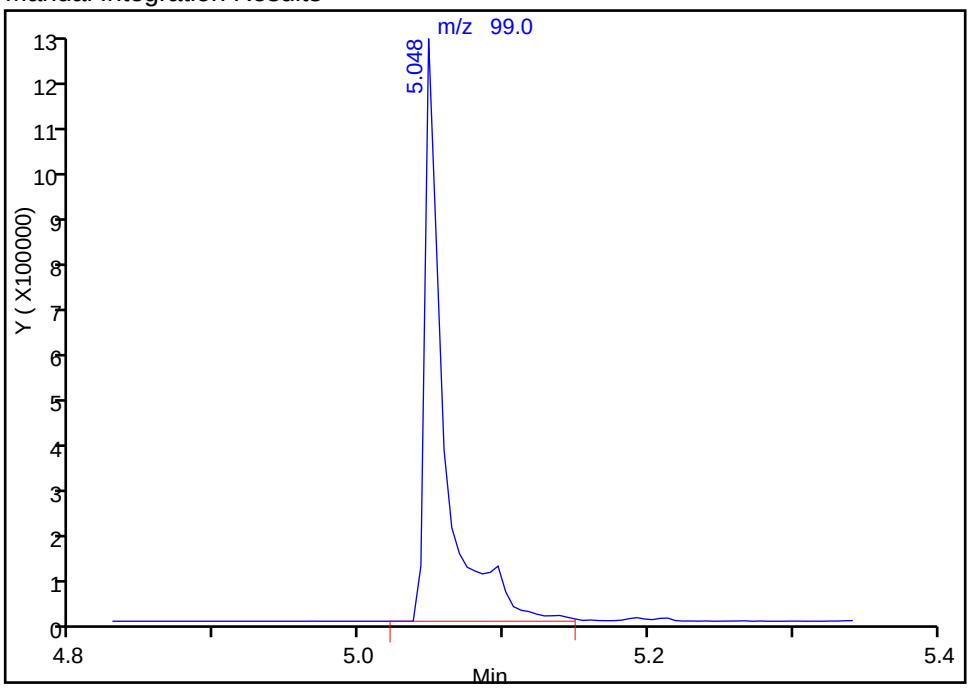
Processing Integration Results

RT: 5.05
Area: 1006734
Amount: 91.970521
Amount Units: ug/ml



Manual Integration Results

RT: 5.05
Area: 1176647
Amount: 105.1610
Amount Units: ug/ml



Reviewer: patelk, 17-May-2016 10:40:26
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Houston

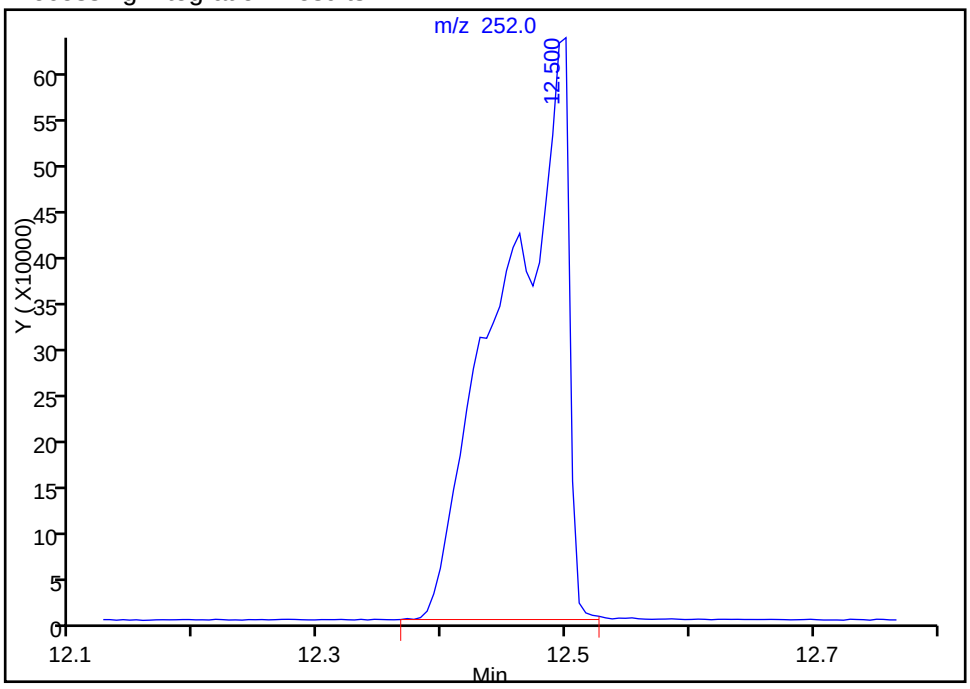
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D
Injection Date: 17-May-2016 10:19:30 Instrument ID: CHSVMS09
Lims ID: IC REG L7
Client ID:
Operator ID: KP ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

171 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

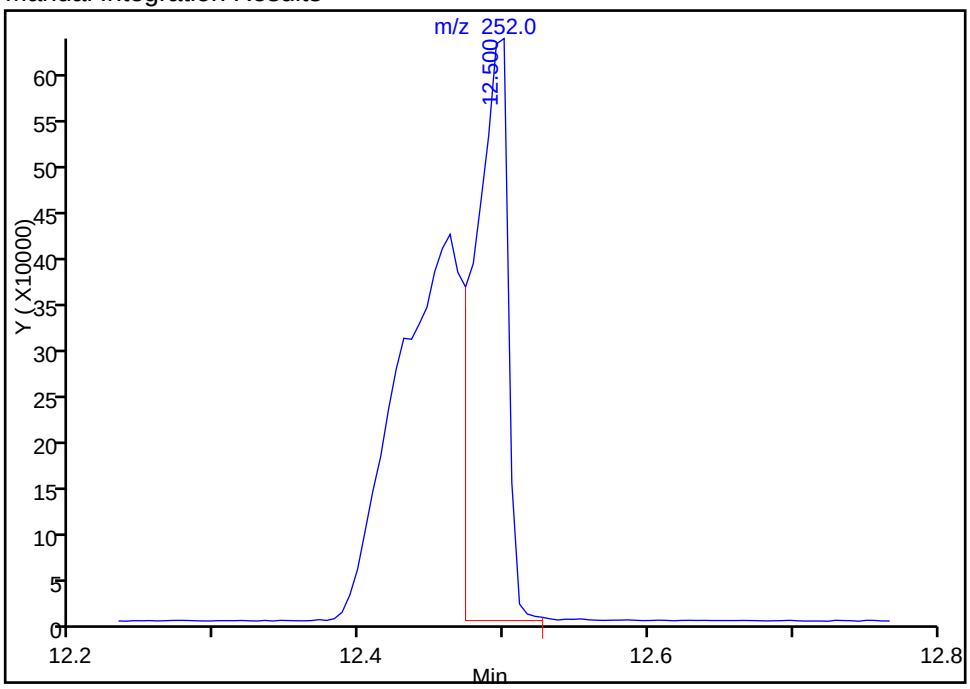
Processing Integration Results

RT: 12.50
Area: 2269483
Amount: 171.3435
Amount Units: ug/ml



Manual Integration Results

RT: 12.50
Area: 1022411
Amount: 89.186877
Amount Units: ug/ml



Reviewer: patelk, 17-May-2016 10:40:26
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188802

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2016 06:54 Calibration End Date: 05/19/2016 09:21 Calibration ID: 9398

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-188802/2	05191603.D
Level 2	IC 600-188802/3	05191604.D
Level 3	IC 600-188802/4	05191605.D
Level 4	ICIS 600-188802/5	05191606.D
Level 5	IC 600-188802/6	05191607.D
Level 6	IC 600-188802/7	05191608.D
Level 7	IC 600-188802/8	05191609.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
N-Nitrosodimethylamine	1.1785 1.3015	1.1514 1.2397	1.2639	1.2946	1.3227	Ave		1.2503				5.2		15.0			
Pyridine	1.8494 2.2834	2.1295 2.1949	2.0326	2.0593	2.2337	Ave		2.1118				7.0		15.0			
Aniline	3.0760 3.1770	3.1137 3.0629	3.0091	3.0218	3.2094	Ave		3.0957				2.4		15.0			
Bis(2-chloroethyl)ether	1.9833 2.0404	1.9554 1.9841	1.9445	1.9625	2.0862	Ave		1.9938				2.6		15.0			
2-Chlorophenol	1.6115 1.5640	1.6395 1.5189	1.6584	1.5165	1.5959	Ave		1.5864				3.5		15.0			
Phenol	2.4487 2.3765	2.4051 2.3655	2.3526	2.3111	2.4265	Ave		2.3837				2.0		15.0			
n-Decane	1.9322 2.3808	2.1577 2.3736	2.2372	2.2146	2.4237	Ave		2.2457				7.6		15.0			
1,3-Dichlorobenzene	1.6158 1.5525	1.6658 1.4935	1.6565	1.5677	1.5892	Ave		1.5916				3.8		15.0			
1,4-Dichlorobenzene	1.5829 1.5941	1.6086 1.5497	1.7012	1.5872	1.6236	Ave		1.6068				3.0		15.0			
1,2-Dichlorobenzene	1.5744 1.5256	1.5642 1.4720	1.5910	1.5203	1.5466	Ave		1.5420				2.6		15.0			
Benzyl alcohol	0.9073 1.1239	0.9371 1.1517	1.1420	1.1660	1.2411	Ave		1.0956				11.4		15.0			
Indene	2.4950 2.7733	2.6297 2.6618	2.7801	2.6867	2.7855	Ave		2.6874				3.9		15.0			
bis (2-Chloroisopropyl) ether	2.2261 2.5218	2.4204 2.4598	2.4292	2.4379	2.5806	Ave		2.4394				4.5		15.0			
2-Methylphenol	1.6680 1.6544	1.7190 1.5577	1.6584	1.6211	1.6618	Ave		1.6486				3.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188802

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2016 06:54 Calibration End Date: 05/19/2016 09:21 Calibration ID: 9398

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetophenone	0.6443 0.7007	0.6657 0.7104	0.6934	0.6812	0.6976	Ave		0.6848				3.4		15.0			
N-Nitrosodi-n-propylamine	1.5285 1.8691	1.6445 1.8653	1.7888	1.7955	1.8830	Ave		1.7678			0.0500	7.5		15.0			
Hexachloroethane	0.9315 0.9989	0.9466 0.9519	0.9669	0.9856	1.0141	Ave		0.9708				3.1		15.0			
3 & 4 Methylphenol	1.6780 1.7237	1.8128 1.7063	1.7893	1.7268	1.7601	Ave		1.7424				2.7		15.0			
Nitrobenzene	0.8207 0.9780	0.8694 0.9833	0.9027	0.9251	0.9304	Ave		0.9156				6.3		15.0			
2,6-Dimethylphenol	0.3224 0.3591	0.3709 0.3489	0.3674	0.3446	0.3446	Ave		0.3511				4.7		15.0			
Isophorone	0.9360 1.1067	0.9815 1.1117	1.0555	1.0911	1.0966	Ave		1.0542				6.5		15.0			
2-Nitrophenol	0.1833 0.2081	0.2138 0.2121	0.2101	0.2050	0.2042	Ave		0.2052				5.0		15.0			
2,4-Dimethylphenol	0.4404 0.5235	0.4594 0.5204	0.5043	0.5135	0.5070	Ave		0.4955				6.5		15.0			
Bis(2-chloroethoxy)methane	0.5681 0.6593	0.5866 0.6473	0.6219	0.6413	0.6305	Ave		0.6221				5.3		15.0			
1,2,4-Trichlorobenzene	0.2944 0.2925	0.2994 0.2912	0.3031	0.2830	0.2772	Ave		0.2915				3.1		15.0			
2,4-Dichlorophenol	0.2983 0.2968	0.2556 0.2920	0.2985	0.2983	0.2880	Ave		0.2896				5.4		15.0			
Naphthalene	1.0291 1.0686	1.0789 1.0766	1.1007	1.0602	1.0434	Ave		1.0654				2.2		15.0			
Benzoic acid	0.1104 0.2270	0.1148 0.2304	0.1722	0.1959	0.2152	Lin1	-0.170	0.2304							0.9950		0.9900
4-Chloroaniline	0.4450 0.4741	0.4731 0.4657	0.4823	0.4734	0.4600	Ave		0.4677				2.6		15.0			
2,6-Dichlorophenol	0.2936 0.2887	0.2881 0.2879	0.3142	0.3018	0.2867	Ave		0.2944				3.5		15.0			
Hexachlorobutadiene	0.2251 0.2199	0.2100 0.2087	0.2289	0.2140	0.2133	Ave		0.2171				3.5		15.0			
4-Chloro-3-methylphenol	0.3783 0.4538	0.4208 0.4552	0.4331	0.4385	0.4478	Ave		0.4325				6.2		15.0			
2-Methylnaphthalene	0.8974 0.9085	0.8978 0.9048	0.9297	0.9020	0.8935	Ave		0.9048				1.3		15.0			
1-Methylnaphthalene	0.6461 0.6357	0.6168 0.6365	0.6560	0.6296	0.6296	Ave		0.6358				2.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188802

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2016 06:54 Calibration End Date: 05/19/2016 09:21 Calibration ID: 9398

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Hexachlorocyclopentadiene	0.1063 0.3502	0.1553 0.3646	0.2379	0.3151	0.3429	Lin1	-0.344	0.3676			0.0500				0.9960		0.9900
1,2,4,5-Tetrachlorobenzene	0.4887 0.4944	0.4909 0.5099	0.5223	0.5039	0.4962	Ave		0.5009				2.4		15.0			
2,4,6-Trichlorophenol	0.3599 0.3616	0.3943 0.3707	0.3839	0.3711	0.3617	Ave		0.3719				3.5		15.0			
2,4,5-Trichlorophenol	0.3288 0.3820	0.3611 0.3900	0.3766	0.3662	0.3813	Ave		0.3694				5.5		15.0			
1,1'-Biphenyl	1.3671 1.3784	1.4264 1.4303	1.4356	1.3730	1.3430	Ave		1.3934				2.6		15.0			
2-Chloronaphthalene	1.1891 1.1655	1.1649 1.1881	1.2619	1.1803	1.1393	Ave		1.1841				3.2		15.0			
2-Nitroaniline	0.5979 0.7337	0.6524 0.7383	0.7009	0.7154	0.7220	Ave		0.6944				7.4		15.0			
Dimethyl phthalate	1.4666 1.4376	1.4580 1.4588	1.5274	1.4818	1.4804	Ave		1.4729				1.9		15.0			
1,3-Dinitrobenzene	0.2259 0.2489	0.2420 0.2778	0.2189	0.2526	0.2494	Ave		0.2451				7.9		15.0			
2,6-Dinitrotoluene	0.3526 0.3326	0.3582 0.3449	0.3509	0.3526	0.3372	Ave		0.3470				2.7		15.0			
Acenaphthylene	1.7722 1.7268	1.8029 1.7508	1.8452	1.7734	1.7341	Ave		1.7722				2.3		15.0			
1,2-Dinitrobenzene	0.1896 0.1601	0.1791 0.1362	0.1698	0.1666	0.1585	Ave		0.1657				10.2		15.0			
3-Nitroaniline	0.4131 0.3847	0.3700 0.3871	0.3999	0.3912	0.3764	Ave		0.3889				3.7		15.0			
Acenaphthene	1.1521 1.0902	1.1022 1.0784	1.1608	1.0942	1.0720	Ave		1.1071				3.2		15.0			
2,4-Dinitrophenol	0.1121 0.2101	0.1476 0.2101	0.1922	0.2000	0.1982	Lin2	-0.208	0.2117			0.0500				0.9980		0.9900
Dibenzofuran	1.6737 1.5733	1.6180 1.6339	1.6780	1.5856	1.5755	Ave		1.6197				2.7		15.0			
2,4-Dinitrotoluene	0.4717 0.4552	0.4951 0.4832	0.4728	0.4718	0.4670	Ave		0.4738				2.6		15.0			
4-Nitrophenol	0.3599 0.4862	0.4025 0.5113	0.4700	0.4736	0.4802	Ave		0.4548			0.0500	11.8		15.0			
2,3,4,6-Tetrachlorophenol	0.2547 0.2865	0.2420 0.2592	0.2592	0.2817	0.2751	Ave		0.2655				6.0		15.0			
Diethyl phthalate	1.5717 1.6094	1.6299 1.6125	1.6219	1.5918	1.6075	Ave		1.6064				1.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188802

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2016 06:54 Calibration End Date: 05/19/2016 09:21 Calibration ID: 9398

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Hexadecane	1.1786 1.3793	1.1448 1.3821	1.2206	1.2679	1.3662	Ave		1.2771				7.8		15.0			
Fluorene	1.3372 1.3661	1.2843 1.3221	1.3195	1.2912	1.3553	Ave		1.3251				2.3		15.0			
4-Chlorophenyl phenyl ether	0.5749 0.5965	0.5396 0.5945	0.5466	0.5499	0.5752	Ave		0.5682				4.1		15.0			
4-Nitroaniline	0.3478 0.3680	0.3854 0.3828	0.4180	0.3713	0.3766	Ave		0.3785				5.6		15.0			
4,6-Dinitro-2-methylphenol	0.1493 0.1713	0.1688 0.1790	0.1714	0.1690	0.1754	Ave		0.1692				5.6		15.0			
Diphenylamine	0.7779 0.6870	0.7614 0.7432	0.7596	0.7312	0.7314	Ave		0.7417				4.0		15.0			
N-Nitrosodiphenylamine	0.6612 0.5839	0.6472 0.6318	0.6456	0.6215	0.6217	Ave		0.6304				4.0		15.0			
1,2-Diphenylhydrazine	1.7132 2.2644	1.8588 2.3117	1.8526	1.9783	2.2557	Ave		2.0335				11.9		15.0			
Azobenzene	1.7132 2.2644	1.8588 2.3117	1.8526	1.9783	2.2557	Ave		2.0335				11.9		15.0			
4-Bromophenyl phenyl ether	0.2274 0.2221	0.2407 0.2242	0.2421	0.2258	0.2261	Ave		0.2298				3.5		15.0			
Hexachlorobenzene	0.2934 0.2770	0.2605 0.2857	0.2654	0.2654	0.2713	Ave		0.2741				4.4		15.0			
Pentachlorophenol	0.0896 0.1612	0.0997 0.1514	0.1272	0.1420	0.1488	Lin2	-0.144	0.1524							0.9930		0.9900
n-Octadecane	0.7383 0.8682	0.8180 0.8688	0.7918	0.8469	0.8685	Ave		0.8286				6.0		15.0			
Phenanthrene	1.1972 1.2823	1.1980 1.3037	1.3382	1.2755	1.2225	Ave		1.2596				4.3		15.0			
Anthracene	1.1923 1.1806	1.2299 1.1454	1.2104	1.1087	1.1714	Ave		1.1770				3.4		15.0			
Carbazole	1.2808 1.2434	1.3260 1.2771	1.2881	1.2411	1.2395	Ave		1.2709				2.5		15.0			
Di-n-butyl phthalate	1.6687 1.8484	1.8515 1.8266	1.7684	1.8248	1.7996	Ave		1.7983				3.6		15.0			
Fluoranthene	1.2969 1.4185	1.3395 1.4592	1.3207	1.3460	1.3467	Ave		1.3611				4.2		15.0			
Pyrene	1.2846 1.3903	1.2618 1.3081	1.2832	1.3001	1.3275	Ave		1.3080				3.2		15.0			
Butyl benzyl phthalate	0.8084 0.8566	0.8026 0.7938	0.8347	0.8245	0.8299	Ave		0.8215				2.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188802

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2016 06:54 Calibration End Date: 05/19/2016 09:21 Calibration ID: 9398

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Benzo[a]anthracene	1.1957 1.2505	1.1757 1.2653	1.2171	1.2861	1.2786	Ave		1.2384				3.5		15.0			
Chrysene	1.1772 1.1909	1.0929 1.2697	1.1658	1.0688	1.1784	Ave		1.1634				5.7		15.0			
Bis(2-ethylhexyl) phthalate	1.1573 1.1848	1.1030 1.1667	1.1214	1.1388	1.1327	Ave		1.1435				2.4		15.0			
Di-n-octyl phthalate	2.0412 1.9902	1.9237 1.9124	2.0428	2.0085	1.9741	Ave		1.9847				2.6		15.0			
Benzo[b]fluoranthene	1.1253 1.1106	1.2077 1.2478	1.2496	1.3070	1.2200	Ave		1.2097				5.8		15.0			
Benzo[k]fluoranthene	1.1548 0.9163	0.9838 0.9647	1.2533	1.1421	1.0517	Ave		1.0667				11.4		15.0			
Benzo[a]pyrene	1.1594 1.0641	1.0919 1.0629	1.1300	1.0979	1.1097	Ave		1.1023				3.1		15.0			
Indeno[1,2,3-cd]pyrene	1.3971 1.1907	1.2925 1.1252	1.3746	1.2380	1.1873	Ave		1.2579				8.1		15.0			
Dibenz(a,h)anthracene	1.0923 0.9859	1.0343 0.9626	1.0678	0.9986	0.9965	Ave		1.0197				4.6		15.0			
Benzo[g,h,i]perylene	1.0947 1.0351	1.1061 1.0026	1.1370	1.0733	1.0578	Ave		1.0724				4.2		15.0			
2-Fluorophenol	1.5203 1.6964	1.6257 1.6485	1.6121	1.6324	1.7199	Ave		1.6365				3.9		15.0			
Phenol-d5 (Surr)	2.4677 2.6267	2.5863 2.6608	2.5902	2.6423	2.6316	Ave		2.6008				2.5		15.0			
Nitrobenzene-d5	0.5914 0.6955	0.6136 0.6955	0.6552	0.6727	0.6778	Ave		0.6574				6.2		15.0			
2-Fluorobiphenyl	1.3701 1.2589	1.2714 1.2929	1.3368	1.2779	1.2552	Ave		1.2947				3.3		15.0			
2,4,6-Tribromophenol	0.2038 0.2117	0.2083 0.2046	0.2165	0.1960	0.1996	Ave		0.2058				3.4		15.0			
Terphenyl-d14	0.7855 0.8454	0.7573 0.7991	0.7445	0.7828	0.7996	Ave		0.7877				4.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188802

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2016 06:54 Calibration End Date: 05/19/2016 09:21 Calibration ID: 9398

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-188802/2	05191603.D
Level 2	IC 600-188802/3	05191604.D
Level 3	IC 600-188802/4	05191605.D
Level 4	ICIS 600-188802/5	05191606.D
Level 5	IC 600-188802/6	05191607.D
Level 6	IC 600-188802/7	05191608.D
Level 7	IC 600-188802/8	05191609.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
N-Nitrosodimethylamine	DCB	Ave	14946 312554	33735 361774	66634	199559	276484	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Pyridine	DCB	Ave	23454 548346	62393 640517	107164	317442	466890	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Aniline	DCB	Ave	39010 762939	91231 893802	158648	465808	670848	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Bis(2-chloroethyl)ether	DCB	Ave	25152 489998	57294 578981	102519	302518	436073	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2-Chlorophenol	DCB	Ave	20437 375590	48038 443256	87433	233768	333587	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Phenol	DCB	Ave	31054 570720	70470 690283	124034	356255	507195	1.00 16.0	2.00 20.0	4.00	10.0	14.0
n-Decane	DCB	Ave	24504 571754	63219 692649	117950	341387	506620	1.00 16.0	2.00 20.0	4.00	10.0	14.0
1,3-Dichlorobenzene	DCB	Ave	20492 372835	48808 435834	87335	241664	332180	1.00 16.0	2.00 20.0	4.00	10.0	14.0
1,4-Dichlorobenzene	DCB	Ave	20074 382809	47131 452239	89692	244669	339382	1.00 16.0	2.00 20.0	4.00	10.0	14.0
1,2-Dichlorobenzene	DCB	Ave	19967 366368	45830 429541	83881	234355	323274	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Benzyl alcohol	DCB	Ave	11507 269902	27457 336082	60210	179746	259428	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Indene	DCB	Ave	31642 665999	77050 776750	146576	414153	582233	1.00 16.0	2.00 20.0	4.00	10.0	14.0
bis (2-Chloroisopropyl) ether	DCB	Ave	28231 605612	70918 717808	128076	375805	539413	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2-Methylphenol	DCB	Ave	21153 397301	50366 454551	87437	249889	347368	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Acetophenone	NPT	Ave	35124 698594	83440 837910	153026	434105	631100	1.00 16.0	2.00 20.0	4.00	10.0	14.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188802

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2016 06:54 Calibration End Date: 05/19/2016 09:21 Calibration ID: 9398

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
N-Nitrosodi-n-propylamine	DCB	Ave	19385 448872	48184 544338	94311	276774	393596	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Hexachloroethane	DCB	Ave	11813 239879	27736 277792	50976	151935	211970	1.00 16.0	2.00 20.0	4.00	10.0	14.0
3 & 4 Methylphenol	DCB	Ave	21280 413932	53115 497929	94339	266193	367899	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Nitrobenzene	NPT	Ave	44738 975048	108962 1159802	199209	589520	841704	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2,6-Dimethylphenol	NPT	Ave	17576 358034	46483 411495	81081	219604	311743	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Isophorone	NPT	Ave	51023 1103378	123012 1311206	232929	695327	992082	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2-Nitrophenol	NPT	Ave	9992 207450	26793 250194	46354	130662	184734	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2,4-Dimethylphenol	NPT	Ave	24004 521928	57572 613753	111299	327240	458652	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Bis(2-chloroethoxy)methane	NPT	Ave	30970 657281	73515 763434	137235	408672	570445	1.00 16.0	2.00 20.0	4.00	10.0	14.0
1,2,4-Trichlorobenzene	NPT	Ave	16048 291608	37529 343411	66883	180339	250814	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2,4-Dichlorophenol	NPT	Ave	16260 295950	32040 344386	65863	190099	260511	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Naphthalene	NPT	Ave	56096 1065401	135224 1269802	242907	675644	943926	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Benzoic acid	NPT	Lin1	6016 226308	14392 271805	38003	124838	194708	1.00 16.0	2.00 20.0	4.00	10.0	14.0
4-Chloroaniline	NPT	Ave	24256 472727	59289 549343	106438	301711	416131	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2,6-Dichlorophenol	NPT	Ave	16007 287878	36104 339543	69335	192315	259342	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Hexachlorobutadiene	NPT	Ave	12272 219279	26315 246181	50506	136389	192961	1.00 16.0	2.00 20.0	4.00	10.0	14.0
4-Chloro-3-methylphenol	NPT	Ave	20623 452394	52744 536931	95578	279434	405124	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2-Methylnaphthalene	NPT	Ave	48920 905729	112525 1067197	205166	574830	808350	1.00 16.0	2.00 20.0	4.00	10.0	14.0
1-Methylnaphthalene	NPT	Ave	35221 633837	77304 750784	144771	401258	569619	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Hexachlorocyclopentadiene	ANT	Lin1	3091 192789	10533 230481	27932	107673	166939	1.00 16.0	2.00 20.0	4.00	10.0	14.0
1,2,4,5-Tetrachlorobenzene	ANT	Ave	14213 272145	33286 322384	61319	172165	241593	1.00 16.0	2.00 20.0	4.00	10.0	14.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188802

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2016 06:54 Calibration End Date: 05/19/2016 09:21 Calibration ID: 9398

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
2,4,6-Trichlorophenol	ANT	Ave	10467 199040	26734 234324	45070	126777	176093	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2,4,5-Trichlorophenol	ANT	Ave	9562 210300	24483 246562	44213	125119	185610	1.00 16.0	2.00 20.0	4.00	10.0	14.0
1,1'-Biphenyl	ANT	Ave	39757 758751	96722 904244	168531	469090	653820	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2-Chloronaphthalene	ANT	Ave	34581 641565	78988 751135	148139	403243	554673	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2-Nitroaniline	ANT	Ave	17388 403899	44238 466772	82285	244420	351517	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Dimethyl phthalate	ANT	Ave	42651 791367	98863 922268	179309	506264	720693	1.00 16.0	2.00 20.0	4.00	10.0	14.0
1,3-Dinitrobenzene	ANT	Ave	6570 137014	16412 175635	25696	86295	121404	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2,6-Dinitrotoluene	ANT	Ave	10254 183064	24291 218025	41200	120452	164150	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Acenaphthylene	ANT	Ave	51541 950537	122255 1106864	216620	605880	844242	1.00 16.0	2.00 20.0	4.00	10.0	14.0
1,2-Dinitrobenzene	ANT	Ave	5515 88141	12148 86085	19930	56913	77157	1.00 16.0	2.00 20.0	4.00	10.0	14.0
3-Nitroaniline	ANT	Ave	12014 211782	25087 244708	46943	133650	183254	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Acenaphthene	ANT	Ave	33505 600150	74740 681749	136278	373850	521868	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2,4-Dinitrophenol	ANT	Lin2	6519 231354	20024 265624	45132	136685	193005	2.00 32.0	4.00 40.0	8.00	20.0	28.0
Dibenzofuran	ANT	Ave	48675 866047	109717 1032961	196993	541722	767000	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2,4-Dinitrotoluene	ANT	Ave	13717 250569	33571 305502	55508	161188	227342	1.00 16.0	2.00 20.0	4.00	10.0	14.0
4-Nitrophenol	ANT	Ave	20935 535235	54590 646440	110361	323639	467600	2.00 32.0	4.00 40.0	8.00	20.0	28.0
2,3,4,6-Tetrachlorophenol	ANT	Ave	7408 157699	16407 163861	30428	96231	133914	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Diethyl phthalate	ANT	Ave	45710 885931	110520 1019384	190405	543837	782582	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Hexadecane	ANT	Ave	34276 759272	77627 873743	143296	433204	665127	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Fluorene	ANT	Ave	38890 752014	87087 835808	154903	441142	659829	1.00 16.0	2.00 20.0	4.00	10.0	14.0
4-Chlorophenyl phenyl ether	ANT	Ave	16719 328351	36591 375824	64171	187861	280018	1.00 16.0	2.00 20.0	4.00	10.0	14.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188802

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2016 06:54 Calibration End Date: 05/19/2016 09:21 Calibration ID: 9398

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
4-Nitroaniline	ANT	Ave	10115 202591	26131 241973	49070	126841	183334	1.00 16.0	2.00 20.0	4.00	10.0	14.0
4,6-Dinitro-2-methylphenol	PHN	Ave	13356 275896	33656 332813	61021	173226	250405	2.00 32.0	4.00 40.0	8.00	20.0	28.0
Diphenylamine	PHN	Ave	29570 470240	64515 587336	114919	318565	443885	0.850 13.6	1.70 17.0	3.40	8.50	11.9
N-Nitrosodiphenylamine	PHN	Ave	29570 470240	64515 587336	114919	318565	443885	1.00 16.0	2.00 20.0	4.00	10.0	14.0
1,2-Diphenylhydrazine	PHN	Ave	76611 1823611	185288 2149135	329753	1014005	1610568	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Azobenzene	PHN	Ave	76611 1823611	185288 2149135	329753	1014005	1610568	1.00 16.0	2.00 20.0	4.00	10.0	14.0
4-Bromophenyl phenyl ether	PHN	Ave	10170 178874	23998 208473	43097	115732	161412	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Hexachlorobenzene	PHN	Ave	13121 223043	25968 265630	47248	136026	193685	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Pentachlorophenol	PHN	Lin2	8018 259691	19867 281463	45294	145615	212424	2.00 32.0	4.00 40.0	8.00	20.0	28.0
n-Octadecane	PHN	Ave	33017 699220	81537 807729	140929	434077	620131	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Phenanthrene	PHN	Ave	53539 1032655	119422 1211984	238198	653747	872866	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Anthracene	PHN	Ave	53320 950771	122599 1064828	215437	568286	836383	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Carbazole	PHN	Ave	57275 1001379	132178 1187291	229280	636110	885015	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Di-n-butyl phthalate	PHN	Ave	74623 1488573	184557 1698195	314761	935295	1284925	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Fluoranthene	PHN	Ave	57996 1142330	133528 1356629	235069	689899	961570	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Pyrene	CRY	Ave	61260 1182384	136025 1412462	252599	704921	1012840	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Butyl benzyl phthalate	CRY	Ave	38550 728456	86516 857144	164301	447019	633189	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Benzo[a]anthracene	CRY	Ave	57017 1063424	126738 1366258	239586	697289	975541	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Chrysene	CRY	Ave	56136 1012802	117814 1370959	229486	579475	899050	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Bis(2-ethylhexyl) phthalate	CRY	Ave	55189 1007556	118901 1259716	220750	617467	864211	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Di-n-octyl phthalate	CRY	Ave	97336 1692526	207369 2064977	402119	1088963	1506185	1.00 16.0	2.00 20.0	4.00	10.0	14.0

FORM VI
GC/MS SEMI VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188802

SDG No.:

Instrument ID: CHSVMS09 GC Column: RXi-5Sil MS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2016 06:54 Calibration End Date: 05/19/2016 09:21 Calibration ID: 9398

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Benzo[b]fluoranthene	PRY	Ave	54710 901619	130944 1254166	255722	682331	868225	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Benzo[k]fluoranthene	PRY	Ave	56148 743878	106662 969592	256483	596236	748431	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Benzo[a]pyrene	PRY	Ave	56369 863894	118381 1068353	231237	573161	789689	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Indeno[1,2,3-cd]pyrene	CRY	Ave	66622 1012625	139329 1215004	270589	671241	905884	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Dibenz(a,h)anthracene	PRY	Ave	53106 800336	112140 967549	218515	521326	709137	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Benzo[g,h,i]perylene	PRY	Ave	53224 840295	119929 1007734	232670	560326	752753	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2-Fluorophenol	DCB	Ave	19280 407379	47632 481055	84996	251637	359499	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Phenol-d5 (Surr)	DCB	Ave	31296 630788	75778 776467	136560	407305	550081	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Nitrobenzene-d5	NPT	Ave	32239 693444	76901 820295	144594	428724	613208	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2-Fluorobiphenyl	ANT	Ave	39845 692978	86211 817350	156942	436601	611105	1.00 16.0	2.00 20.0	4.00	10.0	14.0
2,4,6-Tribromophenol	ANT	Ave	5926 116561	14127 129337	25414	66952	97160	1.00 16.0	2.00 20.0	4.00	10.0	14.0
Terphenyl-d14	CRY	Ave	37456 718920	81632 862852	146547	424442	610032	1.00 16.0	2.00 20.0	4.00	10.0	14.0

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191603.D
Lims ID: IC REG LVI1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 19-May-2016 06:54:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS REG LVI
Misc. Info.: 600-0012123-002
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270LVI_9*sub7

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 09:49:41 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 08:06:11

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 N-Nitrosodimethylamine	74	1.966	1.968	-0.002	84	14946	1.00	0.9426	
	2 Pyridine	79	2.020	1.984	0.036	93	23454	1.00	0.8757	
$	7 2-Fluorophenol	112	4.071	4.019	0.052	90	19280	1.00	0.9290	
	12 Aniline	93	4.883	4.885	-0.002	88	39010	1.00	0.99	
	16 Bis(2-chloroethyl)ether	93	4.953	4.954	-0.001	99	25152	1.00	0.99	
$	10 Phenol-d5	99	5.065	5.024	0.041	58	31296	1.00	0.9488	
	17 2-Chlorophenol	128	5.060	5.040	0.020	89	20437	1.00	1.02	
	11 Phenol	94	5.086	5.040	0.046	90	31054	1.00	1.03	
	18 n-Decane	57	5.065	5.072	-0.007	75	24504	1.00	0.8604	
	20 1,3-Dichlorobenzene	146	5.113	5.114	-0.001	86	20492	1.00	1.02	
*	21 1,4-Dichlorobenzene-d4	152	5.166	5.173	-0.007	90	101456	8.00	8.00	
	22 1,4-Dichlorobenzene	146	5.182	5.189	-0.007	87	20074	1.00	0.9851	
	24 1,2-Dichlorobenzene	146	5.321	5.328	-0.007	86	19967	1.00	1.02	
	23 Benzyl alcohol	108	5.391	5.376	0.015	75	11507	1.00	0.8282	
	26 Indene	115	5.407	5.408	-0.001	93	31642	1.00	0.9284	
	27 2,2'-oxybis[1-chloropropan	45	5.460	5.467	-0.007	86	28231	1.00	0.9125	
	25 2-Methylphenol	108	5.562	5.553	0.010	61	21153	1.00	1.01	
	29 Acetophenone	105	5.562	5.569	-0.007	77	35124	1.00	0.9410	
	31 N-Nitrosodi-n-propylamine	70	5.578	5.601	-0.023	87	19385	1.00	0.8646	
	34 Hexachloroethane	117	5.626	5.627	-0.001	90	11813	1.00	0.9595	
$	35 Nitrobenzene-d5	82	5.690	5.697	-0.007	90	32239	1.00	0.8996	
	30 3 & 4 Methylphenol	108	5.717	5.697	0.020	88	21280	1.00	0.9630	
	36 Nitrobenzene	77	5.706	5.713	-0.007	87	44738	1.00	0.8963	
	39 2,6-Dimethylphenol	122	5.856	5.857	-0.001	89	17576	1.00	0.9183	
	41 Isophorone	82	5.925	5.937	-0.012	98	51023	1.00	0.8879	
	42 2-Nitrophenol	139	5.994	5.996	-0.002	81	9992	1.00	0.8932	
	43 2,4-Dimethylphenol	107	6.123	6.113	0.010	93	24004	1.00	0.8887	
	46 Bis(2-chloroethoxy)methane	93	6.128	6.135	-0.007	96	30970	1.00	0.9132	
	49 1,2,4-Trichlorobenzene	180	6.262	6.268	-0.006	88	16048	1.00	1.01	
	48 2,4-Dichlorophenol	162	6.288	6.268	0.020	90	16260	1.00	1.03	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.299	6.306	-0.007	97	436086	8.00	8.00	
51 Naphthalene	128	6.315	6.322	-0.007	98	56096	1.00	0.9660	
47 Benzoic acid	122	6.310	6.338	-0.028	35	6016	1.00	1.22	
52 4-Chloroaniline	127	6.406	6.407	-0.001	91	24256	1.00	0.9515	
53 2,6-Dichlorophenol	162	6.422	6.418	0.004	85	16007	1.00	1.00	
55 Hexachlorobutadiene	225	6.443	6.445	-0.002	94	12272	1.00	1.04	
60 4-Chloro-3-methylphenol	107	6.908	6.893	0.015	85	20623	1.00	0.8747	
62 2-Methylnaphthalene	142	6.908	6.909	-0.001	93	48920	1.00	0.99	
63 1-Methylnaphthalene	142	6.983	6.990	-0.007	87	35221	1.00	1.02	
66 Hexachlorocyclopentadiene	237	7.047	7.054	-0.007	47	3091	1.00	1.23	
65 1,2,4,5-Tetrachlorobenzene	216	7.052	7.054	-0.002	88	14213	1.00	0.9757	
69 2,4,6-Trichlorophenol	196	7.186	7.187	-0.001	87	10467	1.00	0.9678	
$ 72 2-Fluorobiphenyl	172	7.218	7.225	-0.007	98	39845	1.00	1.06	
71 2,4,5-Trichlorophenol	196	7.282	7.257	0.025	77	9562	1.00	0.8900	
77 1,1'-Biphenyl	154	7.293	7.299	-0.006	96	39757	1.00	0.9811	
78 2-Chloronaphthalene	162	7.303	7.310	-0.007	95	34581	1.00	1.00	
81 2-Nitroaniline	65	7.421	7.428	-0.007	71	17388	1.00	0.8610	
84 Dimethyl phthalate	163	7.565	7.583	-0.017	91	42651	1.00	1.00	
85 1,3-Dinitrobenzene	168	7.597	7.609	-0.012	77	6570	1.00	0.9218	
86 2,6-Dinitrotoluene	165	7.608	7.625	-0.017	75	10254	1.00	1.02	
88 Acenaphthylene	152	7.640	7.647	-0.007	97	51541	1.00	1.00	
87 1,2-Dinitrobenzene	168	7.656	7.673	-0.017	86	5515	1.00	1.14	
* 90 Acenaphthene-d10	164	7.757	7.764	-0.007	94	232658	8.00	8.00	
89 3-Nitroaniline	138	7.763	7.775	-0.012	86	12014	1.00	1.06	
91 Acenaphthene	153	7.784	7.791	-0.007	95	33505	1.00	1.04	
92 2,4-Dinitrophenol	184	7.870	7.860	0.010	70	6519	2.00	2.04	
96 Dibenzofuran	168	7.928	7.935	-0.007	93	48675	1.00	1.03	
95 2,4-Dinitrotoluene	165	7.944	7.956	-0.012	80	13717	1.00	1.00	
93 4-Nitrophenol	109	8.078	8.037	0.041	89	20935	2.00	1.58	
99 2,3,4,6-Tetrachlorophenol	232	8.078	8.074	0.004	80	7408	1.00	0.9595	
101 Diethyl phthalate	149	8.137	8.159	-0.022	93	45710	1.00	0.9784	
102 Hexadecane	57	8.163	8.170	-0.007	95	34276	1.00	0.9229	
104 Fluorene	166	8.206	8.218	-0.012	93	38890	1.00	1.01	
105 4-Chlorophenyl phenyl ethe	204	8.211	8.218	-0.007	83	16719	1.00	1.01	
107 4-Nitroaniline	138	8.265	8.293	-0.028	70	10115	1.00	0.9188	
108 4,6-Dinitro-2-methylphenol	198	8.286	8.304	-0.018	67	13356	2.00	1.77	
110 N-Nitrosodiphenylamine	169	8.318	8.330	-0.012	64	29570	1.00	1.05	
109 Diphenylamine	169	8.318	8.330	-0.012	95	29570	0.8500	0.8916	
112 1,2-Diphenylhydrazine	77	8.340	8.352	-0.012	43	76611	1.00	0.8425	
111 Azobenzene	77	8.340	8.352	-0.012	97	76611	1.00	0.8425	
$ 113 2,4,6-Tribromophenol	330	8.420	8.427	-0.007	78	5926	1.00	0.99	
118 4-Bromophenyl phenyl ether	248	8.607	8.614	-0.007	81	10170	1.00	0.9897	
122 Hexachlorobenzene	284	8.665	8.672	-0.007	82	13121	1.00	1.07	
127 Pentachlorophenol	266	8.863	8.865	-0.002	83	8018	2.00	2.12	
130 n-Octadecane	57	8.917	8.923	-0.006	95	33017	1.00	0.8910	
* 131 Phenanthrene-d10	188	8.970	8.977	-0.007	96	357751	8.00	8.00	
132 Phenanthrene	178	8.986	8.998	-0.012	98	53539	1.00	0.9505	
134 Anthracene	178	9.029	9.036	-0.007	99	53320	1.00	1.01	
135 Carbazole	167	9.184	9.190	-0.006	96	57275	1.00	1.01	
137 Di-n-butyl phthalate	149	9.472	9.474	-0.002	99	74623	1.00	0.9279	
143 Fluoranthene	202	9.953	9.960	-0.007	99	57996	1.00	0.9528	
146 Pyrene	202	10.135	10.141	-0.006	96	61260	1.00	0.9822	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 149 Terphenyl-d14	244	10.273	10.280	-0.007	97	37456	1.00	1.00	
154 Butyl benzyl phthalate	149	10.685	10.692	-0.007	91	38550	1.00	0.9841	
159 Benzo[a]anthracene	228	11.139	11.140	-0.001	98	57017	1.00	0.9655	
* 160 Chrysene-d12	240	11.150	11.151	-0.001	97	381493	8.00	8.00	
161 Chrysene	228	11.171	11.178	-0.007	87	56136	1.00	1.01	
162 Bis(2-ethylhexyl) phthalat	149	11.192	11.188	0.004	97	55189	1.00	1.01	
164 Di-n-octyl phthalate	149	11.876	11.883	-0.007	99	97336	1.00	1.03	
165 Benzo[b]fluoranthene	252	12.330	12.342	-0.012	97	54710	1.00	0.9302	M
167 Benzo[k]fluoranthene	252	12.368	12.385	-0.017	98	56148	1.00	1.08	
168 Benzo[a]pyrene	252	12.800	12.823	-0.023	79	56369	1.00	1.05	
* 169 Perylene-d12	264	12.907	12.909	-0.002	97	388955	8.00	8.00	
172 Indeno[1,2,3-cd]pyrene	276	15.049	15.083	-0.034	98	66622	1.00	1.11	
173 Dibenz(a,h)anthracene	278	15.103	15.142	-0.039	92	53106	1.00	1.07	
174 Benzo[g,h,i]perylene	276	15.530	15.569	-0.039	95	53224	1.00	1.02	
S 187 Methyl Phenols,Total	1				0			1.97	
S 188 Total Cresols	1				0			1.97	
S 189 Total Cresols, TCEQ Defini	1				0			3.60	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

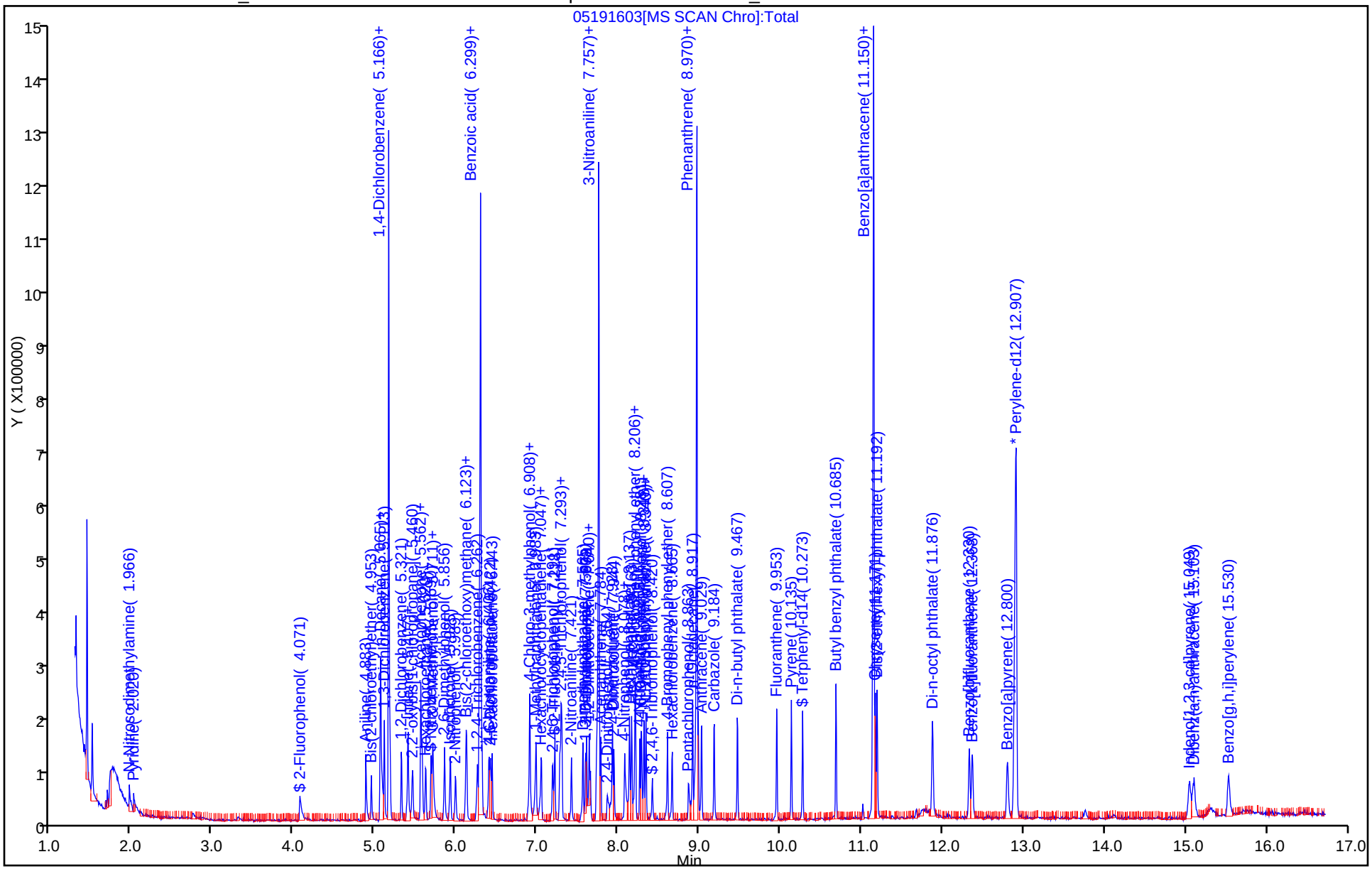
SV_REGICAL_00008	Amount Added:	5.00	Units: uL	
SV_8270ISTD_00009	Amount Added:	4.00	Units: uL	Run Reagent

Report Date: 19-May-2016 09:49:43 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191603.D

Injection Date:	19-May-2016 06:54:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG LVI1			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

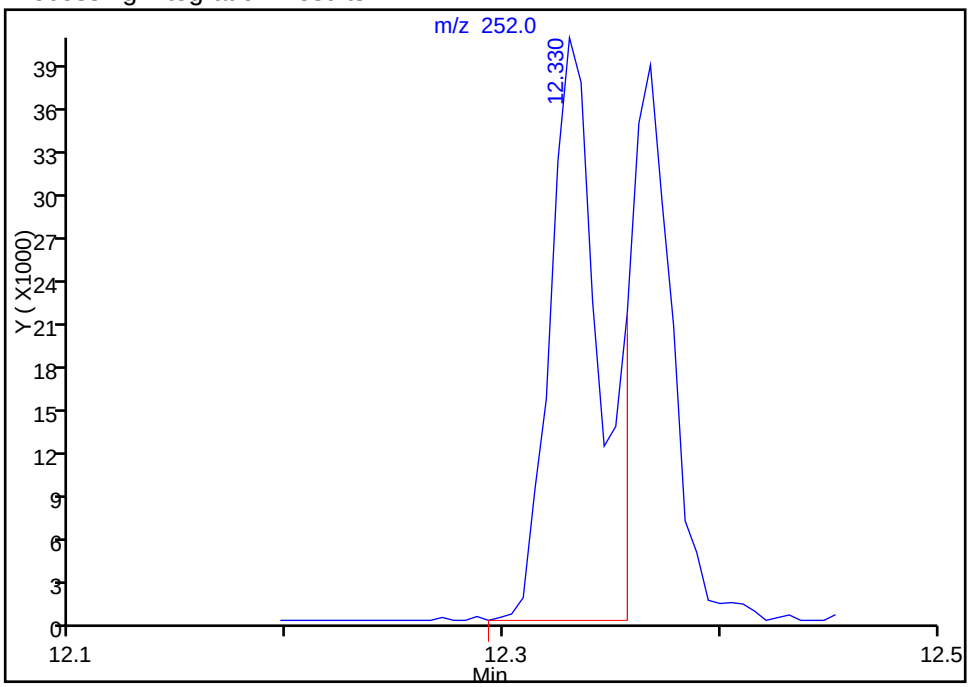
Data File:	\\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191603.D				
Injection Date:	19-May-2016 06:54:30	Instrument ID:	CHSVMS09		
Lims ID:	IC REG LVI1				
Client ID:					
Operator ID:	KP	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		
Column:		Detector	MS SCAN		

165 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

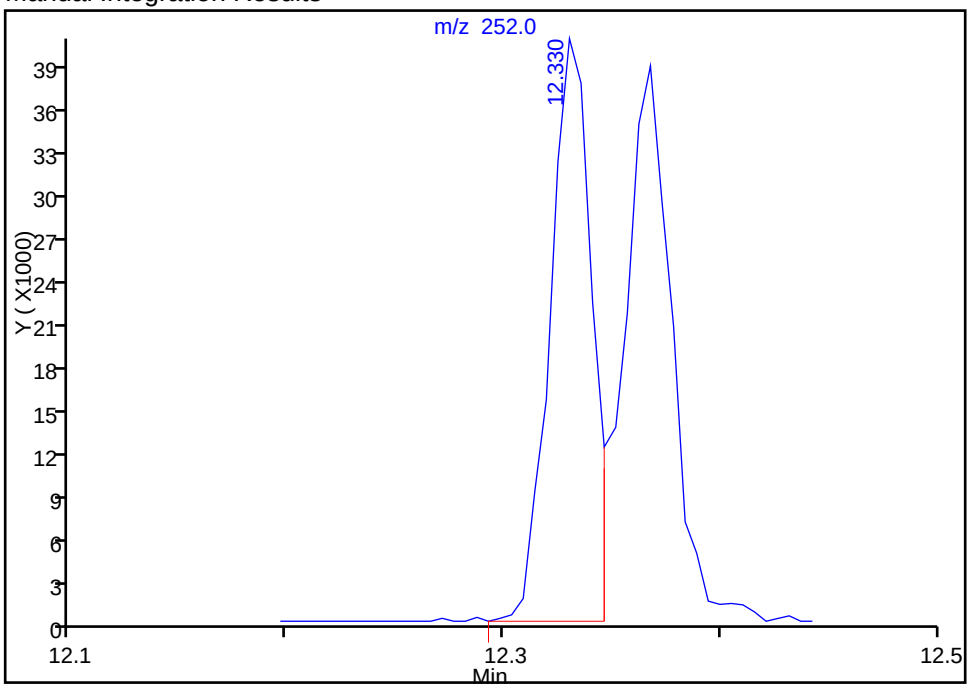
Processing Integration Results

RT: 12.33
Area: 65887
Amount: 1.089420
Amount Units: ug/ml



Manual Integration Results

RT: 12.33
Area: 54710
Amount: 0.930191
Amount Units: ug/ml



Reviewer: patelk, 19-May-2016 08:12:40
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191604.D
Lims ID: IC REG LVI2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 19-May-2016 07:19:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: IC REG LVI2
Misc. Info.: 600-0012123-003
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270LVI_9*sub7

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 09:49:52 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 08:12:27

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.962	1.968	-0.006	89	33735	2.00	1.84	
2 Pyridine	79	1.999	1.984	0.015	92	62393	2.00	2.02	
$ 7 2-Fluorophenol	112	4.056	4.019	0.037	93	47632	2.00	1.99	
12 Aniline	93	4.884	4.885	-0.001	95	91231	2.00	2.01	
16 Bis(2-chloroethyl)ether	93	4.953	4.954	-0.001	96	57294	2.00	1.96	
$ 10 Phenol-d5	99	5.055	5.024	0.031	63	75778	2.00	1.99	
17 2-Chlorophenol	128	5.055	5.040	0.015	84	48038	2.00	2.07	
11 Phenol	94	5.066	5.040	0.026	72	70470	2.00	2.02	
18 n-Decane	57	5.071	5.072	-0.001	84	63219	2.00	1.92	
20 1,3-Dichlorobenzene	146	5.114	5.114	0.000	87	48808	2.00	2.09	
* 21 1,4-Dichlorobenzene-d4	152	5.167	5.173	-0.006	89	117199	8.00	8.00	
22 1,4-Dichlorobenzene	146	5.183	5.189	-0.006	90	47131	2.00	2.00	
24 1,2-Dichlorobenzene	146	5.327	5.328	-0.001	86	45830	2.00	2.03	
23 Benzyl alcohol	108	5.381	5.376	0.005	78	27457	2.00	1.71	
26 Indene	115	5.407	5.408	-0.001	90	77050	2.00	1.96	
27 2,2'-oxybis[1-chloropropan	45	5.461	5.467	-0.006	86	70918	2.00	1.98	
25 2-Methylphenol	108	5.557	5.553	0.005	86	50366	2.00	2.09	
29 Acetophenone	105	5.562	5.569	-0.007	81	83440	2.00	1.94	
31 N-Nitrosodi-n-propylamine	70	5.584	5.601	-0.017	89	48184	2.00	1.86	
34 Hexachloroethane	117	5.621	5.627	-0.006	90	27736	2.00	1.95	
$ 35 Nitrobenzene-d5	82	5.691	5.697	-0.006	93	76901	2.00	1.87	
30 3 & 4 Methylphenol	108	5.707	5.697	0.010	56	53115	2.00	2.08	
36 Nitrobenzene	77	5.707	5.713	-0.006	86	108962	2.00	1.90	
39 2,6-Dimethylphenol	122	5.856	5.857	-0.001	91	46483	2.00	2.11	
41 Isophorone	82	5.931	5.937	-0.006	98	123012	2.00	1.86	
42 2-Nitrophenol	139	5.990	5.996	-0.006	73	26793	2.00	2.08	
43 2,4-Dimethylphenol	107	6.118	6.113	0.005	93	57572	2.00	1.85	
46 Bis(2-chloroethoxy)methane	93	6.129	6.135	-0.006	97	73515	2.00	1.89	
49 1,2,4-Trichlorobenzene	180	6.262	6.268	-0.006	89	37529	2.00	2.05	
48 2,4-Dichlorophenol	162	6.278	6.268	0.010	87	32040	2.00	1.77	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.300	6.306	-0.006	97	501331	8.00	8.00	
51 Naphthalene	128	6.321	6.322	-0.001	96	135224	2.00	2.03	
47 Benzoic acid	122	6.294	6.338	-0.044	31	14392	2.00	1.74	
52 4-Chloroaniline	127	6.401	6.407	-0.006	92	59289	2.00	2.02	
53 2,6-Dichlorophenol	162	6.417	6.418	-0.001	81	36104	2.00	1.96	
55 Hexachlorobutadiene	225	6.444	6.445	-0.001	90	26315	2.00	1.93	
60 4-Chloro-3-methylphenol	107	6.903	6.893	0.010	74	52744	2.00	1.95	
62 2-Methylnaphthalene	142	6.903	6.909	-0.006	91	112525	2.00	1.98	
63 1-Methylnaphthalene	142	6.983	6.990	-0.007	86	77304	2.00	1.94	
66 Hexachlorocyclopentadiene	237	7.047	7.054	-0.007	91	10533	2.00	1.78	
65 1,2,4,5-Tetrachlorobenzene	216	7.053	7.054	-0.001	87	33286	2.00	1.96	
69 2,4,6-Trichlorophenol	196	7.186	7.187	-0.001	89	26734	2.00	2.12	
$ 72 2-Fluorobiphenyl	172	7.218	7.225	-0.007	98	86211	2.00	1.96	
71 2,4,5-Trichlorophenol	196	7.272	7.257	0.015	79	24483	2.00	1.95	
77 1,1'-Biphenyl	154	7.293	7.299	-0.006	96	96722	2.00	2.05	
78 2-Chloronaphthalene	162	7.304	7.310	-0.006	98	78988	2.00	1.97	
81 2-Nitroaniline	65	7.421	7.428	-0.007	70	44238	2.00	1.88	
84 Dimethyl phthalate	163	7.566	7.583	-0.016	91	98863	2.00	1.98	
85 1,3-Dinitrobenzene	168	7.598	7.609	-0.011	75	16412	2.00	1.98	
86 2,6-Dinitrotoluene	165	7.608	7.625	-0.017	76	24291	2.00	2.06	
88 Acenaphthylene	152	7.640	7.647	-0.007	98	122255	2.00	2.03	
87 1,2-Dinitrobenzene	168	7.656	7.673	-0.017	83	12148	2.00	2.16	
* 90 Acenaphthene-d10	164	7.763	7.764	-0.001	91	271238	8.00	8.00	
89 3-Nitroaniline	138	7.763	7.775	-0.012	47	25087	2.00	1.90	
91 Acenaphthene	153	7.785	7.791	-0.006	95	74740	2.00	1.99	
92 2,4-Dinitrophenol	184	7.859	7.860	-0.001	71	20024	4.00	3.77	
96 Dibenzofuran	168	7.929	7.935	-0.006	91	109717	2.00	2.00	
95 2,4-Dinitrotoluene	165	7.945	7.956	-0.011	79	33571	2.00	2.09	
93 4-Nitrophenol	109	8.062	8.037	0.025	87	54590	4.00	3.54	
99 2,3,4,6-Tetrachlorophenol	232	8.073	8.074	-0.001	83	16407	2.00	1.82	
101 Diethyl phthalate	149	8.143	8.159	-0.016	93	110520	2.00	2.03	
102 Hexadecane	57	8.164	8.170	-0.006	98	77627	2.00	1.79	
104 Fluorene	166	8.207	8.218	-0.011	93	87087	2.00	1.94	
105 4-Chlorophenyl phenyl ethe	204	8.212	8.218	-0.006	80	36591	2.00	1.90	
107 4-Nitroaniline	138	8.265	8.293	-0.028	70	26131	2.00	2.04	
108 4,6-Dinitro-2-methylphenol	198	8.287	8.304	-0.017	57	33656	4.00	3.99	
110 N-Nitrosodiphenylamine	169	8.319	8.330	-0.011	64	64515	2.00	2.05	
109 Diphenylamine	169	8.319	8.330	-0.011	93	64515	1.70	1.75	
112 1,2-Diphenylhydrazine	77	8.340	8.352	-0.012	42	185288	2.00	1.83	
111 Azobenzene	77	8.340	8.352	-0.012	97	185288	2.00	1.83	
$ 113 2,4,6-Tribromophenol	330	8.420	8.427	-0.007	81	14127	2.00	2.02	
118 4-Bromophenyl phenyl ether	248	8.607	8.614	-0.007	81	23998	2.00	2.10	
122 Hexachlorobenzene	284	8.666	8.672	-0.006	86	25968	2.00	1.90	
127 Pentachlorophenol	266	8.864	8.865	-0.001	80	19867	4.00	3.56	
130 n-Octadecane	57	8.917	8.923	-0.006	96	81537	2.00	1.97	
* 131 Phenanthrene-d10	188	8.971	8.977	-0.006	95	398727	8.00	8.00	
132 Phenanthrene	178	8.987	8.998	-0.011	99	119422	2.00	1.90	
134 Anthracene	178	9.029	9.036	-0.007	99	122599	2.00	2.09	
135 Carbazole	167	9.179	9.190	-0.011	97	132178	2.00	2.09	
137 Di-n-butyl phthalate	149	9.473	9.474	-0.001	99	184557	2.00	2.06	
143 Fluoranthene	202	9.954	9.960	-0.006	99	133528	2.00	1.97	
146 Pyrene	202	10.135	10.141	-0.006	97	136025	2.00	1.93	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 149 Terphenyl-d14	244	10.274	10.280	-0.006	97	81632	2.00	1.92	
154 Butyl benzyl phthalate	149	10.685	10.692	-0.007	90	86516	2.00	1.95	
159 Benzo[a]anthracene	228	11.140	11.140	0.000	99	126738	2.00	1.90	
* 160 Chrysene-d12	240	11.156	11.151	0.005	98	431197	8.00	8.00	
161 Chrysene	228	11.172	11.178	-0.006	97	117814	2.00	1.88	
162 Bis(2-ethylhexyl) phthalat	149	11.193	11.188	0.005	95	118901	2.00	1.93	
164 Di-n-octyl phthalate	149	11.877	11.883	-0.006	99	207369	2.00	1.94	
165 Benzo[b]fluoranthene	252	12.336	12.342	-0.006	88	130944	2.00	2.00	
167 Benzo[k]fluoranthene	252	12.368	12.385	-0.017	98	106662	2.00	1.84	
168 Benzo[a]pyrene	252	12.806	12.823	-0.017	79	118381	2.00	1.98	
* 169 Perylene-d12	264	12.908	12.909	-0.001	97	433688	8.00	8.00	
172 Indeno[1,2,3-cd]pyrene	276	15.055	15.083	-0.028	97	139329	2.00	2.05	
173 Dibenz(a,h)anthracene	278	15.103	15.142	-0.039	91	112140	2.00	2.03	
174 Benzo[g,h,i]perylene	276	15.531	15.569	-0.038	97	119929	2.00	2.06	
S 187 Methyl Phenols,Total	1				0			4.17	
S 188 Total Cresols	1				0			4.17	
S 189 Total Cresols, TCEQ Defini	1				0			8.02	

Reagents:

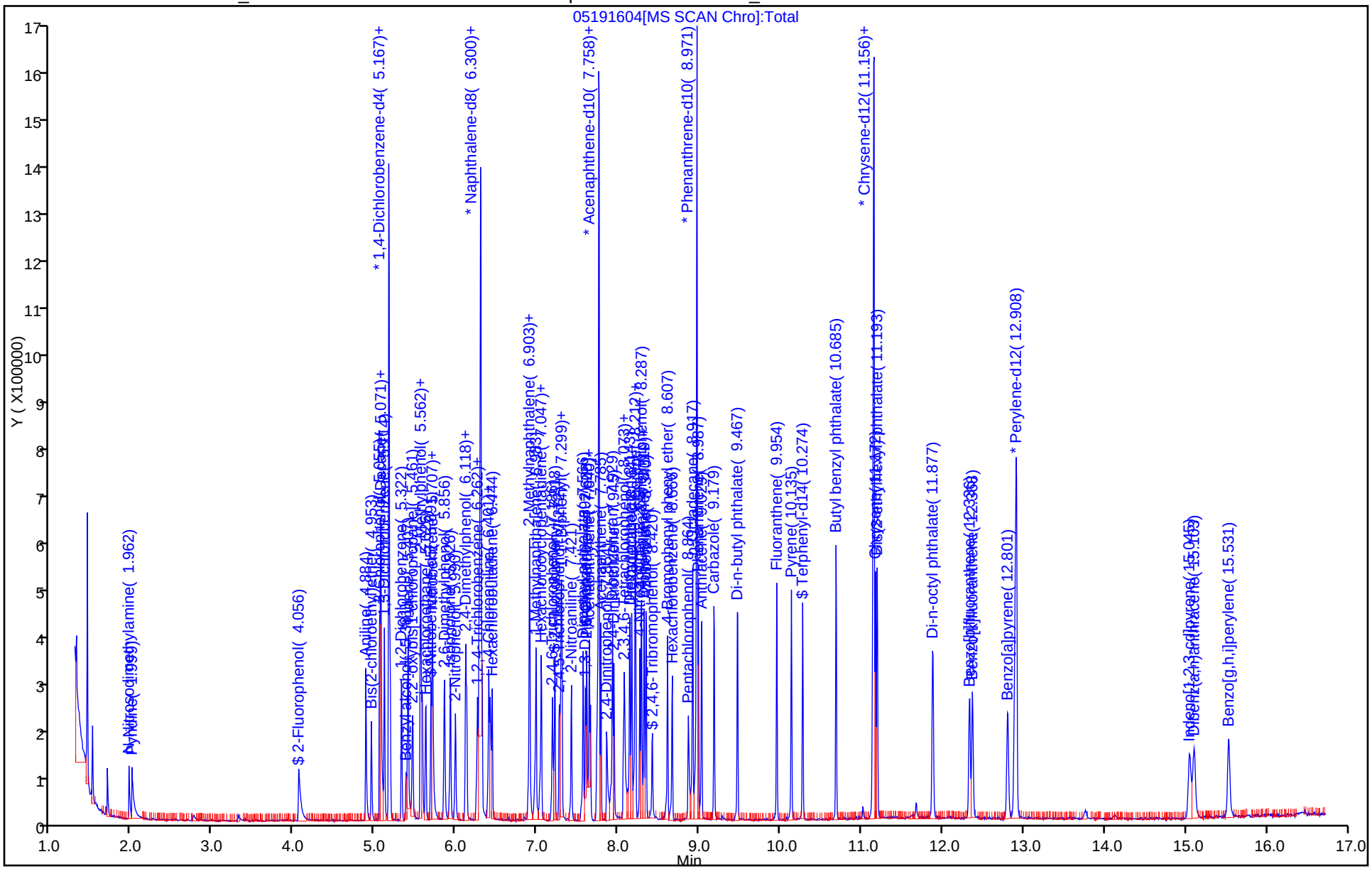
SV_REGICAL_00008	Amount Added: 10.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 4.00	Units: uL	Run Reagent

Report Date: 19-May-2016 09:49:54 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191604.D

Injection Date:	19-May-2016 07:19:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG LVI2			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191605.D
Lims ID: IC REG LVI3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 19-May-2016 07:43:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: IC REG LVI3
Misc. Info.: 600-0012123-004
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270LVI_9*sub7

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 09:50:02 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 08:32:00

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.956	1.968	-0.012	83	66634	4.00	4.04	
2 Pyridine	79	1.988	1.984	0.004	93	107164	4.00	3.85	
$ 7 2-Fluorophenol	112	4.039	4.019	0.020	93	84996	4.00	3.94	
12 Aniline	93	4.878	4.885	-0.007	94	158648	4.00	3.89	
16 Bis(2-chloroethyl)ether	93	4.947	4.954	-0.007	96	102519	4.00	3.90	
$ 10 Phenol-d5	99	5.038	5.024	0.014	55	136560	4.00	3.98	
17 2-Chlorophenol	128	5.044	5.040	0.004	84	87433	4.00	4.18	
11 Phenol	94	5.049	5.040	0.009	84	124034	4.00	3.95	
18 n-Decane	57	5.065	5.072	-0.007	85	117950	4.00	3.98	
20 1,3-Dichlorobenzene	146	5.108	5.114	-0.006	84	87335	4.00	4.16	
* 21 1,4-Dichlorobenzene-d4	152	5.166	5.173	-0.007	87	105445	8.00	8.00	
22 1,4-Dichlorobenzene	146	5.182	5.189	-0.007	84	89692	4.00	4.24	
24 1,2-Dichlorobenzene	146	5.321	5.328	-0.007	83	83881	4.00	4.13	
23 Benzyl alcohol	108	5.375	5.376	-0.001	83	60210	4.00	4.17	
26 Indene	115	5.401	5.408	-0.007	90	146576	4.00	4.14	
27 2,2'-oxybis[1-chloropropan	45	5.460	5.467	-0.007	86	128076	4.00	3.98	
25 2-Methylphenol	108	5.551	5.553	-0.001	90	87437	4.00	4.02	
29 Acetophenone	105	5.562	5.569	-0.007	89	153026	4.00	4.05	
31 N-Nitrosodi-n-propylamine	70	5.583	5.601	-0.018	89	94311	4.00	4.05	
34 Hexachloroethane	117	5.621	5.627	-0.006	89	50976	4.00	3.98	
$ 35 Nitrobenzene-d5	82	5.685	5.697	-0.012	92	144594	4.00	3.99	
30 3 & 4 Methylphenol	108	5.701	5.697	0.004	85	94339	4.00	4.11	
36 Nitrobenzene	77	5.701	5.713	-0.012	88	199209	4.00	3.94	
39 2,6-Dimethylphenol	122	5.850	5.857	-0.007	90	81081	4.00	4.19	
41 Isophorone	82	5.930	5.937	-0.007	98	232929	4.00	4.01	
42 2-Nitrophenol	139	5.989	5.996	-0.007	68	46354	4.00	4.09	
43 2,4-Dimethylphenol	107	6.112	6.113	-0.001	93	111299	4.00	4.07	
46 Bis(2-chloroethoxy)methane	93	6.128	6.135	-0.007	97	137235	4.00	4.00	
49 1,2,4-Trichlorobenzene	180	6.262	6.268	-0.006	89	66883	4.00	4.16	
48 2,4-Dichlorophenol	162	6.272	6.268	0.004	86	65863	4.00	4.12	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.299	6.306	-0.007	97	441359	8.00	8.00	
51 Naphthalene	128	6.320	6.322	-0.002	98	242907	4.00	4.13	
47 Benzoic acid	122	6.304	6.338	-0.034	37	38003	4.00	3.73	
52 4-Chloroaniline	127	6.400	6.407	-0.007	88	106438	4.00	4.13	
53 2,6-Dichlorophenol	162	6.417	6.418	-0.002	85	69335	4.00	4.27	
55 Hexachlorobutadiene	225	6.443	6.445	-0.002	91	50506	4.00	4.22	
60 4-Chloro-3-methylphenol	107	6.897	6.893	0.004	85	95578	4.00	4.01	
62 2-Methylnaphthalene	142	6.903	6.909	-0.006	92	205166	4.00	4.11	
63 1-Methylnaphthalene	142	6.983	6.990	-0.007	90	144771	4.00	4.13	
66 Hexachlorocyclopentadiene	237	7.047	7.054	-0.007	90	27932	4.00	3.53	
65 1,2,4,5-Tetrachlorobenzene	216	7.052	7.054	-0.002	92	61319	4.00	4.17	
69 2,4,6-Trichlorophenol	196	7.186	7.187	-0.001	87	45070	4.00	4.13	
$ 72 2-Fluorobiphenyl	172	7.218	7.225	-0.007	98	156942	4.00	4.13	
71 2,4,5-Trichlorophenol	196	7.266	7.257	0.009	82	44213	4.00	4.08	
77 1,1'-Biphenyl	154	7.298	7.299	-0.001	95	168531	4.00	4.12	
78 2-Chloronaphthalene	162	7.303	7.310	-0.007	98	148139	4.00	4.26	
81 2-Nitroaniline	65	7.421	7.428	-0.007	71	82285	4.00	4.04	
84 Dimethyl phthalate	163	7.570	7.583	-0.012	91	179309	4.00	4.15	
85 1,3-Dinitrobenzene	168	7.597	7.609	-0.012	78	25696	4.00	3.57	
86 2,6-Dinitrotoluene	165	7.613	7.625	-0.012	75	41200	4.00	4.05	
88 Acenaphthylene	152	7.640	7.647	-0.007	98	216620	4.00	4.16	
87 1,2-Dinitrobenzene	168	7.656	7.673	-0.017	83	19930	4.00	4.10	
* 90 Acenaphthene-d10	164	7.763	7.764	-0.001	92	234796	8.00	8.00	
89 3-Nitroaniline	138	7.763	7.775	-0.012	84	46943	4.00	4.11	
91 Acenaphthene	153	7.784	7.791	-0.007	97	136278	4.00	4.19	
92 2,4-Dinitrophenol	184	7.854	7.860	-0.006	71	45132	8.00	8.25	
96 Dibenzofuran	168	7.928	7.935	-0.007	91	196993	4.00	4.14	
95 2,4-Dinitrotoluene	165	7.950	7.956	-0.006	77	55508	4.00	3.99	
93 4-Nitrophenol	109	8.051	8.037	0.014	88	110361	8.00	8.27	
99 2,3,4,6-Tetrachlorophenol	232	8.073	8.074	-0.001	86	30428	4.00	3.91	
101 Diethyl phthalate	149	8.147	8.159	-0.012	93	190405	4.00	4.04	
102 Hexadecane	57	8.169	8.170	-0.001	98	143296	4.00	3.82	
104 Fluorene	166	8.206	8.218	-0.012	97	154903	4.00	3.98	
105 4-Chlorophenyl phenyl ethe	204	8.217	8.218	-0.001	85	64171	4.00	3.85	
107 4-Nitroaniline	138	8.270	8.293	-0.023	70	49070	4.00	4.42	
108 4,6-Dinitro-2-methylphenol	198	8.286	8.304	-0.018	68	61021	8.00	8.11	
110 N-Nitrosodiphenylamine	169	8.318	8.330	-0.012	68	114919	4.00	4.10	
109 Diphenylamine	169	8.318	8.330	-0.012	90	114919	3.40	3.48	
112 1,2-Diphenylhydrazine	77	8.345	8.352	-0.007	44	329753	4.00	3.64	
111 Azobenzene	77	8.345	8.352	-0.007	97	329753	4.00	3.64	
$ 113 2,4,6-Tribromophenol	330	8.420	8.427	-0.007	79	25414	4.00	4.21	
118 4-Bromophenyl phenyl ether	248	8.607	8.614	-0.007	81	43097	4.00	4.21	
122 Hexachlorobenzene	284	8.666	8.672	-0.006	87	47248	4.00	3.87	
127 Pentachlorophenol	266	8.863	8.865	-0.002	81	45294	8.00	7.63	
130 n-Octadecane	57	8.917	8.923	-0.006	95	140929	4.00	3.82	
* 131 Phenanthrene-d10	188	8.970	8.977	-0.007	95	355986	8.00	8.00	
132 Phenanthrene	178	8.986	8.998	-0.012	98	238198	4.00	4.25	
134 Anthracene	178	9.029	9.036	-0.007	99	215437	4.00	4.11	
135 Carbazole	167	9.184	9.190	-0.006	97	229280	4.00	4.05	
137 Di-n-butyl phthalate	149	9.472	9.474	-0.002	99	314761	4.00	3.93	
143 Fluoranthene	202	9.953	9.960	-0.007	99	235069	4.00	3.88	
146 Pyrene	202	10.135	10.141	-0.006	97	252599	4.00	3.92	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 149 Terphenyl-d14	244	10.274	10.280	-0.006	97	146547	4.00	3.78	
154 Butyl benzyl phthalate	149	10.685	10.692	-0.007	90	164301	4.00	4.06	
159 Benzo[a]anthracene	228	11.139	11.140	-0.001	99	239586	4.00	3.93	
* 160 Chrysene-d12	240	11.150	11.151	-0.001	97	393700	8.00	8.00	
161 Chrysene	228	11.171	11.178	-0.007	97	229486	4.00	4.01	
162 Bis(2-ethylhexyl) phthalat	149	11.192	11.188	0.004	95	220750	4.00	3.92	
164 Di-n-octyl phthalate	149	11.876	11.883	-0.007	99	402119	4.00	4.12	
165 Benzo[b]fluoranthene	252	12.336	12.342	-0.006	97	255722	4.00	4.13	
167 Benzo[k]fluoranthene	252	12.373	12.385	-0.012	99	256483	4.00	4.70	
168 Benzo[a]pyrene	252	12.806	12.823	-0.017	79	231237	4.00	4.10	
* 169 Perylene-d12	264	12.907	12.909	-0.002	97	409284	8.00	8.00	
172 Indeno[1,2,3-cd]pyrene	276	15.055	15.083	-0.028	98	270589	4.00	4.37	
173 Dibenz(a,h)anthracene	278	15.113	15.142	-0.029	94	218515	4.00	4.19	
174 Benzo[g,h,i]perylene	276	15.541	15.569	-0.028	97	232670	4.00	4.24	
S 187 Methyl Phenols,Total	1				0			8.13	
S 188 Total Cresols	1				0			8.13	
S 189 Total Cresols, TCEQ Defini	1				0			16.2	

Reagents:

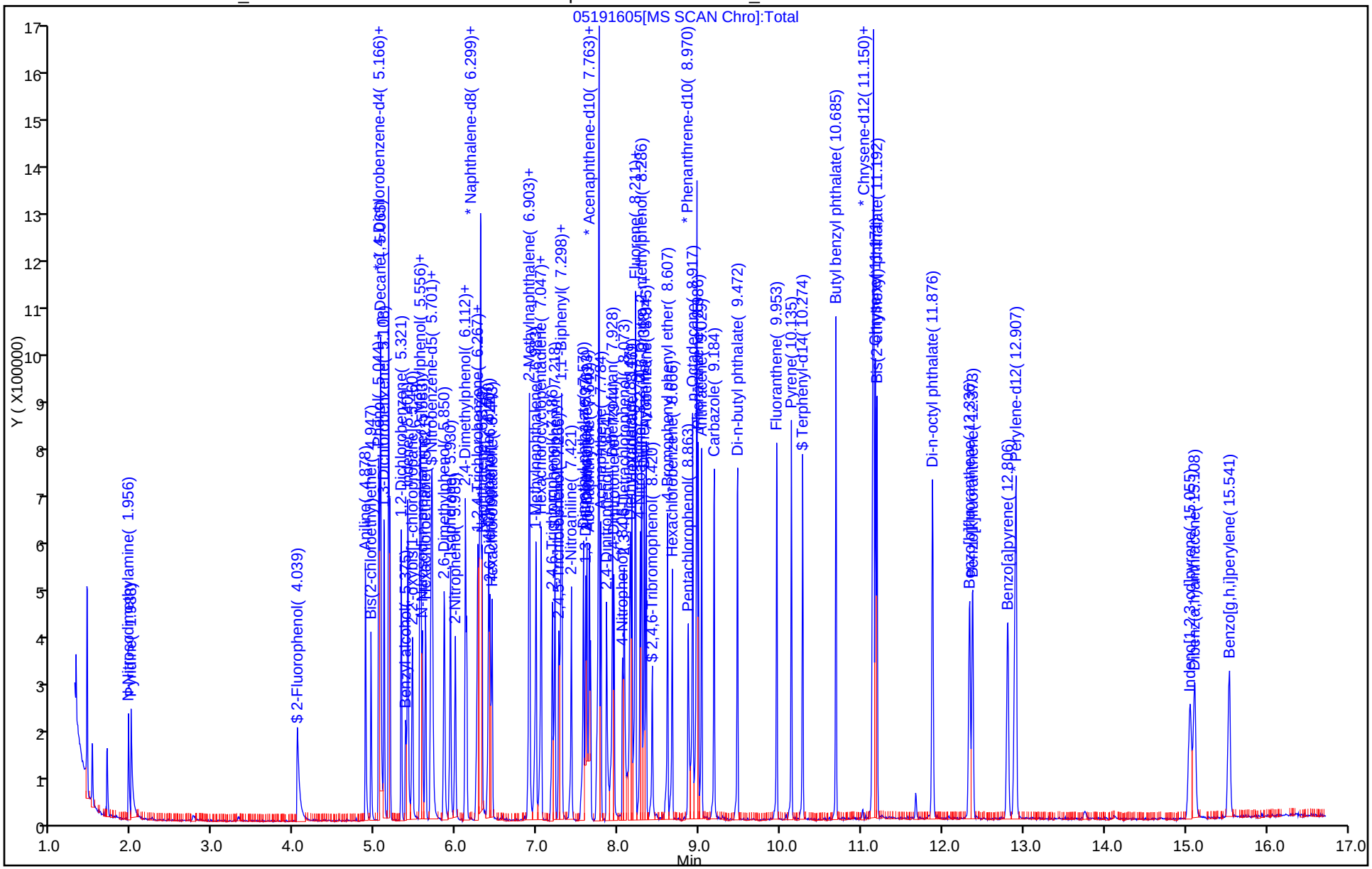
SV_REGICAL_00008	Amount Added: 20.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 4.00	Units: uL	Run Reagent

Report Date: 19-May-2016 09:50:05 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191605.D

Injection Date:	19-May-2016 07:43:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG LVI3			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191606.D
Lims ID: ICIS REG LVI4
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 19-May-2016 08:07:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: ICIS REG LVI4
Misc. Info.: 600-0012123-005
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270LVI_9*sub7

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 09:50:11 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 08:36:12

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 N-Nitrosodimethylamine	74	1.968	1.968	0.000	81	199559	10.0	10.4	
	2 Pyridine	79	1.984	1.984	0.000	93	317442	10.0	9.75	
$	7 2-Fluorophenol	112	4.019	4.019	0.000	91	251637	10.0	9.98	
	12 Aniline	93	4.885	4.885	0.000	94	465808	10.0	9.76	
	16 Bis(2-chloroethyl)ether	93	4.954	4.954	0.000	95	302518	10.0	9.84	
$	10 Phenol-d5	99	5.024	5.024	0.000	67	407305	10.0	10.2	
	17 2-Chlorophenol	128	5.040	5.040	0.000	77	233768	10.0	9.56	
	11 Phenol	94	5.040	5.040	0.000	79	356255	10.0	9.70	
	18 n-Decane	57	5.072	5.072	0.000	86	341387	10.0	9.86	
	20 1,3-Dichlorobenzene	146	5.114	5.114	0.000	82	241664	10.0	9.85	
*	21 1,4-Dichlorobenzene-d4	152	5.173	5.173	0.000	89	123320	8.00	8.00	
	22 1,4-Dichlorobenzene	146	5.189	5.189	0.000	79	244669	10.0	9.88	
	24 1,2-Dichlorobenzene	146	5.328	5.328	0.000	82	234355	10.0	9.86	
	23 Benzyl alcohol	108	5.376	5.376	0.000	82	179746	10.0	10.6	
	26 Indene	115	5.408	5.408	0.000	88	414153	10.0	10.0	
	27 2,2'-oxybis[1-chloropropan	45	5.467	5.467	0.000	86	375805	10.0	10.0	
	25 2-Methylphenol	108	5.553	5.553	0.000	90	249889	10.0	9.83	
	29 Acetophenone	105	5.569	5.569	0.000	84	434105	10.0	9.95	
	31 N-Nitrosodi-n-propylamine	70	5.601	5.601	0.000	89	276774	10.0	10.2	
	34 Hexachloroethane	117	5.627	5.627	0.000	89	151935	10.0	10.2	
$	35 Nitrobenzene-d5	82	5.697	5.697	0.000	94	428724	10.0	10.2	
	30 3 & 4 Methylphenol	108	5.697	5.697	0.000	72	266193	10.0	9.91	
	36 Nitrobenzene	77	5.713	5.713	0.000	89	589520	10.0	10.1	
	39 2,6-Dimethylphenol	122	5.857	5.857	0.000	89	219604	10.0	9.81	
	41 Isophorone	82	5.937	5.937	0.000	97	695327	10.0	10.4	
	42 2-Nitrophenol	139	5.996	5.996	0.000	67	130662	10.0	10.0	
	43 2,4-Dimethylphenol	107	6.113	6.113	0.000	91	327240	10.0	10.4	
	46 Bis(2-chloroethoxy)methane	93	6.135	6.135	0.000	97	408672	10.0	10.3	
	49 1,2,4-Trichlorobenzene	180	6.268	6.268	0.000	74	180339	10.0	9.71	
	48 2,4-Dichlorophenol	162	6.268	6.268	0.000	76	190099	10.0	10.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.306	6.306	0.000	97	509827	8.00	8.00	
51 Naphthalene	128	6.322	6.322	0.000	97	675644	10.0	9.95	
47 Benzoic acid	122	6.338	6.338	0.000	86	124838	10.0	9.24	
52 4-Chloroaniline	127	6.407	6.407	0.000	88	301711	10.0	10.1	
53 2,6-Dichlorophenol	162	6.418	6.418	0.000	81	192315	10.0	10.2	
55 Hexachlorobutadiene	225	6.445	6.445	0.000	92	136389	10.0	9.86	
60 4-Chloro-3-methylphenol	107	6.893	6.893	0.000	84	279434	10.0	10.1	
62 2-Methylnaphthalene	142	6.909	6.909	0.000	90	574830	10.0	9.97	
63 1-Methylnaphthalene	142	6.990	6.990	0.000	88	401258	10.0	9.90	
66 Hexachlorocyclopentadiene	237	7.054	7.054	0.000	92	107673	10.0	9.51	
65 1,2,4,5-Tetrachlorobenzene	216	7.054	7.054	0.000	88	172165	10.0	10.1	
69 2,4,6-Trichlorophenol	196	7.187	7.187	0.000	86	126777	10.0	9.98	
$ 72 2-Fluorobiphenyl	172	7.225	7.225	0.000	97	436601	10.0	9.87	
71 2,4,5-Trichlorophenol	196	7.257	7.257	0.000	79	125119	10.0	9.91	
77 1,1'-Biphenyl	154	7.299	7.299	0.000	96	469090	10.0	9.85	
78 2-Chloronaphthalene	162	7.310	7.310	0.000	95	403243	10.0	9.97	
81 2-Nitroaniline	65	7.428	7.428	0.000	69	244420	10.0	10.3	
84 Dimethyl phthalate	163	7.583	7.583	0.000	90	506264	10.0	10.1	
85 1,3-Dinitrobenzene	168	7.609	7.609	0.000	75	86295	10.0	10.3	
86 2,6-Dinitrotoluene	165	7.625	7.625	0.000	79	120452	10.0	10.2	
88 Acenaphthylene	152	7.647	7.647	0.000	97	605880	10.0	10.0	
87 1,2-Dinitrobenzene	168	7.673	7.673	0.000	84	56913	10.0	10.1	
* 90 Acenaphthene-d10	164	7.764	7.764	0.000	92	273326	8.00	8.00	
89 3-Nitroaniline	138	7.775	7.775	0.000	85	133650	10.0	10.1	
91 Acenaphthene	153	7.791	7.791	0.000	95	373850	10.0	9.88	
92 2,4-Dinitrophenol	184	7.860	7.860	0.000	69	136685	20.0	19.9	
96 Dibenzofuran	168	7.935	7.935	0.000	90	541722	10.0	9.79	
95 2,4-Dinitrotoluene	165	7.956	7.956	0.000	78	161188	10.0	9.96	
93 4-Nitrophenol	109	8.037	8.037	0.000	87	323639	20.0	20.8	
99 2,3,4,6-Tetrachlorophenol	232	8.074	8.074	0.000	85	96231	10.0	10.6	
101 Diethyl phthalate	149	8.159	8.159	0.000	92	543837	10.0	9.91	
102 Hexadecane	57	8.170	8.170	0.000	97	433204	10.0	9.93	
104 Fluorene	166	8.218	8.218	0.000	88	441142	10.0	9.74	
105 4-Chlorophenyl phenyl ethe	204	8.218	8.218	0.000	82	187861	10.0	9.68	
107 4-Nitroaniline	138	8.293	8.293	0.000	69	126841	10.0	9.81	
108 4,6-Dinitro-2-methylphenol	198	8.304	8.304	0.000	50	173226	20.0	20.0	
110 N-Nitrosodiphenylamine	169	8.330	8.330	0.000	69	318565	10.0	9.86	
109 Diphenylamine	169	8.330	8.330	0.000	90	318565	8.50	8.38	
112 1,2-Diphenylhydrazine	77	8.352	8.352	0.000	43	1014005	10.0	9.73	
111 Azobenzene	77	8.352	8.352	0.000	96	1014005	10.0	9.73	
$ 113 2,4,6-Tribromophenol	330	8.427	8.427	0.000	85	66952	10.0	9.52	
118 4-Bromophenyl phenyl ether	248	8.614	8.614	0.000	78	115732	10.0	9.83	
122 Hexachlorobenzene	284	8.672	8.672	0.000	84	136026	10.0	9.68	
127 Pentachlorophenol	266	8.865	8.865	0.000	80	145615	20.0	19.6	
130 n-Octadecane	57	8.923	8.923	0.000	95	434077	10.0	10.2	
* 131 Phenanthrene-d10	188	8.977	8.977	0.000	96	410042	8.00	8.00	
132 Phenanthrene	178	8.998	8.998	0.000	99	653747	10.0	10.1	
134 Anthracene	178	9.036	9.036	0.000	98	568286	10.0	9.42	
135 Carbazole	167	9.190	9.190	0.000	97	636110	10.0	9.77	
137 Di-n-butyl phthalate	149	9.474	9.474	0.000	98	935295	10.0	10.1	
143 Fluoranthene	202	9.960	9.960	0.000	99	689899	10.0	9.89	
146 Pyrene	202	10.141	10.141	0.000	96	704921	10.0	9.94	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 149 Terphenyl-d14	244	10.280	10.280	0.000	97	424442	10.0	9.94	
154 Butyl benzyl phthalate	149	10.692	10.692	0.000	91	447019	10.0	10.0	
159 Benzo[a]anthracene	228	11.140	11.140	0.000	100	697289	10.0	10.4	
* 160 Chrysene-d12	240	11.151	11.151	0.000	97	433748	8.00	8.00	
161 Chrysene	228	11.178	11.178	0.000	97	579475	10.0	9.19	
162 Bis(2-ethylhexyl) phthalat	149	11.188	11.188	0.000	93	617467	10.0	9.96	
164 Di-n-octyl phthalate	149	11.883	11.883	0.000	99	1088963	10.0	10.1	
165 Benzo[b]fluoranthene	252	12.342	12.342	0.000	97	682331	10.0	10.8	
167 Benzo[k]fluoranthene	252	12.385	12.385	0.000	99	596236	10.0	10.7	
168 Benzo[a]pyrene	252	12.823	12.823	0.000	80	573161	10.0	9.96	
* 169 Perylene-d12	264	12.909	12.909	0.000	97	417644	8.00	8.00	
172 Indeno[1,2,3-cd]pyrene	276	15.083	15.083	0.000	98	671241	10.0	9.84	
173 Dibenz(a,h)anthracene	278	15.142	15.142	0.000	93	521326	10.0	9.79	
174 Benzo[g,h,i]perylene	276	15.569	15.569	0.000	97	560326	10.0	10.0	

Reagents:

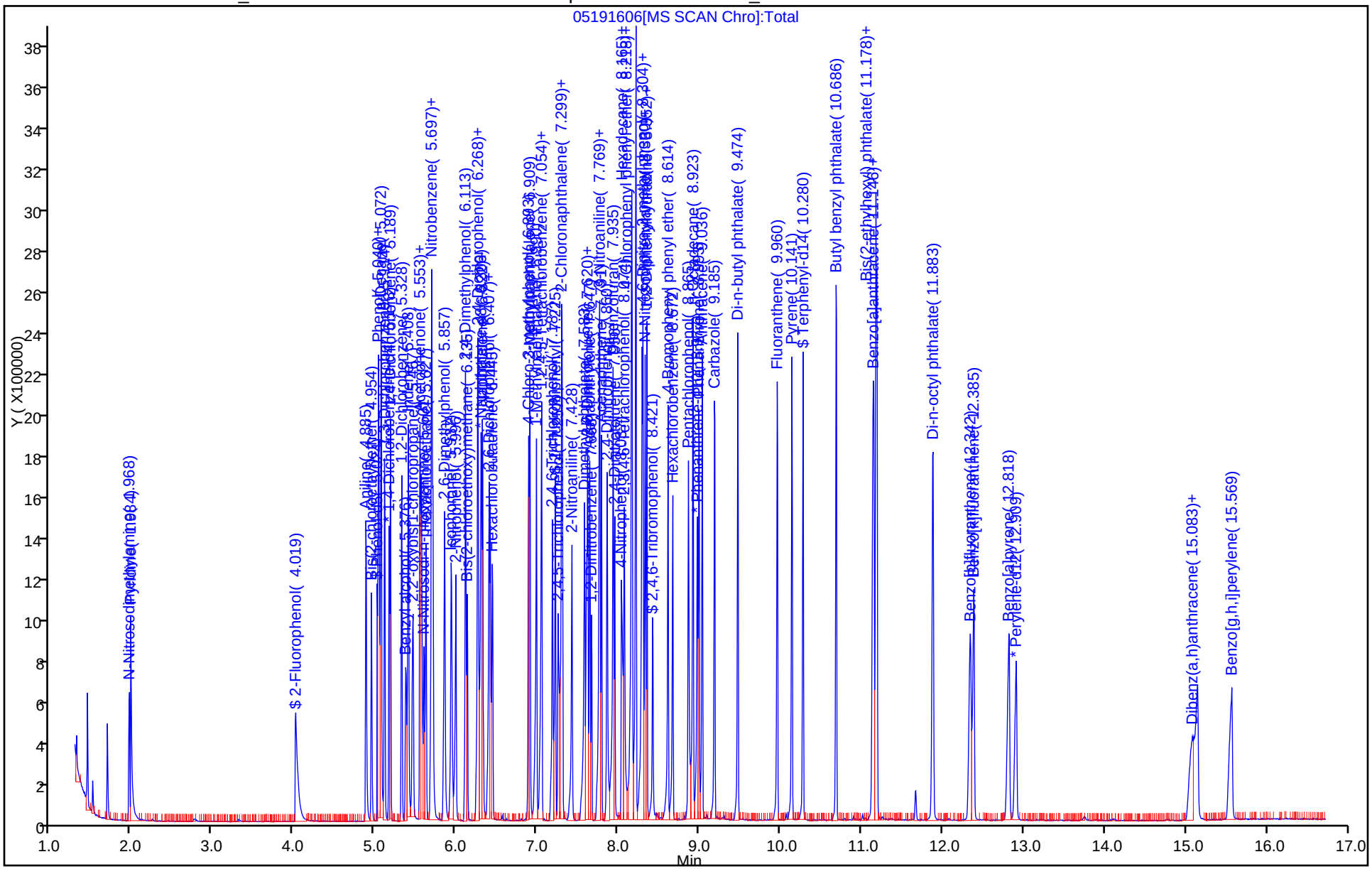
SV_REGICAL_00008	Amount Added: 50.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 4.00	Units: uL	Run Reagent

Report Date: 19-May-2016 09:50:13 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191606.D

Injection Date:	19-May-2016 08:07:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	ICIS REG LVI4			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191607.D
Lims ID: IC REG LVI5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 19-May-2016 08:32:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: IC REG LVI5
Misc. Info.: 600-0012123-006
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270LVI_9*sub7

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 09:50:19 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 09:24:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.972	1.968	0.004	80	276484	14.0	14.8	
2 Pyridine	79	1.983	1.984	-0.001	91	466890	14.0	14.8	
$ 7 2-Fluorophenol	112	4.013	4.019	-0.006	93	359499	14.0	14.7	
12 Aniline	93	4.889	4.885	0.004	94	670848	14.0	14.5	
16 Bis(2-chloroethyl)ether	93	4.959	4.954	0.004	95	436073	14.0	14.6	
$ 10 Phenol-d5	99	5.023	5.024	-0.001	65	550081	14.0	14.2	
17 2-Chlorophenol	128	5.039	5.040	-0.001	84	333587	14.0	14.1	
11 Phenol	94	5.033	5.040	-0.007	90	507195	14.0	14.3	
18 n-Decane	57	5.076	5.072	0.004	87	506620	14.0	15.1	
20 1,3-Dichlorobenzene	146	5.119	5.114	0.005	81	332180	14.0	14.0	
* 21 1,4-Dichlorobenzene-d4	152	5.172	5.173	-0.001	89	119443	8.00	8.00	
22 1,4-Dichlorobenzene	146	5.188	5.189	-0.001	78	339382	14.0	14.1	
24 1,2-Dichlorobenzene	146	5.327	5.328	-0.001	80	323274	14.0	14.0	
23 Benzyl alcohol	108	5.386	5.376	0.010	83	259428	14.0	15.9	
26 Indene	115	5.413	5.408	0.005	89	582233	14.0	14.5	
27 2,2'-oxybis[1-chloropropan	45	5.466	5.467	-0.001	85	539413	14.0	14.8	
25 2-Methylphenol	108	5.557	5.553	0.005	91	347368	14.0	14.1	
29 Acetophenone	105	5.578	5.569	0.009	96	631100	14.0	14.3	
31 N-Nitrosodi-n-propylamine	70	5.610	5.601	0.009	89	393596	14.0	14.9	
34 Hexachloroethane	117	5.626	5.627	-0.001	87	211970	14.0	14.6	
$ 35 Nitrobenzene-d5	82	5.701	5.697	0.004	94	613208	14.0	14.4	
30 3 & 4 Methylphenol	108	5.696	5.697	-0.001	87	367899	14.0	14.1	
36 Nitrobenzene	77	5.717	5.713	0.004	88	841704	14.0	14.2	
39 2,6-Dimethylphenol	122	5.856	5.857	-0.001	88	311743	14.0	13.7	
41 Isophorone	82	5.947	5.937	0.010	98	992082	14.0	14.6	
42 2-Nitrophenol	139	6.000	5.996	0.004	71	184734	14.0	13.9	
43 2,4-Dimethylphenol	107	6.118	6.113	0.005	92	458652	14.0	14.3	
46 Bis(2-chloroethoxy)methane	93	6.139	6.135	0.004	97	570445	14.0	14.2	
49 1,2,4-Trichlorobenzene	180	6.267	6.268	-0.001	85	250814	14.0	13.3	
48 2,4-Dichlorophenol	162	6.262	6.268	-0.006	86	260511	14.0	13.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.310	6.306	0.004	97	516966	8.00	8.00	
51 Naphthalene	128	6.326	6.322	0.004	96	943926	14.0	13.7	
47 Benzoic acid	122	6.347	6.338	0.009	90	194708	14.0	13.8	
52 4-Chloroaniline	127	6.406	6.407	-0.001	87	416131	14.0	13.8	
53 2,6-Dichlorophenol	162	6.422	6.418	0.004	80	259342	14.0	13.6	
55 Hexachlorobutadiene	225	6.449	6.445	0.004	92	192961	14.0	13.8	
60 4-Chloro-3-methylphenol	107	6.892	6.893	-0.001	86	405124	14.0	14.5	
62 2-Methylnaphthalene	142	6.914	6.909	0.005	87	808350	14.0	13.8	
63 1-Methylnaphthalene	142	6.994	6.990	0.004	87	569619	14.0	13.9	
66 Hexachlorocyclopentadiene	237	7.053	7.054	-0.001	89	166939	14.0	14.0	
65 1,2,4,5-Tetrachlorobenzene	216	7.058	7.054	0.004	86	241593	14.0	13.9	
69 2,4,6-Trichlorophenol	196	7.192	7.187	0.005	87	176093	14.0	13.6	
$ 72 2-Fluorobiphenyl	172	7.224	7.225	-0.001	97	611105	14.0	13.6	
71 2,4,5-Trichlorophenol	196	7.256	7.257	-0.001	81	185610	14.0	14.4	
77 1,1'-Biphenyl	154	7.304	7.299	0.005	95	653820	14.0	13.5	
78 2-Chloronaphthalene	162	7.314	7.310	0.004	94	554673	14.0	13.5	
81 2-Nitroaniline	65	7.432	7.428	0.004	68	351517	14.0	14.6	
84 Dimethyl phthalate	163	7.592	7.583	0.010	90	720693	14.0	14.1	
85 1,3-Dinitrobenzene	168	7.614	7.609	0.005	74	121404	14.0	14.2	
86 2,6-Dinitrotoluene	165	7.630	7.625	0.005	74	164150	14.0	13.6	
88 Acenaphthylene	152	7.651	7.647	0.004	98	844242	14.0	13.7	
87 1,2-Dinitrobenzene	168	7.678	7.673	0.005	82	77157	14.0	13.4	
* 90 Acenaphthene-d10	164	7.768	7.764	0.004	90	278194	8.00	8.00	
89 3-Nitroaniline	138	7.779	7.775	0.004	83	183254	14.0	13.6	
91 Acenaphthene	153	7.795	7.791	0.004	96	521868	14.0	13.6	
92 2,4-Dinitrophenol	184	7.870	7.860	0.010	68	193005	28.0	27.2	
96 Dibenzofuran	168	7.939	7.935	0.004	90	767000	14.0	13.6	
95 2,4-Dinitrotoluene	165	7.961	7.956	0.005	76	227342	14.0	13.8	
93 4-Nitrophenol	109	8.036	8.037	-0.001	87	467600	28.0	29.6	
99 2,3,4,6-Tetrachlorophenol	232	8.078	8.074	0.004	87	133914	14.0	14.5	
101 Diethyl phthalate	149	8.169	8.159	0.010	92	782582	14.0	14.0	
102 Hexadecane	57	8.174	8.170	0.004	95	665127	14.0	15.0	
104 Fluorene	166	8.223	8.218	0.005	88	659829	14.0	14.3	
105 4-Chlorophenyl phenyl ethe	204	8.223	8.218	0.005	83	280018	14.0	14.2	
107 4-Nitroaniline	138	8.303	8.293	0.010	69	183334	14.0	13.9	M
108 4,6-Dinitro-2-methylphenol	198	8.313	8.304	0.009	44	250405	28.0	29.0	
110 N-Nitrosodiphenylamine	169	8.340	8.330	0.010	65	443885	14.0	13.8	
109 Diphenylamine	169	8.340	8.330	0.010	90	443885	11.9	11.7	
112 1,2-Diphenylhydrazine	77	8.356	8.352	0.004	53	1610568	14.0	15.5	
111 Azobenzene	77	8.356	8.352	0.004	96	1610568	14.0	15.5	
$ 113 2,4,6-Tribromophenol	330	8.431	8.427	0.004	85	97160	14.0	13.6	
118 4-Bromophenyl phenyl ether	248	8.618	8.614	0.004	79	161412	14.0	13.8	
122 Hexachlorobenzene	284	8.677	8.672	0.005	86	193685	14.0	13.9	
127 Pentachlorophenol	266	8.869	8.865	0.004	79	212424	28.0	28.3	
130 n-Octadecane	57	8.922	8.923	-0.001	94	620131	14.0	14.7	
* 131 Phenanthrene-d10	188	8.981	8.977	0.004	96	408005	8.00	8.00	
132 Phenanthrene	178	9.003	8.998	0.004	99	872866	14.0	13.6	M
134 Anthracene	178	9.040	9.036	0.004	97	836383	14.0	13.9	
135 Carbazole	167	9.195	9.190	0.005	97	885015	14.0	13.7	
137 Di-n-butyl phthalate	149	9.478	9.474	0.004	98	1284925	14.0	14.0	
143 Fluoranthene	202	9.964	9.960	0.004	99	961570	14.0	13.9	
146 Pyrene	202	10.146	10.141	0.005	96	1012840	14.0	14.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 149 Terphenyl-d14	244	10.285	10.280	0.005	97	610032	14.0	14.2	
154 Butyl benzyl phthalate	149	10.701	10.692	0.009	88	633189	14.0	14.1	
159 Benzo[a]anthracene	228	11.161	11.140	0.021	99	975541	14.0	14.5	
* 160 Chrysene-d12	240	11.171	11.151	0.020	97	435977	8.00	8.00	
161 Chrysene	228	11.198	11.178	0.020	97	899050	14.0	14.2	
162 Bis(2-ethylhexyl) phthalat	149	11.209	11.188	0.021	93	864211	14.0	13.9	
164 Di-n-octyl phthalate	149	11.903	11.883	0.020	99	1506185	14.0	13.9	
165 Benzo[b]fluoranthene	252	12.368	12.342	0.026	97	868225	14.0	14.1	
167 Benzo[k]fluoranthene	252	12.416	12.385	0.031	98	748431	14.0	13.8	M
168 Benzo[a]pyrene	252	12.849	12.823	0.026	80	789689	14.0	14.1	
* 169 Perylene-d12	264	12.934	12.909	0.025	97	406655	8.00	8.00	
172 Indeno[1,2,3-cd]pyrene	276	15.125	15.083	0.042	99	905884	14.0	13.2	
173 Dibenz(a,h)anthracene	278	15.183	15.142	0.041	96	709137	14.0	13.7	
174 Benzo[g,h,i]perylene	276	15.600	15.569	0.031	97	752753	14.0	13.8	
S 187 Methyl Phenols,Total	1				0			28.3	
S 188 Total Cresols	1				0			28.3	
S 189 Total Cresols, TCEQ Defini	1				0			57.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

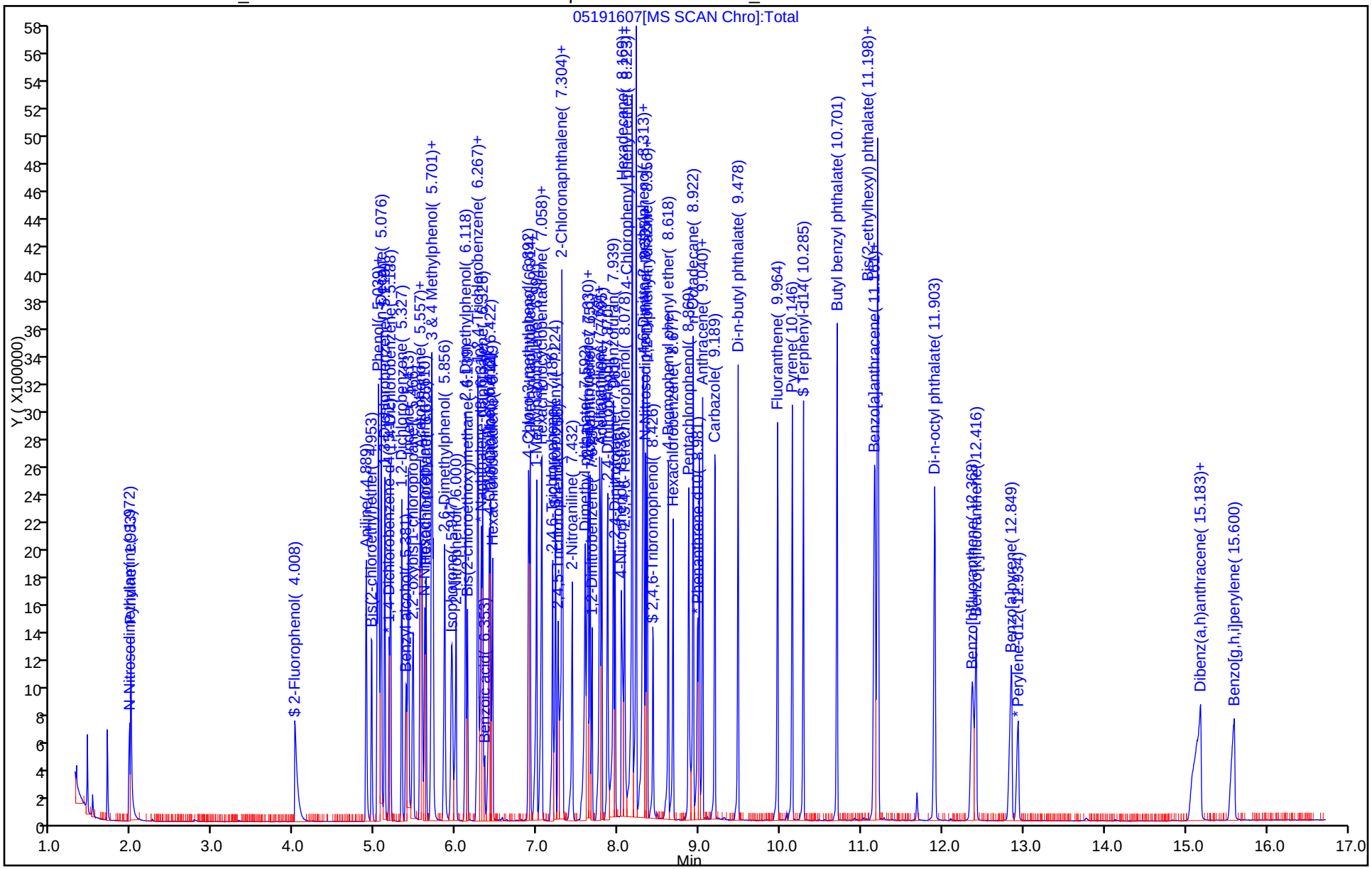
SV_REGICAL_00008	Amount Added: 70.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 4.00	Units: uL	Run Reagent

Report Date: 19-May-2016 09:50:21 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191607.D

Injection Date:	19-May-2016 08:32:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG LVI5			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

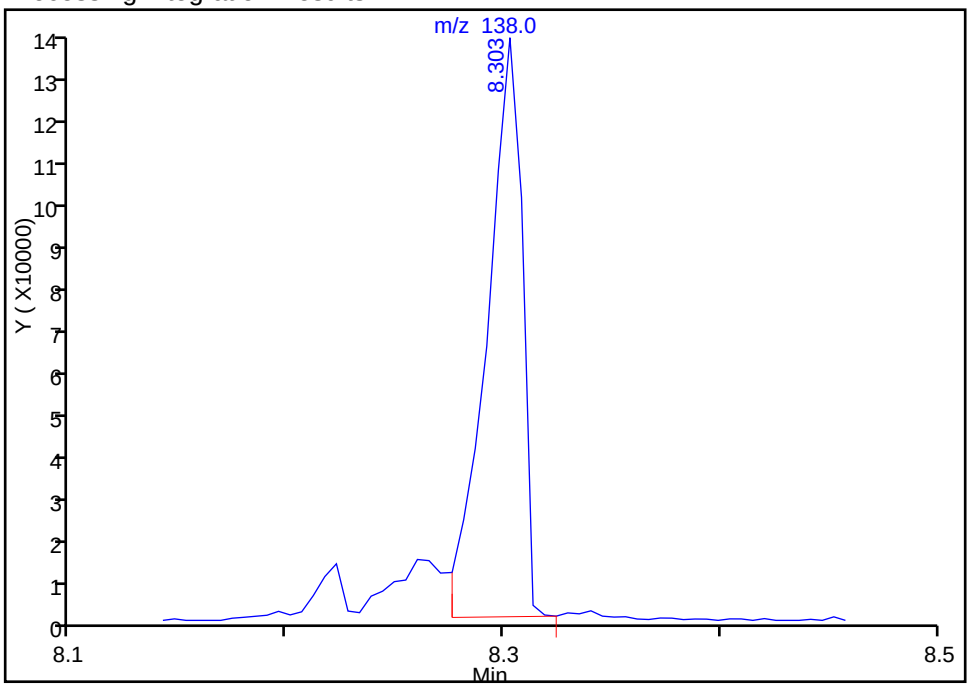
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191607.D
Injection Date: 19-May-2016 08:32:30 Instrument ID: CHSVMS09
Lims ID: IC REG LVI5
Client ID:
Operator ID: KP ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270LVI_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

107 4-Nitroaniline, CAS: 100-01-6

Signal: 1

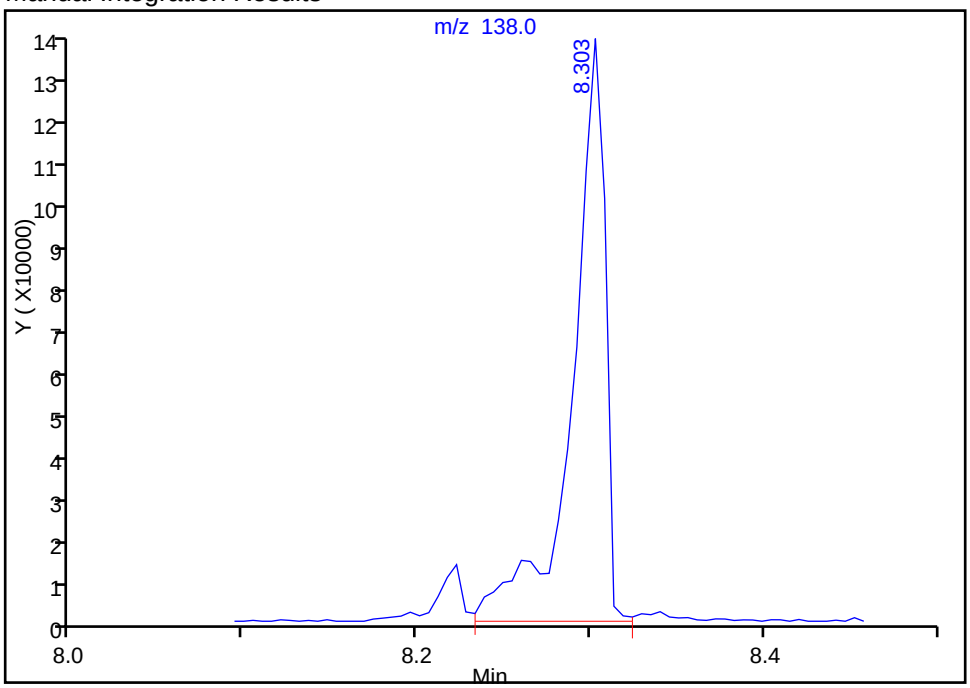
Processing Integration Results

RT: 8.30
Area: 156839
Amount: 12.153283
Amount Units: ug/ml



Manual Integration Results

RT: 8.30
Area: 183334
Amount: 13.927624
Amount Units: ug/ml



Reviewer: patelk, 19-May-2016 09:25:44
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Houston

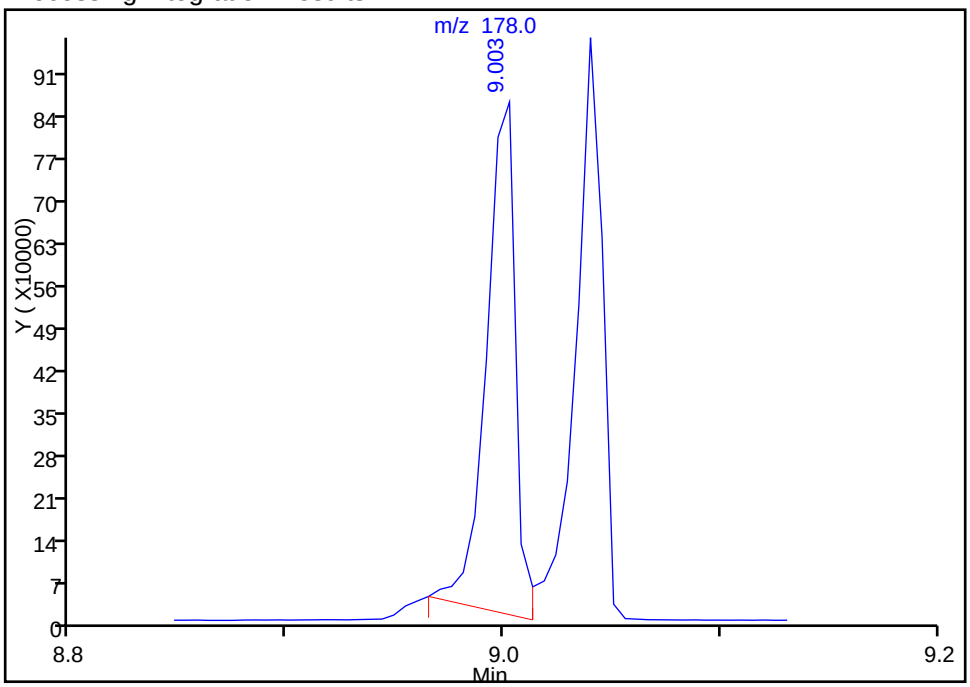
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191607.D
Injection Date: 19-May-2016 08:32:30 Instrument ID: CHSVMS09
Lims ID: IC REG LVI5
Client ID:
Operator ID: KP ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270LVI_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

132 Phenanthrene, CAS: 85-01-8

Signal: 1

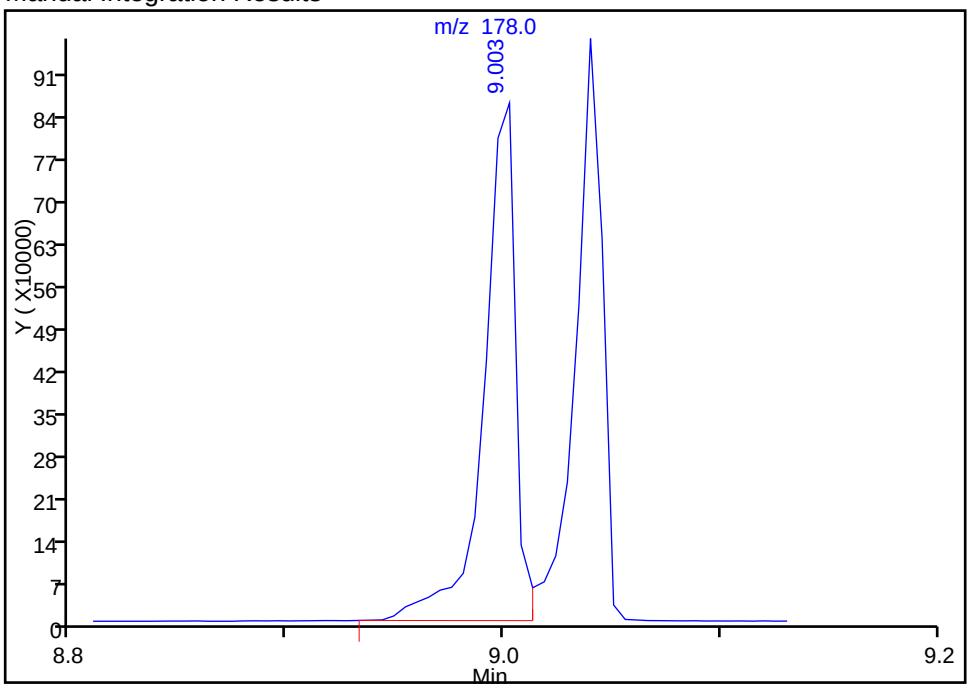
Processing Integration Results

RT: 9.00
Area: 791395
Amount: 12.418788
Amount Units: ug/ml



Manual Integration Results

RT: 9.00
Area: 872866
Amount: 13.587183
Amount Units: ug/ml



Reviewer: patelk, 19-May-2016 09:25:44
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Houston

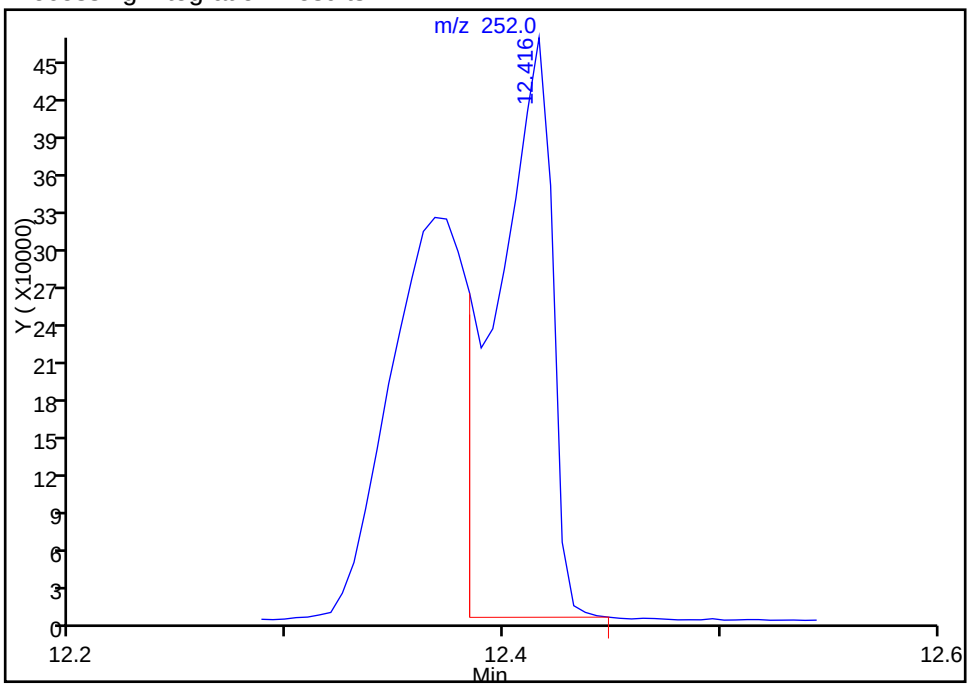
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191607.D
Injection Date: 19-May-2016 08:32:30 Instrument ID: CHSVMS09
Lims ID: IC REG LVI5
Client ID:
Operator ID: KP ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270LVI_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

167 Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

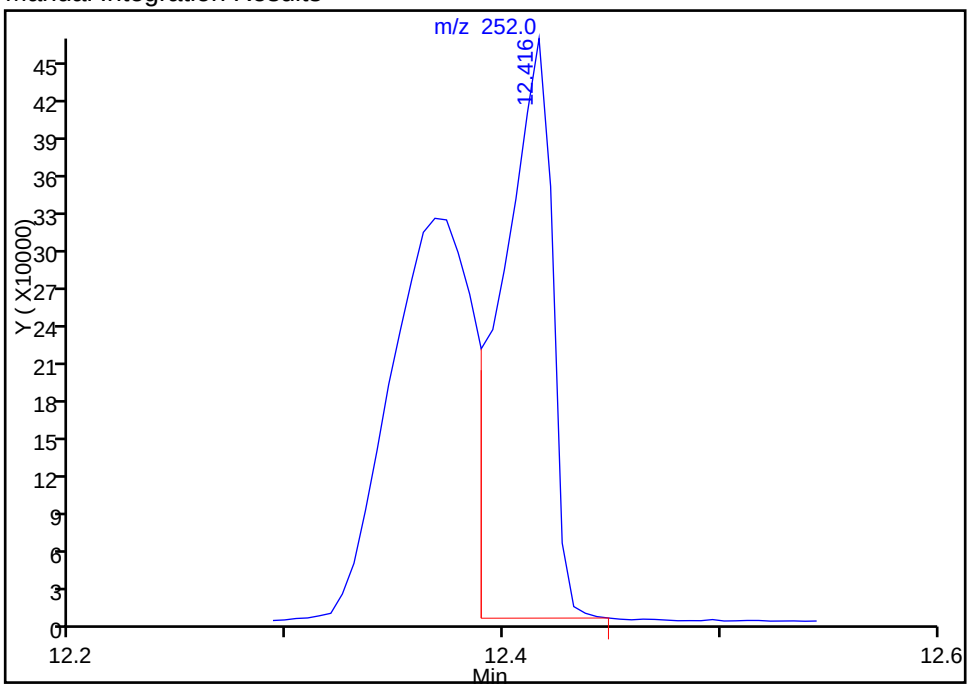
Processing Integration Results

RT: 12.42
Area: 830957
Amount: 15.393341
Amount Units: ug/ml



Manual Integration Results

RT: 12.42
Area: 748431
Amount: 13.803368
Amount Units: ug/ml



Reviewer: patelk, 19-May-2016 09:25:44
Audit Action: Split an Integrated Peak Audit Reason: Baseline

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191608.D
Lims ID: IC REG LVI6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 19-May-2016 08:56:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: IC REG LVI6
Misc. Info.: 600-0012123-007
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270LVI_9*sub7

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 09:50:26 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 09:24:56

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 N-Nitrosodimethylamine	74	1.972	1.968	0.004	81	312554	16.0	16.7	
	2 Pyridine	79	1.983	1.984	-0.001	91	548346	16.0	17.3	
$	7 2-Fluorophenol	112	4.008	4.019	-0.011	92	407379	16.0	16.6	
	12 Aniline	93	4.889	4.885	0.004	94	762939	16.0	16.4	
	16 Bis(2-chloroethyl)ether	93	4.958	4.954	0.004	94	489998	16.0	16.4	
$	10 Phenol-d5	99	5.023	5.024	-0.001	68	630788	16.0	16.2	
	17 2-Chlorophenol	128	5.039	5.040	-0.001	84	375590	16.0	15.8	
	11 Phenol	94	5.033	5.040	-0.007	88	570720	16.0	16.0	
	18 n-Decane	57	5.076	5.072	0.004	87	571754	16.0	17.0	
	20 1,3-Dichlorobenzene	146	5.119	5.114	0.005	80	372835	16.0	15.6	
*	21 1,4-Dichlorobenzene-d4	152	5.172	5.173	-0.001	89	120074	8.00	8.00	
	22 1,4-Dichlorobenzene	146	5.194	5.189	0.005	80	382809	16.0	15.9	
	24 1,2-Dichlorobenzene	146	5.327	5.328	-0.001	80	366368	16.0	15.8	
	23 Benzyl alcohol	108	5.386	5.376	0.010	82	269902	16.0	16.4	
	26 Indene	115	5.413	5.408	0.005	88	665999	16.0	16.5	
	27 2,2'-oxybis[1-chloropropan	45	5.471	5.467	0.004	86	605612	16.0	16.5	
	25 2-Methylphenol	108	5.557	5.553	0.005	91	397301	16.0	16.1	
	29 Acetophenone	105	5.578	5.569	0.009	92	698594	16.0	16.4	
	31 N-Nitrosodi-n-propylamine	70	5.616	5.601	0.015	89	448872	16.0	16.9	
	34 Hexachloroethane	117	5.626	5.627	-0.001	88	239879	16.0	16.5	
$	35 Nitrobenzene-d5	82	5.701	5.697	0.004	95	693444	16.0	16.9	
	30 3 & 4 Methylphenol	108	5.696	5.697	-0.001	97	413932	16.0	15.8	
	36 Nitrobenzene	77	5.717	5.713	0.004	88	975048	16.0	17.1	
	39 2,6-Dimethylphenol	122	5.861	5.857	0.004	88	358034	16.0	16.4	
	41 Isophorone	82	5.947	5.937	0.010	97	1103378	16.0	16.8	
	42 2-Nitrophenol	139	6.000	5.996	0.004	68	207450	16.0	16.2	
	43 2,4-Dimethylphenol	107	6.118	6.113	0.005	91	521928	16.0	16.9	
	46 Bis(2-chloroethoxy)methane	93	6.139	6.135	0.004	98	657281	16.0	17.0	
	49 1,2,4-Trichlorobenzene	180	6.267	6.268	-0.001	87	291608	16.0	16.1	
	48 2,4-Dichlorophenol	162	6.262	6.268	-0.006	85	295950	16.0	16.4	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.310	6.306	0.004	97	498500	8.00	8.00	
51 Naphthalene	128	6.326	6.322	0.004	96	1065401	16.0	16.0	
47 Benzoic acid	122	6.353	6.338	0.015	89	226308	16.0	16.5	
52 4-Chloroaniline	127	6.412	6.407	0.005	88	472727	16.0	16.2	
53 2,6-Dichlorophenol	162	6.422	6.418	0.004	78	287878	16.0	15.7	
55 Hexachlorobutadiene	225	6.449	6.445	0.004	92	219279	16.0	16.2	
60 4-Chloro-3-methylphenol	107	6.892	6.893	-0.001	84	452394	16.0	16.8	
62 2-Methylnaphthalene	142	6.914	6.909	0.005	89	905729	16.0	16.1	
63 1-Methylnaphthalene	142	6.994	6.990	0.004	88	633837	16.0	16.0	
66 Hexachlorocyclopentadiene	237	7.053	7.054	-0.001	91	192789	16.0	16.2	
65 1,2,4,5-Tetrachlorobenzene	216	7.058	7.054	0.004	87	272145	16.0	15.8	
69 2,4,6-Trichlorophenol	196	7.192	7.187	0.005	85	199040	16.0	15.6	
$ 72 2-Fluorobiphenyl	172	7.229	7.225	0.004	97	692978	16.0	15.6	
71 2,4,5-Trichlorophenol	196	7.256	7.257	-0.001	79	210300	16.0	16.5	
77 1,1'-Biphenyl	154	7.304	7.299	0.005	95	758751	16.0	15.8	
78 2-Chloronaphthalene	162	7.314	7.310	0.004	95	641565	16.0	15.7	
81 2-Nitroaniline	65	7.432	7.428	0.004	69	403899	16.0	16.9	
84 Dimethyl phthalate	163	7.592	7.583	0.010	92	791367	16.0	15.6	
85 1,3-Dinitrobenzene	168	7.619	7.609	0.010	75	137014	16.0	16.3	
86 2,6-Dinitrotoluene	165	7.630	7.625	0.005	72	183064	16.0	15.3	
88 Acenaphthylene	152	7.651	7.647	0.004	98	950537	16.0	15.6	
87 1,2-Dinitrobenzene	168	7.683	7.673	0.010	83	88141	16.0	15.5	
* 90 Acenaphthene-d10	164	7.768	7.764	0.004	93	275238	8.00	8.00	
89 3-Nitroaniline	138	7.779	7.775	0.004	84	211782	16.0	15.8	
91 Acenaphthene	153	7.795	7.791	0.004	95	600150	16.0	15.8	
92 2,4-Dinitrophenol	184	7.870	7.860	0.010	68	231354	32.0	32.7	
96 Dibenzofuran	168	7.939	7.935	0.004	90	866047	16.0	15.5	
95 2,4-Dinitrotoluene	165	7.961	7.956	0.005	75	250569	16.0	15.4	
93 4-Nitrophenol	109	8.036	8.037	-0.001	87	535235	32.0	34.2	
99 2,3,4,6-Tetrachlorophenol	232	8.078	8.074	0.004	87	157699	16.0	17.3	
101 Diethyl phthalate	149	8.174	8.159	0.015	92	885931	16.0	16.0	
102 Hexadecane	57	8.174	8.170	0.004	96	759272	16.0	17.3	
104 Fluorene	166	8.223	8.218	0.005	90	752014	16.0	16.5	
105 4-Chlorophenyl phenyl ethe	204	8.223	8.218	0.005	82	328351	16.0	16.8	
107 4-Nitroaniline	138	8.308	8.293	0.015	69	202591	16.0	15.6	M
108 4,6-Dinitro-2-methylphenol	198	8.319	8.304	0.015	53	275896	32.0	32.4	
110 N-Nitrosodiphenylamine	169	8.340	8.330	0.010	58	470240	16.0	14.8	
109 Diphenylamine	169	8.340	8.330	0.010	91	470240	13.6	12.6	
112 1,2-Diphenylhydrazine	77	8.356	8.352	0.004	52	1823611	16.0	17.8	
111 Azobenzene	77	8.356	8.352	0.004	96	1823611	16.0	17.8	
$ 113 2,4,6-Tribromophenol	330	8.431	8.427	0.004	83	116561	16.0	16.5	
118 4-Bromophenyl phenyl ether	248	8.618	8.614	0.004	80	178874	16.0	15.5	
122 Hexachlorobenzene	284	8.677	8.672	0.005	85	223043	16.0	16.2	
127 Pentachlorophenol	266	8.869	8.865	0.004	81	259691	32.0	34.8	
130 n-Octadecane	57	8.922	8.923	-0.001	94	699220	16.0	16.8	
* 131 Phenanthrene-d10	188	8.981	8.977	0.004	96	402663	8.00	8.00	
132 Phenanthrene	178	9.002	8.998	0.004	98	1032655	16.0	16.3	
134 Anthracene	178	9.045	9.036	0.009	99	950771	16.0	16.0	
135 Carbazole	167	9.195	9.190	0.005	97	1001379	16.0	15.7	
137 Di-n-butyl phthalate	149	9.478	9.474	0.004	98	1488573	16.0	16.4	
143 Fluoranthene	202	9.969	9.960	0.009	99	1142330	16.0	16.7	
146 Pyrene	202	10.151	10.141	0.010	97	1182384	16.0	17.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 149 Terphenyl-d14	244	10.285	10.280	0.005	98	718920	16.0	17.2	
154 Butyl benzyl phthalate	149	10.696	10.692	0.004	88	728456	16.0	16.7	
159 Benzo[a]anthracene	228	11.155	11.140	0.015	99	1063424	16.0	16.2	
* 160 Chrysene-d12	240	11.166	11.151	0.015	97	425216	8.00	8.00	
161 Chrysene	228	11.193	11.178	0.015	94	1012802	16.0	16.4	
162 Bis(2-ethylhexyl) phthalat	149	11.203	11.188	0.015	93	1007556	16.0	16.6	
164 Di-n-octyl phthalate	149	11.903	11.883	0.020	99	1692526	16.0	16.0	
165 Benzo[b]fluoranthene	252	12.368	12.342	0.026	96	901619	16.0	14.7	
167 Benzo[k]fluoranthene	252	12.416	12.385	0.031	99	743878	16.0	13.7	
168 Benzo[a]pyrene	252	12.849	12.823	0.026	80	863894	16.0	15.4	
* 169 Perylene-d12	264	12.929	12.909	0.020	97	405910	8.00	8.00	
172 Indeno[1,2,3-cd]pyrene	276	15.141	15.083	0.058	91	1012625	16.0	15.1	
173 Dibenz(a,h)anthracene	278	15.189	15.142	0.047	92	800336	16.0	15.5	
174 Benzo[g,h,i]perylene	276	15.600	15.569	0.031	97	840295	16.0	15.4	
S 187 Methyl Phenols,Total	1				0			31.9	
S 188 Total Cresols	1				0			31.9	
S 189 Total Cresols, TCEQ Defini	1				0			65.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

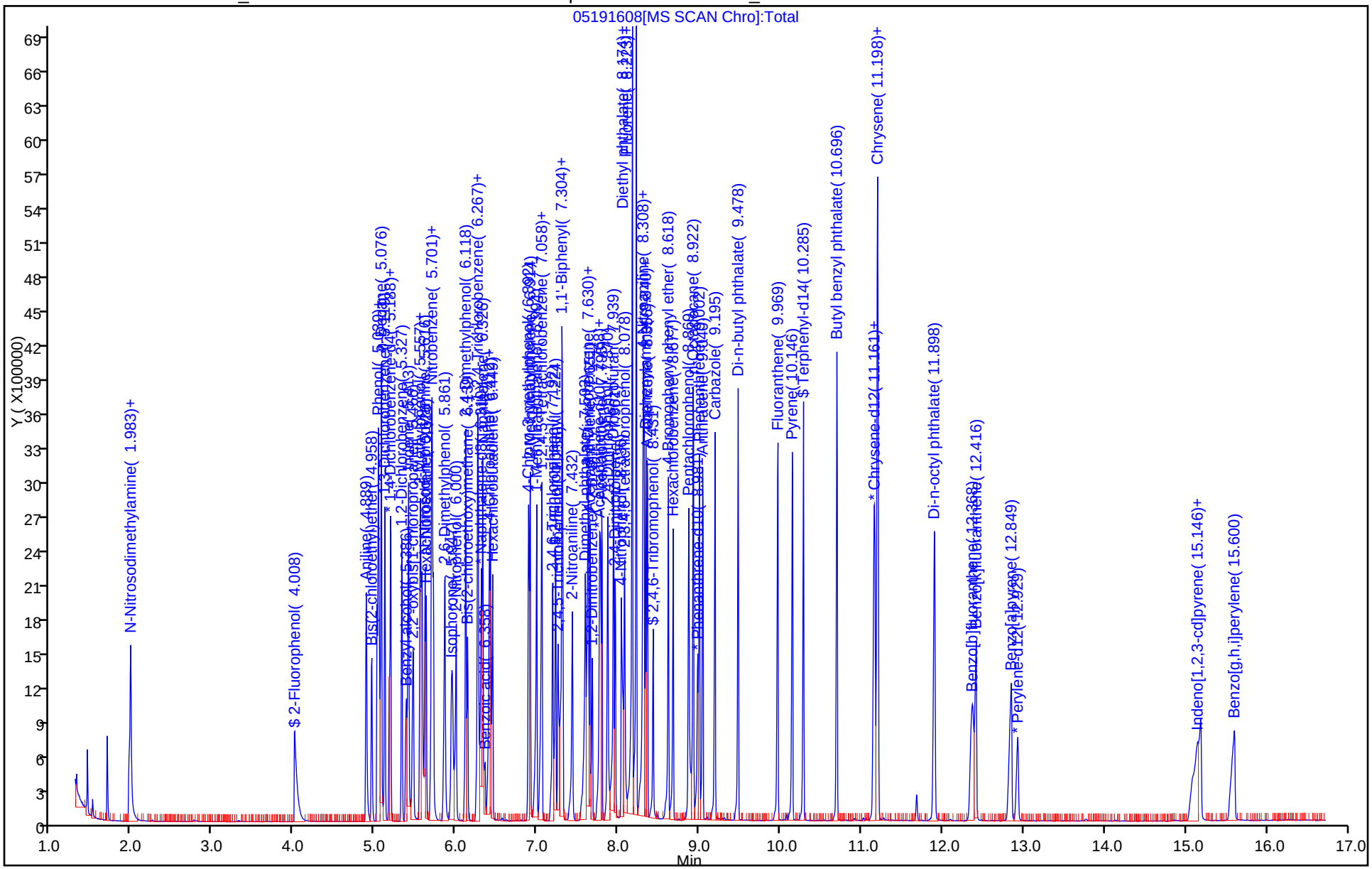
SV_REGICAL_00008	Amount Added: 80.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 4.00	Units: uL	Run Reagent

Report Date: 19-May-2016 09:50:27 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191608.D

Injection Date:	19-May-2016 08:56:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG LVI6			Worklist Smp#:	7
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

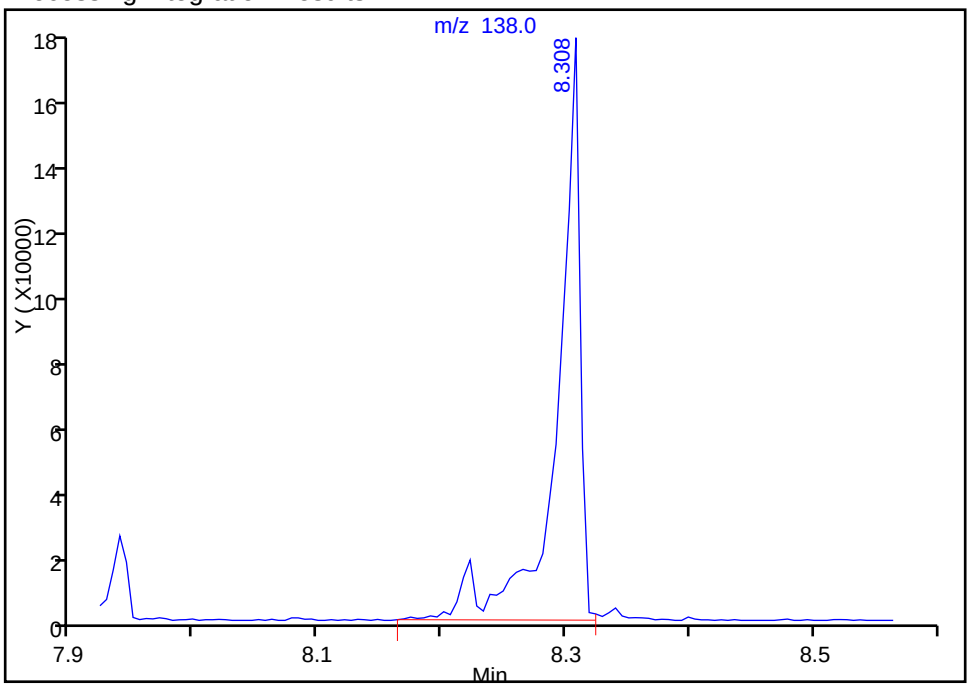
Data File:	\\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191608.D				
Injection Date:	19-May-2016 08:56:30	Instrument ID:	CHSVMS09		
Lims ID:	IC REG LVI6				
Client ID:					
Operator ID:	KP	ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		
Column:		Detector	MS SCAN		

107 4-Nitroaniline, CAS: 100-01-6

Signal: 1

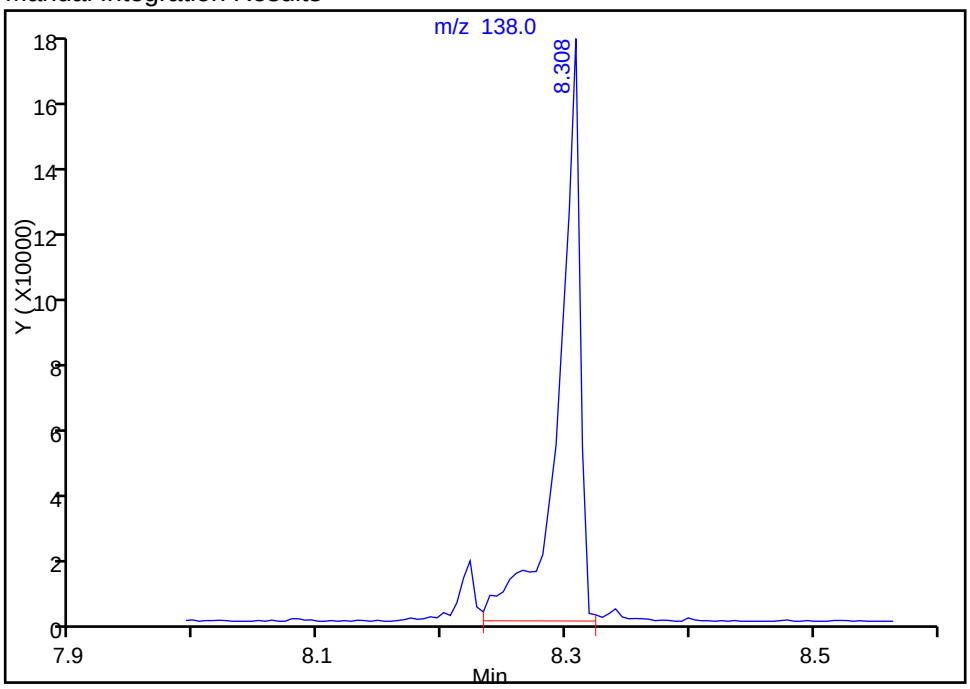
Processing Integration Results

RT: 8.31
Area: 217679
Amount: 16.870860
Amount Units: ug/ml



Manual Integration Results

RT: 8.31
Area: 202591
Amount: 15.555842
Amount Units: ug/ml



Reviewer: patelk, 19-May-2016 09:24:56

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D
Lims ID: IC REG LVI7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 19-May-2016 09:21:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: IC REG LVI7
Misc. Info.: 600-0012123-008
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270LVI_9*sub7

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 09:50:34 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 09:44:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.977	1.968	0.009	81	361774	20.0	19.8	
2 Pyridine	79	1.987	1.984	0.003	91	640517	20.0	20.8	
$ 7 2-Fluorophenol	112	3.996	4.019	-0.023	93	481055	20.0	20.1	
12 Aniline	93	4.888	4.885	0.003	94	893802	20.0	19.8	
16 Bis(2-chloroethyl)ether	93	4.958	4.954	0.004	94	578981	20.0	19.9	
$ 10 Phenol-d5	99	5.016	5.024	-0.008	70	776467	20.0	20.5	
17 2-Chlorophenol	128	5.038	5.040	-0.002	83	443256	20.0	19.1	
11 Phenol	94	5.032	5.040	-0.008	87	690283	20.0	19.8	
18 n-Decane	57	5.075	5.072	0.003	87	692649	20.0	21.1	
20 1,3-Dichlorobenzene	146	5.118	5.114	0.004	80	435834	20.0	18.8	
* 21 1,4-Dichlorobenzene-d4	152	5.171	5.173	-0.002	87	116727	8.00	8.00	
22 1,4-Dichlorobenzene	146	5.193	5.189	0.004	81	452239	20.0	19.3	
24 1,2-Dichlorobenzene	146	5.326	5.328	-0.002	80	429541	20.0	19.1	
23 Benzyl alcohol	108	5.390	5.376	0.014	83	336082	20.0	21.0	
26 Indene	115	5.412	5.408	0.004	89	776750	20.0	19.8	
27 2,2'-oxybis[1-chloropropan	45	5.470	5.467	0.003	86	717808	20.0	20.2	
25 2-Methylphenol	108	5.556	5.553	0.004	86	454551	20.0	18.9	
29 Acetophenone	105	5.583	5.569	0.014	66	837910	20.0	20.7	
31 N-Nitrosodi-n-propylamine	70	5.620	5.601	0.019	88	544338	20.0	21.1	
34 Hexachloroethane	117	5.625	5.627	-0.002	88	277792	20.0	19.6	
$ 35 Nitrobenzene-d5	82	5.700	5.697	0.003	95	820295	20.0	21.2	
30 3 & 4 Methylphenol	108	5.695	5.697	-0.002	89	497929	20.0	19.6	
36 Nitrobenzene	77	5.716	5.713	0.003	88	1159802	20.0	21.5	
39 2,6-Dimethylphenol	122	5.860	5.857	0.003	87	411495	20.0	19.9	
41 Isophorone	82	5.956	5.937	0.019	97	1311206	20.0	21.1	
42 2-Nitrophenol	139	5.999	5.996	0.003	66	250194	20.0	20.7	
43 2,4-Dimethylphenol	107	6.117	6.113	0.004	90	613753	20.0	21.0	
46 Bis(2-chloroethoxy)methane	93	6.143	6.135	0.008	97	763434	20.0	20.8	
49 1,2,4-Trichlorobenzene	180	6.272	6.268	0.004	86	343411	20.0	20.0	
48 2,4-Dichlorophenol	162	6.266	6.268	-0.002	83	344386	20.0	20.2	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.309	6.306	0.003	97	471795	8.00	8.00	
51 Naphthalene	128	6.330	6.322	0.008	97	1269802	20.0	20.2	
47 Benzoic acid	122	6.362	6.338	0.024	52	271805	20.0	20.7	
52 4-Chloroaniline	127	6.411	6.407	0.004	87	549343	20.0	19.9	
53 2,6-Dichlorophenol	162	6.421	6.418	0.003	76	339543	20.0	19.6	
55 Hexachlorobutadiene	225	6.448	6.445	0.003	91	246181	20.0	19.2	
60 4-Chloro-3-methylphenol	107	6.891	6.893	-0.002	87	536931	20.0	21.1	
62 2-Methylnaphthalene	142	6.913	6.909	0.004	87	1067197	20.0	20.0	
63 1-Methylnaphthalene	142	6.993	6.990	0.003	87	750784	20.0	20.0	
66 Hexachlorocyclopentadiene	237	7.052	7.054	-0.002	91	230481	20.0	20.8	
65 1,2,4,5-Tetrachlorobenzene	216	7.062	7.054	0.008	92	322384	20.0	20.4	
69 2,4,6-Trichlorophenol	196	7.191	7.187	0.004	83	234324	20.0	19.9	
$ 72 2-Fluorobiphenyl	172	7.228	7.225	0.003	97	817350	20.0	20.0	
71 2,4,5-Trichlorophenol	196	7.255	7.257	-0.002	79	246562	20.0	21.1	
77 1,1'-Biphenyl	154	7.308	7.299	0.009	96	904244	20.0	20.5	
78 2-Chloronaphthalene	162	7.319	7.310	0.009	96	751135	20.0	20.1	
81 2-Nitroaniline	65	7.436	7.428	0.008	69	466772	20.0	21.3	
84 Dimethyl phthalate	163	7.597	7.583	0.015	93	922268	20.0	19.8	
85 1,3-Dinitrobenzene	168	7.623	7.609	0.014	75	175635	20.0	22.7	
86 2,6-Dinitrotoluene	165	7.634	7.625	0.009	73	218025	20.0	19.9	
88 Acenaphthylene	152	7.655	7.647	0.008	97	1106864	20.0	19.8	
87 1,2-Dinitrobenzene	168	7.682	7.673	0.009	83	86085	20.0	16.4	
* 90 Acenaphthene-d10	164	7.767	7.764	0.003	92	252877	8.00	8.00	
89 3-Nitroaniline	138	7.784	7.775	0.009	84	244708	20.0	19.9	
91 Acenaphthene	153	7.800	7.791	0.009	95	681749	20.0	19.5	
92 2,4-Dinitrophenol	184	7.874	7.860	0.014	68	265624	40.0	40.7	
96 Dibenzofuran	168	7.944	7.935	0.009	90	1032961	20.0	20.2	
95 2,4-Dinitrotoluene	165	7.965	7.956	0.009	75	305502	20.0	20.4	
93 4-Nitrophenol	109	8.035	8.037	-0.002	87	646440	40.0	45.0	
99 2,3,4,6-Tetrachlorophenol	232	8.077	8.074	0.003	86	163861	20.0	19.5	
101 Diethyl phthalate	149	8.173	8.159	0.014	96	1019384	20.0	20.1	
102 Hexadecane	57	8.173	8.170	0.003	86	873743	20.0	21.6	
104 Fluorene	166	8.222	8.218	0.004	93	835808	20.0	20.0	
105 4-Chlorophenyl phenyl ethe	204	8.227	8.218	0.009	90	375824	20.0	20.9	
107 4-Nitroaniline	138	8.312	8.293	0.019	69	241973	20.0	20.2	M
108 4,6-Dinitro-2-methylphenol	198	8.323	8.304	0.019	48	332813	40.0	42.3	
110 N-Nitrosodiphenylamine	169	8.339	8.330	0.009	69	587336	20.0	20.0	
109 Diphenylamine	169	8.339	8.330	0.009	93	587336	17.0	17.0	
112 1,2-Diphenylhydrazine	77	8.360	8.352	0.008	53	2149135	20.0	22.7	
111 Azobenzene	77	8.360	8.352	0.008	96	2149135	20.0	22.7	
$ 113 2,4,6-Tribromophenol	330	8.430	8.427	0.003	78	129337	20.0	19.9	
118 4-Bromophenyl phenyl ether	248	8.617	8.614	0.003	80	208473	20.0	19.5	
122 Hexachlorobenzene	284	8.676	8.672	0.004	87	265630	20.0	20.8	
127 Pentachlorophenol	266	8.868	8.865	0.003	82	281463	40.0	40.7	
130 n-Octadecane	57	8.927	8.923	0.004	94	807729	20.0	21.0	
* 131 Phenanthrene-d10	188	8.980	8.977	0.003	96	371874	8.00	8.00	
132 Phenanthrene	178	9.002	8.998	0.004	98	1211984	20.0	20.7	M
134 Anthracene	178	9.044	9.036	0.008	99	1064828	20.0	19.5	
135 Carbazole	167	9.194	9.190	0.004	97	1187291	20.0	20.1	
137 Di-n-butyl phthalate	149	9.477	9.474	0.003	98	1698195	20.0	20.3	
143 Fluoranthene	202	9.968	9.960	0.008	99	1356629	20.0	21.4	
146 Pyrene	202	10.150	10.141	0.009	96	1412462	20.0	20.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 149 Terphenyl-d14	244	10.289	10.280	0.009	98	862852	20.0	20.3	
154 Butyl benzyl phthalate	149	10.700	10.692	0.008	87	857144	20.0	19.3	
159 Benzo[a]anthracene	228	11.160	11.140	0.020	99	1366258	20.0	20.4	
* 160 Chrysene-d12	240	11.170	11.151	0.019	97	431908	8.00	8.00	
161 Chrysene	228	11.202	11.178	0.024	97	1370959	20.0	21.8	
162 Bis(2-ethylhexyl) phthalat	149	11.208	11.188	0.020	92	1259716	20.0	20.4	
164 Di-n-octyl phthalate	149	11.902	11.883	0.019	98	2064977	20.0	19.3	
165 Benzo[b]fluoranthene	252	12.383	12.342	0.041	89	1254166	20.0	20.6	M
167 Benzo[k]fluoranthene	252	12.426	12.385	0.041	99	969592	20.0	18.1	
168 Benzo[a]pyrene	252	12.859	12.823	0.036	79	1068353	20.0	19.3	
* 169 Perylene-d12	264	12.933	12.909	0.024	97	402043	8.00	8.00	
172 Indeno[1,2,3-cd]pyrene	276	15.150	15.083	0.067	94	1215004	20.0	17.9	
173 Dibenz(a,h)anthracene	278	15.204	15.142	0.062	94	967549	20.0	18.9	
174 Benzo[g,h,i]perylene	276	15.615	15.569	0.046	97	1007734	20.0	18.7	
S 187 Methyl Phenols,Total	1				0			38.5	
S 188 Total Cresols	1				0			38.5	
S 189 Total Cresols, TCEQ Defini	1				0			83.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

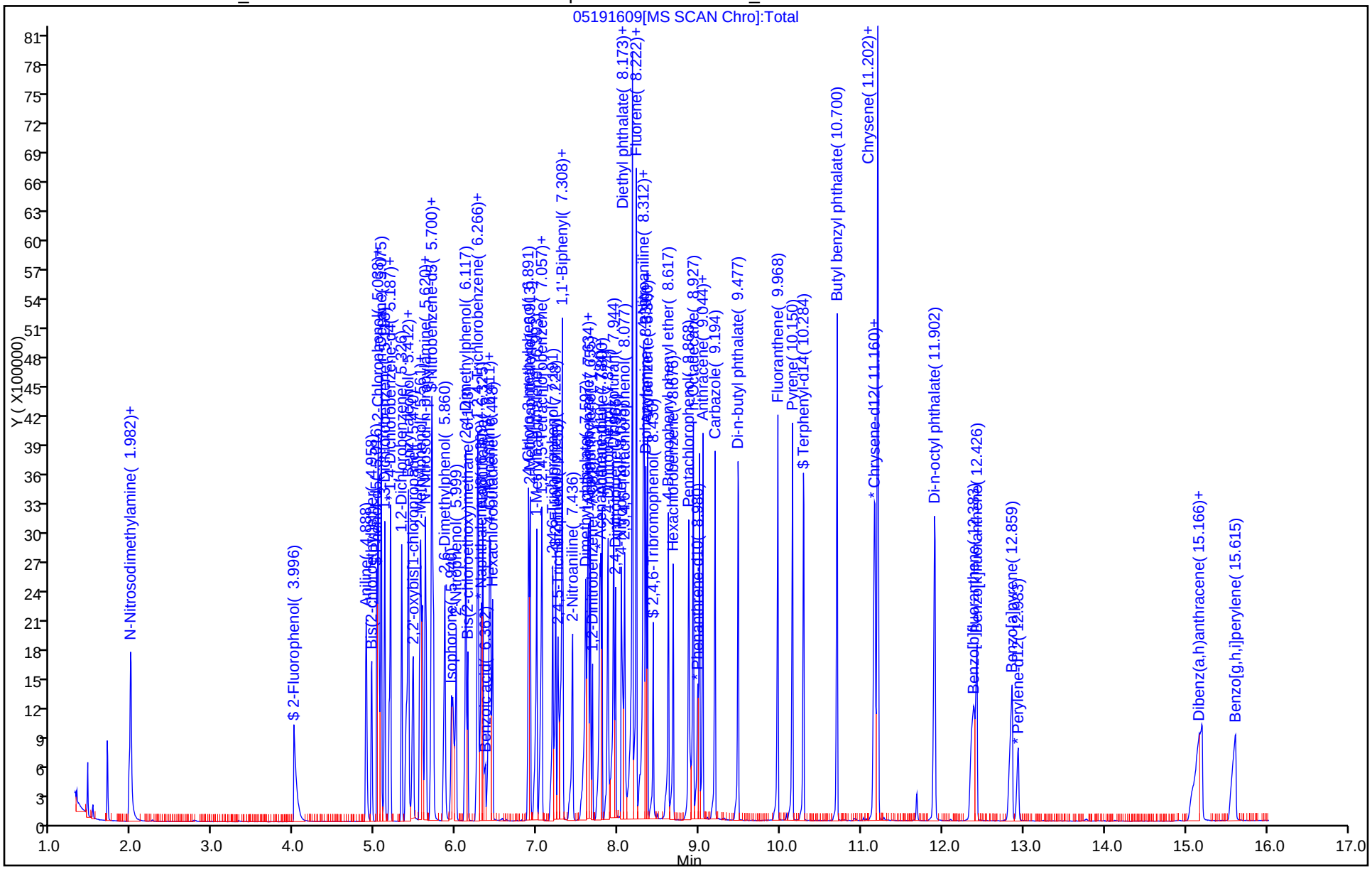
SV_REGICAL_00008	Amount Added: 100.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 4.00	Units: uL	Run Reagent

Report Date: 19-May-2016 09:50:35 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Injection Date:	19-May-2016 09:21:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	IC REG LVI7			Worklist Smp#:	8
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

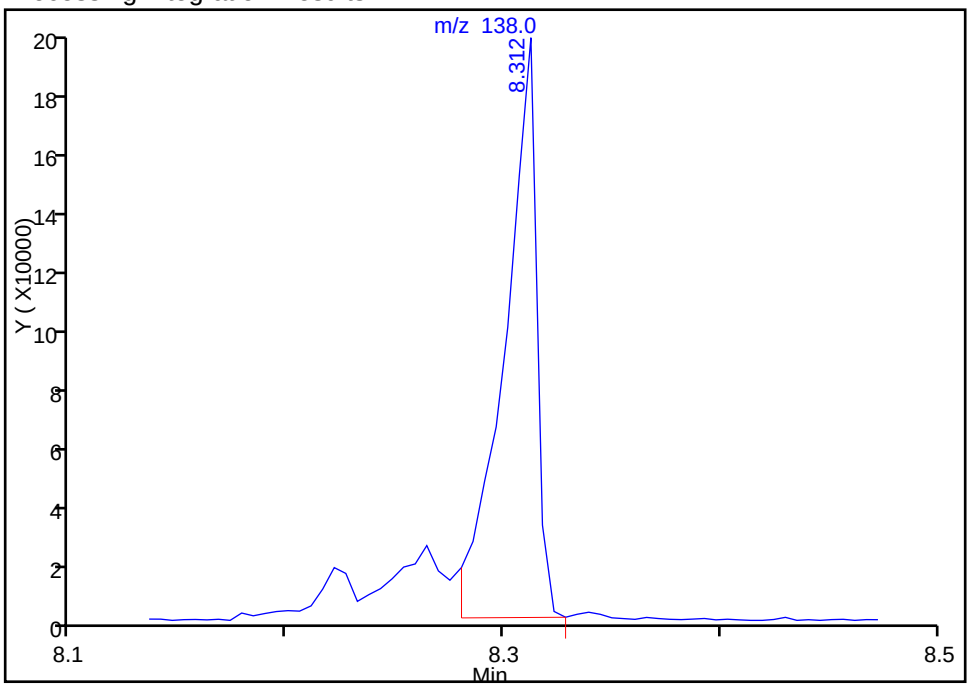
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D
Injection Date: 19-May-2016 09:21:30 Instrument ID: CHSVMS09
Lims ID: IC REG LVI7
Client ID:
Operator ID: KP ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270LVI_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

107 4-Nitroaniline, CAS: 100-01-6

Signal: 1

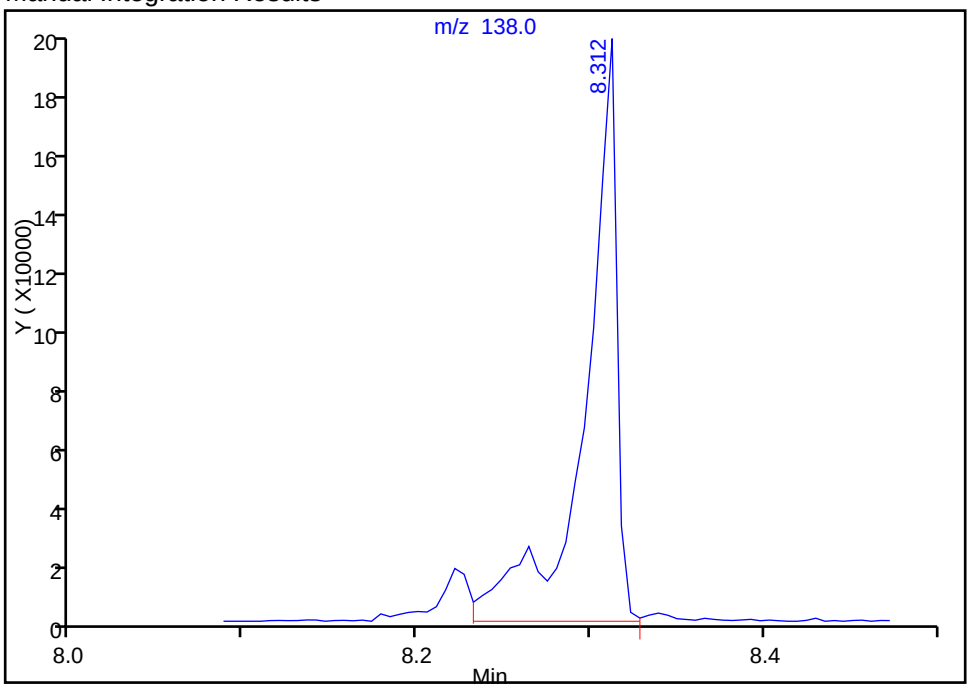
Processing Integration Results

RT: 8.31
Area: 197442
Amount: 16.951695
Amount Units: ug/ml



Manual Integration Results

RT: 8.31
Area: 241973
Amount: 20.222710
Amount Units: ug/ml



Reviewer: patelk, 19-May-2016 09:44:46
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Houston

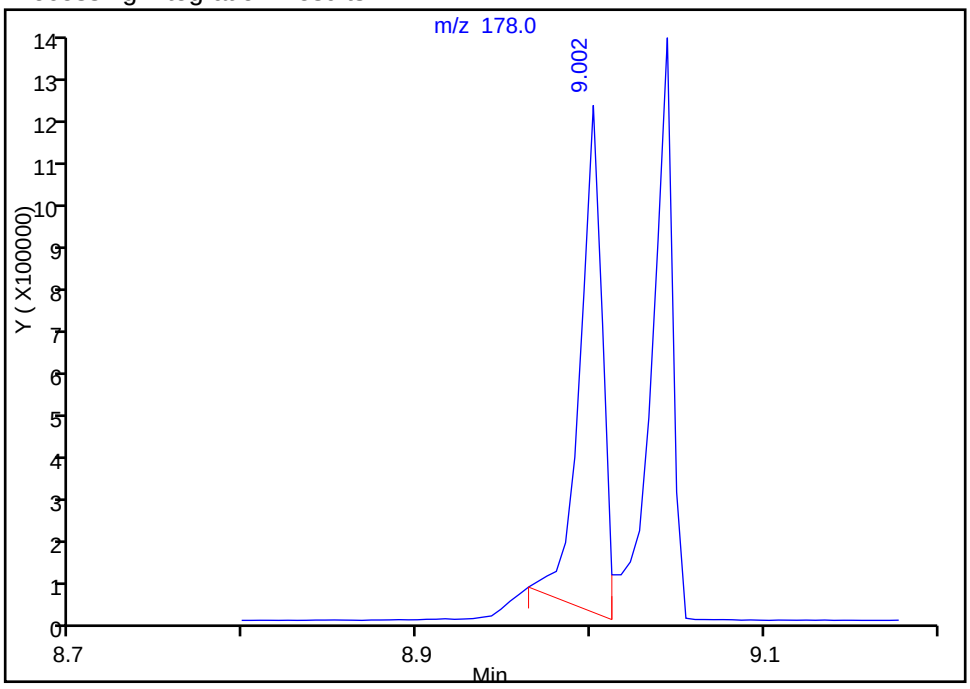
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D
Injection Date: 19-May-2016 09:21:30 Instrument ID: CHSVMS09
Lims ID: IC REG LVI7
Client ID:
Operator ID: KP ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270LVI_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

132 Phenanthrene, CAS: 85-01-8

Signal: 1

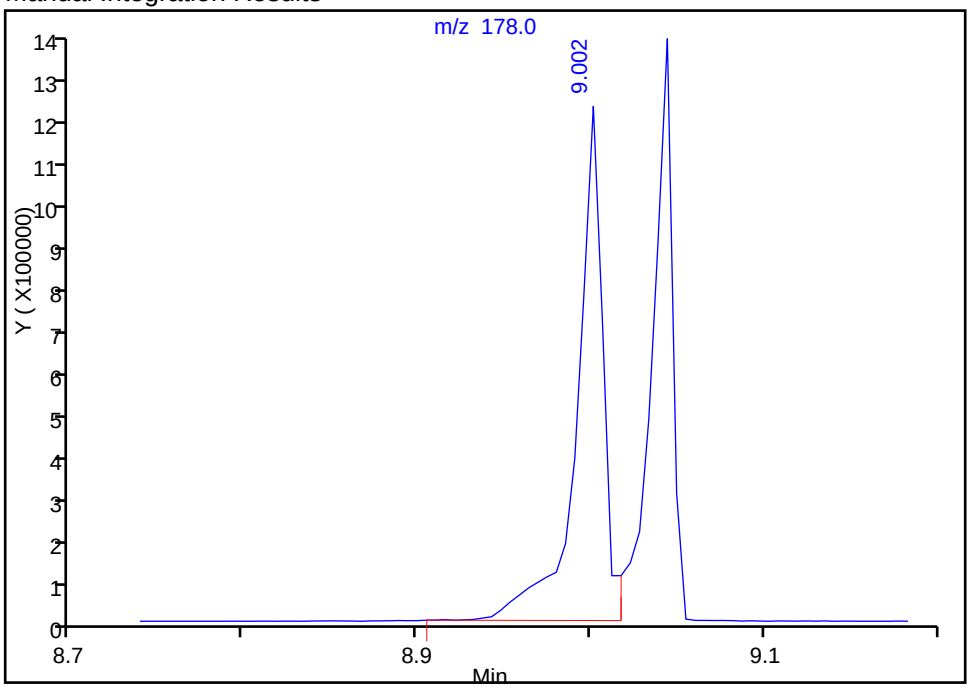
Processing Integration Results

RT: 9.00
Area: 1019715
Amount: 17.833558
Amount Units: ug/ml



Manual Integration Results

RT: 9.00
Area: 1211984
Amount: 20.698954
Amount Units: ug/ml



Reviewer: patelk, 19-May-2016 09:44:46
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Houston

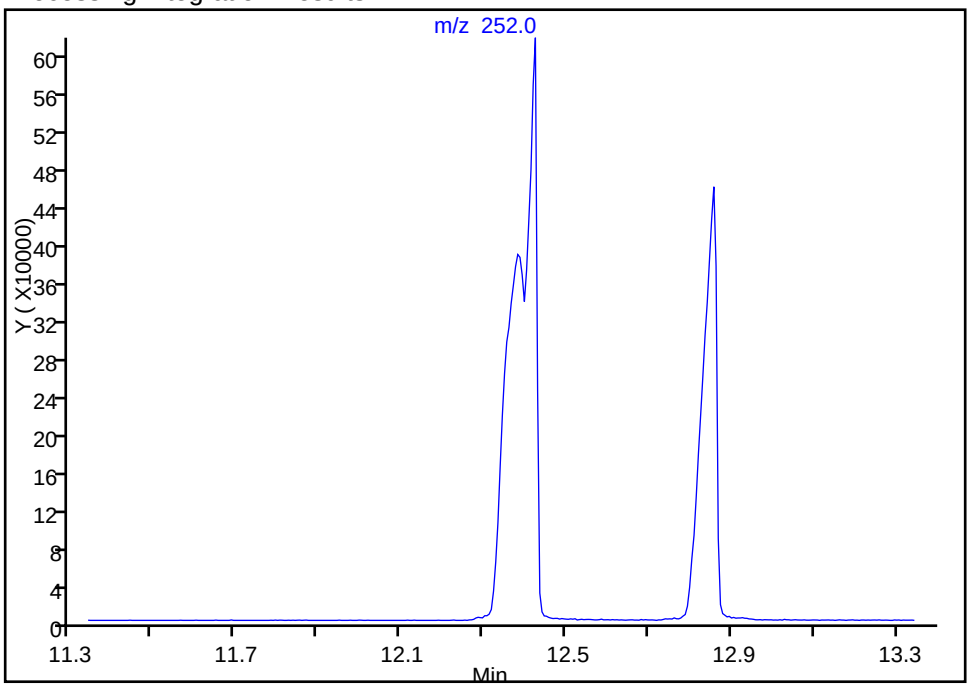
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D
Injection Date: 19-May-2016 09:21:30 Instrument ID: CHSVMS09
Lims ID: IC REG LVI7
Client ID:
Operator ID: KP ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270LVI_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

165 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

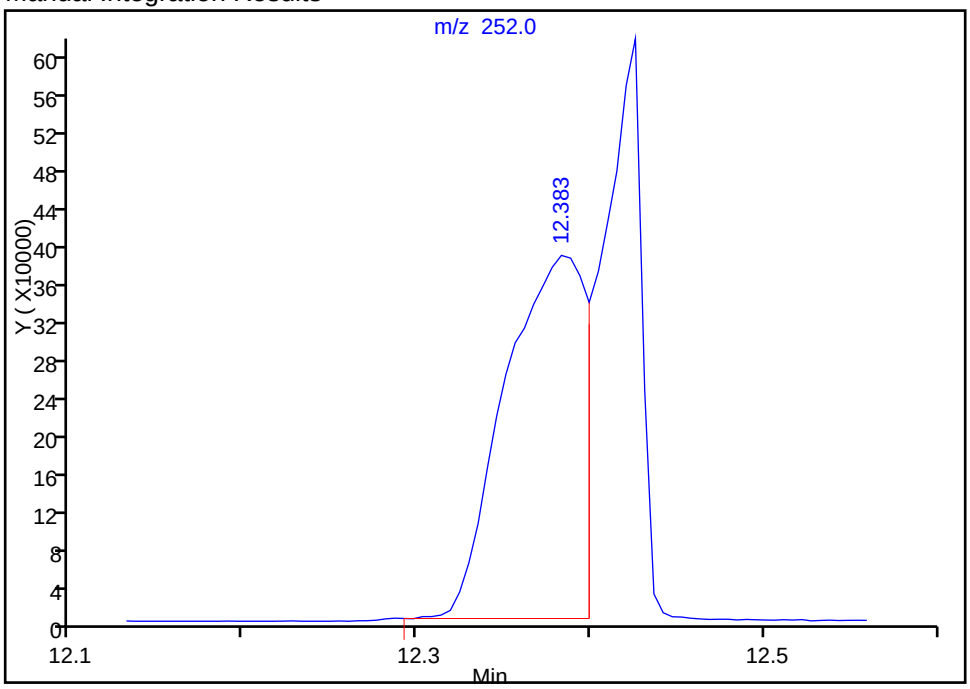
Not Detected
Expected RT: 12.34

Processing Integration Results



Manual Integration Results

RT: 12.38
Area: 1254166
Amount: 20.629440
Amount Units: ug/ml



Reviewer: patelk, 19-May-2016 09:44:46
Audit Action: Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Houston

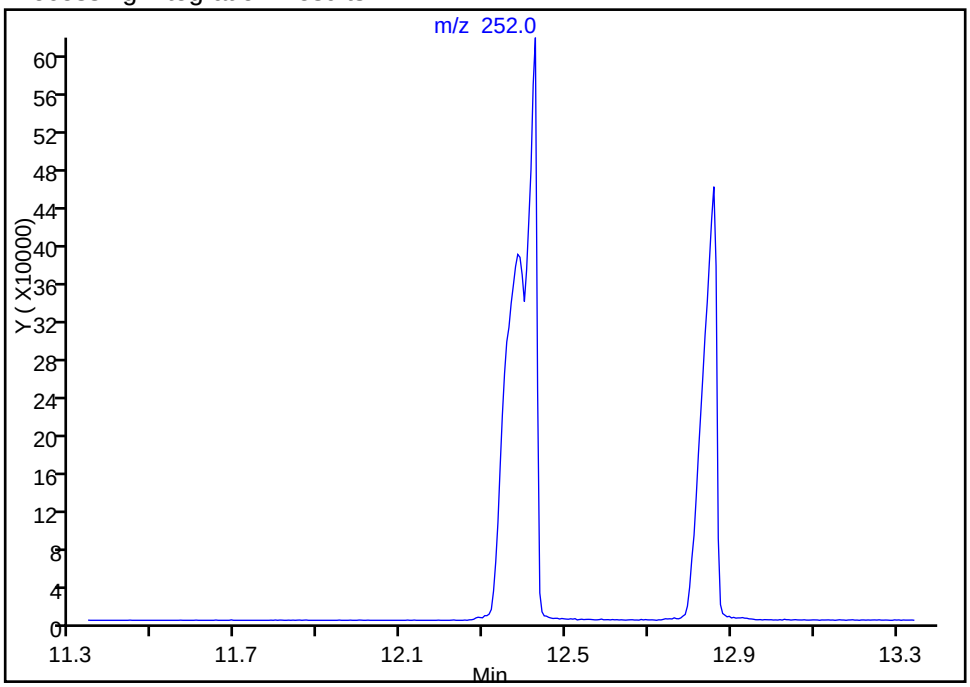
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D
Injection Date: 19-May-2016 09:21:30 Instrument ID: CHSVMS09
Lims ID: IC REG LVI7
Client ID:
Operator ID: KP ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270LVI_9 Limit Group: SV - 8270C_8270CLL
Column: Detector MS SCAN

165 Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

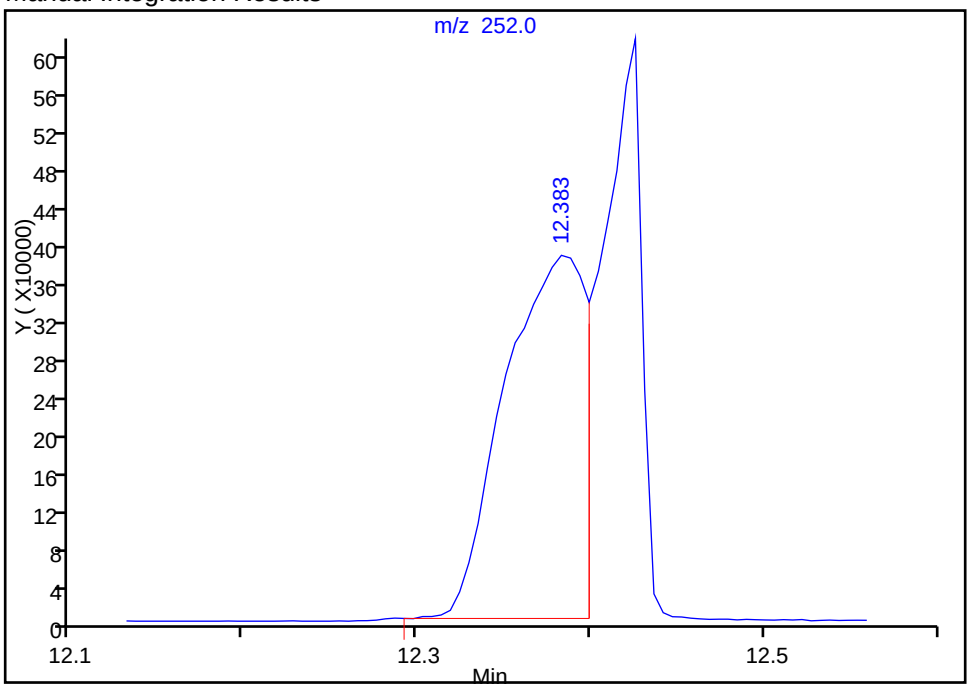
Not Detected
Expected RT: 12.34

Processing Integration Results



Manual Integration Results

RT: 12.38
Area: 1254166
Amount: 20.629440
Amount Units: ug/ml



Reviewer: patelk, 19-May-2016 09:44:46
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188677/2 | Calibration Date: 05/17/2016 11:46

Instrument ID: CHSVMS09 | Calib Start Date: 05/17/2016 07:57

GC Column: RXi-5Sil MS ID: 0.25(mm) | Calib End Date: 05/17/2016 10:19

Lab File ID: 05171612.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosodimethylamine	Ave	1.291	1.305		50540	50000	1.1	40.0
Pyridine	Ave	2.252	2.360		52400	50000	4.8	50.0
Aniline	Ave	3.240	3.138		48430	50000	-3.1	50.0
Bis(2-chloroethyl)ether	Ave	2.156	2.085		48350	50000	-3.3	40.0
2-Chlorophenol	Ave	1.653	1.562		47230	50000	-5.5	40.0
Phenol	Ave	2.566	2.472		48150	50000	-3.7	20.0
n-Decane	Ave	2.593	2.557		49300	50000	-1.4	40.0
1,3-Dichlorobenzene	Ave	1.660	1.565		47140	50000	-5.7	40.0
1,4-Dichlorobenzene	Ave	1.720	1.591		46260	50000	-7.5	40.0
1,2-Dichlorobenzene	Ave	1.605	1.517		47250	50000	-5.5	40.0
Benzyl alcohol	Ave	1.134	1.145		50480	50000	1.0	50.0
Indene	Ave	3.169	2.801		44190	50000	-11.6	50.0
bis (2-Chloroisopropyl) ether	Ave	2.681	2.675		49890	50000	-0.2	40.0
2-Methylphenol	Ave	1.698	1.686		49650	50000	-0.7	40.0
Acetophenone	Ave	0.7143	0.7231		50610	50000	1.2	40.0
N-Nitrosodi-n-propylamine	Ave	1.837	1.909	0.0500	51970	50000	3.9	40.0
Hexachloroethane	Ave	1.110	1.054		47500	50000	-5.0	40.0
3 & 4 Methylphenol	Ave	1.852	1.734		46820	50000	-6.4	40.0
Nitrobenzene	Ave	0.9649	0.9768		50620	50000	1.2	40.0
2,6-Dimethylphenol	Ave	0.3754	0.3403		45320	50000	-9.4	40.0
Isophorone	Ave	1.113	1.131		50820	50000	1.6	40.0
2-Nitrophenol	Ave	0.2063	0.1965		47620	50000	-4.8	20.0
2,4-Dimethylphenol	Ave	0.5269	0.5177		49130	50000	-1.7	40.0
Bis(2-chloroethoxy)methane	Ave	0.6704	0.6774		50520	50000	1.0	40.0
1,2,4-Trichlorobenzene	Ave	0.3256	0.3032		46560	50000	-6.9	40.0
2,4-Dichlorophenol	Ave	0.3258	0.3039		46640	50000	-6.7	20.0
Naphthalene	Ave	1.123	1.074		47810	50000	-4.4	40.0
Benzoic acid	Lin2		0.1954		43250	50000	-13.5	50.0
4-Chloroaniline	Ave	0.4643	0.4460		48040	50000	-3.9	50.0
2,6-Dichlorophenol	Ave	0.3051	0.2864		46930	50000	-6.1	40.0
Hexachlorobutadiene	Ave	0.2375	0.2314		48710	50000	-2.6	20.0
4-Chloro-3-methylphenol	Ave	0.4588	0.4543		49510	50000	-1.0	20.0
2-Methylnaphthalene	Ave	0.9441	0.9059		47980	50000	-4.0	40.0
1-Methylnaphthalene	Ave	0.6452	0.6177		47870	50000	-4.3	40.0
Hexachlorocyclopentadiene	Lin1		0.3668	0.0500	43440	50000	-13.1	50.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5804	0.5519		47540	50000	-4.9	40.0
2,4,6-Trichlorophenol	Ave	0.3635	0.3786		52070	50000	4.1	40.0
2,4,5-Trichlorophenol	Ave	0.3645	0.3547		48650	50000	-2.7	20.0
1,1'-Biphenyl	Ave	1.549	1.475		47610	50000	-4.8	40.0
2-Chloronaphthalene	Ave	1.265	1.219		48150	50000	-3.7	40.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188677/2 Calibration Date: 05/17/2016 11:46

Instrument ID: CHSVMS09 Calib Start Date: 05/17/2016 07:57

GC Column: RXi-5Sil MS ID: 0.25(mm) Calib End Date: 05/17/2016 10:19

Lab File ID: 05171612.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Nitroaniline	Ave	0.7030	0.7243		51510	50000	3.0	50.0
Dimethyl phthalate	Ave	1.381	1.317		47670	50000	-4.7	40.0
1,3-Dinitrobenzene	Ave	0.2110	0.2064		48910	50000	-2.2	40.0
2,6-Dinitrotoluene	Ave	0.3088	0.3119		50490	50000	1.0	40.0
Acenaphthylene	Ave	1.785	1.738		48670	50000	-2.7	40.0
1,2-Dinitrobenzene	Ave	0.1548	0.1524		49250	50000	-1.5	40.0
3-Nitroaniline	Ave	0.3629	0.3493		48130	50000	-3.7	50.0
Acenaphthene	Ave	1.097	1.102		50240	50000	0.5	20.0
2,4-Dinitrophenol	Ave	0.1725	0.1685	0.0500	97680	100000	-2.3	50.0
Dibenzofuran	Ave	1.601	1.599		49930	50000	-0.1	40.0
2,4-Dinitrotoluene	Ave	0.4400	0.4305		48920	50000	-2.2	40.0
4-Nitrophenol	Ave	0.4374	0.4739	0.0500	108400	100000	8.4	50.0
2,3,4,6-Tetrachlorophenol	Ave	0.2774	0.2777		50050	50000	0.1	40.0
Diethyl phthalate	Ave	1.610	1.504		46680	50000	-6.6	40.0
4-Chlorophenyl phenyl ether	Lin1		0.6569		44460	50000	-11.1	40.0
Fluorene	Ave	1.455	1.432		49220	50000	-1.6	40.0
4-Nitroaniline	Ave	0.3448	0.3444		49950	50000	-0.1	50.0
4,6-Dinitro-2-methylphenol	Ave	0.1789	0.1676		93690	100000	-6.3	50.0
Diphenylamine	Ave	0.7966	0.7381		39380	42500	-7.3	40.0
N-Nitrosodiphenylamine	Ave	0.6788	0.6274		46210	50000	-7.6	50.0
1,2-Diphenylhydrazine	Ave	2.124	2.257		53130	50000	6.3	40.0
Azobenzene	Ave	2.125	2.257		53100	50000	6.2	40.0
4-Bromophenyl phenyl ether	Ave	0.2652	0.2570		48450	50000	-3.1	40.0
Hexachlorobenzene	Ave	0.3194	0.3180		49790	50000	-0.4	40.0
Pentachlorophenol	Lin1		0.1507		81970	100000	-18.0	20.0
n-Octadecane	Ave	1.006	0.9843		48900	50000	-2.2	40.0
Phenanthrene	Ave	1.298	1.228		47320	50000	-5.4	40.0
Anthracene	Ave	1.316	1.232		46800	50000	-6.4	40.0
Carbazole	Ave	1.275	1.211		47480	50000	-5.0	50.0
Di-n-butyl phthalate	Ave	1.956	1.874		47910	50000	-4.2	40.0
Fluoranthene	Ave	1.446	1.365		47180	50000	-5.6	20.0
Pyrene	Ave	1.385	1.345		48580	50000	-2.8	40.0
Butyl benzyl phthalate	Ave	0.8382	0.8174		48760	50000	-2.5	40.0
Benzo[a]anthracene	Ave	1.267	1.162		45850	50000	-8.3	40.0
Chrysene	Ave	1.244	1.115		44830	50000	-10.3	40.0
Bis(2-ethylhexyl) phthalate	Ave	1.193	1.131		47410	50000	-5.2	40.0
Di-n-octyl phthalate	Ave	1.908	1.866		48910	50000	-2.2	20.0
Benzo[b]fluoranthene	Ave	1.211	1.133		46800	50000	-6.4	40.0
Benzo[k]fluoranthene	Ave	1.133	1.140		50320	50000	0.6	40.0
Benzo[a]pyrene	Ave	1.113	1.080		48510	50000	-3.0	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.298	1.262		48610	50000	-2.8	40.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188677/2 Calibration Date: 05/17/2016 11:46

Instrument ID: CHSVMS09 Calib Start Date: 05/17/2016 07:57

GC Column: RXi-5Sil MS ID: 0.25(mm) Calib End Date: 05/17/2016 10:19

Lab File ID: 05171612.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dibenz(a,h)anthracene	Ave	1.042	1.021		48990	50000	-2.0	40.0
Benzo[g,h,i]perylene	Ave	1.073	1.069		49830	50000	-0.3	40.0
2-Fluorophenol	Ave	1.717	1.726		50270	50000	0.5	40.0
Phenol-d5	Ave	2.809	2.722		48440	50000	-3.1	40.0
Nitrobenzene-d5	Ave	0.7098	0.6985		49210	50000	-1.6	40.0
2-Fluorobiphenyl	Ave	1.345	1.292		48010	50000	-4.0	40.0
2,4,6-Tribromophenol	Ave	0.2228	0.2158		48440	50000	-3.1	40.0
Terphenyl-d14	Ave	0.9035	0.8339		46140	50000	-7.7	40.0

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171612.D
Lims ID: CCVIS REG
Client ID:
Sample Type: CCVIS
Inject. Date: 17-May-2016 11:46:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS REG
Misc. Info.: 600-0012101-002
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270C_9*sub27

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 14:30:43 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: patelk Date: 17-May-2016 12:53:13

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 N-Nitrosodimethylamine	74	1.677	1.677	0.000	81	224373	50.0	50.5	
	2 Pyridine	79	1.698	1.698	0.000	92	405668	50.0	52.4	
$	7 2-Fluorophenol	112	3.979	3.979	0.000	92	296679	50.0	50.3	
	13 Aniline	93	4.898	4.898	0.000	94	539419	50.0	48.4	
	15 Bis(2-chloroethyl)ether	93	4.968	4.968	0.000	96	358463	50.0	48.4	
$	16 Phenol-d5	99	5.048	5.048	0.000	67	467841	50.0	48.4	
	18 2-Chlorophenol	128	5.058	5.058	0.000	80	268477	50.0	47.2	
	17 Phenol	94	5.064	5.064	0.000	89	424872	50.0	48.2	
	19 n-Decane	57	5.085	5.085	0.000	86	439525	50.0	49.3	
	20 1,3-Dichlorobenzene	146	5.133	5.133	0.000	81	268959	50.0	47.1	
*	21 1,4-Dichlorobenzene-d4	152	5.187	5.187	0.000	86	137523	40.0	40.0	
	22 1,4-Dichlorobenzene	146	5.203	5.203	0.000	78	273564	50.0	46.3	
	24 1,2-Dichlorobenzene	146	5.347	5.347	0.000	81	260766	50.0	47.2	
	25 Benzyl alcohol	108	5.400	5.400	0.000	82	196892	50.0	50.5	
	26 Indene	115	5.427	5.427	0.000	89	481446	50.0	44.2	
	27 2,2'-oxybis[1-chloropropan	45	5.486	5.486	0.000	85	459863	50.0	49.9	
	28 2-Methylphenol	108	5.577	5.577	0.000	91	289826	50.0	49.7	
	30 Acetophenone	105	5.593	5.593	0.000	87	522819	50.0	50.6	
	32 N-Nitrosodi-n-propylamine	70	5.625	5.625	0.000	90	328206	50.0	52.0	
	34 Hexachloroethane	117	5.651	5.651	0.000	90	181208	50.0	47.5	
$	36 Nitrobenzene-d5	82	5.721	5.721	0.000	94	505049	50.0	49.2	
	37 3 & 4 Methylphenol	108	5.721	5.721	0.000	88	298063	50.0	46.8	
	38 Nitrobenzene	77	5.737	5.737	0.000	88	706237	50.0	50.6	
	41 2,6-Dimethylphenol	122	5.881	5.881	0.000	87	246035	50.0	45.3	
	42 Isophorone	82	5.967	5.967	0.000	97	817941	50.0	50.8	
	43 2-Nitrophenol	139	6.020	6.020	0.000	65	142062	50.0	47.6	
	45 2,4-Dimethylphenol	107	6.143	6.143	0.000	91	374326	50.0	49.1	
	46 Bis(2-chloroethoxy)methane	93	6.164	6.164	0.000	97	489758	50.0	50.5	
	48 1,2,4-Trichlorobenzene	180	6.292	6.292	0.000	84	219192	50.0	46.6	
	49 2,4-Dichlorophenol	162	6.298	6.298	0.000	85	219734	50.0	46.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.335	6.335	0.000	97	578435	40.0	40.0	
51 Naphthalene	128	6.351	6.351	0.000	97	776385	50.0	47.8	
52 Benzoic acid	122	6.383	6.383	0.000	91	141304	50.0	43.3	
54 4-Chloroaniline	127	6.437	6.437	0.000	88	322506	50.0	48.0	
56 2,6-Dichlorophenol	162	6.447	6.447	0.000	88	207055	50.0	46.9	
57 Hexachlorobutadiene	225	6.474	6.474	0.000	92	167307	50.0	48.7	
64 4-Chloro-3-methylphenol	107	6.923	6.923	0.000	87	328473	50.0	49.5	
65 2-Methylnaphthalene	142	6.939	6.939	0.000	91	654974	50.0	48.0	
67 1-Methylnaphthalene	142	7.019	7.019	0.000	87	446594	50.0	47.9	
68 Hexachlorocyclopentadiene	237	7.083	7.083	0.000	91	141418	50.0	43.4	
69 1,2,4,5-Tetrachlorobenzene	216	7.088	7.088	0.000	92	212771	50.0	47.5	
72 2,4,6-Trichlorophenol	196	7.217	7.217	0.000	85	145955	50.0	52.1	
$ 73 2-Fluorobiphenyl	172	7.254	7.254	0.000	97	498008	50.0	48.0	
74 2,4,5-Trichlorophenol	196	7.291	7.291	0.000	78	136755	50.0	48.7	
76 1,1'-Biphenyl	154	7.334	7.334	0.000	96	568616	50.0	47.6	
77 2-Chloronaphthalene	162	7.345	7.345	0.000	96	469838	50.0	48.2	
83 2-Nitroaniline	65	7.457	7.457	0.000	68	279249	50.0	51.5	
86 Dimethyl phthalate	163	7.612	7.612	0.000	91	507597	50.0	47.7	
87 1,3-Dinitrobenzene	168	7.644	7.644	0.000	74	79564	50.0	48.9	
88 2,6-Dinitrotoluene	165	7.655	7.655	0.000	72	120236	50.0	50.5	
89 Acenaphthylene	152	7.676	7.676	0.000	98	669967	50.0	48.7	
90 1,2-Dinitrobenzene	168	7.703	7.703	0.000	83	58775	50.0	49.3	
* 91 Acenaphthene-d10	164	7.799	7.799	0.000	92	308442	40.0	40.0	
92 3-Nitroaniline	138	7.804	7.804	0.000	83	134674	50.0	48.1	
93 Acenaphthene	153	7.826	7.826	0.000	97	425065	50.0	50.2	
94 2,4-Dinitrophenol	184	7.895	7.895	0.000	68	129897	100.0	97.7	
96 Dibenzofuran	168	7.970	7.970	0.000	91	616521	50.0	49.9	
97 2,4-Dinitrotoluene	165	7.986	7.986	0.000	76	165976	50.0	48.9	
100 4-Nitrophenol	109	8.077	8.077	0.000	87	365458	100.0	108.4	
101 2,3,4,6-Tetrachlorophenol	232	8.109	8.109	0.000	87	107057	50.0	50.1	
103 Diethyl phthalate	149	8.194	8.194	0.000	92	579717	50.0	46.7	
104 Hexadecane	57	8.200	8.200	0.000	96	540348	50.0	50.0	
107 4-Chlorophenyl phenyl ethe	204	8.248	8.248	0.000	85	253274	50.0	44.5	
106 Fluorene	166	8.248	8.248	0.000	90	552262	50.0	49.2	
109 4-Nitroaniline	138	8.328	8.328	0.000	70	132801	50.0	50.0	
110 4,6-Dinitro-2-methylphenol	198	8.338	8.338	0.000	57	172332	100.0	93.7	
112 Diphenylamine	169	8.365	8.365	0.000	91	322618	42.5	39.4	
111 N-Nitrosodiphenylamine	169	8.365	8.365	0.000	68	322618	50.0	46.2	
113 1,2-Diphenylhydrazine	77	8.381	8.381	0.000	43	1160415	50.0	53.1	
114 Azobenzene	77	8.381	8.381	0.000	96	1160415	50.0	53.1	
$ 115 2,4,6-Tribromophenol	330	8.456	8.456	0.000	79	83205	50.0	48.4	
120 4-Bromophenyl phenyl ether	248	8.648	8.648	0.000	81	132135	50.0	48.5	
123 Hexachlorobenzene	284	8.707	8.707	0.000	93	163517	50.0	49.8	
128 Pentachlorophenol	266	8.899	8.899	0.000	83	154929	100.0	82.0	
129 n-Octadecane	57	8.953	8.953	0.000	94	506162	50.0	48.9	
* 131 Phenanthrene-d10	188	9.006	9.006	0.000	95	411375	40.0	40.0	
133 Phenanthrene	178	9.028	9.028	0.000	98	631497	50.0	47.3	
136 Anthracene	178	9.070	9.070	0.000	98	633608	50.0	46.8	
137 Carbazole	167	9.220	9.220	0.000	97	622683	50.0	47.5	
139 Di-n-butyl phthalate	149	9.508	9.508	0.000	98	963546	50.0	47.9	
146 Fluoranthene	202	9.995	9.995	0.000	99	701748	50.0	47.2	
149 Pyrene	202	10.182	10.182	0.000	97	728688	50.0	48.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 152 Terphenyl-d14	244	10.315	10.315	0.000	98	451678	50.0	46.1	
159 Butyl benzyl phthalate	149	10.737	10.737	0.000	89	442778	50.0	48.8	
* 164 Chrysene-d12	240	11.213	11.213	0.000	97	433344	40.0	40.0	
163 Benzo[a]anthracene	228	11.202	11.202	0.000	99	629484	50.0	45.8	
165 Chrysene	228	11.239	11.239	0.000	97	604002	50.0	44.8	
166 Bis(2-ethylhexyl) phthalat	149	11.255	11.255	0.000	95	612546	50.0	47.4	
168 Di-n-octyl phthalate	149	11.960	11.960	0.000	99	1011015	50.0	48.9	
170 Benzo[b]fluoranthene	252	12.436	12.436	0.000	95	524075	50.0	46.8	
171 Benzo[k]fluoranthene	252	12.479	12.479	0.000	99	527310	50.0	50.3	
172 Benzo[a]pyrene	252	12.922	12.922	0.000	80	499546	50.0	48.5	
* 173 Perylene-d12	264	13.013	13.013	0.000	97	369987	40.0	40.0	
178 Indeno[1,2,3-cd]pyrene	276	15.203	15.203	0.000	99	583741	50.0	48.6	
179 Dibenz(a,h)anthracene	278	15.262	15.262	0.000	92	472347	50.0	49.0	
180 Benzo[g,h,i]perylene	276	15.668	15.668	0.000	97	494504	50.0	49.8	

Reagents:

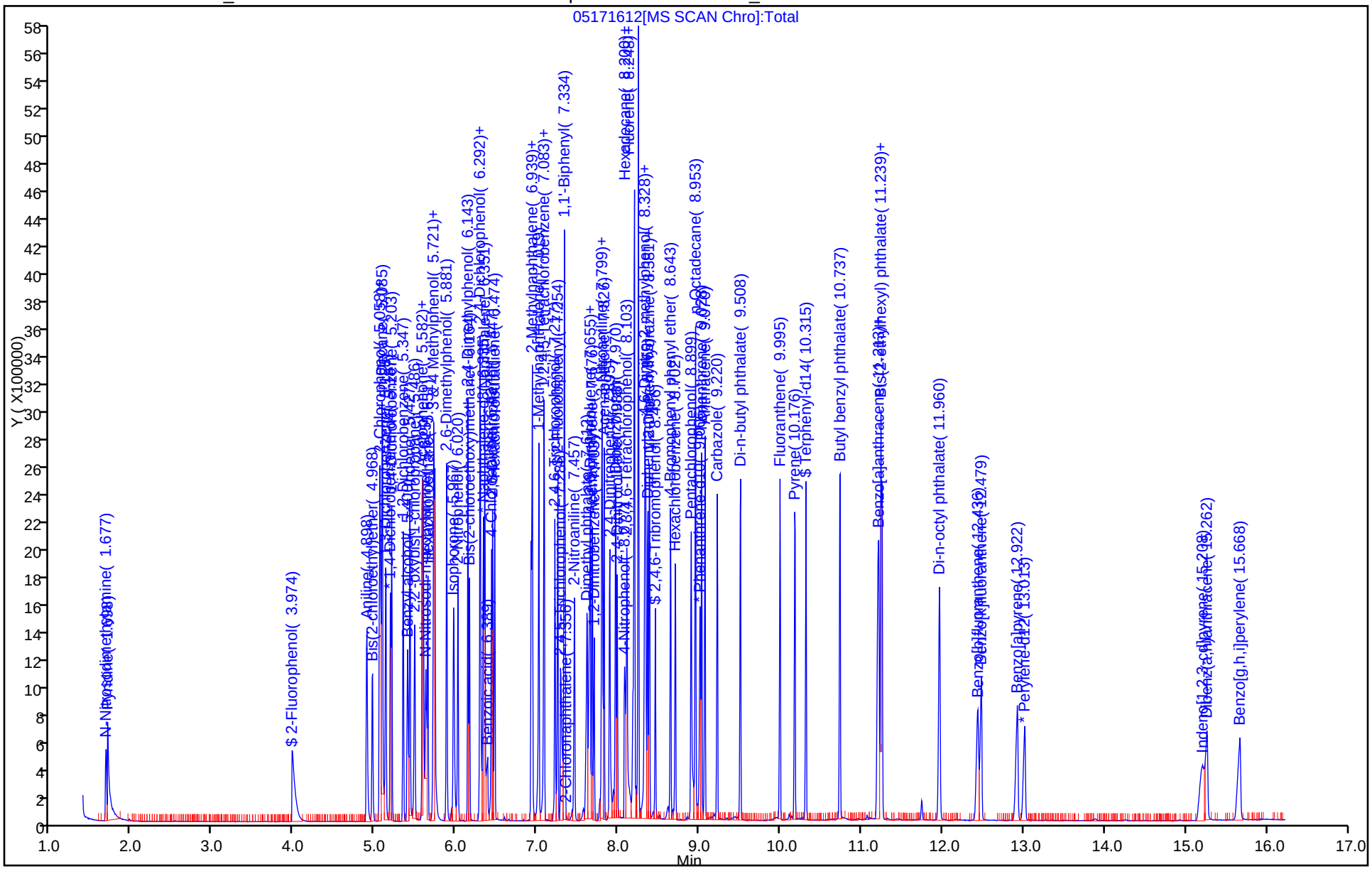
SV_REGICAL_00008	Amount Added: 250.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 20.00	Units: uL	Run Reagent

Report Date: 17-May-2016 14:30:45 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171612.D

Injection Date:	17-May-2016 11:46:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	CCVIS REG			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188802/10 | Calibration Date: 05/19/2016 10:08

Instrument ID: CHSVMS09 | Calib Start Date: 05/19/2016 06:54

GC Column: RXi-5Sil MS ID: 0.25(mm) | Calib End Date: 05/19/2016 09:21

Lab File ID: 05191611.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosodimethylamine	Ave	1.250	1.247		9972	10000	-0.3	40.0
Pyridine	Ave	2.112	2.026		9592	10000	-4.1	50.0
Aniline	Ave	3.096	3.034		9800	10000	-2.0	50.0
Bis(2-chloroethyl)ether	Ave	1.994	1.910		9578	10000	-4.2	40.0
2-Chlorophenol	Ave	1.586	1.510		9516	10000	-4.8	40.0
Phenol	Ave	2.384	2.271		9526	10000	-4.7	20.0
1,3-Dichlorobenzene	Ave	1.592	1.578		9912	10000	-0.9	40.0
1,4-Dichlorobenzene	Ave	1.607	1.532		9534	10000	-4.7	40.0
1,2-Dichlorobenzene	Ave	1.542	1.506		9769	10000	-2.3	40.0
Benzyl alcohol	Ave	1.096	1.110		10130	10000	1.3	50.0
bis (2-Chloroisopropyl) ether	Ave	2.439	2.493		10220	10000	2.2	40.0
2-Methylphenol	Ave	1.649	1.550		9401	10000	-6.0	40.0
Acetophenone	Ave	0.6848	0.6738		9840	10000	-1.6	40.0
N-Nitrosodi-n-propylamine	Ave	1.768	1.740	0.0500	9841	10000	-1.6	40.0
Hexachloroethane	Ave	0.9708	0.9440		9724	10000	-2.8	40.0
3 & 4 Methylphenol	Ave	1.742	1.684		9662	10000	-3.4	40.0
Nitrobenzene	Ave	0.9156	0.9004		9833	10000	-1.7	40.0
2,6-Dimethylphenol	Ave	0.3511	0.3557		10130	10000	1.3	40.0
Isophorone	Ave	1.054	1.059		10040	10000	0.4	40.0
2-Nitrophenol	Ave	0.2052	0.2020		9842	10000	-1.6	20.0
2,4-Dimethylphenol	Ave	0.4955	0.4981		10050	10000	0.5	40.0
Bis(2-chloroethoxy)methane	Ave	0.6221	0.6131		9855	10000	-1.5	40.0
1,2,4-Trichlorobenzene	Ave	0.2915	0.2858		9804	10000	-2.0	40.0
2,4-Dichlorophenol	Ave	0.2896	0.2899		10010	10000	0.0	20.0
Naphthalene	Ave	1.065	1.058		9931	10000	-0.7	40.0
Benzoic acid	Lin1		0.1965		9268	10000	-7.3	50.0
4-Chloroaniline	Ave	0.4677	0.4646		9935	10000	-0.7	50.0
2,6-Dichlorophenol	Ave	0.2944	0.2924		9931	10000	-0.7	40.0
Hexachlorobutadiene	Ave	0.2171	0.2176		10020	10000	0.2	20.0
4-Chloro-3-methylphenol	Ave	0.4325	0.4313		9971	10000	-0.3	20.0
2-Methylnaphthalene	Ave	0.9048	0.8980		9924	10000	-0.8	40.0
1-Methylnaphthalene	Ave	0.6358	0.6295		9901	10000	-1.0	40.0
1,2,4,5-Tetrachlorobenzene	Ave	0.5009	0.4775		9533	10000	-4.7	40.0
Hexachlorocyclopentadiene	Lin1		0.2940	0.0500	8935	10000	-10.6	50.0
2,4,6-Trichlorophenol	Ave	0.3719	0.3656		9831	10000	-1.7	40.0
2,4,5-Trichlorophenol	Ave	0.3694	0.3582		9696	10000	-3.0	20.0
1,1'-Biphenyl	Ave	1.393	1.311		9411	10000	-5.9	40.0
2-Chloronaphthalene	Ave	1.184	1.114		9408	10000	-5.9	40.0
2-Nitroaniline	Ave	0.6944	0.6871		9895	10000	-1.1	50.0
Dimethyl phthalate	Ave	1.473	1.425		9674	10000	-3.3	40.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188802/10 Calibration Date: 05/19/2016 10:08

Instrument ID: CHSVMS09 Calib Start Date: 05/19/2016 06:54

GC Column: RXi-5Sil MS ID: 0.25(mm) Calib End Date: 05/19/2016 09:21

Lab File ID: 05191611.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3-Dinitrobenzene	Ave	0.2451	0.2339		9543	10000	-4.6	40.0
2,6-Dinitrotoluene	Ave	0.3470	0.3034		8744	10000	-12.6	40.0
Acenaphthylene	Ave	1.772	1.725		9731	10000	-2.7	40.0
1,2-Dinitrobenzene	Ave	0.1657	0.1614		9740	10000	-2.6	40.0
3-Nitroaniline	Ave	0.3889	0.3771		9697	10000	-3.0	50.0
Acenaphthene	Ave	1.107	1.062		9591	10000	-4.1	20.0
2,4-Dinitrophenol	Lin2		0.1926	0.0500	19170	20000	-4.1	50.0
Dibenzofuran	Ave	1.620	1.549		9563	10000	-4.4	40.0
2,4-Dinitrotoluene	Ave	0.4738	0.4477		9448	10000	-5.5	40.0
4-Nitrophenol	Ave	0.4548	0.4561	0.0500	20050	20000	0.3	50.0
2,3,4,6-Tetrachlorophenol	Ave	0.2655	0.2880		10850	10000	8.5	40.0
Diethyl phthalate	Ave	1.606	1.552		9659	10000	-3.4	40.0
Fluorene	Ave	1.325	1.214		9161	10000	-8.4	40.0
4-Chlorophenyl phenyl ether	Ave	0.5682	0.5196		9145	10000	-8.6	40.0
4-Nitroaniline	Ave	0.3785	0.3698		9769	10000	-2.3	50.0
4,6-Dinitro-2-methylphenol	Ave	0.1692	0.1673		19780	20000	-1.1	50.0
Diphenylamine	Ave	0.7417	0.7173		8221	8500	-3.3	40.0
N-Nitrosodiphenylamine	Ave	0.6304	0.6097		9672	10000	-3.3	50.0
1,2-Diphenylhydrazine	Ave	2.034	1.845		9074	10000	-9.3	40.0
Azobenzene	Ave	2.034	1.845		9074	10000	-9.3	40.0
4-Bromophenyl phenyl ether	Ave	0.2298	0.2212		9625	10000	-3.8	40.0
Hexachlorobenzene	Ave	0.2741	0.2615		9539	10000	-4.6	40.0
Pentachlorophenol	Lin2		0.1458		20080	20000	0.4	20.0
Phenanthrene	Ave	1.260	1.182		9382	10000	-6.2	40.0
Anthracene	Ave	1.177	1.125		9559	10000	-4.4	40.0
Carbazole	Ave	1.271	1.217		9574	10000	-4.3	50.0
Di-n-butyl phthalate	Ave	1.798	1.742		9685	10000	-3.1	40.0
Fluoranthene	Ave	1.361	1.276		9373	10000	-6.3	20.0
Pyrene	Ave	1.308	1.236		9453	10000	-5.5	40.0
Butyl benzyl phthalate	Ave	0.8215	0.7873		9583	10000	-4.2	40.0
Benzo[a]anthracene	Ave	1.238	1.185		9569	10000	-4.3	40.0
Chrysene	Ave	1.163	1.072		9212	10000	-7.9	40.0
Bis(2-ethylhexyl) phthalate	Ave	1.144	1.068		9341	10000	-6.6	40.0
Di-n-octyl phthalate	Ave	1.985	1.883		9489	10000	-5.1	20.0
Benzo[b]fluoranthene	Ave	1.210	1.029		8507	10000	-14.9	40.0
Benzo[k]fluoranthene	Ave	1.067	0.9886		9268	10000	-7.3	40.0
Benzo[a]pyrene	Ave	1.102	1.045		9479	10000	-5.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.258	1.210		9617	10000	-3.8	40.0
Dibenz(a,h)anthracene	Ave	1.020	0.9587		9401	10000	-6.0	40.0
Benzo[g,h,i]perylene	Ave	1.072	1.006		9385	10000	-6.1	40.0
2-Fluorophenol	Ave	1.636	1.676		10240	10000	2.4	40.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVIS 600-188802/10 Calibration Date: 05/19/2016 10:08

Instrument ID: CHSVMS09 Calib Start Date: 05/19/2016 06:54

GC Column: RXi-5Sil MS ID: 0.25(mm) Calib End Date: 05/19/2016 09:21

Lab File ID: 05191611.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Phenol-d5 (Surr)	Ave	2.601	2.561		9848	10000	-1.5	40.0
Nitrobenzene-d5	Ave	0.6574	0.6556		9972	10000	-0.3	40.0
2-Fluorobiphenyl	Ave	1.295	1.234		9533	10000	-4.7	40.0
2,4,6-Tribromophenol	Ave	0.2058	0.2100		10200	10000	2.0	40.0
Terphenyl-d14	Ave	0.7877	0.7566		9605	10000	-3.9	40.0

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191611.D
Lims ID: CCVIS REG LVI
Client ID:
Sample Type: CCVIS
Inject. Date: 19-May-2016 10:08:30 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: CCVIS REG LVI
Misc. Info.: 600-0012123-010
Operator ID: KP Instrument ID: CHSVMS09
Sublist: chrom-8270LVI_9*sub7

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 12:10:55 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 11:09:26

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.961	1.961	0.000	80	161095	10.0	9.97	
2 Pyridine	79	1.983	1.983	0.000	93	261710	10.0	9.59	
$ 7 2-Fluorophenol	112	4.023	4.023	0.000	93	216497	10.0	10.2	
12 Aniline	93	4.884	4.884	0.000	94	391960	10.0	9.80	
16 Bis(2-chloroethyl)ether	93	4.953	4.953	0.000	95	246734	10.0	9.58	
$ 10 Phenol-d5	99	5.028	5.028	0.000	63	330922	10.0	9.85	
17 2-Chlorophenol	128	5.038	5.038	0.000	77	195039	10.0	9.52	
11 Phenol	94	5.038	5.038	0.000	64	293389	10.0	9.53	
18 n-Decane	57	5.071	5.071	0.000	86	289340	10.0	9.97	
20 1,3-Dichlorobenzene	146	5.113	5.113	0.000	82	203829	10.0	9.91	
* 21 1,4-Dichlorobenzene-d4	152	5.172	5.172	0.000	88	103359	8.00	8.00	
22 1,4-Dichlorobenzene	146	5.188	5.188	0.000	80	197923	10.0	9.53	
24 1,2-Dichlorobenzene	146	5.327	5.327	0.000	84	194627	10.0	9.77	
23 Benzyl alcohol	108	5.375	5.375	0.000	83	143422	10.0	10.1	
26 Indene	115	5.407	5.407	0.000	89	340665	10.0	9.81	
27 2,2'-oxybis[1-chloropropan	45	5.461	5.461	0.000	87	322094	10.0	10.2	
25 2-Methylphenol	108	5.546	5.546	0.000	91	200234	10.0	9.40	
29 Acetophenone	105	5.567	5.567	0.000	84	363020	10.0	9.84	
31 N-Nitrosodi-n-propylamine	70	5.599	5.599	0.000	89	224760	10.0	9.84	
34 Hexachloroethane	117	5.626	5.626	0.000	89	121962	10.0	9.72	
$ 35 Nitrobenzene-d5	82	5.696	5.696	0.000	95	353186	10.0	9.97	
30 3 & 4 Methylphenol	108	5.696	5.696	0.000	89	217512	10.0	9.66	
36 Nitrobenzene	77	5.712	5.712	0.000	90	485100	10.0	9.83	
39 2,6-Dimethylphenol	122	5.856	5.856	0.000	89	191635	10.0	10.1	
41 Isophorone	82	5.936	5.936	0.000	97	570291	10.0	10.0	
42 2-Nitrophenol	139	5.995	5.995	0.000	67	108816	10.0	9.84	
43 2,4-Dimethylphenol	107	6.112	6.112	0.000	91	268329	10.0	10.1	
46 Bis(2-chloroethoxy)methane	93	6.134	6.134	0.000	97	330304	10.0	9.85	
49 1,2,4-Trichlorobenzene	180	6.267	6.267	0.000	76	153993	10.0	9.80	
48 2,4-Dichlorophenol	162	6.267	6.267	0.000	77	156175	10.0	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
* 50 Naphthalene-d8	136	6.305	6.305	0.000	97	431008	8.00	8.00	
51 Naphthalene	128	6.321	6.321	0.000	96	570028	10.0	9.93	
47 Benzoic acid	122	6.331	6.331	0.000	88	105849	10.0	9.27	
52 4-Chloroaniline	127	6.406	6.406	0.000	89	250315	10.0	9.93	
53 2,6-Dichlorophenol	162	6.417	6.417	0.000	80	157523	10.0	9.93	
55 Hexachlorobutadiene	225	6.449	6.449	0.000	92	117214	10.0	10.0	
60 4-Chloro-3-methylphenol	107	6.892	6.892	0.000	85	232341	10.0	9.97	
62 2-Methylnaphthalene	142	6.908	6.908	0.000	91	483797	10.0	9.92	
63 1-Methylnaphthalene	142	6.988	6.988	0.000	89	339147	10.0	9.90	
66 Hexachlorocyclopentadiene	237	7.052	7.052	0.000	91	87625	10.0	8.94	
65 1,2,4,5-Tetrachlorobenzene	216	7.052	7.052	0.000	87	142328	10.0	9.53	
69 2,4,6-Trichlorophenol	196	7.186	7.186	0.000	86	108962	10.0	9.83	
$ 72 2-Fluorobiphenyl	172	7.223	7.223	0.000	98	367884	10.0	9.53	
71 2,4,5-Trichlorophenol	196	7.261	7.261	0.000	81	106762	10.0	9.70	
77 1,1'-Biphenyl	154	7.298	7.298	0.000	96	390835	10.0	9.41	
78 2-Chloronaphthalene	162	7.309	7.309	0.000	95	332051	10.0	9.41	
81 2-Nitroaniline	65	7.426	7.426	0.000	69	204783	10.0	9.89	
84 Dimethyl phthalate	163	7.581	7.581	0.000	90	424684	10.0	9.67	
85 1,3-Dinitrobenzene	168	7.608	7.608	0.000	76	69704	10.0	9.54	
86 2,6-Dinitrotoluene	165	7.619	7.619	0.000	74	90430	10.0	8.74	
88 Acenaphthylene	152	7.645	7.645	0.000	97	514012	10.0	9.73	
87 1,2-Dinitrobenzene	168	7.667	7.667	0.000	83	48102	10.0	9.74	
* 90 Acenaphthene-d10	164	7.763	7.763	0.000	92	238446	8.00	8.00	
89 3-Nitroaniline	138	7.768	7.768	0.000	82	112407	10.0	9.70	
91 Acenaphthene	153	7.790	7.790	0.000	95	316480	10.0	9.59	
92 2,4-Dinitrophenol	184	7.859	7.859	0.000	69	114780	20.0	19.2	
96 Dibenzofuran	168	7.934	7.934	0.000	90	461684	10.0	9.56	
95 2,4-Dinitrotoluene	165	7.955	7.955	0.000	77	133431	10.0	9.45	
93 4-Nitrophenol	109	8.041	8.041	0.000	88	271860	20.0	20.1	
99 2,3,4,6-Tetrachlorophenol	232	8.073	8.073	0.000	85	85831	10.0	10.8	
101 Diethyl phthalate	149	8.158	8.158	0.000	92	462445	10.0	9.66	
102 Hexadecane	57	8.169	8.169	0.000	97	360172	10.0	9.46	
104 Fluorene	166	8.212	8.212	0.000	93	361831	10.0	9.16	
105 4-Chlorophenyl phenyl ethe	204	8.217	8.217	0.000	82	154861	10.0	9.14	
107 4-Nitroaniline	138	8.286	8.286	0.000	69	110216	10.0	9.77	
108 4,6-Dinitro-2-methylphenol	198	8.303	8.303	0.000	50	148273	20.0	19.8	
110 N-Nitrosodiphenylamine	169	8.329	8.329	0.000	66	270221	10.0	9.67	
109 Diphenylamine	169	8.329	8.329	0.000	92	270221	8.50	8.22	
112 1,2-Diphenylhydrazine	77	8.351	8.351	0.000	45	817780	10.0	9.07	
111 Azobenzene	77	8.351	8.351	0.000	96	817780	10.0	9.07	
$ 113 2,4,6-Tribromophenol	330	8.425	8.425	0.000	89	62587	10.0	10.2	
118 4-Bromophenyl phenyl ether	248	8.612	8.612	0.000	80	98017	10.0	9.62	
122 Hexachlorobenzene	284	8.671	8.671	0.000	87	115881	10.0	9.54	
127 Pentachlorophenol	266	8.863	8.863	0.000	79	129210	20.0	20.1	
130 n-Octadecane	57	8.922	8.922	0.000	95	350981	10.0	9.56	
* 131 Phenanthrene-d10	188	8.976	8.976	0.000	97	354549	8.00	8.00	
132 Phenanthrene	178	8.992	8.992	0.000	99	523749	10.0	9.38	M
134 Anthracene	178	9.034	9.034	0.000	98	498619	10.0	9.56	
135 Carbazole	167	9.184	9.184	0.000	97	539217	10.0	9.57	
137 Di-n-butyl phthalate	149	9.472	9.472	0.000	98	771889	10.0	9.69	
143 Fluoranthene	202	9.959	9.959	0.000	99	565382	10.0	9.37	
146 Pyrene	202	10.140	10.140	0.000	95	587776	10.0	9.45	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
$ 149 Terphenyl-d14	244	10.279	10.279	0.000	97	359696	10.0	9.61	
154 Butyl benzyl phthalate	149	10.696	10.696	0.000	88	374250	10.0	9.58	
159 Benzo[a]anthracene	228	11.150	11.150	0.000	99	563332	10.0	9.57	
* 160 Chrysene-d12	240	11.161	11.161	0.000	98	380313	8.00	8.00	
161 Chrysene	228	11.187	11.187	0.000	97	509483	10.0	9.21	
162 Bis(2-ethylhexyl) phthalat	149	11.203	11.203	0.000	95	507818	10.0	9.34	
164 Di-n-octyl phthalate	149	11.892	11.892	0.000	99	895289	10.0	9.49	
165 Benzo[b]fluoranthene	252	12.357	12.357	0.000	97	480516	10.0	8.51	
167 Benzo[k]fluoranthene	252	12.400	12.400	0.000	99	461596	10.0	9.27	
168 Benzo[a]pyrene	252	12.833	12.833	0.000	80	487894	10.0	9.48	
* 169 Perylene-d12	264	12.923	12.923	0.000	98	373555	8.00	8.00	
172 Indeno[1,2,3-cd]pyrene	276	15.087	15.087	0.000	98	575081	10.0	9.62	
173 Dibenz(a,h)anthracene	278	15.156	15.156	0.000	94	447641	10.0	9.40	
174 Benzo[g,h,i]perylene	276	15.573	15.573	0.000	97	469947	10.0	9.39	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

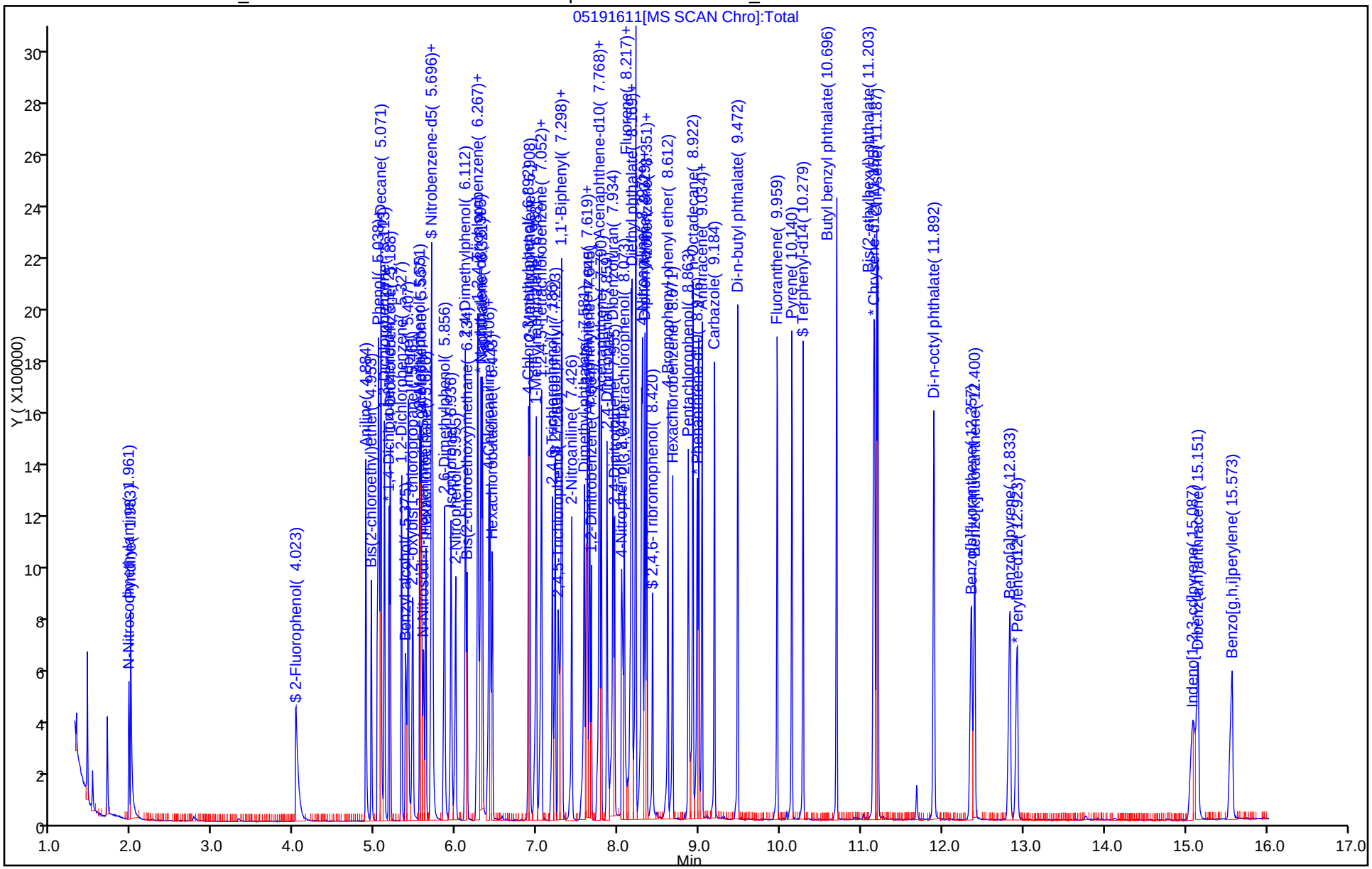
SV_REGICAL_00008	Amount Added: 50.00	Units: uL	
SV_8270ISTD_00009	Amount Added: 4.00	Units: uL	Run Reagent

Report Date: 19-May-2016 12:10:56 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191611.D

Injection Date:	19-May-2016 10:08:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	CCVIS REG LVI			Worklist Smp#:	10
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



Manual Integration/User Assign Peak Report

TestAmerica Houston

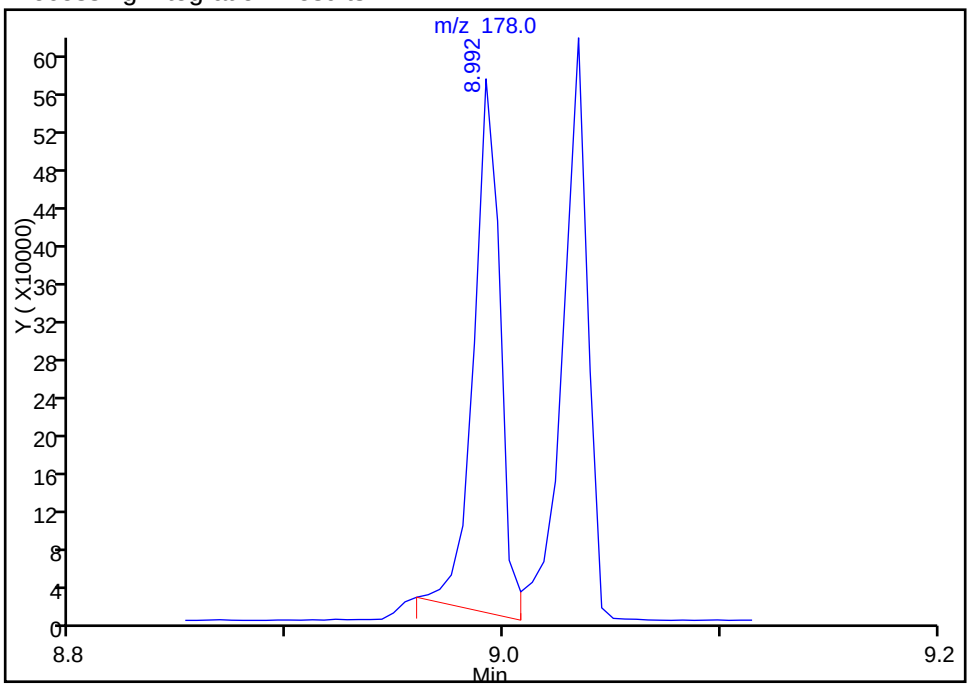
Data File:	\\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191611.D				
Injection Date:	19-May-2016 10:08:30	Instrument ID:	CHSVMS09		
Lims ID:	CCVIS REG LVI				
Client ID:					
Operator ID:	KP	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		
Column:		Detector	MS SCAN		

132 Phenanthrene, CAS: 85-01-8

Signal: 1

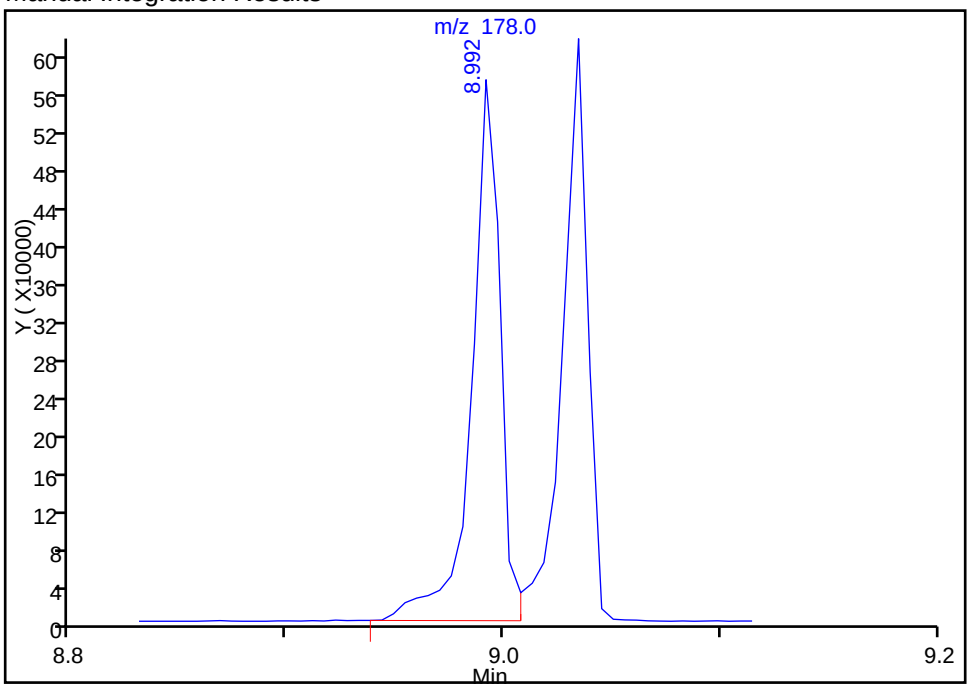
Processing Integration Results

RT: 8.99
Area: 478041
Amount: 8.563202
Amount Units: ug/ml



Manual Integration Results

RT: 8.99
Area: 523749
Amount: 9.381975
Amount Units: ug/ml



Reviewer: patelk, 19-May-2016 11:09:26
Audit Action: Split an Integrated Peak Audit Reason: Baseline

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171601.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 17-May-2016 07:41:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Misc. Info.: 600-0012090-001
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 11:06:12 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: patelk Date: 17-May-2016 08:19:36

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
203 Pentachlorophenol_T	266	4.890	4.890	0.000	0	140259	NR	NR	
204 DFTPP									
205 Benzidine_T	184	6.466	6.466	0.000	0	1047077	NR	NR	
206 4,4'-DDE	246		6.972				ND	ND	
207 4,4'-DDD	235	7.033	7.033	0.000	79	3068	NR	NR	
208 4,4'-DDT	235	7.332	7.332	0.000	0	709641	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
ND - Not Detected or Marked ND

Reagents:

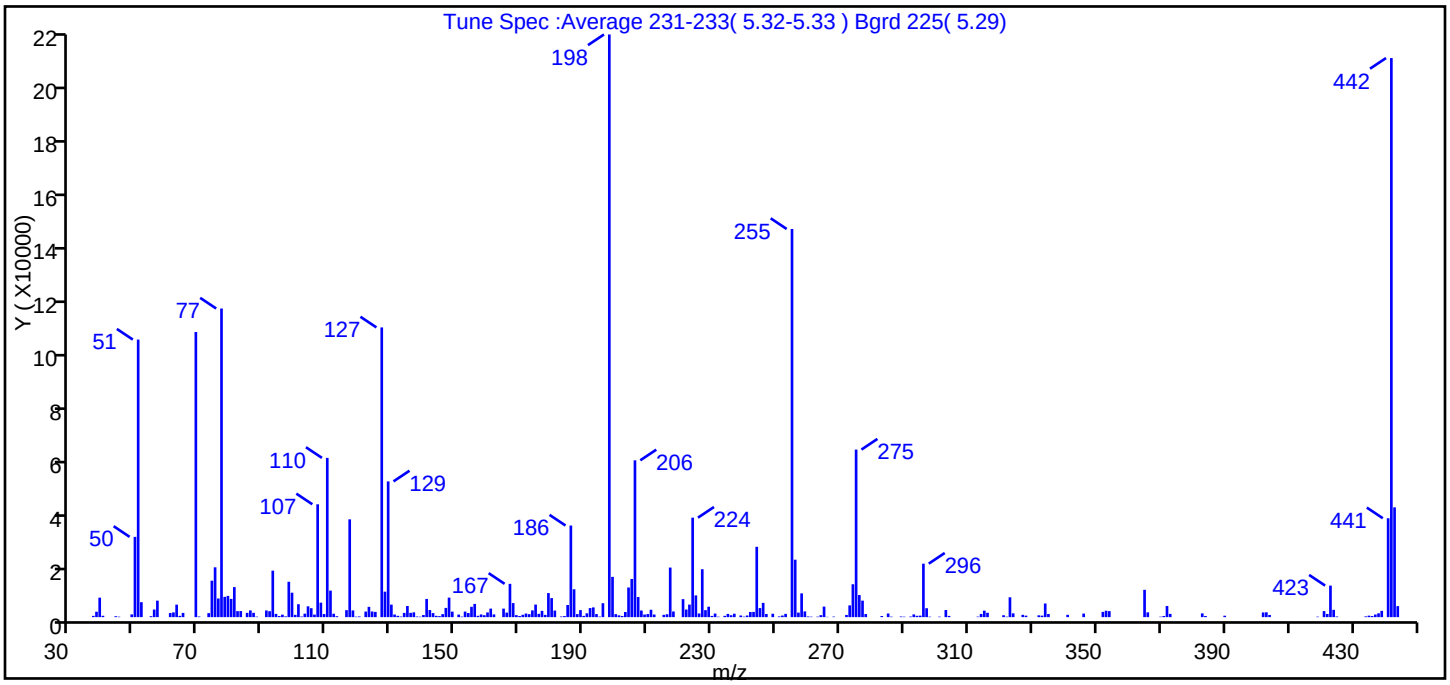
SV_DFTPPTune_00032 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171601.D
Injection Date: 17-May-2016 07:41:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL
Tune Method: DFTPP Method 8270

204 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	47.6
68	<2% of mass 69	0.0 (0.0)
69	Present	48.9
70	<2% of mass 69	0.1 (0.2)
127	40-60% of mass 198	49.7
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.9
275	10-30% of mass 198	28.8
365	>1% of mass 198	4.7
441	Present but less than mass 443	17.0 (90.1)
442	>40% of mass 198	96.0
443	17-23% of mass 442	18.8 (19.6)

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171601.D\8270C_9.rslt\spectra.d
Injection Date: 17-May-2016 07:41:30
Spectrum: Tune Spec :Average 231-233(5.32-5.33) Bgrd 225(5.29)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 262

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	482	125.00	1983	196.00	5253	277.00	6233
38.00	2042	127.00	109344	198.00	219904	278.00	1169
39.00	7353	128.00	9610	199.00	15194	283.00	421
40.00	517	129.00	51232	200.00	1123	285.00	1369
44.00	336	130.00	4728	201.00	676	286.00	179
45.00	178	131.00	991	202.00	444	289.00	234
49.00	1038	132.00	498	203.00	1941	290.00	168
50.00	30296	133.00	215	204.00	11191	292.00	230
51.00	104752	134.00	1609	205.00	14407	293.00	1030
52.00	5643	135.00	4207	206.00	59184	294.00	512
55.00	362	136.00	1621	207.00	7580	295.00	567
56.00	2875	137.00	1818	208.00	2498	296.00	20184
57.00	6226	138.00	227	209.00	977	297.00	3369
61.00	1558	139.00	166	210.00	1165	298.00	174
62.00	1793	140.00	803	211.00	2796	301.00	183
63.00	4720	141.00	6870	212.00	985	303.00	2686
64.00	486	142.00	2668	215.00	880	304.00	469
65.00	1599	143.00	1528	216.00	1087	313.00	200
69.00	107616	144.00	499	217.00	18712	314.00	1199
70.00	237	145.00	388	218.00	2144	315.00	2447
73.00	1520	146.00	1132	221.00	6800	316.00	1649
74.00	13762	147.00	3487	222.00	2873	321.00	719
75.00	18808	148.00	7367	223.00	4730	322.00	175
76.00	7041	149.00	2077	224.00	37544	323.00	7494
77.00	116480	151.00	968	225.00	8206	324.00	1440
78.00	7656	152.00	198	226.00	1387	327.00	870
79.00	8006	153.00	2099	227.00	18088	328.00	562
80.00	6897	154.00	1543	228.00	2642	332.00	685
81.00	11338	155.00	3902	229.00	3937	333.00	565
82.00	2266	156.00	4997	230.00	465	334.00	5151
83.00	2292	157.00	510	231.00	1345	335.00	1189
85.00	1621	158.00	1014	232.00	169	341.00	876
86.00	2546	159.00	726	234.00	491	346.00	1347

Report Date: 17-May-2016 11:06:13 Chrom Revision: 2.2 20-Apr-2016 13:59:46
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171601.D\8270C_9.rslt\spectra.d
Injection Date: 17-May-2016 07:41:30
Spectrum: Tune Spec :Average 231-233(5.32-5.33) Bgrd 225(5.29)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 262

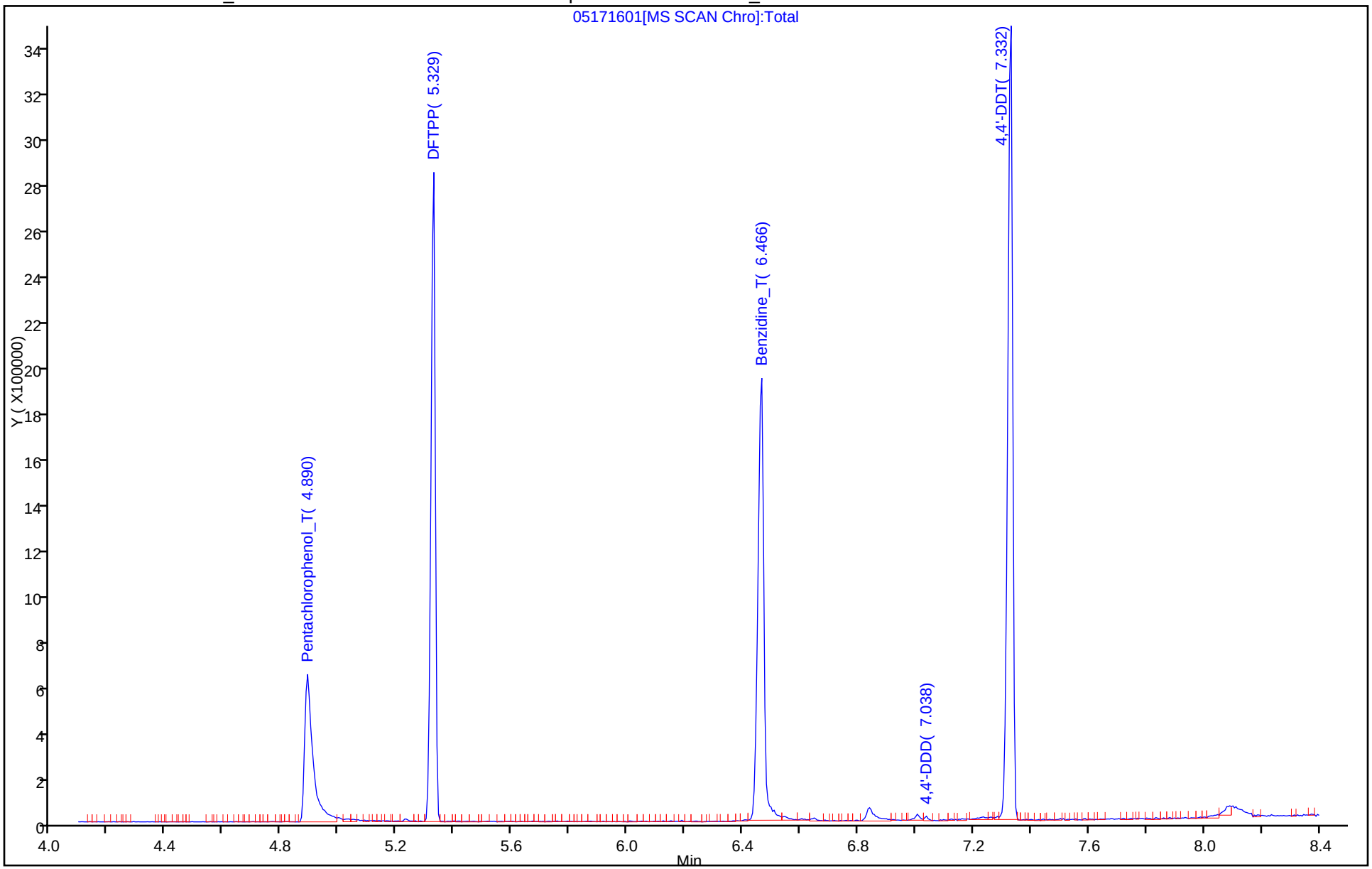
m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	1632	160.00	1780	235.00	1221	352.00	1993
88.00	186	161.00	3220	236.00	721	353.00	2422
91.00	2519	162.00	1033	237.00	1297	354.00	2273
92.00	2243	165.00	3216	239.00	622	365.00	10314
93.00	17552	166.00	1706	240.00	188	366.00	1807
94.00	1218	167.00	12571	241.00	621	370.00	176
95.00	417	168.00	5304	242.00	1941	371.00	442
96.00	929	169.00	761	243.00	1979	372.00	4209
97.00	287	170.00	424	244.00	26544	373.00	1246
98.00	13357	171.00	894	245.00	3414	383.00	1419
99.00	9231	172.00	1361	246.00	5385	384.00	432
100.00	860	173.00	1123	247.00	1177	390.00	540
101.00	4884	174.00	2544	249.00	1282	402.00	1776
102.00	226	175.00	4743	251.00	276	403.00	1830
103.00	1312	176.00	1246	252.00	599	404.00	834
104.00	4084	177.00	2371	253.00	1234	419.00	182
105.00	3376	178.00	859	255.00	146496	421.00	2291
106.00	958	179.00	9083	256.00	21680	422.00	1198
107.00	42592	180.00	7186	257.00	1706	423.00	11903
108.00	5475	181.00	2474	258.00	8981	424.00	2764
109.00	1163	183.00	240	259.00	2169	425.00	241
110.00	60104	184.00	403	260.00	257	434.00	281
111.00	10014	185.00	4576	261.00	173	435.00	554
112.00	1283	186.00	34576	263.00	175	436.00	418
113.00	350	187.00	10520	264.00	751	437.00	983
116.00	2635	188.00	1156	265.00	3983	438.00	1443
117.00	36912	189.00	2653	266.00	109	439.00	2379
118.00	2533	190.00	474	268.00	200	441.00	37328
119.00	184	191.00	1446	272.00	833	442.00	211008
120.00	258	192.00	3421	273.00	4432	443.00	41440
122.00	2105	193.00	3680	274.00	12416	444.00	4165
123.00	3883	194.00	1167	275.00	63240		
124.00	2133	195.00	207	276.00	8338		

Report Date: 17-May-2016 11:06:13 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171601.D

Injection Date:	17-May-2016 07:41:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	DFTPP			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		

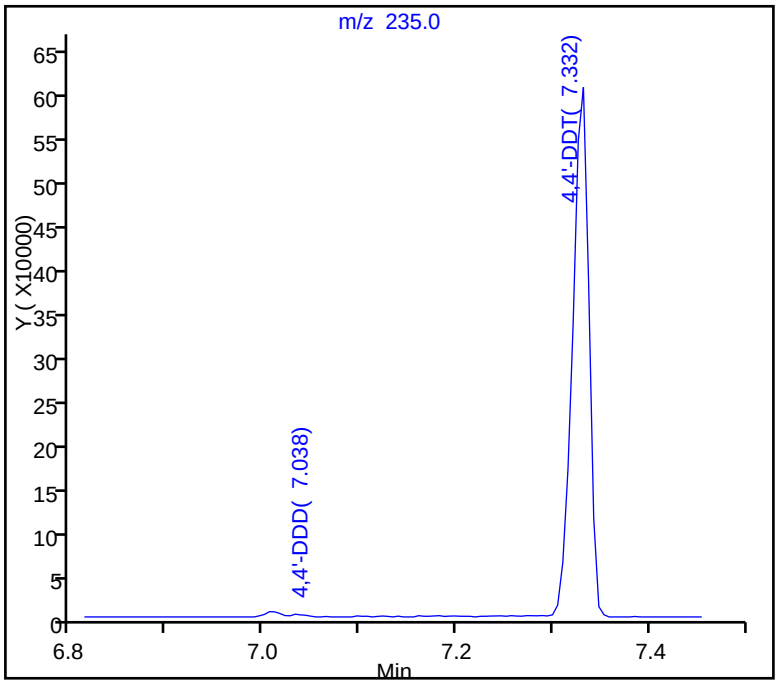


Breakdown Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171601.D
Injection Date: 17-May-2016 07:41:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL

208 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

208 4,4'-DDT, Area = 709641
206 4,4'-DDE, Area = 0
207 4,4'-DDD, Area = 3068

%Breakdown: 0.43%, Max Limit: 20.00%
Passed

Peak Tailing Report

TestAmerica Houston

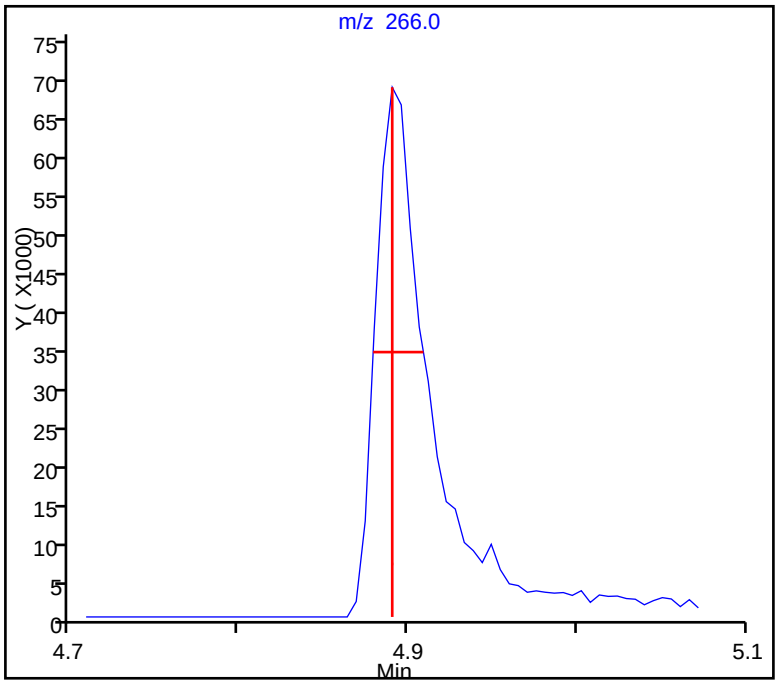
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171601.D
Injection Date: 17-May-2016 07:41:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL

203 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.000 (min.)
Front Width = 0.000 (min.)

Tailing Factor = 0.0, Max. Tailing < 5.00
Passed



Peak Tailing Report

TestAmerica Houston

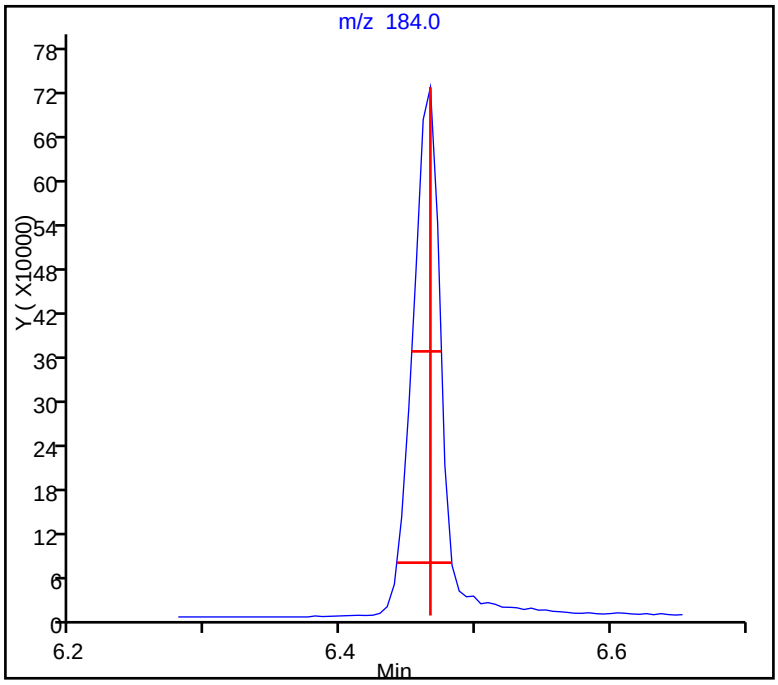
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171601.D
Injection Date: 17-May-2016 07:41:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL

205 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.016 (min.)
Front Width = 0.025 (min.)

Tailing Factor = 0.6, Max. Tailing < 3.00
Passed



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171611.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 17-May-2016 11:30:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Misc. Info.: 600-0012101-001
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 14:30:38 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: patelk Date: 17-May-2016 11:46:34

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
203 Pentachlorophenol_T	266	4.890	4.890	0.000	0	161611	NR	NR	
204 DFTPP									
205 Benzidine_T	184	6.460	6.460	0.000	0	1200035	NR	NR	
206 4,4'-DDE	246		6.972				ND	ND	
207 4,4'-DDD	235	7.032	7.032	0.000	83	5057	NR	NR	
208 4,4'-DDT	235	7.326	7.326	0.000	0	887415	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
ND - Not Detected or Marked ND

Reagents:

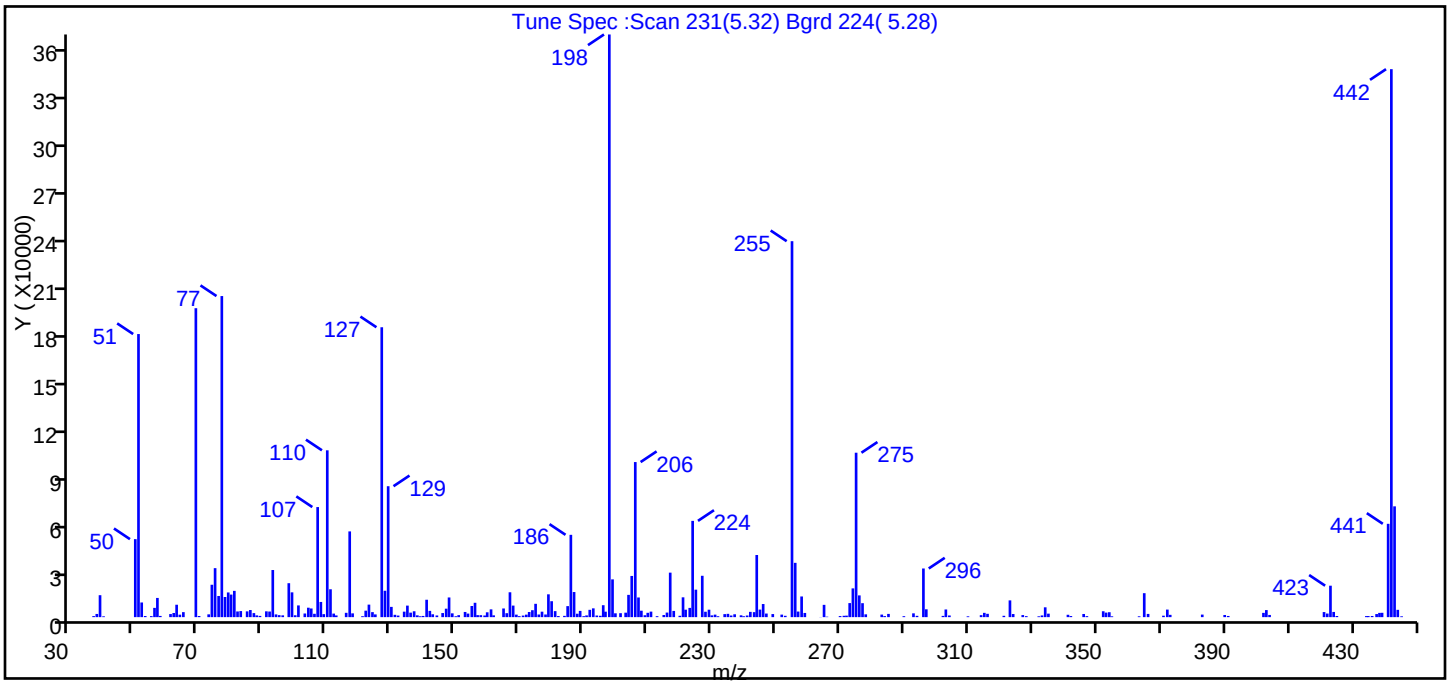
SV_DFTPPTune_00032 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171611.D
Injection Date: 17-May-2016 11:30:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL
Tune Method: DFTPP Method 8270

204 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	48.6
68	<2% of mass 69	0.0 (0.0)
69	Present	53.0
70	<2% of mass 69	0.2 (0.4)
127	40-60% of mass 198	49.8
197	<1% of mass 198	0.9
199	5-9% of mass 198	6.5
275	10-30% of mass 198	28.2
365	>1% of mass 198	4.1
441	Present but less than mass 443	16.0 (84.2)
442	>40% of mass 198	94.0
443	17-23% of mass 442	19.0 (20.2)

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171611.D\8270C_9.rslt\spectra.d
Injection Date: 17-May-2016 11:30:30
Spectrum: Tune Spec :Scan 231(5.32) Bgrd 224(5.28)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 252

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.10	652	125.00	1704	195.20	849	276.00	13519
38.10	1987	127.00	180224	196.10	7423	277.00	8679
39.10	13645	128.00	16408	196.80	3394	278.00	1749
40.20	509	129.00	81400	198.00	362240	283.00	1590
50.10	48488	130.00	6376	199.00	23488	283.90	658
51.10	176000	131.10	1447	199.90	2386	285.10	2017
52.10	9118	132.10	980	201.50	2464	289.90	587
53.20	699	134.00	3416	203.10	2772	292.90	2365
55.10	638	135.00	7171	204.00	13849	294.00	825
56.10	5765	136.00	2793	205.00	25608	296.00	30248
57.00	11937	137.10	3651	206.10	96416	296.90	4883
57.90	758	138.10	1120	207.10	12228	302.10	782
61.10	1922	139.00	542	208.00	4004	303.00	4771
62.10	2576	139.90	749	209.10	1186	304.10	1034
63.00	7709	141.00	10815	210.00	2695	309.90	506
64.00	1535	142.00	3901	211.00	3438	314.00	1234
65.10	3114	142.90	1782	212.90	594	315.00	2671
69.00	192064	144.20	1043	215.00	1321	316.00	2071
70.00	703	146.00	2543	216.00	2842	321.10	834
73.00	1736	147.10	5260	217.00	27664	323.00	10421
74.00	20136	148.00	12233	218.10	3858	324.00	1936
75.00	30456	149.00	2364	220.00	848	327.00	1286
76.10	13154	150.10	551	221.00	12323	328.10	621
77.10	199616	151.00	1235	221.80	4636	332.00	515
78.10	12522	153.00	3222	223.10	5747	333.00	1056
79.10	15348	153.90	2212	224.00	59848	334.00	6109
80.00	14023	155.10	6929	225.00	17080	335.00	2171
81.00	16339	156.10	8924	227.00	25712	341.10	1471
82.00	3534	156.90	1257	228.00	3359	342.00	682
83.00	3774	157.90	1227	229.10	4625	346.00	1964
85.00	3598	159.10	1012	230.00	1096	347.00	617
86.00	4423	159.90	3013	231.00	1561	352.10	3665
87.10	2513	161.10	4839	231.90	562	353.00	2818

Report Date: 17-May-2016 14:30:39 Chrom Revision: 2.2 20-Apr-2016 13:59:46
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171611.D\8270C_9.rslt\spectra.d
Injection Date: 17-May-2016 11:30:30
Spectrum: Tune Spec :Scan 231(5.32) Bgrd 224(5.28)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 252

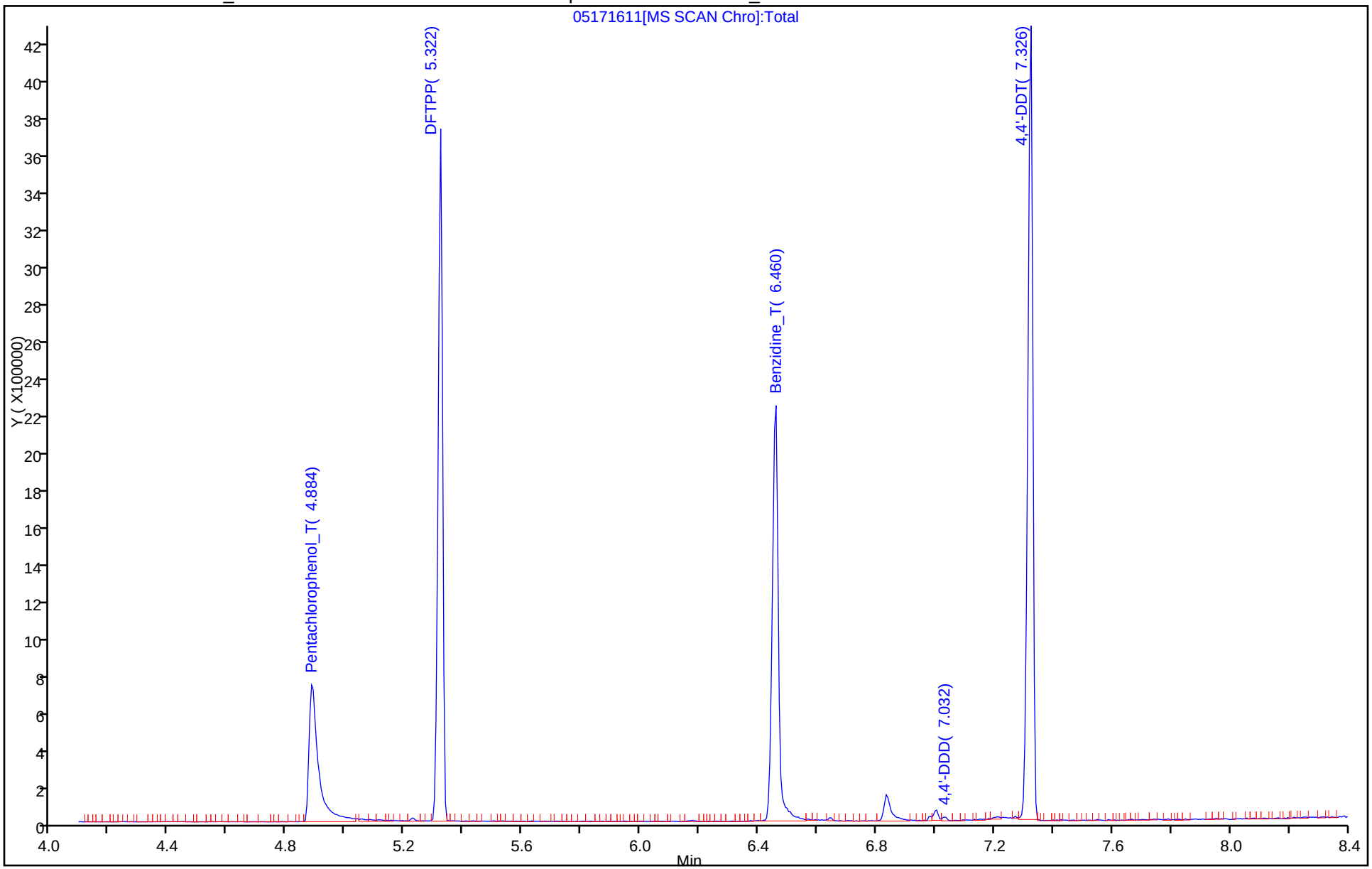
m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	1097	161.90	1113	234.00	1879	354.00	3060
89.00	771	165.00	5386	235.00	2056	354.80	508
91.00	3614	166.00	2454	236.00	1015	363.30	522
92.00	3492	167.00	15464	237.10	1782	364.90	14898
93.00	29296	168.00	7183	239.10	1132	366.10	2007
94.00	1705	169.00	1557	239.90	570	370.90	902
95.00	1252	169.90	617	241.00	1021	372.10	4701
96.10	1114	171.10	979	242.00	3279	373.00	1433
98.00	21104	172.10	1549	243.20	3109	383.00	1589
99.00	15415	173.00	3186	244.00	38632	390.00	1331
100.00	1169	174.00	4313	245.00	4686	391.10	725
101.00	7287	175.00	8287	246.00	8152	402.10	2655
103.00	2265	176.00	1637	247.00	2233	403.00	4394
104.10	5868	177.00	3401	249.00	1919	404.00	1368
105.00	5390	178.10	1648	251.80	1571	421.00	3162
106.00	2076	179.00	14188	252.90	839	422.00	2239
107.00	68440	180.00	9907	255.00	233728	423.00	19552
108.00	9441	181.10	3735	256.00	33760	424.00	3236
108.90	1866	182.10	680	256.90	3473	425.00	714
110.00	103720	184.00	796	258.00	12853	434.20	653
111.00	17328	185.00	6849	259.00	2608	434.80	679
112.00	2208	186.00	51176	263.90	93	436.00	718
112.80	1059	187.00	15613	265.00	7644	437.40	1925
115.90	2689	188.00	2124	265.90	288	438.30	2644
117.00	53304	188.90	3876	270.00	676	439.10	2701
117.90	2354	190.00	598	271.20	843	441.00	58024
121.00	586	190.90	1074	272.00	931	442.00	340672
122.00	4018	191.90	4553	273.00	8734	443.00	68880
123.00	7784	193.00	5465	274.00	17880	444.00	4544
124.10	3112	194.10	1010	275.00	102224	445.20	510

Report Date: 17-May-2016 14:30:39 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171611.D

Injection Date:	17-May-2016 11:30:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	DFTPP			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		

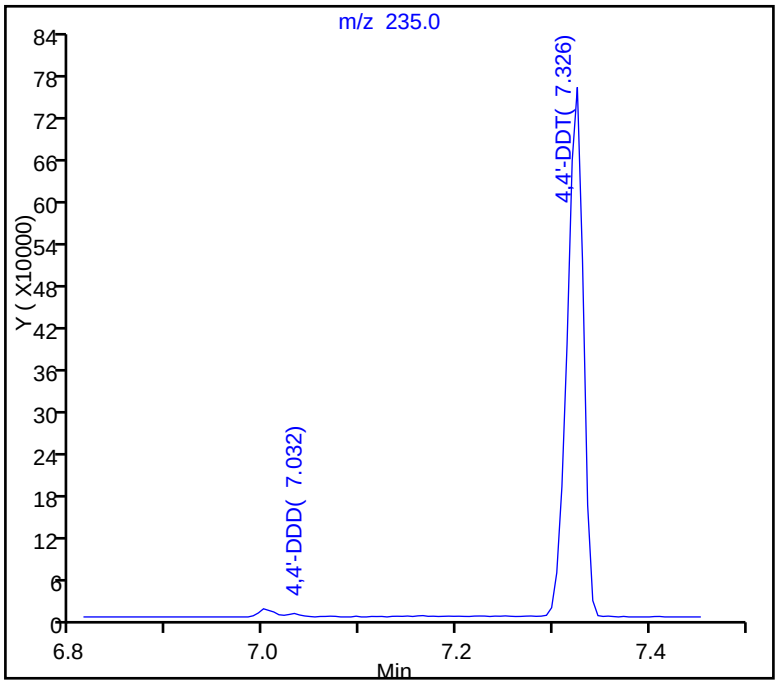


Breakdown Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171611.D
Injection Date: 17-May-2016 11:30:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL

208 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

208 4,4'-DDT, Area = 887415
206 4,4'-DDE, Area = 0
207 4,4'-DDD, Area = 5057

%Breakdown: 0.57%, Max Limit: 20.00%
Passed

Peak Tailing Report

TestAmerica Houston

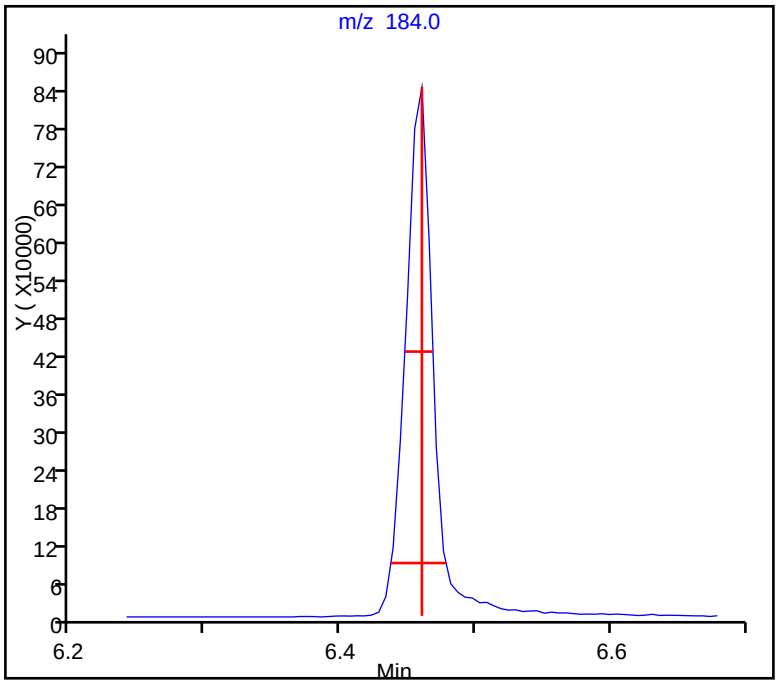
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171611.D
Injection Date: 17-May-2016 11:30:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL

205 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.018 (min.)
Front Width = 0.023 (min.)

Tailing Factor = 0.8, Max. Tailing < 3.00
Passed



Peak Tailing Report

TestAmerica Houston

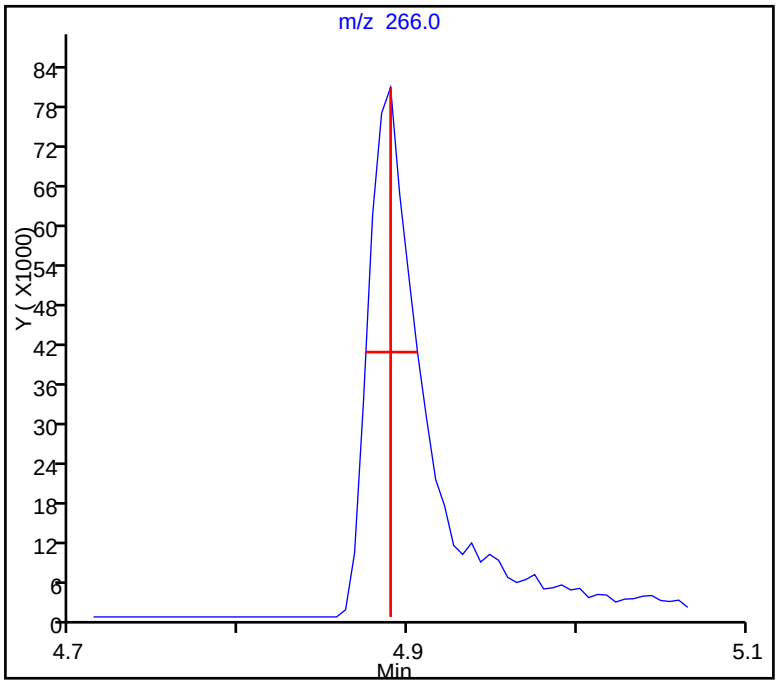
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171611.D
Injection Date: 17-May-2016 11:30:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 8270C_9 Limit Group: SV - 8270C_8270CLL

203 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.000 (min.)
Front Width = 0.000 (min.)

Tailing Factor = 0.0, Max. Tailing < 5.00
Passed



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191602.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 19-May-2016 06:38:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Misc. Info.: 600-0012123-001
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 09:49:32 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 07:53:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
190 Pentachlorophenol_T	266	4.837	4.837	0.000	0	190824	NR	NR	
191 DFTPP									
192 Benzidine_T	184	6.407	6.407	0.000	0	1548295	NR	NR	
193 4,4'-DDE	246		6.833				ND	ND	
194 4,4'-DDD	235	6.984	6.984	0.000	82	5983	NR	NR	
196 4,4'-DDT	235	7.273	7.273	0.000	0	942367	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard
ND - Not Detected or Marked ND

Reagents:

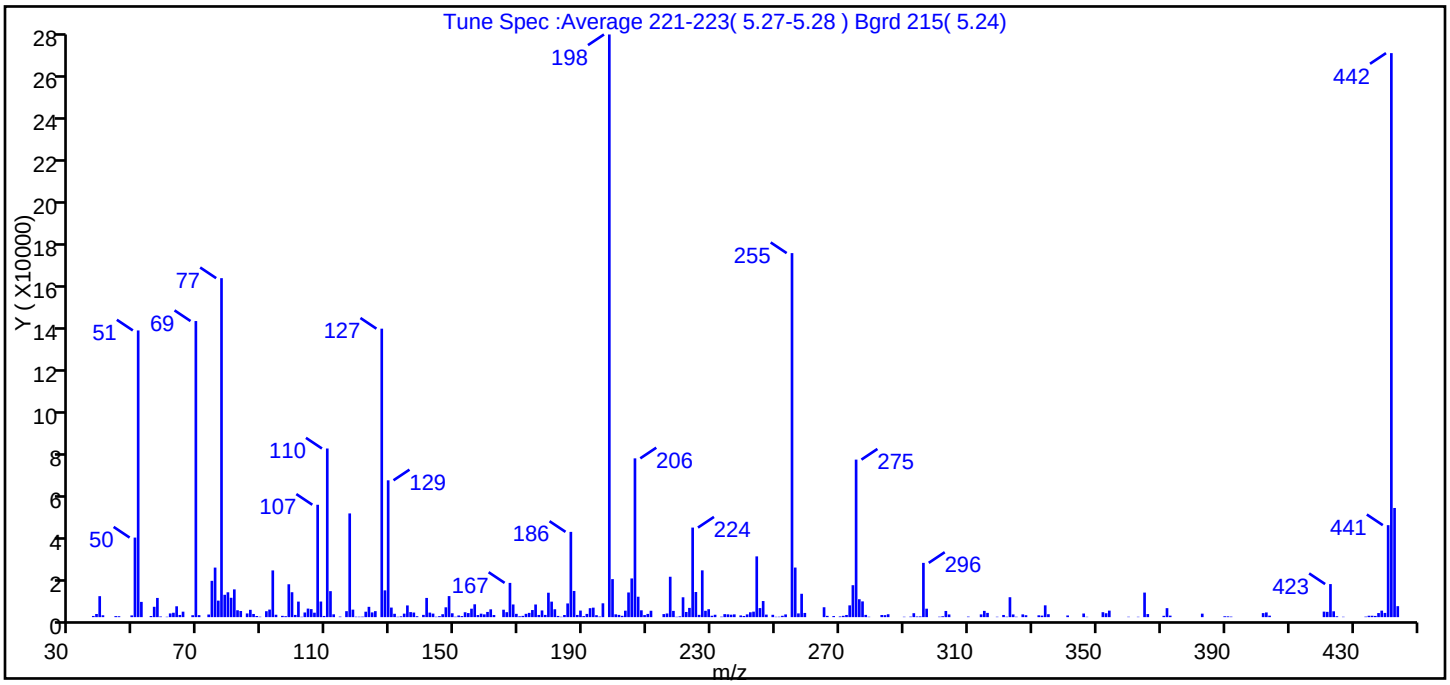
SV_DFTPPTune_00032 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191602.D
Injection Date: 19-May-2016 06:38:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270LVI_9 Limit Group: SV - 8270C_8270CLL
Tune Method: DFTPP Method 8270

191 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	Base peak, 100% relative abundance	100.0
51	30-60% of mass 198	49.2
68	<2% of mass 69	0.3 (0.6)
69	Present	50.8
70	<2% of mass 69	0.3 (0.7)
127	40-60% of mass 198	49.5
197	<1% of mass 198	0.0
199	5-9% of mass 198	6.5
275	10-30% of mass 198	27.0
365	>1% of mass 198	4.2
441	Present but less than mass 443	15.8 (84.3)
442	>40% of mass 198	96.8
443	17-23% of mass 442	18.7 (19.4)

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191602.D\8270LVI_9.rslt\spectra.d
Injection Date: 19-May-2016 06:38:30
Spectrum: Tune Spec :Average 221-223(5.27-5.28) Bgrd 215(5.24)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 273

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	560	124.00	2228	198.00	273920	284.00	944
38.00	1481	125.00	2817	199.00	17880	285.00	1359
39.00	9867	127.00	135616	200.00	1331	290.00	179
40.00	878	128.00	12598	201.00	1053	292.00	238
44.00	489	129.00	64328	202.00	624	293.00	1856
45.00	428	130.00	4504	203.00	3035	294.00	293
49.00	810	131.00	1578	204.00	11601	295.00	327
50.00	37400	132.00	191	205.00	18192	296.00	25512
51.00	134784	133.00	375	206.00	74648	297.00	3974
52.00	7173	134.00	1642	207.00	9591	301.00	210
55.00	535	135.00	5508	208.00	3209	302.00	416
56.00	4865	136.00	2374	209.00	977	303.00	2905
57.00	9028	137.00	2163	210.00	1519	304.00	1260
58.00	302	138.00	423	211.00	3009	310.00	251
60.00	175	140.00	1062	215.00	1443	314.00	1294
61.00	1748	141.00	9032	216.00	1720	315.00	2950
62.00	2062	142.00	2129	217.00	18992	316.00	1996
63.00	5108	143.00	1666	218.00	2934	319.00	184
64.00	1027	144.00	192	219.00	167	321.00	1022
65.00	2578	145.00	471	220.00	367	322.00	204
68.00	900	146.00	1379	221.00	9341	323.00	9366
69.00	139200	147.00	4624	222.00	2429	324.00	1278
70.00	935	148.00	9894	223.00	4345	325.00	191
73.00	1229	149.00	1819	224.00	42104	327.00	1306
74.00	17072	150.00	198	225.00	11812	328.00	899
75.00	23296	151.00	789	226.00	1069	332.00	867
76.00	7766	152.00	501	227.00	21992	333.00	719
77.00	159360	153.00	2297	228.00	2981	334.00	5550
78.00	10507	154.00	1911	229.00	3730	335.00	1381
79.00	11688	155.00	3973	230.00	656	341.00	789
80.00	9108	156.00	6041	231.00	1122	346.00	1706
81.00	13051	157.00	989	233.00	226	347.00	169
82.00	3243	158.00	1631	234.00	1414	352.00	2328

Report Date: 19-May-2016 09:49:33 Chrom Revision: 2.2 20-Apr-2016 13:59:46
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191602.D\8270LVI_9.rslt\spectra.d
Injection Date: 19-May-2016 06:38:30
Spectrum: Tune Spec :Average 221-223(5.27-5.28) Bgrd 215(5.24)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 273

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	2894	159.00	1305	235.00	1316	353.00	1840
85.00	1737	160.00	2447	236.00	1151	354.00	3060
86.00	3444	161.00	3676	237.00	1303	360.00	181
87.00	1493	162.00	991	239.00	803	363.00	170
88.00	533	165.00	3498	240.00	549	365.00	11544
89.00	204	166.00	2331	241.00	1298	366.00	1449
91.00	2795	167.00	16101	242.00	2287	371.00	627
92.00	3555	168.00	5961	243.00	2579	372.00	4229
93.00	21968	169.00	1554	244.00	28568	373.00	709
94.00	1130	170.00	397	245.00	4256	383.00	1642
96.00	605	171.00	603	246.00	7572	390.00	413
97.00	440	172.00	1563	247.00	1193	391.00	369
98.00	15457	173.00	2009	249.00	1102	392.00	245
99.00	11715	174.00	3345	250.00	167	402.00	1898
100.00	1042	175.00	5949	251.00	201	403.00	2217
101.00	7308	176.00	1025	252.00	638	404.00	707
102.00	170	177.00	3157	253.00	1285	421.00	2601
103.00	2189	178.00	1040	255.00	171136	422.00	2487
104.00	4020	179.00	11480	256.00	23312	423.00	15546
105.00	3771	180.00	7289	257.00	1755	424.00	2749
106.00	2089	181.00	3706	258.00	10986	425.00	403
107.00	52832	182.00	568	259.00	1976	427.00	173
108.00	7340	183.00	171	265.00	4653	434.00	240
109.00	557	184.00	1006	266.00	600	435.00	657
110.00	79280	185.00	6447	268.00	508	436.00	655
111.00	12221	186.00	40088	270.00	330	437.00	571
112.00	1330	187.00	12309	271.00	635	438.00	1923
114.00	262	188.00	1034	272.00	1024	439.00	3068
116.00	2812	189.00	3086	273.00	5539	440.00	1980
117.00	48760	190.00	488	274.00	15020	441.00	43240
118.00	3528	191.00	1518	275.00	74056	442.00	265152
119.00	209	192.00	4214	276.00	8425	443.00	51320
120.00	203	193.00	4468	277.00	7406	444.00	5162
121.00	239	194.00	917	278.00	1064		

Report Date: 19-May-2016 09:49:34 Chrom Revision: 2.2 20-Apr-2016 13:59:46
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191602.D\8270LVI_9.rslt\spectra.d
Injection Date: 19-May-2016 06:38:30
Spectrum: Tune Spec :Average 221-223(5.27-5.28) Bgrd 215(5.24)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 273

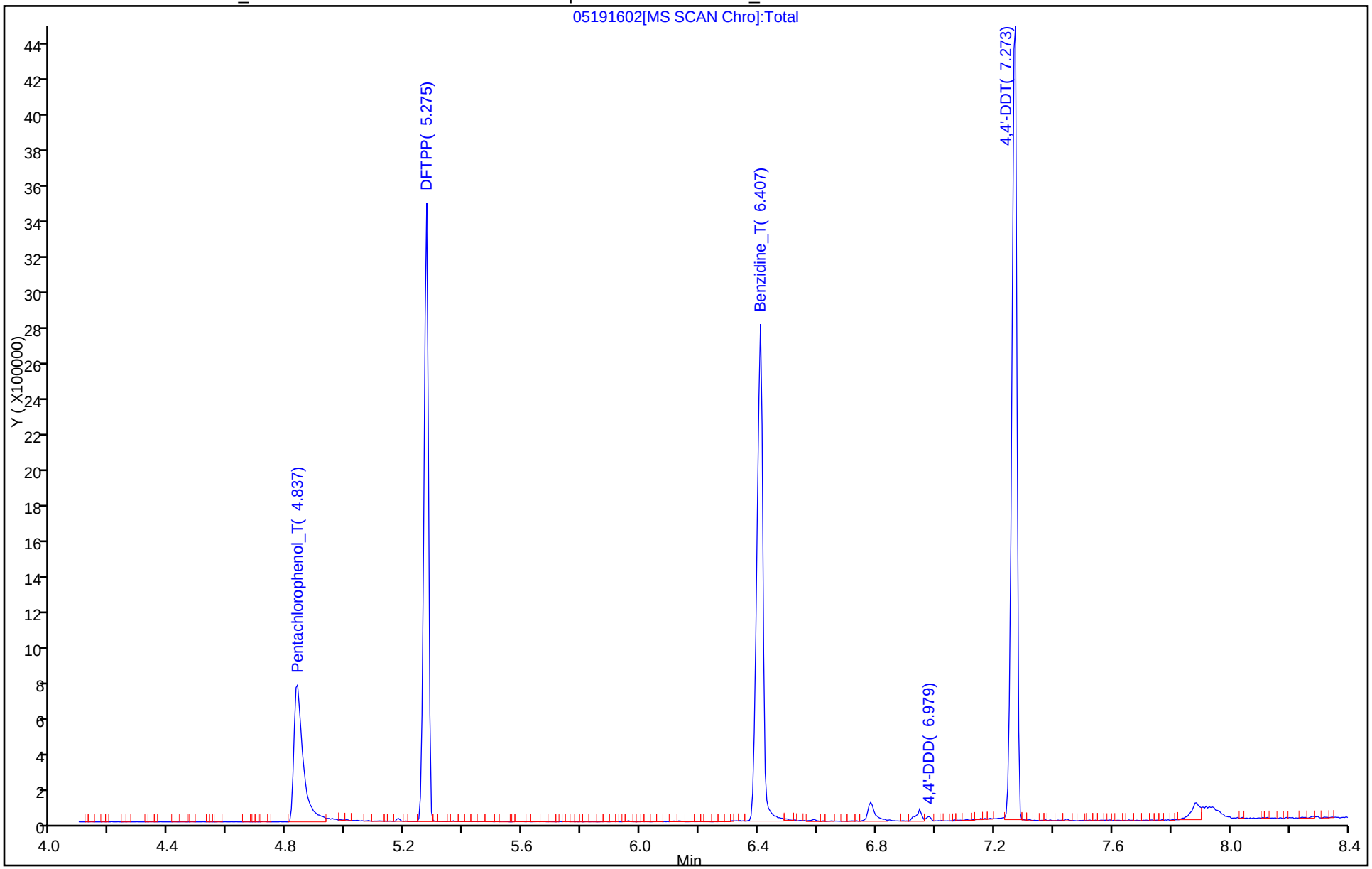
m/z	Y	m/z	Y	m/z	Y	m/z	Y
122.00	2556	195.00	279	279.00	184		
123.00	4848	196.00	6507	283.00	1003		

Report Date: 19-May-2016 09:49:34 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191602.D

Injection Date:	19-May-2016 06:38:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	DFTPP			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		

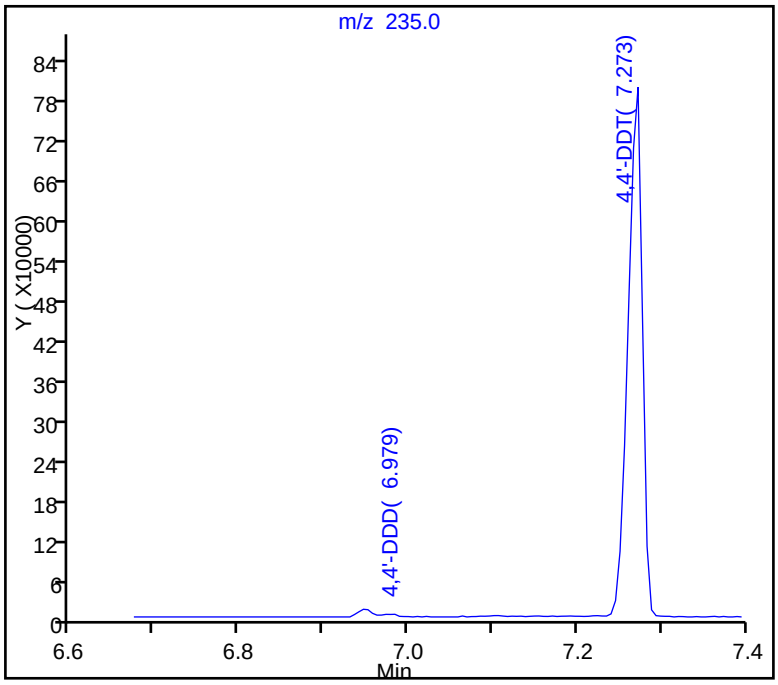


Breakdown Report

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191602.D
Injection Date: 19-May-2016 06:38:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270LVI_9 Limit Group: SV - 8270C_8270CLL

196 4,4'-DDT, Detector: MS SCAN



SW-846 Method

%Breakdown =
(Area Breakdown Cpnds/
Total Area Breakdown Cpnds) * 100

196 4,4'-DDT, Area = 942367
193 4,4'-DDE, Area = 0
194 4,4'-DDD, Area = 5983

%Breakdown: 0.63%, Max Limit: 20.00%
Passed

Peak Tailing Report

TestAmerica Houston

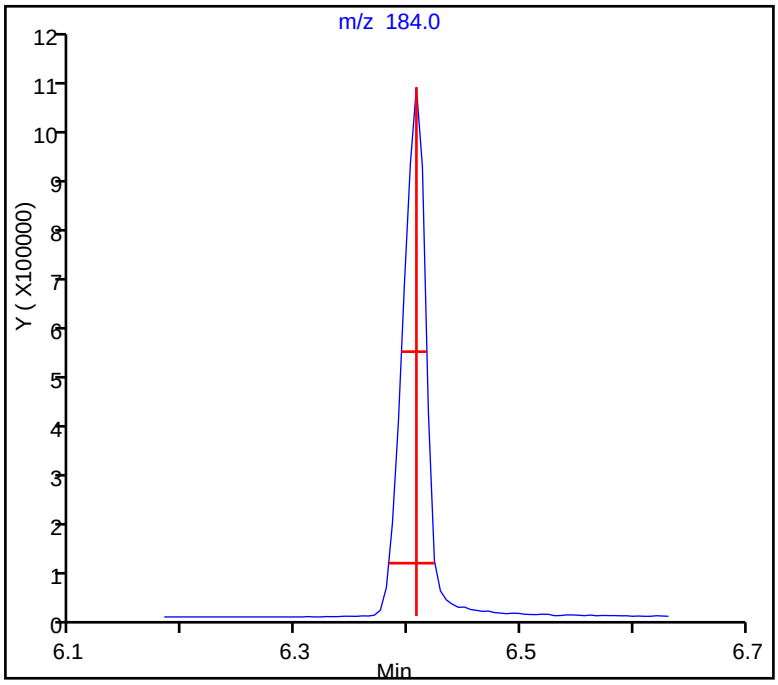
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191602.D
Injection Date: 19-May-2016 06:38:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270LVI_9 Limit Group: SV - 8270C_8270CLL

192 Benzidine_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.016 (min.)
Front Width = 0.025 (min.)

Tailing Factor = 0.7, Max. Tailing < 3.00
Passed



Peak Tailing Report

TestAmerica Houston

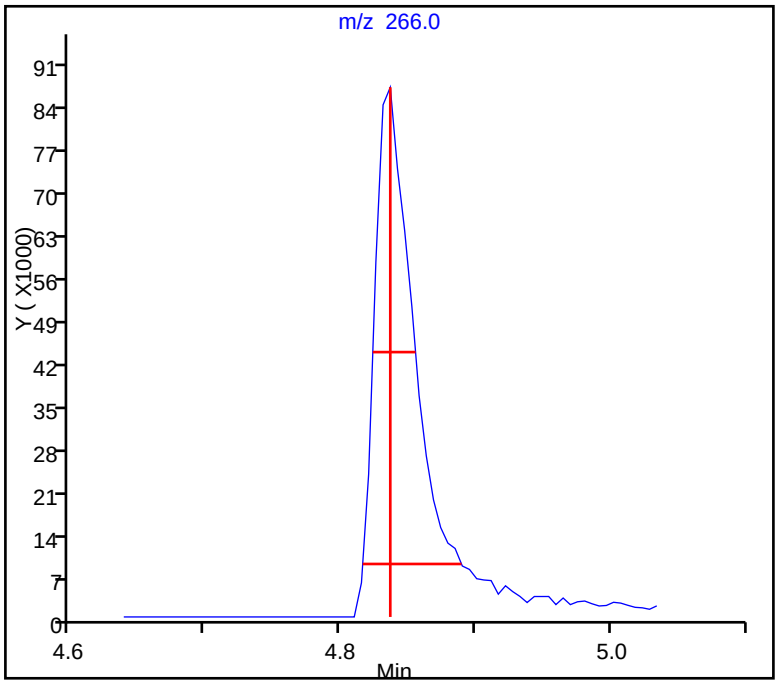
Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191602.D
Injection Date: 19-May-2016 06:38:30 Instrument ID: CHSVMS09
Lims ID: DFTPP
Client ID:
Operator ID: KP ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: 8270LVI_9 Limit Group: SV - 8270C_8270CLL

190 Pentachlorophenol_T, Detector: MS SCAN

Peak Tailing Factor =
BackWidth/FrontWidth @ 10% Peak Height

Back Width = 0.053 (min.)
Front Width = 0.020 (min.)

Tailing Factor = 2.6, Max. Tailing < 5.00
Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 600-188525/1-A

Matrix: Water | Lab File ID: 05171618.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/14/2016 09:18

Sample wt/vol: 1000(mL) | Date Analyzed: 05/17/2016 14:08

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188677 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.00178	U	0.0100	0.00178
121-14-2	2,4-Dinitrotoluene	0.00263	U	0.0100	0.00263
95-95-4	2,4,5-Trichlorophenol	0.00271	U	0.0100	0.00271
88-06-2	2,4,6-Trichlorophenol	0.00259	U	0.0100	0.00259
95-48-7	2-Methylphenol	0.00181	U	0.0100	0.00181
15831-10-4	3 & 4 Methylphenol	0.00188	U	0.0200	0.00188
118-74-1	Hexachlorobenzene	0.00259	U	0.0100	0.00259
87-68-3	Hexachlorobutadiene	0.00212	U	0.0100	0.00212
67-72-1	Hexachloroethane	0.00220	U	0.0100	0.00220
98-95-3	Nitrobenzene	0.00248	U	0.0100	0.00248
87-86-5	Pentachlorophenol	0.00462	U	0.0500	0.00462
110-86-1	Pyridine	0.00216	U	0.0100	0.00216

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	86		35-130
367-12-4	2-Fluorophenol	89		10-130
321-60-8	2-Fluorobiphenyl	83		41-130
118-79-6	2,4,6-Tribromophenol	89		12-138
4165-62-2	Phenol-d5	72		10-130
1718-51-0	Terphenyl-d14	96		43-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171618.D
Lims ID: MB 600-188525/1-A
Client ID:
Sample Type: MB
Inject. Date: 17-May-2016 14:08:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: mb 600-188525/1-a
Misc. Info.: 600-0012101-008
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 20:10:03 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: patelk Date: 17-May-2016 14:30:28

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 N-Nitrosodimethylamine	74		1.677					ND	
	2 Pyridine	79		1.698					ND	
	3 Triethyl amine	86		2.156					ND	
	4 2-Picoline	93		2.670					ND	
	5 N-Nitrosomethylethylamine	88		2.948					ND	
	6 Methyl methanesulfonate	80		3.535					ND	
$	7 2-Fluorophenol	112	3.976	3.979	-0.003	93	229285	50.0	44.3	
	8 N-Nitrosodiethylamine	102		4.053					ND	
	9 Acrylamide	71		4.059					ND	
	10 Ethyl methanesulfonate	79		4.465					ND	
	11 Benzaldehyde	77		4.753					ND	
	12 Phenylmercaptan	110		4.843					ND	
	13 Aniline	93		4.898					ND	
	14 Pentachloroethane	167		4.903					ND	
	15 Bis(2-chloroethyl)ether	93		4.968					ND	
$	16 Phenol-d5	99	5.055	5.048	0.007	67	305043	50.0	36.0	
	18 2-Chlorophenol	128		5.058					ND	
	17 Phenol	94		5.064					ND	
	19 n-Decane	57		5.085					ND	
	20 1,3-Dichlorobenzene	146		5.133					ND	
*	21 1,4-Dichlorobenzene-d4	152	5.183	5.186	-0.003	86	120515	40.0	40.0	
	22 1,4-Dichlorobenzene	146		5.203					ND	
	24 1,2-Dichlorobenzene	146		5.347					ND	
	23 Dicyclopentadiene	66		5.356					ND	
	25 Benzyl alcohol	108		5.400					ND	
	26 Indene	115		5.427					ND	
	27 2,2'-oxybis[1-chloropropan	45		5.486					ND	
	28 2-Methylphenol	108		5.577					ND	
	29 N-Nitrosopyrrolidine	100		5.581					ND	
	30 Acetophenone	105		5.593					ND	
	31 N-Nitrosomorpholine	56		5.613					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 N-Nitrosodi-n-propylamine	70		5.625					ND	
33 2-Toluidine	106		5.629					ND	
34 Hexachloroethane	117		5.651					ND	
35 4-Methylbenzenamine	106		5.692					ND	
$ 36 Nitrobenzene-d5	82	5.712	5.721	-0.009	93	387433	50.0	43.1	
37 3 & 4 Methylphenol	108		5.721					ND	
39 n,n'-Dimethylaniline	120		5.736					ND	
38 Nitrobenzene	77		5.737					ND	
40 N-Nitrosopiperidine	55		5.864					ND	
41 2,6-Dimethylphenol	122		5.881					ND	
42 Isophorone	82		5.967					ND	
43 2-Nitrophenol	139		6.020					ND	
44 o,o',o''-Triethylphosphoro	65		6.137					ND	
45 2,4-Dimethylphenol	107		6.143					ND	
46 Bis(2-chloroethoxy)methane	93		6.164					ND	
47 o-Nitrotoluene	120		6.237					ND	
48 1,2,4-Trichlorobenzene	180		6.292					ND	
49 2,4-Dichlorophenol	162		6.298					ND	
* 50 Naphthalene-d8	136	6.326	6.329	-0.003	96	506627	40.0	40.0	
51 Naphthalene	128		6.351					ND	
135 Adiponitrile	41		6.368					ND	
52 Benzoic acid	122		6.383					ND	
53 Hexachloropropene	213		6.431					ND	
54 4-Chloroaniline	127		6.437					ND	
56 2,6-Dichlorophenol	162		6.447					ND	
55 m-Nitrotoluene	91		6.456					ND	
57 Hexachlorobutadiene	225		6.474					ND	
70 Sulfolane	41		6.502					ND	
58 p-Nitrotoluene	91		6.563					ND	
59 Quinoline	129		6.639					ND	
60 N-Nitrosodi-n-butylamine	84		6.719					ND	
61 p-Phenylene diamine	108		6.740					ND	
62 Caprolactam	55		6.746					ND	
63 Safrole, Total	162		6.879					ND	
64 4-Chloro-3-methylphenol	107		6.923					ND	
65 2-Methylnaphthalene	142		6.939					ND	
66 1,3-phenylenediamine	108		6.953					ND	
67 1-Methylnaphthalene	142		7.019					ND	
68 Hexachlorocyclopentadiene	237		7.083					ND	
69 1,2,4,5-Tetrachlorobenzene	216		7.088					ND	
71 Isosafrole Peak 1	162		7.120					ND	
72 2,4,6-Trichlorophenol	196		7.217					ND	
202 EPTC	43		7.217					ND	
$ 73 2-Fluorobiphenyl	172	7.250	7.254	-0.004	98	414171	50.0	41.6	
74 2,4,5-Trichlorophenol	196		7.291					ND	
75 Isosafrole Peak 2	162		7.307					ND	
76 1,1'-Biphenyl	154		7.334					ND	
77 2-Chloronaphthalene	162		7.345					ND	
78 1-Chloronaphthalene	162		7.355					ND	
81 2,4-Toluene diamine	121		7.391					ND	
80 Toluene diamine (2,4- + 2,	122		7.391					ND	
79 2,6-Diaminotoluene	122		7.391					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
82 Phenyl ether	170		7.419					ND	
83 2-Nitroaniline	65		7.457					ND	
84 1,4-Naphthoquinone	158		7.494					ND	
85 1,4-Dinitrobenzene	168		7.558					ND	
86 Dimethyl phthalate	163		7.612					ND	
87 1,3-Dinitrobenzene	168		7.644					ND	
88 2,6-Dinitrotoluene	165		7.655					ND	
89 Acenaphthylene	152		7.676					ND	
90 1,2-Dinitrobenzene	168		7.703					ND	
* 91 Acenaphthene-d10	164	7.790	7.793	-0.003	91	296131	40.0	40.0	
92 3-Nitroaniline	138		7.804					ND	
93 Acenaphthene	153		7.826					ND	
94 2,4-Dinitrophenol	184		7.895					ND	
95 Pentachlorobenzene	250		7.937					ND	
96 Dibenzofuran	168		7.970					ND	
97 2,4-Dinitrotoluene	165		7.986					ND	
98 1-Naphthylamine	143		8.033					ND	
196 Molinate	126		8.056					ND	
99 2,3,5,6-Tetrachlorophenol	232		8.076					ND	
100 4-Nitrophenol	109		8.077					ND	
102 2-Naphthylamine	143		8.103					ND	
101 2,3,4,6-Tetrachlorophenol	232		8.109					ND	
103 Diethyl phthalate	149		8.194					ND	
104 Hexadecane	57		8.200					ND	
105 Thionazin	97		8.236					ND	
107 4-Chlorophenyl phenyl ethe	204		8.248					ND	
106 Fluorene	166		8.248					ND	
108 N-Nitro-o-toluidine	152		8.290					ND	
109 4-Nitroaniline	138		8.328					ND	
110 4,6-Dinitro-2-methylphenol	198		8.338					ND	
112 Diphenylamine	169		8.365					ND	
111 N-Nitrosodiphenylamine	169		8.365					ND	
113 1,2-Diphenylhydrazine	77		8.381					ND	
114 Azobenzene	77		8.381					ND	
$ 115 2,4,6-Tribromophenol	330	8.452	8.456	-0.004	89	73470	50.0	44.5	
116 Sulfotepp	322		8.498					ND	
117 Diallate Peak 1	86		8.589					ND	
118 Phorate	75		8.594					ND	
119 1,3,5-Trinitrobenzene	75		8.632					ND	
120 4-Bromophenyl phenyl ether	248		8.648					ND	
121 Diallate Peak 2	86		8.653					ND	
122 Phenacetin	108		8.664					ND	
123 Hexachlorobenzene	284		8.707					ND	
124 Dimethoate	87		8.760					ND	
125 Atrazine	200		8.819					ND	
126 4-Aminobiphenyl	169		8.872					ND	
127 Pentachloronitrobenzene	237		8.877					ND	
128 Pentachlorophenol	266		8.899					ND	
130 Pronamide	173		8.947					ND	
129 n-Octadecane	57		8.953					ND	
* 131 Phenanthrene-d10	188	9.002	9.006	-0.004	96	450284	40.0	40.0	
132 Disulfoton	88		9.022					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
133 Phenanthrene	178		9.028					ND	
134 Dinoseb	211		9.038					ND	
136 Anthracene	178		9.070					ND	
137 Carbazole	167		9.220					ND	
138 Methyl parathion	109		9.331					ND	
139 Di-n-butyl phthalate	149		9.508					ND	
140 Ethyl Parathion	97		9.652					ND	
142 4-Nitroquinoline-1-oxide	190		9.673					ND	
141 Famphur	218		9.738					ND	
143 Methapyrilene	97		9.784					ND	
144 Isodrin	193		9.860					ND	
146 Fluoranthene	202		9.995					ND	
145 Toluene 2,4-diisocyanate	174		10.003					ND	
147 Benzidine	184		10.122					ND	
149 Pyrene	202		10.182					ND	
148 Toluene-2,6-Diisocyanate	174		10.251					ND	
151 Aramite Peak 1	185		10.309					ND	
150 Bisphenol-A	213		10.314					ND	
$ 152 Terphenyl-d14	244	10.322	10.315	0.007	99	471153	50.0		48.1
154 Aramite Peak 2	185		10.373					ND	
155 p-Dimethylamino azobenzene	120		10.437					ND	
153 3,4-Dichloroaniline	161		10.447					ND	
156 Chlorobenzilate	139		10.480					ND	
S 157 Isosafrole	162		10.665					ND	
158 3,3'-Dimethylbenzidine	212		10.720					ND	
159 Butyl benzyl phthalate	149		10.737					ND	
160 2-Acetylaminofluorene	181		10.961					ND	
161 4,4'-Methylene bis(2-chlor	231		11.185					ND	
162 3,3'-Dichlorobenzidine	252		11.190					ND	
* 164 Chrysene-d12	240	11.219	11.201	0.018	97	434070	40.0		40.0
163 Benzo[a]anthracene	228		11.202					ND	
165 Chrysene	228		11.239					ND	
166 Bis(2-ethylhexyl) phthalat	149		11.255					ND	
167 6-Methylchrysene	242		11.693					ND	
168 Di-n-octyl phthalate	149		11.960					ND	
169 7,12-Dimethylbenz(a)anthra	256		12.403					ND	
170 Benzo[b]fluoranthene	252		12.436					ND	
171 Benzo[k]fluoranthene	252		12.479					ND	
172 Benzo[a]pyrene	252		12.922					ND	
* 173 Perylene-d12	264	13.020	12.996	0.024	98	396238	40.0		40.0
S 174 Diallate	86		13.359					ND	
175 3-Methylcholanthrene	268		13.546					ND	
176 Dibenz[a,h]acridine	279		14.706					ND	
177 Dibenz[a,j]acridine	279		14.877					ND	
178 Indeno[1,2,3-cd]pyrene	276		15.203					ND	
179 Dibenz(a,h)anthracene	278		15.262					ND	
180 Benzo[g,h,i]perylene	276		15.668					ND	
S 181 Aramite, Total	185		16.252					ND	
182 Kepone	272		17.717					ND	
T 183 1,4-Dioxane TIC	88		30.000					ND	
184 Methyl chrysenes (Mixed Is	1		0.000					ND	
T 185 4-Nitrobiphenyl TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
186 2,3-Dichlorophenol	1		0.000					ND	
T 187 Triethyl amine TIC	1		0.000					ND	
188 3,3'-Dimethoxybenzidine	1		0.000					ND	
189 1,2-Dibromo-3-Chloropropan	157		0.000					ND	
T 190 Sulfolane TIC	1		0.000					ND	
T 191 Dimethylformamide TIC	1		0.000					ND	
T 192 Toluene-2,6-Diisocyanate T	1		0.000					ND	
S 193 Methyl Phenols,Total	1		0.000					ND	
S 194 Total Cresols	1		0.000					ND	
S 195 Total Cresols, TCEQ Defini	1		0.000					ND	
197 Benzotrichloride	1		0.000					ND	
198 Dimethyl sulfate	1		0.000					ND	
199 Sulfuric acid, diethyl est	1		0.000					ND	
200 bis(2-chloromethyl)ether T	1		0.000					ND	
201 1-Methyl-2-pyrrilidinone	1		0.000					ND	
T 209 2,6-Diethylaniline TIC	100		30.000					ND	
T 210 1,2-Propyleneimine TIC	100		30.000					ND	
T 211 Dimethyl sulfate TIC	100		30.000					ND	
T 212 Hexachlorophene TIC	100		30.000					ND	
T 213 Acrylamide TIC	71		30.000					ND	
T 214 2,6-Dinitrophenol TIC	63		30.000					ND	
T 215 Diethyl sulfate TIC	100		30.000					ND	
T 216 Cyclohexylamine TIC	100		30.000					ND	
T 217 Dimethyl carbamoyl chlorid	100		30.000					ND	
T 218 o-Nitrotoluene TIC	100		30.000					ND	
T 219 2-Ethylhexyl acrylate TIC	100		30.000					ND	
T 220 2,4,6-Trinitrophenol TIC	229		30.000					ND	
T 221 1,2 Epoxybutane TIC	100		30.000					ND	
T 222 Benzotrichloride TIC	100		30.000					ND	
T 223 Methomyl TIC	100		30.000					ND	
T 224 2-Amino-4,6-dinitrophenol	199		30.000					ND	
T 225 1-Methyl-2-pyrrilidinone T	100		30.000					ND	
T 226 m-Nitrotoluene TIC	100		30.000					ND	
T 227 Chloramben TIC	100		30.000					ND	
T 228 Cyclohexylaniline TIC	100		30.000					ND	
T 229 p-Nitrotoluene TIC	100		30.000					ND	
T 230 bis(chloromethyl)ether TIC	79		30.000					ND	
T 231 p-toluidine TIC	100		30.000					ND	
T 232 Carbonyl sulfide TIC	100		30.000					ND	
T 233 2-Methoxyphenol TIC	100		30.000					ND	
T 234 Aziridine TIC	100		30.000					ND	

Reagents:

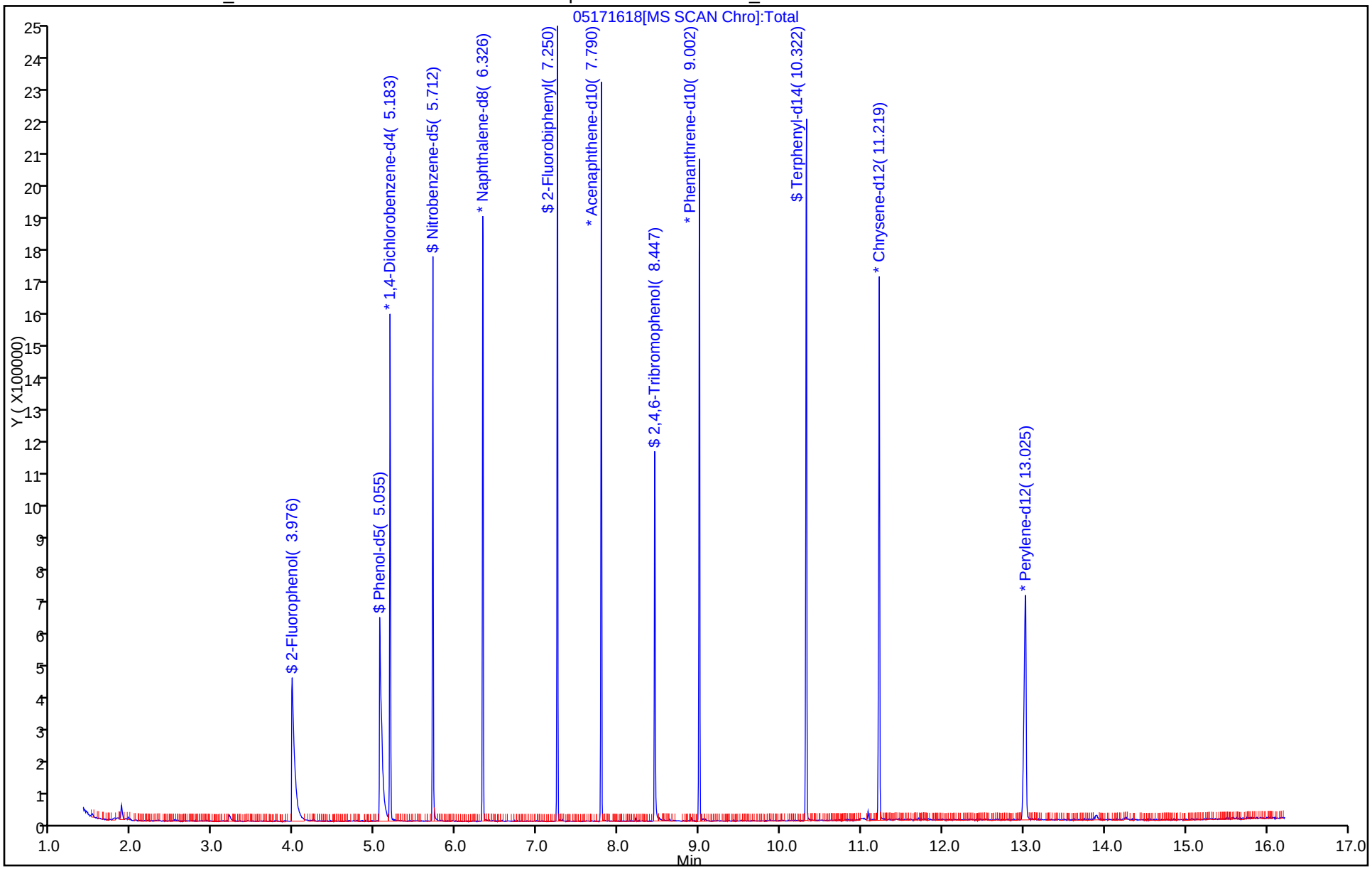
SV_8270ISTD_00009 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 18-May-2016 09:25:32 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171618.D

Injection Date:	17-May-2016 14:08:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	MB 600-188525/1-A			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 600-188545/1-A

Matrix: Solid | Lab File ID: 05191615.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C LVI | Date Extracted: 05/16/2016 06:26

Sample wt/vol: 200(mL) | Date Analyzed: 05/19/2016 11:42

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188802 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.00243	U	0.0125	0.00243
121-14-2	2,4-Dinitrotoluene	0.00264	U	0.0125	0.00264
95-95-4	2,4,5-Trichlorophenol	0.00525	U	0.0125	0.00525
88-06-2	2,4,6-Trichlorophenol	0.00415	U	0.0125	0.00415
95-48-7	2-Methylphenol	0.00178	U	0.0125	0.00178
15831-10-4	3 & 4 Methylphenol	0.00169	U	0.0125	0.00169
118-74-1	Hexachlorobenzene	0.00410	U	0.0125	0.00410
87-68-3	Hexachlorobutadiene	0.00321	U	0.0125	0.00321
67-72-1	Hexachloroethane	0.00411	U	0.0125	0.00411
98-95-3	Nitrobenzene	0.00324	U	0.0125	0.00324
87-86-5	Pentachlorophenol	0.00394	U	0.0125	0.00394
110-86-1	Pyridine	0.00270	U	0.0125	0.00270

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	61		24-150
367-12-4	2-Fluorophenol	60		10-130
321-60-8	2-Fluorobiphenyl	62		38-133
118-79-6	2,4,6-Tribromophenol	65		19-150
4165-62-2	Phenol-d5 (Surr)	57		10-130
1718-51-0	Terphenyl-d14	73		35-150

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191615.D
Lims ID: MB 600-188545/1-A
Client ID:
Sample Type: MB
Inject. Date: 19-May-2016 11:42:30 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: mb 600-188545/1-a
Misc. Info.: 600-0012123-014
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 12:10:55 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 12:10:46

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74		1.961					ND	
2 Pyridine	79		1.983					ND	
3 2-Picoline	93		3.931					ND	
$ 7 2-Fluorophenol	112	4.034	4.023	0.011	93	130273	10.0	6.03	
4 N-Nitrosomethylethylamine	88		4.070					ND	
6 Acrylamide	71		4.202					ND	
5 Methyl methanesulfonate	80		4.406					ND	
8 N-Nitrosodiethylamine	102		4.812					ND	
12 Aniline	93		4.884					ND	
13 Benzaldehyde	77		4.945					ND	
16 Bis(2-chloroethyl)ether	93		4.953					ND	
$ 10 Phenol-d5	99	5.049	5.028	0.021	67	194425	10.0	5.66	
17 2-Chlorophenol	128		5.038					ND	
11 Phenol	94		5.038					ND	
18 n-Decane	57		5.071					ND	
9 Ethyl methanesulfonate	79		5.111					ND	
20 1,3-Dichlorobenzene	146		5.113					ND	
* 21 1,4-Dichlorobenzene-d4	152	5.166	5.172	-0.006	87	105699	8.00	8.00	
22 1,4-Dichlorobenzene	146		5.188					ND	
24 1,2-Dichlorobenzene	146		5.327					ND	
23 Benzyl alcohol	108		5.375					ND	
26 Indene	115		5.407					ND	
27 2,2'-oxybis[1-chloropropan	45		5.461					ND	
25 2-Methylphenol	108		5.546					ND	
15 Pentachloroethane	167		5.555					ND	
29 Acetophenone	105		5.567					ND	
31 N-Nitrosodi-n-propylamine	70		5.599					ND	
34 Hexachloroethane	117		5.626					ND	
$ 35 Nitrobenzene-d5	82	5.684	5.696	-0.012	93	218074	10.0	6.14	
30 3 & 4 Methylphenol	108		5.696					ND	
36 Nitrobenzene	77		5.712					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
39 2,6-Dimethylphenol	122		5.856					ND	
41 Isophorone	82		5.936					ND	
42 2-Nitrophenol	139		5.995					ND	
43 2,4-Dimethylphenol	107		6.112					ND	
46 Bis(2-chloroethoxy)methane	93		6.134					ND	
28 N-Nitrosopyrrolidine	100		6.137					ND	
32 N-Nitrosomorpholine	56		6.174					ND	
33 2-Toluidine	106		6.196					ND	
49 1,2,4-Trichlorobenzene	180		6.267					ND	
48 2,4-Dichlorophenol	162		6.267					ND	
* 50 Naphthalene-d8	136	6.299	6.305	-0.006	97	432087	8.00		8.00
37 n,n'-Dimethylaniline	120		6.319					ND	
51 Naphthalene	128		6.321					ND	
47 Benzoic acid	122		6.331					ND	
52 4-Chloroaniline	127		6.406					ND	
53 2,6-Dichlorophenol	162		6.417					ND	
40 N-Nitrosopiperidine	55		6.431					ND	
55 Hexachlorobutadiene	225		6.449					ND	
14 Phenylmercaptan	110		6.471					ND	
45 o,o',o''-Triethylphosphoro	65		6.682					ND	
59 Caprolactam	113		6.873					ND	
60 4-Chloro-3-methylphenol	107		6.892					ND	
62 2-Methylnaphthalene	142		6.908					ND	
63 1-Methylnaphthalene	142		6.988					ND	
54 Hexachloropropene	213		7.002					ND	
66 Hexachlorocyclopentadiene	237		7.052					ND	
65 1,2,4,5-Tetrachlorobenzene	216		7.052					ND	
69 2,4,6-Trichlorophenol	196		7.186					ND	
56 Quinoline	129		7.195					ND	
$ 72 2-Fluorobiphenyl	172	7.218	7.223	-0.005	98	242147	10.0		6.18
57 N-Nitrosodi-n-butylamine	84		7.259					ND	
58 p-Phenylene diamine	108		7.259					ND	
71 2,4,5-Trichlorophenol	196		7.261					ND	
77 1,1'-Biphenyl	154		7.298					ND	
78 2-Chloronaphthalene	162		7.309					ND	
81 2-Nitroaniline	65		7.426					ND	
61 Safrole, Total	162		7.430					ND	
84 Dimethyl phthalate	163		7.581					ND	
85 1,3-Dinitrobenzene	168		7.608					ND	
86 2,6-Dinitrotoluene	165		7.619					ND	
88 Acenaphthylene	152		7.645					ND	
87 1,2-Dinitrobenzene	168		7.667					ND	
74 Isosafrole Peak 1	162		7.670					ND	
* 90 Acenaphthene-d10	164	7.757	7.763	-0.006	92	242036	8.00		8.00
89 3-Nitroaniline	138		7.768					ND	
91 Acenaphthene	153		7.790					ND	
73 Isosafrole Peak 2	162		7.857					ND	
92 2,4-Dinitrophenol	184		7.859					ND	
79 1-Chloronaphthalene	162		7.921					ND	
96 Dibenzofuran	168		7.934					ND	
95 2,4-Dinitrotoluene	165		7.955					ND	
19 Dicyclopentadiene	66		7.961					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
80 Phenyl ether	170		7.975					ND	
82 1,4-Naphthoquinone	158		8.039					ND	
93 4-Nitrophenol	109		8.041					ND	
99 2,3,4,6-Tetrachlorophenol	232		8.073					ND	
83 1,4-Dinitrobenzene	168		8.087					ND	
101 Diethyl phthalate	149		8.158					ND	
102 Hexadecane	57		8.169					ND	
104 Fluorene	166		8.212					ND	
105 4-Chlorophenyl phenyl ethe	204		8.217					ND	
107 4-Nitroaniline	138		8.286					ND	
108 4,6-Dinitro-2-methylphenol	198		8.303					ND	
38 4-Methylbenzenamine	106		8.308					ND	
110 N-Nitrosodiphenylamine	169		8.329					ND	
109 Diphenylamine	169		8.329					ND	
112 1,2-Diphenylhydrazine	77		8.351					ND	
111 Azobenzene	77		8.351					ND	
$ 113 2,4,6-Tribromophenol	330	8.420	8.425	-0.005	83	40398	10.0	6.49	
94 Pentachlorobenzene	250		8.509					ND	
97 1-Naphthylamine	143		8.594					ND	
98 2,3,5,6-Tetrachlorophenol	232		8.605					ND	
118 4-Bromophenyl phenyl ether	248		8.612					ND	
100 2-Naphthylamine	143		8.658					ND	
122 Hexachlorobenzene	284		8.671					ND	
103 Thionazin	97		8.787					ND	
106 N-Nitro-o-toluidine	152		8.824					ND	
127 Pentachlorophenol	266		8.863					ND	
130 n-Octadecane	57		8.922					ND	
124 Atrazine	200		8.962					ND	
* 131 Phenanthrene-d10	188	8.970	8.976	-0.006	96	372462	8.00	8.00	
132 Phenanthrene	178		8.992					ND	
134 Anthracene	178		9.034					ND	
114 Sulfotepp	322		9.048					ND	
115 1,3,5-Trinitrobenzene	75		9.118					ND	
120 Diallate Peak 1	86		9.155					ND	
116 Phorate	75		9.161					ND	
117 Phenacetin	108		9.177					ND	
135 Carbazole	167		9.184					ND	
44 m-Nitrotoluene	91		9.196					ND	
119 Diallate Peak 2	86		9.225					ND	
123 Dimethoate	87		9.299					ND	
126 4-Aminobiphenyl	169		9.433					ND	
128 Pentachloronitrobenzene	237		9.454					ND	
137 Di-n-butyl phthalate	149		9.472					ND	
129 Pronamide	173		9.492					ND	
133 Disulfoton	88		9.588					ND	
125 Dinoseb	211		9.593					ND	
64 1,3-phenylenediamine	108		9.798					ND	
136 Methyl parathion	109		9.892					ND	
143 Fluoranthene	202		9.959					ND	
146 Pyrene	202		10.140					ND	
138 Ethyl Parathion	97		10.213					ND	
139 4-Nitroquinoline-1-oxide	190		10.234					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
67 Toluene-2,6-Diisocyanate	174	10.279	10.251	0.028	52	7318		NC	
144 Benzidine	184		10.276					ND	
$ 149 Terphenyl-d14	244	10.279	10.279	0.000	98	272811	10.0	7.28	
183 Toluene diamine (2,4- + 2,	122	10.279	10.318	-0.039	0	45700		NC	
68 2,4-Toluene diamine	121		10.333					ND	
70 3,4-Dichloroaniline	161		10.447					ND	
142 Isodrin	193		10.464					ND	
S 75 Isosafrole	162		10.665					ND	
76 2,6-Diaminotoluene	122		10.695					ND	
154 Butyl benzyl phthalate	149	10.685	10.696	-0.011	94	3324		0.0851	
148 Aramite Peak 1	185		10.881					ND	
150 Aramite Peak 2	185		10.945					ND	
151 p-Dimethylamino azobenzene	120		11.020					ND	
152 Chlorobenzilate	139		11.057					ND	
159 Benzo[a]anthracene	228		11.150					ND	
* 160 Chrysene-d12	240	11.149	11.161	-0.012	97	380351	8.00	8.00	
161 Chrysene	228		11.187					ND	
162 Bis(2-ethylhexyl) phthalat	149	11.187	11.203	-0.016	20	2749		0.0506	
153 3,3'-Dimethylbenzidine	212		11.324					ND	
157 3,3'-Dichlorobenzidine	252		11.356					ND	
156 2-Acetylaminofluorene	181		11.586					ND	
164 Di-n-octyl phthalate	149		11.892					ND	
158 4,4'-Methylene bis(2-chlor	231		11.901					ND	
165 Benzo[b]fluoranthene	252		12.357					ND	
167 Benzo[k]fluoranthene	252		12.400					ND	
163 6-Methylchrysene	242		12.596					ND	
168 Benzo[a]pyrene	252		12.833					ND	
* 169 Perylene-d12	264	12.907	12.923	-0.016	97	340653	8.00	8.00	
S 121 Diallate	86		13.359					ND	
140 Toluene 2,4-diisocyanate	174		13.479					ND	
166 7,12-Dimethylbenz(a)anthra	256		13.579					ND	
147 Bisphenol-A	213		13.867					ND	
172 Indeno[1,2,3-cd]pyrene	276		15.087					ND	
170 3-Methylcholanthrene	268		15.112					ND	
173 Dibenz(a,h)anthracene	278		15.156					ND	
230 Dibenz[a,j]acridine	279		15.325					ND	
141 Methapyrilene	97		15.494					ND	
174 Benzo[g,h,i]perylene	276		15.573					ND	
171 Dibenz[a,h]acridine	279		16.159					ND	
S 145 Aramite, Total	185		16.252					ND	
198 Famphur	218		17.350					ND	
155 Kepone	272		17.717					ND	
176 Triethyl amine	100		30.000					ND	
T 175 1,4-Dioxane TIC	88		30.000					ND	
177 Methyl chrysenes (Mixed Is	1		0.000					ND	
T 180 4-Nitrobiphenyl TIC	1		0.000					ND	
179 2,3-Dichlorophenol	1		0.000					ND	
T 178 Triethyl amine TIC	1		0.000					ND	
T 182 Dimethylformamide TIC	1		0.000					ND	
T 186 Sulfolane TIC	1		0.000					ND	
185 1,2-Dibromo-3-Chloropropan	157		0.000					ND	
184 3,3'-Dimethoxybenzidine	1		0.000					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
T 181 Toluene-2,6-Diisocyanate T	1		0.000					ND	
S 187 Methyl Phenols,Total	1		0.000					ND	
S 188 Total Cresols	1		0.000					ND	
S 189 Total Cresols, TCEQ Defini	1		0.000					ND	
237 Molinate	1		0.000					ND	
231 Benzotrichloride	1		0.000					ND	
232 Dimethyl sulfate	1		0.000					ND	
233 Sulfuric acid, diethyl est	1		0.000					ND	
234 bis(2-chloromethyl)ether T	1		0.000					ND	
235 1-Methyl-2-pyrrilidinone	1		0.000					ND	
236 EPTC	1		0.000					ND	
195 o-Nitrotoluene	120		8.881					ND	
197 p-Nitrotoluene	91		9.265					ND	
T 203 Aziridine TIC	100		30.000					ND	
T 202 2,6-Diethylaniline TIC	100		30.000					ND	
T 214 1,2-Propyleneimine TIC	100		30.000					ND	
T 207 Chloramben TIC	100		30.000					ND	
T 200 Hexachlorophene TIC	100		30.000					ND	
T 199 Acrylamide TIC	71		30.000					ND	
T 213 2,6-Dinitrophenol TIC	63		30.000					ND	
T 209 Diethyl sulfate TIC	100		30.000					ND	
T 212 Cyclohexylamine TIC	100		30.000					ND	
T 211 Dimethyl carbamoyl chlorid	100		30.000					ND	
T 216 o-Nitrotoluene TIC	100		30.000					ND	
T 215 2-Ethylhexyl acrylate TIC	100		30.000					ND	
T 210 2,4,6-Trinitrophenol TIC	229		30.000					ND	
T 218 1,2 Epoxybutane TIC	100		30.000					ND	
T 217 Benzotrichloride TIC	100		30.000					ND	
T 201 Methomyl TIC	100		30.000					ND	
T 220 2-Amino-4,6-dinitrophenol	199		30.000					ND	
T 221 1-Methyl-2-pyrrilidinone T	100		30.000					ND	
T 219 m-Nitrotoluene TIC	100		30.000					ND	
T 206 Dimethyl sulfate TIC	100		30.000					ND	
T 205 Cyclohexylaniline TIC	100		30.000					ND	
T 204 p-Nitrotoluene TIC	100		30.000					ND	
T 208 bis(chloromethyl)ether TIC	79		30.000					ND	
T 224 p-toluidine TIC	100		30.000					ND	
T 222 Carbonyl sulfide TIC	100		30.000					ND	
T 223 2-Methoxyphenol TIC	100		30.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

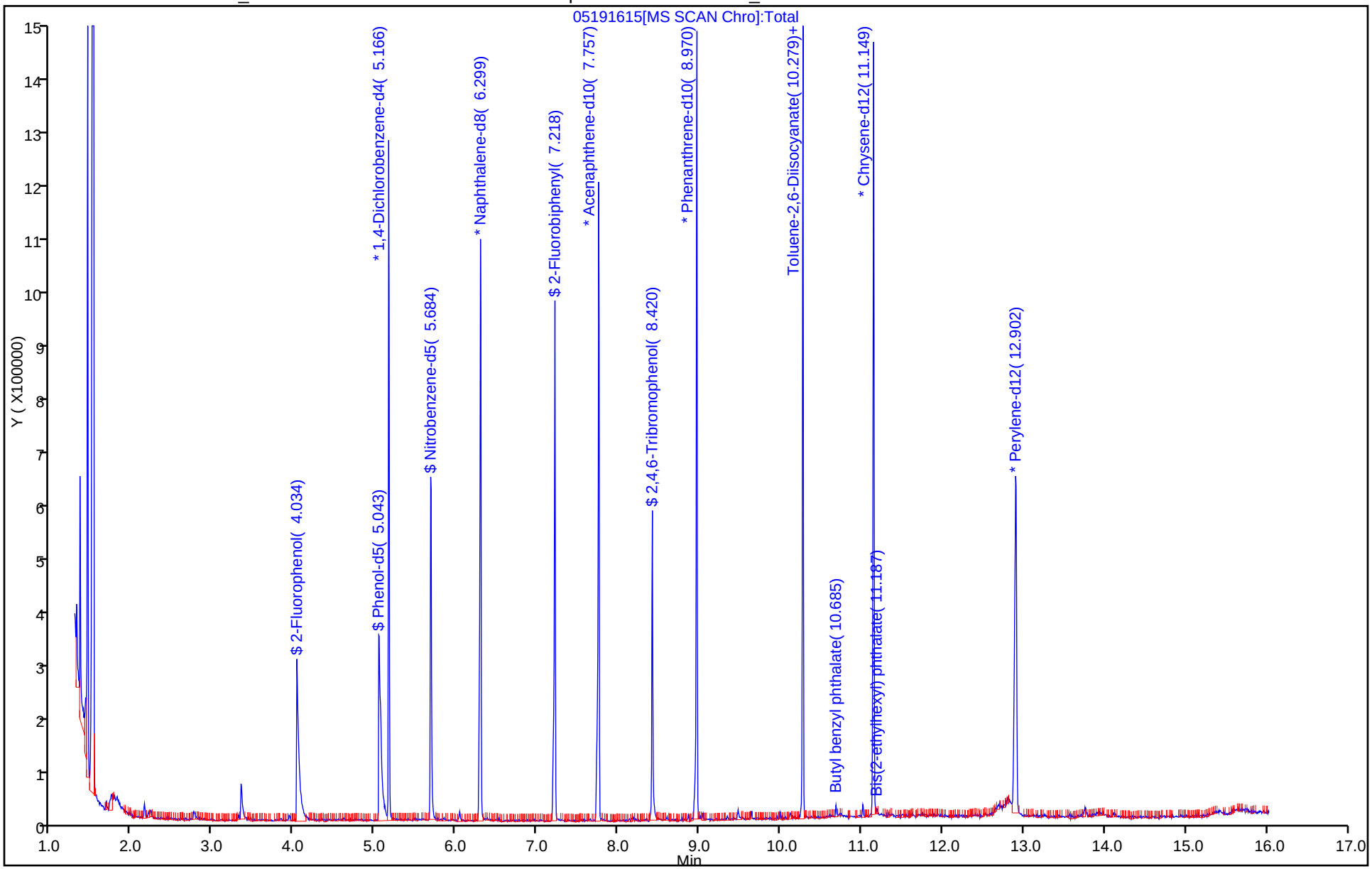
SV_8270ISTD_00009 Amount Added: 4.00 Units: uL Run Reagent

Report Date: 19-May-2016 12:11:06 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191615.D

Injection Date:	19-May-2016 11:42:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	MB 600-188545/1-A			Worklist Smp#:	14
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LB 600-188519/1-B

Matrix: Water (TCLP) | Lab File ID: 05171621.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/14/2016 09:21

Sample wt/vol: 200(mL) | Date Analyzed: 05/17/2016 15:19

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188677 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.00890	U	0.0500	0.00890
121-14-2	2,4-Dinitrotoluene	0.0132	U	0.0500	0.0132
95-95-4	2,4,5-Trichlorophenol	0.0136	U	0.0500	0.0136
88-06-2	2,4,6-Trichlorophenol	0.0129	U	0.0500	0.0129
95-48-7	2-Methylphenol	0.00905	U	0.0500	0.00905
15831-10-4	3 & 4 Methylphenol	0.00940	U	0.100	0.00940
118-74-1	Hexachlorobenzene	0.0130	U	0.0500	0.0130
87-68-3	Hexachlorobutadiene	0.0106	U	0.0500	0.0106
67-72-1	Hexachloroethane	0.0110	U	0.0500	0.0110
98-95-3	Nitrobenzene	0.0124	U	0.0500	0.0124
87-86-5	Pentachlorophenol	0.0231	U	0.250	0.0231
110-86-1	Pyridine	0.0108	U	0.0500	0.0108

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	83		35-130
367-12-4	2-Fluorophenol	83		10-130
321-60-8	2-Fluorobiphenyl	81		41-130
118-79-6	2,4,6-Tribromophenol	88		12-138
4165-62-2	Phenol-d5	73		10-130
1718-51-0	Terphenyl-d14	92		43-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171621.D
Lims ID: LB 600-188519/1-B
Client ID:
Sample Type: LB
Inject. Date: 17-May-2016 15:19:30 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: lb 600-188519/1-b
Misc. Info.: 600-0012101-011
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 18-May-2016 09:44:43 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: somjitp Date: 18-May-2016 09:36:10

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 N-Nitrosodimethylamine	74		1.677					ND	
	2 Pyridine	79		1.698					ND	
	3 Triethyl amine	86		2.156					ND	
	4 2-Picoline	93		2.670					ND	
	5 N-Nitrosomethylethylamine	88		2.948					ND	
	6 Methyl methanesulfonate	80		3.535					ND	
$	7 2-Fluorophenol	112	3.975	3.979	-0.004	94	210812	50.0	41.3	
	8 N-Nitrosodiethylamine	102		4.053					ND	
	9 Acrylamide	71		4.059					ND	
	10 Ethyl methanesulfonate	79		4.465					ND	
	11 Benzaldehyde	77		4.753					ND	
	12 Phenylmercaptan	110		4.843					ND	
	13 Aniline	93		4.898					ND	
	14 Pentachloroethane	167		4.903					ND	
	15 Bis(2-chloroethyl)ether	93		4.968					ND	
$	16 Phenol-d5	99	5.059	5.048	0.011	67	306202	50.0	36.6	
	18 2-Chlorophenol	128		5.058					ND	
	17 Phenol	94		5.064					ND	
	19 n-Decane	57		5.085					ND	
	20 1,3-Dichlorobenzene	146		5.133					ND	
*	21 1,4-Dichlorobenzene-d4	152	5.182	5.186	-0.004	87	119032	40.0	40.0	
	22 1,4-Dichlorobenzene	146		5.203					ND	
	24 1,2-Dichlorobenzene	146		5.347					ND	
	23 Dicyclopentadiene	66		5.356					ND	
	25 Benzyl alcohol	108		5.400					ND	
	26 Indene	115		5.427					ND	
	27 2,2'-oxybis[1-chloropropan	45		5.486					ND	
	28 2-Methylphenol	108		5.577					ND	
	29 N-Nitrosopyrrolidine	100		5.581					ND	
	30 Acetophenone	105		5.593					ND	
	31 N-Nitrosomorpholine	56		5.613					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 N-Nitrosodi-n-propylamine	70		5.625					ND	
33 2-Toluidine	106		5.629					ND	
34 Hexachloroethane	117		5.651					ND	
35 4-Methylbenzenamine	106		5.692					ND	
$ 36 Nitrobenzene-d5	82	5.711	5.721	-0.010	92	375620	50.0	41.3	
37 3 & 4 Methylphenol	108		5.721					ND	
39 n,n'-Dimethylaniline	120		5.736					ND	
38 Nitrobenzene	77		5.737					ND	
40 N-Nitrosopiperidine	55		5.864					ND	
41 2,6-Dimethylphenol	122		5.881					ND	
42 Isophorone	82		5.967					ND	
43 2-Nitrophenol	139		6.020					ND	
44 o,o',o''-Triethylphosphoro	65		6.137					ND	
45 2,4-Dimethylphenol	107		6.143					ND	
46 Bis(2-chloroethoxy)methane	93		6.164					ND	
47 o-Nitrotoluene	120		6.237					ND	
48 1,2,4-Trichlorobenzene	180		6.292					ND	
49 2,4-Dichlorophenol	162		6.298					ND	
* 50 Naphthalene-d8	136	6.330	6.329	0.001	97	512017	40.0	40.0	
51 Naphthalene	128		6.351					ND	
135 Adiponitrile	41		6.368					ND	
52 Benzoic acid	122		6.383					ND	
53 Hexachloropropene	213		6.431					ND	
54 4-Chloroaniline	127		6.437					ND	
56 2,6-Dichlorophenol	162		6.447					ND	
55 m-Nitrotoluene	91		6.456					ND	
57 Hexachlorobutadiene	225		6.474					ND	
70 Sulfolane	41		6.502					ND	
58 p-Nitrotoluene	91		6.563					ND	
59 Quinoline	129		6.639					ND	
60 N-Nitrosodi-n-butylamine	84		6.719					ND	
61 p-Phenylene diamine	108		6.740					ND	
62 Caprolactam	55		6.746					ND	
63 Safrole, Total	162		6.879					ND	
64 4-Chloro-3-methylphenol	107		6.923					ND	
65 2-Methylnaphthalene	142		6.939					ND	
66 1,3-phenylenediamine	108		6.953					ND	
67 1-Methylnaphthalene	142		7.019					ND	
68 Hexachlorocyclopentadiene	237		7.083					ND	
69 1,2,4,5-Tetrachlorobenzene	216		7.088					ND	
71 Isosafrole Peak 1	162		7.120					ND	
72 2,4,6-Trichlorophenol	196		7.217					ND	
202 EPTC	43		7.217					ND	
$ 73 2-Fluorobiphenyl	172	7.249	7.254	-0.005	97	386483	50.0	40.7	
74 2,4,5-Trichlorophenol	196		7.291					ND	
75 Isosafrole Peak 2	162		7.307					ND	
76 1,1'-Biphenyl	154		7.334					ND	
77 2-Chloronaphthalene	162		7.345					ND	
78 1-Chloronaphthalene	162		7.355					ND	
81 2,4-Toluene diamine	121		7.391					ND	
80 Toluene diamine (2,4- + 2,	122		7.391					ND	
79 2,6-Diaminotoluene	122		7.391					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
82 Phenyl ether	170		7.419					ND	
83 2-Nitroaniline	65		7.457					ND	
84 1,4-Naphthoquinone	158		7.494					ND	
85 1,4-Dinitrobenzene	168		7.558					ND	
86 Dimethyl phthalate	163		7.612					ND	
87 1,3-Dinitrobenzene	168		7.644					ND	
88 2,6-Dinitrotoluene	165		7.655					ND	
89 Acenaphthylene	152		7.676					ND	
90 1,2-Dinitrobenzene	168		7.703					ND	
* 91 Acenaphthene-d10	164	7.789	7.793	-0.004	92	282618	40.0	40.0	
92 3-Nitroaniline	138		7.804					ND	
93 Acenaphthene	153		7.826					ND	
94 2,4-Dinitrophenol	184		7.895					ND	
95 Pentachlorobenzene	250		7.937					ND	
96 Dibenzofuran	168		7.970					ND	
97 2,4-Dinitrotoluene	165		7.986					ND	
98 1-Naphthylamine	143		8.033					ND	
196 Molinate	126		8.056					ND	
99 2,3,5,6-Tetrachlorophenol	232		8.076					ND	
100 4-Nitrophenol	109		8.077					ND	
102 2-Naphthylamine	143		8.103					ND	
101 2,3,4,6-Tetrachlorophenol	232		8.109					ND	
103 Diethyl phthalate	149		8.194					ND	
104 Hexadecane	57		8.200					ND	
105 Thionazin	97		8.236					ND	
107 4-Chlorophenyl phenyl ethe	204		8.248					ND	
106 Fluorene	166		8.248					ND	
108 N-Nitro-o-toluidine	152		8.290					ND	
109 4-Nitroaniline	138		8.328					ND	
110 4,6-Dinitro-2-methylphenol	198		8.338					ND	
112 Diphenylamine	169		8.365					ND	
111 N-Nitrosodiphenylamine	169		8.365					ND	
113 1,2-Diphenylhydrazine	77		8.381					ND	
114 Azobenzene	77		8.381					ND	
$ 115 2,4,6-Tribromophenol	330	8.451	8.456	-0.005	86	69529	50.0	44.2	
116 Sulfotepp	322		8.498					ND	
117 Diallate Peak 1	86		8.589					ND	
118 Phorate	75		8.594					ND	
119 1,3,5-Trinitrobenzene	75		8.632					ND	
120 4-Bromophenyl phenyl ether	248		8.648					ND	
121 Diallate Peak 2	86		8.653					ND	
122 Phenacetin	108		8.664					ND	
123 Hexachlorobenzene	284		8.707					ND	
124 Dimethoate	87		8.760					ND	
125 Atrazine	200		8.819					ND	
126 4-Aminobiphenyl	169		8.872					ND	
127 Pentachloronitrobenzene	237		8.877					ND	
128 Pentachlorophenol	266		8.899					ND	
130 Pronamide	173		8.947					ND	
129 n-Octadecane	57		8.953					ND	
* 131 Phenanthrene-d10	188	9.002	9.006	-0.004	96	408422	40.0	40.0	
132 Disulfoton	88		9.022					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
133 Phenanthrene	178		9.028					ND	
134 Dinoseb	211		9.038					ND	
136 Anthracene	178		9.070					ND	
137 Carbazole	167		9.220					ND	
138 Methyl parathion	109		9.331					ND	
139 Di-n-butyl phthalate	149		9.508					ND	
140 Ethyl Parathion	97		9.652					ND	
142 4-Nitroquinoline-1-oxide	190		9.673					ND	
141 Famphur	218		9.738					ND	
143 Methapyrilene	97		9.784					ND	
144 Isodrin	193		9.860					ND	
146 Fluoranthene	202		9.995					ND	
145 Toluene 2,4-diisocyanate	174		10.003					ND	
147 Benzidine	184		10.122					ND	
149 Pyrene	202		10.182					ND	
148 Toluene-2,6-Diisocyanate	174		10.251					ND	
151 Aramite Peak 1	185		10.309					ND	
150 Bisphenol-A	213		10.314					ND	
$ 152 Terphenyl-d14	244	10.321	10.315	0.006	97	389646	50.0	46.0	
154 Aramite Peak 2	185		10.373					ND	
155 p-Dimethylamino azobenzene	120		10.437					ND	
153 3,4-Dichloroaniline	161		10.447					ND	
156 Chlorobenzilate	139		10.480					ND	
S 157 Isosafrole	162		10.665					ND	
158 3,3'-Dimethylbenzidine	212		10.720					ND	
159 Butyl benzyl phthalate	149		10.737					ND	
160 2-Acetylaminofluorene	181		10.961					ND	
161 4,4'-Methylene bis(2-chlor	231		11.185					ND	
162 3,3'-Dichlorobenzidine	252		11.190					ND	
* 164 Chrysene-d12	240	11.224	11.201	0.023	97	375153	40.0	40.0	
163 Benzo[a]anthracene	228		11.202					ND	
165 Chrysene	228		11.239					ND	
166 Bis(2-ethylhexyl) phthalat	149		11.255					ND	
167 6-Methylchrysene	242		11.693					ND	
168 Di-n-octyl phthalate	149		11.960					ND	
169 7,12-Dimethylbenz(a)anthra	256		12.403					ND	
170 Benzo[b]fluoranthene	252		12.436					ND	
171 Benzo[k]fluoranthene	252		12.479					ND	
172 Benzo[a]pyrene	252		12.922					ND	
* 173 Perylene-d12	264	13.024	12.996	0.028	97	366652	40.0	40.0	
S 174 Diallate	86		13.359					ND	
175 3-Methylcholanthrene	268		13.546					ND	
176 Dibenz[a,h]acridine	279		14.706					ND	
177 Dibenz[a,j]acridine	279		14.877					ND	
178 Indeno[1,2,3-cd]pyrene	276		15.203					ND	
179 Dibenz(a,h)anthracene	278		15.262					ND	
180 Benzo[g,h,i]perylene	276		15.668					ND	
S 181 Aramite, Total	185		16.252					ND	
182 Kepone	272		17.717					ND	
T 183 1,4-Dioxane TIC	88		30.000					ND	
184 Methyl chrysenes (Mixed Is	1		0.000					ND	
T 185 4-Nitrobiphenyl TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
186 2,3-Dichlorophenol	1		0.000					ND	
T 187 Triethyl amine TIC	1		0.000					ND	
188 3,3'-Dimethoxybenzidine	1		0.000					ND	
189 1,2-Dibromo-3-Chloropropan	157		0.000					ND	
T 190 Sulfolane TIC	1		0.000					ND	
T 191 Dimethylformamide TIC	1		0.000					ND	
T 192 Toluene-2,6-Diisocyanate T	1		0.000					ND	
S 193 Methyl Phenols,Total	1		0.000					ND	
S 194 Total Cresols	1		0.000					ND	
S 195 Total Cresols, TCEQ Defini	1		0.000					ND	
197 Benzotrichloride	1		0.000					ND	
198 Dimethyl sulfate	1		0.000					ND	
199 Sulfuric acid, diethyl est	1		0.000					ND	
200 bis(2-chloromethyl)ether T	1		0.000					ND	
201 1-Methyl-2-pyrrilidinone	1		0.000					ND	
T 209 2,6-Diethylaniline TIC	100		30.000					ND	
T 210 1,2-Propyleneimine TIC	100		30.000					ND	
T 211 Dimethyl sulfate TIC	100		30.000					ND	
T 212 Hexachlorophene TIC	100		30.000					ND	
T 213 Acrylamide TIC	71		30.000					ND	
T 214 2,6-Dinitrophenol TIC	63		30.000					ND	
T 215 Diethyl sulfate TIC	100		30.000					ND	
T 216 Cyclohexylamine TIC	100		30.000					ND	
T 217 Dimethyl carbamoyl chlorid	100		30.000					ND	
T 218 o-Nitrotoluene TIC	100		30.000					ND	
T 219 2-Ethylhexyl acrylate TIC	100		30.000					ND	
T 220 2,4,6-Trinitrophenol TIC	229		30.000					ND	
T 221 1,2 Epoxybutane TIC	100		30.000					ND	
T 222 Benzotrichloride TIC	100		30.000					ND	
T 223 Methomyl TIC	100		30.000					ND	
T 224 2-Amino-4,6-dinitrophenol	199		30.000					ND	
T 225 1-Methyl-2-pyrrilidinone T	100		30.000					ND	
T 226 m-Nitrotoluene TIC	100		30.000					ND	
T 227 Chloramben TIC	100		30.000					ND	
T 228 Cyclohexylaniline TIC	100		30.000					ND	
T 229 p-Nitrotoluene TIC	100		30.000					ND	
T 230 bis(chloromethyl)ether TIC	79		30.000					ND	
T 231 p-toluidine TIC	100		30.000					ND	
T 232 Carbonyl sulfide TIC	100		30.000					ND	
T 233 2-Methoxyphenol TIC	100		30.000					ND	
T 234 Aziridine TIC	100		30.000					ND	

Reagents:

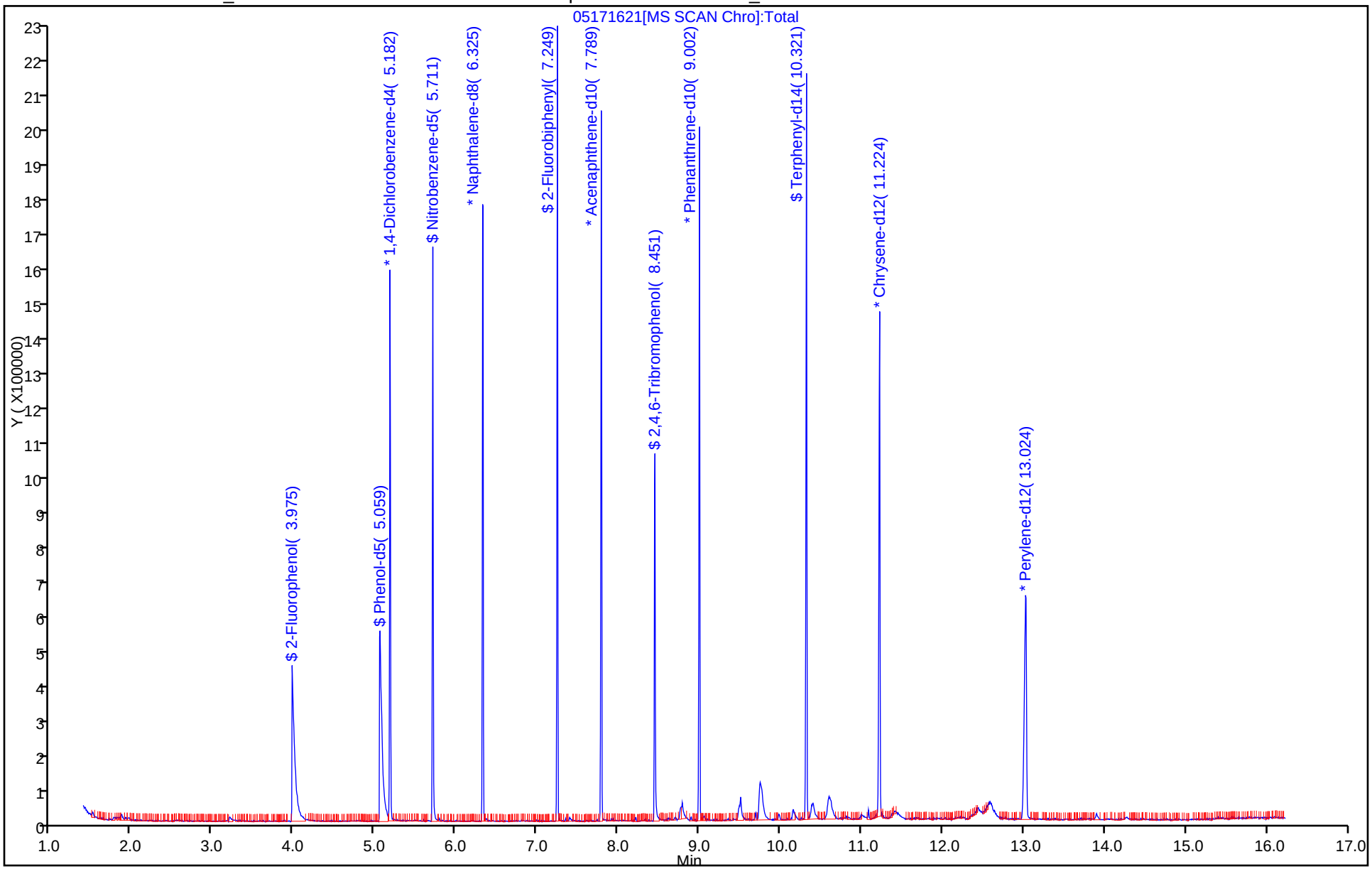
SV_8270ISTD_00009 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 18-May-2016 09:48:15 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171621.D

Injection Date:	17-May-2016 15:19:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	LB 600-188519/1-B			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LB 600-188518/1-C

Matrix: Solid (TCLP) | Lab File ID: 05191617.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C LVI | Date Extracted: 05/16/2016 06:26

Sample wt/vol: 200(mL) | Date Analyzed: 05/19/2016 12:29

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188802 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.00243	U	0.0125	0.00243
121-14-2	2,4-Dinitrotoluene	0.00264	U	0.0125	0.00264
95-95-4	2,4,5-Trichlorophenol	0.00525	U	0.0125	0.00525
88-06-2	2,4,6-Trichlorophenol	0.00415	U	0.0125	0.00415
95-48-7	2-Methylphenol	0.00178	U	0.0125	0.00178
15831-10-4	3 & 4 Methylphenol	0.00169	U	0.0125	0.00169
118-74-1	Hexachlorobenzene	0.00410	U	0.0125	0.00410
87-68-3	Hexachlorobutadiene	0.00321	U	0.0125	0.00321
67-72-1	Hexachloroethane	0.00411	U	0.0125	0.00411
98-95-3	Nitrobenzene	0.00324	U	0.0125	0.00324
87-86-5	Pentachlorophenol	0.00394	U	0.0125	0.00394
110-86-1	Pyridine	0.00270	U	0.0125	0.00270

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	57		24-150
367-12-4	2-Fluorophenol	59		10-130
321-60-8	2-Fluorobiphenyl	55		38-133
118-79-6	2,4,6-Tribromophenol	63		19-150
4165-62-2	Phenol-d5 (Surr)	44		10-130
1718-51-0	Terphenyl-d14	63		35-150

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191617.D
Lims ID: LB 600-188518/1-C
Client ID:
Sample Type: LB
Inject. Date: 19-May-2016 12:29:30 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: lb 600-188518/1-c
Misc. Info.: 600-0012123-016
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 12:59:14 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 12:59:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74		1.961					ND	
2 Pyridine	79		1.983					ND	
3 2-Picoline	93		3.931					ND	
$ 7 2-Fluorophenol	112	4.066	4.023	0.043	92	124158	10.0	5.86	
4 N-Nitrosomethylethylamine	88		4.070					ND	
6 Acrylamide	71		4.202					ND	
5 Methyl methanesulfonate	80		4.406					ND	
8 N-Nitrosodiethylamine	102		4.812					ND	
12 Aniline	93		4.884					ND	
13 Benzaldehyde	77		4.945					ND	
16 Bis(2-chloroethyl)ether	93		4.953					ND	
$ 10 Phenol-d5	99	5.059	5.028	0.031	67	147504	10.0	4.38	
17 2-Chlorophenol	128		5.038					ND	
11 Phenol	94		5.038					ND	
18 n-Decane	57		5.071					ND	
9 Ethyl methanesulfonate	79		5.111					ND	
20 1,3-Dichlorobenzene	146		5.113					ND	
* 21 1,4-Dichlorobenzene-d4	152	5.172	5.172	0.000	89	103612	8.00	8.00	
22 1,4-Dichlorobenzene	146		5.188					ND	
24 1,2-Dichlorobenzene	146		5.327					ND	
23 Benzyl alcohol	108		5.375					ND	
26 Indene	115		5.407					ND	
27 2,2'-oxybis[1-chloropropan	45		5.461					ND	
25 2-Methylphenol	108		5.546					ND	
15 Pentachloroethane	167		5.555					ND	
29 Acetophenone	105		5.567					ND	
31 N-Nitrosodi-n-propylamine	70		5.599					ND	
34 Hexachloroethane	117		5.626					ND	
$ 35 Nitrobenzene-d5	82	5.690	5.696	-0.006	93	211689	10.0	5.73	
30 3 & 4 Methylphenol	108		5.696					ND	
36 Nitrobenzene	77		5.712					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
39 2,6-Dimethylphenol	122		5.856					ND	
41 Isophorone	82		5.936					ND	
42 2-Nitrophenol	139		5.995					ND	
43 2,4-Dimethylphenol	107		6.112					ND	
46 Bis(2-chloroethoxy)methane	93		6.134					ND	
28 N-Nitrosopyrrolidine	100		6.137					ND	
32 N-Nitrosomorpholine	56		6.174					ND	
33 2-Toluidine	106		6.196					ND	
49 1,2,4-Trichlorobenzene	180		6.267					ND	
48 2,4-Dichlorophenol	162		6.267					ND	
* 50 Naphthalene-d8	136	6.304	6.305	-0.001	98	449622	8.00		8.00
37 n,n'-Dimethylaniline	120		6.319					ND	
51 Naphthalene	128		6.321					ND	
47 Benzoic acid	122		6.331					ND	
52 4-Chloroaniline	127		6.406					ND	
53 2,6-Dichlorophenol	162		6.417					ND	
40 N-Nitrosopiperidine	55		6.431					ND	
55 Hexachlorobutadiene	225		6.449					ND	
14 Phenylmercaptan	110		6.471					ND	
45 o,o',o''-Triethylphosphoro	65		6.682					ND	
59 Caprolactam	113		6.873					ND	
60 4-Chloro-3-methylphenol	107		6.892					ND	
62 2-Methylnaphthalene	142		6.908					ND	
63 1-Methylnaphthalene	142		6.988					ND	
54 Hexachloropropene	213		7.002					ND	
66 Hexachlorocyclopentadiene	237		7.052					ND	
65 1,2,4,5-Tetrachlorobenzene	216		7.052					ND	
69 2,4,6-Trichlorophenol	196		7.186					ND	
56 Quinoline	129		7.195					ND	
$ 72 2-Fluorobiphenyl	172	7.218	7.223	-0.005	97	224341	10.0		5.53
57 N-Nitrosodi-n-butylamine	84		7.259					ND	
58 p-Phenylene diamine	108		7.259					ND	
71 2,4,5-Trichlorophenol	196		7.261					ND	
77 1,1'-Biphenyl	154		7.298					ND	
78 2-Chloronaphthalene	162		7.309					ND	
81 2-Nitroaniline	65		7.426					ND	
61 Safrole, Total	162		7.430					ND	
84 Dimethyl phthalate	163		7.581					ND	
85 1,3-Dinitrobenzene	168		7.608					ND	
86 2,6-Dinitrotoluene	165		7.619					ND	
88 Acenaphthylene	152		7.645					ND	
87 1,2-Dinitrobenzene	168		7.667					ND	
74 Isosafrole Peak 1	162		7.670					ND	
* 90 Acenaphthene-d10	164	7.757	7.763	-0.006	92	250858	8.00		8.00
89 3-Nitroaniline	138		7.768					ND	
91 Acenaphthene	153		7.790					ND	
73 Isosafrole Peak 2	162		7.857					ND	
92 2,4-Dinitrophenol	184		7.859					ND	
79 1-Chloronaphthalene	162		7.921					ND	
96 Dibenzofuran	168		7.934					ND	
95 2,4-Dinitrotoluene	165		7.955					ND	
19 Dicyclopentadiene	66		7.961					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
80 Phenyl ether	170		7.975					ND	
82 1,4-Naphthoquinone	158		8.039					ND	
93 4-Nitrophenol	109		8.041					ND	
99 2,3,4,6-Tetrachlorophenol	232		8.073					ND	
83 1,4-Dinitrobenzene	168		8.087					ND	
101 Diethyl phthalate	149		8.158					ND	
102 Hexadecane	57		8.169					ND	
104 Fluorene	166		8.212					ND	
105 4-Chlorophenyl phenyl ethe	204		8.217					ND	
107 4-Nitroaniline	138		8.286					ND	
108 4,6-Dinitro-2-methylphenol	198		8.303					ND	
38 4-Methylbenzenamine	106		8.308					ND	
110 N-Nitrosodiphenylamine	169		8.329					ND	
109 Diphenylamine	169		8.329					ND	
112 1,2-Diphenylhydrazine	77		8.351					ND	
111 Azobenzene	77		8.351					ND	
$ 113 2,4,6-Tribromophenol	330	8.420	8.425	-0.005	80	40776	10.0	6.32	
94 Pentachlorobenzene	250		8.509					ND	
97 1-Naphthylamine	143		8.594					ND	
98 2,3,5,6-Tetrachlorophenol	232		8.605					ND	
118 4-Bromophenyl phenyl ether	248		8.612					ND	
100 2-Naphthylamine	143		8.658					ND	
122 Hexachlorobenzene	284		8.671					ND	
103 Thionazin	97		8.787					ND	
106 N-Nitro-o-toluidine	152		8.824					ND	
127 Pentachlorophenol	266		8.863					ND	
130 n-Octadecane	57		8.922					ND	
124 Atrazine	200		8.962					ND	
* 131 Phenanthrene-d10	188	8.970	8.976	-0.006	96	358998	8.00	8.00	
132 Phenanthrene	178		8.992					ND	
134 Anthracene	178		9.034					ND	
114 Sulfotepp	322		9.048					ND	
115 1,3,5-Trinitrobenzene	75		9.118					ND	
120 Diallate Peak 1	86		9.155					ND	
116 Phorate	75		9.161					ND	
117 Phenacetin	108		9.177					ND	
135 Carbazole	167		9.184					ND	
44 m-Nitrotoluene	91	9.183	9.196	-0.013	66	6350		NC	
119 Diallate Peak 2	86		9.225					ND	
123 Dimethoate	87		9.299					ND	
126 4-Aminobiphenyl	169		9.433					ND	
128 Pentachloronitrobenzene	237		9.454					ND	
137 Di-n-butyl phthalate	149	9.472	9.472	0.000	97	11101		0.1376	
129 Pronamide	173		9.492					ND	
133 Disulfoton	88		9.588					ND	
125 Dinoseb	211		9.593					ND	
64 1,3-phenylenediamine	108		9.798					ND	
136 Methyl parathion	109		9.892					ND	
143 Fluoranthene	202		9.959					ND	
146 Pyrene	202		10.140					ND	
138 Ethyl Parathion	97		10.213					ND	
139 4-Nitroquinoline-1-oxide	190		10.234					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
67 Toluene-2,6-Diisocyanate	174	10.279	10.251	0.028	53	4877		NC	
144 Benzidine	184		10.276					ND	
$ 149 Terphenyl-d14	244	10.279	10.279	0.000	97	217734	10.0	6.32	
183 Toluene diamine (2,4- + 2,	122	10.305	10.318	-0.013	0	363		NC	
68 2,4-Toluene diamine	121	10.273	10.333	-0.060	48	2423		NC	
70 3,4-Dichloroaniline	161		10.447					ND	
142 Isodrin	193		10.464					ND	
S 75 Isosafrole	162		10.665					ND	
76 2,6-Diaminotoluene	122		10.695					ND	
154 Butyl benzyl phthalate	149	10.690	10.696	-0.006	89	12922		0.3599	
148 Aramite Peak 1	185		10.881					ND	
150 Aramite Peak 2	185		10.945					ND	
151 p-Dimethylamino azobenzene	120		11.020					ND	
152 Chlorobenzilate	139		11.057					ND	
159 Benzo[a]anthracene	228		11.150					ND	
* 160 Chrysene-d12	240	11.160	11.161	-0.001	98	349611	8.00	8.00	
161 Chrysene	228		11.187					ND	
162 Bis(2-ethylhexyl) phthalat	149	11.203	11.203	0.000	95	8114		0.1624	
153 3,3'-Dimethylbenzidine	212		11.324					ND	
157 3,3'-Dichlorobenzidine	252		11.356					ND	
156 2-Acetylaminofluorene	181		11.586					ND	
164 Di-n-octyl phthalate	149		11.892					ND	
158 4,4'-Methylene bis(2-chlor	231		11.901					ND	
165 Benzo[b]fluoranthene	252		12.357					ND	
167 Benzo[k]fluoranthene	252		12.400					ND	
163 6-Methylchrysene	242		12.596					ND	
168 Benzo[a]pyrene	252		12.833					ND	
* 169 Perylene-d12	264	12.912	12.923	-0.011	98	358668	8.00	8.00	
S 121 Diallate	86		13.359					ND	
140 Toluene 2,4-diisocyanate	174		13.479					ND	
166 7,12-Dimethylbenz(a)anthra	256		13.579					ND	
147 Bisphenol-A	213		13.867					ND	
172 Indeno[1,2,3-cd]pyrene	276		15.087					ND	
170 3-Methylcholanthrene	268		15.112					ND	
173 Dibenz(a,h)anthracene	278		15.156					ND	
230 Dibenz[a,j]acridine	279		15.325					ND	
141 Methapyrilene	97		15.494					ND	
174 Benzo[g,h,i]perylene	276		15.573					ND	
171 Dibenz[a,h]acridine	279		16.159					ND	
S 145 Aramite, Total	185		16.252					ND	
198 Famphur	218		17.350					ND	
155 Kepone	272		17.717					ND	
176 Triethyl amine	100		30.000					ND	
T 175 1,4-Dioxane TIC	88		30.000					ND	
177 Methyl chrysenes (Mixed Is	1		0.000					ND	
T 180 4-Nitrobiphenyl TIC	1		0.000					ND	
179 2,3-Dichlorophenol	1		0.000					ND	
T 178 Triethyl amine TIC	1		0.000					ND	
T 182 Dimethylformamide TIC	1		0.000					ND	
T 186 Sulfolane TIC	1		0.000					ND	
185 1,2-Dibromo-3-Chloropropan	157		0.000					ND	
184 3,3'-Dimethoxybenzidine	1		0.000					ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
T 181 Toluene-2,6-Diisocyanate T	1		0.000					ND	
S 187 Methyl Phenols,Total	1		0.000					ND	
S 188 Total Cresols	1		0.000					ND	
S 189 Total Cresols, TCEQ Defini	1		0.000					ND	
237 Molinate	1		0.000					ND	
231 Benzotrichloride	1		0.000					ND	
232 Dimethyl sulfate	1		0.000					ND	
233 Sulfuric acid, diethyl est	1		0.000					ND	
234 bis(2-chloromethyl)ether T	1		0.000					ND	
235 1-Methyl-2-pyrrilidinone	1		0.000					ND	
236 EPTC	1		0.000					ND	
195 o-Nitrotoluene	120		8.881					ND	
197 p-Nitrotoluene	91		9.265					ND	
T 203 Aziridine TIC	100		30.000					ND	
T 202 2,6-Diethylaniline TIC	100		30.000					ND	
T 214 1,2-Propyleneimine TIC	100		30.000					ND	
T 207 Chloramben TIC	100		30.000					ND	
T 200 Hexachlorophene TIC	100		30.000					ND	
T 199 Acrylamide TIC	71		30.000					ND	
T 213 2,6-Dinitrophenol TIC	63		30.000					ND	
T 209 Diethyl sulfate TIC	100		30.000					ND	
T 212 Cyclohexylamine TIC	100		30.000					ND	
T 211 Dimethyl carbamoyl chlorid	100		30.000					ND	
T 216 o-Nitrotoluene TIC	100		30.000					ND	
T 215 2-Ethylhexyl acrylate TIC	100		30.000					ND	
T 210 2,4,6-Trinitrophenol TIC	229		30.000					ND	
T 218 1,2 Epoxybutane TIC	100		30.000					ND	
T 217 Benzotrichloride TIC	100		30.000					ND	
T 201 Methomyl TIC	100		30.000					ND	
T 220 2-Amino-4,6-dinitrophenol	199		30.000					ND	
T 221 1-Methyl-2-pyrrilidinone T	100		30.000					ND	
T 219 m-Nitrotoluene TIC	100		30.000					ND	
T 206 Dimethyl sulfate TIC	100		30.000					ND	
T 205 Cyclohexylaniline TIC	100		30.000					ND	
T 204 p-Nitrotoluene TIC	100		30.000					ND	
T 208 bis(chloromethyl)ether TIC	79		30.000					ND	
T 224 p-toluidine TIC	100		30.000					ND	
T 222 Carbonyl sulfide TIC	100		30.000					ND	
T 223 2-Methoxyphenol TIC	100		30.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

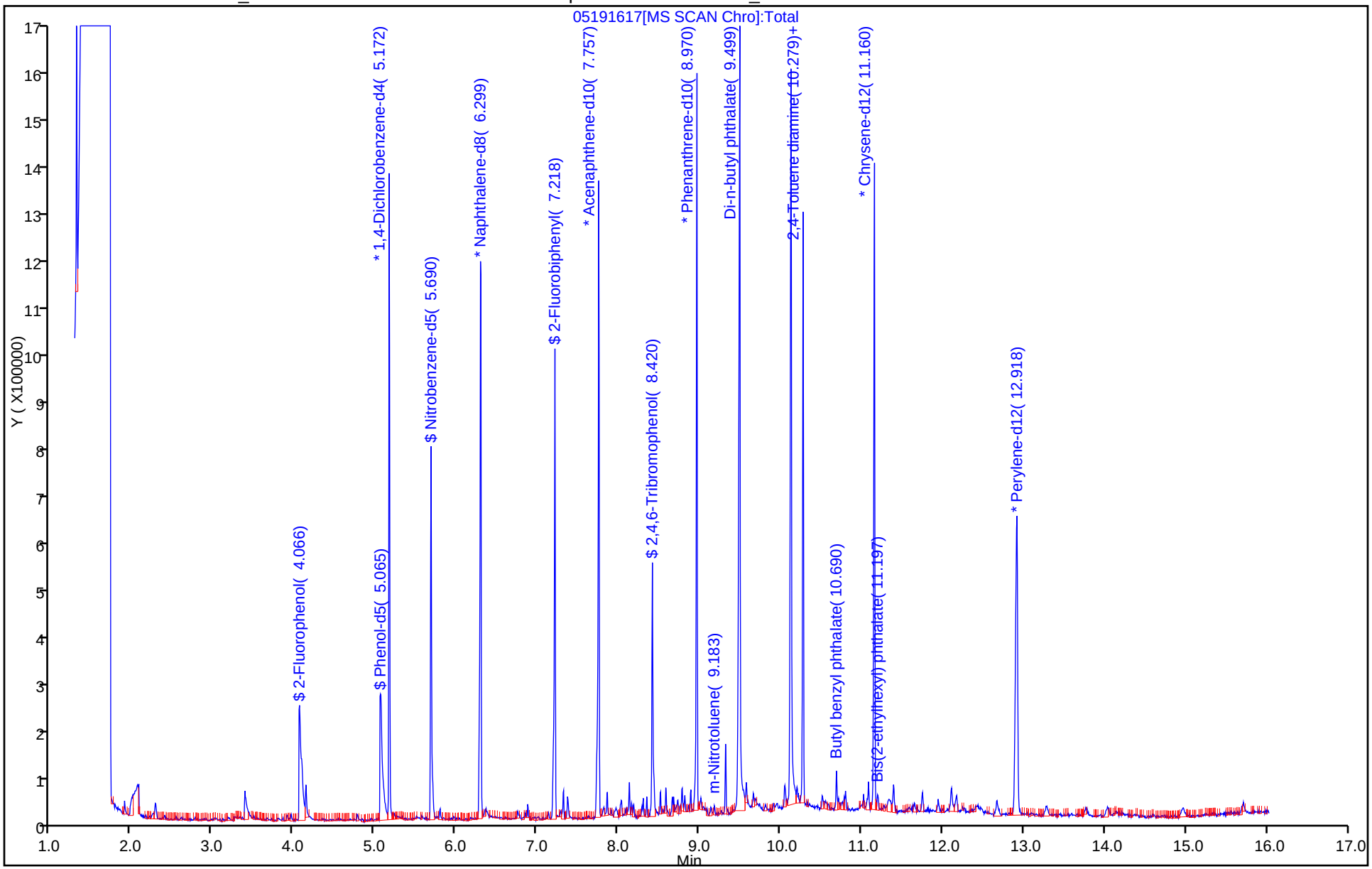
SV_8270ISTD_00009 Amount Added: 4.00 Units: uL Run Reagent

Report Date: 19-May-2016 12:59:23 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191617.D

Injection Date:	19-May-2016 12:29:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	LB 600-188518/1-C			Worklist Smp#:	16
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 600-188525/2-A

Matrix: Water | Lab File ID: 05171619.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C | Date Extracted: 05/14/2016 09:18

Sample wt/vol: 1000(mL) | Date Analyzed: 05/17/2016 14:32

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188677 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.04158		0.0100	0.00178
121-14-2	2,4-Dinitrotoluene	0.04436		0.0100	0.00263
95-95-4	2,4,5-Trichlorophenol	0.04459		0.0100	0.00271
88-06-2	2,4,6-Trichlorophenol	0.04557		0.0100	0.00259
95-48-7	2-Methylphenol	0.04315		0.0100	0.00181
15831-10-4	3 & 4 Methylphenol	0.04303		0.0200	0.00188
118-74-1	Hexachlorobenzene	0.04468		0.0100	0.00259
87-68-3	Hexachlorobutadiene	0.04219		0.0100	0.00212
67-72-1	Hexachloroethane	0.04119		0.0100	0.00220
98-95-3	Nitrobenzene	0.04363		0.0100	0.00248
87-86-5	Pentachlorophenol	0.07223		0.0500	0.00462
110-86-1	Pyridine	0.04044		0.0100	0.00216

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	85		35-130
367-12-4	2-Fluorophenol	86		10-130
321-60-8	2-Fluorobiphenyl	82		41-130
118-79-6	2,4,6-Tribromophenol	86		12-138
4165-62-2	Phenol-d5	83		10-130
1718-51-0	Terphenyl-d14	83		43-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171619.D
Lims ID: LCS 600-188525/2-A
Client ID:
Sample Type: LCS
Inject. Date: 17-May-2016 14:32:30 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: lcs 600-188525/2-a
Misc. Info.: 600-0012101-009
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 17-May-2016 14:53:17 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK022

First Level Reviewer: patelk Date: 17-May-2016 14:53:17

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 N-Nitrosodimethylamine	74	1.677	1.677	0.000	86	173143	50.0	43.6	
	2 Pyridine	79	1.698	1.698	0.000	90	280091	50.0	40.4	
$	7 2-Fluorophenol	112	3.990	3.979	0.011	92	226909	50.0	43.0	
	9 Acrylamide	71	3.995	4.059	-0.064	70	158169	100.0	47.9	
	11 Benzaldehyde	77	4.754	4.753	0.001	84	63416	50.0	11.6	
	13 Aniline	93	4.893	4.898	-0.005	94	411696	50.0	41.3	
	15 Bis(2-chloroethyl)ether	93	4.962	4.968	-0.006	96	285456	50.0	43.0	
$	16 Phenol-d5	99	5.058	5.048	0.010	71	360589	50.0	41.7	
	18 2-Chlorophenol	128	5.064	5.058	0.006	80	213125	50.0	41.9	
	17 Phenol	94	5.069	5.064	0.005	78	334511	50.0	42.4	
	19 n-Decane	57	5.085	5.085	0.000	87	346589	50.0	43.4	
	20 1,3-Dichlorobenzene	146	5.128	5.133	-0.005	79	208152	50.0	40.8	
*	21 1,4-Dichlorobenzene-d4	152	5.187	5.186	0.000	86	123042	40.0	40.0	
	22 1,4-Dichlorobenzene	146	5.203	5.203	0.000	78	219991	50.0	41.6	
	24 1,2-Dichlorobenzene	146	5.347	5.347	0.000	81	204162	50.0	41.3	
	25 Benzyl alcohol	108	5.400	5.400	0.000	81	140355	50.0	40.2	
	26 Indene	115	5.427	5.427	0.000	90	369803	50.0	37.9	
	27 2,2'-oxybis[1-chloropropan	45	5.486	5.486	0.000	85	355716	50.0	43.1	
	28 2-Methylphenol	108	5.576	5.577	-0.001	85	225338	50.0	43.1	
	30 Acetophenone	105	5.587	5.593	-0.006	80	374022	50.0	40.2	
	32 N-Nitrosodi-n-propylamine	70	5.619	5.625	-0.006	89	255607	50.0	45.2	
	34 Hexachloroethane	117	5.646	5.651	-0.005	88	140583	50.0	41.2	
$	36 Nitrobenzene-d5	82	5.715	5.721	-0.006	92	395257	50.0	42.7	
	37 3 & 4 Methylphenol	108	5.726	5.721	0.005	93	245104	50.0	43.0	
	38 Nitrobenzene	77	5.737	5.737	0.000	88	548449	50.0	43.6	
	41 2,6-Dimethylphenol	122	5.881	5.881	0.000	88	193153	50.0	39.5	
	42 Isophorone	82	5.966	5.967	-0.001	97	607695	50.0	41.9	
	43 2-Nitrophenol	139	6.020	6.020	0.000	62	105835	50.0	39.4	
	45 2,4-Dimethylphenol	107	6.143	6.143	0.000	90	284404	50.0	41.4	
	46 Bis(2-chloroethoxy)methane	93	6.164	6.164	0.000	98	383073	50.0	43.9	
	48 1,2,4-Trichlorobenzene	180	6.292	6.292	0.000	83	165148	50.0	38.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
49 2,4-Dichlorophenol	162	6.298	6.298	0.000	84	166455	50.0	39.2	
* 50 Naphthalene-d8	136	6.335	6.329	0.006	97	521064	40.0	40.0	
51 Naphthalene	128	6.351	6.351	0.000	96	601341	50.0	41.1	
52 Benzoic acid	122	6.383	6.383	0.000	89	116670	50.0	39.9	
54 4-Chloroaniline	127	6.431	6.437	-0.006	89	256121	50.0	42.3	
56 2,6-Dichlorophenol	162	6.447	6.447	0.000	79	158851	50.0	40.0	
57 Hexachlorobutadiene	225	6.474	6.474	0.000	92	130534	50.0	42.2	
62 Caprolactam	55	6.778	6.746	0.032	74	141597	50.0	50.8	M
64 4-Chloro-3-methylphenol	107	6.933	6.923	0.010	77	263417	50.0	44.1	
65 2-Methylnaphthalene	142	6.939	6.939	0.000	92	510981	50.0	41.5	
67 1-Methylnaphthalene	142	7.019	7.019	0.000	87	350312	50.0	41.7	
68 Hexachlorocyclopentadiene	237	7.078	7.083	-0.005	93	74858	50.0	27.2	
69 1,2,4,5-Tetrachlorobenzene	216	7.083	7.088	-0.005	89	159840	50.0	39.2	
72 2,4,6-Trichlorophenol	196	7.222	7.217	0.005	88	116393	50.0	45.6	
$ 73 2-Fluorobiphenyl	172	7.254	7.254	0.000	98	389527	50.0	41.2	
74 2,4,5-Trichlorophenol	196	7.297	7.291	0.006	78	114210	50.0	44.6	
76 1,1'-Biphenyl	154	7.329	7.334	-0.005	96	421443	50.0	38.7	
77 2-Chloronaphthalene	162	7.339	7.345	-0.006	94	362446	50.0	40.8	
83 2-Nitroaniline	65	7.457	7.457	0.000	69	229831	50.0	46.5	
85 1,4-Dinitrobenzene	168	7.564	7.558	0.006	85	64285	50.0	45.5	
86 Dimethyl phthalate	163	7.612	7.612	0.000	89	429716	50.0	44.3	
87 1,3-Dinitrobenzene	168	7.639	7.644	-0.005	76	74123	50.0	50.0	
88 2,6-Dinitrotoluene	165	7.655	7.655	0.000	73	98220	50.0	45.3	
89 Acenaphthylene	152	7.681	7.676	0.005	97	523944	50.0	41.8	
90 1,2-Dinitrobenzene	168	7.703	7.703	0.000	84	50552	50.0	46.5	
* 91 Acenaphthene-d10	164	7.793	7.793	0.000	92	281064	40.0	40.0	
92 3-Nitroaniline	138	7.804	7.804	0.000	83	111842	50.0	43.9	
93 Acenaphthene	153	7.826	7.826	0.000	95	328287	50.0	42.6	
94 2,4-Dinitrophenol	184	7.895	7.895	0.000	68	109030	100.0	90.0	
96 Dibenzofuran	168	7.964	7.970	-0.006	90	484878	50.0	43.1	
97 2,4-Dinitrotoluene	165	7.986	7.986	0.000	77	137171	50.0	44.4	
100 4-Nitrophenol	109	8.077	8.077	0.000	87	295589	100.0	96.2	
101 2,3,4,6-Tetrachlorophenol	232	8.109	8.109	0.000	87	79092	50.0	40.6	
103 Diethyl phthalate	149	8.183	8.194	-0.011	92	471563	50.0	41.7	
104 Hexadecane	57	8.199	8.200	-0.001	97	411154	50.0	41.8	
107 4-Chlorophenyl phenyl ethe	204	8.248	8.248	0.000	85	190646	50.0	37.2	
106 Fluorene	166	8.248	8.248	0.000	95	431232	50.0	42.2	
109 4-Nitroaniline	138	8.322	8.328	-0.006	69	105619	50.0	43.6	
110 4,6-Dinitro-2-methylphenol	198	8.333	8.338	-0.005	53	143457	100.0	88.1	
112 Diphenylamine	169	8.360	8.365	-0.005	90	268905	42.5	37.1	
111 N-Nitrosodiphenylamine	169	8.360	8.365	-0.005	68	268905	50.0	43.5	
113 1,2-Diphenylhydrazine	77	8.381	8.381	0.000	43	930337	50.0	48.1	
114 Azobenzene	77	8.381	8.381	0.000	96	930337	50.0	48.1	
$ 115 2,4,6-Tribromophenol	330	8.456	8.456	0.000	79	67634	50.0	43.2	
120 4-Bromophenyl phenyl ether	248	8.643	8.648	-0.005	80	111756	50.0	46.3	
123 Hexachlorobenzene	284	8.702	8.707	-0.005	85	129839	50.0	44.7	
125 Atrazine	200	8.814	8.819	-0.005	75	82042	50.0	45.3	
128 Pentachlorophenol	266	8.899	8.899	0.000	82	119365	100.0	72.2	
129 n-Octadecane	57	8.953	8.953	0.000	95	416339	50.0	45.5	
* 131 Phenanthrene-d10	188	9.006	9.006	0.000	95	364000	40.0	40.0	
133 Phenanthrene	178	9.028	9.028	0.000	98	526339	50.0	44.6	
136 Anthracene	178	9.070	9.070	0.000	99	530820	50.0	44.3	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
137 Carbazole	167	9.220	9.220	0.000	97	505988	50.0	43.6	
139 Di-n-butyl phthalate	149	9.503	9.508	-0.005	98	795831	50.0	44.7	
146 Fluoranthene	202	9.994	9.995	-0.001	99	567284	50.0	43.1	
147 Benzidine	184	10.123	10.122	0.001	97	353234	100.0	114.8	
149 Pyrene	202	10.176	10.182	-0.006	96	582699	50.0	43.8	
$ 152 Terphenyl-d14	244	10.315	10.315	0.000	98	361406	50.0	41.6	
159 Butyl benzyl phthalate	149	10.737	10.737	0.000	87	365839	50.0	45.4	
162 3,3'-Dichlorobenzidine	252	11.196	11.190	0.006	79	213157	50.0	52.5	
* 164 Chrysene-d12	240	11.218	11.201	0.017	97	384451	40.0	40.0	
163 Benzo[a]anthracene	228	11.202	11.202	0.000	99	605242	50.0	49.7	
165 Chrysene	228	11.244	11.239	0.005	97	528044	50.0	44.2	
166 Bis(2-ethylhexyl) phthalat	149	11.255	11.255	0.000	93	517346	50.0	45.1	
168 Di-n-octyl phthalate	149	11.966	11.960	0.006	99	893438	50.0	48.7	
170 Benzo[b]fluoranthene	252	12.441	12.436	0.005	95	466949	50.0	44.4	
171 Benzo[k]fluoranthene	252	12.484	12.479	0.005	98	406443	50.0	41.3	
172 Benzo[a]pyrene	252	12.922	12.922	0.000	80	441555	50.0	45.7	
* 173 Perylene-d12	264	13.018	12.996	0.022	97	347160	40.0	40.0	
178 Indeno[1,2,3-cd]pyrene	276	15.208	15.203	0.005	99	530876	50.0	47.1	
179 Dibenz(a,h)anthracene	278	15.256	15.262	-0.006	94	418712	50.0	46.3	
180 Benzo[g,h,i]perylene	276	15.662	15.668	-0.006	96	441660	50.0	47.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

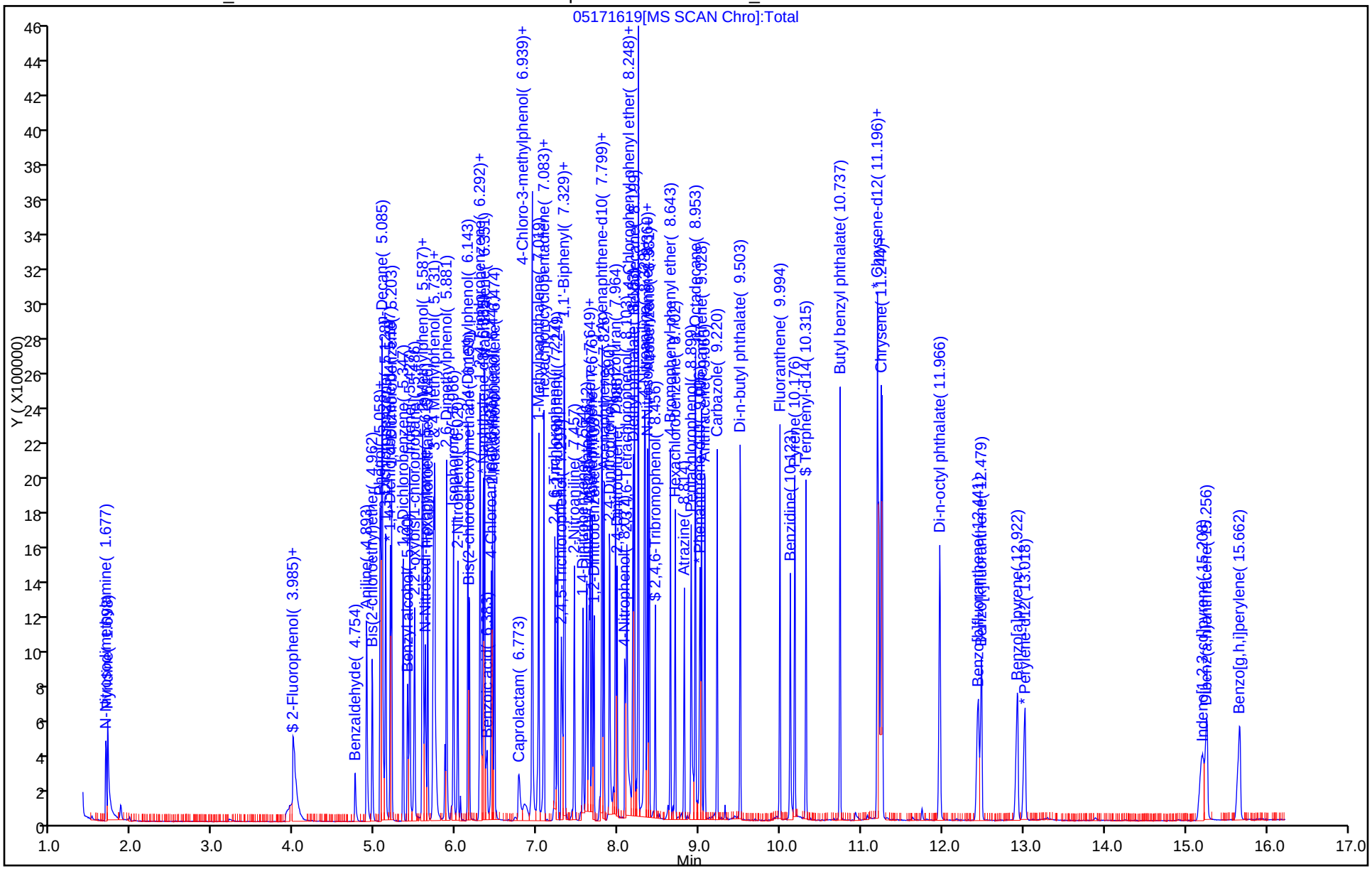
SV_8270ISTD_00009 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 17-May-2016 14:53:25 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171619.D

Injection Date:	17-May-2016 14:32:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	LCS 600-188525/2-A			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 600-188545/2-A

Matrix: Solid | Lab File ID: 05191616.D

Analysis Method: 8270C | Date Collected:

Extract. Method: 3510C LVI | Date Extracted: 05/16/2016 06:26

Sample wt/vol: 200(mL) | Date Analyzed: 05/19/2016 12:05

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 5(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188802 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.03369		0.0125	0.00243
121-14-2	2,4-Dinitrotoluene	0.03395		0.0125	0.00264
95-95-4	2,4,5-Trichlorophenol	0.03343		0.0125	0.00525
88-06-2	2,4,6-Trichlorophenol	0.03137		0.0125	0.00415
95-48-7	2-Methylphenol	0.03383		0.0125	0.00178
15831-10-4	3 & 4 Methylphenol	0.03420		0.0125	0.00169
118-74-1	Hexachlorobenzene	0.03272		0.0125	0.00410
87-68-3	Hexachlorobutadiene	0.03193		0.0125	0.00321
67-72-1	Hexachloroethane	0.03324		0.0125	0.00411
98-95-3	Nitrobenzene	0.03276		0.0125	0.00324
87-86-5	Pentachlorophenol	0.06181		0.0125	0.00394
110-86-1	Pyridine	0.03112		0.0125	0.00270

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	71		24-150
367-12-4	2-Fluorophenol	72		10-130
321-60-8	2-Fluorobiphenyl	70		38-133
118-79-6	2,4,6-Tribromophenol	68		19-150
4165-62-2	Phenol-d5 (Surr)	72		10-130
1718-51-0	Terphenyl-d14	82		35-150

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191616.D
Lims ID: LCS 600-188545/2-A
Client ID:
Sample Type: LCS
Inject. Date: 19-May-2016 12:05:30 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: lcs 600-188545/2-a
Misc. Info.: 600-0012123-015
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\8270LVI_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 19-May-2016 12:59:14 Calib Date: 19-May-2016 09:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191609.D

Column 1 : Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: patelk Date: 19-May-2016 12:39:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 N-Nitrosodimethylamine	74	1.964	1.961	0.003	82	105442	10000	6.44	
2 Pyridine	79	1.991	1.983	0.008	92	172137	10000	6.22	
$ 7 2-Fluorophenol	112	4.047	4.023	0.024	93	155174	10.0	7.24	
6 Acrylamide	71	3.962	4.202	-0.240	68	95848	20000	6.39	
12 Aniline	93	4.886	4.884	0.002	96	261911	10000	6.46	
13 Benzaldehyde	77	4.758	4.945	-0.187	85	22371	10000	0.9394	
16 Bis(2-chloroethyl)ether	93	4.950	4.953	-0.003	96	180647	10000	6.92	
$ 10 Phenol-d5	99	5.036	5.028	0.008	65	246789	10.0	7.25	
17 2-Chlorophenol	128	5.046	5.038	0.008	83	141096	10000	6.79	
11 Phenol	94	5.052	5.038	0.014	80	209152	10000	6.70	
18 n-Decane	57	5.073	5.071	0.002	85	205982	10000	7.00	
20 1,3-Dichlorobenzene	146	5.116	5.113	0.003	84	140791	10000	6.76	
* 21 1,4-Dichlorobenzene-d4	152	5.169	5.172	-0.003	88	104761	8.00	8.00	
22 1,4-Dichlorobenzene	146	5.185	5.188	-0.003	81	141756	10000	6.74	
24 1,2-Dichlorobenzene	146	5.324	5.327	-0.003	84	141462	10000	7.01	
23 Benzyl alcohol	108	5.378	5.375	0.003	83	91016	10000	6.34	
26 Indene	115	5.410	5.407	0.003	90	242944	10000	6.90	
27 2,2'-oxybis[1-chloropropan	45	5.463	5.461	0.003	86	217402	10000	6.81	
25 2-Methylphenol	108	5.549	5.546	0.002	90	146069	10000	6.77	
29 Acetophenone	105	5.565	5.567	-0.002	83	241063	10000	6.24	
31 N-Nitrosodi-n-propylamine	70	5.591	5.599	-0.008	90	153634	10000	6.64	
34 Hexachloroethane	117	5.623	5.626	-0.003	88	84503	10000	6.65	
$ 35 Nitrobenzene-d5	82	5.693	5.696	-0.003	94	262005	10.0	7.07	
30 3 & 4 Methylphenol	108	5.698	5.696	0.002	87	156052	10000	6.84	
36 Nitrobenzene	77	5.709	5.712	-0.003	88	338275	10000	6.55	
39 2,6-Dimethylphenol	122	5.853	5.856	-0.003	88	118460	10000	5.98	
41 Isophorone	82	5.933	5.936	-0.003	98	387041	10000	6.51	
42 2-Nitrophenol	139	5.992	5.995	-0.003	66	76336	10000	6.60	
43 2,4-Dimethylphenol	107	6.115	6.112	0.003	92	164197	10000	5.88	
46 Bis(2-chloroethoxy)methane	93	6.131	6.134	-0.003	97	232433	10000	6.63	
49 1,2,4-Trichlorobenzene	180	6.264	6.267	-0.003	90	110709	10000	6.74	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
48 2,4-Dichlorophenol	162	6.270	6.267	0.003	88	110689	10000	6.78	
* 50 Naphthalene-d8	136	6.307	6.305	0.002	97	451023	8.00	8.00	
51 Naphthalene	128	6.323	6.321	0.002	95	398546	10000	6.64	
47 Benzoic acid	122	6.323	6.331	-0.008	40	45686	10000	4.26	
52 4-Chloroaniline	127	6.403	6.406	-0.003	88	165329	10000	6.27	
53 2,6-Dichlorophenol	162	6.419	6.417	0.002	84	109631	10000	6.60	
55 Hexachlorobutadiene	225	6.446	6.449	-0.003	92	78172	10000	6.39	
59 Caprolactam	113	6.729	6.873	-0.144	75	34663	10000	4.14	
60 4-Chloro-3-methylphenol	107	6.900	6.892	0.008	86	165768	10000	6.80	
62 2-Methylnaphthalene	142	6.905	6.908	-0.003	93	343676	10000	6.74	
63 1-Methylnaphthalene	142	6.986	6.988	-0.002	88	241989	10000	6.75	
66 Hexachlorocyclopentadiene	237	7.050	7.052	-0.002	92	42496	10000	4.57	
65 1,2,4,5-Tetrachlorobenzene	216	7.055	7.052	0.003	91	102686	10000	6.45	
69 2,4,6-Trichlorophenol	196	7.189	7.186	0.003	85	74163	10000	6.27	
$ 72 2-Fluorobiphenyl	172	7.221	7.223	-0.002	98	286303	10.0	6.96	
71 2,4,5-Trichlorophenol	196	7.263	7.261	0.002	80	78502	10000	6.69	
77 1,1'-Biphenyl	154	7.301	7.298	0.003	96	282755	10000	6.38	
78 2-Chloronaphthalene	162	7.306	7.309	-0.003	96	240804	10000	6.40	
81 2-Nitroaniline	65	7.424	7.426	-0.002	70	152141	10000	6.89	
84 Dimethyl phthalate	163	7.573	7.581	-0.008	91	324963	10000	6.94	
85 1,3-Dinitrobenzene	168	7.605	7.608	-0.003	75	51122	10000	6.56	
86 2,6-Dinitrotoluene	165	7.616	7.619	-0.003	71	68404	10000	6.20	
88 Acenaphthylene	152	7.648	7.645	0.003	98	377911	10000	6.71	
87 1,2-Dinitrobenzene	168	7.664	7.667	-0.003	86	37084	10000	7.04	
* 90 Acenaphthene-d10	164	7.765	7.763	0.002	91	254259	8.00	8.00	
89 3-Nitroaniline	138	7.765	7.768	-0.003	84	77483	10000	6.27	
91 Acenaphthene	153	7.792	7.790	0.002	96	230011	10000	6.54	
92 2,4-Dinitrophenol	184	7.856	7.859	-0.003	69	74331	20000	12.0	
96 Dibenzofuran	168	7.931	7.934	-0.003	91	344139	10000	6.69	
95 2,4-Dinitrotoluene	165	7.952	7.955	-0.003	78	102243	10000	6.79	
93 4-Nitrophenol	109	8.043	8.041	0.002	87	210886	20000	14.6	
99 2,3,4,6-Tetrachlorophenol	232	8.075	8.073	0.002	84	56978	10000	6.75	
83 1,4-Dinitrobenzene	168		8.087				ND	ND	
101 Diethyl phthalate	149	8.150	8.158	-0.008	92	353289	10000	6.92	
102 Hexadecane	57	8.166	8.169	-0.003	97	255383	10000	6.29	
104 Fluorene	166	8.214	8.212	0.002	87	266217	10000	6.32	
105 4-Chlorophenyl phenyl ethe	204	8.220	8.217	0.003	86	111148	10000	6.16	
107 4-Nitroaniline	138	8.284	8.286	-0.002	71	90634	10000	7.53	
108 4,6-Dinitro-2-methylphenol	198	8.294	8.303	-0.008	50	100319	20000	12.9	
110 N-Nitrosodiphenylamine	169	8.326	8.329	-0.003	66	196858	10000	6.77	
109 Diphenylamine	169	8.326	8.329	-0.003	92	196858	8500.0	5.76	
112 1,2-Diphenylhydrazine	77	8.348	8.351	-0.003	44	595254	10000	6.35	
111 Azobenzene	77	8.348	8.351	-0.003	96	595254	10000	6.35	
$ 113 2,4,6-Tribromophenol	330	8.423	8.425	-0.002	79	44579	10.0	6.82	
118 4-Bromophenyl phenyl ether	248	8.615	8.612	0.003	80	71961	10000	6.79	
122 Hexachlorobenzene	284	8.668	8.671	-0.003	85	82703	10000	6.54	
127 Pentachlorophenol	266	8.866	8.863	0.003	80	80192	20000	12.4	
130 n-Octadecane	57	8.919	8.922	-0.003	94	252102	10000	6.60	
124 Atrazine	200		8.962				ND	ND	
* 131 Phenanthrene-d10	188	8.973	8.976	-0.003	96	368845	8.00	8.00	
132 Phenanthrene	178	8.994	8.992	0.002	99	401520	10000	6.91	
134 Anthracene	178	9.032	9.034	-0.002	99	381642	10000	7.03	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
135 Carbazole	167	9.187	9.184	0.002	97	431042	10000	7.36	
137 Di-n-butyl phthalate	149	9.475	9.472	0.003	98	638787	10000	7.70	
143 Fluoranthene	202	9.961	9.959	0.002	99	450526	10000	7.18	
146 Pyrene	202	10.143	10.140	0.003	96	474273	10000	7.87	
144 Benzidine	184		10.276				ND	ND	
$ 149 Terphenyl-d14	244	10.282	10.279	0.003	98	297400	10.0	8.20	
154 Butyl benzyl phthalate	149	10.693	10.696	-0.003	88	309834	10000	8.19	
159 Benzo[a]anthracene	228	11.147	11.150	-0.003	99	447890	10000	7.85	
* 160 Chrysene-d12	240	11.163	11.161	0.002	97	368361	8.00	8.00	
161 Chrysene	228	11.184	11.187	-0.003	97	419278	10000	7.83	
162 Bis(2-ethylhexyl) phthalat	149	11.200	11.203	-0.003	95	425633	10000	8.08	
157 3,3'-Dichlorobenzidine	252		11.356				ND	ND	
164 Di-n-octyl phthalate	149	11.890	11.892	-0.002	99	757448	10000	8.29	
165 Benzo[b]fluoranthene	252	12.354	12.357	-0.003	98	471705	10000	8.99	
167 Benzo[k]fluoranthene	252	12.392	12.400	-0.008	99	439296	10000	9.50	
168 Benzo[a]pyrene	252	12.824	12.833	-0.009	80	405235	10000	8.48	
* 169 Perylene-d12	264	12.915	12.923	-0.008	97	346810	8.00	8.00	
172 Indeno[1,2,3-cd]pyrene	276	15.079	15.087	-0.008	99	460395	10000	7.95	
173 Dibenz(a,h)anthracene	278	15.143	15.156	-0.013	95	364556	10000	8.25	
174 Benzo[g,h,i]perylene	276	15.560	15.573	-0.013	98	378616	10000	8.14	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

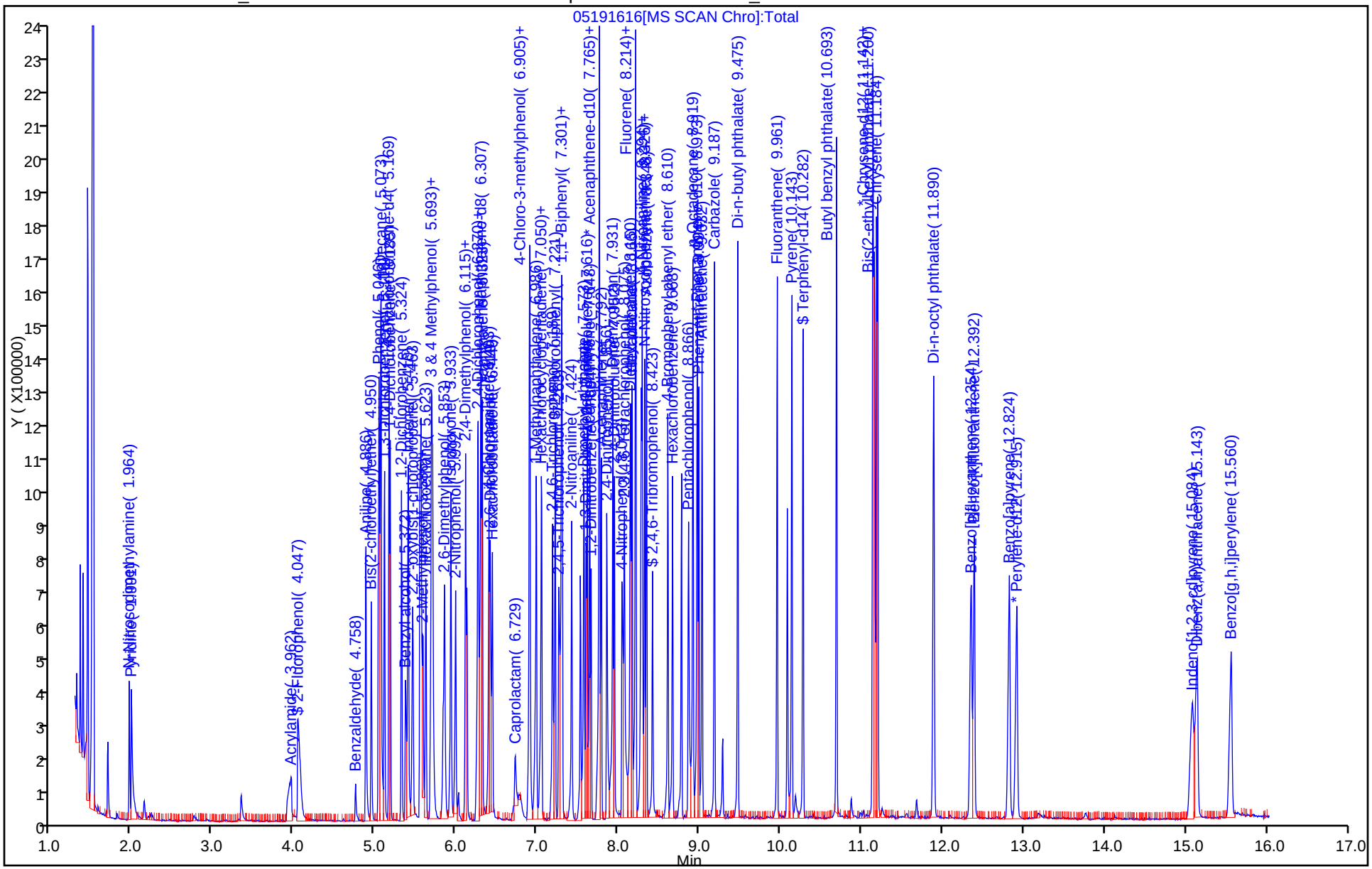
SV_8270ISTD_00009 Amount Added: 4.00 Units: uL Run Reagent

Report Date: 19-May-2016 12:59:21 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160518-12123.b\05191616.D

Injection Date:	19-May-2016 12:05:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	LCS 600-188545/2-A			Worklist Smp#:	15
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8270LVI_9	Limit Group:	SV - 8270C_8270CLL		



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Water MS | Lab Sample ID: 600-130758-2 MS

Matrix: Water (TCLP) | Lab File ID: 05171624.D

Analysis Method: 8270C | Date Collected: 05/11/2016 10:00

Extract. Method: 3510C | Date Extracted: 05/14/2016 09:21

Sample wt/vol: 200(mL) | Date Analyzed: 05/17/2016 16:30

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188677 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
106-46-7	1,4-Dichlorobenzene	0.1986		0.0500	0.00890
121-14-2	2,4-Dinitrotoluene	0.2157		0.0500	0.0132
95-95-4	2,4,5-Trichlorophenol	0.2235		0.0500	0.0136
88-06-2	2,4,6-Trichlorophenol	0.2133		0.0500	0.0129
95-48-7	2-Methylphenol	0.2084		0.0500	0.00905
15831-10-4	3 & 4 Methylphenol	0.2094		0.100	0.00940
118-74-1	Hexachlorobenzene	0.2255		0.0500	0.0130
87-68-3	Hexachlorobutadiene	0.2112		0.0500	0.0106
67-72-1	Hexachloroethane	0.1970		0.0500	0.0110
98-95-3	Nitrobenzene	0.2178		0.0500	0.0124
87-86-5	Pentachlorophenol	0.4140		0.250	0.0231
110-86-1	Pyridine	0.1973		0.0500	0.0108

CAS NO.	SURROGATE	%REC	Q	LIMITS
4165-60-0	Nitrobenzene-d5	84		35-130
367-12-4	2-Fluorophenol	84		10-130
321-60-8	2-Fluorobiphenyl	83		41-130
118-79-6	2,4,6-Tribromophenol	88		12-138
4165-62-2	Phenol-d5	85		10-130
1718-51-0	Terphenyl-d14	82		43-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171624.D
Lims ID: 600-130758-A-2-D MS
Client ID:
Sample Type: MS
Inject. Date: 17-May-2016 16:30:30 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-130758-a-2-d ms
Misc. Info.: 600-0012101-014
Operator ID: KP Instrument ID: CHSVMS09

Method: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\8270C_9.m
Limit Group: SV - 8270C_8270CLL
Last Update: 18-May-2016 09:50:14 Calib Date: 17-May-2016 10:19:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12090.b\05171608.D

Column 1 : Det: MS SCAN
Process Host: XAWRK035

First Level Reviewer: somjitp Date: 18-May-2016 09:50:14

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
2 Pyridine	79	1.704	1.698	0.006	89	266454	50.0	39.5	
$ 7 2-Fluorophenol	112	3.985	3.979	0.006	92	215974	50.0	41.9	
$ 16 Phenol-d5	99	5.059	5.059	0.011	71	359465	50.0	42.7	
* 21 1,4-Dichlorobenzene-d4	152	5.187	5.186	0.001	84	119974	40.0	40.0	
22 1,4-Dichlorobenzene	146	5.203	5.203	0.000	80	204944	50.0	39.7	
28 2-Methylphenol	108	5.577	5.577	0.000	90	212274	50.0	41.7	
34 Hexachloroethane	117	5.647	5.651	-0.004	88	131150	50.0	39.4	
$ 36 Nitrobenzene-d5	82	5.716	5.721	-0.005	94	370233	50.0	41.8	
37 3 & 4 Methylphenol	108	5.727	5.721	0.006	91	232619	50.0	41.9	
38 Nitrobenzene	77	5.732	5.737	-0.005	88	524478	50.0	43.6	
* 50 Naphthalene-d8	136	6.336	6.329	0.007	97	499234	40.0	40.0	
57 Hexachlorobutadiene	225	6.475	6.474	0.001	92	125216	50.0	42.2	
72 2,4,6-Trichlorophenol	196	7.217	7.217	0.000	84	104617	50.0	42.7	
$ 73 2-Fluorobiphenyl	172	7.255	7.254	0.001	98	375307	50.0	41.3	
74 2,4,5-Trichlorophenol	196	7.297	7.291	0.006	79	109933	50.0	44.7	
* 91 Acenaphthene-d10	164	7.794	7.793	0.001	90	269918	40.0	40.0	
97 2,4-Dinitrotoluene	165	7.987	7.986	0.001	77	128081	50.0	43.1	
$ 115 2,4,6-Tribromophenol	330	8.457	8.456	0.001	82	66070	50.0	44.0	
123 Hexachlorobenzene	284	8.702	8.707	-0.005	88	121853	50.0	45.1	
128 Pentachlorophenol	266	8.900	8.899	0.001	81	128866	100.0	82.8	
* 131 Phenanthrene-d10	188	9.007	9.006	0.001	95	338472	40.0	40.0	
$ 152 Terphenyl-d14	244	10.326	10.315	0.011	97	332162	50.0	40.8	
* 164 Chrysene-d12	240	11.251	11.201	0.050	98	360706	40.0	40.0	
* 173 Perylene-d12	264	13.056	12.996	0.060	97	330957	40.0	40.0	

Reagents:

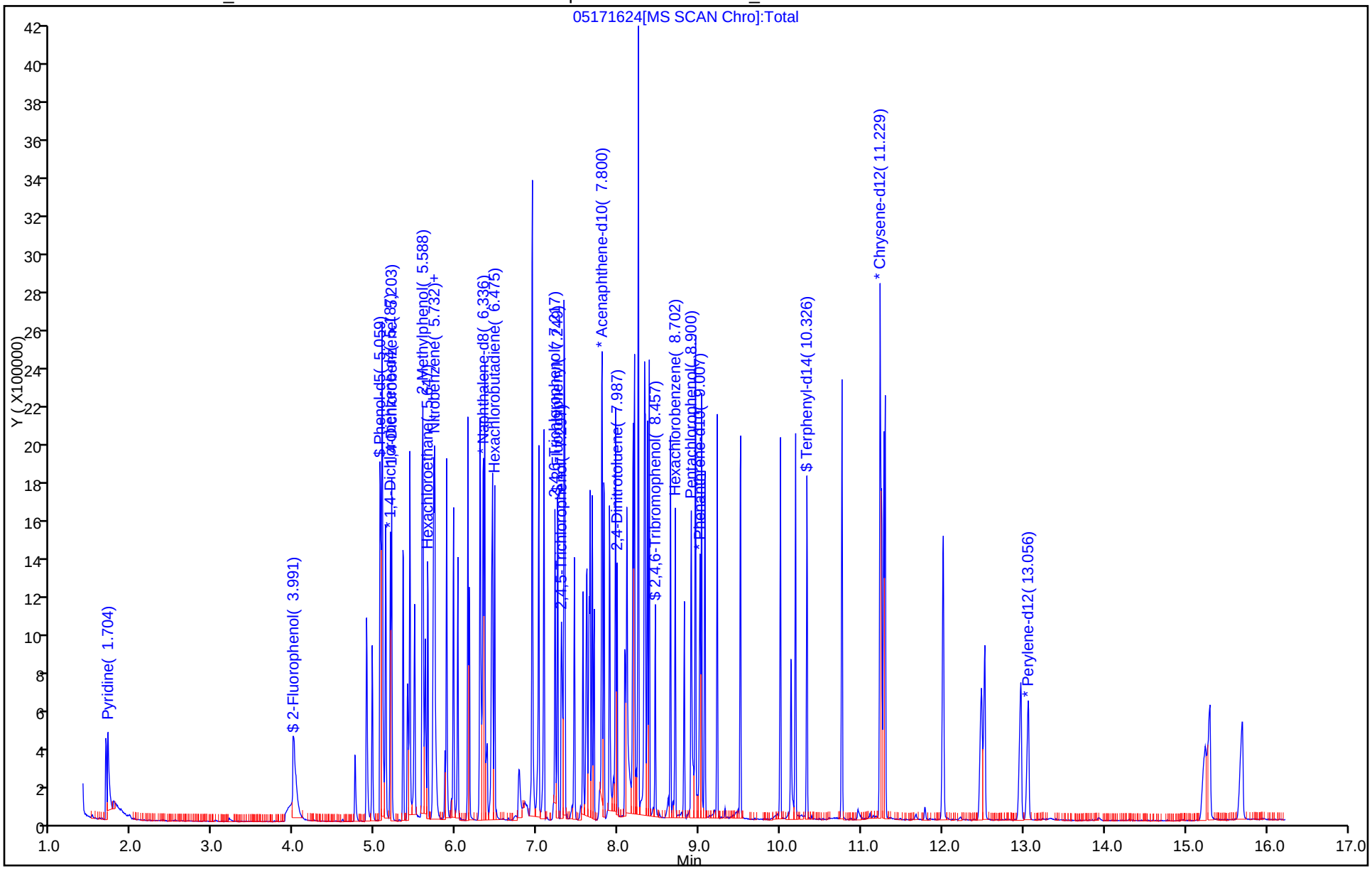
SV_8270ISTD_00009 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 18-May-2016 09:50:15 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHSVMS09\20160517-12101.b\05171624.D

Injection Date:	17-May-2016 16:30:30	Instrument ID:	CHSVMS09	Operator ID:	KP
Lims ID:	600-130758-A-2-D MS			Worklist Smp#:	14
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8270C_9	Limit Group:	SV - 8270C_8270CLL		



GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHSVMS09 Start Date: 05/17/2016 07:41

Analysis Batch Number: 188634 End Date: 05/17/2016 11:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 600-188634/1		05/17/2016 07:41	1	05171601.D	RXi-5Sil MS 0.25(mm)
IC 600-188634/2		05/17/2016 07:57	1	05171602.D	RXi-5Sil MS 0.25(mm)
IC 600-188634/3		05/17/2016 08:21	1	05171603.D	RXi-5Sil MS 0.25(mm)
IC 600-188634/4		05/17/2016 08:45	1	05171604.D	RXi-5Sil MS 0.25(mm)
ICIS 600-188634/5		05/17/2016 09:08	1	05171605.D	RXi-5Sil MS 0.25(mm)
IC 600-188634/6		05/17/2016 09:32	1	05171606.D	RXi-5Sil MS 0.25(mm)
IC 600-188634/7		05/17/2016 09:56	1	05171607.D	RXi-5Sil MS 0.25(mm)
IC 600-188634/8		05/17/2016 10:19	1	05171608.D	RXi-5Sil MS 0.25(mm)
ICV 600-188634/9		05/17/2016 10:43	1		RXi-5Sil MS 0.25(mm)
CCV 600-188634/10		05/17/2016 11:06	1		RXi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHSVMS09 Start Date: 05/17/2016 11:30

Analysis Batch Number: 188677 End Date: 05/18/2016 00:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 600-188677/1		05/17/2016 11:30	1	05171611.D	RXi-5Sil MS 0.25(mm)
CCVIS 600-188677/2		05/17/2016 11:46	1	05171612.D	RXi-5Sil MS 0.25(mm)
CCV 600-188677/3		05/17/2016 12:10	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 12:33	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 12:57	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 13:21	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 13:44	1		RXi-5Sil MS 0.25(mm)
MB 600-188525/1-A		05/17/2016 14:08	1	05171618.D	RXi-5Sil MS 0.25(mm)
LCS 600-188525/2-A		05/17/2016 14:32	1	05171619.D	RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 14:55	1		RXi-5Sil MS 0.25(mm)
LB 600-188519/1-B		05/17/2016 15:19	1	05171621.D	RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 15:42	1		RXi-5Sil MS 0.25(mm)
600-130758-2		05/17/2016 16:06	1	05171623.D	RXi-5Sil MS 0.25(mm)
600-130758-2 MS		05/17/2016 16:30	1	05171624.D	RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 16:54	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 17:17	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 17:41	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 18:05	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 18:29	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 18:53	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 19:16	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 19:40	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 20:04	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 20:28	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 20:52	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 21:15	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 21:39	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 22:03	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 22:27	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 22:51	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 23:15	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/17/2016 23:39	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/18/2016 00:03	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/18/2016 00:27	10		RXi-5Sil MS 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHSVMS09 Start Date: 05/19/2016 06:38

Analysis Batch Number: 188802 End Date: 05/19/2016 17:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 600-188802/1		05/19/2016 06:38	1	05191602.D	RXi-5Sil MS 0.25(mm)
IC 600-188802/2		05/19/2016 06:54	1	05191603.D	RXi-5Sil MS 0.25(mm)
IC 600-188802/3		05/19/2016 07:19	1	05191604.D	RXi-5Sil MS 0.25(mm)
IC 600-188802/4		05/19/2016 07:43	1	05191605.D	RXi-5Sil MS 0.25(mm)
ICIS 600-188802/5		05/19/2016 08:07	1	05191606.D	RXi-5Sil MS 0.25(mm)
IC 600-188802/6		05/19/2016 08:32	1	05191607.D	RXi-5Sil MS 0.25(mm)
IC 600-188802/7		05/19/2016 08:56	1	05191608.D	RXi-5Sil MS 0.25(mm)
IC 600-188802/8		05/19/2016 09:21	1	05191609.D	RXi-5Sil MS 0.25(mm)
ICV 600-188802/9		05/19/2016 09:44	1		RXi-5Sil MS 0.25(mm)
CCVIS 600-188802/10		05/19/2016 10:08	1	05191611.D	RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 10:31	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 10:55	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 11:18	1		RXi-5Sil MS 0.25(mm)
MB 600-188545/1-A		05/19/2016 11:42	1	05191615.D	RXi-5Sil MS 0.25(mm)
LCS 600-188545/2-A		05/19/2016 12:05	1	05191616.D	RXi-5Sil MS 0.25(mm)
LB 600-188518/1-C		05/19/2016 12:29	1	05191617.D	RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 12:52	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 13:16	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 13:39	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 14:03	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 14:26	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 14:53	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 15:16	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 15:40	1		RXi-5Sil MS 0.25(mm)
600-130758-1		05/19/2016 16:04	1	05191626.D	RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 16:27	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 16:51	1		RXi-5Sil MS 0.25(mm)
ZZZZZ		05/19/2016 17:14	10		RXi-5Sil MS 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188525 Batch Start Date: 05/14/16 09:18 Batch Analyst: Racelis, Luis E

Batch Method: 3510C Batch End Date: 05/14/16 12:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount	FirstAdjustpH	SecondAdjustpH	SVREGSURR 00100
MB 600-188525/1		3510C, 8270C		7	1000 mL	1.0 mL	2	12	1 mL
LCS 600-188525/2		3510C, 8270C		7	1000 mL	1.0 mL	2	12	1 mL
LB 600-188519/1-A		3510C, 8270C		5	200 mL	1.0 mL	2	12	1 mL
600-130758-A-2-A	PC-IDW Water	3510C, 8270C	P	7	200 mL	1.0 mL	2	12	1 mL
600-130758-A-2-B MS	PC-IDW Water	3510C, 8270C	P	7	200 mL	1.0 mL	2	12	1 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SVS_REGLCS 00112	AnalysisComment				
MB 600-188525/1		3510C, 8270C							
LCS 600-188525/2		3510C, 8270C		1 mL					
LB 600-188519/1-A		3510C, 8270C			Still on wait status.				
600-130758-A-2-A	PC-IDW Water	3510C, 8270C	P		Still on wait status.				
600-130758-A-2-B MS	PC-IDW Water	3510C, 8270C	P	1 mL	Still on wait status.				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188525 Batch Start Date: 05/14/16 09:18 Batch Analyst: Racelis, Luis E

Batch Method: 3510C Batch End Date: 05/14/16 12:00

Batch Notes	
Acid used for pH adjustment	H2SO4
Acid Used for pH Adjustment ID	EX/MSULF/MACID2_00014
Base used for pH adjustment	NaOH
Base Used to Adjust pH ID	EX/MSODIUM/MHYD_00026
Batch Comment	vialed by: luis e. racelis
Concentration End Time	11:30
Concentration Start Time	10:25
Analyst ID - Concentration	luis e. racelis
Final Concentrator Volume	1.0 mL
Glass Wool ID	EX/MGlasswool_00001
N-evap ID	40383
N-evap Temperature	35 Degrees C
Na2SO4 ID	00055
Oven, Bath or Block Temperature 1	ambient
pH Paper ID	HC559158
Pipette ID	none
Prep Solvent ID	EX/METH/CHLO_00164
Prep Solvent Name	Ch2Cl2
Prep Solvent Volume Used	360 ML and 30 ML (rinse) per sample plus QC mL
Person's name who did the prep	luis e. racelis
Analyst ID - Reagent Drop Witness	by lid method
Sufficient volume for MS/MSD?	No
Syringe ID	SVOA Surr-Spk-1
Thermometer ID	#554 and 544
Uncorrected N-evap Temperature	34-36 Degrees C
Uncorrected Temperature	65 (+ or -5) Celsius
Vial ID	none

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188545 Batch Start Date: 05/16/16 06:26 Batch Analyst: Bennett, Shannon M

Batch Method: 3510C LVI Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	ReceivedpH	InitialAmount	FinalAmount	FirstAdjustpH	SecondAdjustpH	SVREGSURR 00101
MB 600-188545/1		3510C LVI, 8270C		7 SU	200 mL	1.0 mL	2 SU	12 SU	0.2 mL
LCS 600-188545/2		3510C LVI, 8270C		7 SU	200 mL	1.0 mL	2 SU	12 SU	0.2 mL
LB 600-188518/1-A		3510C LVI, 8270C		5 SU	200 mL	1.0 mL	2 SU	12 SU	0.2 mL
600-130758-A-1-A	PC-IDW Soil	3510C LVI, 8270C	P	5 SU	200 mL	1.0 mL	2 SU	12 SU	0.2 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SVS_REGLCS 00113					
MB 600-188545/1		3510C LVI, 8270C							
LCS 600-188545/2		3510C LVI, 8270C		0.2 mL					
LB 600-188518/1-A		3510C LVI, 8270C							
600-130758-A-1-A	PC-IDW Soil	3510C LVI, 8270C	P						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188545 Batch Start Date: 05/16/16 06:26 Batch Analyst: Bennett, Shannon M

Batch Method: 3510C LVI Batch End Date:

Batch Notes	
Acid used for pH adjustment	ex-sulf-acid-00014
Base Used to Adjust pH ID	ex-sodium hyd-00026
Analyst ID - Concentration	shannon
Final Concentrator Volume	1.0 mL
Glass Wool ID	ex-glasswool-00002
Oven, Bath or Block Temperature 1	65 Degrees C
pH Paper ID	hc559158
Prep Solvent ID	ex-methy chlor-00164
Prep Solvent Name	ch2cl2
Prep Solvent Volume Used	30mls each shake mL
Person's name who did the prep	shannon
Analyst ID - Spike Witness Analyst	lid method
Sufficient volume for MS/MSD?	no
Syringe ID	svoa spk
Thermometer ID	581

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Method TX 1005

Texas - Total Petroleum Hydrocarbon (GC) by Method TX_1005

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid Level: Low

GC Column (1): RTX-5 ID: 0.53(mm)

Client Sample ID	Lab Sample ID	OTPH	#
PC-IDW Soil	600-130758-1	123	
	MB 600-188433/1-B	142	X
	LCS 600-188433/2-B	135	X
	LCSD 600-188433/3-B	132	X
PC-IDW Soil MS	600-130758-1 MS	126	
PC-IDW Soil MSD	600-130758-1 MSD	122	

	QC LIMITS
OTPH = o-Terphenyl	70-130

Column to be used to flag recovery values

FORM II TX 1005

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low

GC Column (2): ID:

Client Sample ID	Lab Sample ID	OTPH #
PC-IDW Water	600-130758-2	116
	MB 600-188603/1-A	114
	LCS 600-188603/2-A	123
	LCSD 600-188603/3-A	113
	600-130738-I-1-A MS	121
	600-130738-J-1-A MSD	114

	QC LIMITS
OTPH = o-Terphenyl	70-130

Column to be used to flag recovery values

FORM II TX 1005

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: F0513004.D

Lab ID: LCS 600-188433/2-B Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCS CONCENTRATION (mg/Kg)	LCS % REC	QC LIMITS REC	#
C6-C12	250	272.6	109	75-125	
>C12-C28	250	267.3	107	75-125	
Total Petroleum Hydrocarbons (C6-C35)	500	539.9	108	75-125	

Column to be used to flag recovery and RPD values

FORM III TX 1005

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B0516011.D

Lab ID: LCS 600-188603/2-A Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
C6-C12	33.3	33.49	100	75-125	
>C12-C28	33.3	33.15	99	75-125	
Total Petroleum Hydrocarbons (C6-C35)	66.7	66.64	100	75-125	

Column to be used to flag recovery and RPD values

FORM III TX 1005

FORM III
GC SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: F0513005.D

Lab ID: LCSD 600-188433/3-B Client ID:

COMPOUND	SPIKE ADDED (mg/Kg)	LCSD CONCENTRATION (mg/Kg)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
C6-C12	250	280.0	112	3	20	75-125	
>C12-C28	250	280.3	112	5	20	75-125	
Total Petroleum Hydrocarbons (C6-C35)	500	560.3	112	4	20	75-125	

Column to be used to flag recovery and RPD values

FORM III TX 1005

FORM III
GC SEMI VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B0516012.D

Lab ID: LCSD 600-188603/3-A Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
C6-C12	33.3	32.62	98	3	20	75-125	
>C12-C28	33.3	30.99	93	7	20	75-125	
Total Petroleum Hydrocarbons (C6-C35)	66.7	63.61	95	5	20	75-125	

Column to be used to flag recovery and RPD values

FORM III TX 1005

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: F0513016.D

Lab ID: 600-130758-1 MS Client ID: PC-IDW Soil MS

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC	QC LIMITS REC	#
C6-C12	229	3.66 U	230.7	101	75-125	
>C12-C28	229	3.91 U	214.4	94	75-125	
Total Petroleum Hydrocarbons (C6-C35)	458	3.66 U	445.1	97	75-125	

Column to be used to flag recovery and RPD values

FORM III TX 1005

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B0516014.D

Lab ID: 600-130738-I-1-A MS Client ID:

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
C6-C12	27.6	0.685 U	28.12	102	75-125	
>C12-C28	27.6	0.792 U	27.67	100	75-125	
Total Petroleum Hydrocarbons (C6-C35)	55.2	0.685 U	55.79	101	75-125	

Column to be used to flag recovery and RPD values

FORM III TX 1005

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid Level: Low Lab File ID: F0513017.D

Lab ID: 600-130758-1 MSD Client ID: PC-IDW Soil MSD

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
C6-C12	228	227.4	100	1	20	75-125	
>C12-C28	228	222.3	98	4	20	75-125	
Total Petroleum Hydrocarbons (C6-C35)	456	449.7	99	1	20	75-125	

Column to be used to flag recovery and RPD values

FORM III TX 1005

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B0516015.D

Lab ID: 600-130738-J-1-A MSD Client ID:

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
C6-C12	27.3	27.35	100	3	20	75-125	
>C12-C28	27.3	26.25	96	5	20	75-125	
Total Petroleum Hydrocarbons (C6-C35)	54.7	53.60	98	4	20	75-125	

Column to be used to flag recovery and RPD values

FORM III TX 1005

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: F0513003.D Lab Sample ID: MB 600-188433/1-B

Matrix: Solid Date Extracted: 05/12/2016 15:15

Instrument ID: CHFID12 Date Analyzed: 05/13/2016 09:07

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-188433/2-B	F0513004.D	05/13/2016 09:39
	LCSD 600-188433/3-B	F0513005.D	05/13/2016 10:11
PC-IDW Soil	600-130758-1	F0513015.D	05/13/2016 16:01
PC-IDW Soil MS	600-130758-1 MS	F0513016.D	05/13/2016 16:34
PC-IDW Soil MSD	600-130758-1 MSD	F0513017.D	05/13/2016 17:07

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab File ID: B0516010.D Lab Sample ID: MB 600-188603/1-A

Matrix: Water Date Extracted: 05/16/2016 14:59

Instrument ID: CHFID12_R Date Analyzed: 05/16/2016 15:54

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 600-188603/2-A	B0516011.D	05/16/2016 16:26
	LCSD 600-188603/3-A	B0516012.D	05/16/2016 16:59
	600-130738-I-1-A MS	B0516014.D	05/16/2016 18:03
	600-130738-J-1-A MSD	B0516015.D	05/16/2016 18:35
PC-IDW Water	600-130758-2	B0516017.D	05/16/2016 19:39

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: ICRT 600-188340/8 Date Analyzed: 05/12/2016 12:10

Instrument ID: CHFID12 GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): F0512008.D Heated Purge: (Y/N) N

Calibration ID: 9325

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				13.43		
UPPER LIMIT				13.53		
LOWER LIMIT				13.33		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
ICRT 600-188340/8		05/12/2016 12:10	F0512008.D	13.43		
CCVRT 600-188457/2		05/13/2016 08:31	F0513002.D	13.43		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII TX 1005

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: CCVRT 600-188457/2 Date Analyzed: 05/13/2016 08:31

Instrument ID: CHFID12 GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): F0513002.D Heated Purge: (Y/N) N

Calibration ID: 9325

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				13.43		
UPPER LIMIT				13.52		
LOWER LIMIT				13.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 600-188457/2		05/13/2016 08:31	F0513002.D	13.43		
MB 600-188433/1-B		05/13/2016 09:07	F0513003.D	13.42		
LCS 600-188433/2-B		05/13/2016 09:39	F0513004.D	13.42		
LCSD 600-188433/3-B		05/13/2016 10:11	F0513005.D	13.42		
CCV 600-188457/13		05/13/2016 14:49	F0513013.D	13.42		
600-130758-1	PC-IDW Soil	05/13/2016 16:01	F0513015.D	13.42		
600-130758-1 MS	PC-IDW Soil MS	05/13/2016 16:34	F0513016.D	13.42		
600-130758-1 MSD	PC-IDW Soil MSD	05/13/2016 17:07	F0513017.D	13.42		
CCV 600-188457/18		05/13/2016 17:40	F0513018.D	13.42		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII TX 1005

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: ICRT 600-188342/8 Date Analyzed: 05/12/2016 12:10

Instrument ID: CHFID12_R GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): B0512008.D Heated Purge: (Y/N) N

Calibration ID: 9327

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
INITIAL CALIBRATION SURROGATE				13.46		
UPPER LIMIT				13.56		
LOWER LIMIT				13.36		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
ICRT 600-188342/8		05/12/2016 12:10	B0512008.D	13.46		
CCVRT 600-188552/4		05/16/2016 09:42	B0516004.D	13.46		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII TX 1005

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Sample No.: CCVRT 600-188552/4 Date Analyzed: 05/16/2016 09:42

Instrument ID: CHFID12_R GC Column: RTX-5 ID: 0.53(mm)

Lab File ID (Standard): B0516004.D Heated Purge: (Y/N) N

Calibration ID: 9327

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				OTPH		
				RT #		
CONTINUING CALIBRATION SURROGATE				13.46		
UPPER LIMIT				13.56		
LOWER LIMIT				13.36		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 600-188552/4		05/16/2016 09:42	B0516004.D	13.46		
CCV 600-188552/9		05/16/2016 13:01	B0516009.D	13.47		
MB 600-188603/1-A		05/16/2016 15:54	B0516010.D	13.47		
LCS 600-188603/2-A		05/16/2016 16:26	B0516011.D	13.47		
LCSD 600-188603/3-A		05/16/2016 16:59	B0516012.D	13.47		
600-130738-I-1-A MS		05/16/2016 18:03	B0516014.D	13.47		
600-130738-J-1-A MSD		05/16/2016 18:35	B0516015.D	13.47		
600-130758-2	PC-IDW Water	05/16/2016 19:39	B0516017.D	13.46		
CCV 600-188552/20		05/16/2016 21:16	B0516020.D	13.47		

OTPH = o-Terphenyl

OTPH RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII TX 1005

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Soil | Lab Sample ID: 600-130758-1

Matrix: Solid | Lab File ID: F0513015.D

Analysis Method: TX 1005 | Date Collected: 05/11/2016 10:00

Extraction Method: TX_1005_S_Prep | Date Extracted: 05/12/2016 15:15

Sample wt/vol: 12.983(g) | Date Analyzed: 05/13/2016 16:01

Con. Extract Vol.: 10.00(g) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 20.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188457 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	3.66	U	9.63	3.66
STL00035	>C12-C28	3.91	U	9.63	3.91
STL00147	>C28-C35	3.91	U	9.63	3.91
STL00006	Total Petroleum Hydrocarbons (C6-C35)	3.66	U	9.63	3.66

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	123		70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513015.D
Lims ID: 600-130758-O-1-B
Client ID: PC-IDW Soil
Sample Type: Client
Inject. Date: 13-May-2016 16:01:36 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012052-015
Operator ID: Instrument ID: CHFID12

Method: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 16-May-2016 09:25:59 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK025

First Level Reviewer: somjitp Date: 16-May-2016 09:25:59

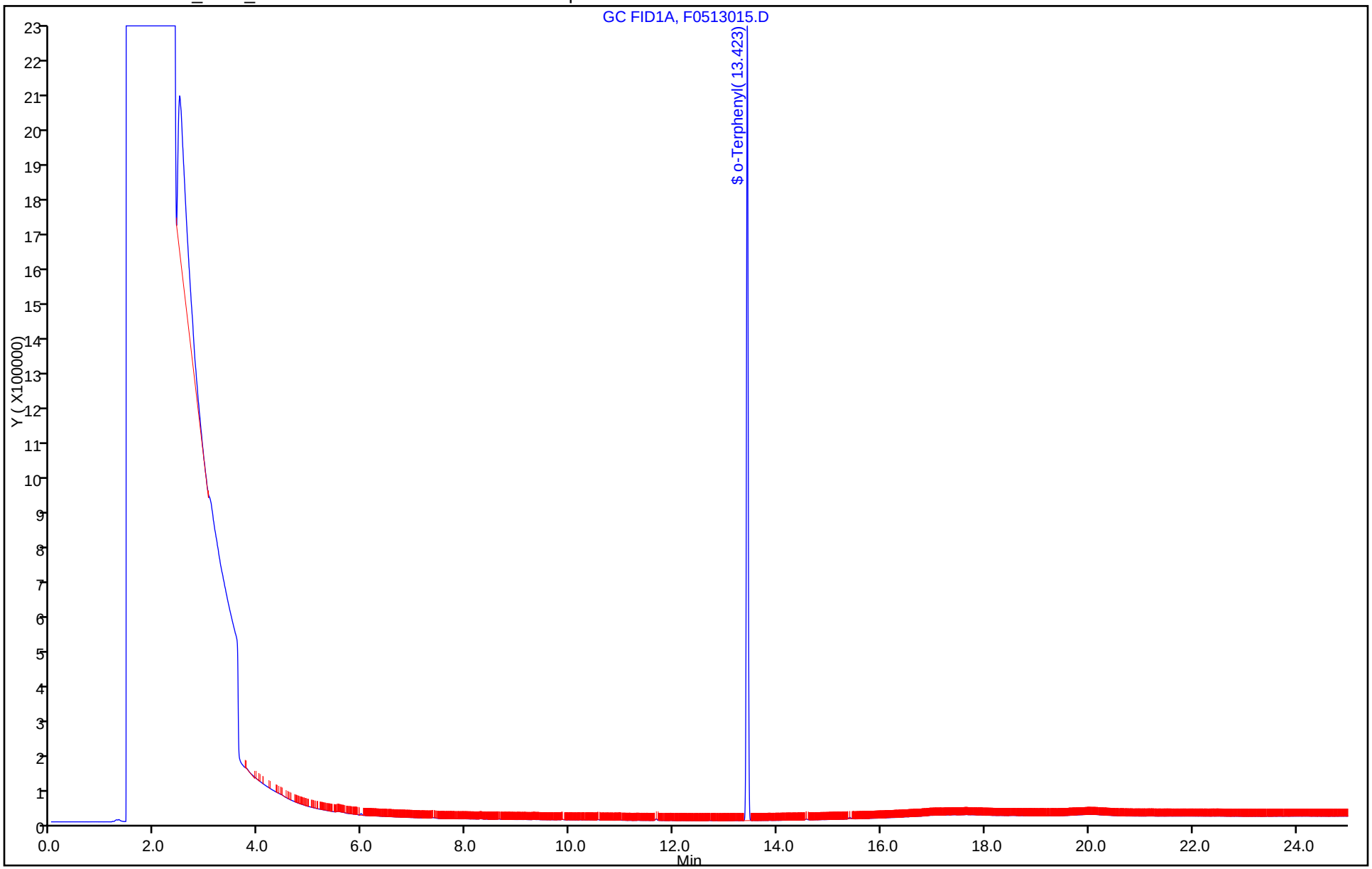
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
A 3 Over C6-C8 aliphatics	4.499	(3.617-5.380)		18284	0.0962	
A 6 Over C8-C10 aliphatics	6.469	(5.380-7.558)		14131	0.0744	
A 10 Over C10-C12 aliphatics	8.363	(7.558-9.169)		3054	0.0161	
A 13 Over C12-C16 aliphatics	10.382	(9.095-11.670)		6150	7.00	
A 19 Over C16-C21 aliphatics	13.003	(11.740-14.266)		4608	6.99	
$ 22 o-Terphenyl	13.423	13.426	-0.003	5151007	15.4	
A 33 Over C21-C35 aliphatics	17.454	(14.266-20.641)		42138	0.1641	
S 42 Over C6-C35 aliphatics					14.3	

Report Date: 16-May-2016 09:26:01 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513015.D

Injection Date:	13-May-2016 16:01:36	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	600-130758-O-1-B	Lab Sample ID:	600-130758-1	Worklist Smp#:	15
Client ID:	PC-IDW Soil				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Water | Lab Sample ID: 600-130758-2

Matrix: Water | Lab File ID: B0516017.D

Analysis Method: TX 1005 | Date Collected: 05/11/2016 10:00

Extraction Method: TX_1005_W_Prep | Date Extracted: 05/16/2016 14:59

Sample wt/vol: 36.68(mL) | Date Analyzed: 05/16/2016 19:39

Con. Extract Vol.: 3.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188552 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	0.679	U	1.64	0.679
STL00035	>C12-C28	0.785	U	1.64	0.785
STL00147	>C28-C35	0.785	U	1.64	0.785
STL00006	Total Petroleum Hydrocarbons (C6-C35)	0.679	U	1.64	0.679

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	116		70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516017.D				
Lims ID:	600-130758-M-2-A				
Client ID:	PC-IDW Water				
Sample Type:	Client				
Inject. Date:	16-May-2016 19:39:50	ALS Bottle#:	67	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	600-0012073-017				
Operator ID:		Instrument ID:	CHFID12_R		
Method:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\GCSV - TX1005_1006R.m				
Limit Group:	GCSV - TX1005				
Last Update:	17-May-2016 10:22:31	Calib Date:	12-May-2016 13:49:14		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D				
Column 1 :			Det: GC FID1A		
Process Host:	XAWRK018				
First Level Reviewer: somjitp		Date:	17-May-2016 10:22:31		

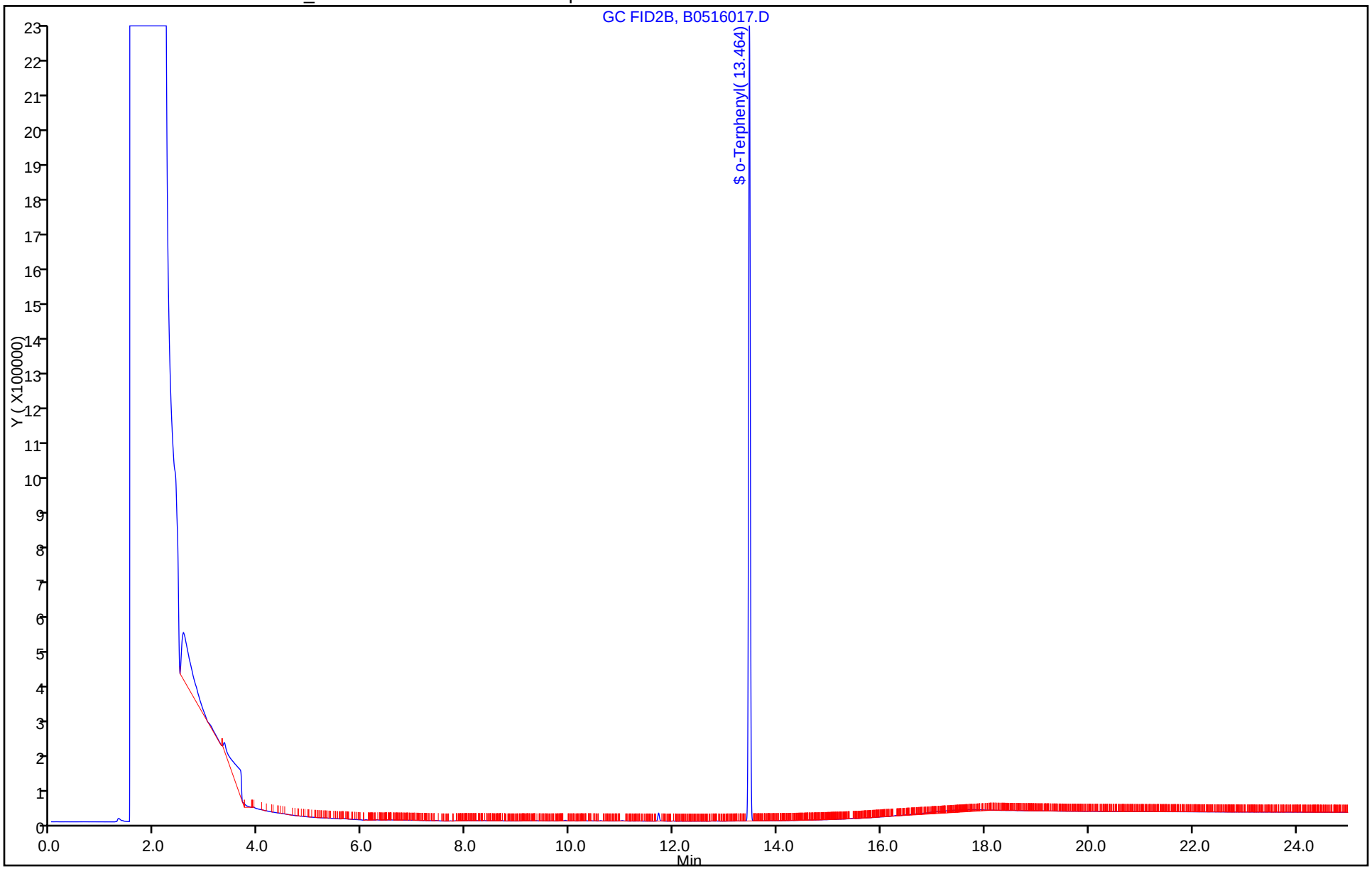
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
$ 22 o-Terphenyl	13.464	13.464	0.000	5071016	19.4	

Report Date: 17-May-2016 10:22:32 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516017.D

Injection Date:	16-May-2016 19:39:50	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	600-130758-M-2-A	Lab Sample ID:	600-130758-2	Worklist Smp#:	17
Client ID:	PC-IDW Water				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	67
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		



FORM VI
GC SEMI VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188340

SDG No.:

Instrument ID: CHFID12 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2016 10:32 Calibration End Date: 05/12/2016 13:49 Calibration ID: 9325

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-188340/5	F0512005.D
Level 2	IC 600-188340/6	F0512006.D
Level 3	IC 600-188340/7	F0512007.D
Level 4	ICRT 600-188340/8	F0512008.D
Level 5	IC 600-188340/9	F0512009.D
Level 6	IC 600-188340/10	F0512010.D
Level 7	IC 600-188340/11	F0512011.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
C6	3.509	3.585	3.584	3.586	3.586	3.586	3.586				3.486 - 3.686	3.575
C6-C12	6.326	6.287	6.326	6.326	6.326	6.326	6.326				3.486 - 9.166	6.320
>C12-C28	13.092	13.092	13.092	13.092	13.092	13.092	13.092				9.166 - 17.017	13.092
>C28-C35	18.878	18.878	18.878	18.878	18.878	18.878	18.878				17.017 - 20.739	18.878
o-Terphenyl	13.424	13.424	13.424	13.425	13.426	13.424	13.426				13.325 - 13.525	13.425

FORM VI
GC SEMI VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188340

SDG No.:

Instrument ID: CHFID12 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2016 10:32 Calibration End Date: 05/12/2016 13:49 Calibration ID: 9325

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-188340/5	F0512005.D
Level 2	IC 600-188340/6	F0512006.D
Level 3	IC 600-188340/7	F0512007.D
Level 4	ICRT 600-188340/8	F0512008.D
Level 5	IC 600-188340/9	F0512009.D
Level 6	IC 600-188340/10	F0512010.D
Level 7	IC 600-188340/11	F0512011.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
C6	3.5000 12096	13676 13278	11250 12745	12621	Ave		189998.389				3.1		25.0			
C6-C12	183625 191570	182875 195922	185345 197270	193382	Ave		189998.389				3.1		25.0			
>C12-C28	80343 224706	197077 226701	204362 226177	209361	Lin1	-1582971.7	227135.332							1.0000		0.9950
>C28-C35	265918 266443	260490 263835	237218 255766	247613	Ave		256754.609				4.2		25.0			
o-Terphenyl	349584 349398	339105 340285	308673 329505	321247	Ave		333970.756				4.5		30.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188340

SDG No.:

Instrument ID: CHFID12 GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2016 10:32 Calibration End Date: 05/12/2016 13:49 Calibration ID: 9325

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-188340/5	F0512005.D
Level 2	IC 600-188340/6	F0512006.D
Level 3	IC 600-188340/7	F0512007.D
Level 4	ICRT 600-188340/8	F0512008.D
Level 5	IC 600-188340/9	F0512009.D
Level 6	IC 600-188340/10	F0512010.D
Level 7	IC 600-188340/11	F0512011.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
C6	Ave	35 10622791	683794 12745119	1125011	2524268	4838433	10.0 800	50.0 1000	100	200	400
C6-C12	Ave	1836252 156737457	9143744 197270294	18534457	38676337	76628108	10.0 800	50.0 1000	100	200	400
>C12-C28	Lin1	803434 181360494	9853855 226177110	20436168	41872260	89882326	10.0 800	50.0 1000	100	200	400
>C28-C35	Ave	2658117 210983226	13019274 255663655	23712289	49502821	106534594	10.00 800	50.0 1000	100.0	200	400
o-Terphenyl	Ave	218490 17014229	1059702 20594062	1929204	4015583	8734945	0.625 50.0	3.13 62.5	6.25	12.5	25.0

Curve Type Legend:

Ave = Average
Lin1 = Linear 1/conc

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512005.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 12-May-2016 10:32:23 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012028-005
Operator ID: Instrument ID: CHFID12
Sublist: chrom-TX_1005_CHFID12*sub8

Method: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:26:46 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 11:19:38

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Hexane	3.509	3.586	-0.077	35	10.0	0.000184	
A	5 C6-C12	6.326	(3.486-9.166)		1836252	10.0	9.66	M
S	16 C6-C35						30.5	
A	20 Over C12-C28	13.092	(9.166-17.017)		803434	10.0	10.5	M
$	22 o-Terphenyl	13.424	13.425	-0.001	218490	0.6250	0.6542	M
A	37 Over C28-C35	18.878	(17.017-20.739)		2658117	10.0	10.4	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

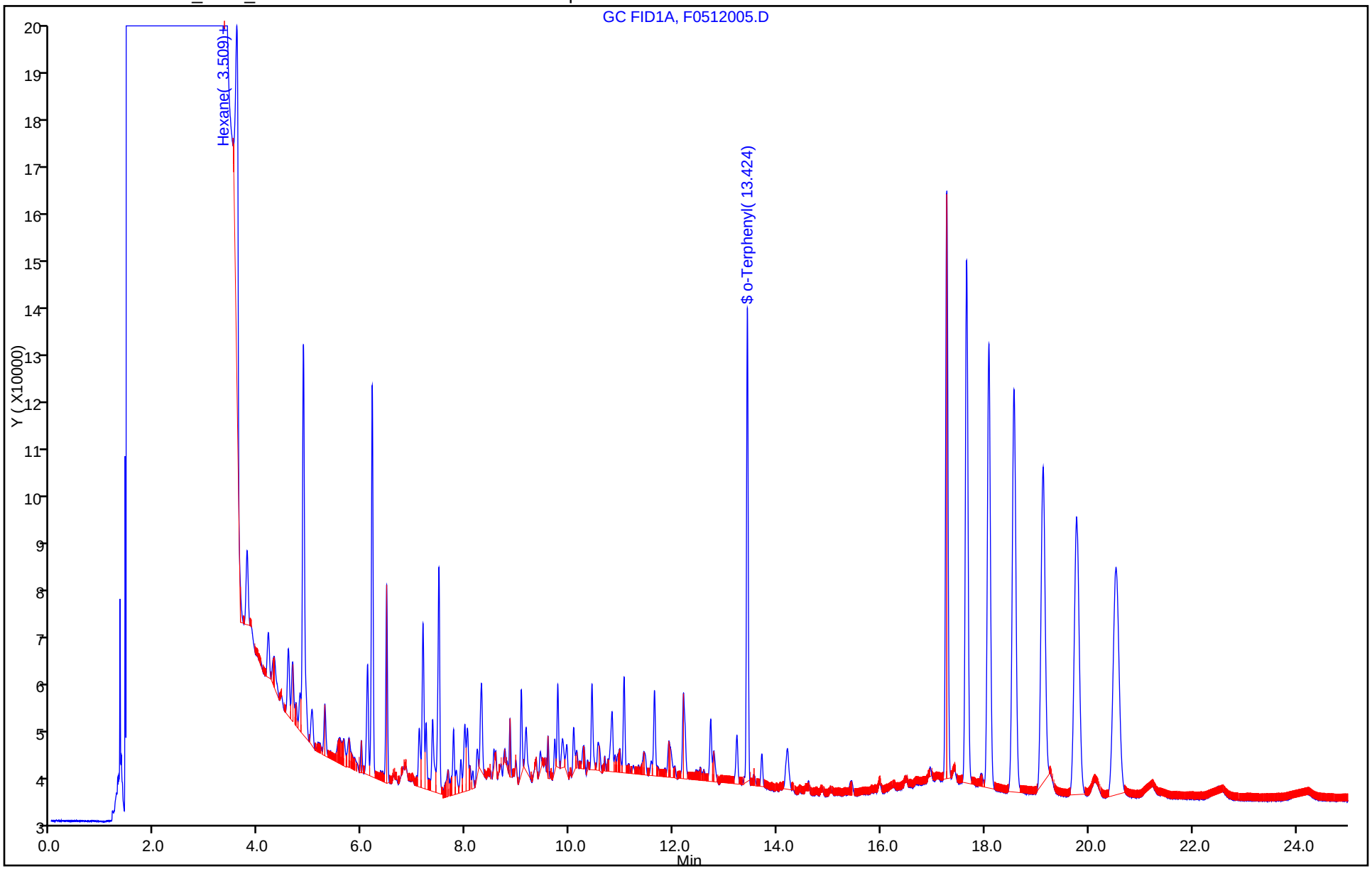
TX1005CURV_00050 Amount Added: 10.00 Units: uL

Report Date: 12-May-2016 14:26:48 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512005.D

Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	IC			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		

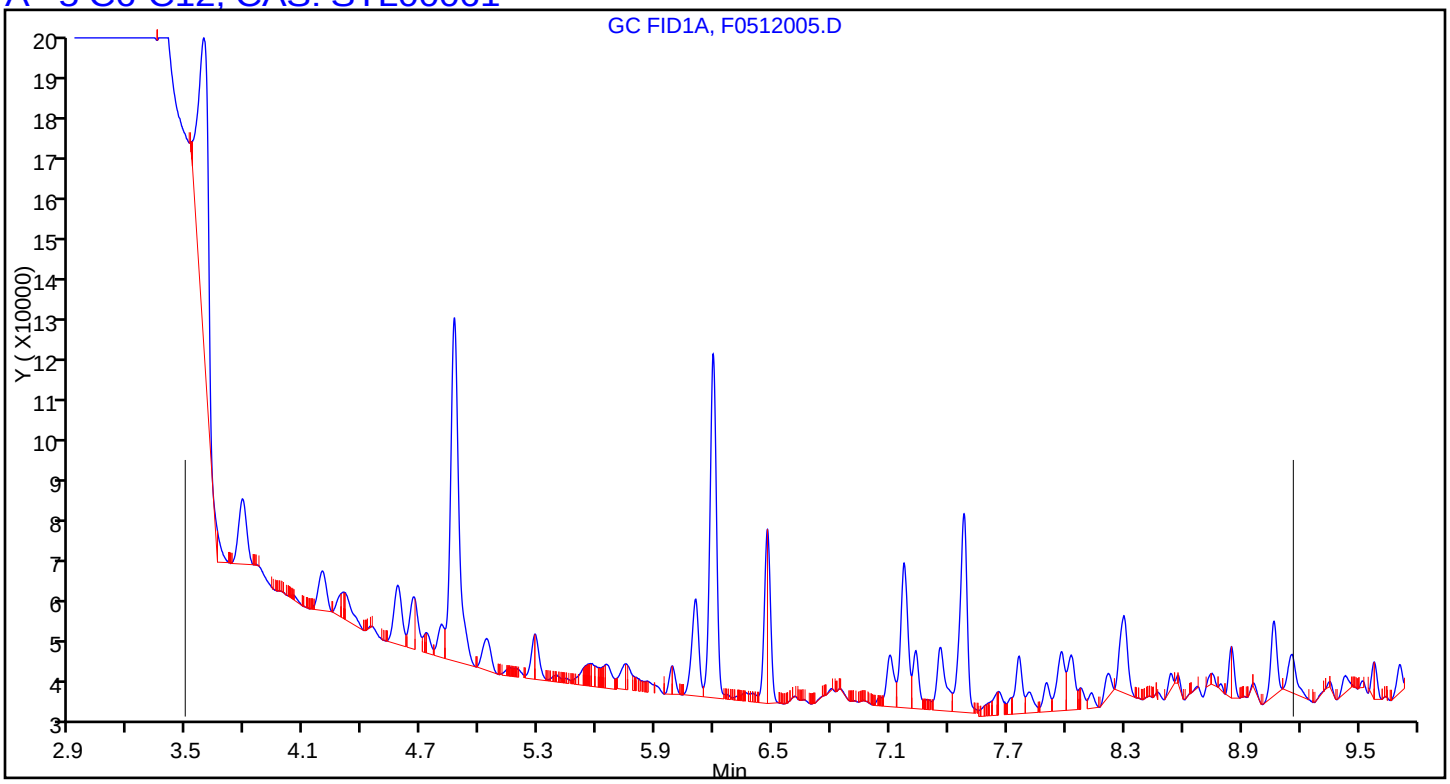


Report Date: 12-May-2016 14:26:48 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512005.D				
Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061



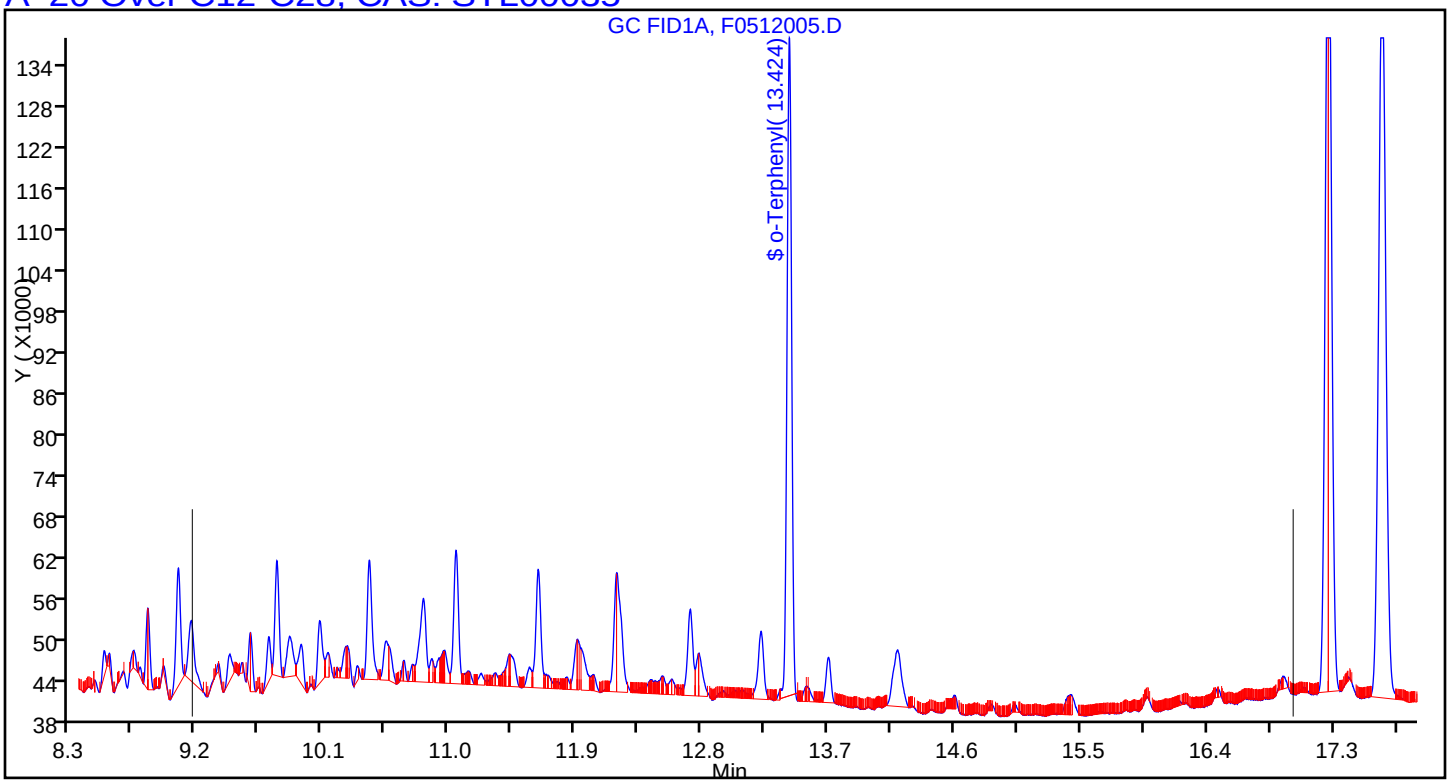
Report Date: 12-May-2016 14:26:48 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512005.D

Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035



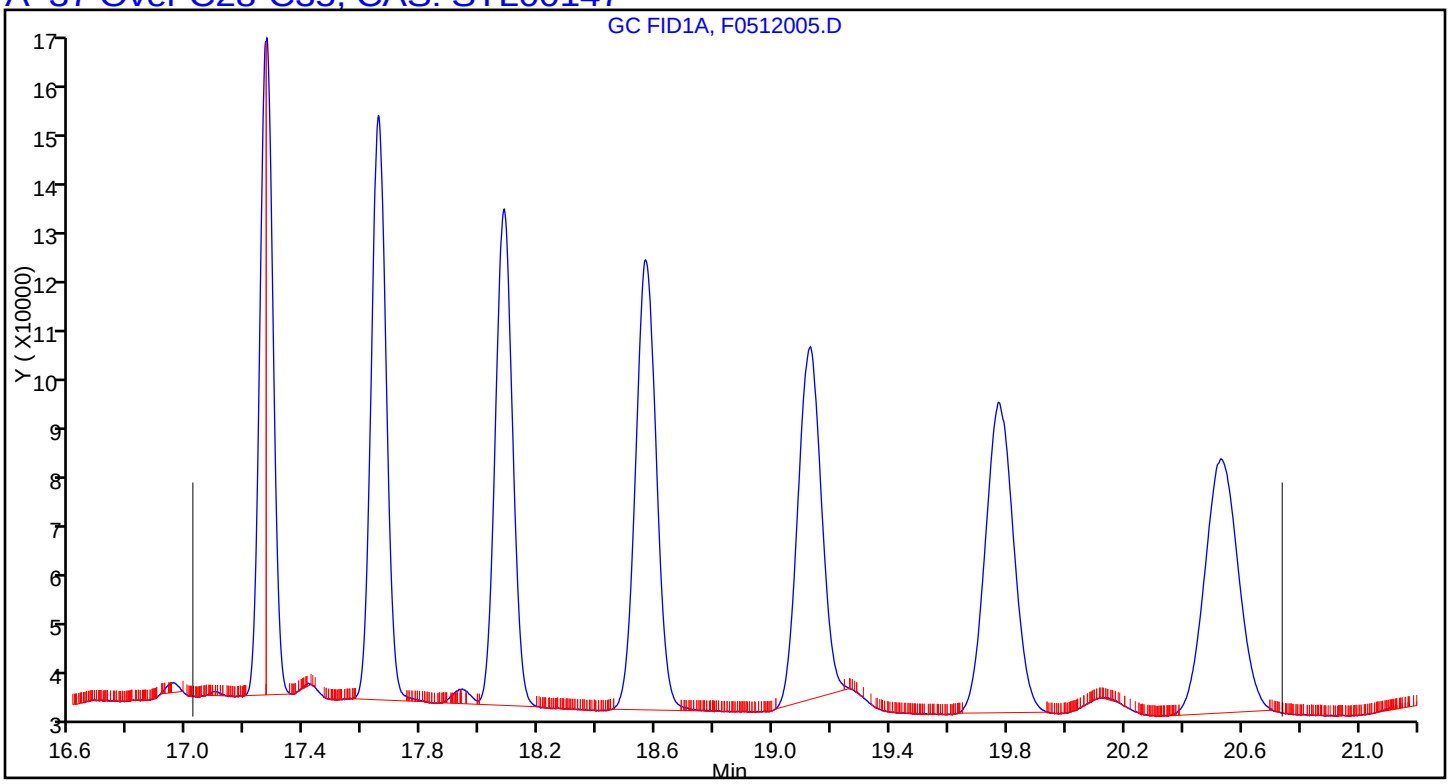
Report Date: 12-May-2016 14:26:48 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512005.D

Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 37 Over C28-C35, CAS: STL00147



Manual Integration/User Assign Peak Report

TestAmerica Houston

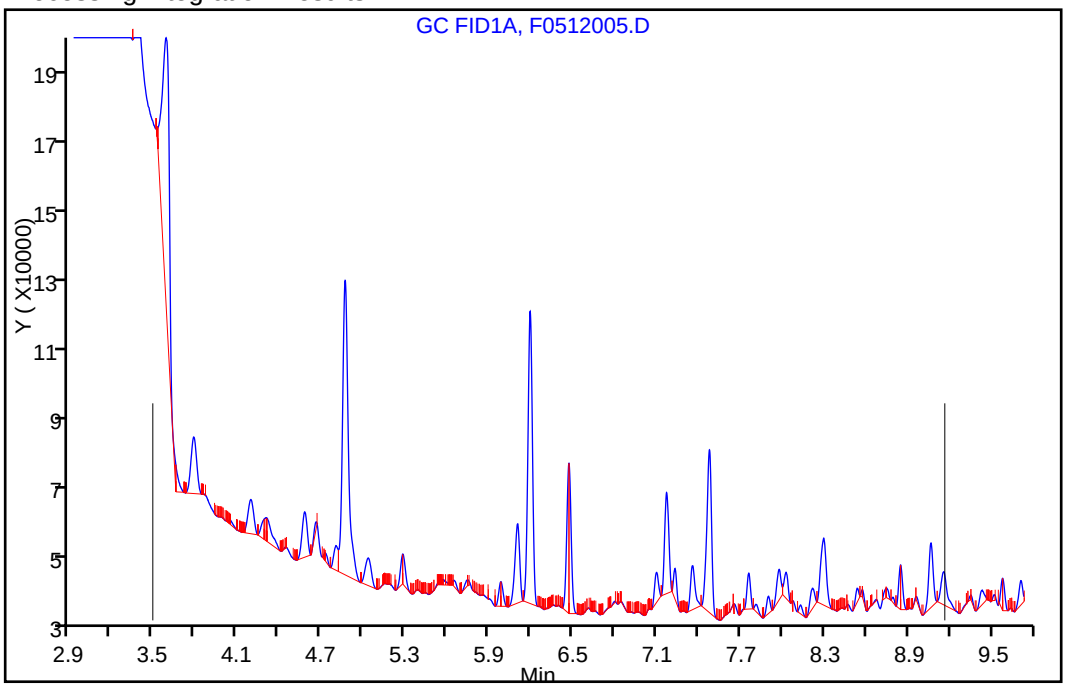
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512005.D				
Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, RT: 6.326, CAS: STL00061

Signal: 1

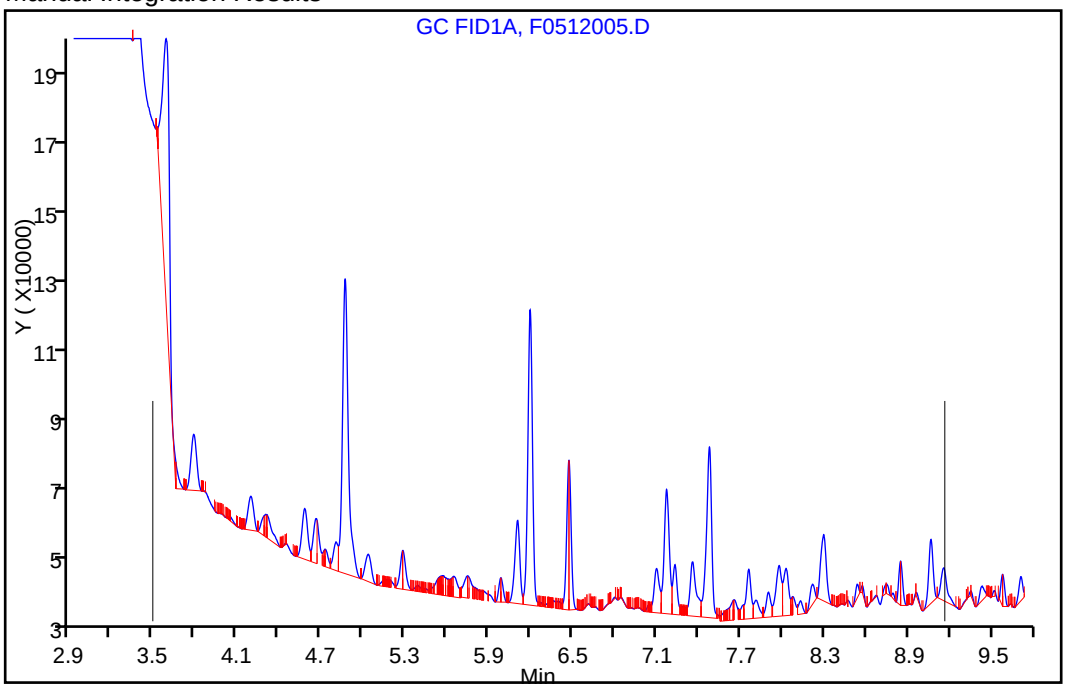
Processing Integration Results

RT: 6.29
Response: 1477066
Amount: 8.539384



Manual Integration Results

RT: 6.33
Response: 1836252
Amount: 9.664566



Reviewer: vanderborghr, 12-May-2016 14:07:54

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Houston

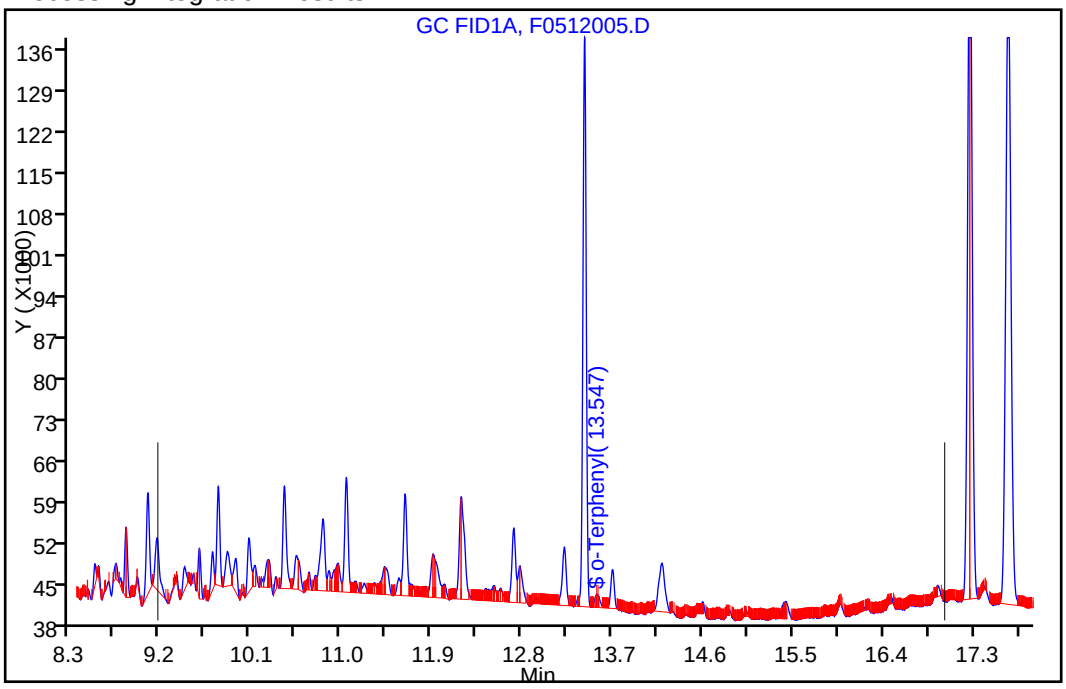
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512005.D				
Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, RT: 13.092, CAS: STL00035

Signal: 1

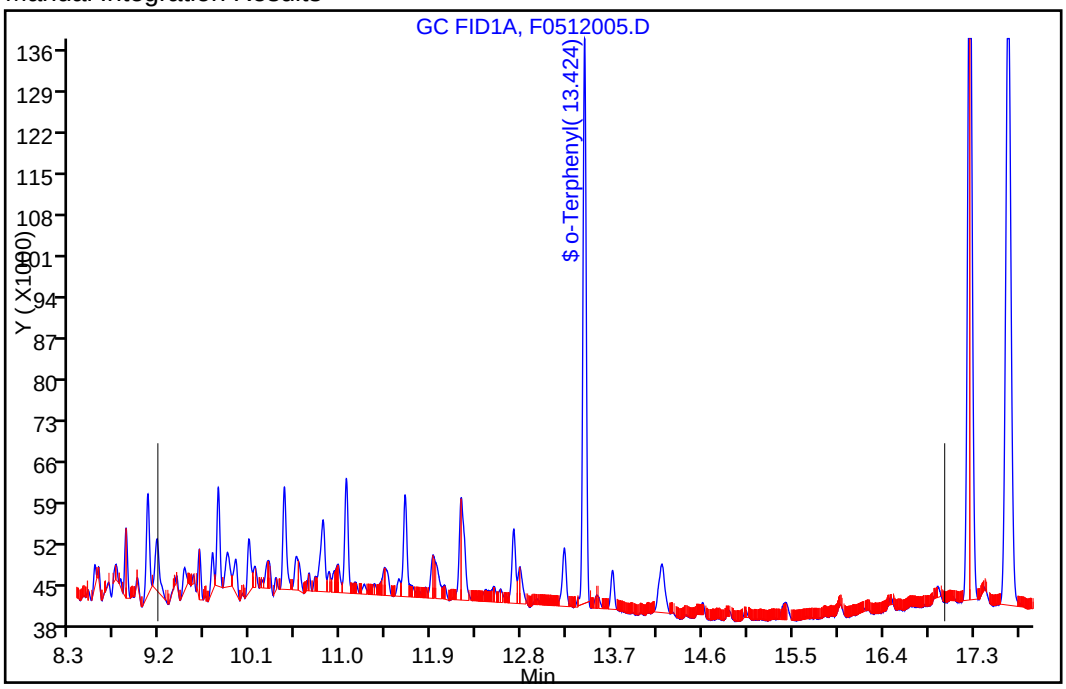
Processing Integration Results

RT: 13.09
Response: 1027284
Amount: 10.046183



Manual Integration Results

RT: 13.09
Response: 803434
Amount: 10.506537



Reviewer: vanderborghr, 12-May-2016 12:43:13
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason:

Manual Integration/User Assign Peak Report

TestAmerica Houston

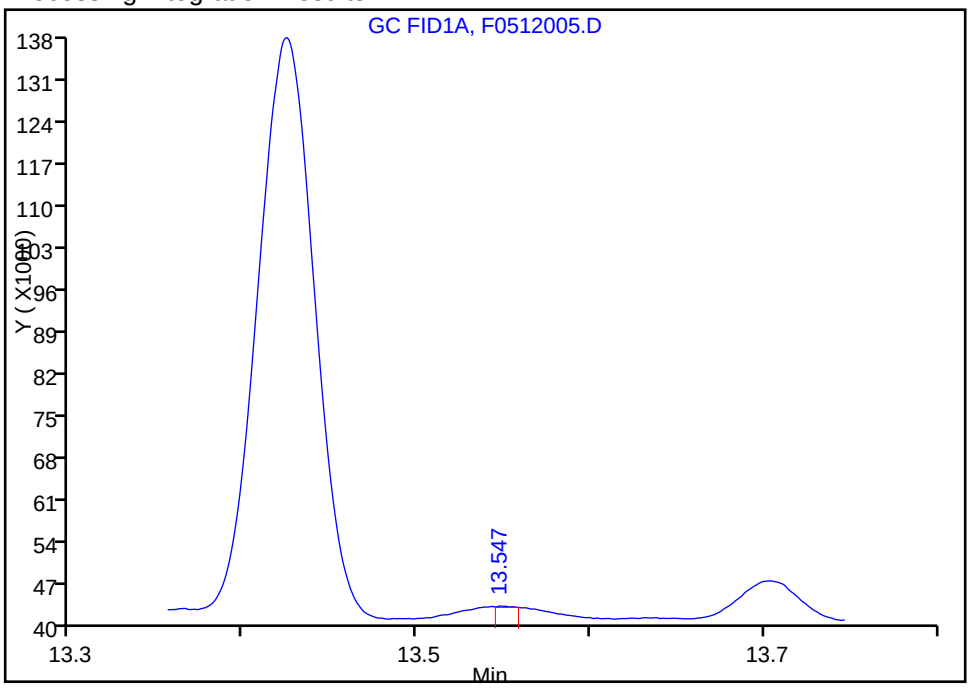
Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512005.D
Injection Date: 12-May-2016 10:32:23 Instrument ID: CHFID12
Lims ID: IC
Client ID:
Operator ID: ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: TX_1005_CHFID12 Limit Group: GCSV - TX1005
Column: Detector GC FID1A

$ 22 o-Terphenyl, CAS: 84-15-1

Signal: 1

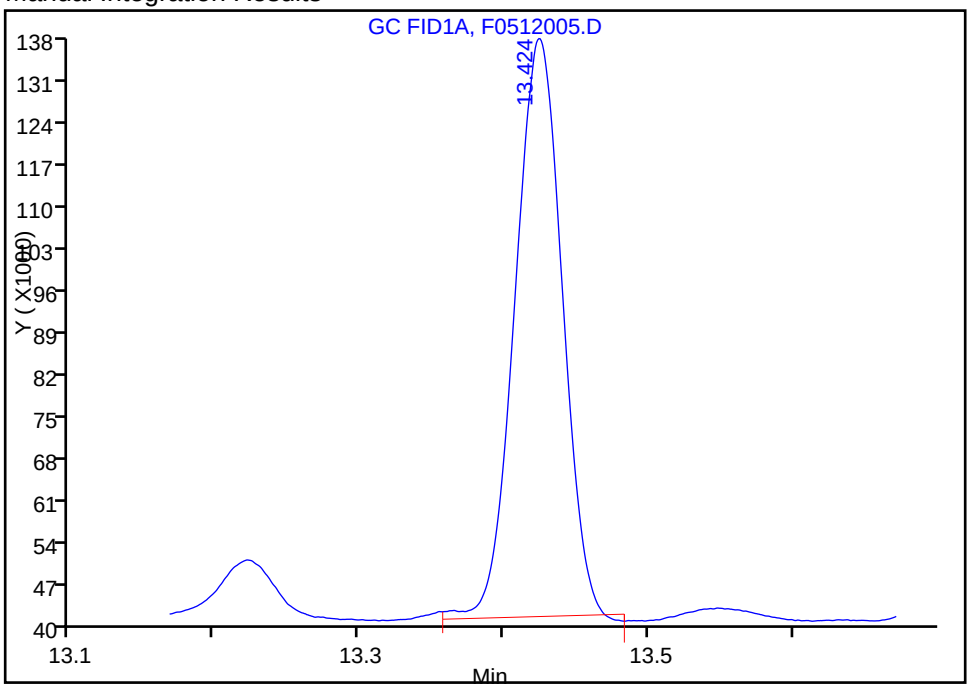
Processing Integration Results

RT: 13.55
Area: 109
Amount: 0.000450
Amount Units: ug/ml



Manual Integration Results

RT: 13.42
Area: 218490
Amount: 0.654219
Amount Units: ug/ml



Reviewer: vanderborghr, 12-May-2016 12:43:13
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512006.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-May-2016 11:04:50 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012028-006
Operator ID: Instrument ID: CHFID12
Sublist: chrom-TX_1005_CHFID12*sub8

Method: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:26:51 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 11:36:01

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Hexane	3.585	3.586	-0.001	683794	50.0	3.60	
A	5 C6-C12	6.287	(3.486-9.166)		9143744	50.0	48.1	
S	16 C6-C35						149.2	
A	20 Over C12-C28	13.092	(9.166-17.017)		9853855	50.0	50.4	
$	22 o-Terphenyl	13.424	13.425	-0.001	1059702	3.13	3.17	
A	37 Over C28-C35	18.878	(17.017-20.739)		13019274	50.0	50.7	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

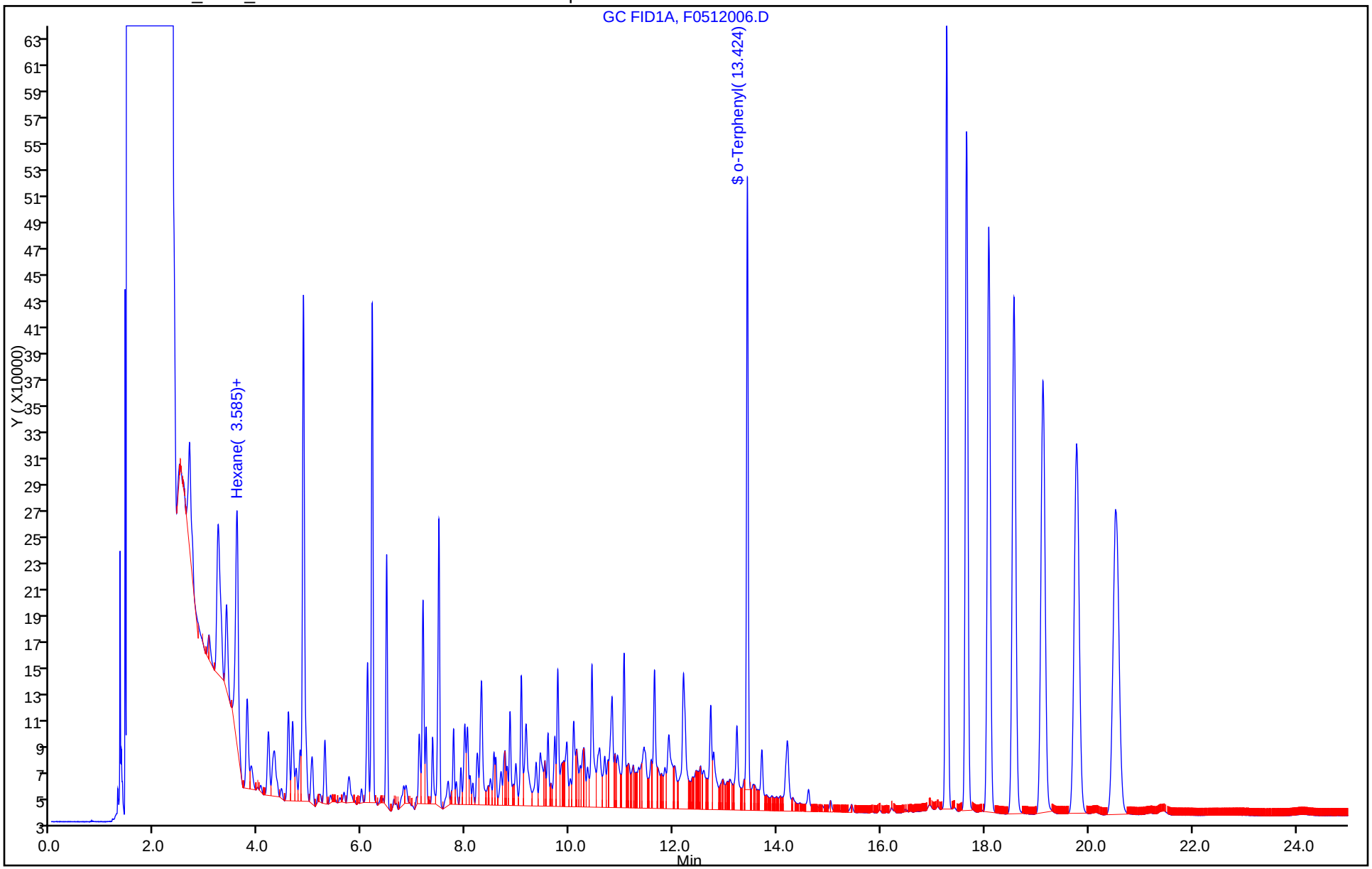
TX1005CURV_00050 Amount Added: 50.00 Units: uL

Report Date: 12-May-2016 14:26:52 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512006.D

Injection Date:	12-May-2016 11:04:50	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	IC			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		

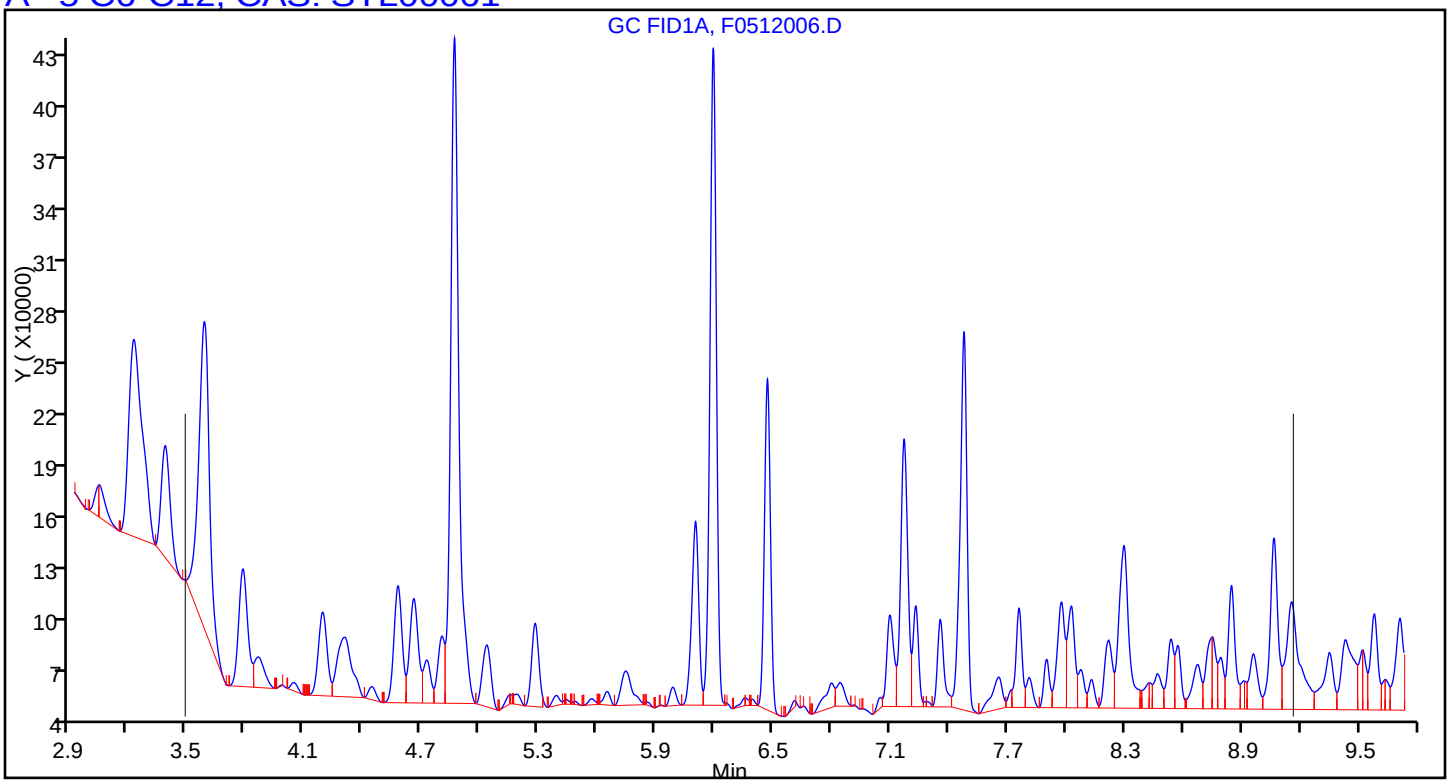


Report Date: 12-May-2016 14:26:53 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512006.D				
Injection Date:	12-May-2016 11:04:50	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061



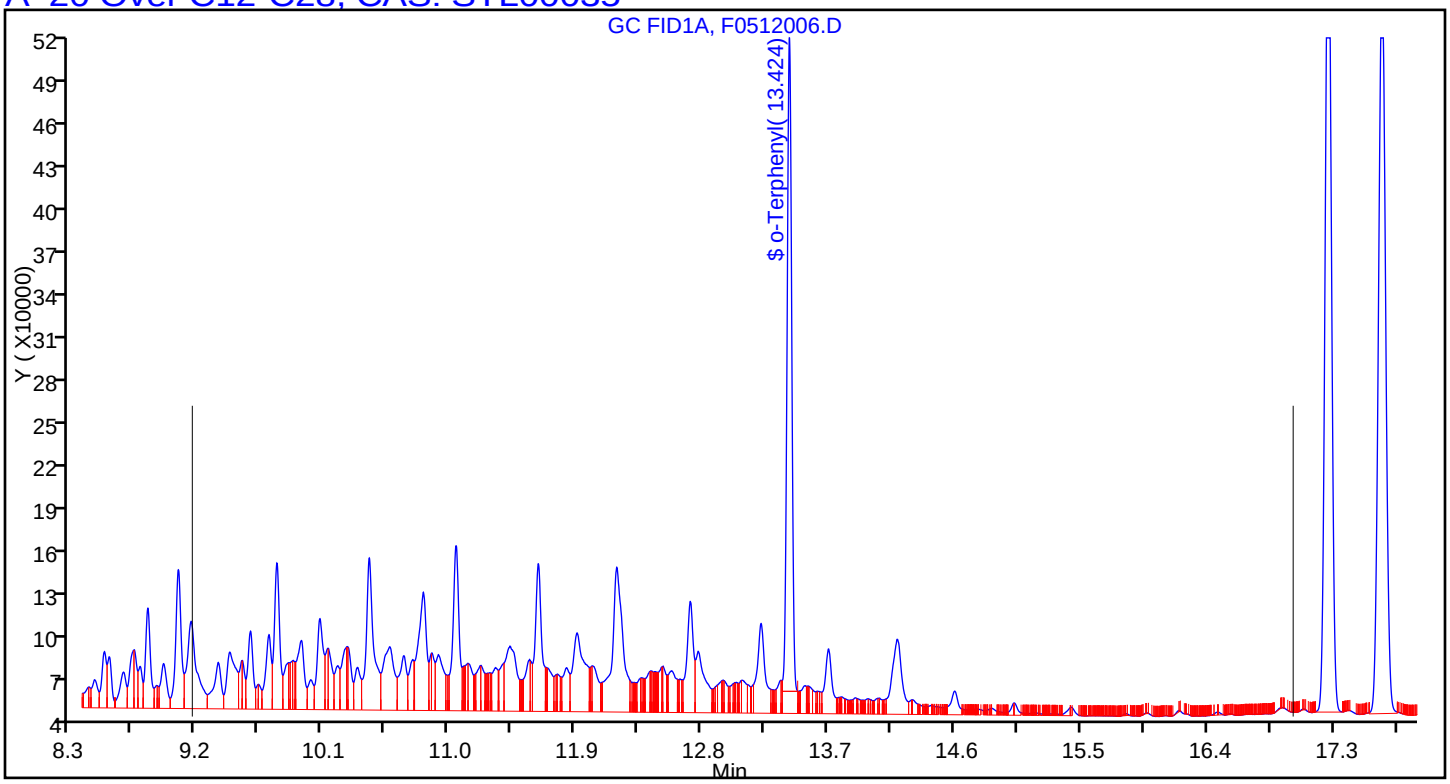
Report Date: 12-May-2016 14:26:53 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512006.D

Injection Date:	12-May-2016 11:04:50	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035

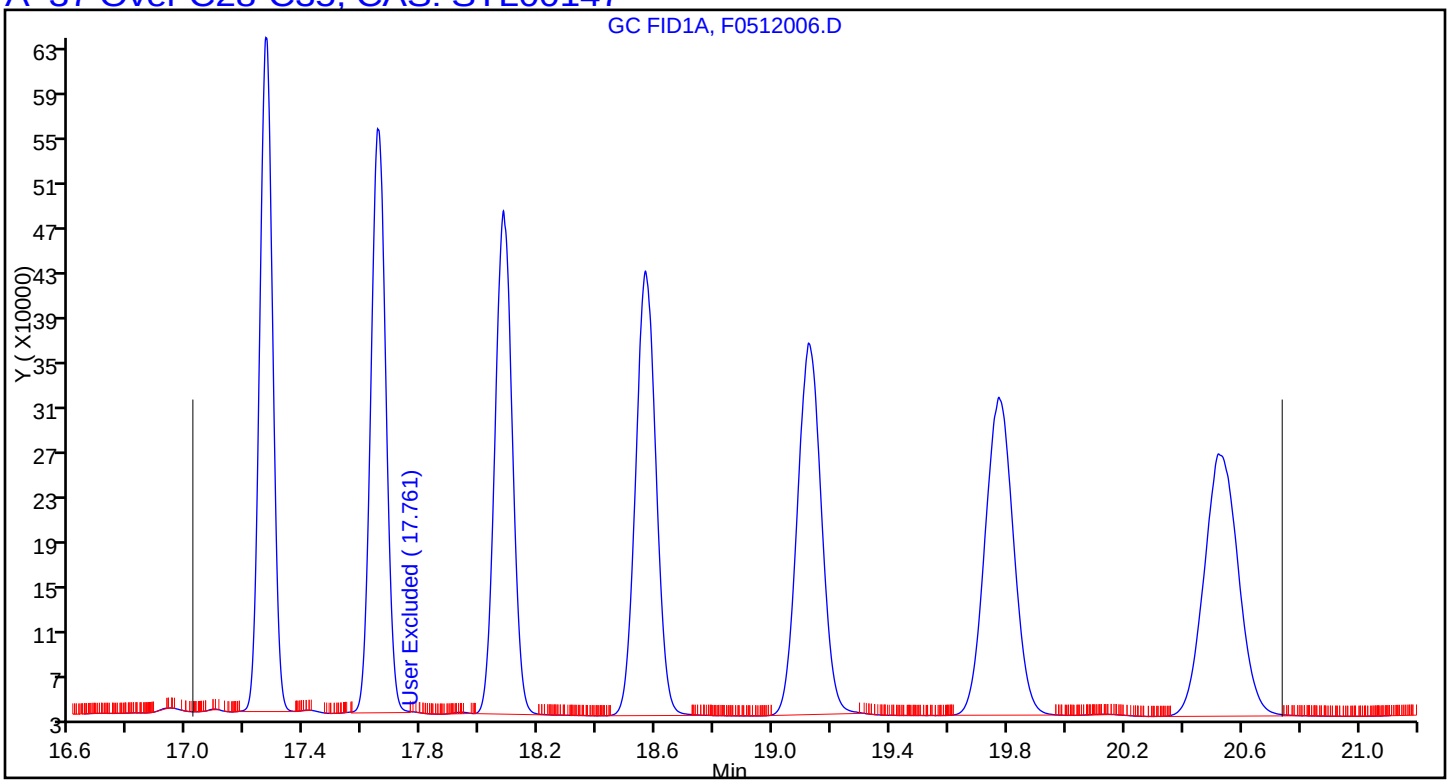


Report Date: 12-May-2016 14:26:53 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512006.D				
Injection Date:	12-May-2016 11:04:50	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



Manual Integration/User Assign Peak Report

TestAmerica Houston

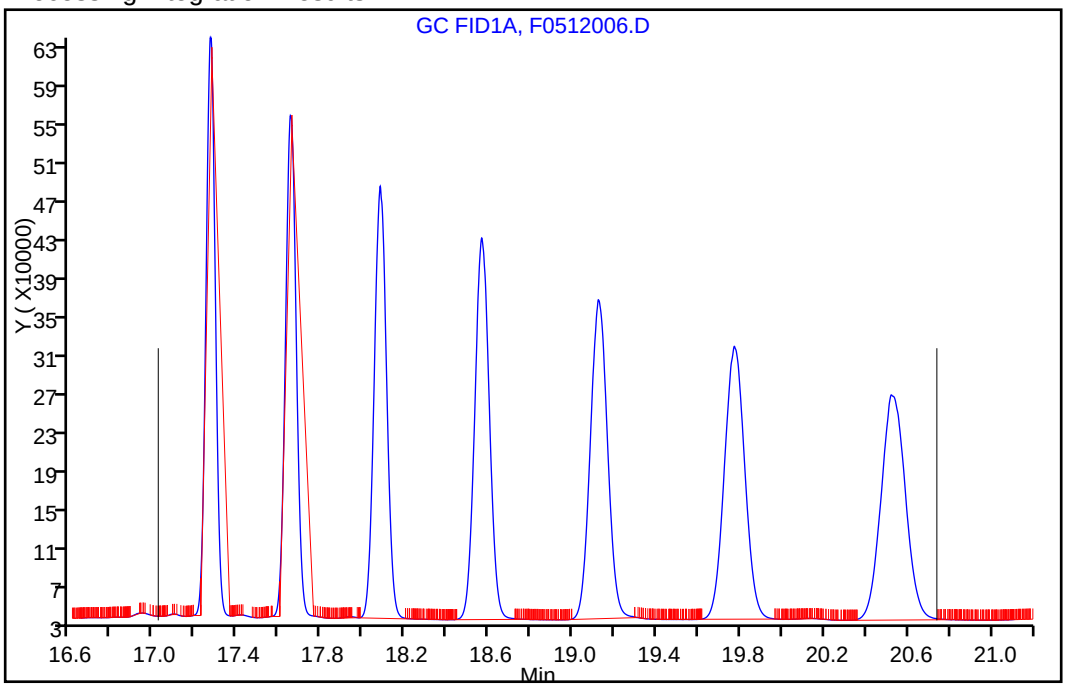
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512006.D				
Injection Date:	12-May-2016 11:04:50	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 37 Over C28-C35, RT: 18.878, CAS: STL00147

Signal: 1

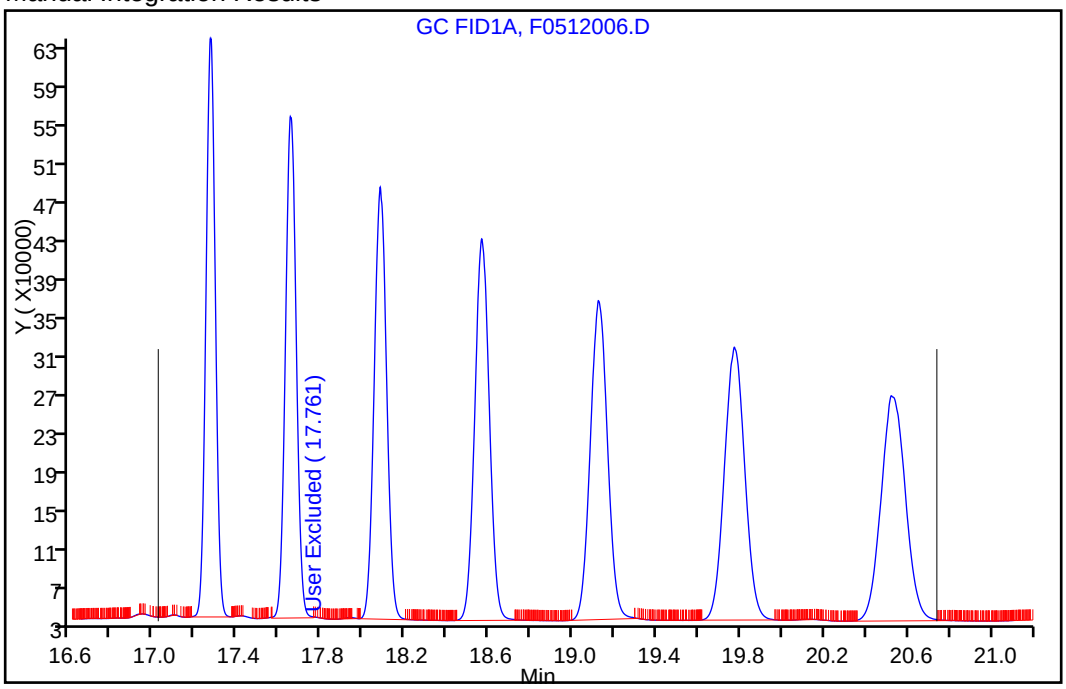
Processing Integration Results

RT: 18.88
Response: 11246228
Amount: 45.815769



Manual Integration Results

RT: 18.88
Response: 13019274
Amount: 50.707070



Reviewer: vanderborghr, 12-May-2016 11:36:35

Audit Action: Manually Integrated Audit Reason: Split Peak

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512007.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-May-2016 11:37:45 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012028-007
Operator ID: Instrument ID: CHFID12
Sublist: chrom-TX_1005_CHFID12*sub8

Method: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:26:55 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 12:40:17

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Hexane	3.584	3.586	-0.002	1125011	100.0	5.92	M
A	5 C6-C12	6.326	(3.486-9.166)		18534457	100.0	97.6	M
S	16 C6-C35						286.8	
A	20 Over C12-C28	13.092	(9.166-17.017)		20436168	100.0	96.9	M
$	22 o-Terphenyl	13.424	13.425	-0.001	1929204	6.25	5.78	
A	37 Over C28-C35	18.878	(17.017-20.739)		23712289	100.0	92.4	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

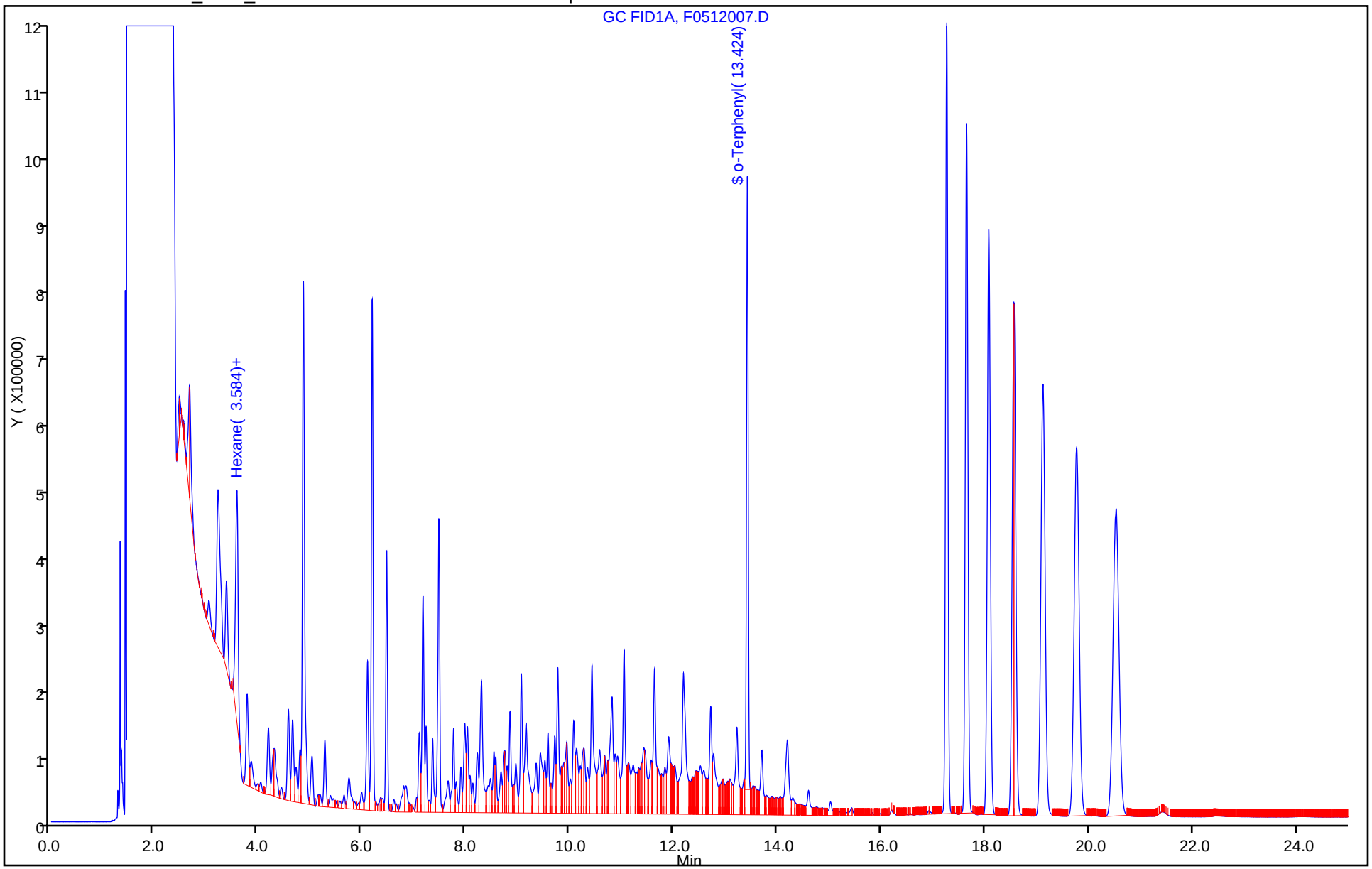
TX1005CURV_00050 Amount Added: 100.00 Units: uL

Report Date: 12-May-2016 14:26:56 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512007.D

Injection Date:	12-May-2016 11:37:45	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	IC			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		



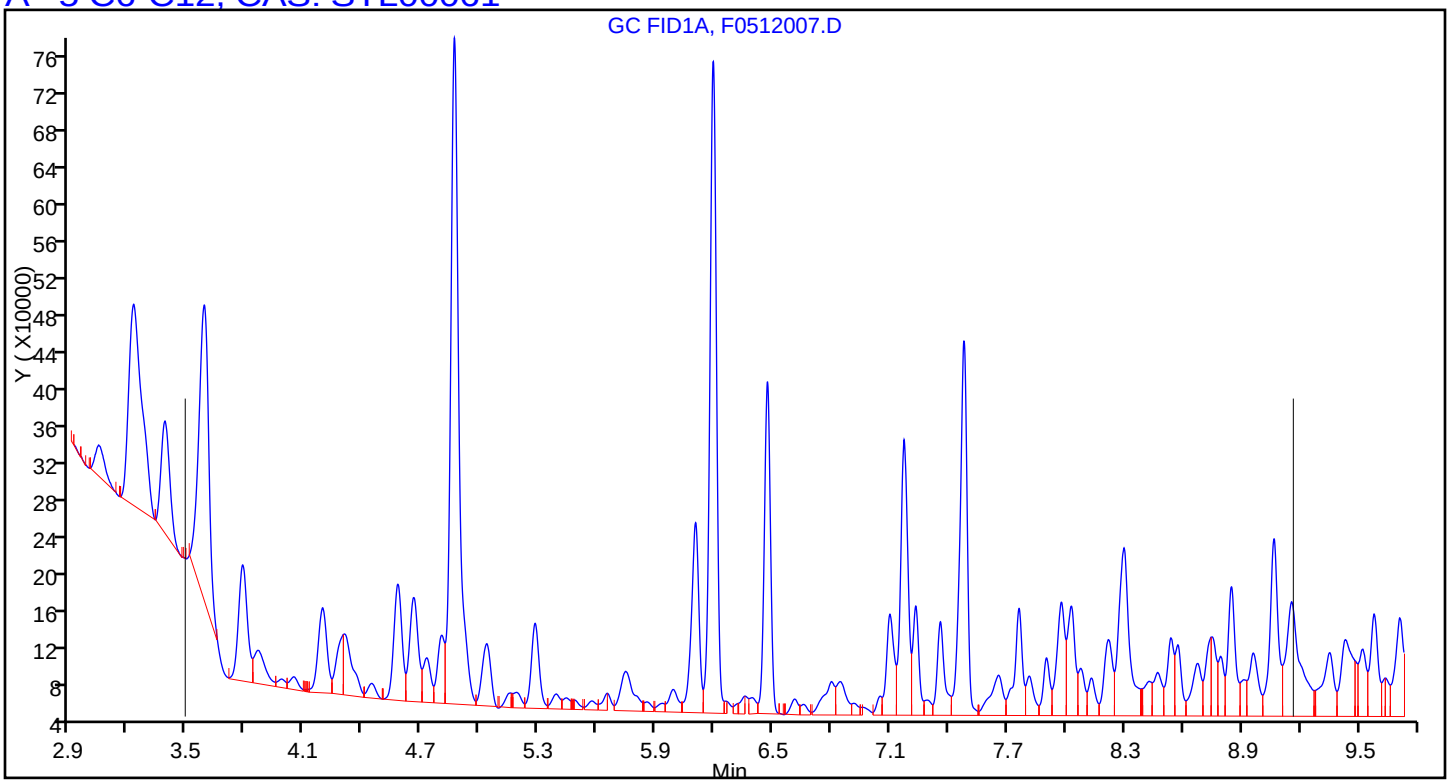
Report Date: 12-May-2016 14:26:57 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512007.D

Injection Date:	12-May-2016 11:37:45	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061



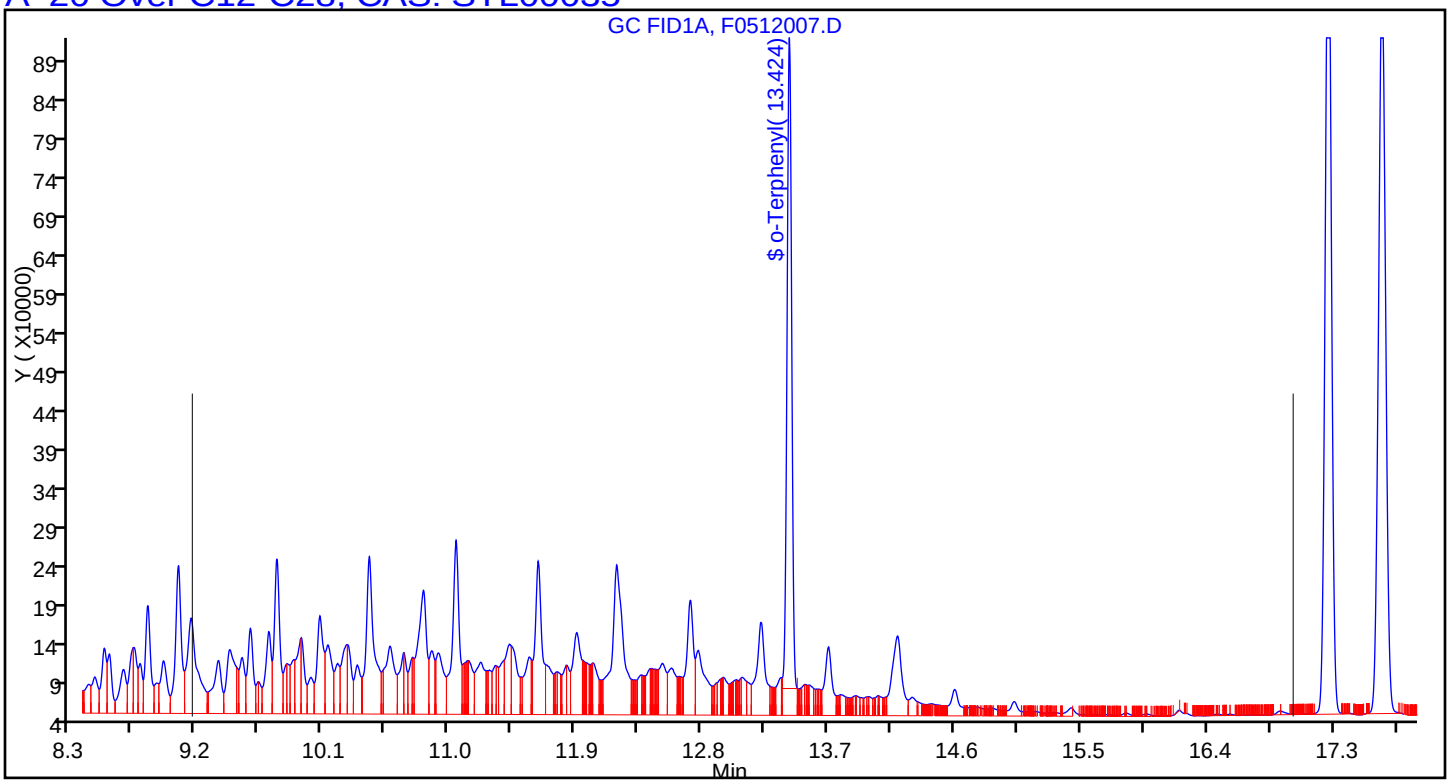
Report Date: 12-May-2016 14:26:57 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512007.D

Injection Date:	12-May-2016 11:37:45	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035



Report Date: 12-May-2016 14:26:57 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512007.D

Injection Date: 12-May-2016 11:37:45 Instrument ID: CHFID12

Lims ID: IC

Client ID:

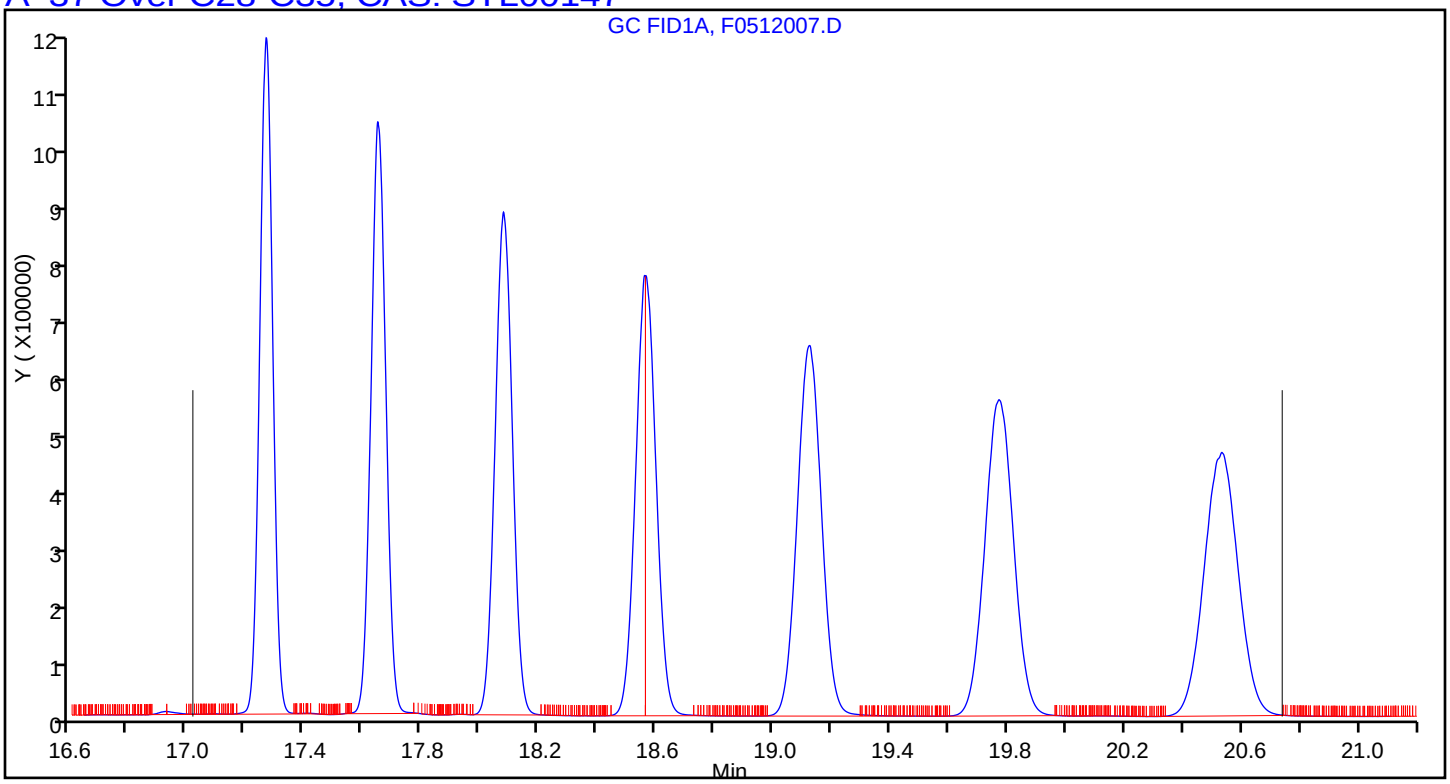
Operator ID: ALS Bottle#: 7 Worklist Smp#: 7

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TX_1005_CHFID12 Limit Group: GCSV - TX1005

Column: Detector GC FID1A

A 37 Over C28-C35, CAS: STL00147



Manual Integration/User Assign Peak Report

TestAmerica Houston

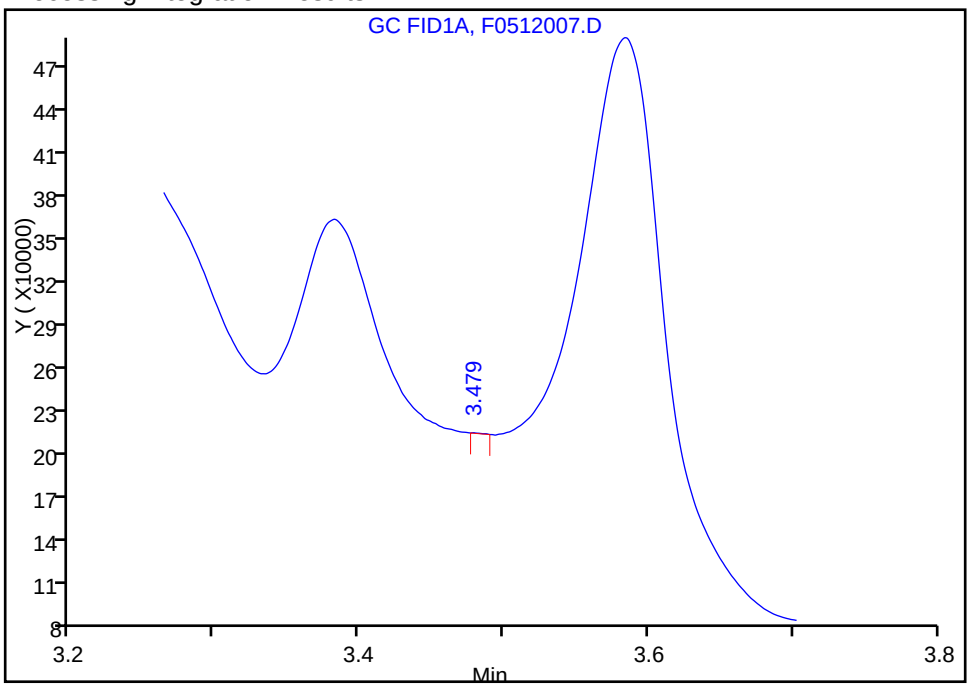
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512007.D				
Injection Date:	12-May-2016 11:37:45	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

1 Hexane, CAS: 110-54-3

Signal: 1

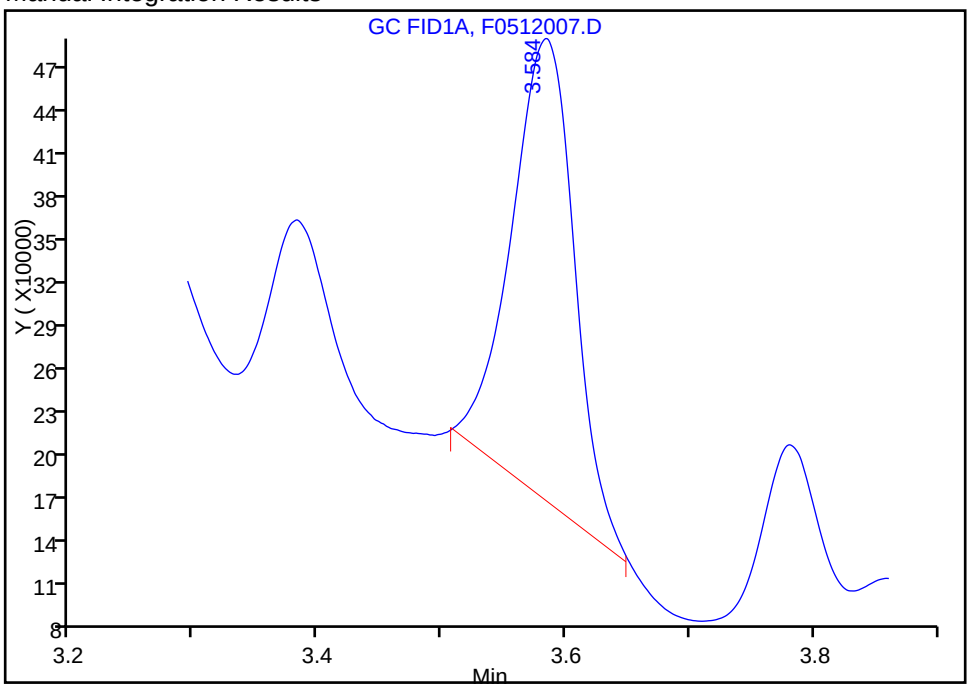
Processing Integration Results

RT: 3.48
Area: 201
Amount: 0.001171
Amount Units: ug/ml



Manual Integration Results

RT: 3.58
Area: 1125011
Amount: 5.921161
Amount Units: ug/ml



Reviewer: vanderborghr, 12-May-2016 13:05:36
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Houston

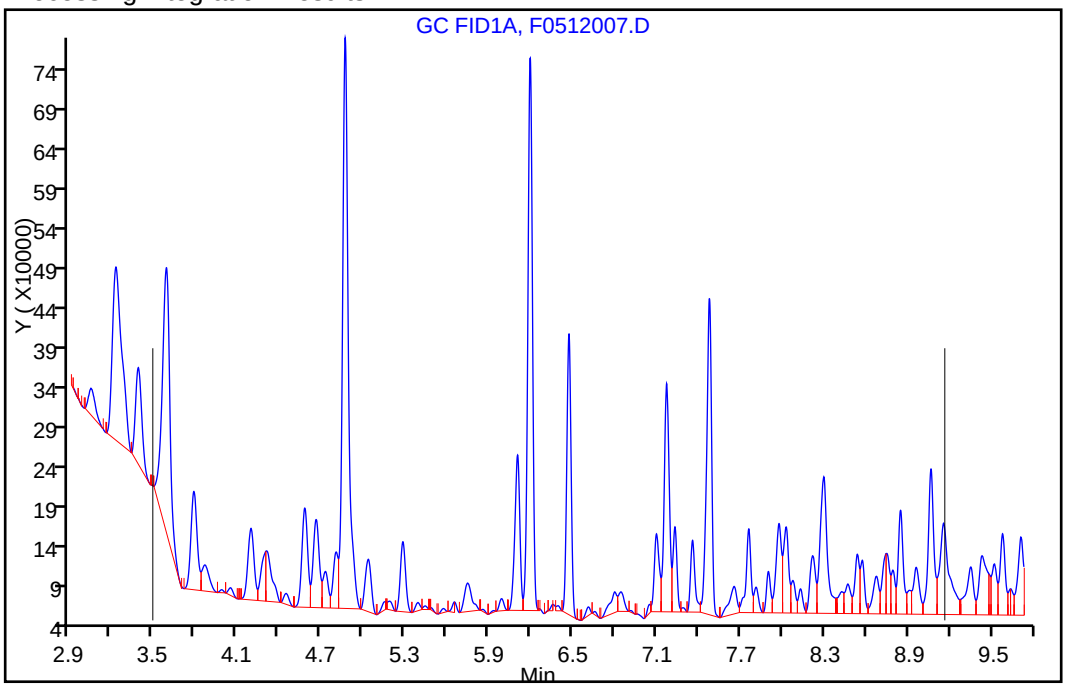
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512007.D				
Injection Date:	12-May-2016 11:37:45	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, RT: 6.326, CAS: STL00061

Signal: 1

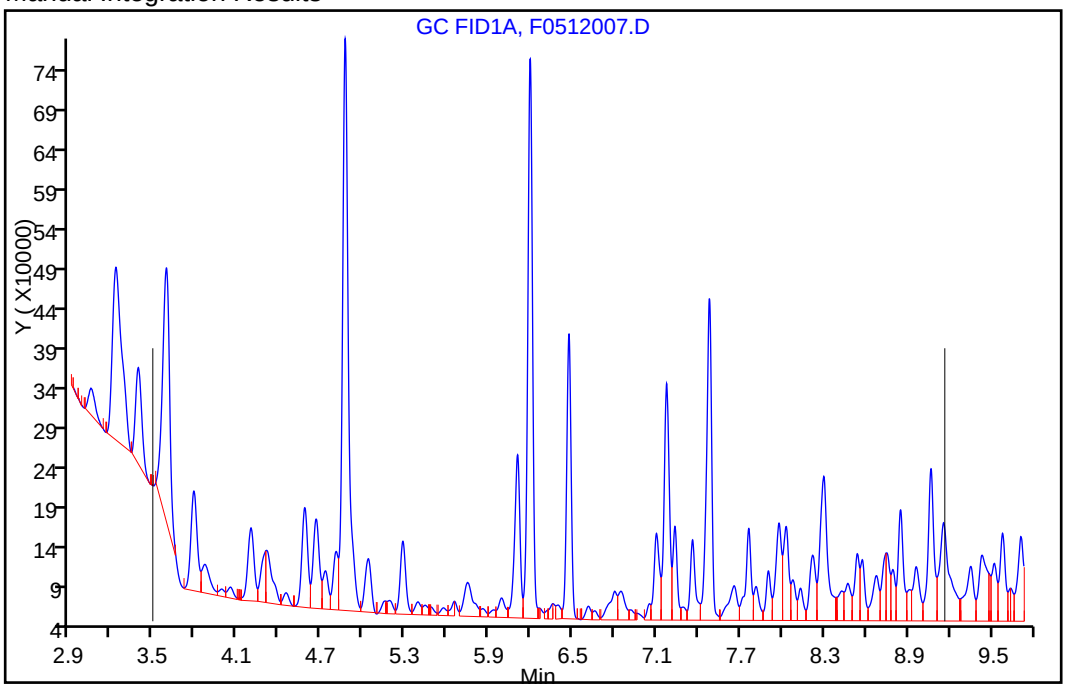
Processing Integration Results

RT: 6.29
Response: 16792096
Amount: 97.080395



Manual Integration Results

RT: 6.33
Response: 18534457
Amount: 97.550601



Reviewer: vanderborghr, 12-May-2016 14:08:33

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Houston

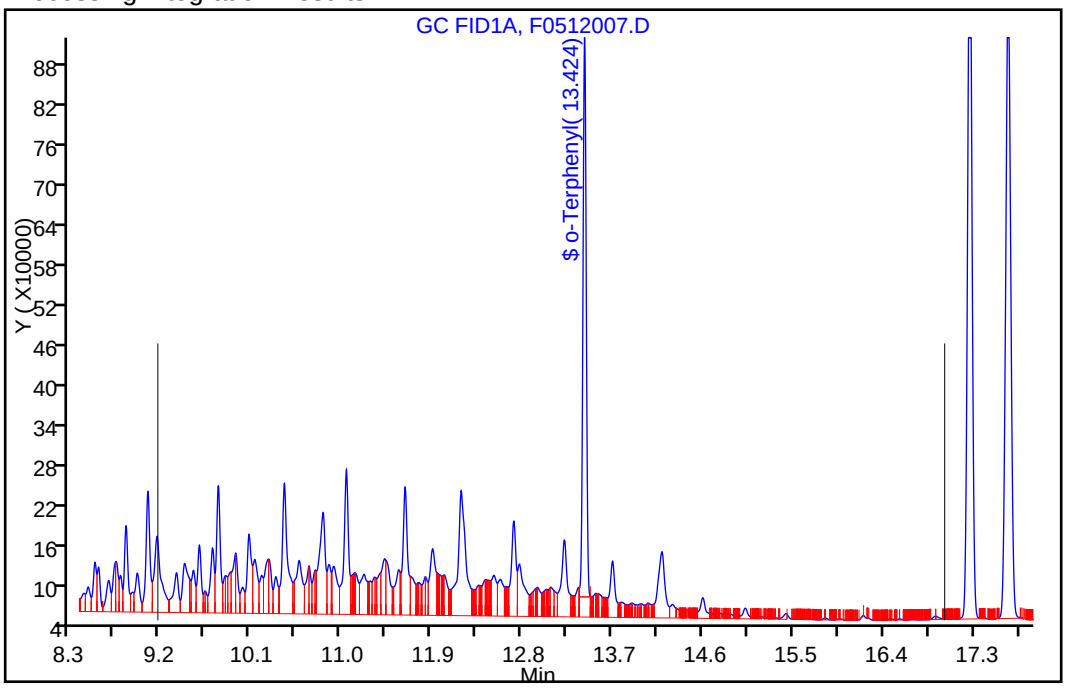
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512007.D				
Injection Date:	12-May-2016 11:37:45	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	7	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, RT: 13.092, CAS: STL00035

Signal: 1

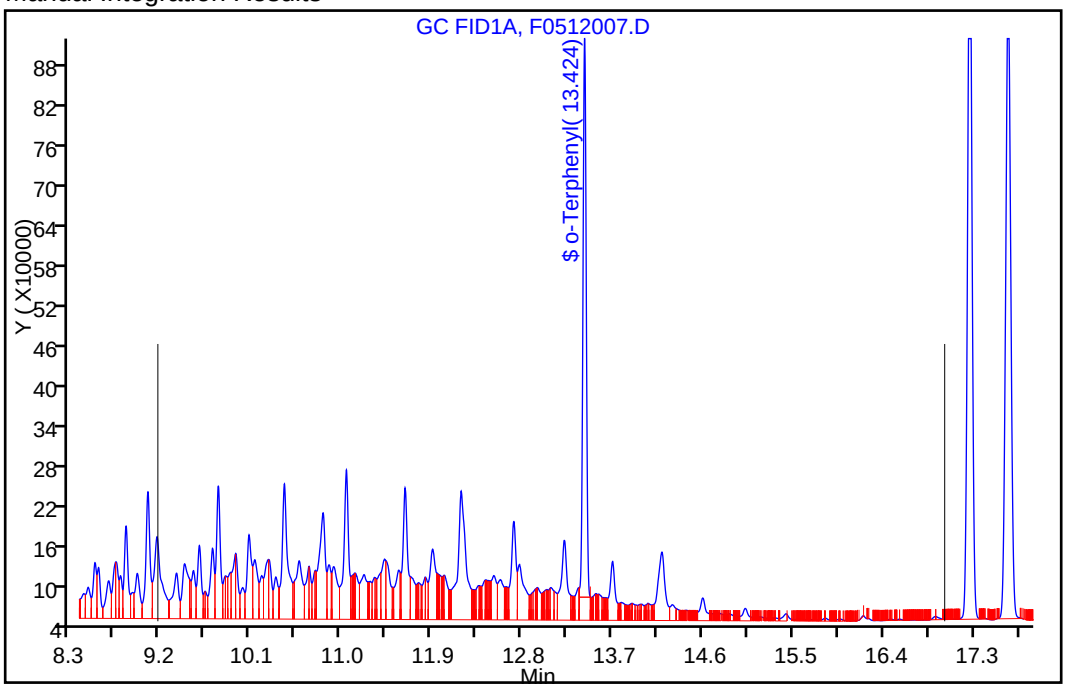
Processing Integration Results

RT: 13.09
Response: 18250322
Amount: 92.632186



Manual Integration Results

RT: 13.09
Response: 20436168
Amount: 96.942821



Reviewer: vanderborghr, 12-May-2016 14:07:09

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512008.D
Lims ID: ICRT
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 12-May-2016 12:10:26 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012028-008
Operator ID: Instrument ID: CHFID12
Sublist: chrom-TX_1005_CHFID12*sub8

Method: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:26:59 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 12:40:46

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Hexane	3.586	3.586	0.000	2524268	200.0	13.3	
A	5 C6-C12	6.326	(3.486-9.166)		38676337	200.0	203.6	
A	20 Over C12-C28	13.092	(9.166-17.017)		41872260	200.0	191.3	
$	22 o-Terphenyl	13.425	13.425	0.000	4015583	12.5	12.0	
A	37 Over C28-C35	18.878	(17.017-20.739)		49502821	199.9	192.8	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

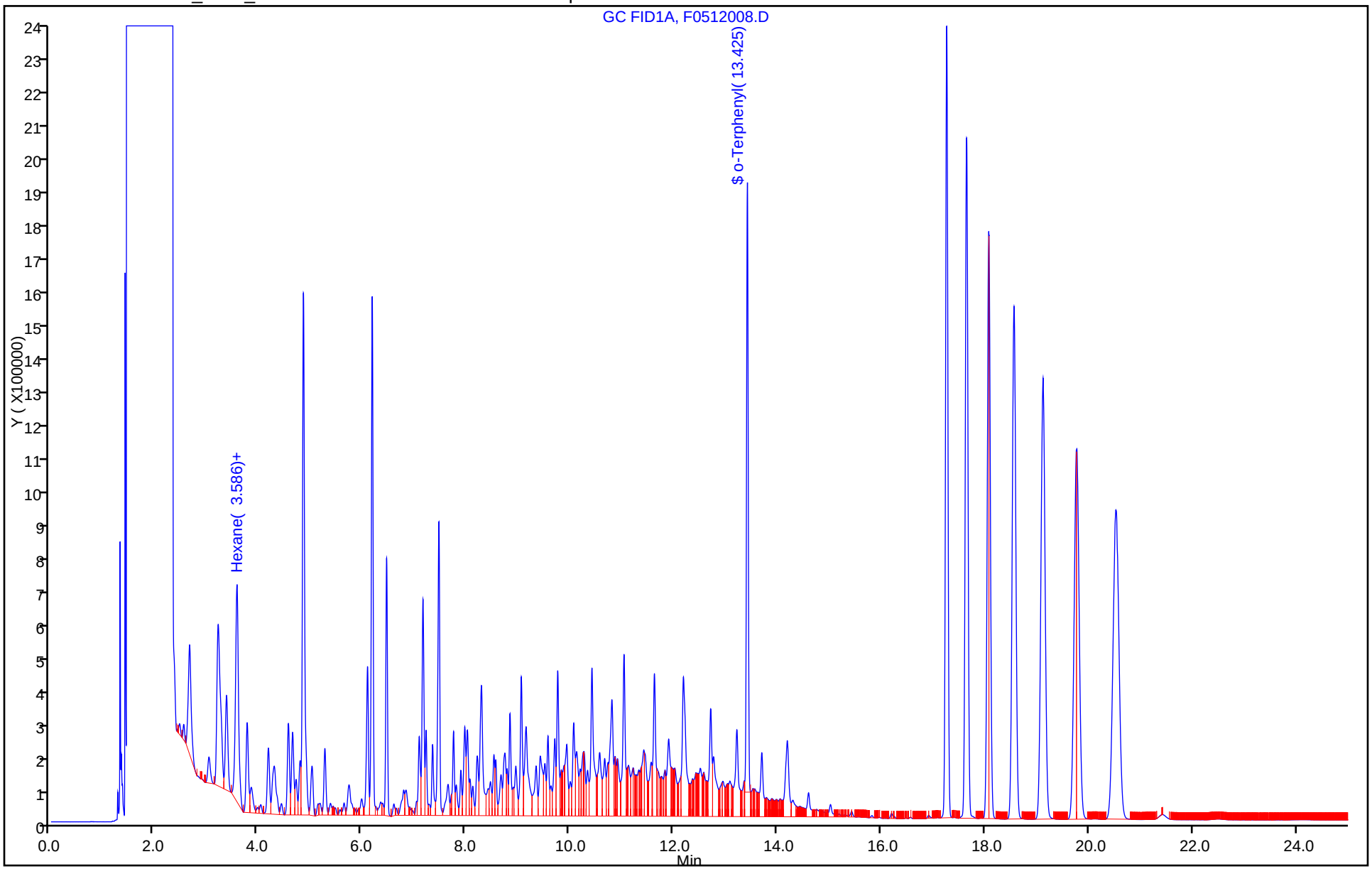
TX1005CURV_00050 Amount Added: 200.00 Units: uL

Report Date: 12-May-2016 14:27:00 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512008.D

Injection Date:	12-May-2016 12:10:26	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	ICRT			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		

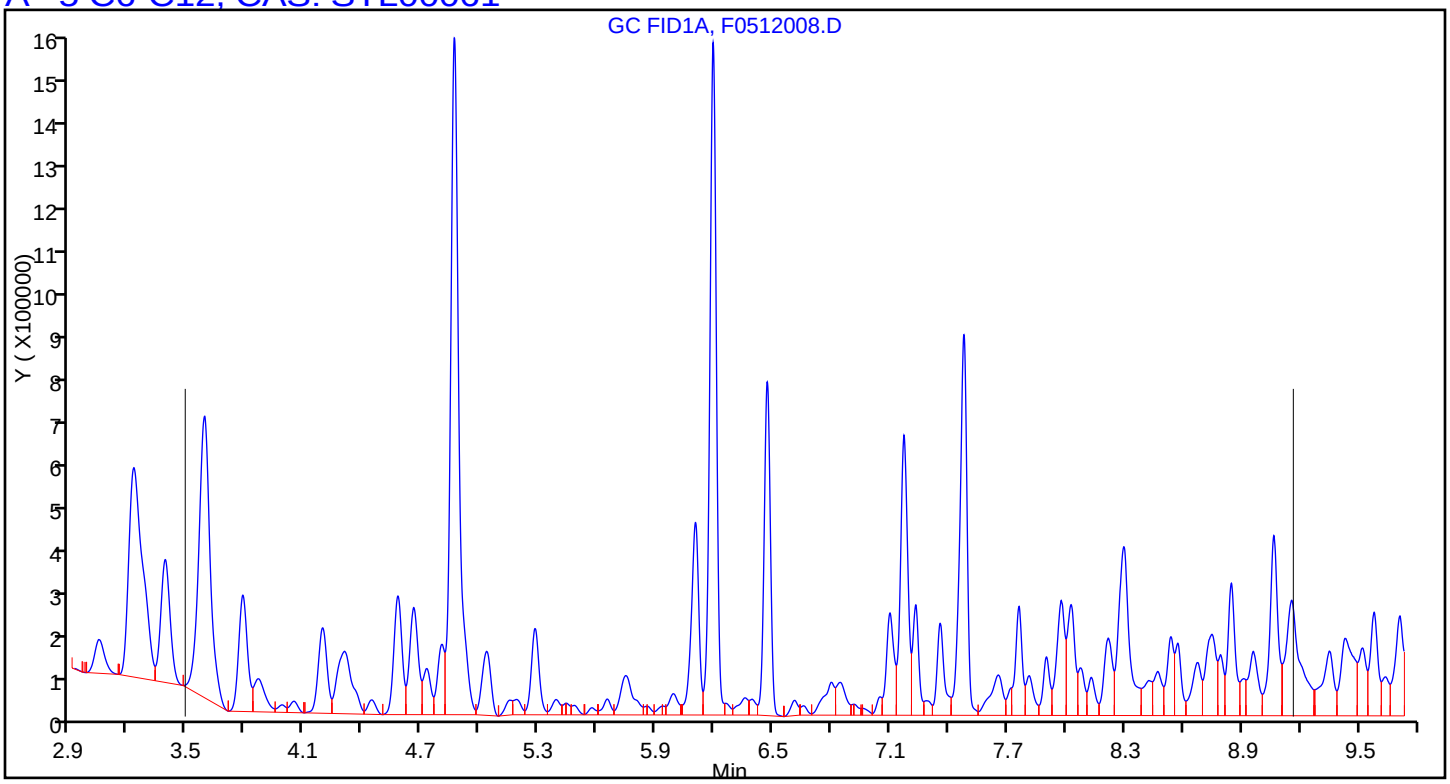


Report Date: 12-May-2016 14:27:01 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512008.D				
Injection Date:	12-May-2016 12:10:26	Instrument ID:	CHFID12		
Lims ID:	ICRT				
Client ID:					
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061

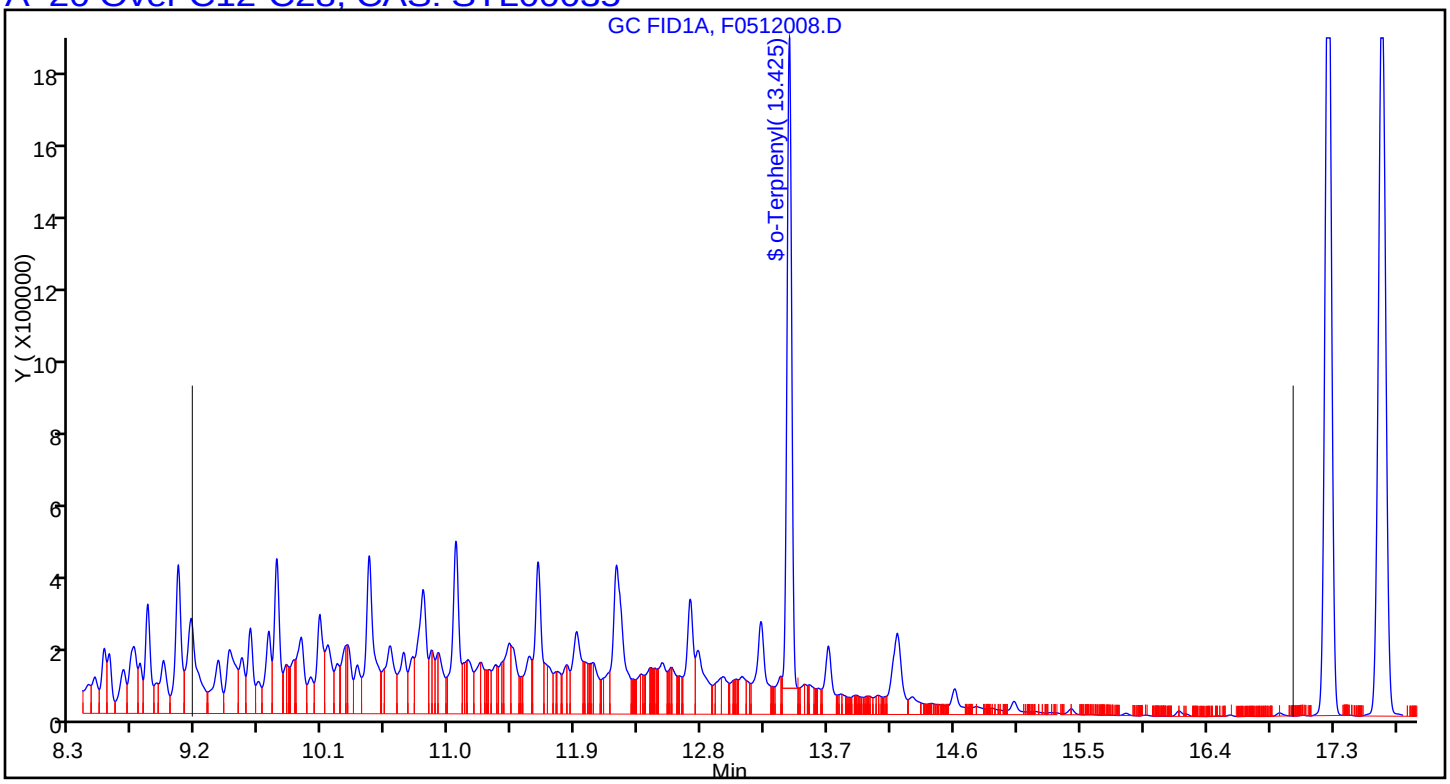


Report Date: 12-May-2016 14:27:01 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512008.D				
Injection Date:	12-May-2016 12:10:26	Instrument ID:	CHFID12		
Lims ID:	ICRT				
Client ID:					
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035



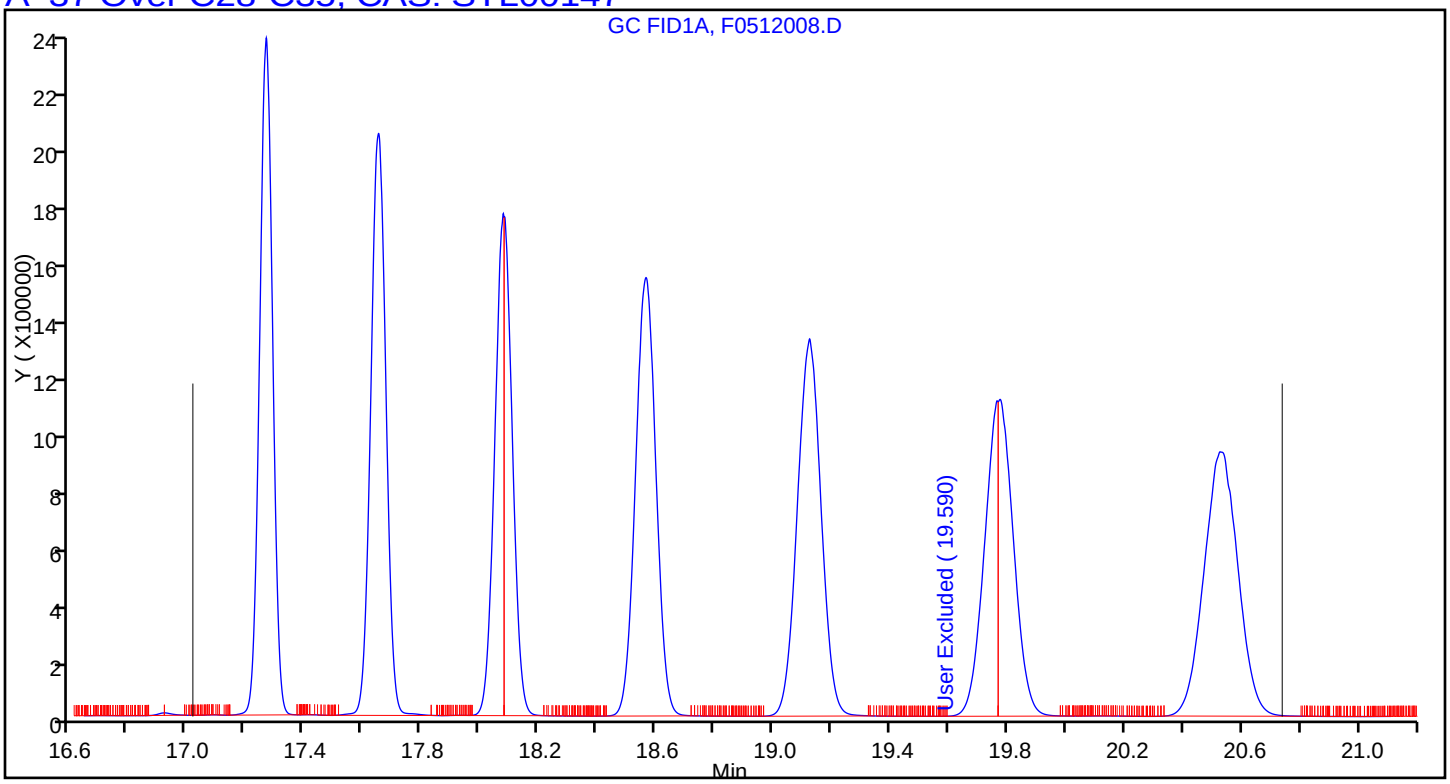
Report Date: 12-May-2016 14:27:01 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512008.D

Injection Date:	12-May-2016 12:10:26	Instrument ID:	CHFID12		
Lims ID:	ICRT				
Client ID:					
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



Manual Integration/User Assign Peak Report

TestAmerica Houston

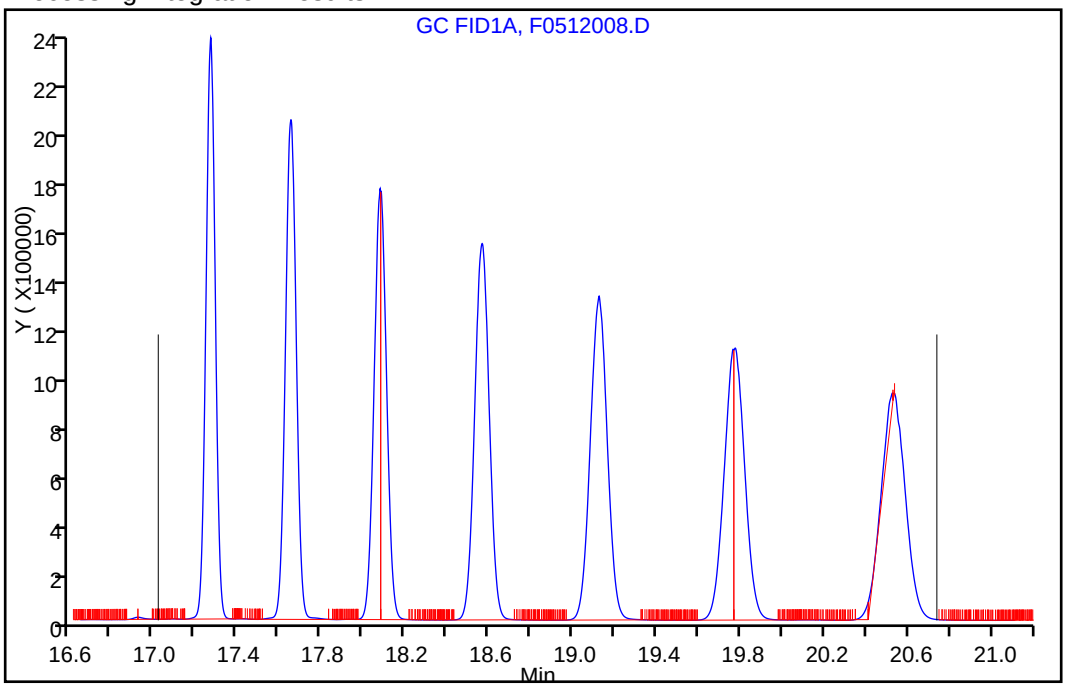
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512008.D				
Injection Date:	12-May-2016 12:10:26	Instrument ID:	CHFID12		
Lims ID:	ICRT				
Client ID:					
Operator ID:		ALS Bottle#:	8	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 37 Over C28-C35, RT: 18.878, CAS: STL00147

Signal: 1

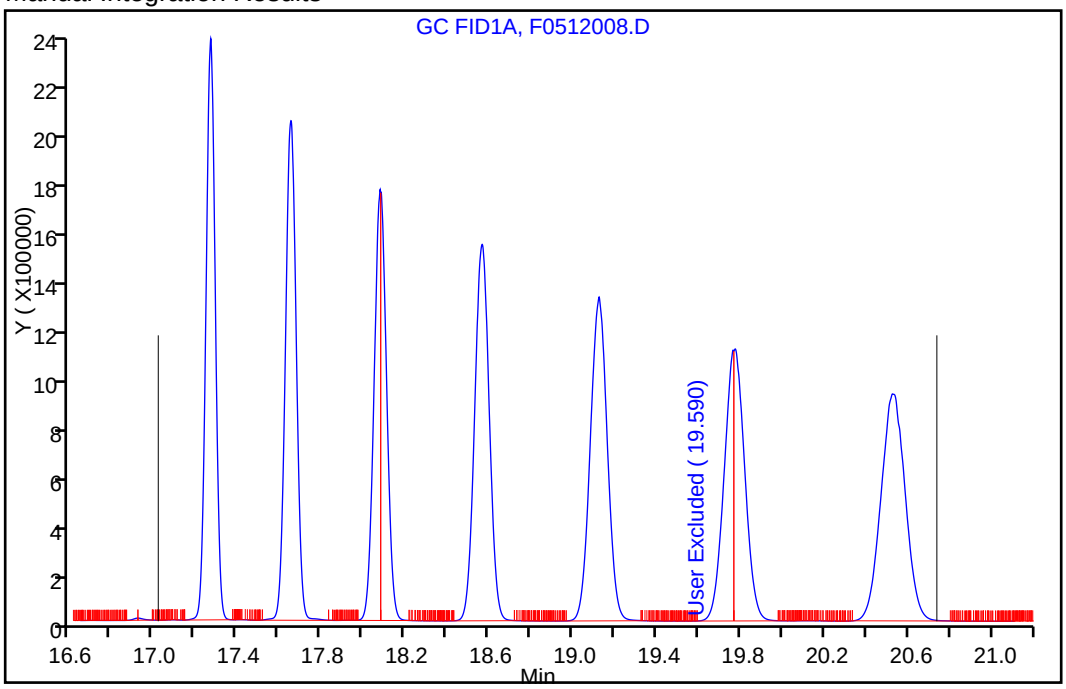
Processing Integration Results

RT: 18.88
Response: 42832577
Amount: 175.2069



Manual Integration Results

RT: 18.88
Response: 49502821
Amount: 192.8021



Reviewer: vanderborghr, 12-May-2016 12:41:40

Audit Action: Manually Integrated Audit Reason: Split Peak

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512009.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 12-May-2016 12:43:23 ALS Bottle#: 9 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012028-009
Operator ID: Instrument ID: CHFID12
Sublist: chrom-TX_1005_CHFID12*sub8

Method: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:27:03 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 13:19:57

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Hexane	3.586	3.586	0.000	4838433	400.0	25.5	M
A 5 C6-C12	6.326	(3.486-9.166)		76628108	400.0	403.3	M
S 16 C6-C35						1220.9	
A 20 Over C12-C28	13.092	(9.166-17.017)		89882326	400.0	402.7	
$ 22 o-Terphenyl	13.426	13.425	0.001	8734945	25.0	26.2	
A 37 Over C28-C35	18.878	(17.017-20.739)		106534594	399.8	414.9	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

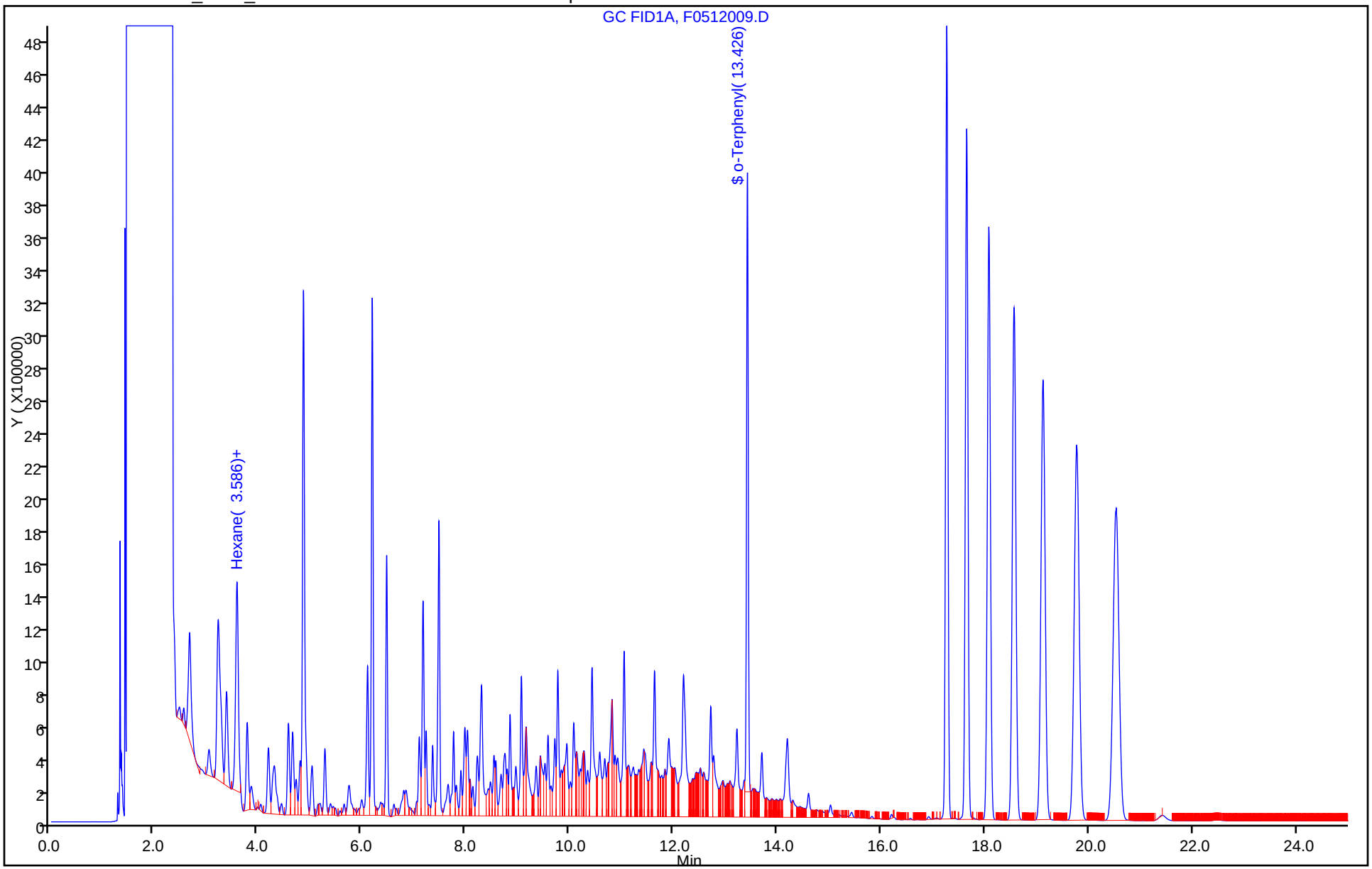
TX1005CURV_00050 Amount Added: 400.00 Units: uL

Report Date: 12-May-2016 14:27:04 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512009.D

Injection Date:	12-May-2016 12:43:23	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	IC			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		

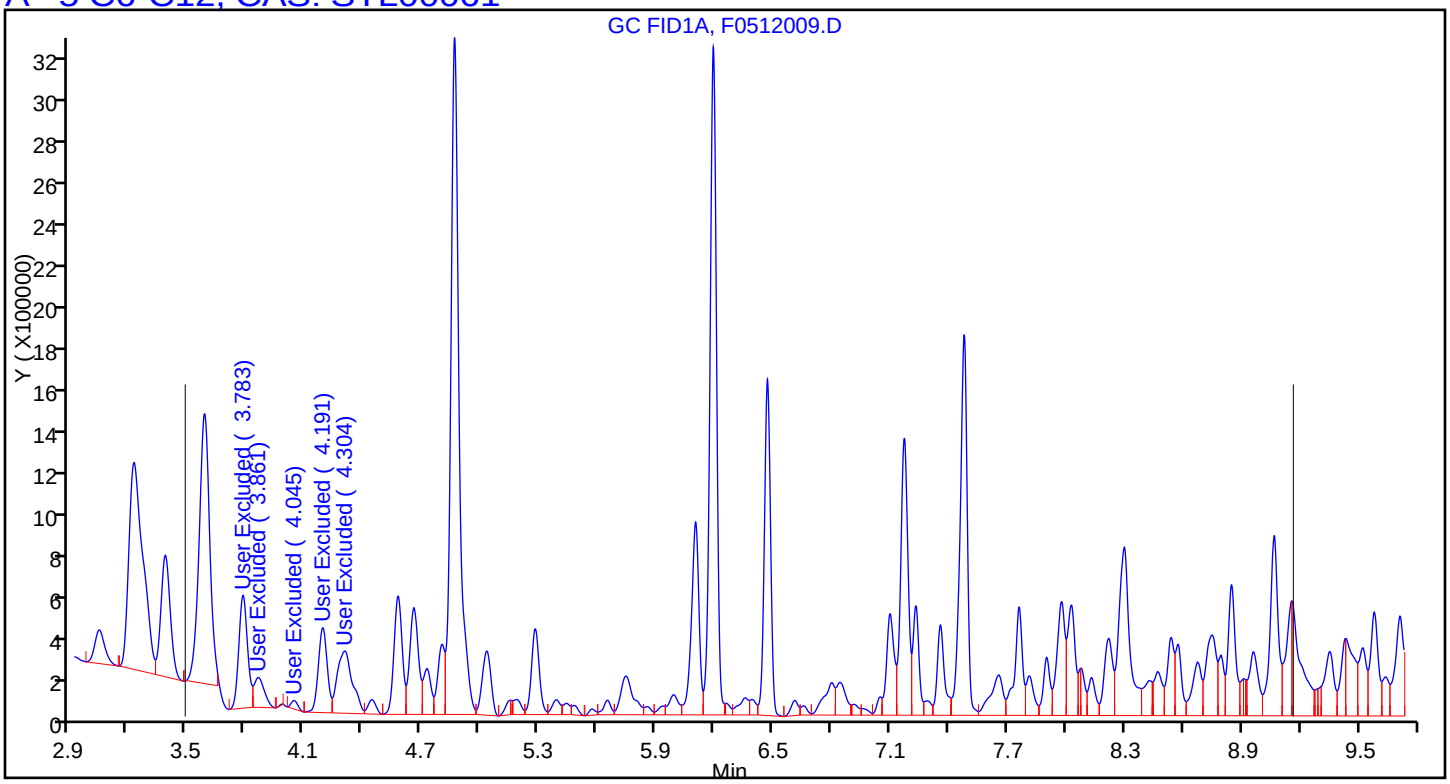


Report Date: 12-May-2016 14:27:04 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512009.D				
Injection Date:	12-May-2016 12:43:23	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061



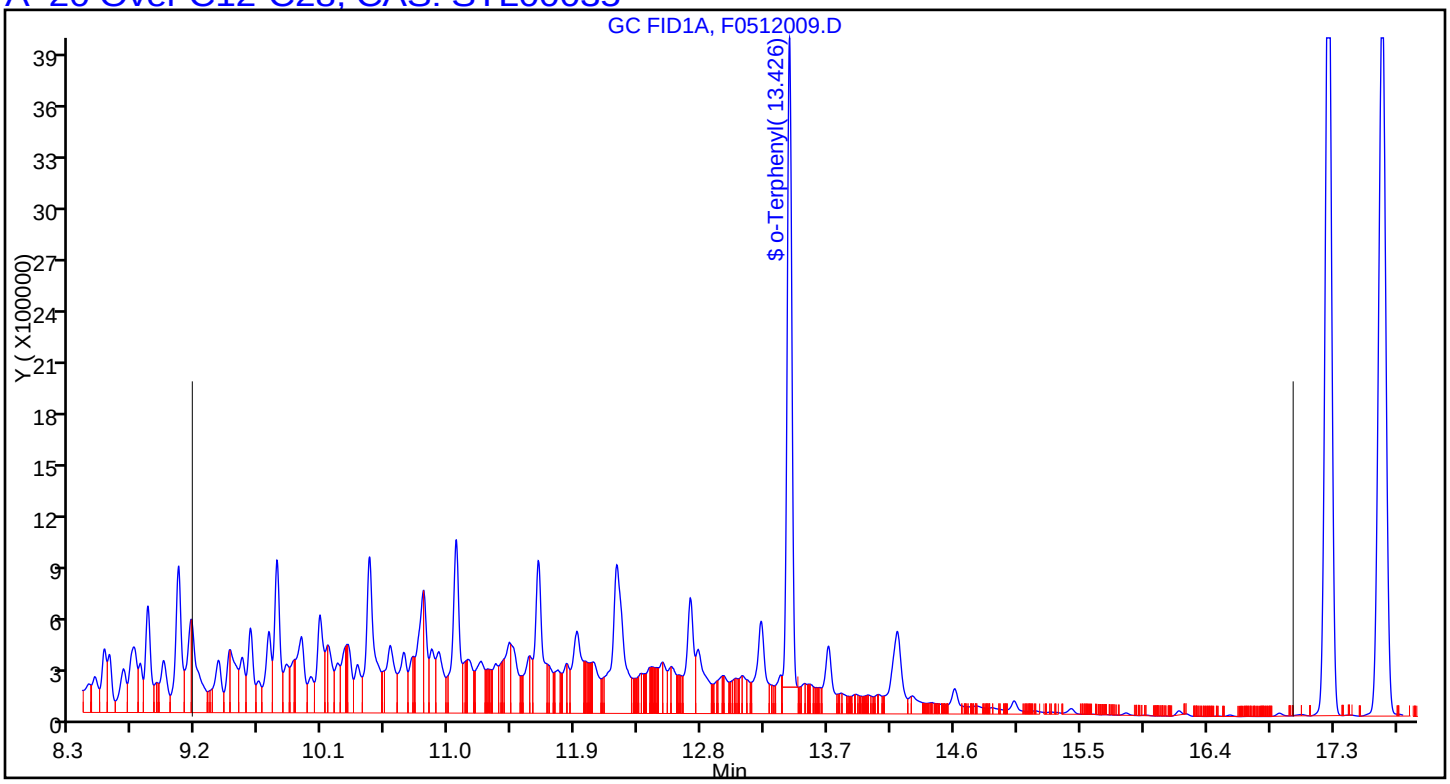
Report Date: 12-May-2016 14:27:05 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512009.D

Injection Date:	12-May-2016 12:43:23	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035

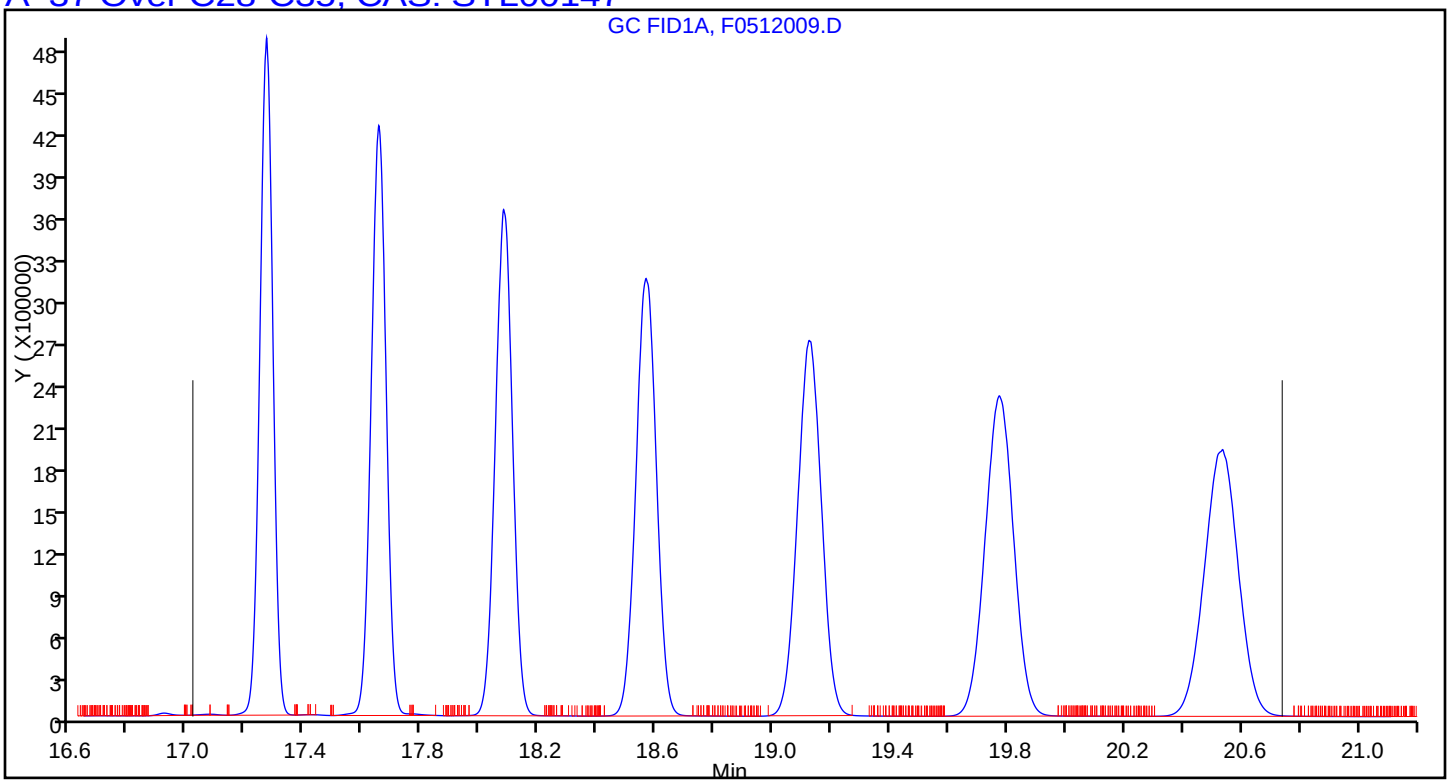


Report Date: 12-May-2016 14:27:05 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512009.D				
Injection Date:	12-May-2016 12:43:23	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 37 Over C28-C35, CAS: STL00147



Manual Integration/User Assign Peak Report

TestAmerica Houston

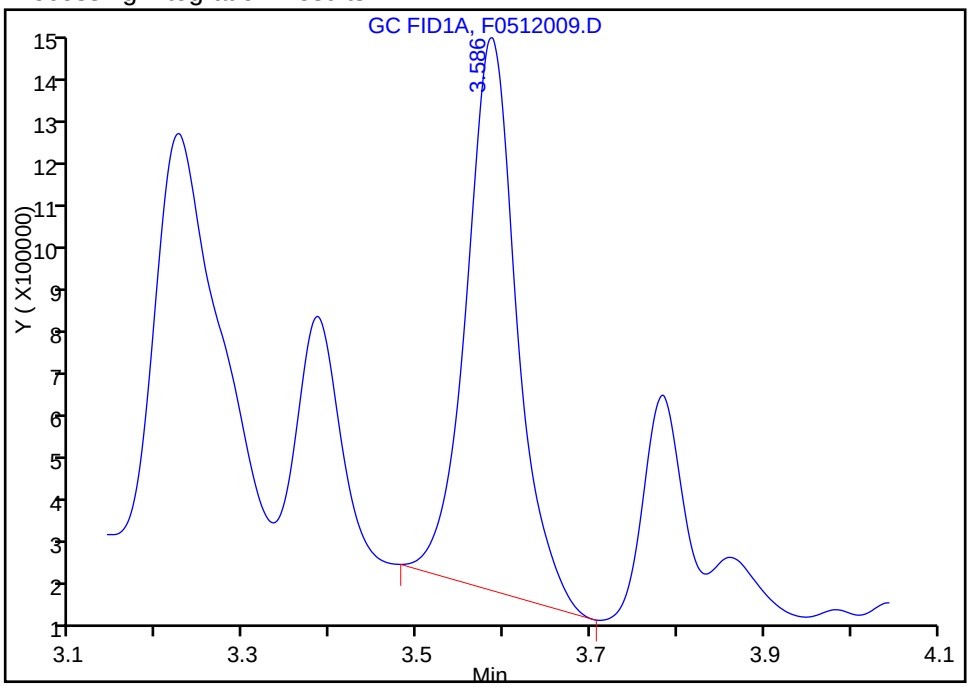
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512009.D				
Injection Date:	12-May-2016 12:43:23	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

1 Hexane, CAS: 110-54-3

Signal: 1

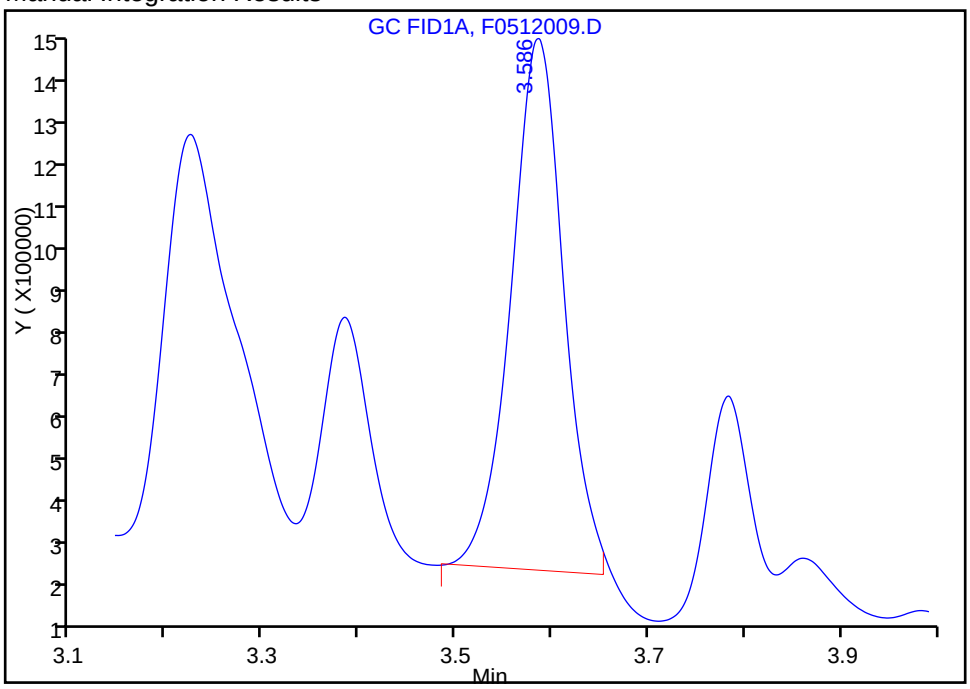
Processing Integration Results

RT: 3.59
Area: 5399734
Amount: 29.051167
Amount Units: ug/ml



Manual Integration Results

RT: 3.59
Area: 4838433
Amount: 25.465653
Amount Units: ug/ml



Reviewer: vanderborghr, 12-May-2016 13:46:44

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Houston

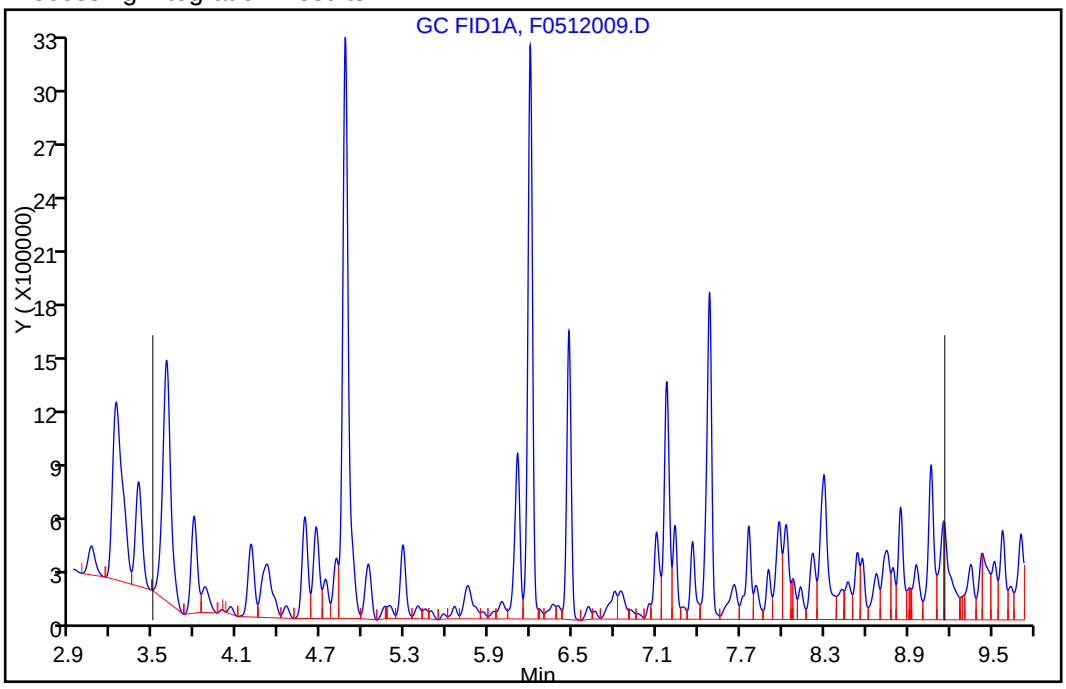
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512009.D				
Injection Date:	12-May-2016 12:43:23	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, RT: 6.326, CAS: STL00061

Signal: 1

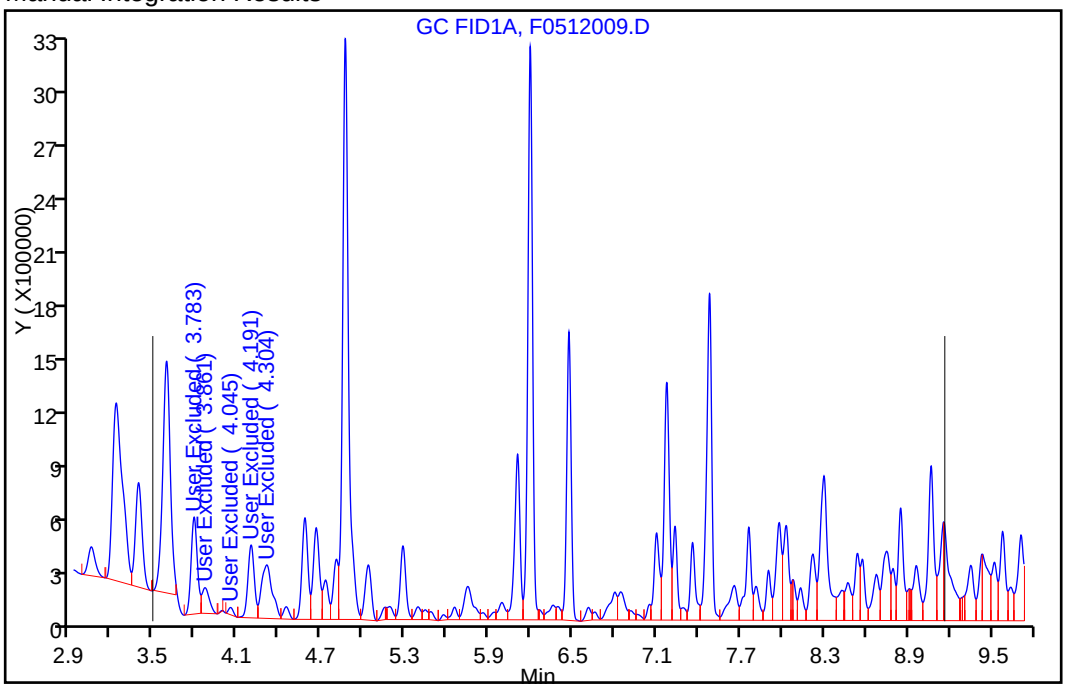
Processing Integration Results

RT: 6.33
Response: 82330055
Amount: 437.8985



Manual Integration Results

RT: 6.33
Response: 76628108
Amount: 403.3093



Reviewer: vanderborghr, 12-May-2016 13:46:44

Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Houston

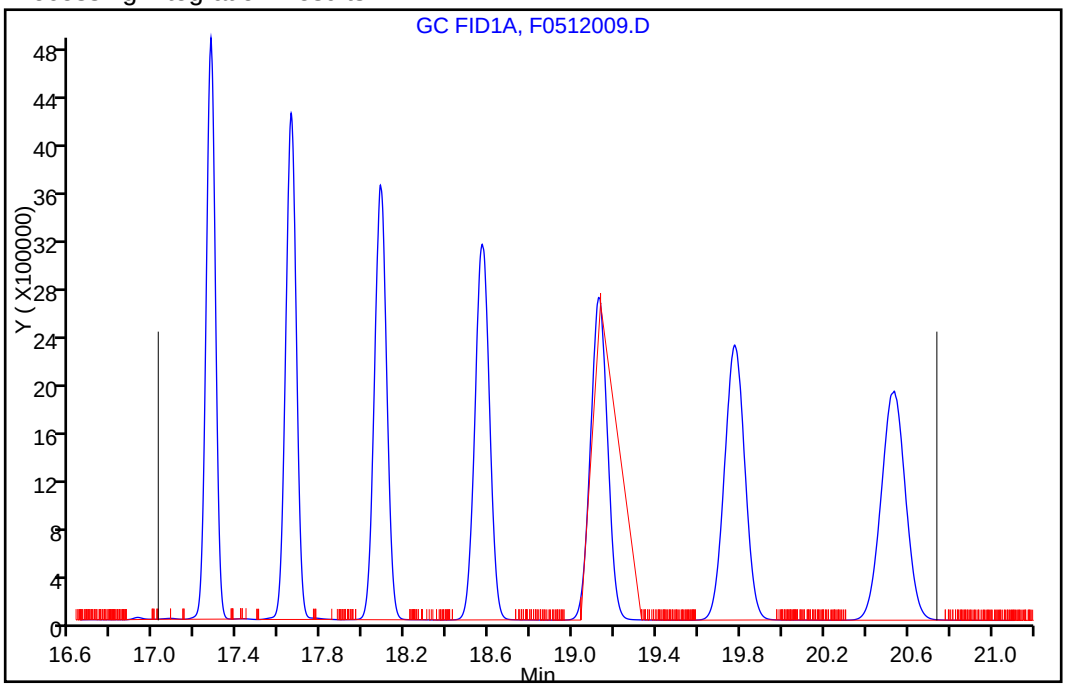
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512009.D				
Injection Date:	12-May-2016 12:43:23	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	9	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 37 Over C28-C35, RT: 18.878, CAS: STL00147

Signal: 1

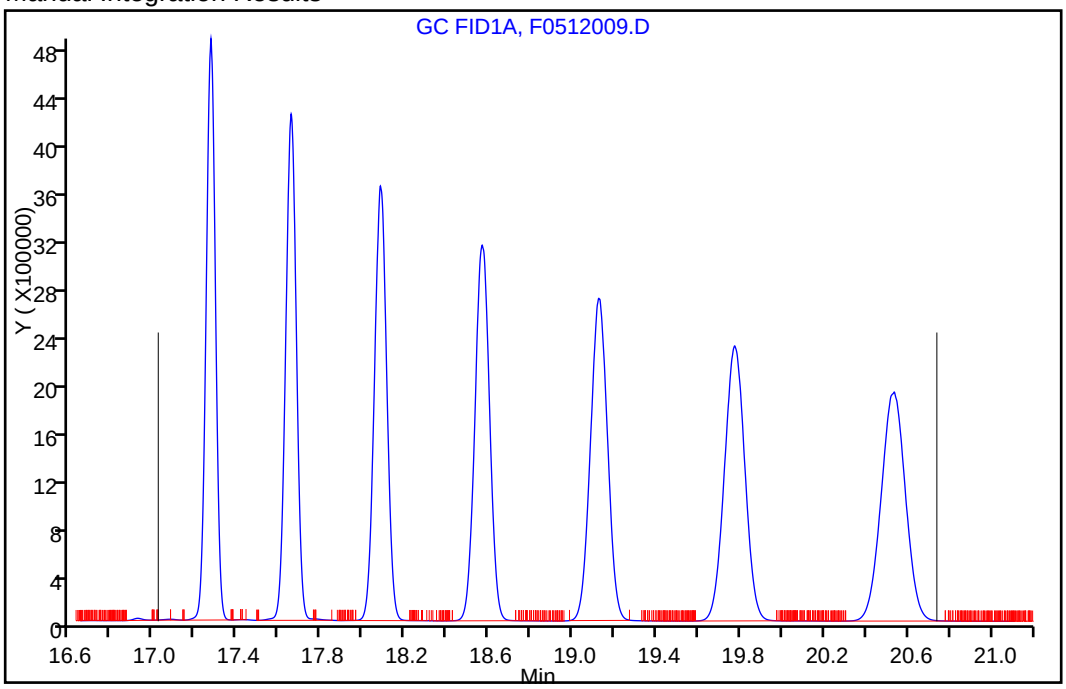
Processing Integration Results

RT: 18.88
Response: 101594041
Amount: 398.6269



Manual Integration Results

RT: 18.88
Response: 106534594
Amount: 414.9277



Reviewer: vanderborghr, 12-May-2016 13:47:49

Audit Action: Manually Integrated Audit Reason: Split Peak

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512010.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-May-2016 13:16:11 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012028-010
Operator ID: Instrument ID: CHFID12
Sublist: chrom-TX_1005_CHFID12*sub8

Method: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:27:07 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 13:48:28

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Hexane	3.586	3.586	0.000	10622791	800.0	55.9	
A	5 C6-C12	6.326	(3.486-9.166)		156737457	800.0	824.9	M
S	16 C6-C35						2452.1	
A	20 Over C12-C28	13.092	(9.166-17.017)		181360494	800.0	805.4	M
$	22 o-Terphenyl	13.424	13.425	-0.001	17014229	50.0	50.9	
A	37 Over C28-C35	18.878	(17.017-20.739)		210983226	799.7	821.7	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

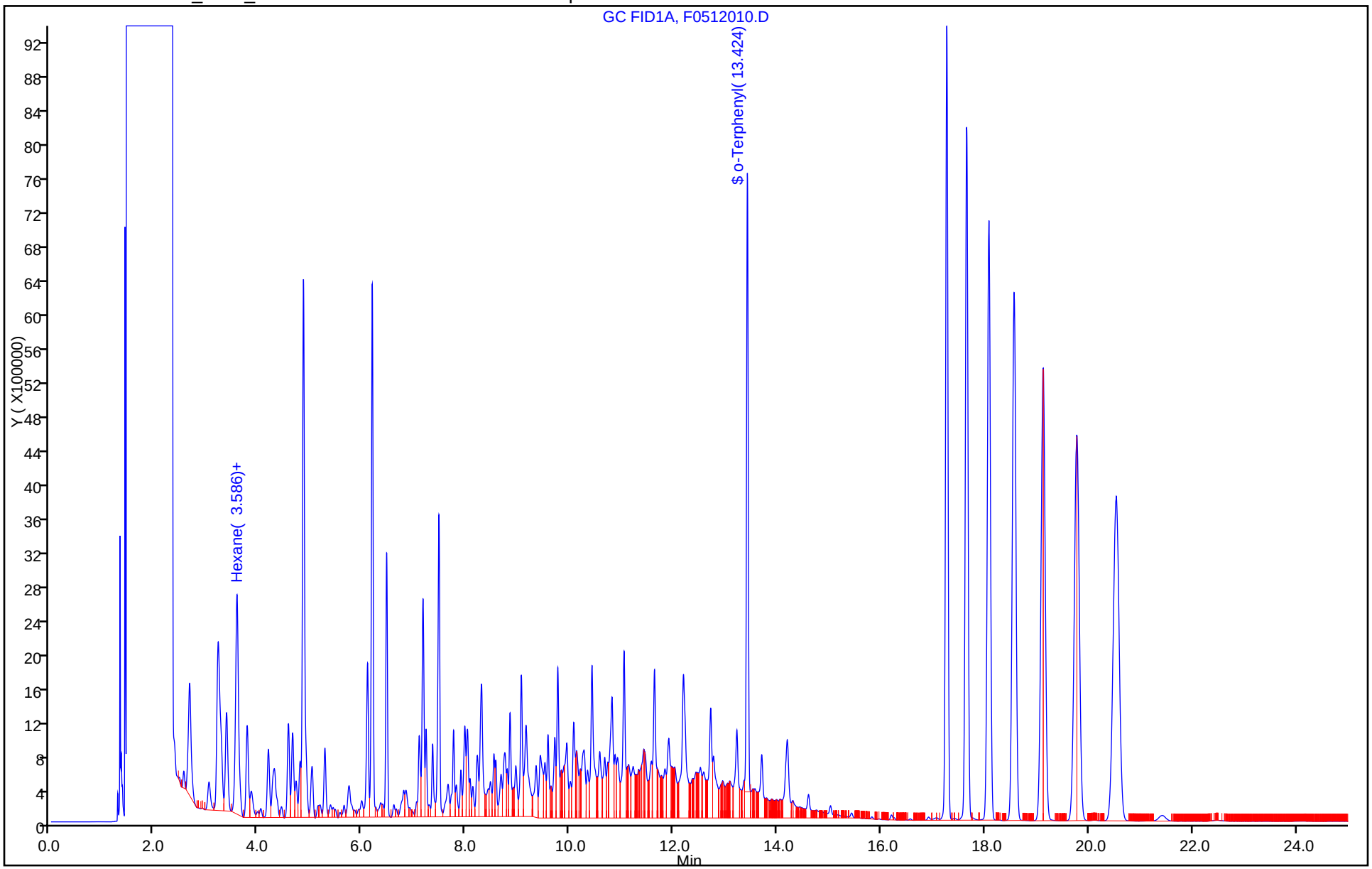
TX1005CURV_00050 Amount Added: 800.00 Units: uL

Report Date: 12-May-2016 14:27:08 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512010.D

Injection Date:	12-May-2016 13:16:11	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	IC			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		

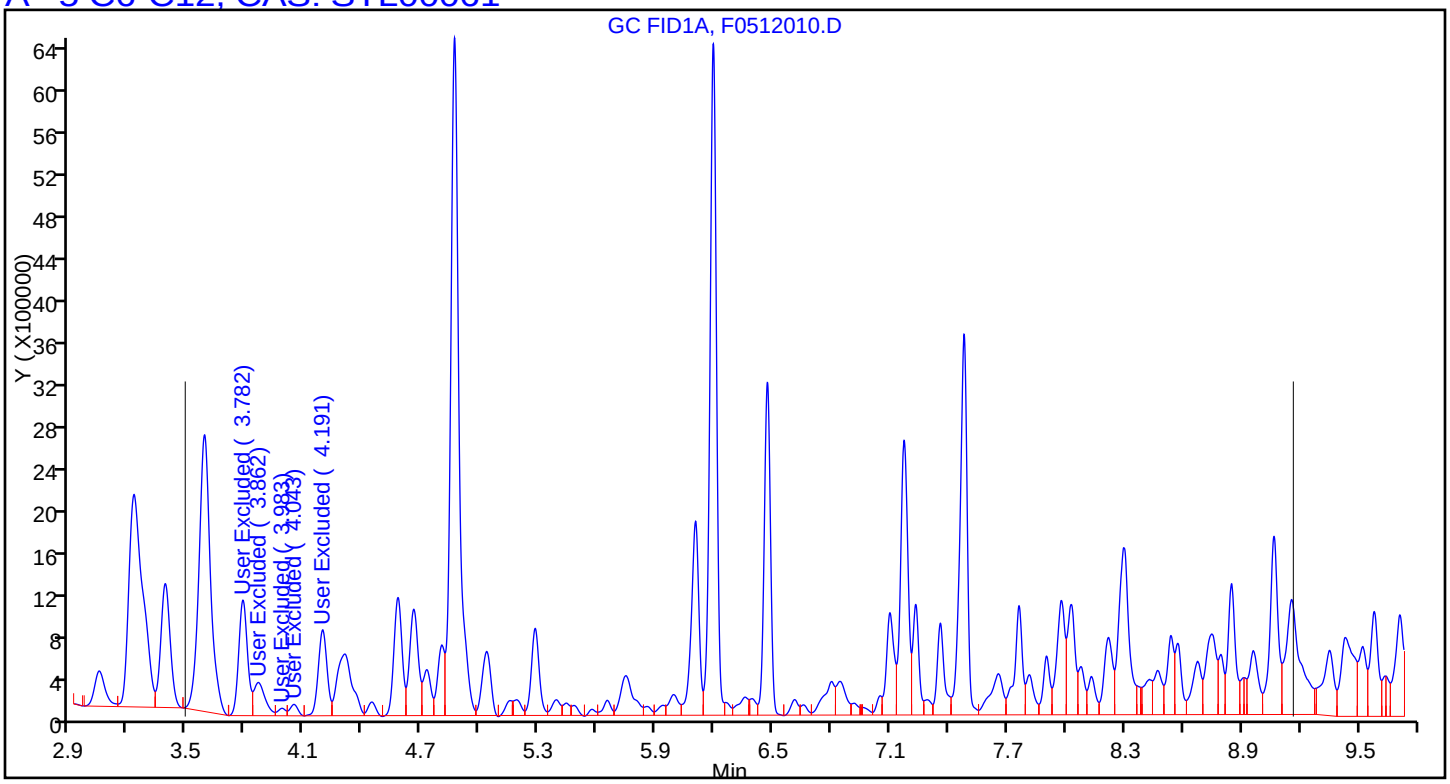


Report Date: 12-May-2016 14:27:08 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512010.D				
Injection Date:	12-May-2016 13:16:11	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061

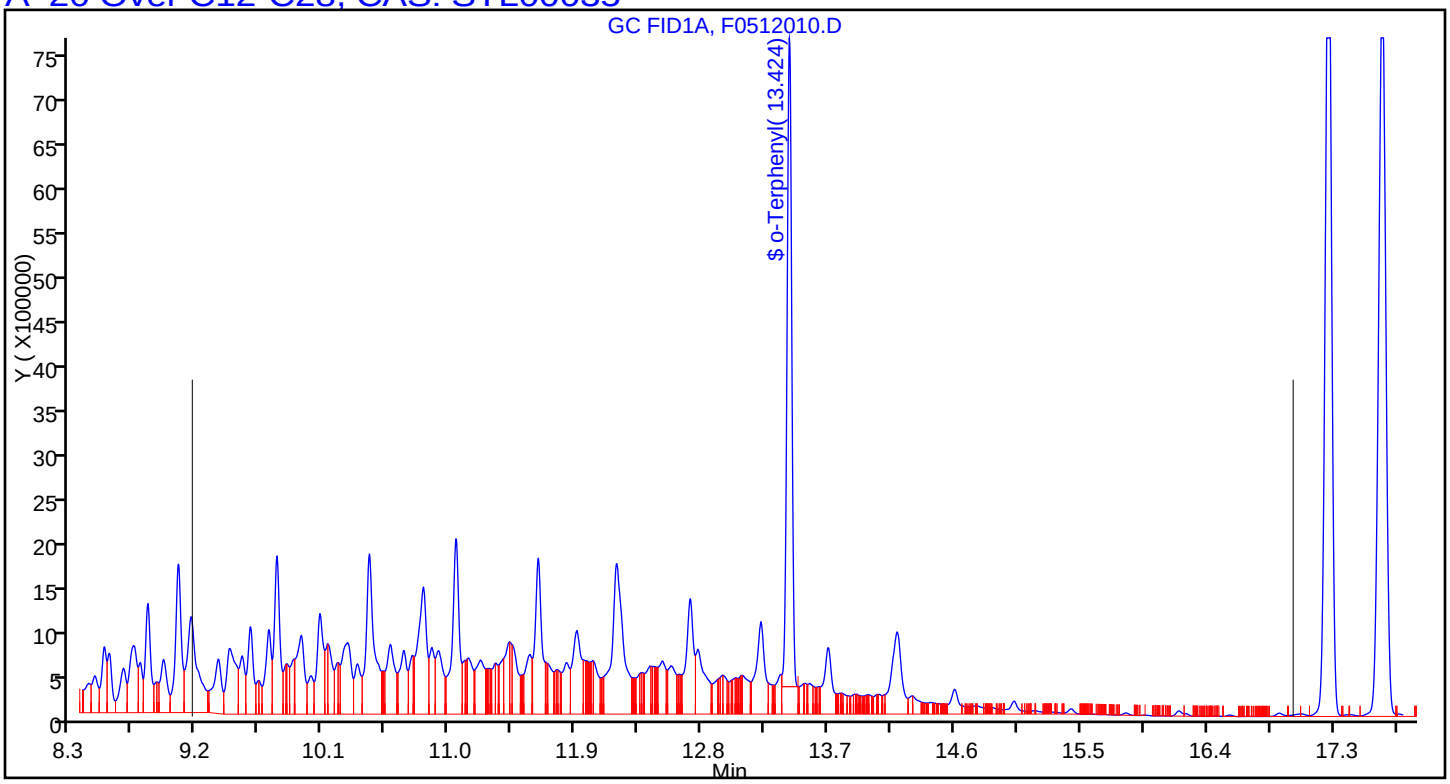


Report Date: 12-May-2016 14:27:08 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512010.D				
Injection Date:	12-May-2016 13:16:11	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035

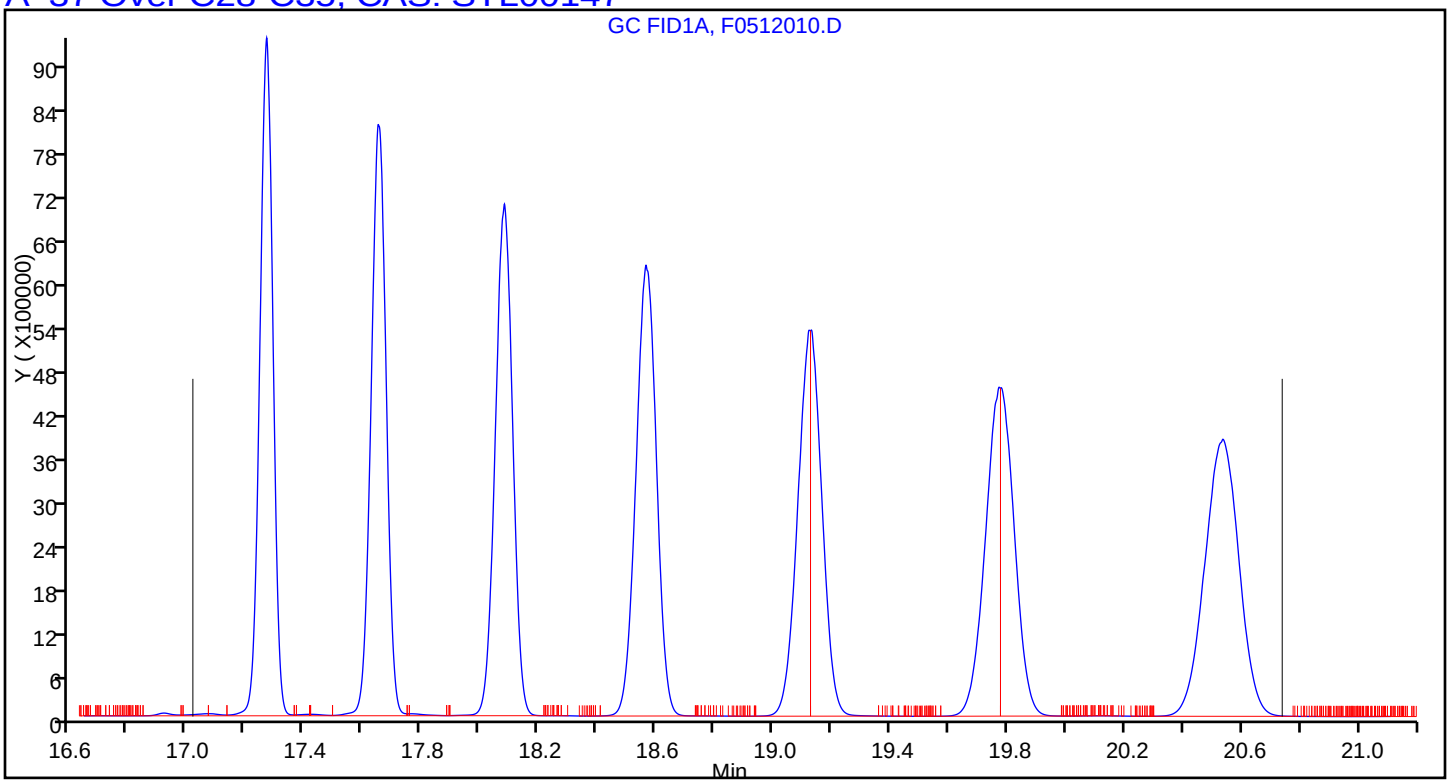


Report Date: 12-May-2016 14:27:08 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512010.D				
Injection Date:	12-May-2016 13:16:11	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 37 Over C28-C35, CAS: STL00147



Manual Integration/User Assign Peak Report

TestAmerica Houston

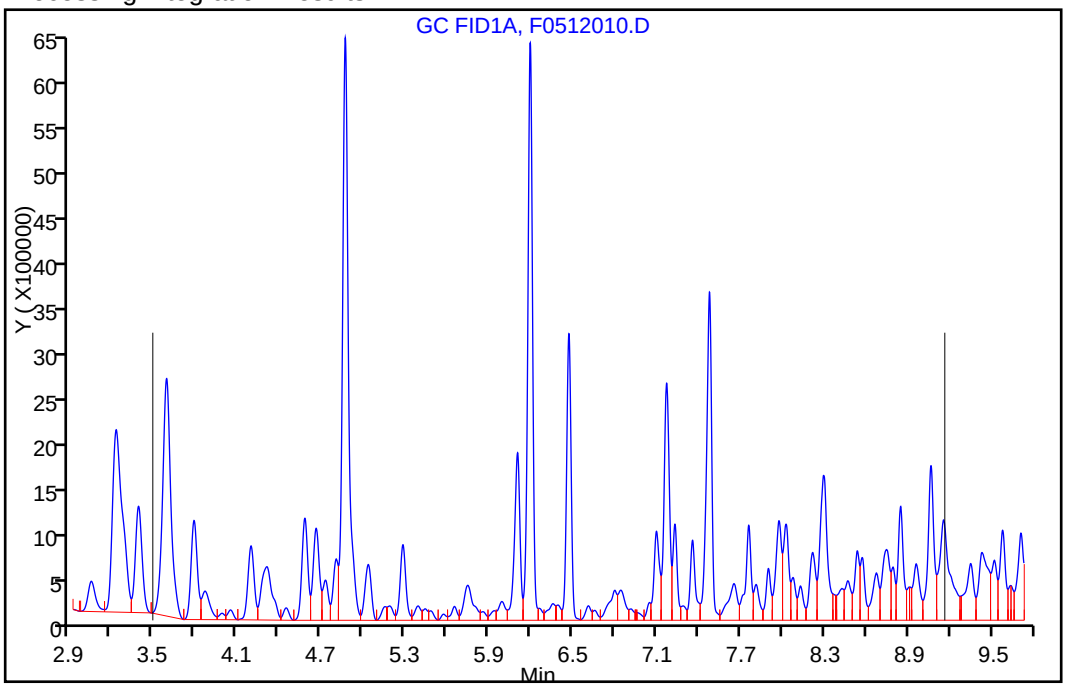
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512010.D				
Injection Date:	12-May-2016 13:16:11	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, RT: 6.326, CAS: STL00061

Signal: 1

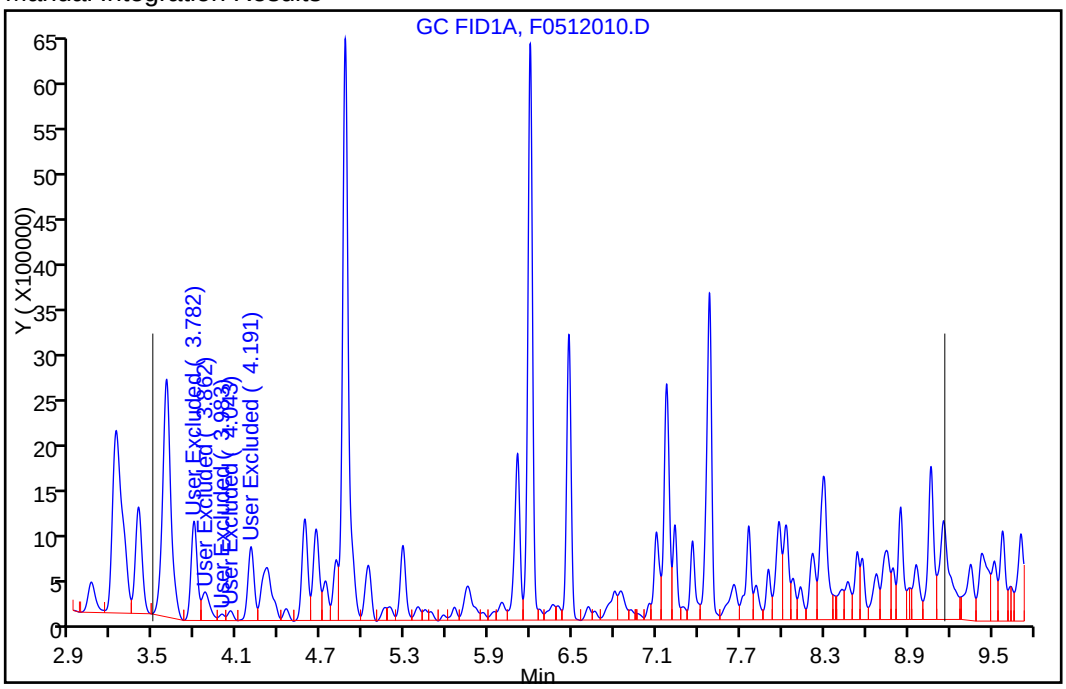
Processing Integration Results

RT: 6.33
Response: 168167614
Amount: 905.9002



Manual Integration Results

RT: 6.33
Response: 156737457
Amount: 824.9410



Reviewer: vanderborghr, 12-May-2016 13:50:31

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Houston

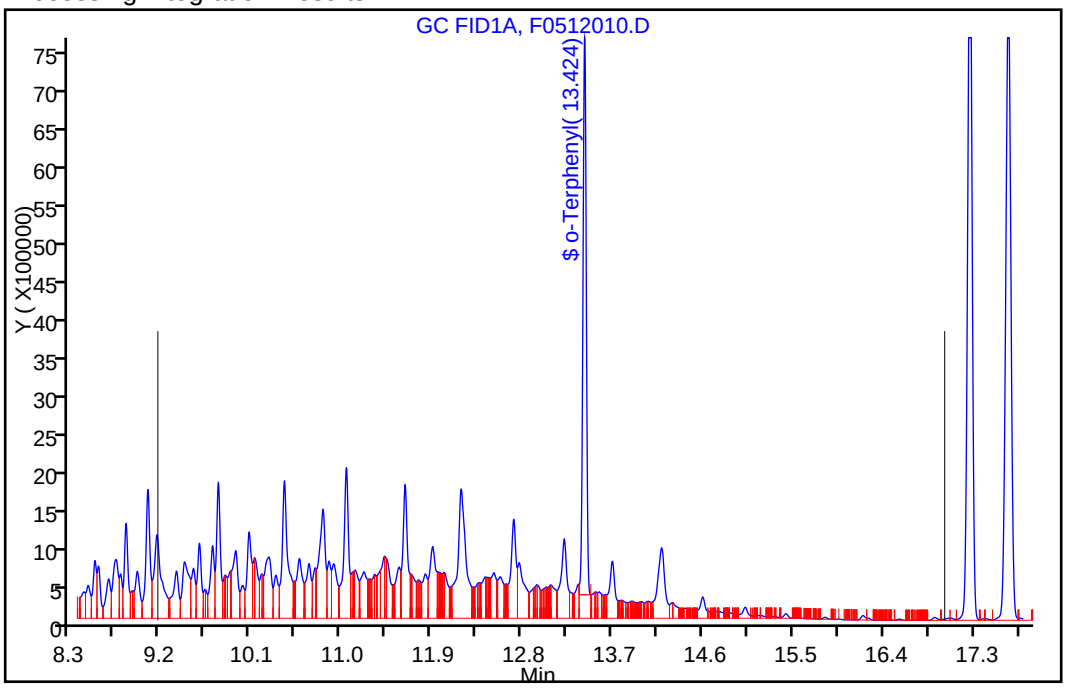
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512010.D				
Injection Date:	12-May-2016 13:16:11	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, RT: 13.092, CAS: STL00035

Signal: 1

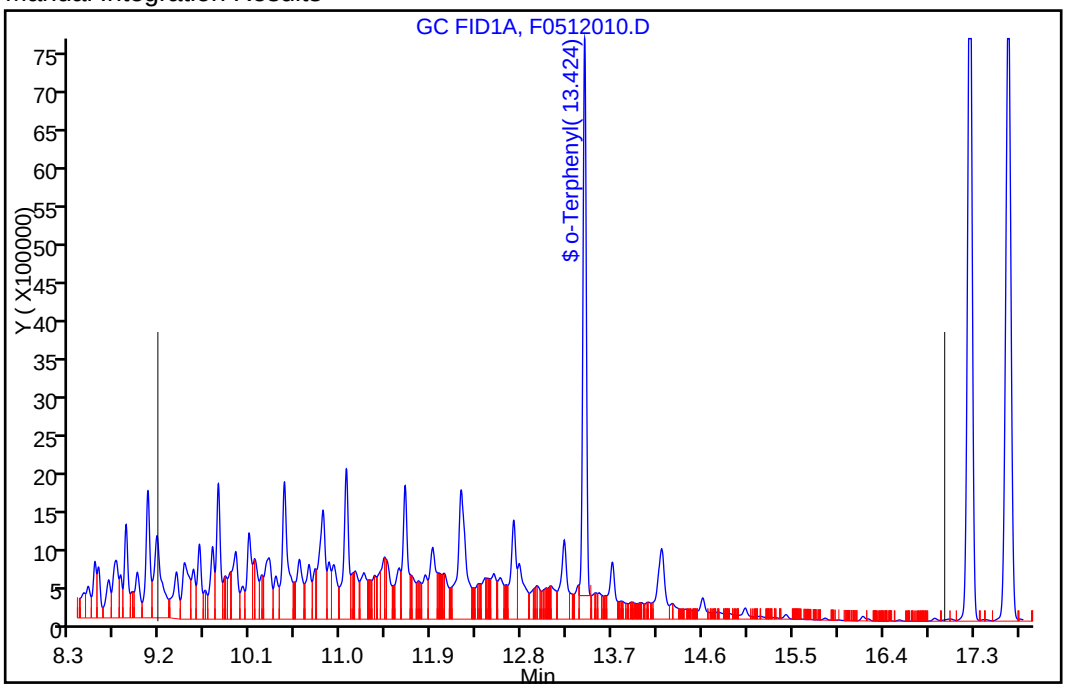
Processing Integration Results

RT: 13.09
Response: 181548595
Amount: 808.8206



Manual Integration Results

RT: 13.09
Response: 181360494
Amount: 805.4382



Reviewer: vanderborghr, 12-May-2016 13:50:31

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 12-May-2016 13:49:14 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012028-011
Operator ID: Instrument ID: CHFID12
Sublist: chrom-TX_1005_CHFID12*sub8

Method: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:27:10 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 14:15:51

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Hexane	3.586	3.586	0.000	12745119	1000.0	67.1	
A	5 C6-C12	6.326	(3.486-9.166)		197270294	1000.0	1038.3	M
S	16 C6-C35						3036.8	
A	20 Over C12-C28	13.092	(9.166-17.017)		226177110	1000.0	1002.8	M
$	22 o-Terphenyl	13.426	13.425	0.001	20594062	62.5	61.7	
A	37 Over C28-C35	18.878	(17.017-20.739)		255663655	999.6	995.8	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

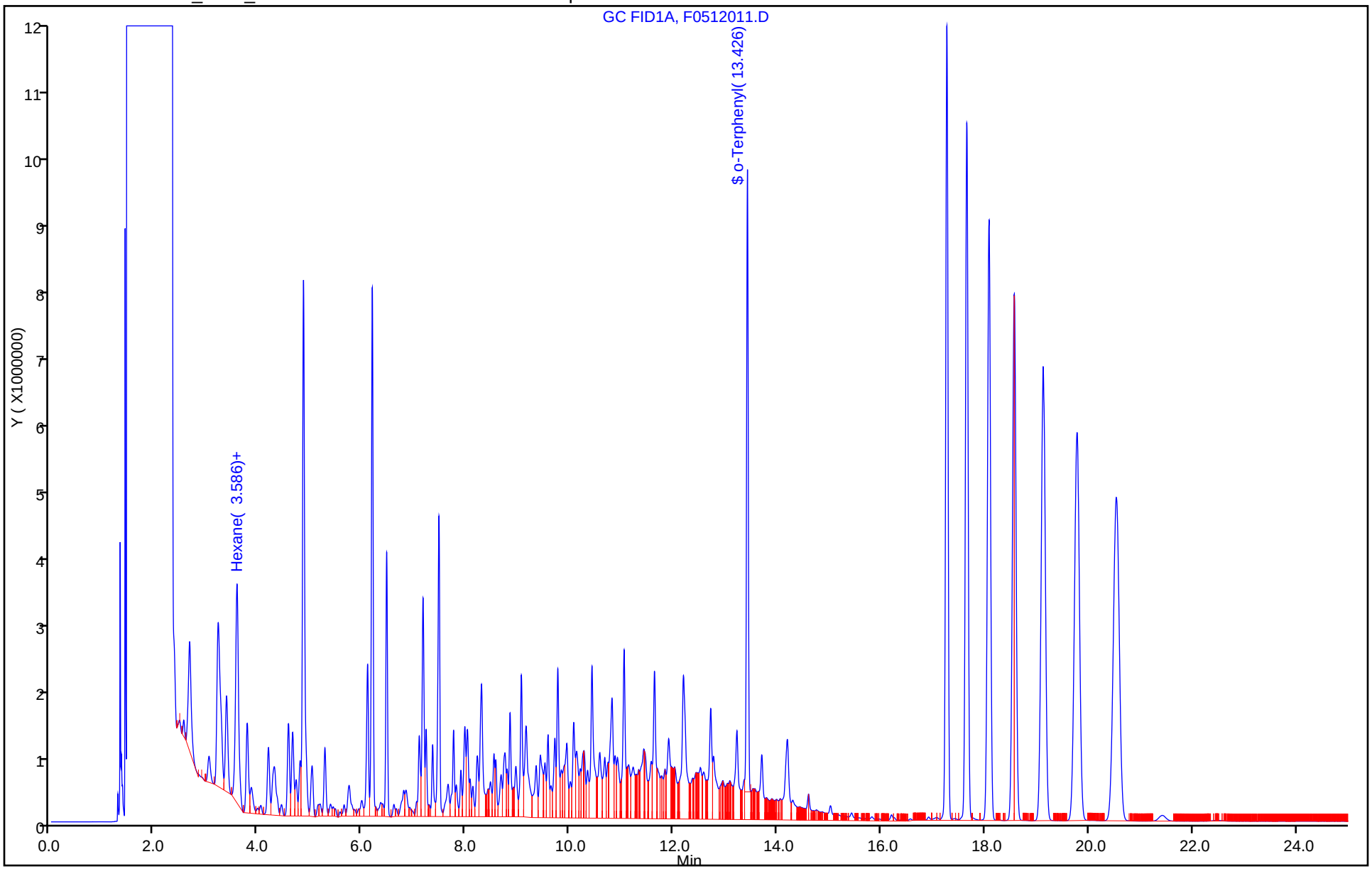
TX1005CURV_00050 Amount Added: 1000.00 Units: uL

Report Date: 12-May-2016 14:27:11 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Injection Date:	12-May-2016 13:49:14	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	IC			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		

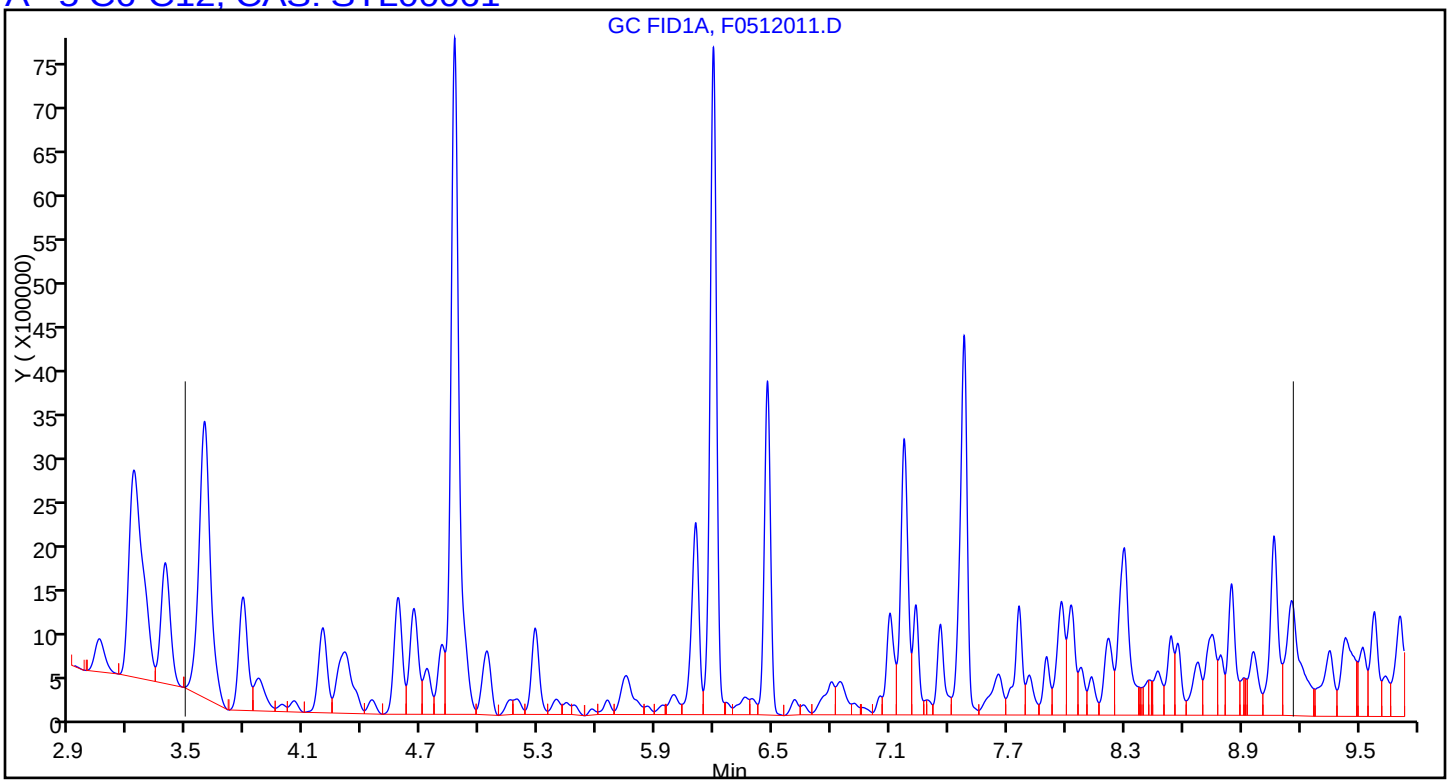


Report Date: 12-May-2016 14:27:12 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D				
Injection Date:	12-May-2016 13:49:14	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061

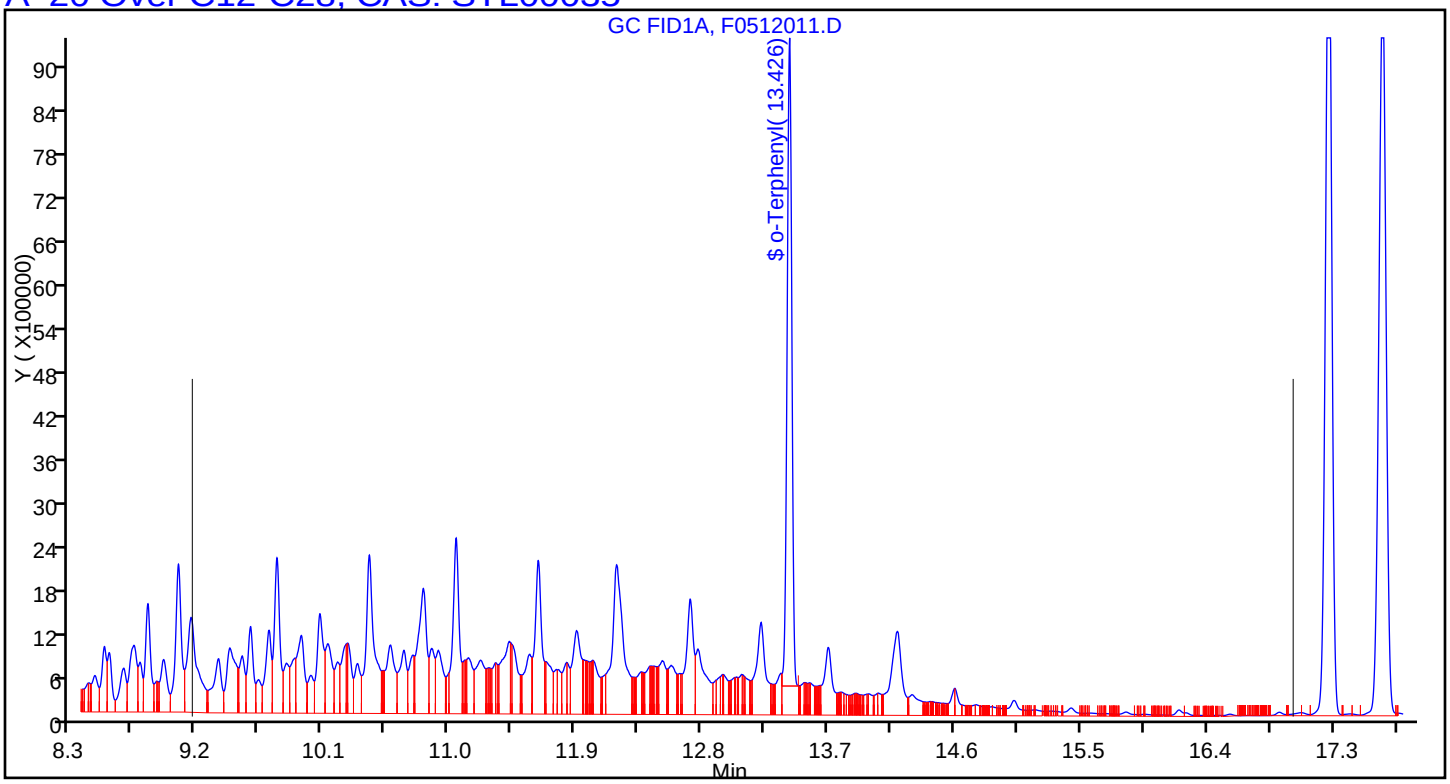


Report Date: 12-May-2016 14:27:12 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D				
Injection Date:	12-May-2016 13:49:14	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035



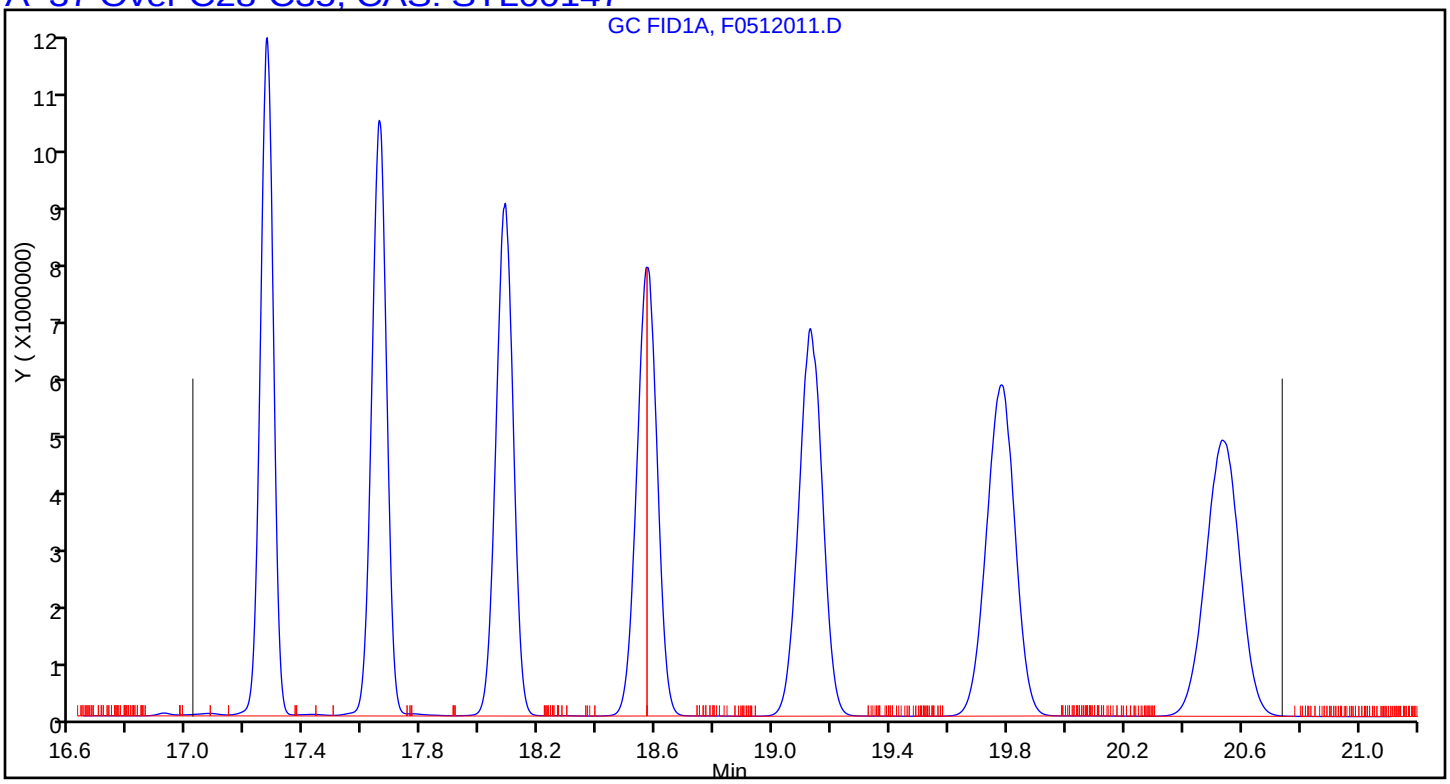
Report Date: 12-May-2016 14:27:12 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Injection Date:	12-May-2016 13:49:14	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 37 Over C28-C35, CAS: STL00147



Manual Integration/User Assign Peak Report

TestAmerica Houston

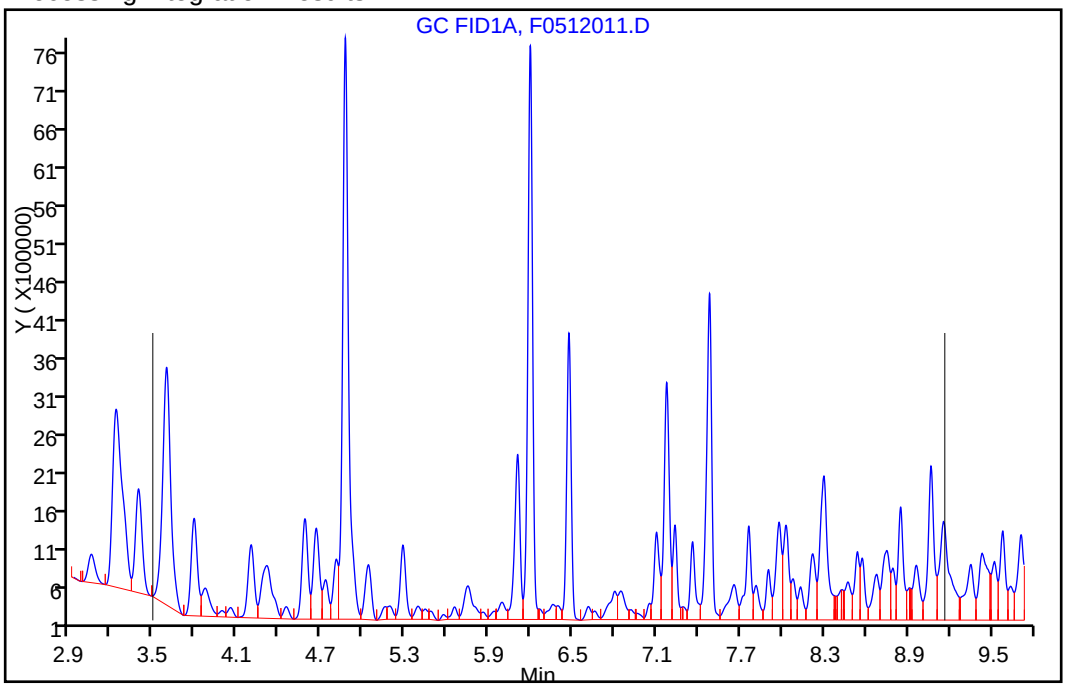
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D				
Injection Date:	12-May-2016 13:49:14	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, RT: 6.326, CAS: STL00061

Signal: 1

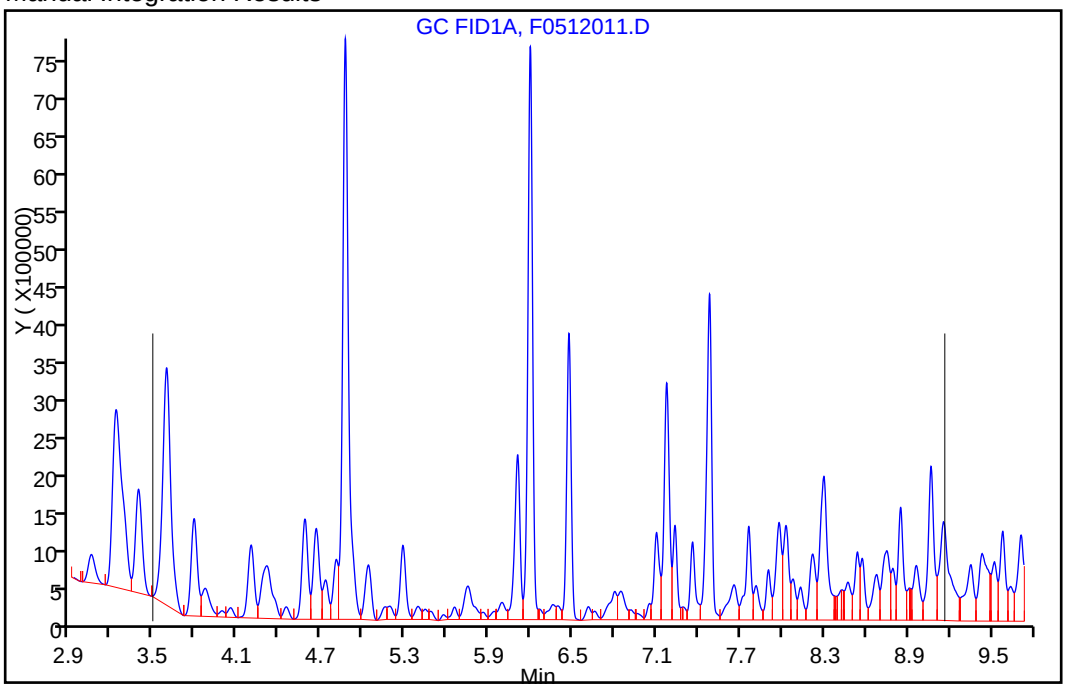
Processing Integration Results

RT: 6.33
Response: 197270294
Amount: 1038.2735



Manual Integration Results

RT: 6.33
Response: 197270294
Amount: 1038.2735



Reviewer: vanderborghr, 12-May-2016 14:17:18

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Houston

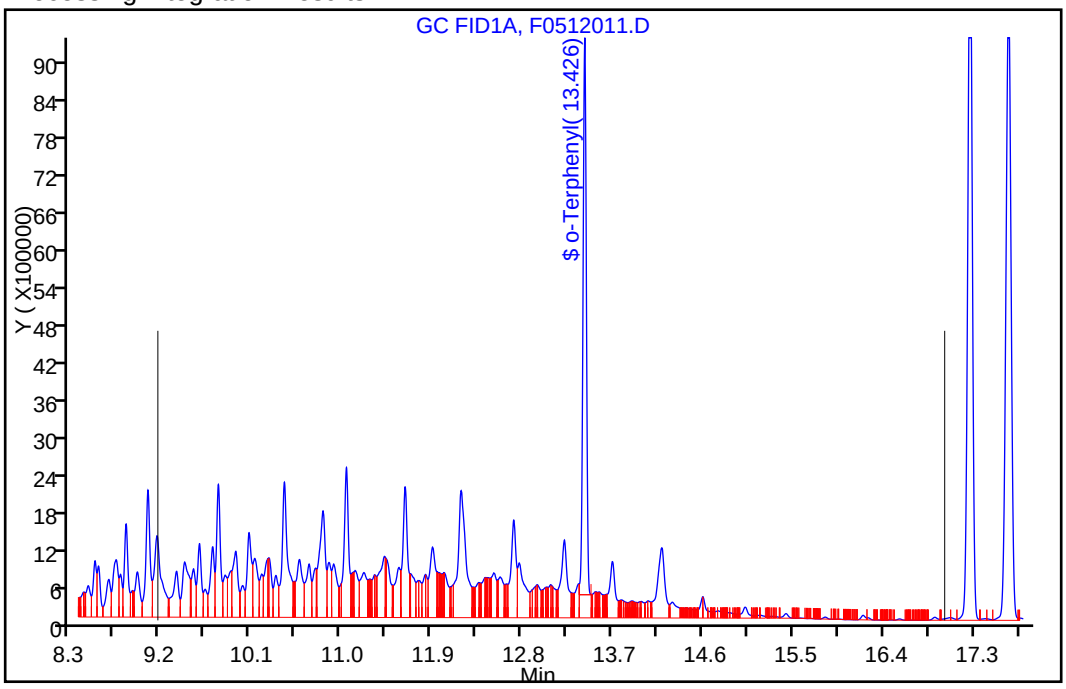
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D				
Injection Date:	12-May-2016 13:49:14	Instrument ID:	CHFID12		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, RT: 13.092, CAS: STL00035

Signal: 1

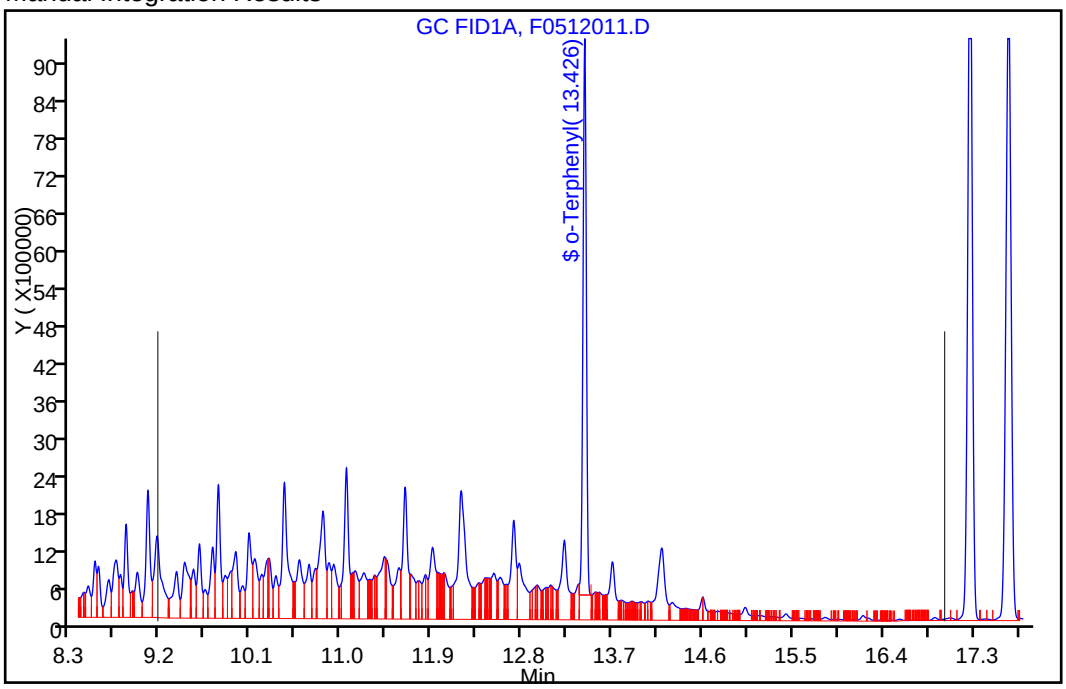
Processing Integration Results

RT: 13.09
Response: 216088525
Amount: 976.3401



Manual Integration Results

RT: 13.09
Response: 226177110
Amount: 1002.7506



Reviewer: vanderborghr, 12-May-2016 14:17:18

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM VI
GC SEMI VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188342

SDG No.:

Instrument ID: CHFID12_R GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2016 10:32 Calibration End Date: 05/12/2016 13:49 Calibration ID: 9327

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-188342/5	B0512005.D
Level 2	IC 600-188342/6	B0512006.D
Level 3	IC 600-188342/7	B0512007.D
Level 4	ICRT 600-188342/8	B0512008.D
Level 5	IC 600-188342/9	B0512009.D
Level 6	IC 600-188342/10	B0512010.D
Level 7	IC 600-188342/11	B0512011.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
C6	3.352	3.356	3.355	3.355	3.355	3.354	3.355				3.255 - 3.455	3.355
C6-C12	6.239	6.239	6.233	6.240	6.239	6.239	6.239				3.255 - 9.224	6.238
>C12-C28	13.132	13.132	13.132	13.131	13.132	13.132	13.132				9.224 - 17.037	13.132
>C28-C35	18.867	18.867	18.867	18.865	18.867	18.867	18.867				17.037 - 20.694	18.867
o-Terphenyl	13.462	13.463	13.463	13.462	13.464	13.463	13.464				13.362 - 13.562	13.463

FORM VI
GC SEMI VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188342

SDG No.:

Instrument ID: CHFID12_R GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2016 10:32 Calibration End Date: 05/12/2016 13:49 Calibration ID: 9327

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-188342/5	B0512005.D
Level 2	IC 600-188342/6	B0512006.D
Level 3	IC 600-188342/7	B0512007.D
Level 4	ICRT 600-188342/8	B0512008.D
Level 5	IC 600-188342/9	B0512009.D
Level 6	IC 600-188342/10	B0512010.D
Level 7	IC 600-188342/11	B0512011.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
C6	9793.3 10956	9847.4 10895	10213 11055	10495	Ave		10465.0080				5.0		25.0			
C6-C12	180410 185353	176445 182778	189149 184570	191135	Ave		184262.838				2.7		25.0			
>C12-C28	172236 182647	173834 177170	176300 178029	173786	Ave		176285.837				2.0		25.0			
>C28-C35	181334 181770	173042 180426	178269 185698	171717	Ave		178893.500				2.8		25.0			
o-Terphenyl	274258 266209	259606 256026	265782 257484	253898	Ave		261894.854				2.7		30.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Houston Job No.: 600-130758-1 Analy Batch No.: 188342

SDG No.:

Instrument ID: CHFID12_R GC Column: RTX-5 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/12/2016 10:32 Calibration End Date: 05/12/2016 13:49 Calibration ID: 9327

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 600-188342/5	B0512005.D
Level 2	IC 600-188342/6	B0512006.D
Level 3	IC 600-188342/7	B0512007.D
Level 4	ICRT 600-188342/8	B0512008.D
Level 5	IC 600-188342/9	B0512009.D
Level 6	IC 600-188342/10	B0512010.D
Level 7	IC 600-188342/11	B0512011.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
C6	Ave	97933 8716265	492368 11054502	1021343	2098964	4382525	10.0 800	50.0 1000	100	200	400
C6-C12	Ave	1804104 146222453	8822256 184570293	18914891	38226900	74141031	10.0 800	50.0 1000	100	200	400
>C12-C28	Ave	1722359 141735870	8691707 178029043	17629961	34757107	73058716	10.0 800	50.0 1000	100	200	400
>C28-C35	Ave	1812614 144282676	8648617 185623510	17819750	34329615	72678971	10.00 800	50.0 1000	100.0	200	400
o-Terphenyl	Ave	171411 12801315	811270 16092775	1661139	3173731	6655214	0.625 50.0	3.13 62.5	6.25	12.5	25.0

Curve Type Legend:
Ave = Average

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512005.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 12-May-2016 10:32:23 ALS Bottle#: 55 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012029-005
Operator ID: Instrument ID: CHFID12_R
Sublist: chrom-GCSV - TX1005_1006R*sub5

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:28:53 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 11:20:52

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	2 Hexane	3.352	3.355	-0.003	97933	10.0	9.36	
A	6 C6-C12	6.239	(3.255-9.224)		1804104	10.0	9.79	M
S	16 C6-C35						29.7	
A	20 Over C12-C28	13.132	(9.224-17.037)		1722359	10.0	9.77	M
$	22 o-Terphenyl	13.462	13.462	0.000	171411	0.6250	0.6545	
A	37 Over C28-C35	18.867	(17.037-20.694)		1812614	10.0	10.1	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

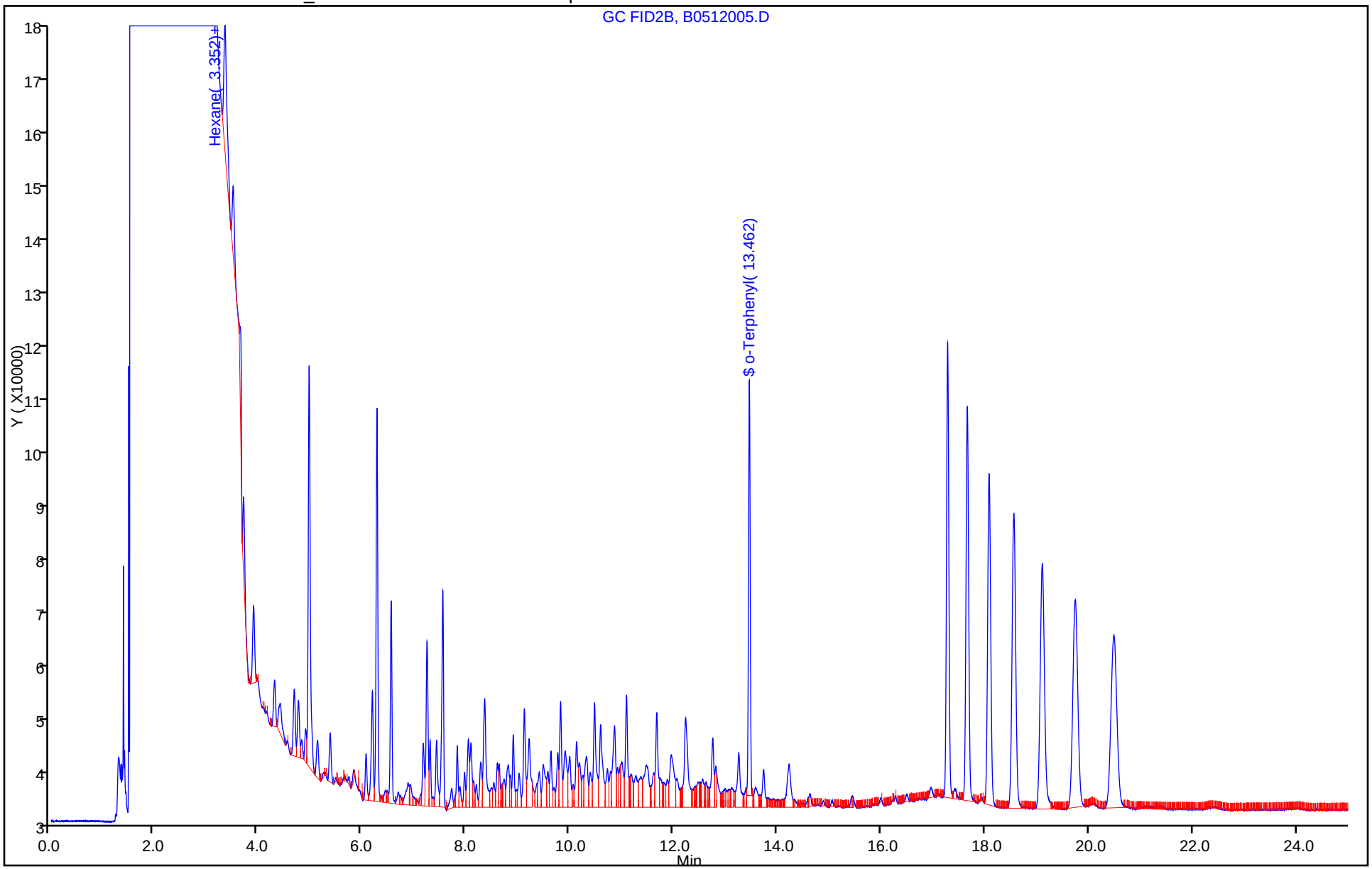
TX1005CURV_00050 Amount Added: 10.00 Units: uL

Report Date: 12-May-2016 14:28:54 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512005.D

Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	IC			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	55
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		

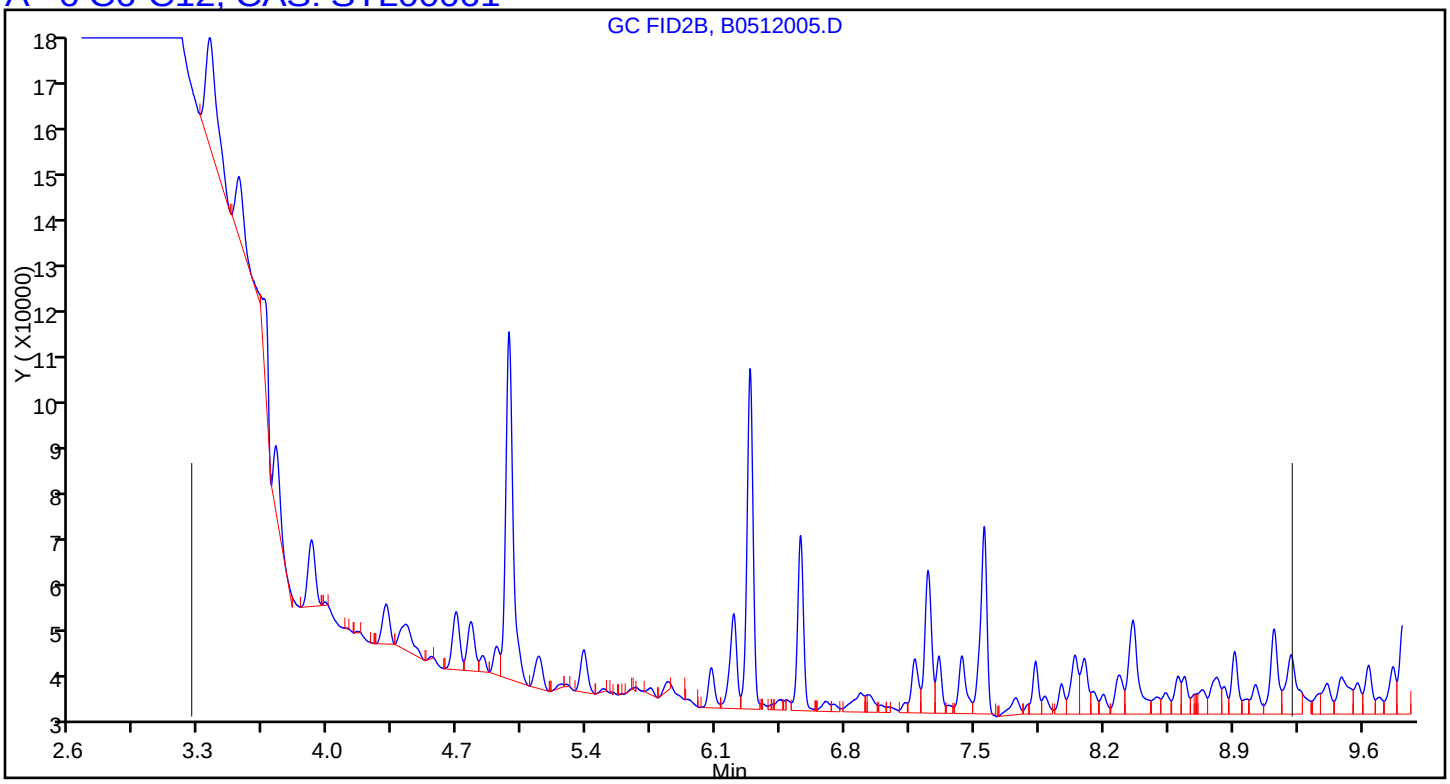


Report Date: 12-May-2016 14:28:54 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512005.D				
Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	55	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 6 C6-C12, CAS: STL00061

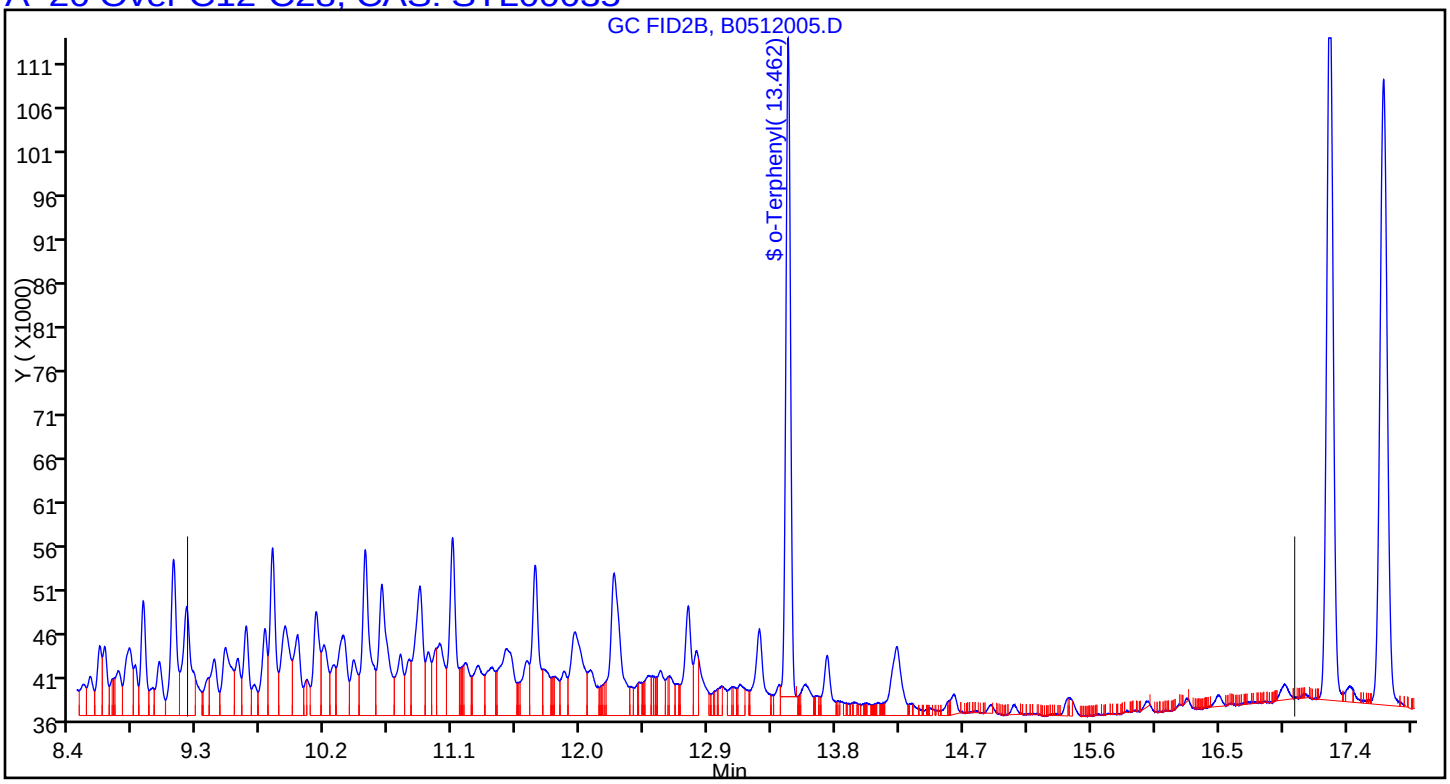


Report Date: 12-May-2016 14:28:54 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512005.D				
Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	55	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035

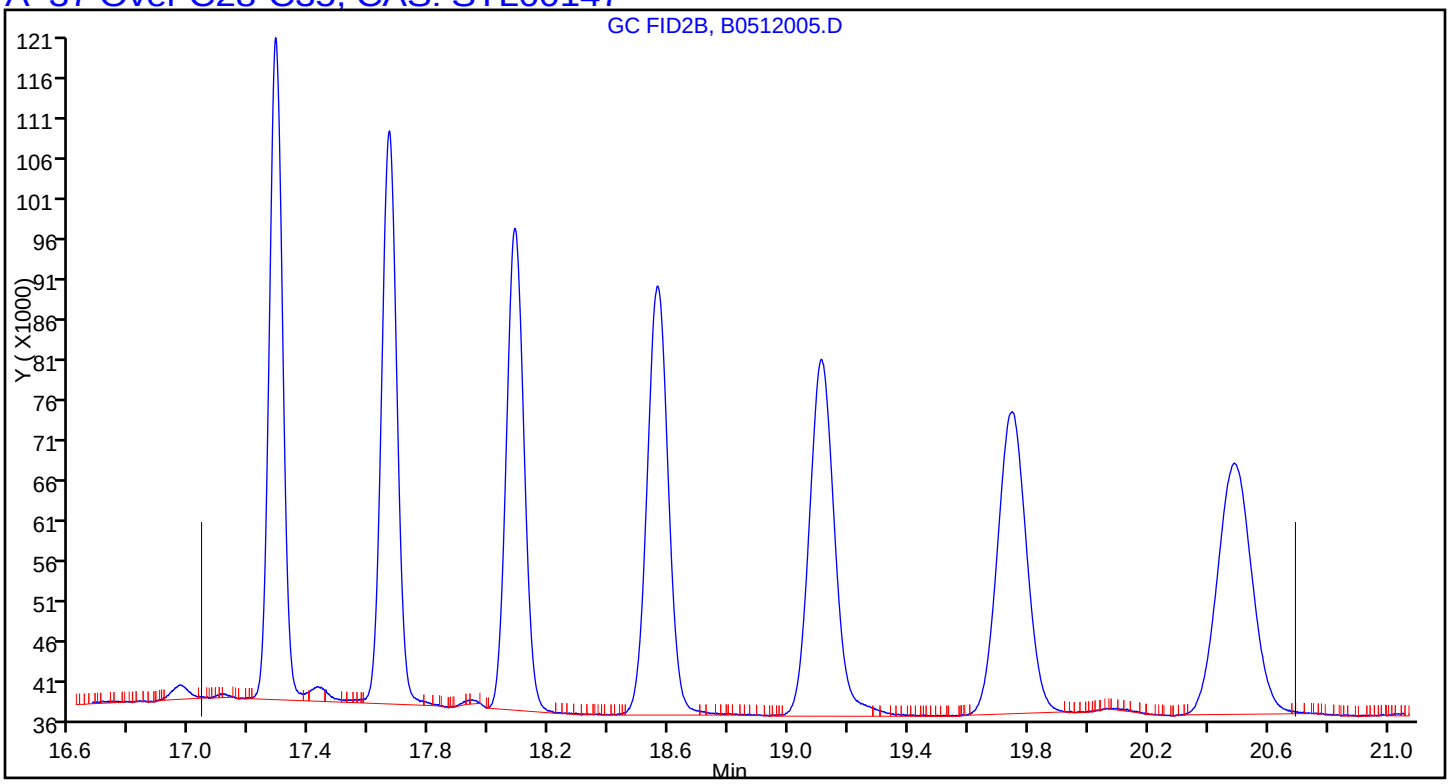


Report Date: 12-May-2016 14:28:54 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512005.D				
Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	55	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 37 Over C28-C35, CAS: STL00147



Manual Integration/User Assign Peak Report

TestAmerica Houston

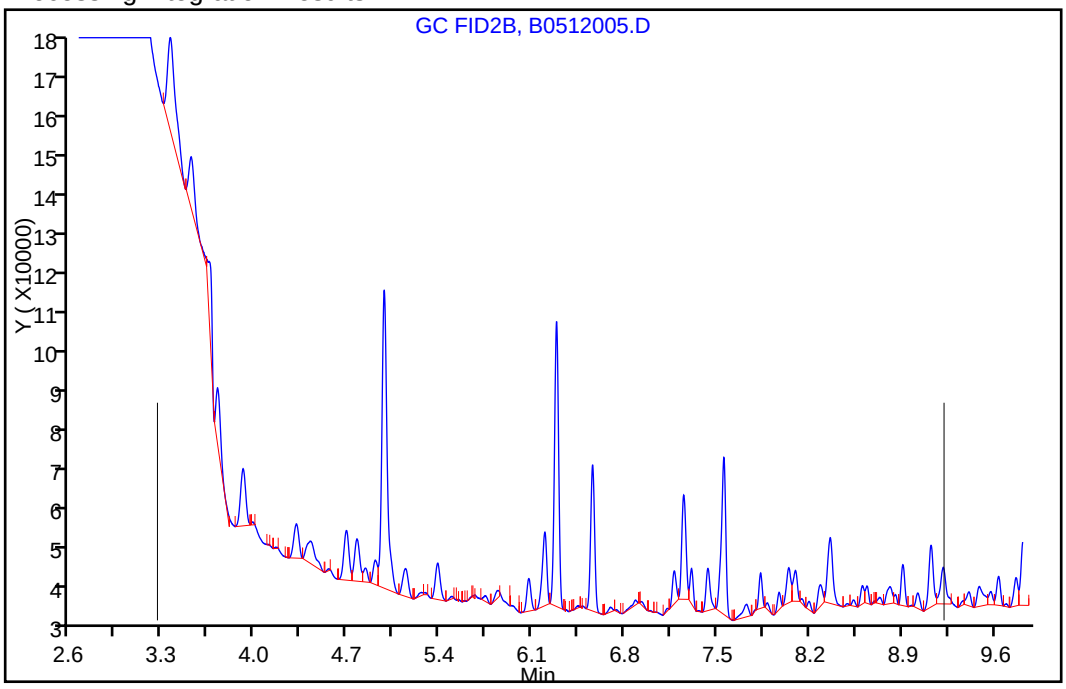
Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512005.D				
Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	55	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 6 C6-C12, RT: 6.240, CAS: STL00061

Signal: 1

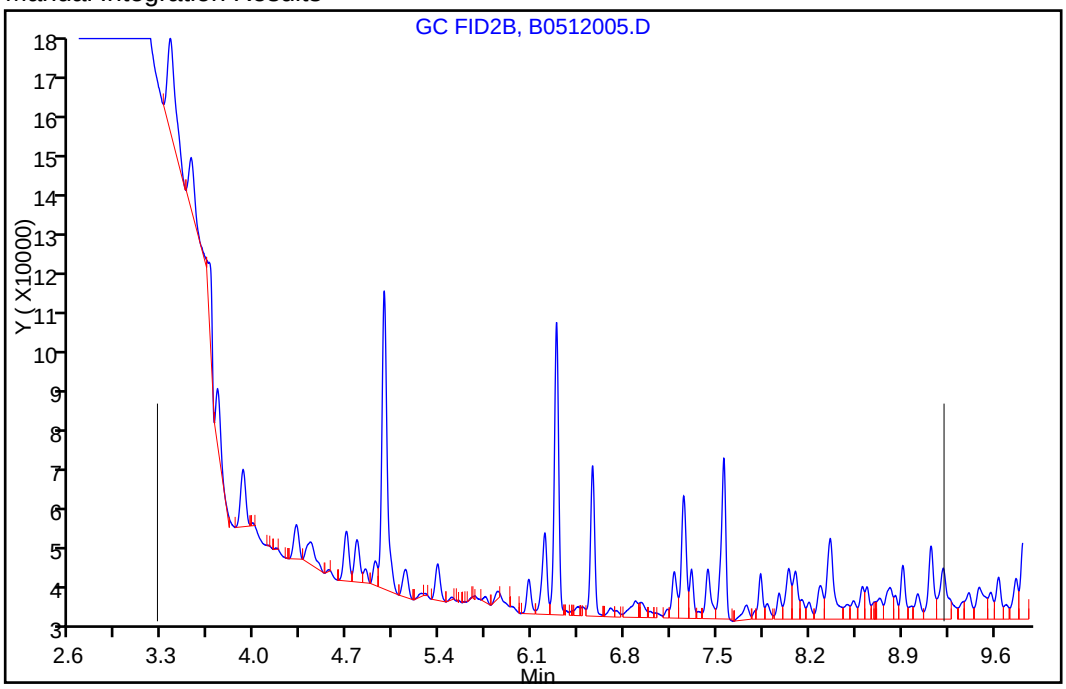
Processing Integration Results

RT: 6.23
Response: 1396008
Amount: 7.971936



Manual Integration Results

RT: 6.24
Response: 1804104
Amount: 9.790927



Reviewer: vanderborghr, 12-May-2016 13:37:39

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Houston

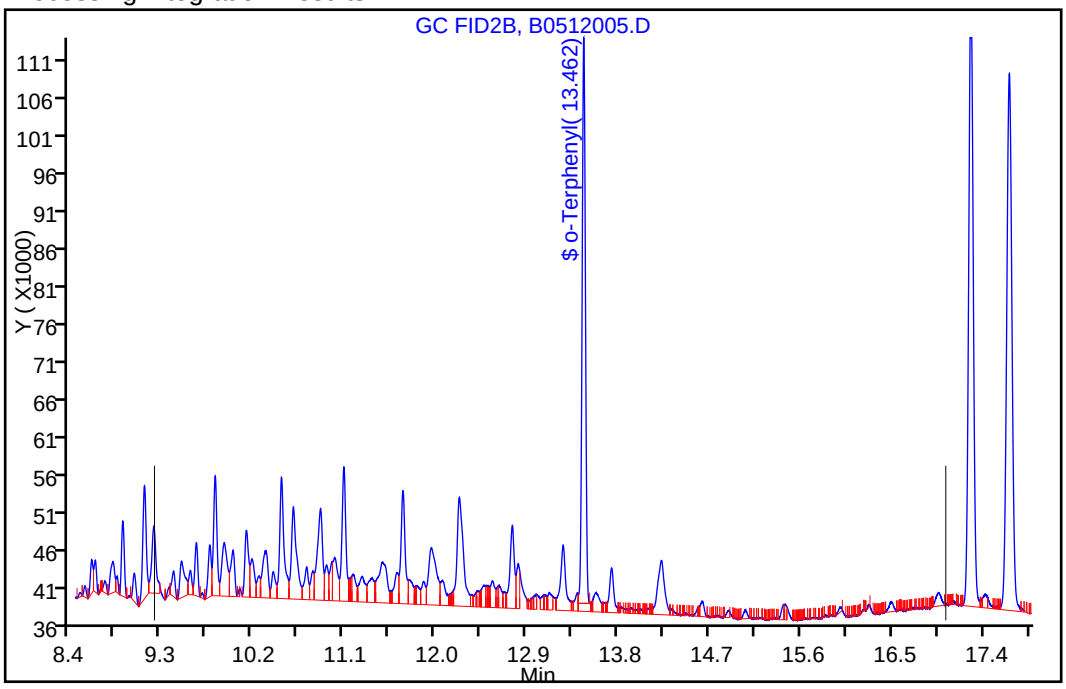
Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512005.D				
Injection Date:	12-May-2016 10:32:23	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	55	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, RT: 13.130, CAS: STL00035

Signal: 1

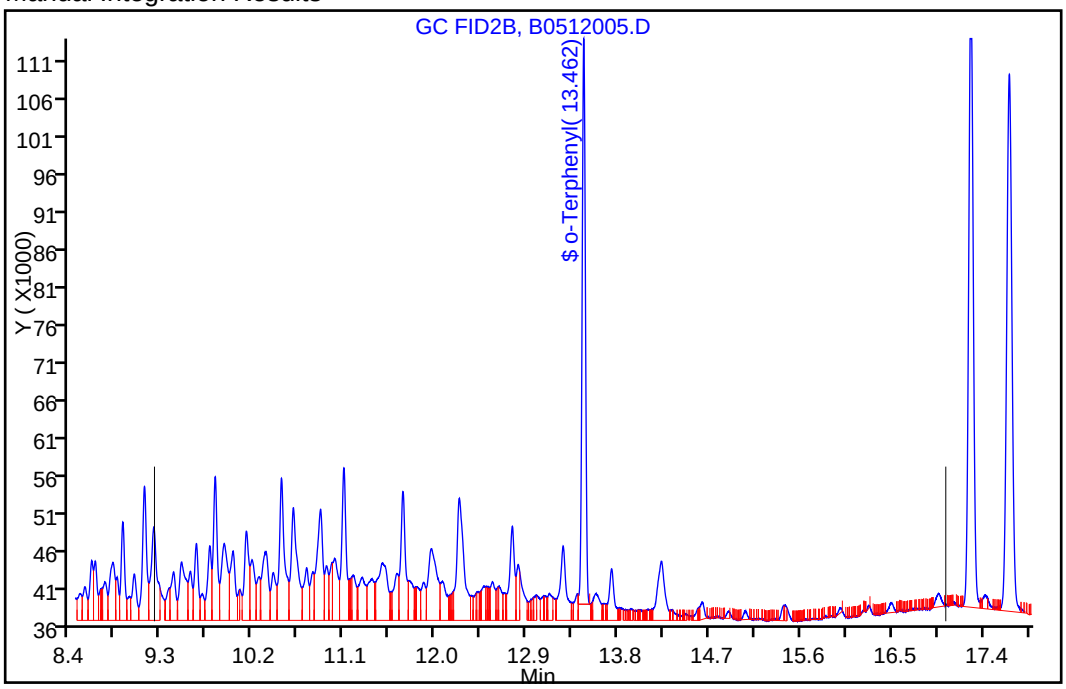
Processing Integration Results

RT: 13.13
Response: 1094368
Amount: 6.931839



Manual Integration Results

RT: 13.13
Response: 1722359
Amount: 9.770263



Reviewer: vanderborghr, 12-May-2016 13:37:39

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512006.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 12-May-2016 11:04:50 ALS Bottle#: 56 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012029-006
Operator ID: Instrument ID: CHFID12_R
Sublist: chrom-GCSV - TX1005_1006R*sub5

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:28:56 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 11:39:10

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	2 Hexane	3.356	3.355	0.001	492368	50.0	47.0	
A	6 C6-C12	6.239	(3.255-9.224)		8822256	50.0	47.9	M
S	16 C6-C35						145.5	
A	20 Over C12-C28	13.132	(9.224-17.037)		8691707	50.0	49.3	M
$	22 o-Terphenyl	13.463	13.462	0.001	811270	3.13	3.10	
A	37 Over C28-C35	18.867	(17.037-20.694)		8648617	50.0	48.3	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

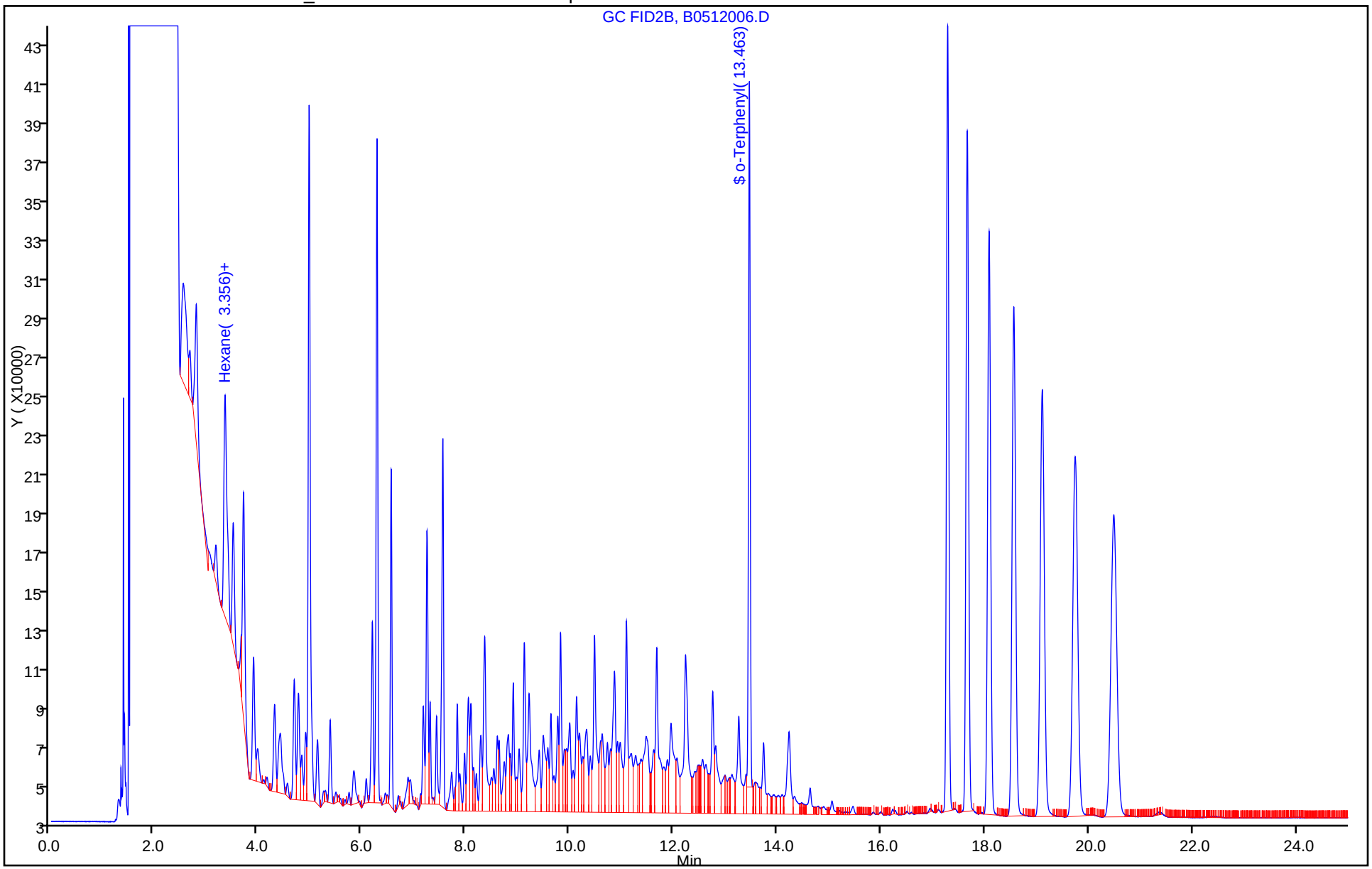
TX1005CURV_00050 Amount Added: 50.00 Units: uL

Report Date: 12-May-2016 14:28:57 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512006.D

Injection Date:	12-May-2016 11:04:50	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	IC			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	56
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		



Report Date: 12-May-2016 14:28:57 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512006.D

Injection Date: 12-May-2016 11:04:50 Instrument ID: CHFID12_R

Lims ID: IC

Client ID:

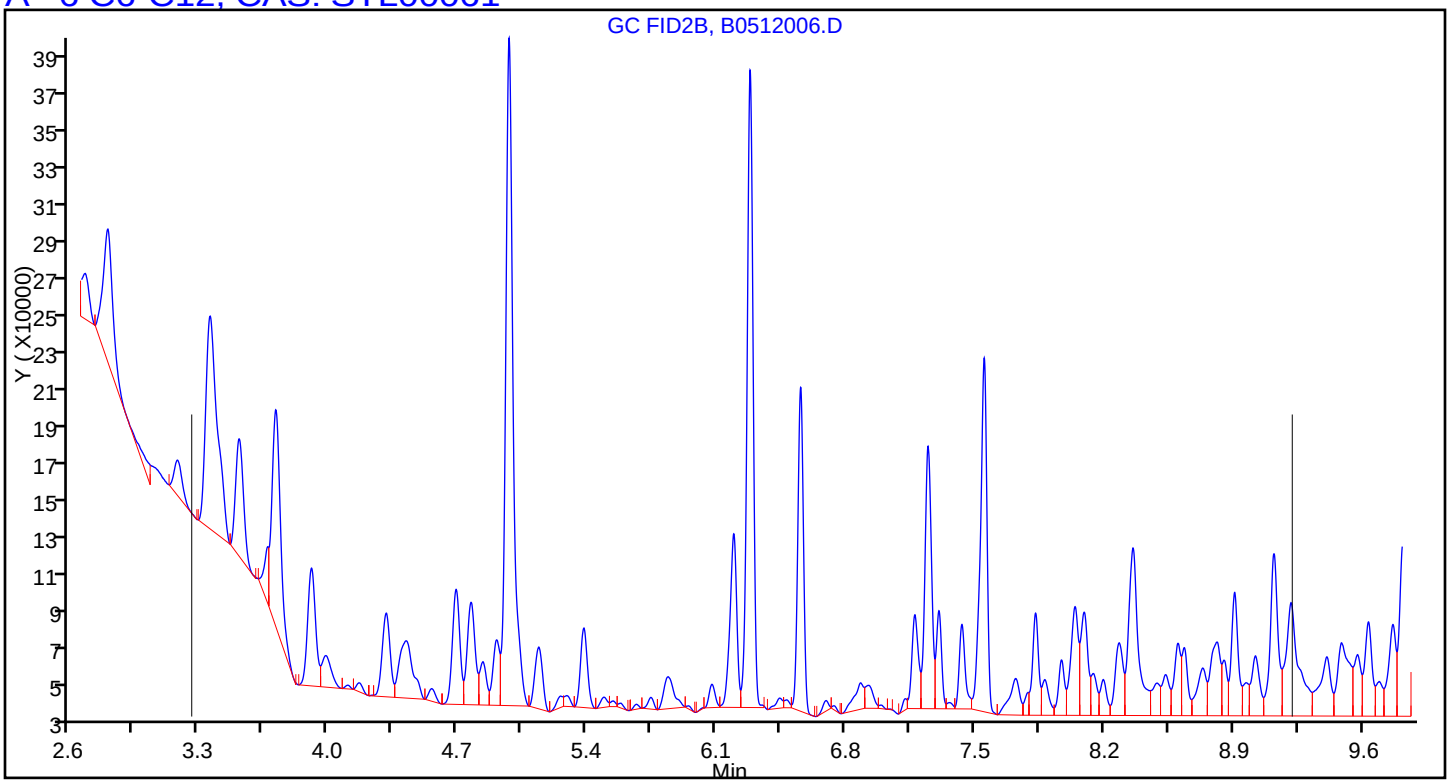
Operator ID: ALS Bottle#: 56 Worklist Smp#: 6

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: GCSV - TX1005_1006R Limit Group: GCSV - TX1005

Column: Detector GC FID1A

A 6 C6-C12, CAS: STL00061



Report Date: 12-May-2016 14:28:57 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512006.D

Injection Date: 12-May-2016 11:04:50 Instrument ID: CHFID12_R

Lims ID: IC

Client ID:

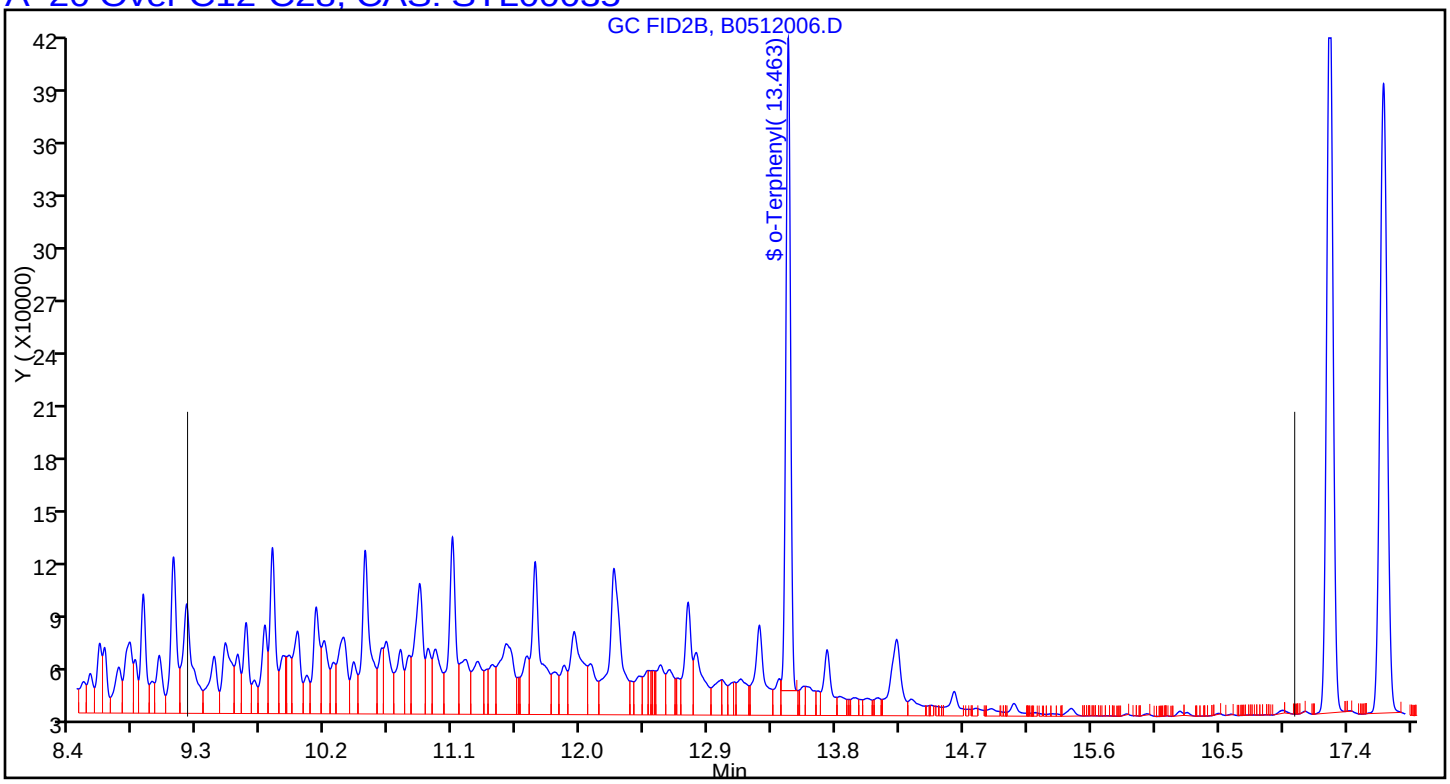
Operator ID: ALS Bottle#: 56 Worklist Smp#: 6

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: GCSV - TX1005_1006R Limit Group: GCSV - TX1005

Column: Detector GC FID1A

A 20 Over C12-C28, CAS: STL00035



Report Date: 12-May-2016 14:28:57 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512006.D

Injection Date: 12-May-2016 11:04:50 Instrument ID: CHFID12_R

Lims ID: IC

Client ID:

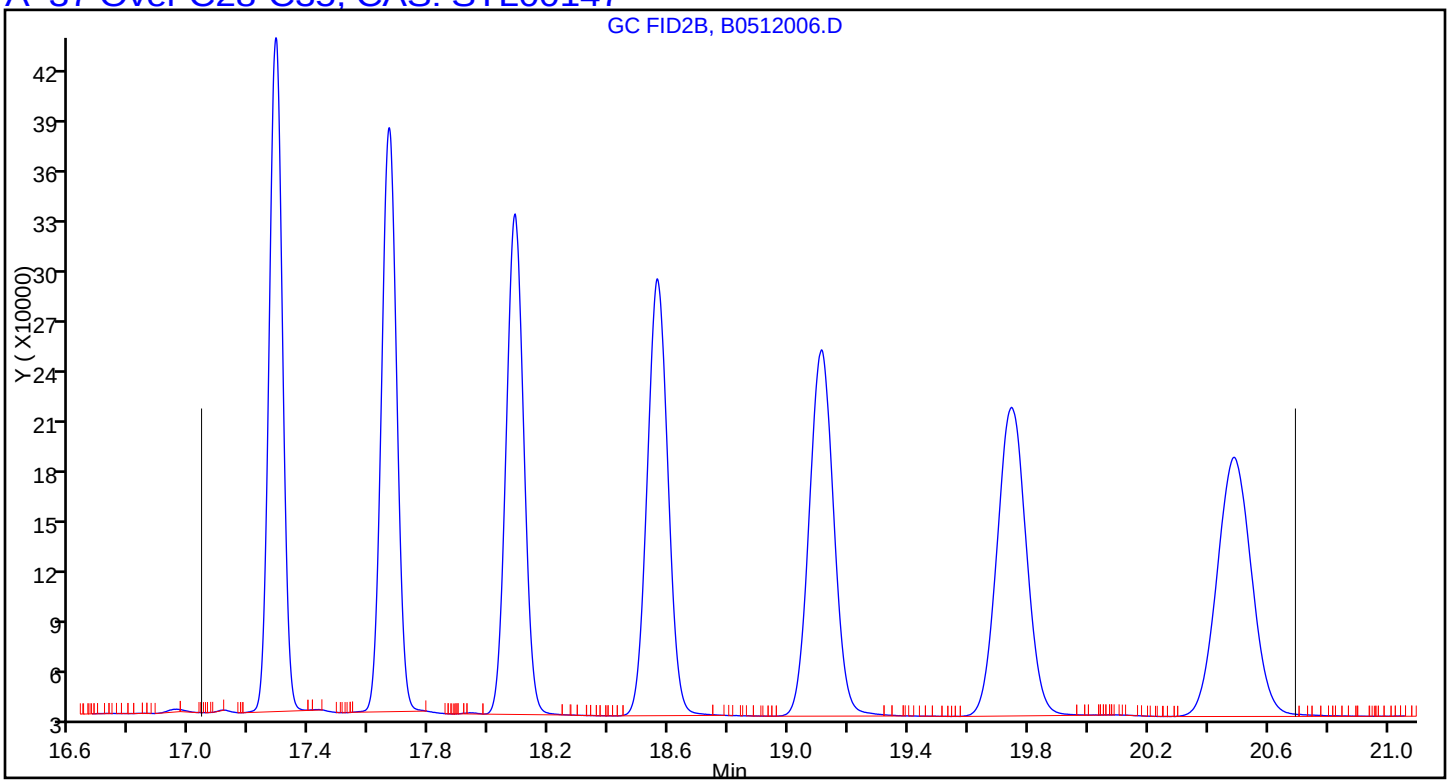
Operator ID: ALS Bottle#: 56 Worklist Smp#: 6

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: GCSV - TX1005_1006R Limit Group: GCSV - TX1005

Column: Detector GC FID1A

A 37 Over C28-C35, CAS: STL00147



Manual Integration/User Assign Peak Report

TestAmerica Houston

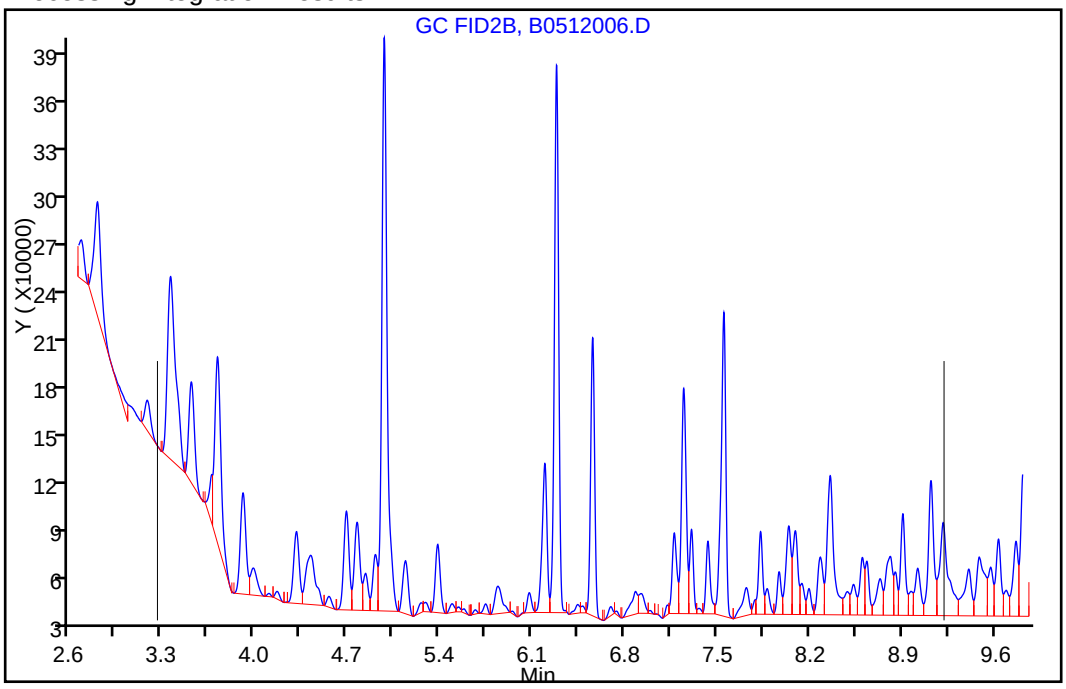
Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512006.D				
Injection Date:	12-May-2016 11:04:50	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	56	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 6 C6-C12, RT: 6.240, CAS: STL00061

Signal: 1

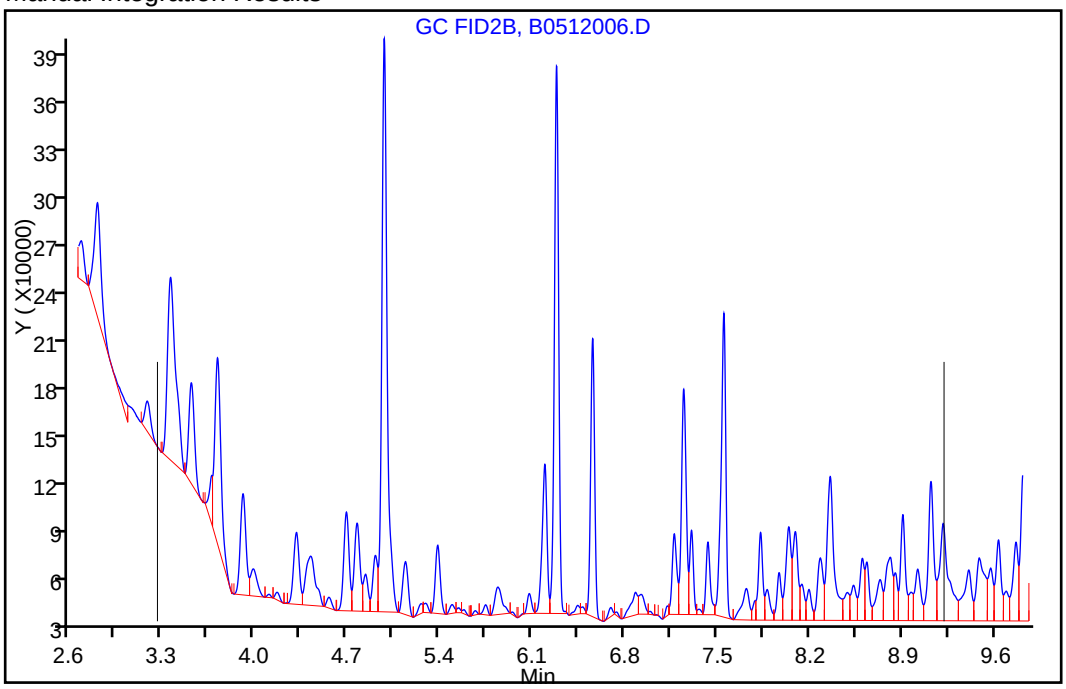
Processing Integration Results

RT: 6.23
Response: 8555239
Amount: 46.165255



Manual Integration Results

RT: 6.24
Response: 8822256
Amount: 47.878650



Reviewer: vanderborghr, 12-May-2016 13:38:01

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Houston

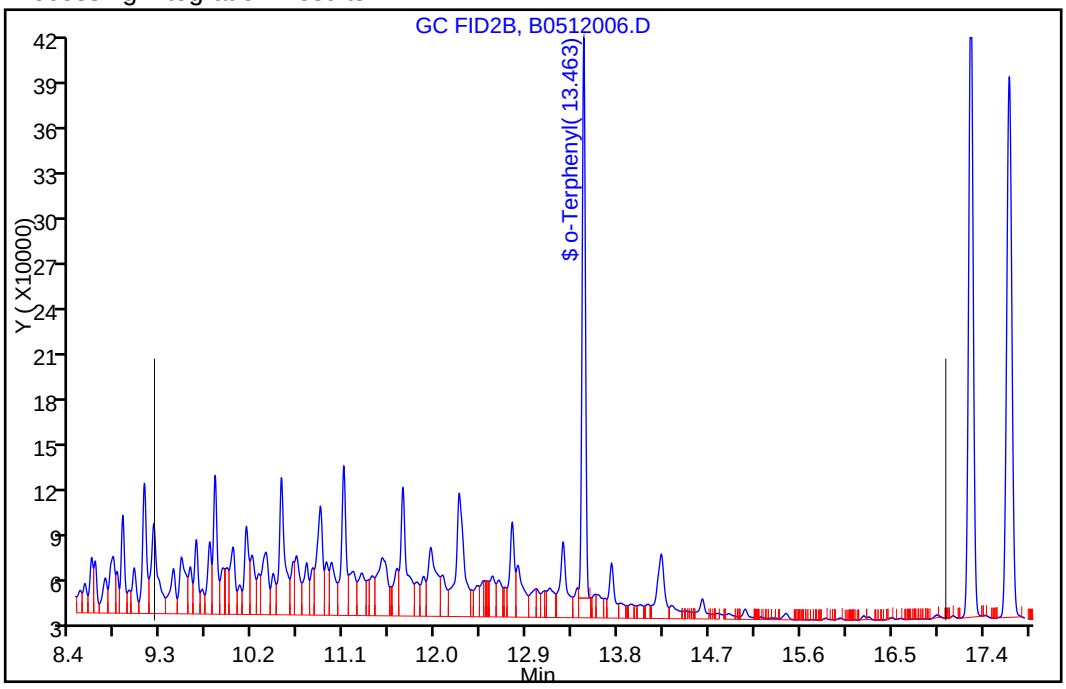
Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512006.D				
Injection Date:	12-May-2016 11:04:50	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	56	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, RT: 13.130, CAS: STL00035

Signal: 1

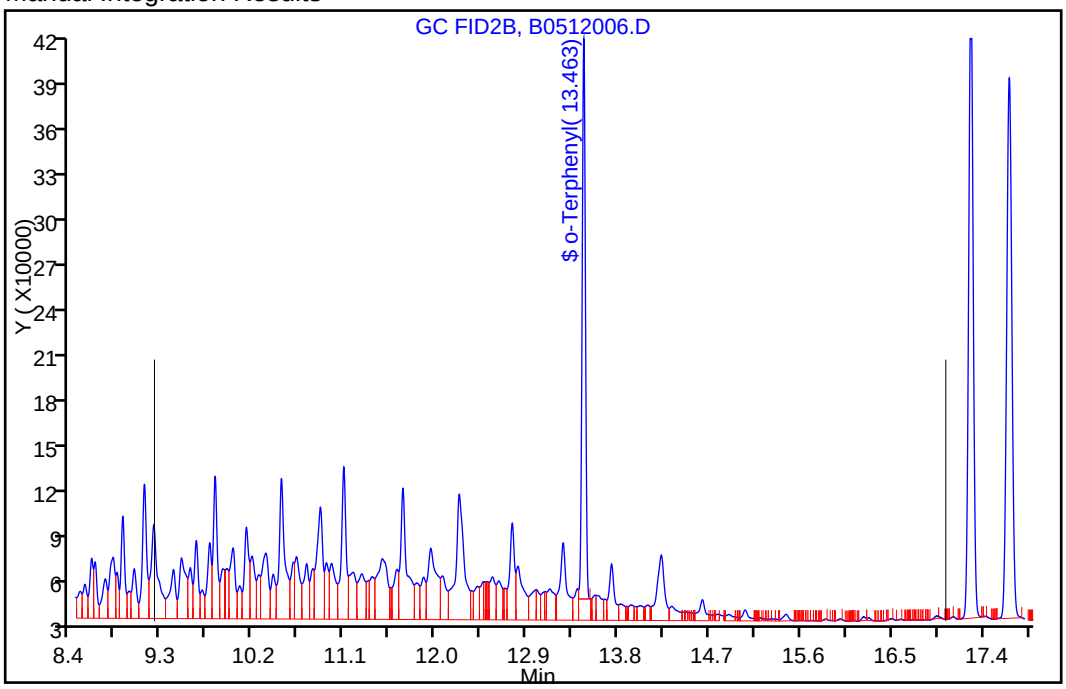
Processing Integration Results

RT: 13.13
Response: 8155953
Amount: 46.987971



Manual Integration Results

RT: 13.13
Response: 8691707
Amount: 49.304625



Reviewer: vanderborghr, 12-May-2016 13:38:01

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512007.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 12-May-2016 11:37:45 ALS Bottle#: 57 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012029-007
Operator ID: Instrument ID: CHFID12_R
Sublist: chrom-GCSV - TX1005_1006R*sub5

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:28:58 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 13:23:51

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	2 Hexane	3.355	3.355	0.000	1021343	100.0	97.6	
A	6 C6-C12	6.233	(3.255-9.224)		18914891	100.0	102.7	
S	16 C6-C35						302.3	
A	20 Over C12-C28	13.132	(9.224-17.037)		17629961	100.0	100.0	
$	22 o-Terphenyl	13.463	13.462	0.001	1661139	6.25	6.34	
A	37 Over C28-C35	18.867	(17.037-20.694)		17819750	100.0	99.6	

Reagents:

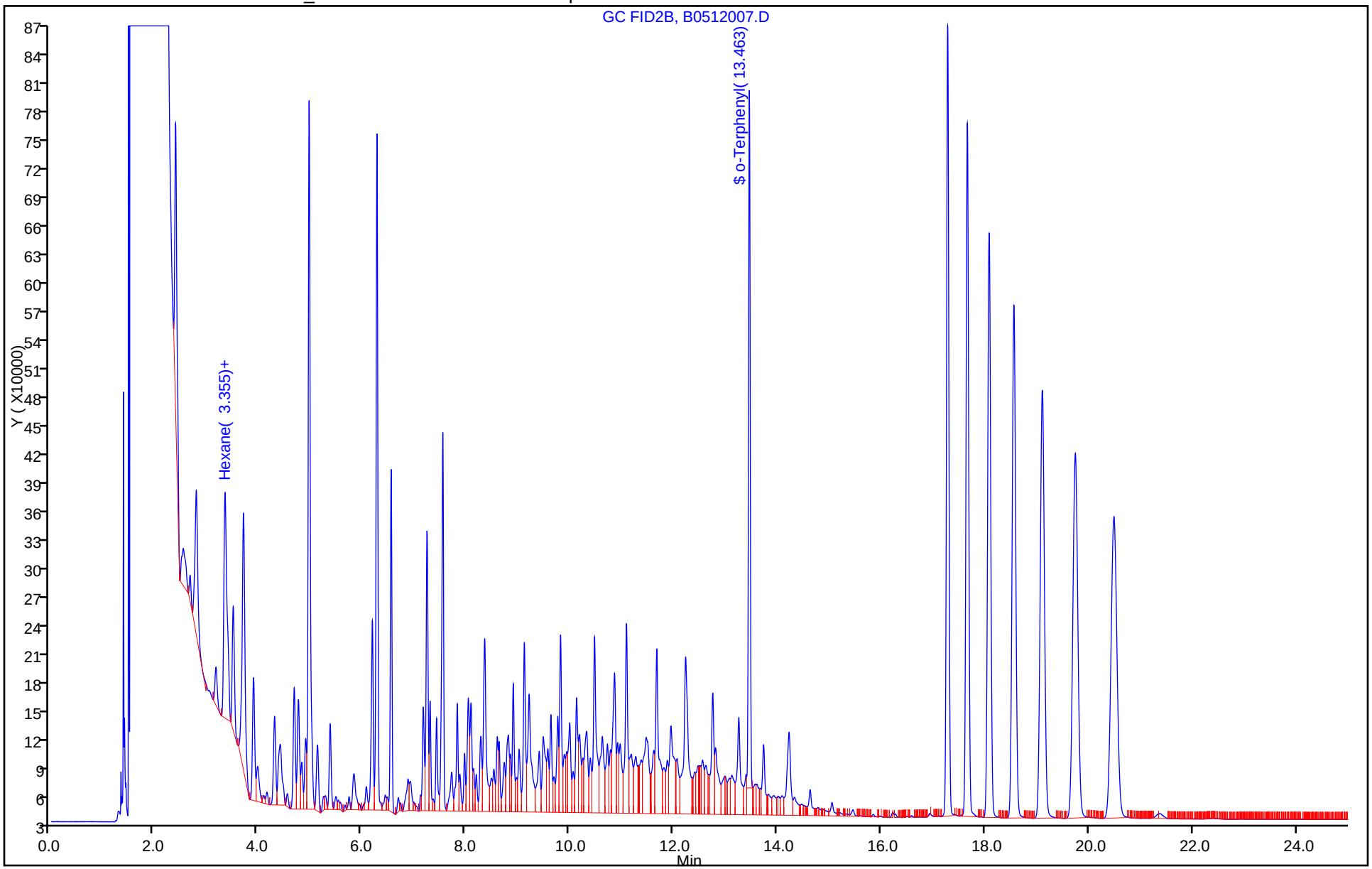
TX1005CURV_00050 Amount Added: 100.00 Units: uL

Report Date: 12-May-2016 14:28:59 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512007.D

Injection Date:	12-May-2016 11:37:45	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	IC			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	57
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		

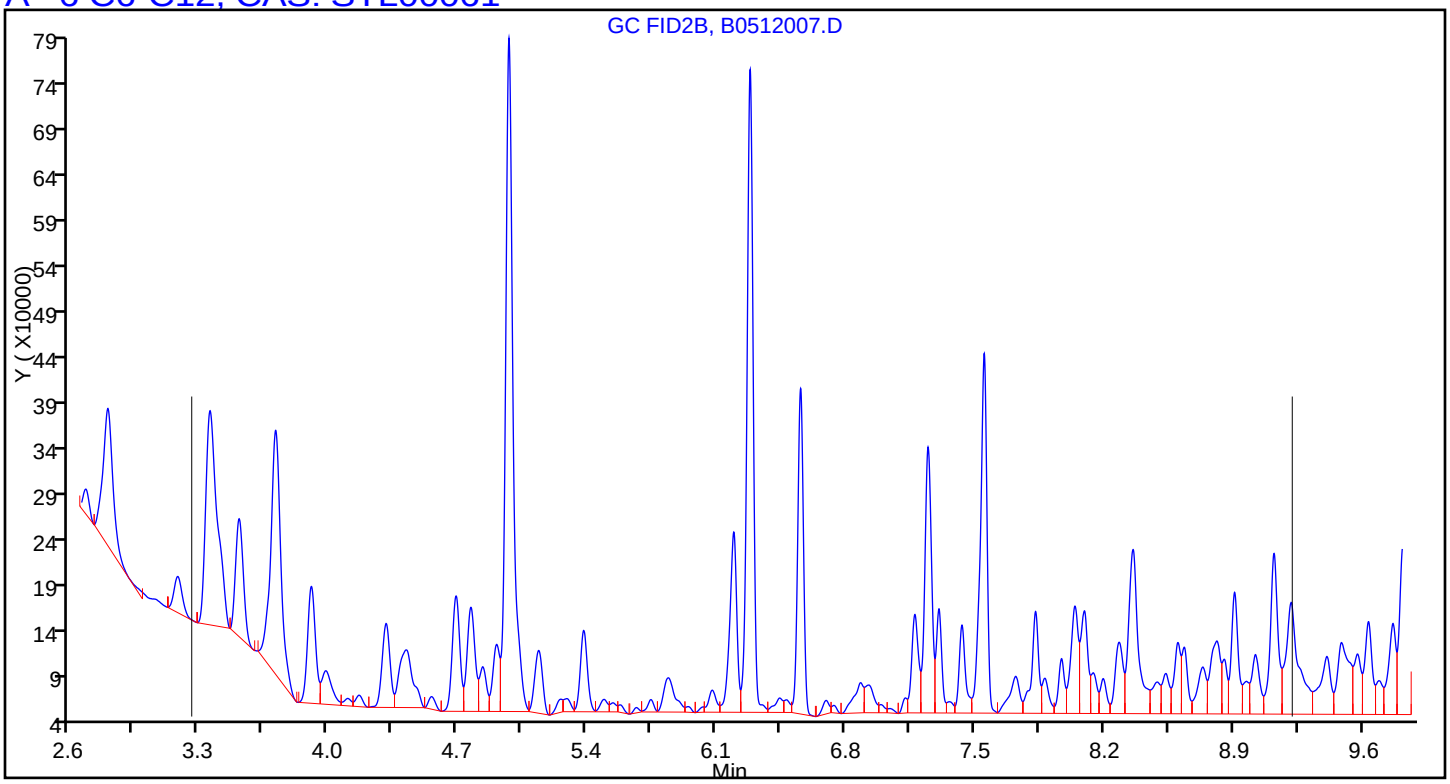


Report Date: 12-May-2016 14:28:59 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512007.D				
Injection Date:	12-May-2016 11:37:45	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	57	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 6 C6-C12, CAS: STL00061

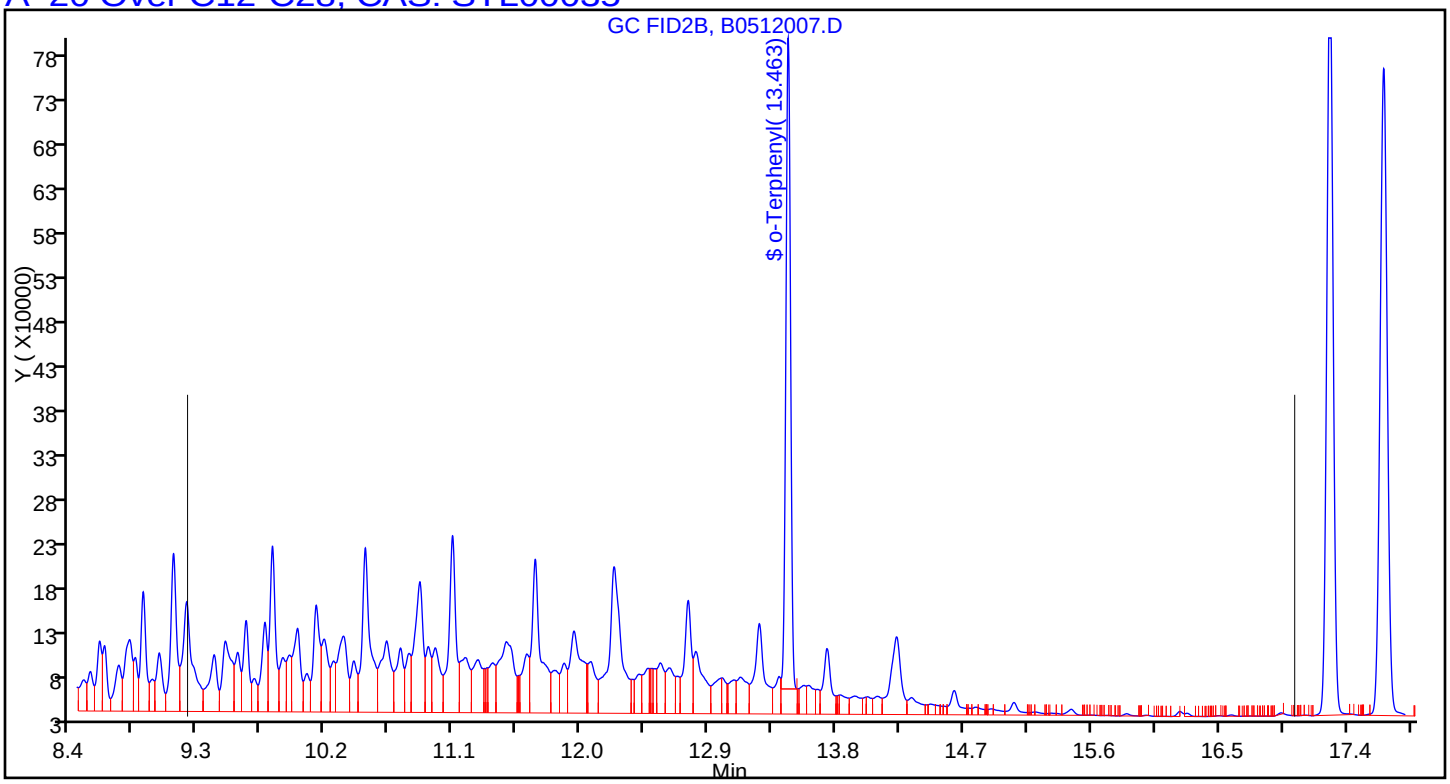


Report Date: 12-May-2016 14:28:59 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512007.D				
Injection Date:	12-May-2016 11:37:45	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	57	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035

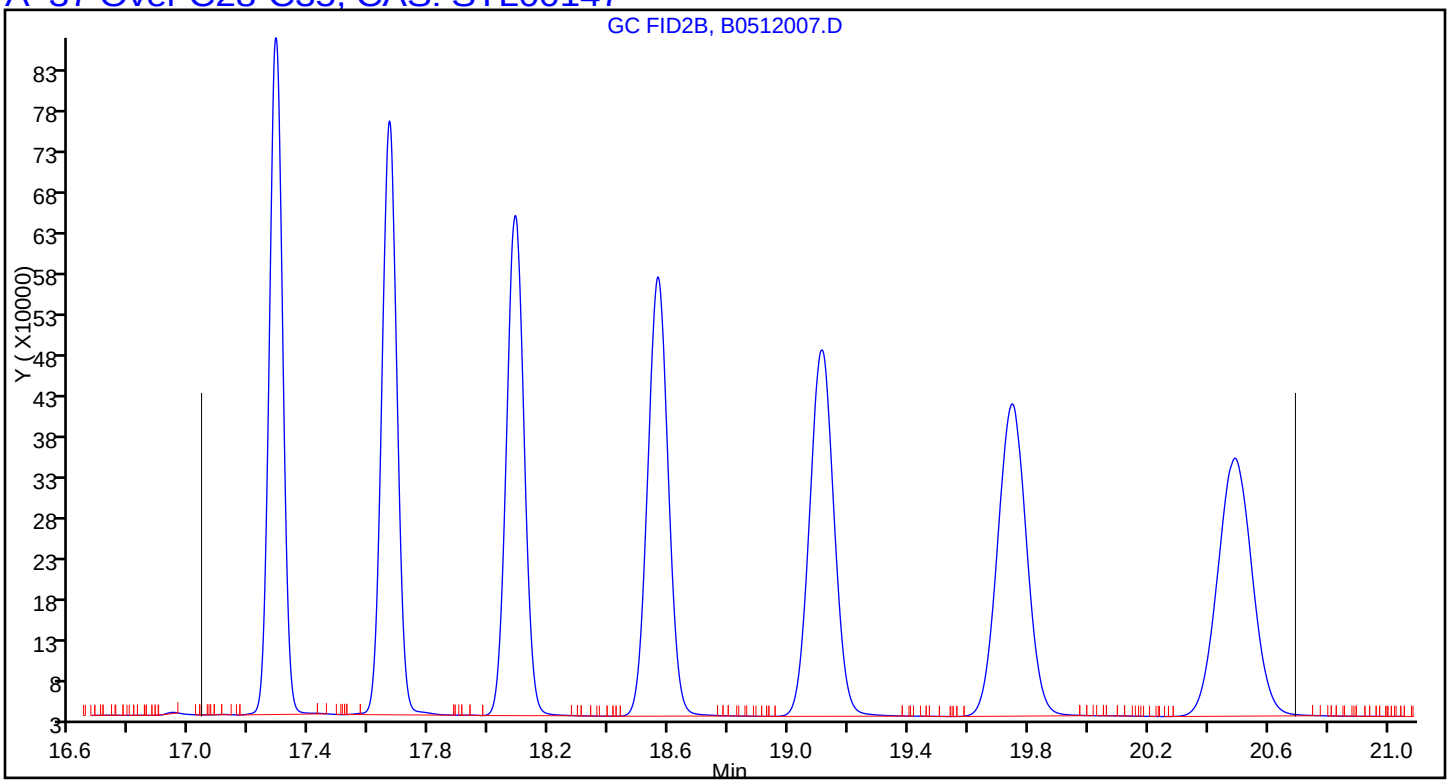


Report Date: 12-May-2016 14:28:59 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512007.D				
Injection Date:	12-May-2016 11:37:45	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	57	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512008.D
Lims ID: ICRT
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 12-May-2016 12:10:26 ALS Bottle#: 58 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012029-008
Operator ID: Instrument ID: CHFID12_R
Sublist: chrom-GCSV - TX1005_1006R*sub5

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:29:01 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 12:45:21

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	2 Hexane	3.355	3.355	0.000	2098964	200.0	200.6	
A	6 C6-C12	6.240	(3.255-9.224)		38226900	200.0	207.5	
A	20 Over C12-C28	13.131	(9.224-17.037)		34757107	200.0	197.2	
$	22 o-Terphenyl	13.462	13.462	0.000	3173731	12.5	12.1	
A	37 Over C28-C35	18.865	(17.037-20.694)		34329615	199.9	191.9	

Reagents:

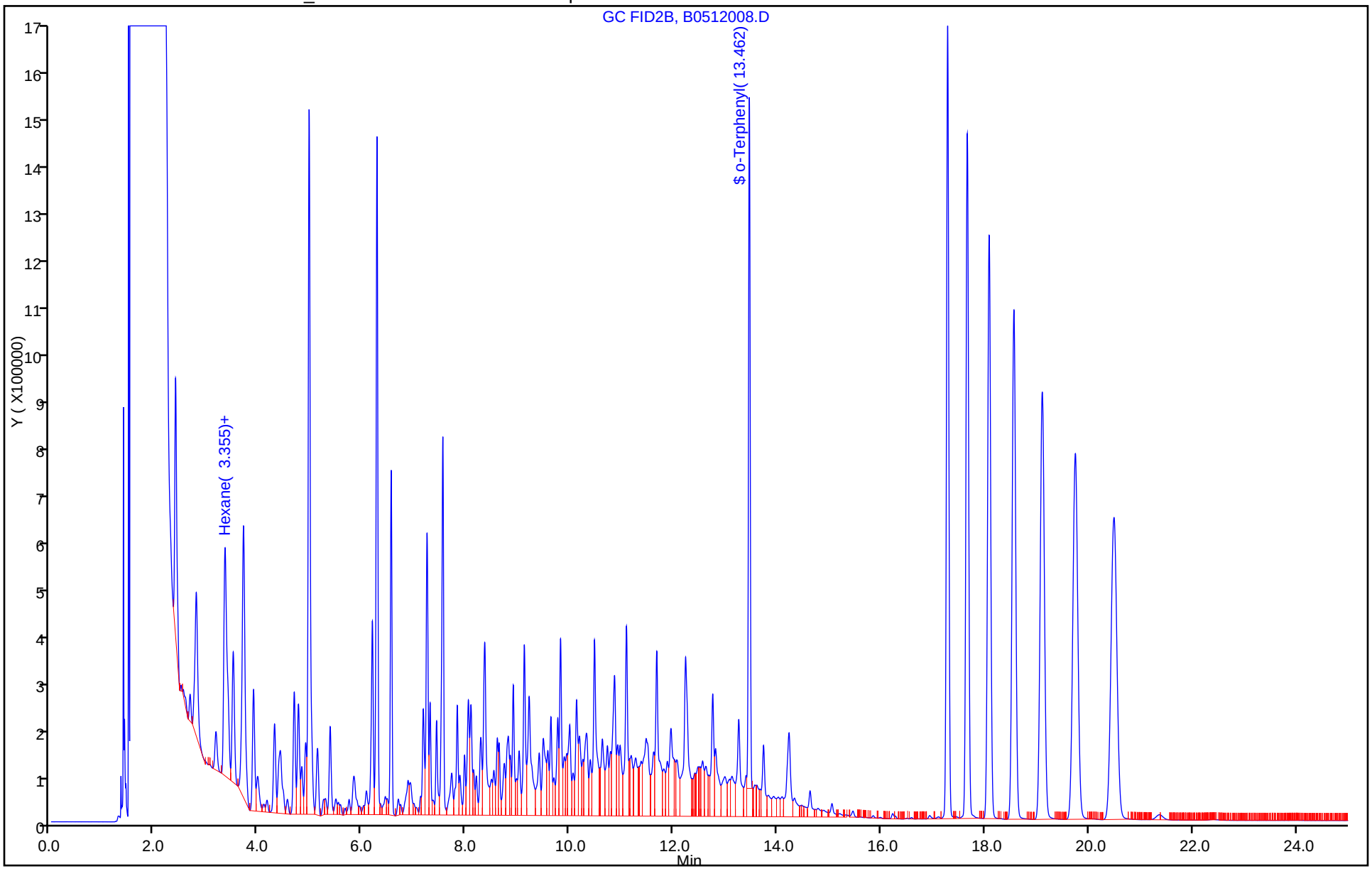
TX1005CURV_00050 Amount Added: 200.00 Units: uL

Report Date: 12-May-2016 14:29:01 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512008.D

Injection Date:	12-May-2016 12:10:26	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	ICRT			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	58
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		

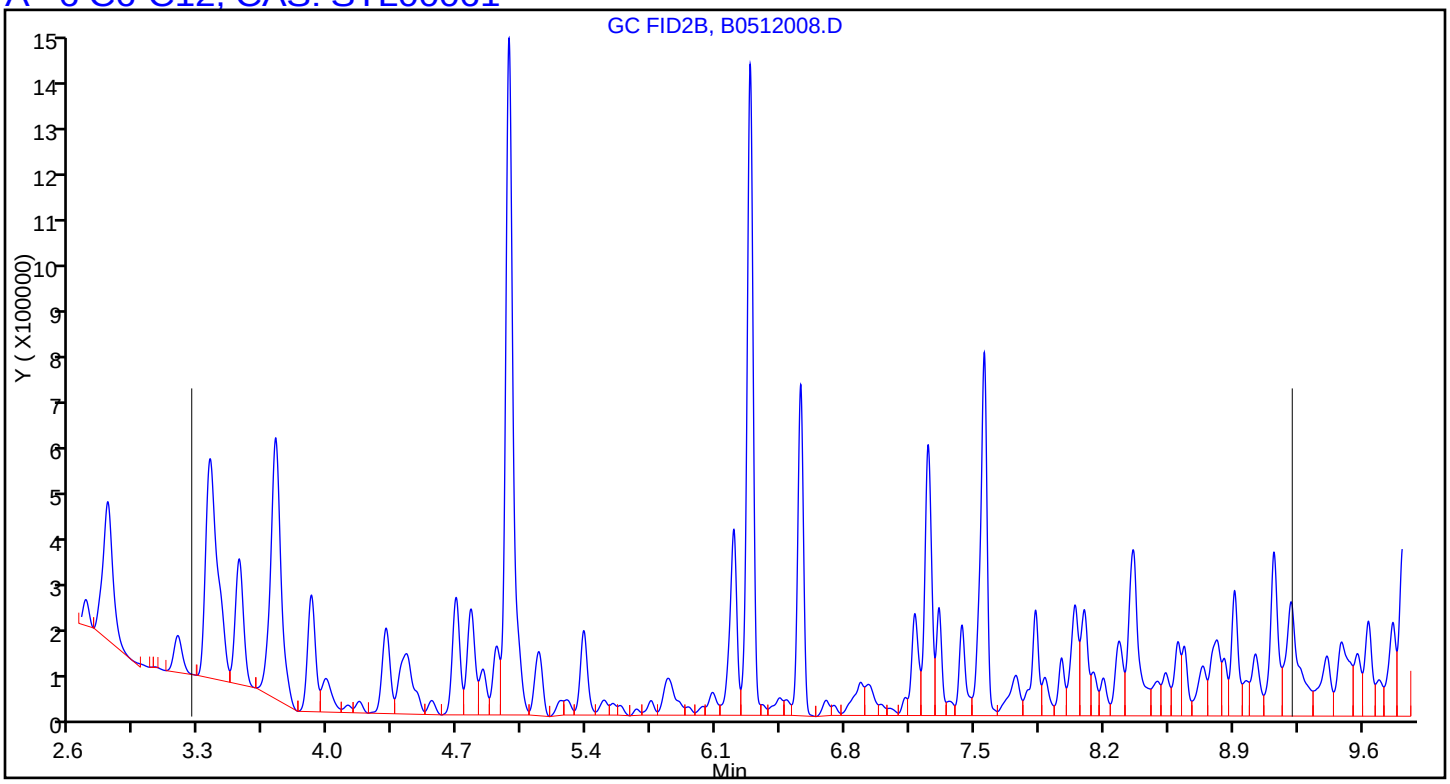


Report Date: 12-May-2016 14:29:01 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512008.D				
Injection Date:	12-May-2016 12:10:26	Instrument ID:	CHFID12_R		
Lims ID:	ICRT				
Client ID:					
Operator ID:		ALS Bottle#:	58	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 6 C6-C12, CAS: STL00061



Report Date: 12-May-2016 14:29:01 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512008.D

Injection Date: 12-May-2016 12:10:26 Instrument ID: CHFID12_R

Lims ID: ICRT

Client ID:

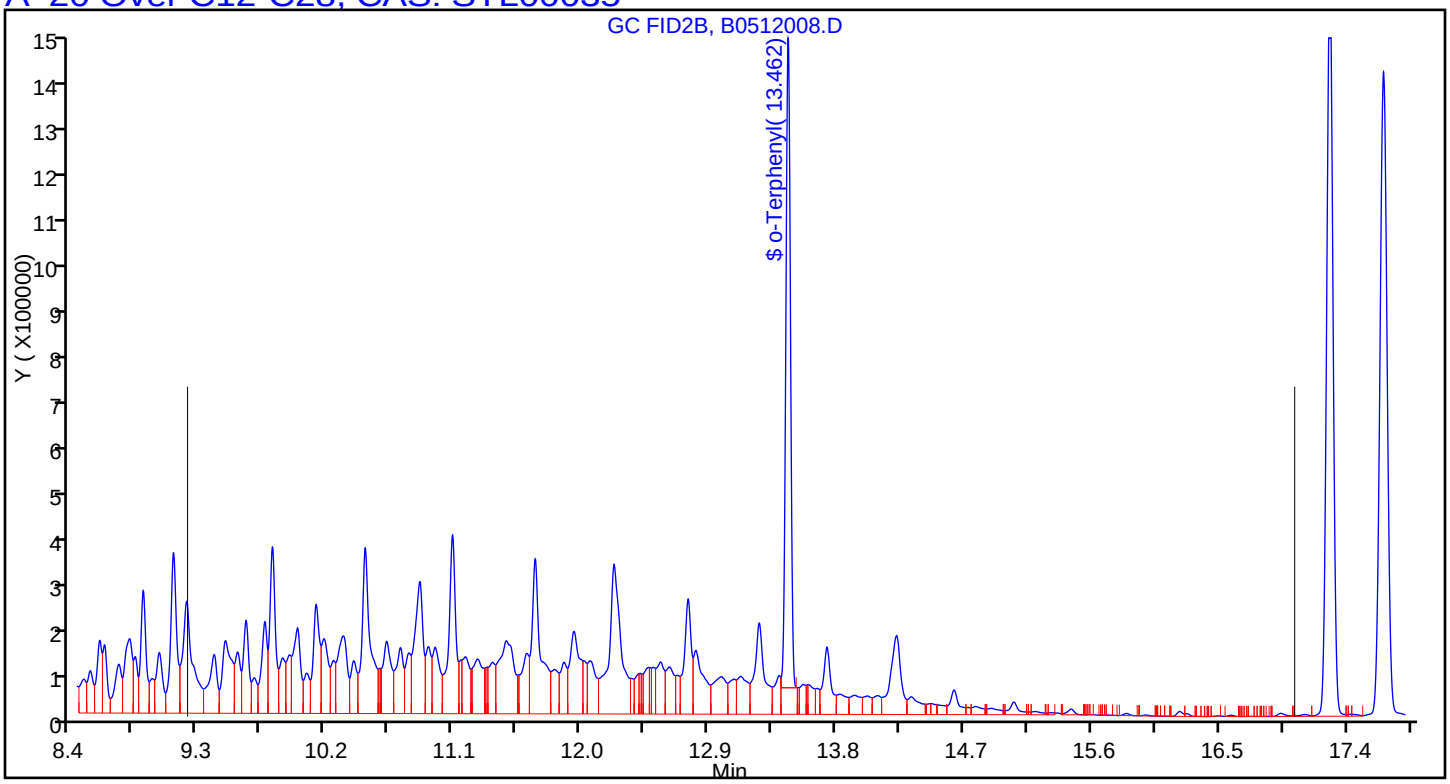
Operator ID: ALS Bottle#: 58 Worklist Smp#: 8

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: GCSV - TX1005_1006R Limit Group: GCSV - TX1005

Column: Detector GC FID1A

A 20 Over C12-C28, CAS: STL00035



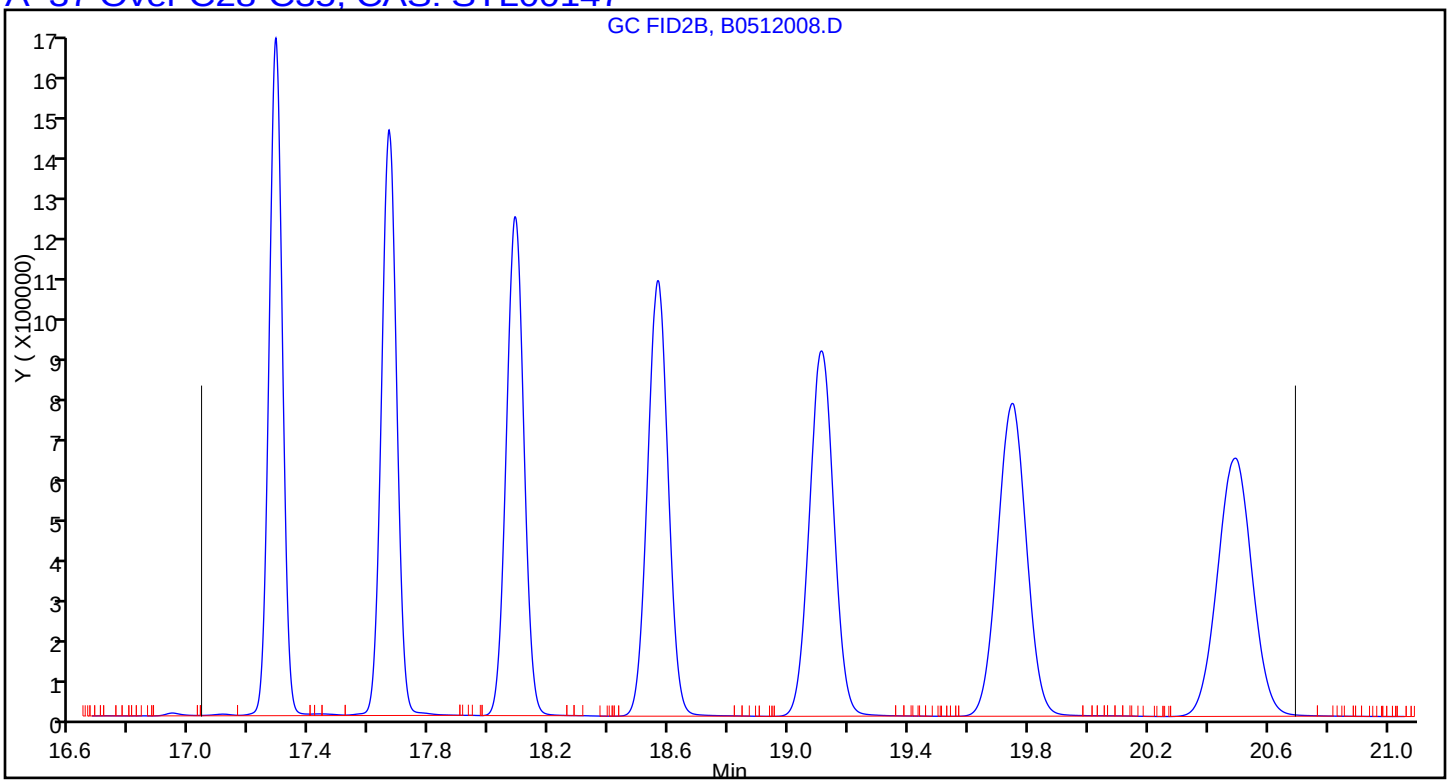
Report Date: 12-May-2016 14:29:01 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512008.D

Injection Date:	12-May-2016 12:10:26	Instrument ID:	CHFID12_R		
Lims ID:	ICRT				
Client ID:					
Operator ID:		ALS Bottle#:	58	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512009.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 12-May-2016 12:43:23 ALS Bottle#: 59 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012029-009
Operator ID: Instrument ID: CHFID12_R
Sublist: chrom-GCSV - TX1005_1006R*sub5

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:29:03 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 13:22:22

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	2 Hexane	3.355	3.355	0.000	4382525	400.0	418.8	
A	6 C6-C12	6.239	(3.255-9.224)		74141031	400.0	402.4	
S	16 C6-C35						1223.1	
A	20 Over C12-C28	13.132	(9.224-17.037)		73058716	400.0	414.4	
$	22 o-Terphenyl	13.464	13.462	0.002	6655214	25.0	25.4	
A	37 Over C28-C35	18.867	(17.037-20.694)		72678971	399.8	406.3	

Reagents:

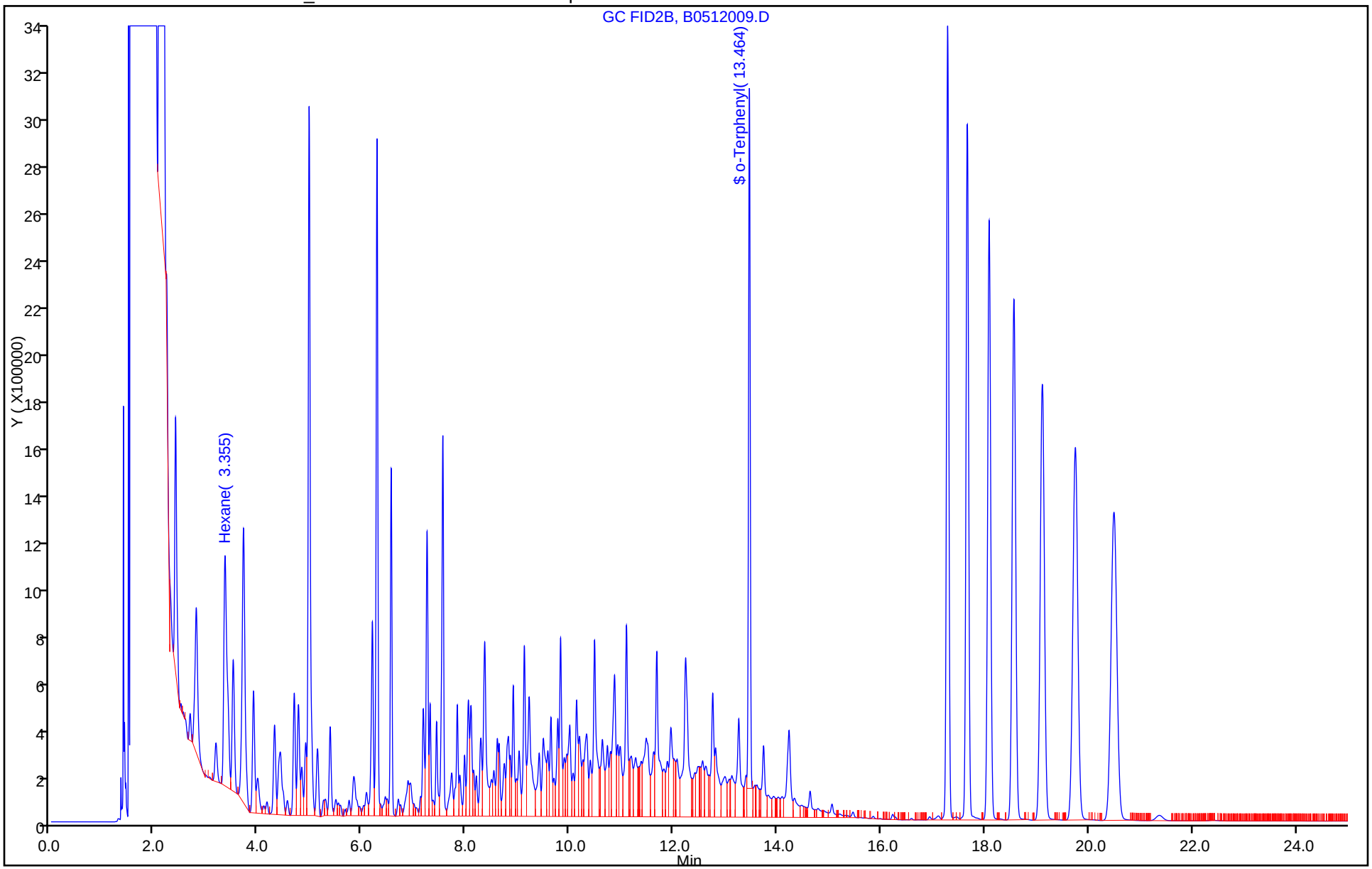
TX1005CURV_00050 Amount Added: 400.00 Units: uL

Report Date: 12-May-2016 14:29:03 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512009.D

Injection Date:	12-May-2016 12:43:23	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	IC			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	59
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		



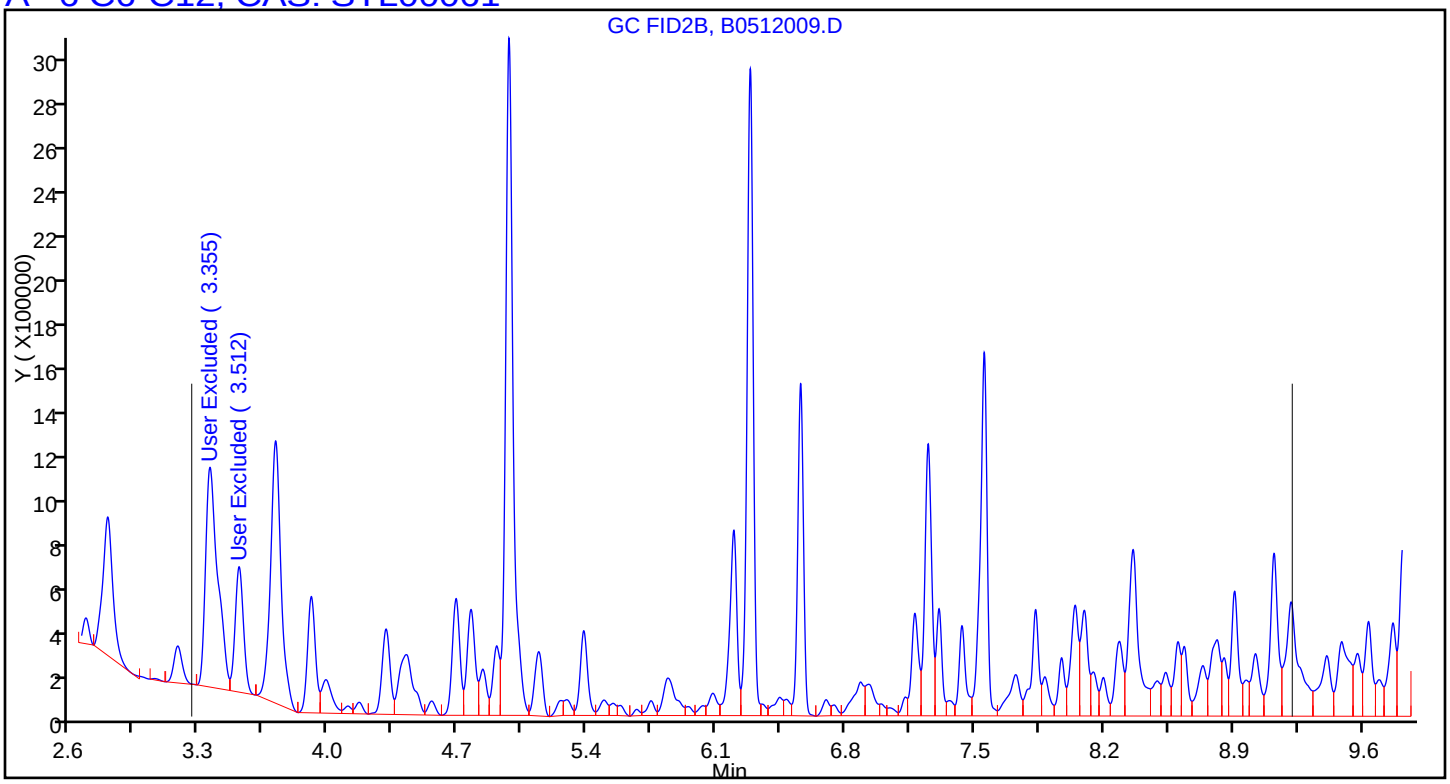
Report Date: 12-May-2016 14:29:04 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512009.D

Injection Date:	12-May-2016 12:43:23	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	59	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 6 C6-C12, CAS: STL00061

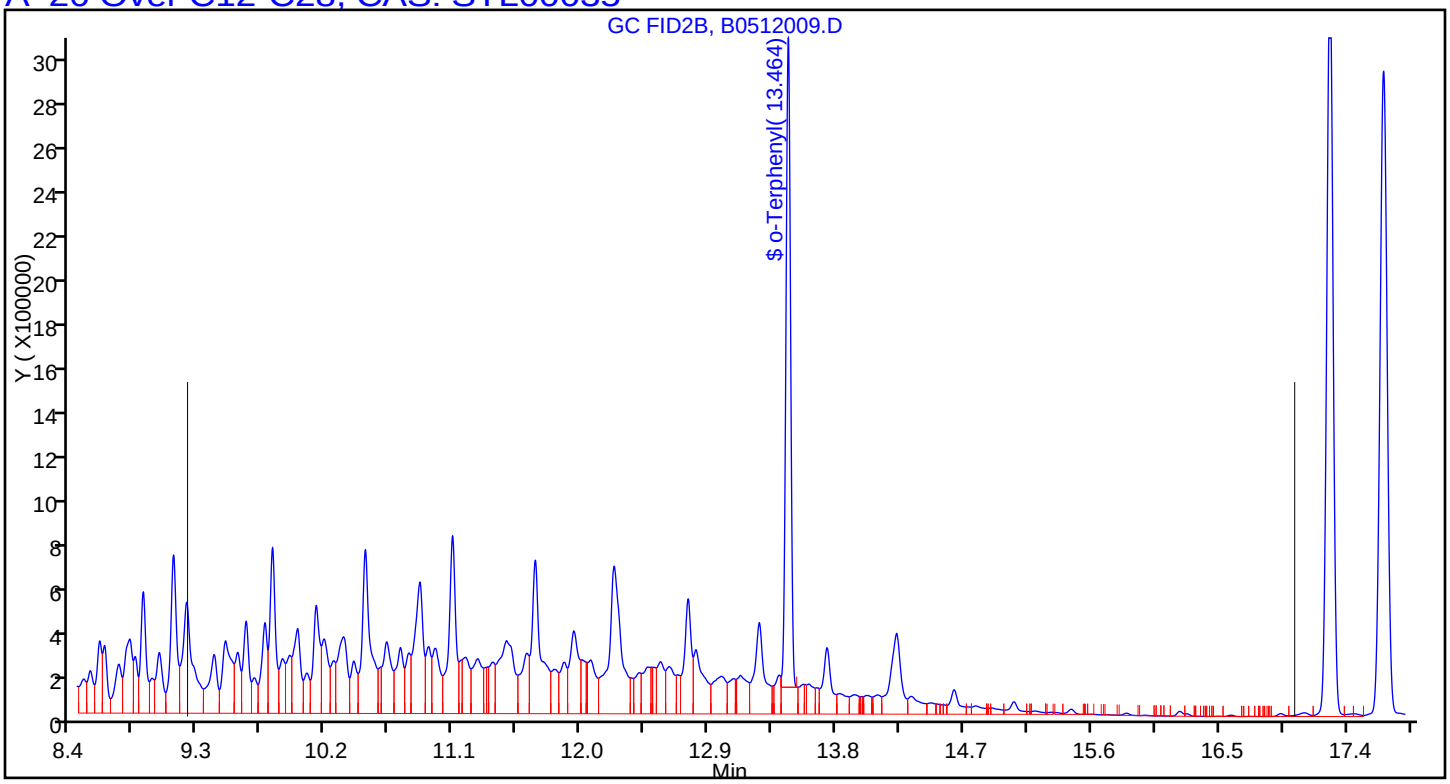


Report Date: 12-May-2016 14:29:04 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512009.D				
Injection Date:	12-May-2016 12:43:23	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	59	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035

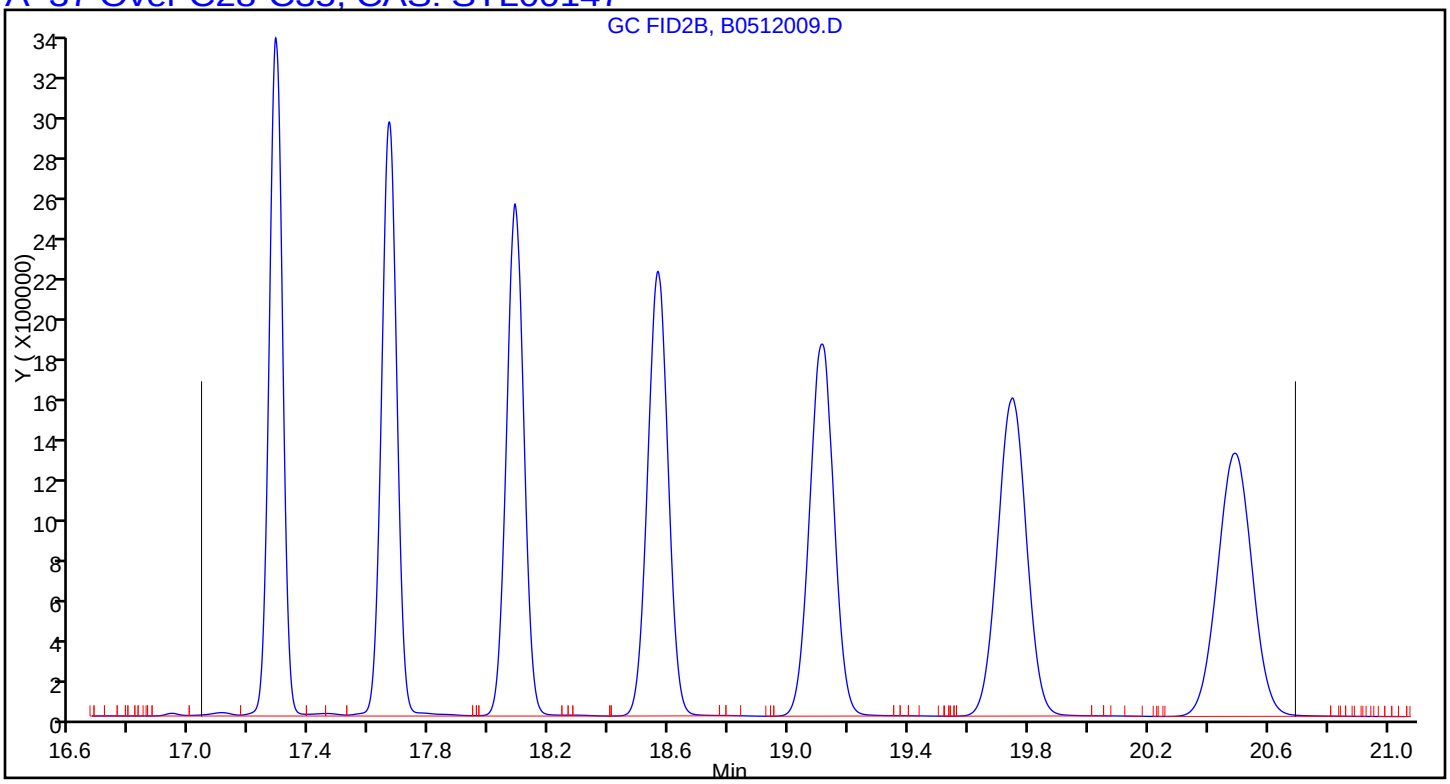


Report Date: 12-May-2016 14:29:04 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512009.D				
Injection Date:	12-May-2016 12:43:23	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	59	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512010.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 12-May-2016 13:16:11 ALS Bottle#: 60 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012029-010
Operator ID: Instrument ID: CHFID12_R
Sublist: chrom-GCSV - TX1005_1006R*sub5

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:29:05 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 13:52:31

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	2 Hexane	3.354	3.355	-0.001	8716265	800.0	832.9	
A	6 C6-C12	6.239	(3.255-9.224)		146222453	800.0	793.6	
S	16 C6-C35						2404.1	
A	20 Over C12-C28	13.132	(9.224-17.037)		141735870	800.0	804.0	
$	22 o-Terphenyl	13.463	13.462	0.001	12801315	50.0	48.9	
A	37 Over C28-C35	18.867	(17.037-20.694)		144282676	799.7	806.5	

Reagents:

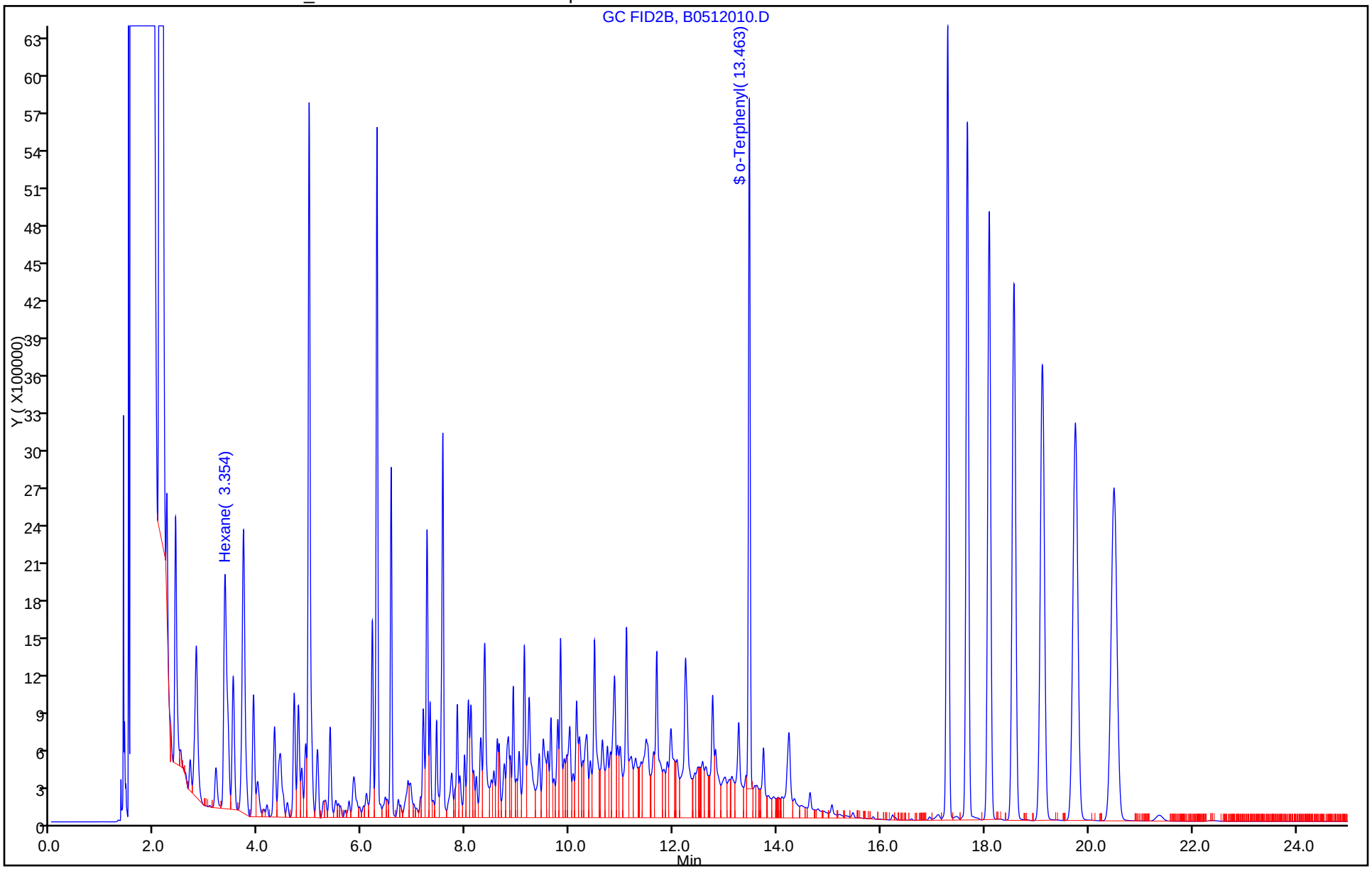
TX1005CURV_00050 Amount Added: 800.00 Units: uL

Report Date: 12-May-2016 14:29:05 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512010.D

Injection Date:	12-May-2016 13:16:11	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	IC			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	60
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		



Report Date: 12-May-2016 14:29:05 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512010.D

Injection Date: 12-May-2016 13:16:11 Instrument ID: CHFID12_R

Lims ID: IC

Client ID:

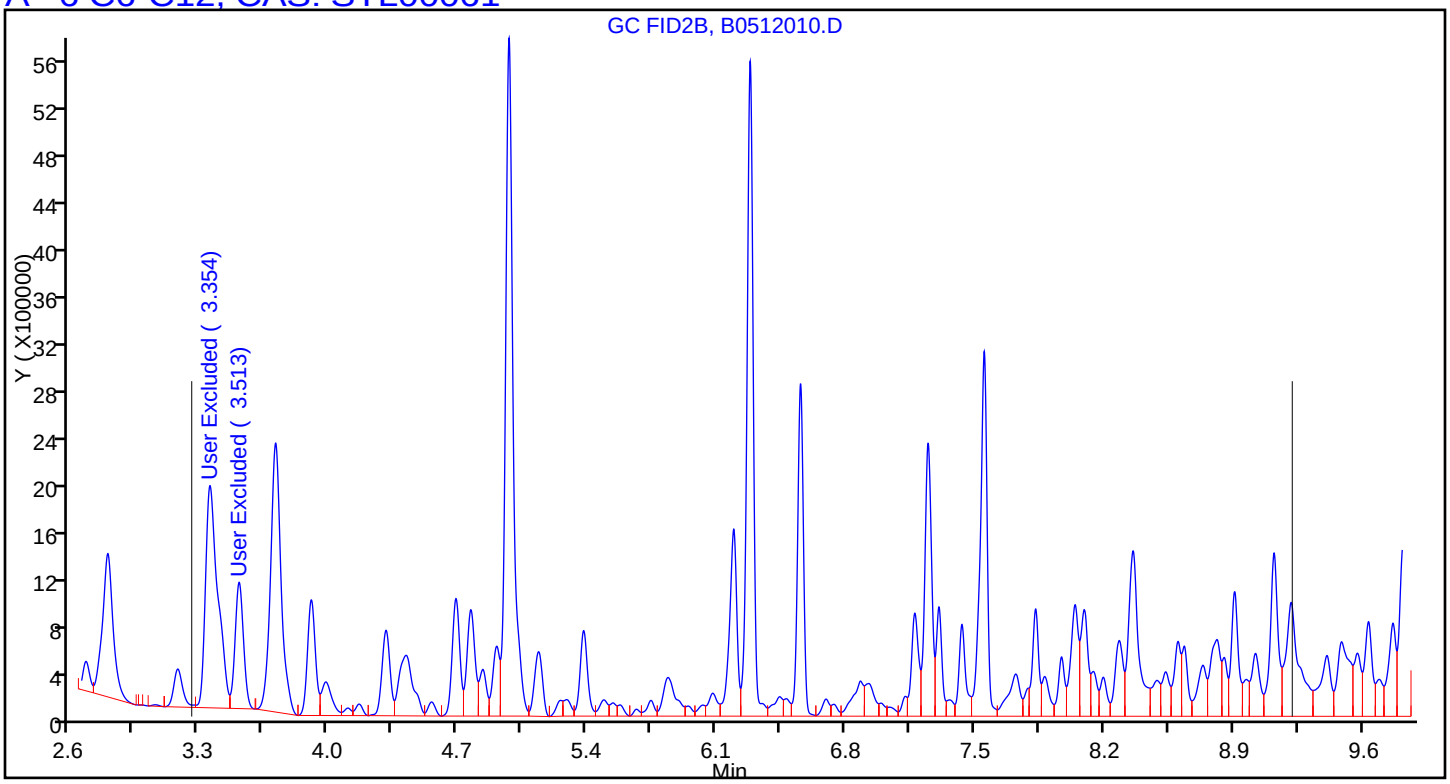
Operator ID: ALS Bottle#: 60 Worklist Smp#: 10

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: GCSV - TX1005_1006R Limit Group: GCSV - TX1005

Column: Detector GC FID1A

A 6 C6-C12, CAS: STL00061

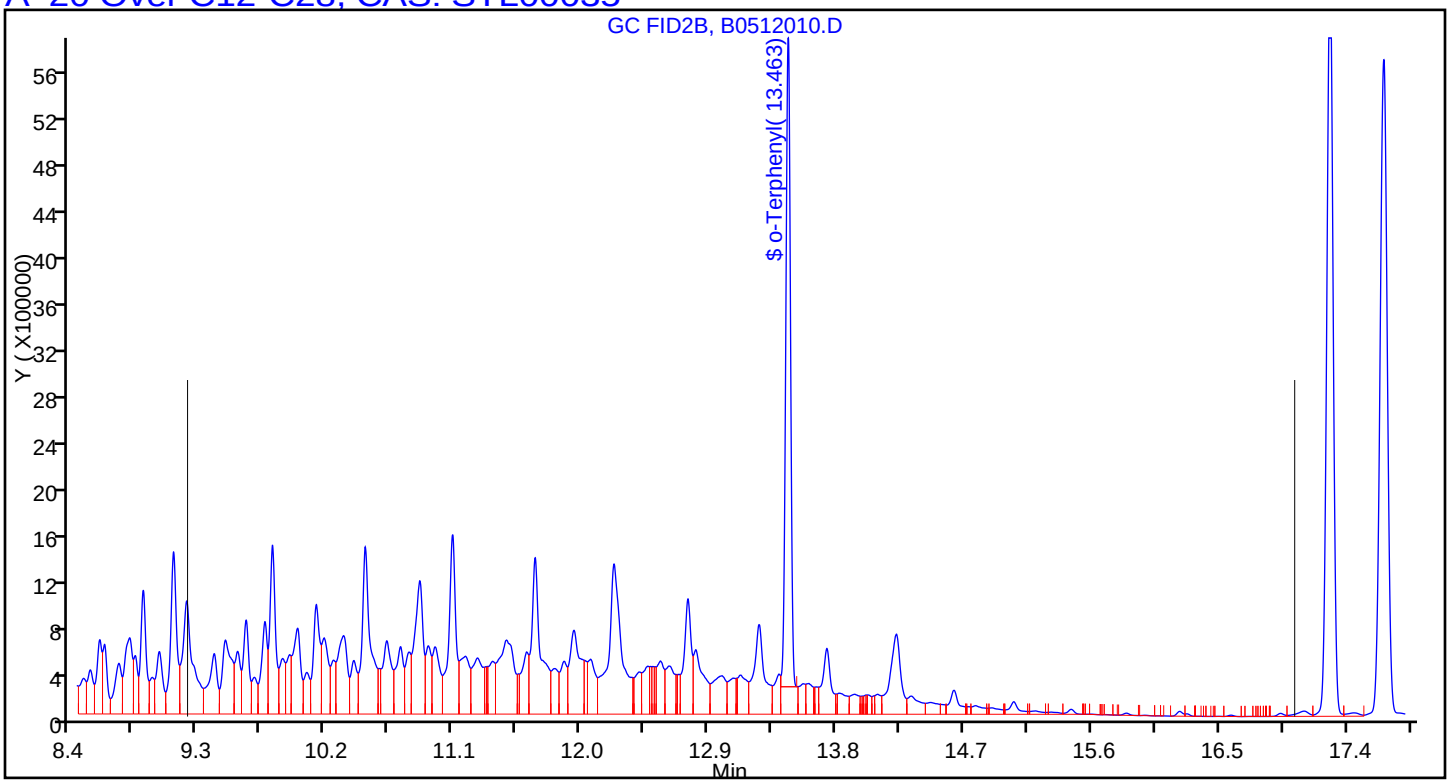


Report Date: 12-May-2016 14:29:06 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512010.D				
Injection Date:	12-May-2016 13:16:11	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	60	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035

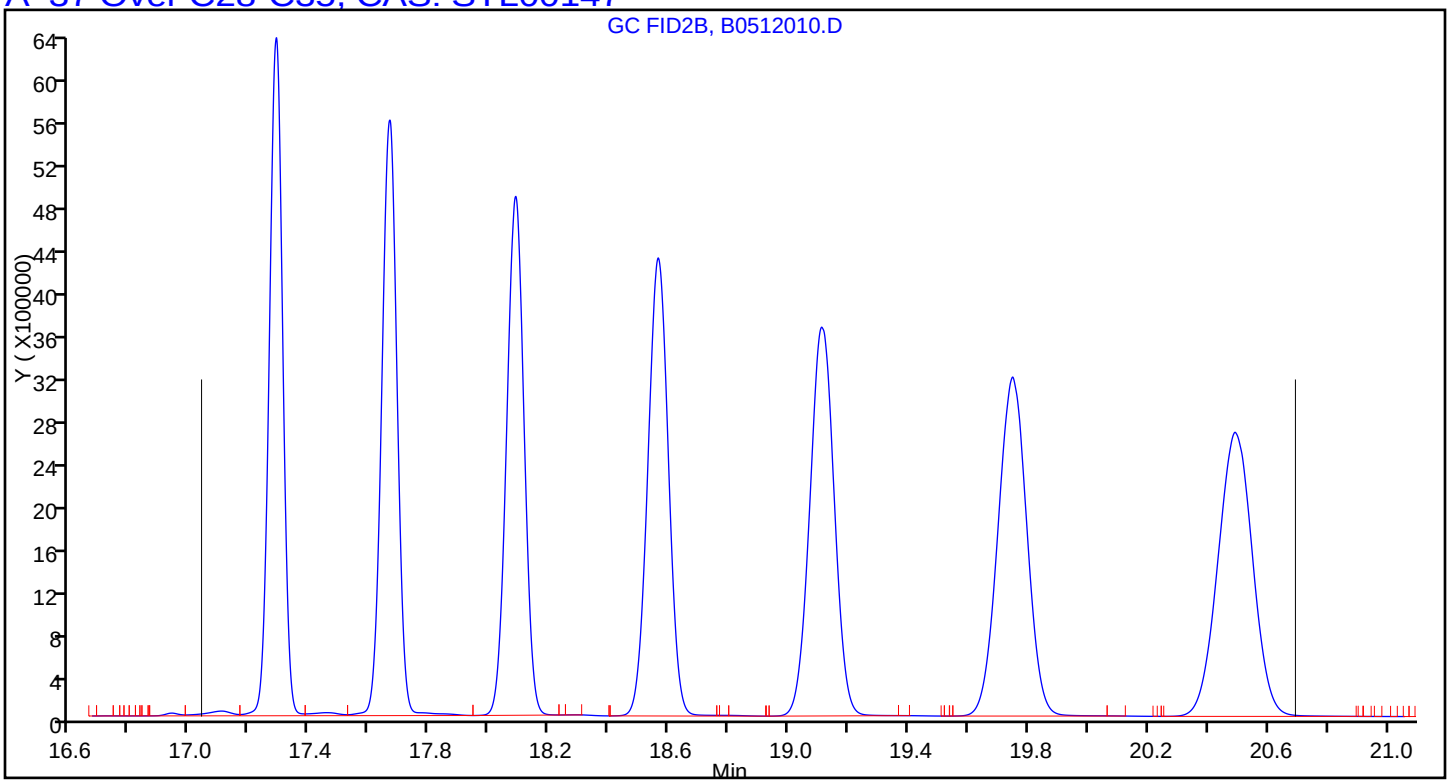


Report Date: 12-May-2016 14:29:06 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512010.D				
Injection Date:	12-May-2016 13:16:11	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	60	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 12-May-2016 13:49:14 ALS Bottle#: 61 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012029-011
Operator ID: Instrument ID: CHFID12_R
Sublist: chrom-GCSV - TX1005_1006R*sub5

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 12-May-2016 14:29:07 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK049

First Level Reviewer: vanderborghr Date: 12-May-2016 14:19:59

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	2 Hexane	3.355	3.355	0.000	11054502	1000.0	1056.3	
A	6 C6-C12	6.239	(3.255-9.224)		184570293	1000.0	1001.7	
S	16 C6-C35						3049.2	
A	20 Over C12-C28	13.132	(9.224-17.037)		178029043	1000.0	1009.9	
$	22 o-Terphenyl	13.464	13.462	0.002	16092775	62.5	61.4	
A	37 Over C28-C35	18.867	(17.037-20.694)		185623510	999.6	1037.6	

Reagents:

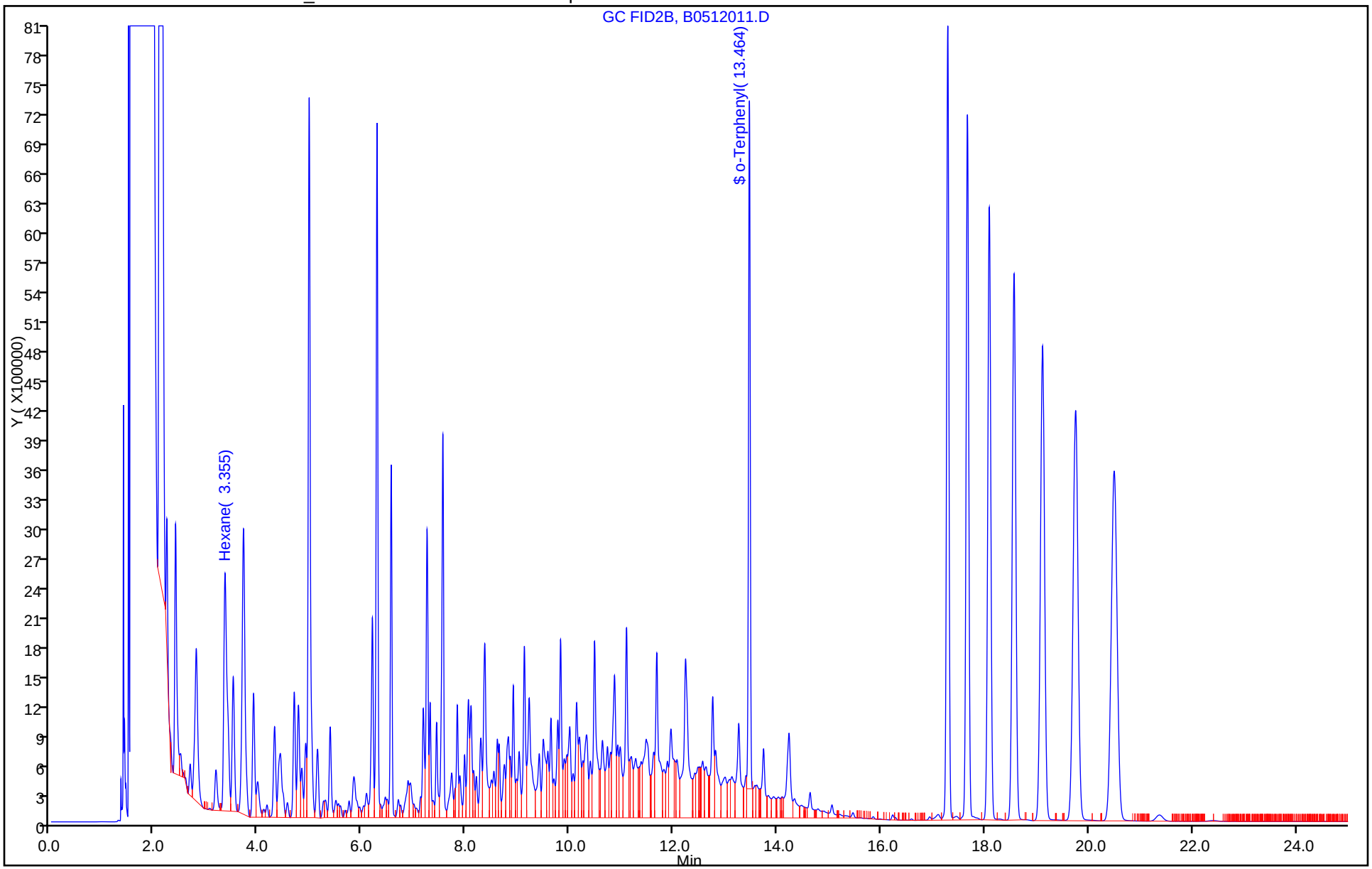
TX1005CURV_00050 Amount Added: 1000.00 Units: uL

Report Date: 12-May-2016 14:29:08 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Injection Date:	12-May-2016 13:49:14	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	IC			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	61
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		



Report Date: 12-May-2016 14:29:08 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Injection Date: 12-May-2016 13:49:14 Instrument ID: CHFID12_R

Lims ID: IC

Client ID:

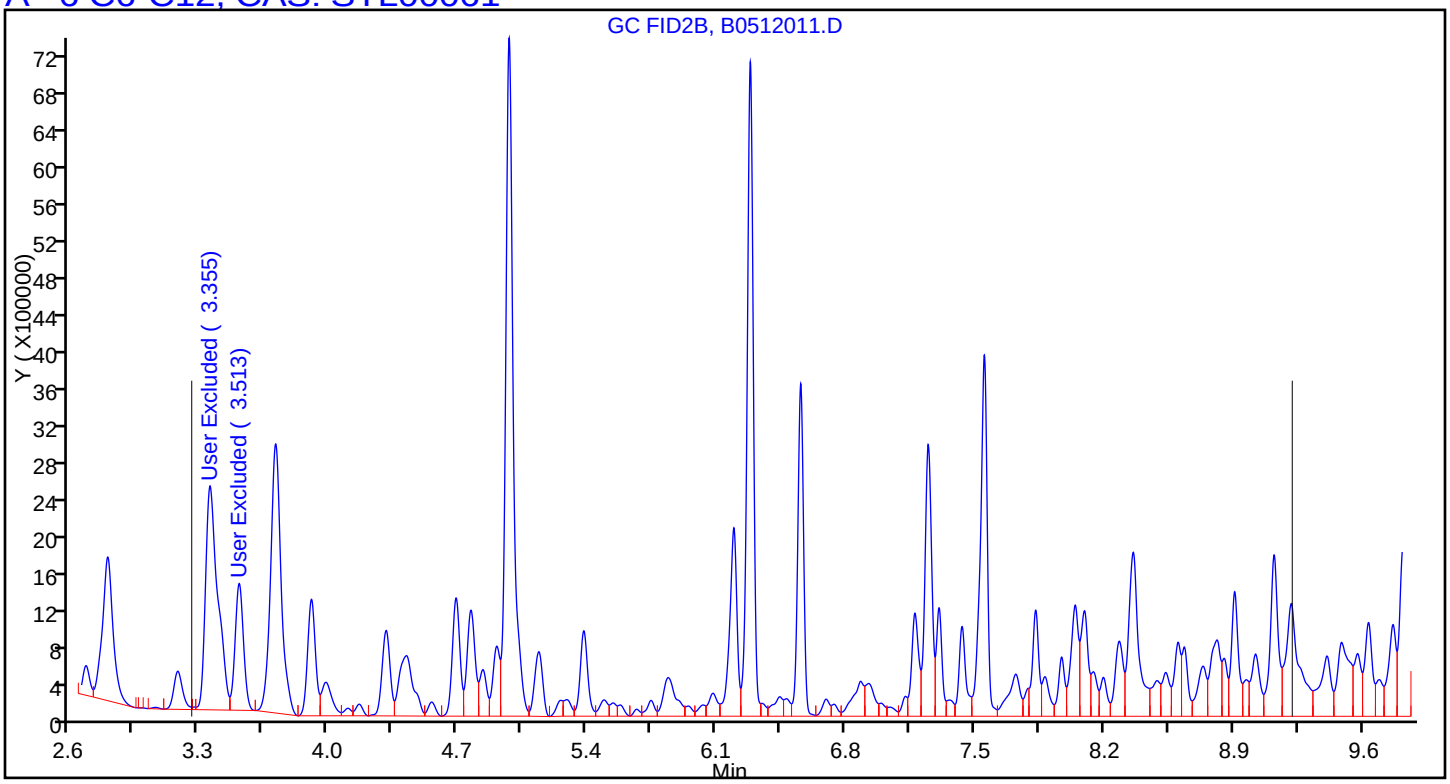
Operator ID: ALS Bottle#: 61 Worklist Smp#: 11

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: GCSV - TX1005_1006R Limit Group: GCSV - TX1005

Column: Detector GC FID1A

A 6 C6-C12, CAS: STL00061

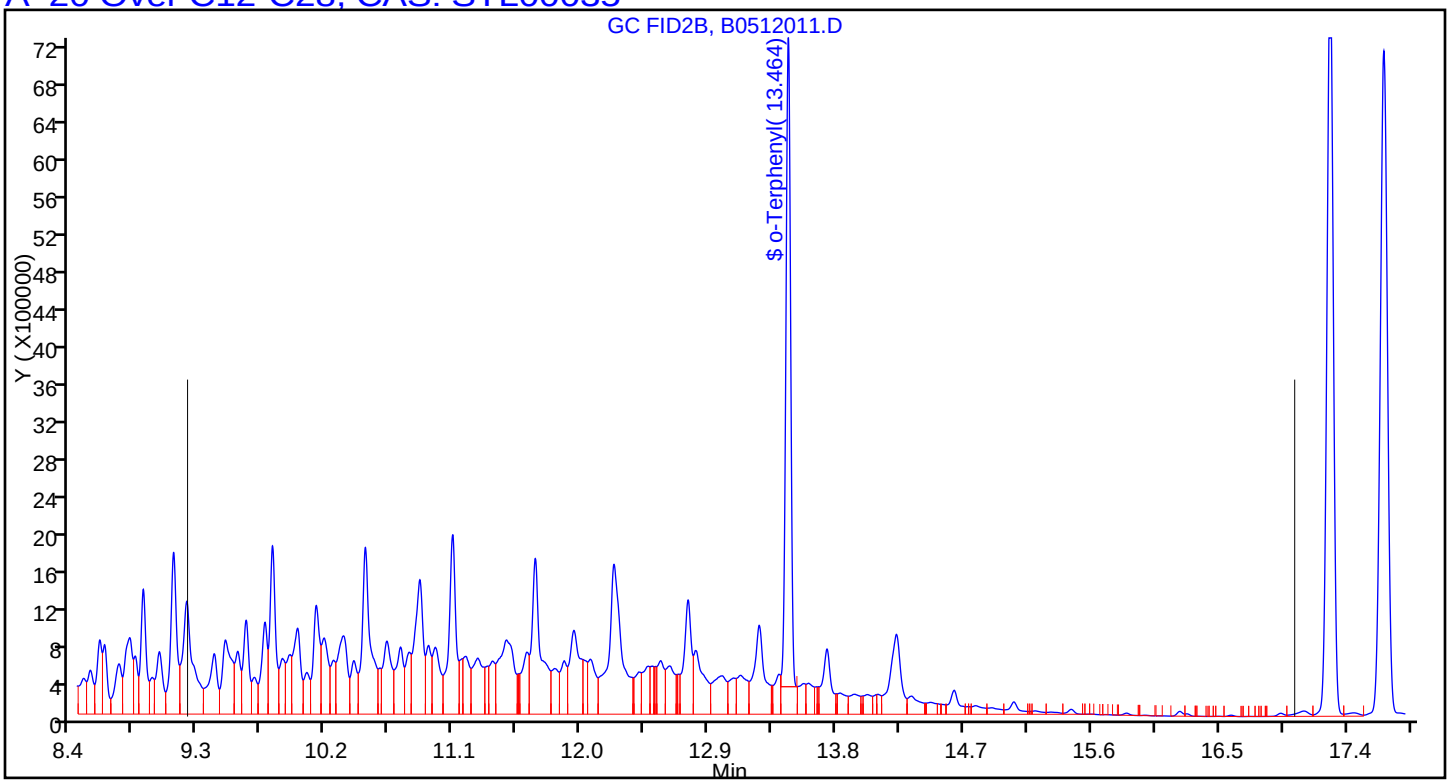


Report Date: 12-May-2016 14:29:08 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D				
Injection Date:	12-May-2016 13:49:14	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	61	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_20 Over C12-C28, CAS: STL00035

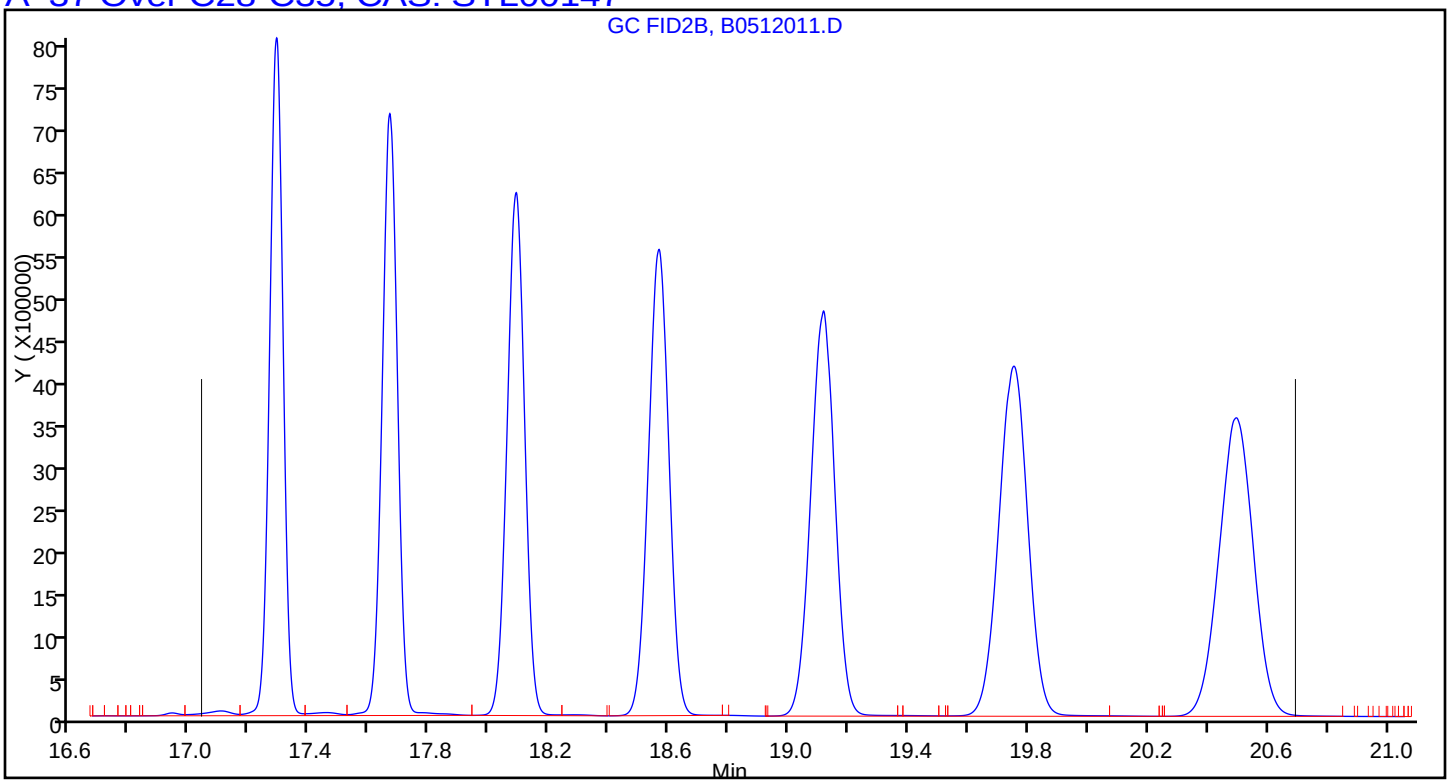


Report Date: 12-May-2016 14:29:08 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D				
Injection Date:	12-May-2016 13:49:14	Instrument ID:	CHFID12_R		
Lims ID:	IC				
Client ID:					
Operator ID:		ALS Bottle#:	61	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVRT 600-188457/2 Calibration Date: 05/13/2016 08:31

Instrument ID: CHFID12 Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: F0513002.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C6-C12	Ave	189998	196747		207	200	3.6	25.0
>C12-C28	Lin1		234808		214	200	6.9	25.0
>C28-C35	Ave	256755	257270		200	200	0.2	25.0
o-Terphenyl	Ave	333971	336058		12.6	12.5	0.6	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVRT 600-188457/2 Calibration Date: 05/13/2016 08:31

Instrument ID: CHFID12 Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: F0513002.D

Analyte	RT	RT WINDOW	
		FROM	TO
C6-C12	6.29	3.42	9.17
>C12-C28	13.10	9.17	17.02
>C28-C35	18.88	17.02	20.74
o-Terphenyl	13.43	13.33	13.53

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513002.D
Lims ID: CCVRT
Client ID:
Sample Type: CCVRT
Inject. Date: 13-May-2016 08:31:32 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: ccv
Operator ID: Instrument ID: CHFID12
Sublist: chrom-TX_1005_CHFID12*sub1

Method: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 16-May-2016 09:18:11 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK025

First Level Reviewer: somjitp Date: 16-May-2016 09:18:10

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 5 C6-C12	6.293	(3.417-9.169)		39349364	200.0	207.1	
A 20 Over C12-C28	13.095	(9.169-17.022)		46961580	200.0	213.7	
$ 22 o-Terphenyl	13.426	13.426	0.000	4200726	12.5	12.6	
A 37 Over C28-C35	18.882	(17.022-20.741)		51433362	199.9	200.3	

Reagents:

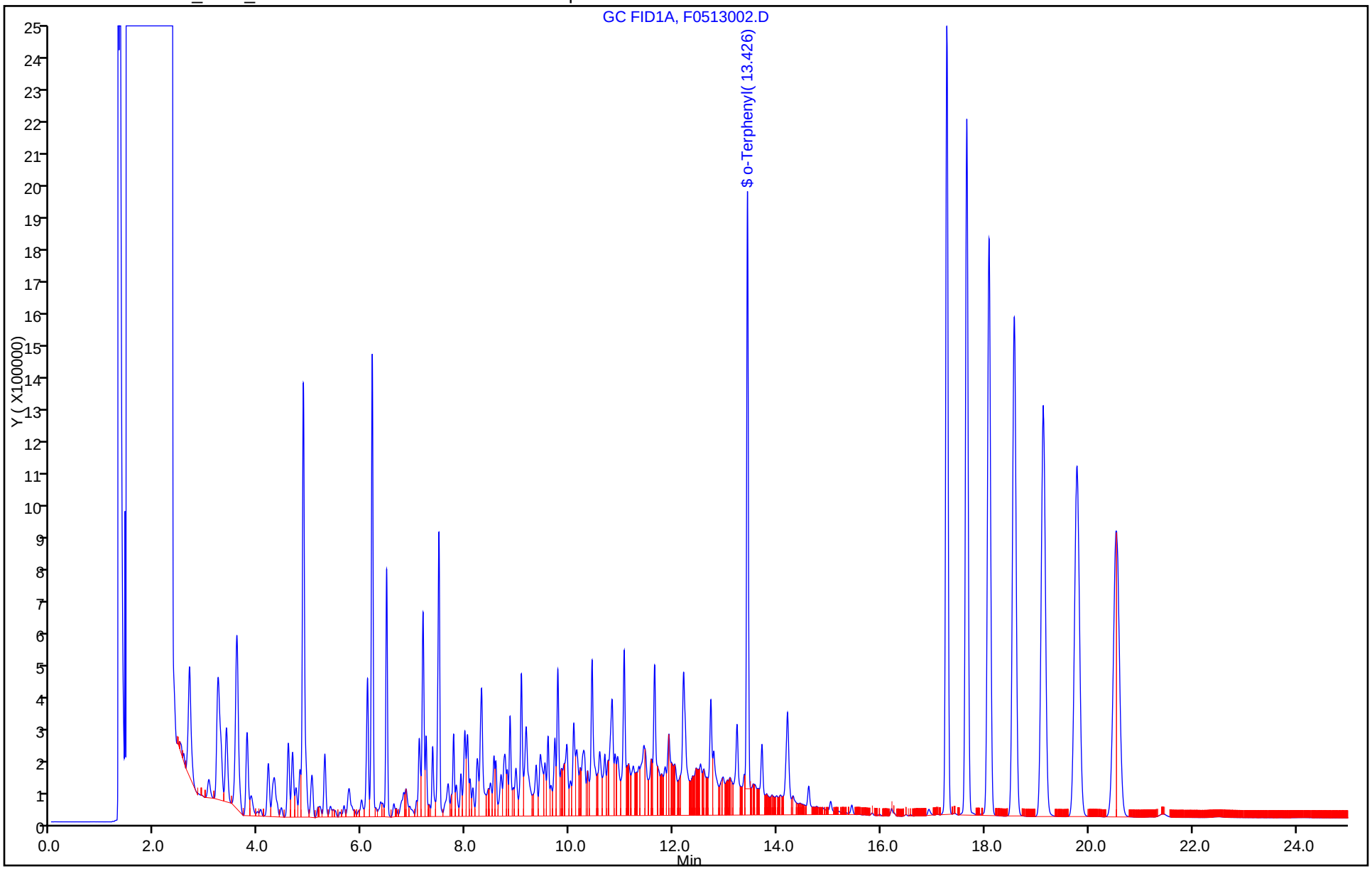
TX1005CCV_00138 Amount Added: 1.00 Units: mL

Report Date: 16-May-2016 09:18:17 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513002.D

Injection Date:	13-May-2016 08:31:32	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	CCVRT			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		

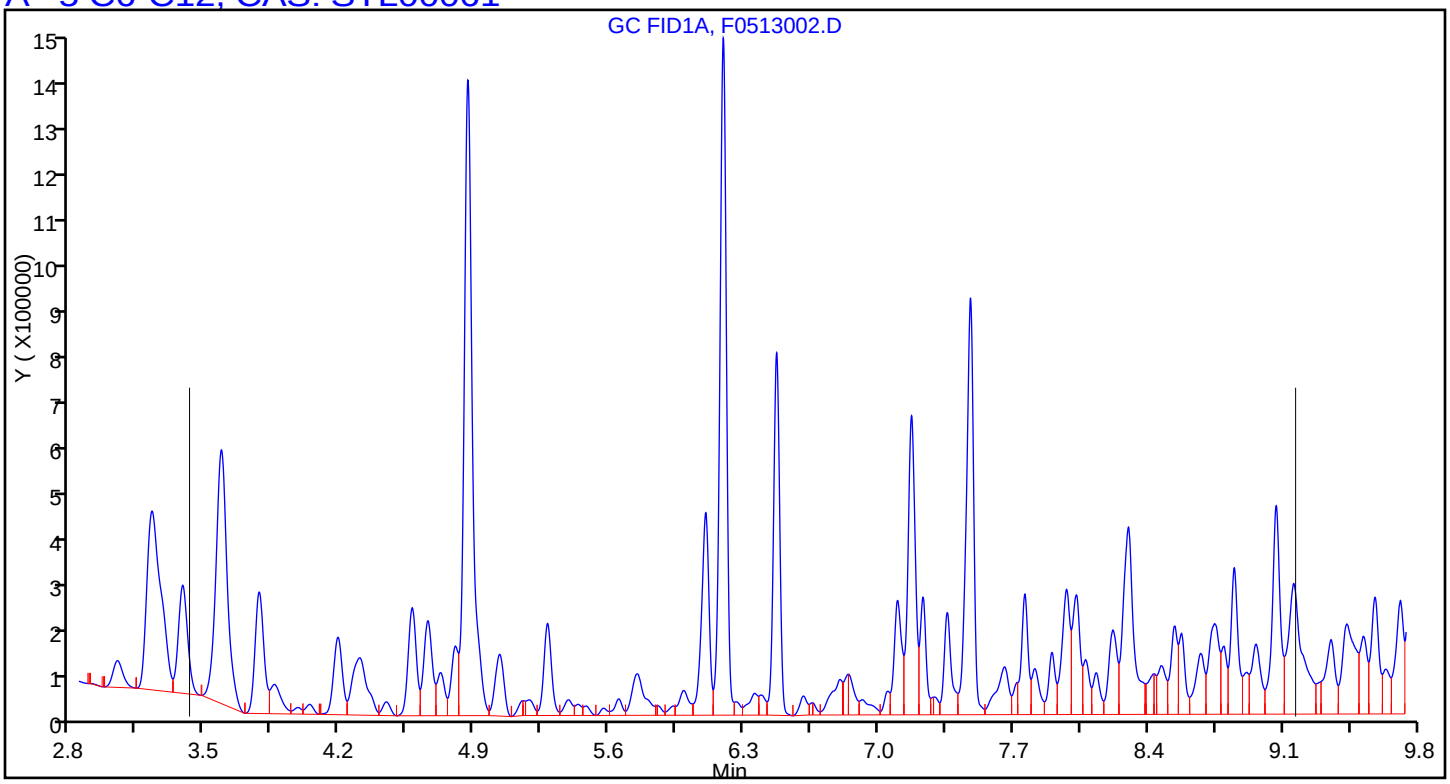


Report Date: 16-May-2016 09:18:17 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513002.D				
Injection Date:	13-May-2016 08:31:32	Instrument ID:	CHFID12		
Lims ID:	CCVRT				
Client ID:					
Operator ID:		ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061

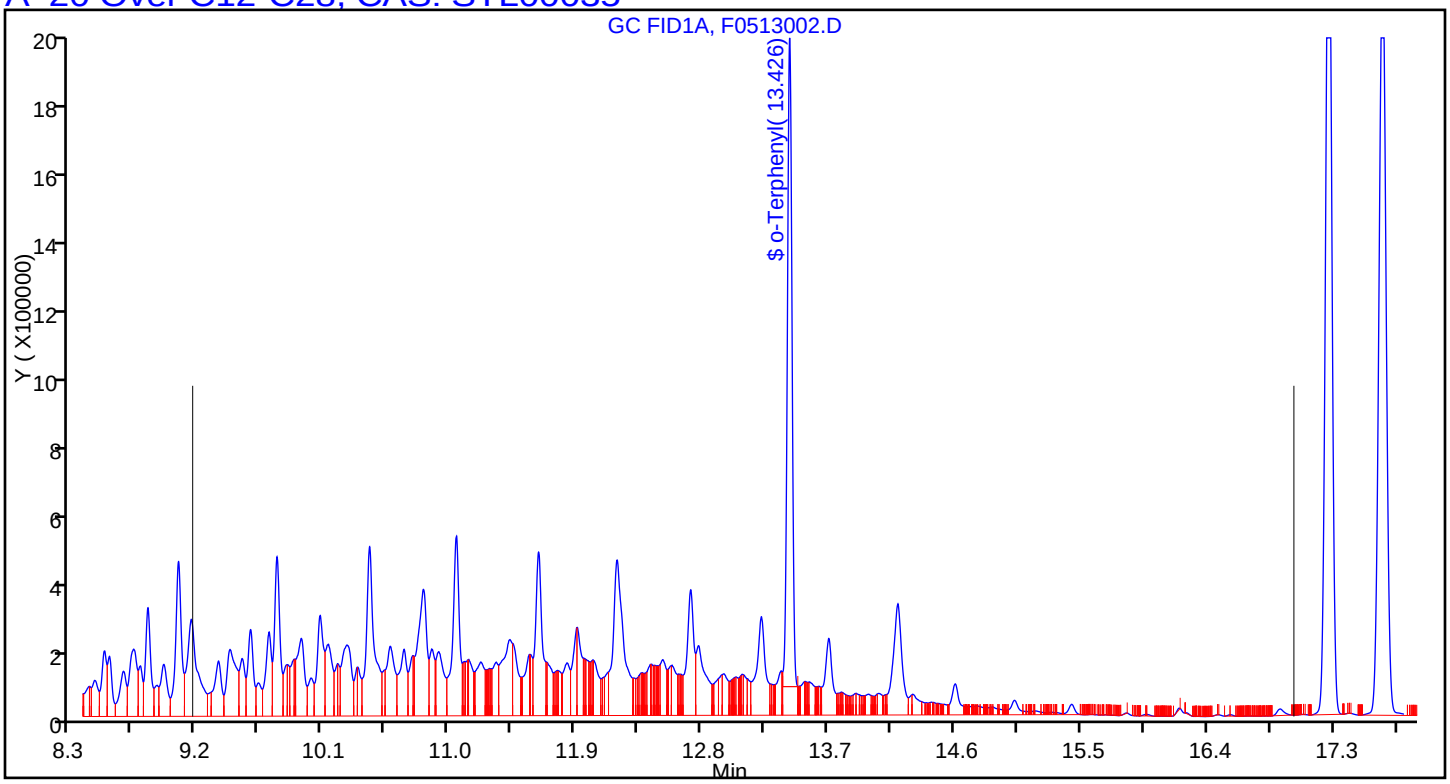


Report Date: 16-May-2016 09:18:17 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513002.D				
Injection Date:	13-May-2016 08:31:32	Instrument ID:	CHFID12		
Lims ID:	CCVRT				
Client ID:					
Operator ID:		ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035

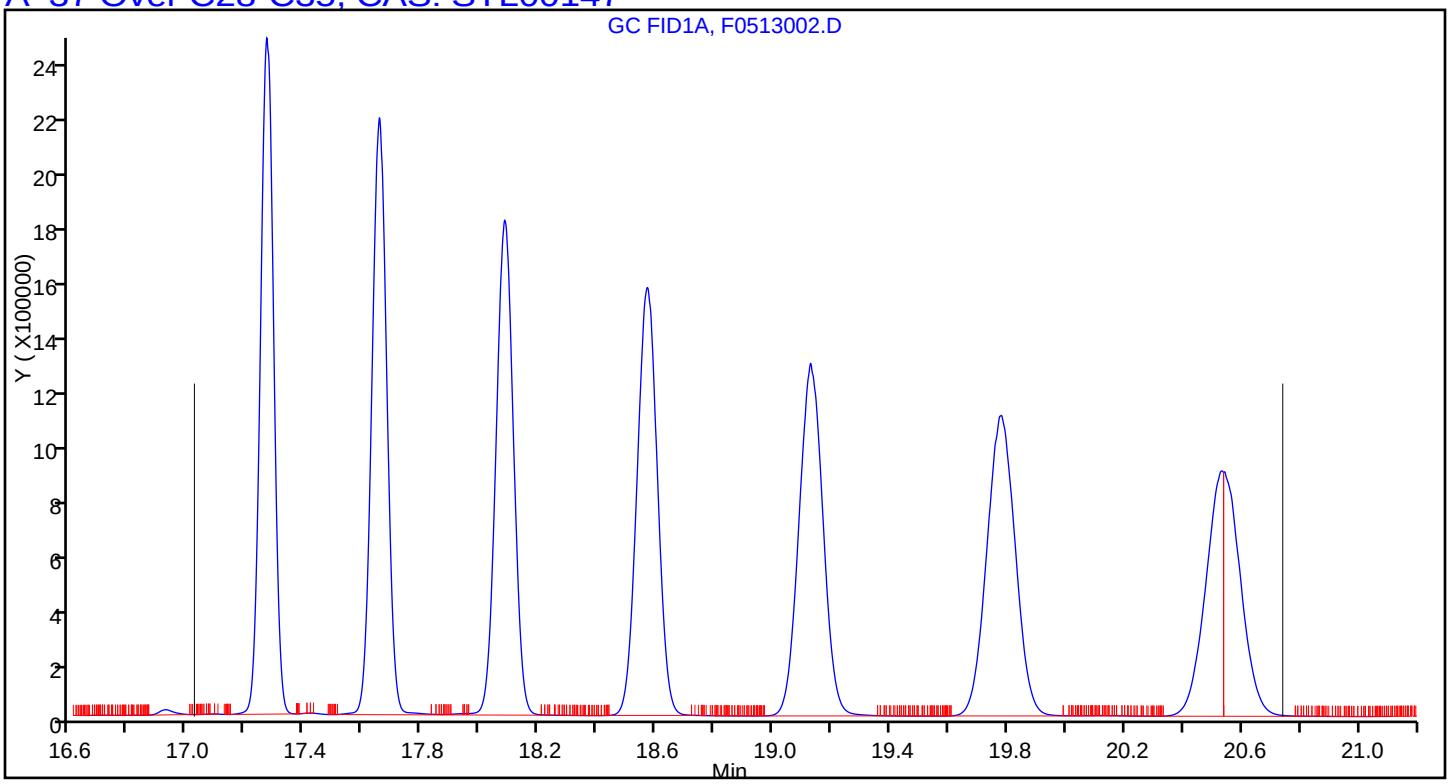


Report Date: 16-May-2016 09:18:17 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513002.D				
Injection Date:	13-May-2016 08:31:32	Instrument ID:	CHFID12		
Lims ID:	CCVRT				
Client ID:					
Operator ID:		ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCV 600-188457/13 Calibration Date: 05/13/2016 14:49

Instrument ID: CHFID12 Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: F0513013.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C6-C12	Ave	189998	181320		191	200	-4.6	25.0
>C12-C28	Lin1		224475		205	200	2.3	25.0
>C28-C35	Ave	256755	258260		201	200	0.6	25.0
o-Terphenyl	Ave	333971	334740		12.5	12.5	0.2	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCV 600-188457/13 Calibration Date: 05/13/2016 14:49

Instrument ID: CHFID12 Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: F0513013.D

Analyte	RT	RT WINDOW	
		FROM	TO
C6-C12	6.29	3.42	9.17
>C12-C28	13.10	9.17	17.02
>C28-C35	18.88	17.02	20.74
o-Terphenyl	13.42	13.33	13.53

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513013.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 13-May-2016 14:49:20 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012052-013
Operator ID: Instrument ID: CHFID12
Sublist: chrom-TX_1005_CHFID12*sub1

Method: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 16-May-2016 09:25:16 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK025

First Level Reviewer: somjitp Date: 16-May-2016 09:25:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 5 C6-C12	6.293	(3.417-9.169)		36264081	200.0	190.9	
S 16 C6-C35						596.6	
A 20 Over C12-C28	13.095	(9.169-17.022)		44894924	200.0	204.6	
$ 22 o-Terphenyl	13.422	13.426	-0.004	4184245	12.5	12.5	
A 37 Over C28-C35	18.882	(17.022-20.741)		51631373	199.9	201.1	

Reagents:

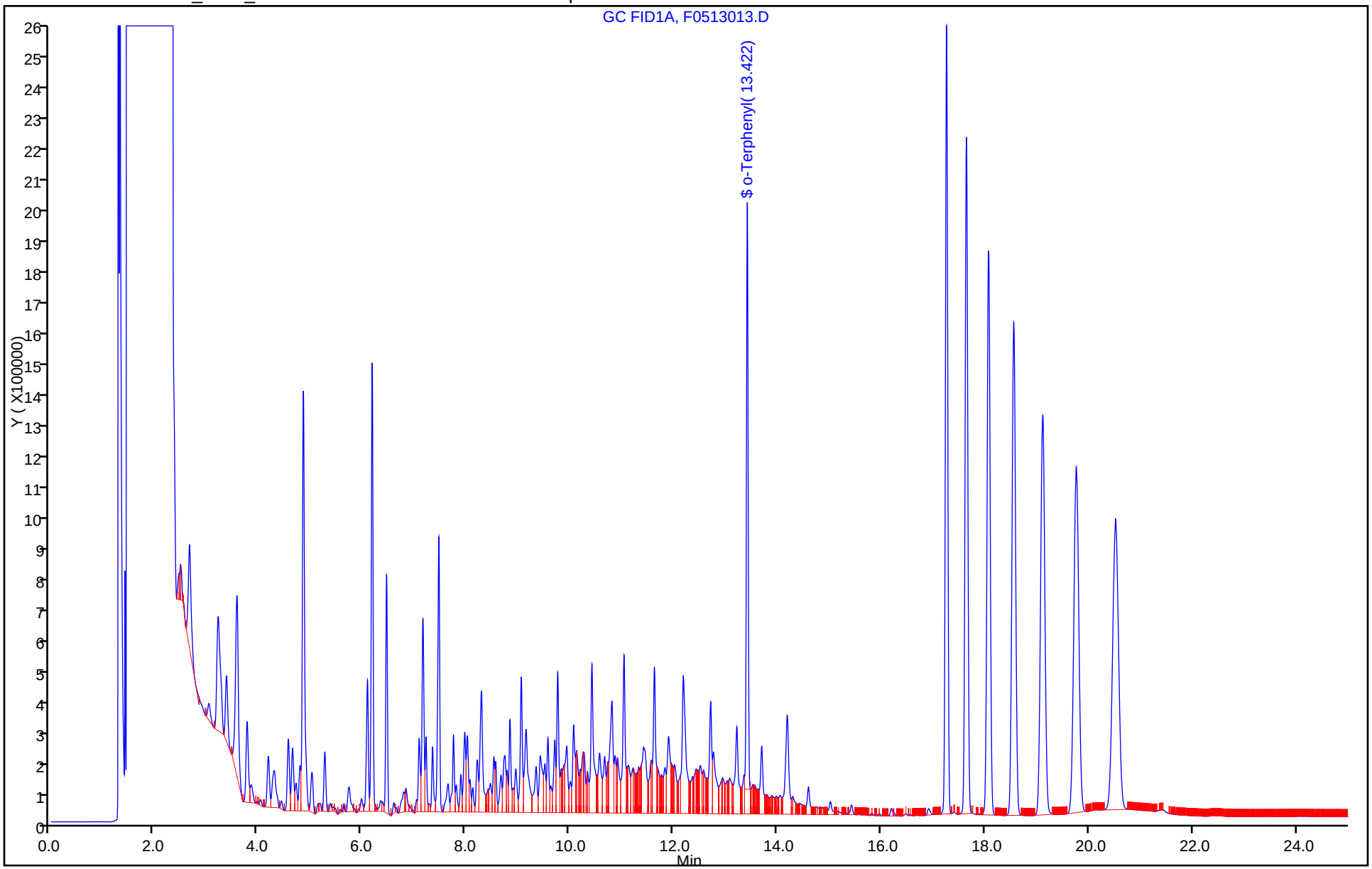
TX1005CCV_00138 Amount Added: 1.00 Units: mL

Report Date: 16-May-2016 09:25:17 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513013.D

Injection Date:	13-May-2016 14:49:20	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	13
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		



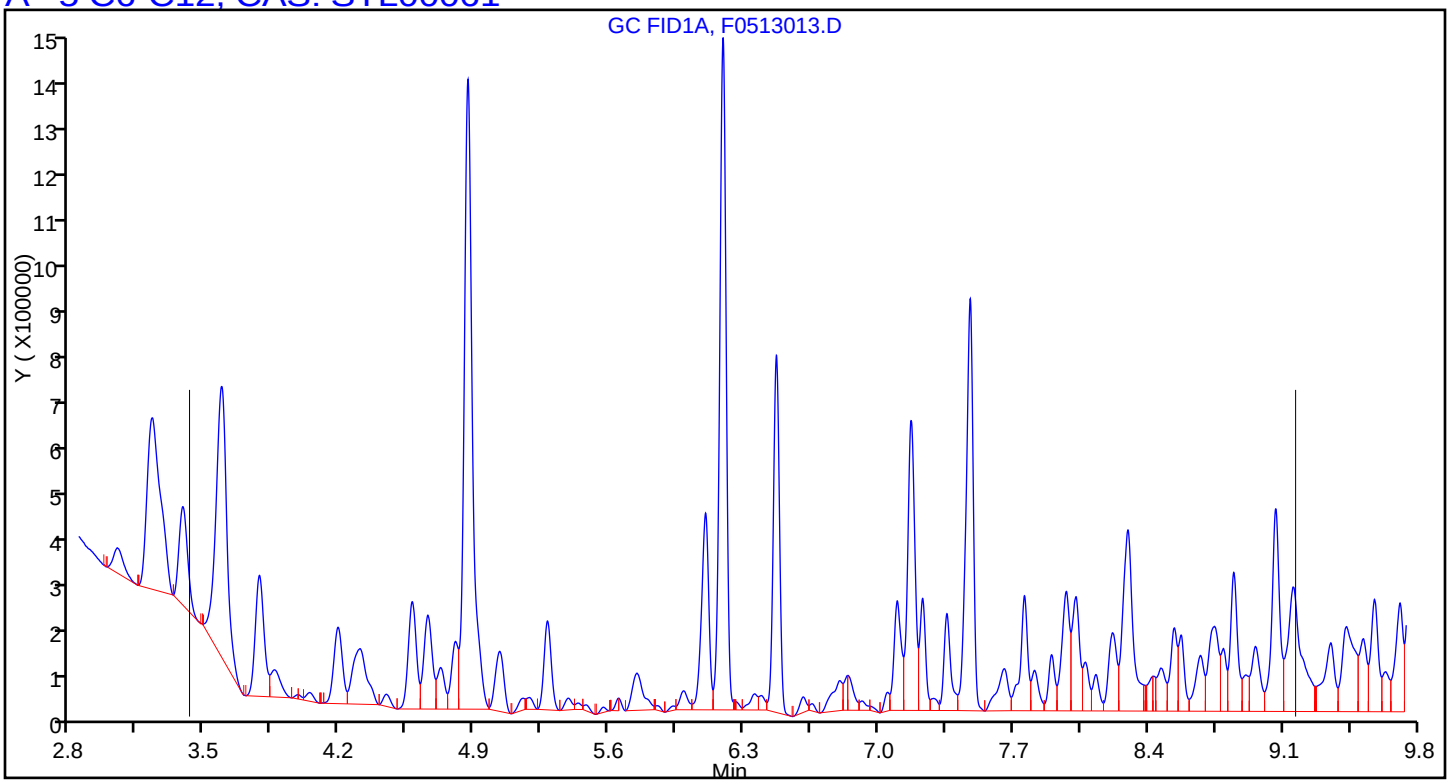
Report Date: 16-May-2016 09:25:17 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513013.D

Injection Date:	13-May-2016 14:49:20	Instrument ID:	CHFID12		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061

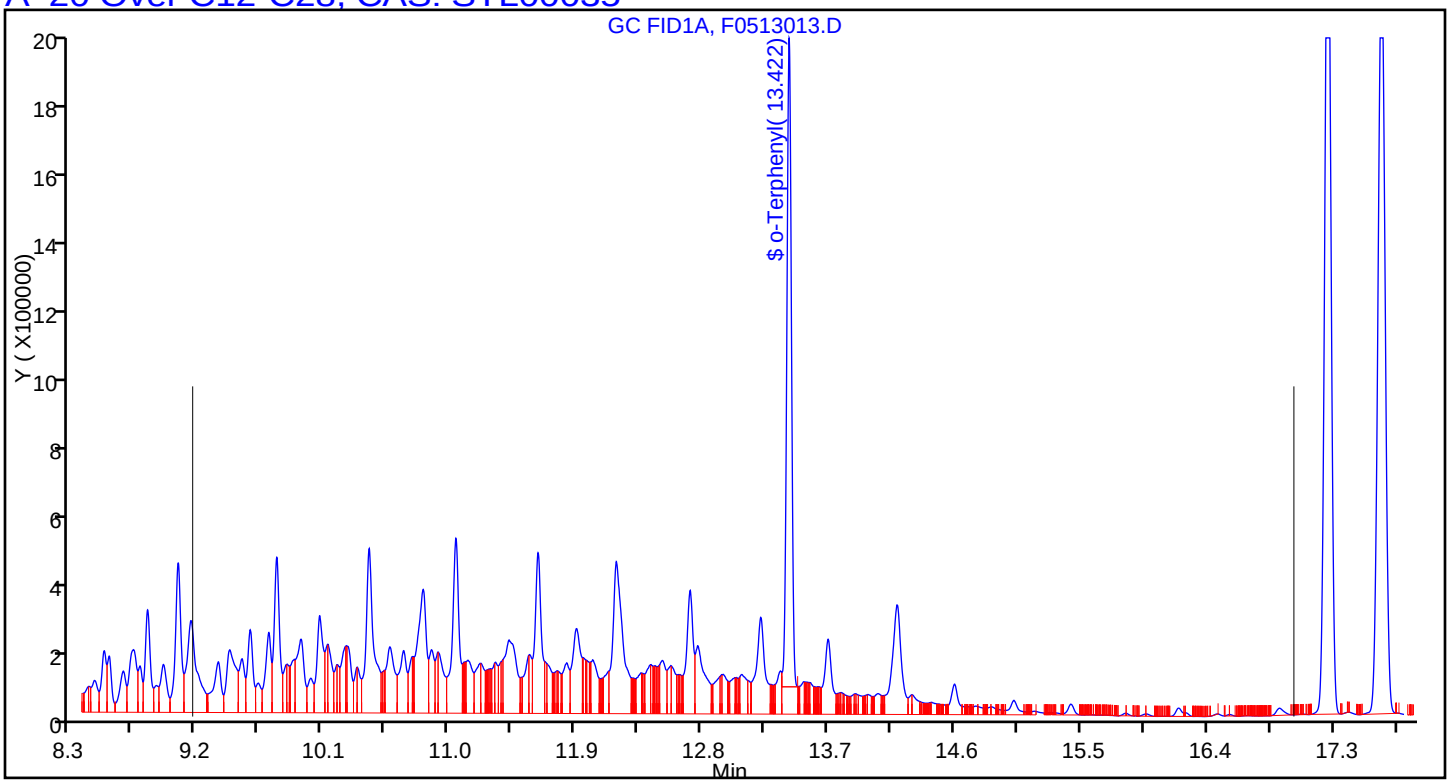


Report Date: 16-May-2016 09:25:17 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513013.D				
Injection Date:	13-May-2016 14:49:20	Instrument ID:	CHFID12		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035

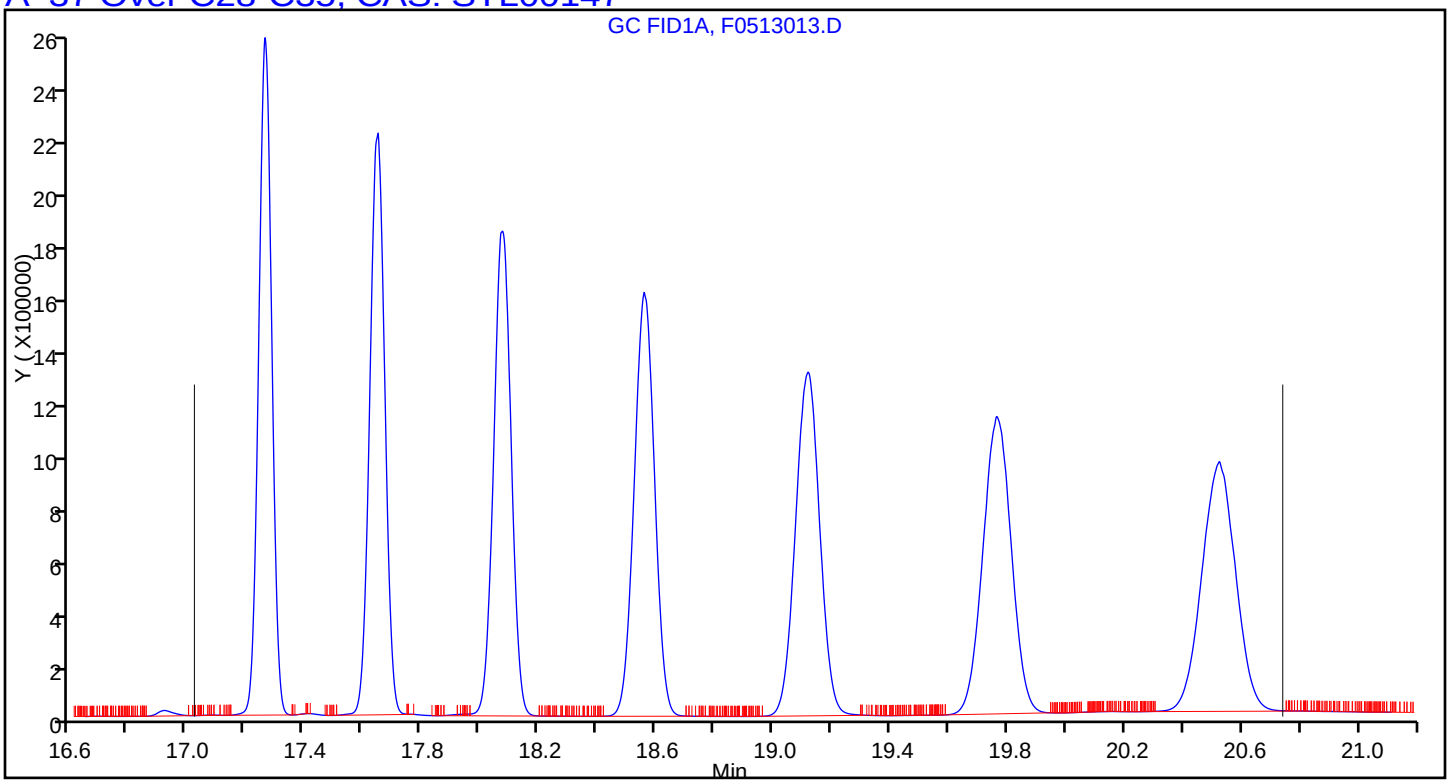


Report Date: 16-May-2016 09:25:17 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513013.D				
Injection Date:	13-May-2016 14:49:20	Instrument ID:	CHFID12		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCV 600-188457/18 Calibration Date: 05/13/2016 17:40

Instrument ID: CHFID12 Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: F0513018.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C6-C12	Ave	189998	176760		186	200	-7.0	25.0
>C12-C28	Lin1		221152		202	200	0.9	25.0
>C28-C35	Ave	256755	262901		205	200	2.4	25.0
o-Terphenyl	Ave	333971	337493		12.6	12.5	1.1	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCV 600-188457/18 Calibration Date: 05/13/2016 17:40

Instrument ID: CHFID12 Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: F0513018.D

Analyte	RT	RT WINDOW	
		FROM	TO
C6-C12	6.29	3.42	9.17
>C12-C28	13.10	9.17	17.02
>C28-C35	18.88	17.02	20.74
o-Terphenyl	13.42	13.33	13.53

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513018.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 13-May-2016 17:40:46 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012052-018
Operator ID: Instrument ID: CHFID12
Sublist: chrom-TX_1005_CHFID12*sub1

Method: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 16-May-2016 09:27:12 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK025

First Level Reviewer: somjitp Date: 16-May-2016 09:27:11

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 5 C6-C12	6.293	(3.417-9.169)		35352046	200.0	186.1	
S 16 C6-C35						592.5	
A 20 Over C12-C28	13.095	(9.169-17.022)		44230457	200.0	201.7	
$ 22 o-Terphenyl	13.424	13.426	-0.002	4218659	12.5	12.6	
A 37 Over C28-C35	18.882	(17.022-20.741)		52559193	199.9	204.7	

Reagents:

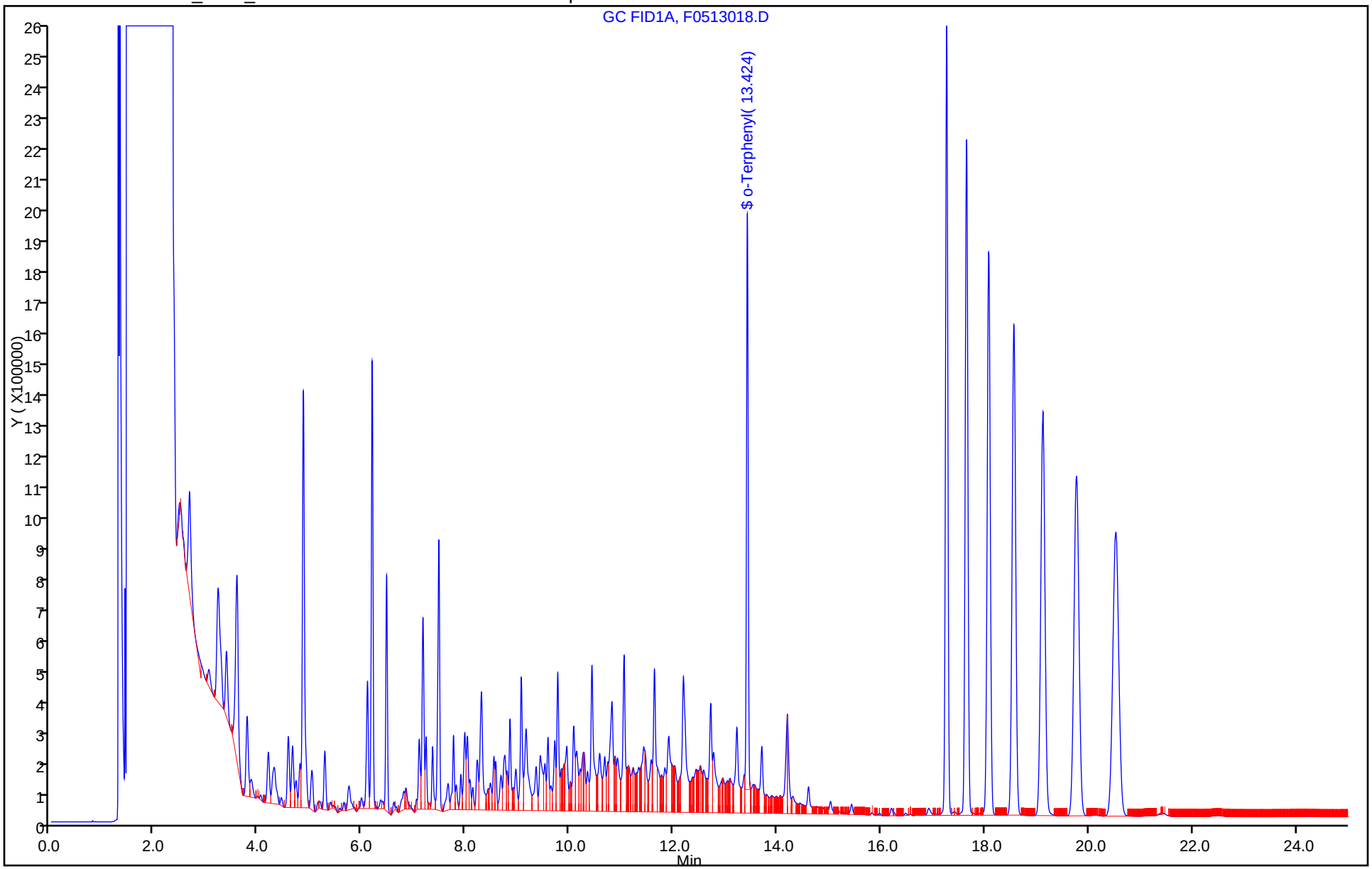
TX1005CCV_00138 Amount Added: 1.00 Units: mL

Report Date: 16-May-2016 09:27:14 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513018.D

Injection Date:	13-May-2016 17:40:46	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	18
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		



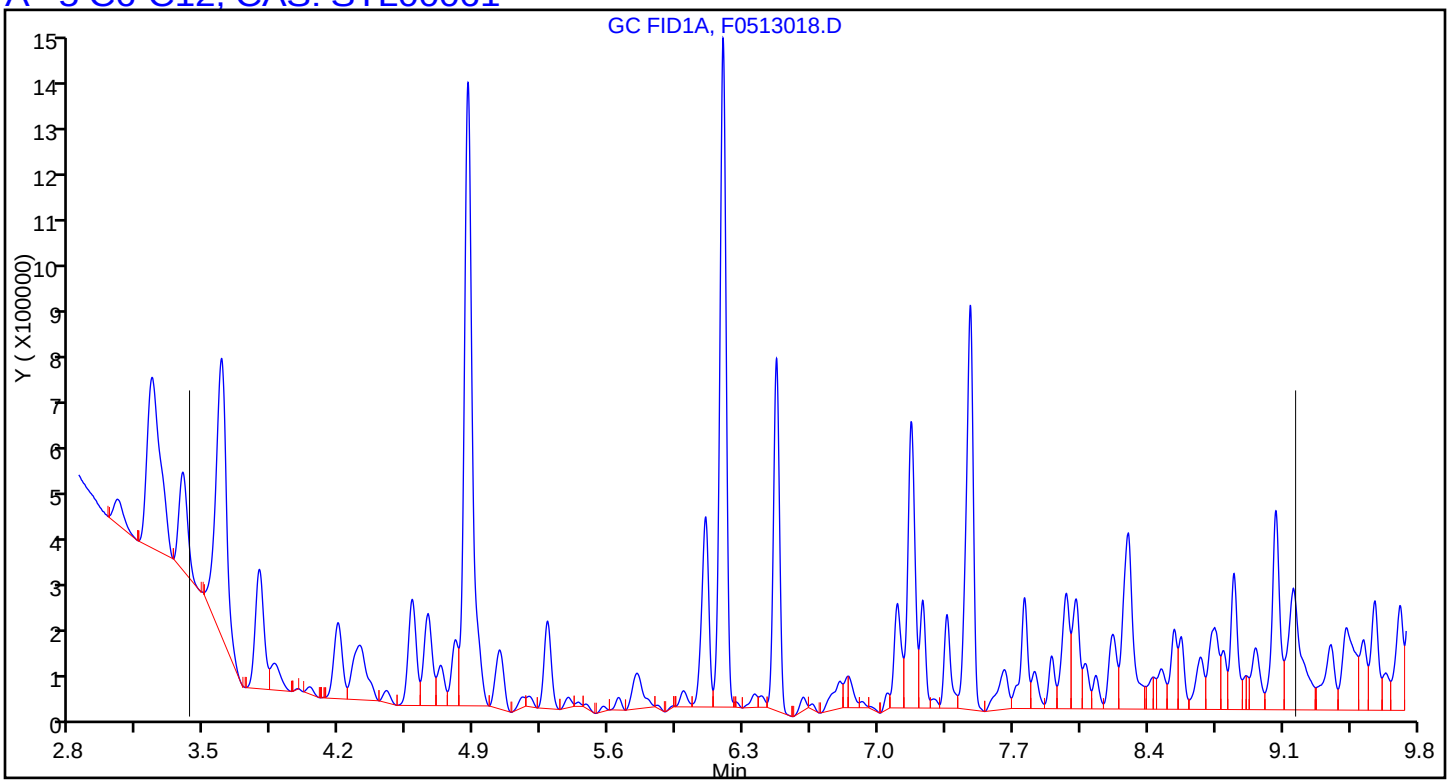
Report Date: 16-May-2016 09:27:14 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513018.D

Injection Date:	13-May-2016 17:40:46	Instrument ID:	CHFID12		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061

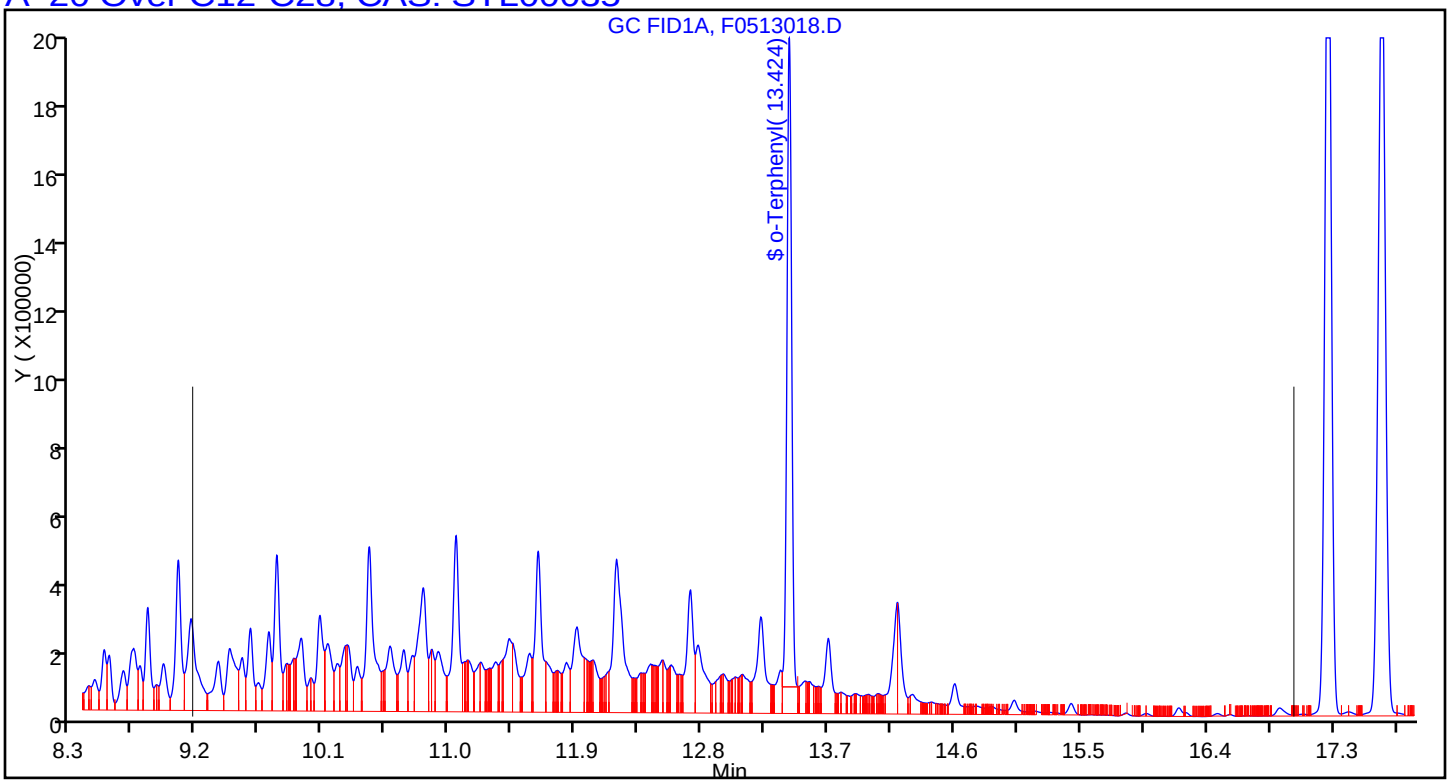


Report Date: 16-May-2016 09:27:14 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513018.D				
Injection Date:	13-May-2016 17:40:46	Instrument ID:	CHFID12		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035



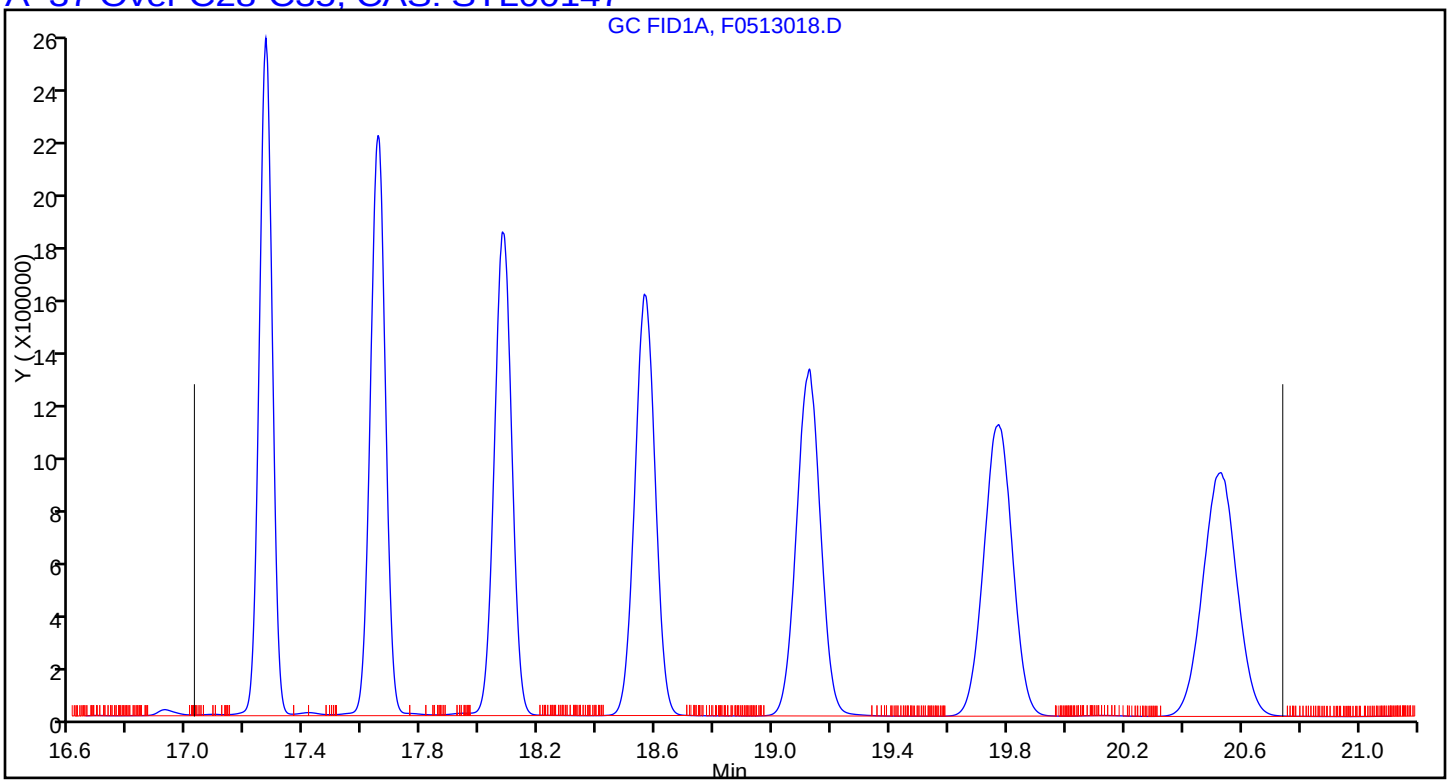
Report Date: 16-May-2016 09:27:14 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513018.D

Injection Date:	13-May-2016 17:40:46	Instrument ID:	CHFID12		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 37 Over C28-C35, CAS: STL00147



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVRT 600-188552/4 Calibration Date: 05/16/2016 09:42

Instrument ID: CHFID12_R Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: B0516004.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C6-C12	Ave	184263	178541		194	200	-3.1	25.0
>C12-C28	Ave	176286	182147		207	200	3.3	25.0
>C28-C35	Ave	178893	189943		212	200	6.2	25.0
o-Terphenyl	Ave	261895	310728		14.8	12.5	18.6	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCVRT 600-188552/4 Calibration Date: 05/16/2016 09:42

Instrument ID: CHFID12_R Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: B0516004.D

Analyte	RT	RT WINDOW	
		FROM	TO
C6-C12	6.24	3.25	9.23
>C12-C28	13.13	9.23	17.05
>C28-C35	18.87	17.05	20.71
o-Terphenyl	13.46	13.36	13.56

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516004.D
Lims ID: CCVRT
Client ID:
Sample Type: CCVRT
Inject. Date: 16-May-2016 09:42:36 ALS Bottle#: 54 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012073-004
Operator ID: Instrument ID: CHFID12_R
Sublist: chrom-GCSV - TX1005_1006R*sub1

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 17-May-2016 10:18:38 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: vanderborghr Date: 16-May-2016 10:12:03

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 6 C6-C12	6.236	(3.245-9.228)		35708179	200.0	193.8	
A 20 Over C12-C28	13.134	(9.228-17.047)		36429445	200.0	206.6	
$ 22 o-Terphenyl	13.464	13.464	0.000	3884097	12.5	14.8	
A 37 Over C28-C35	18.872	(17.047-20.714)		37973315	199.9	212.3	

Reagents:

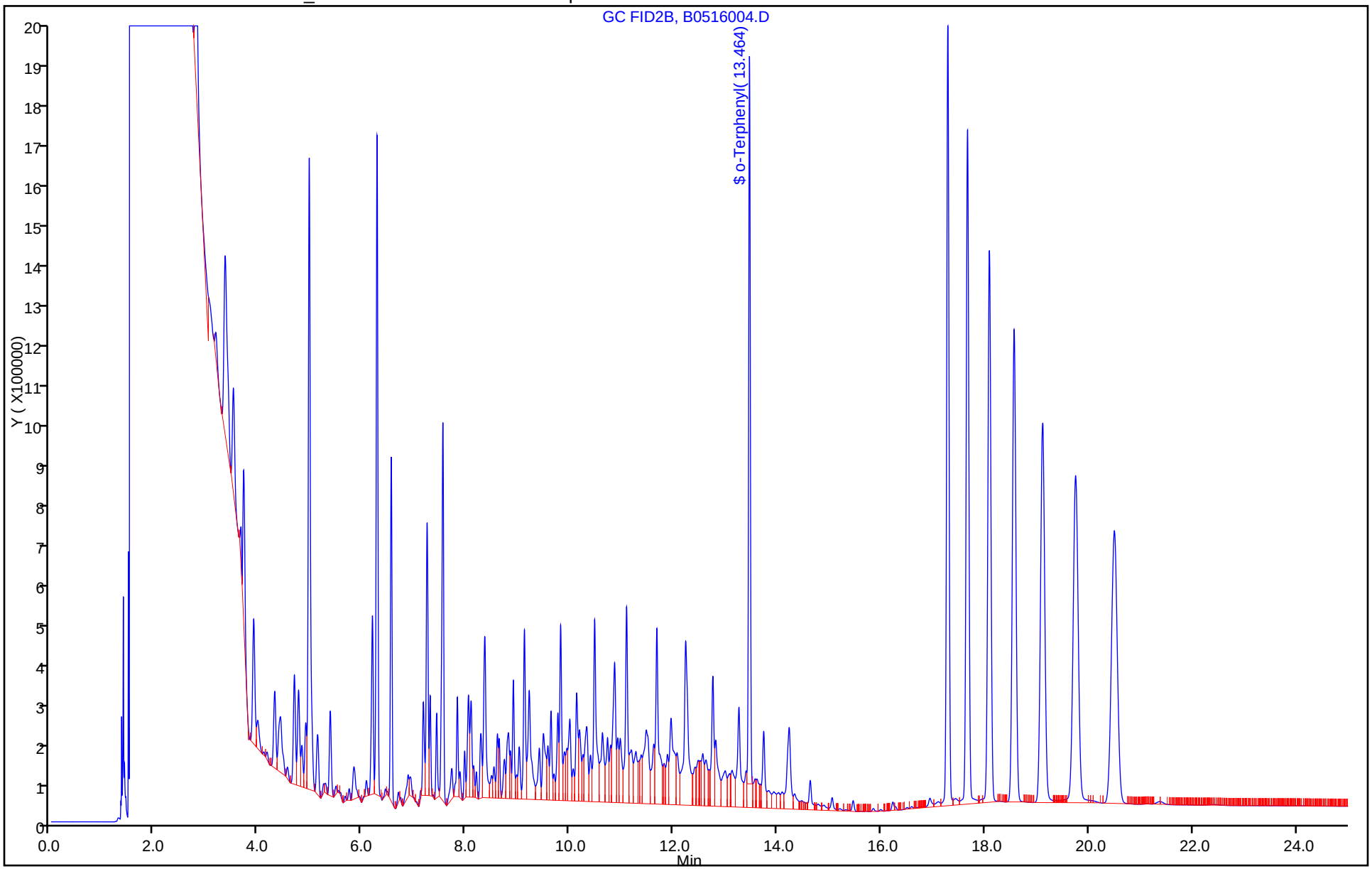
TX1005CCV_00138 Amount Added: 1.00 Units: mL

Report Date: 17-May-2016 10:18:41 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516004.D

Injection Date:	16-May-2016 09:42:36	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	CCVRT			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	54
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		

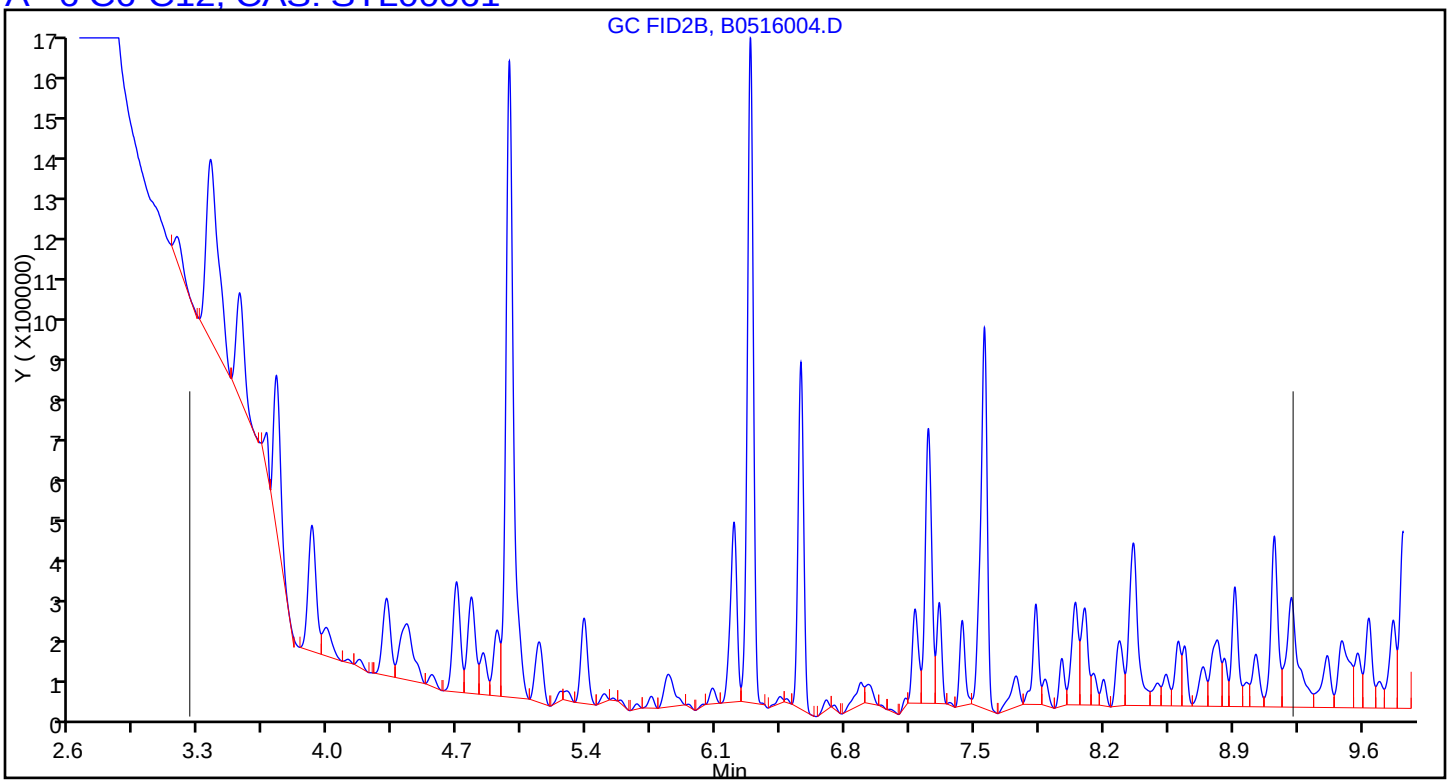


Report Date: 17-May-2016 10:18:42 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516004.D				
Injection Date:	16-May-2016 09:42:36	Instrument ID:	CHFID12_R		
Lims ID:	CCVRT				
Client ID:					
Operator ID:		ALS Bottle#:	54	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 6 C6-C12, CAS: STL00061

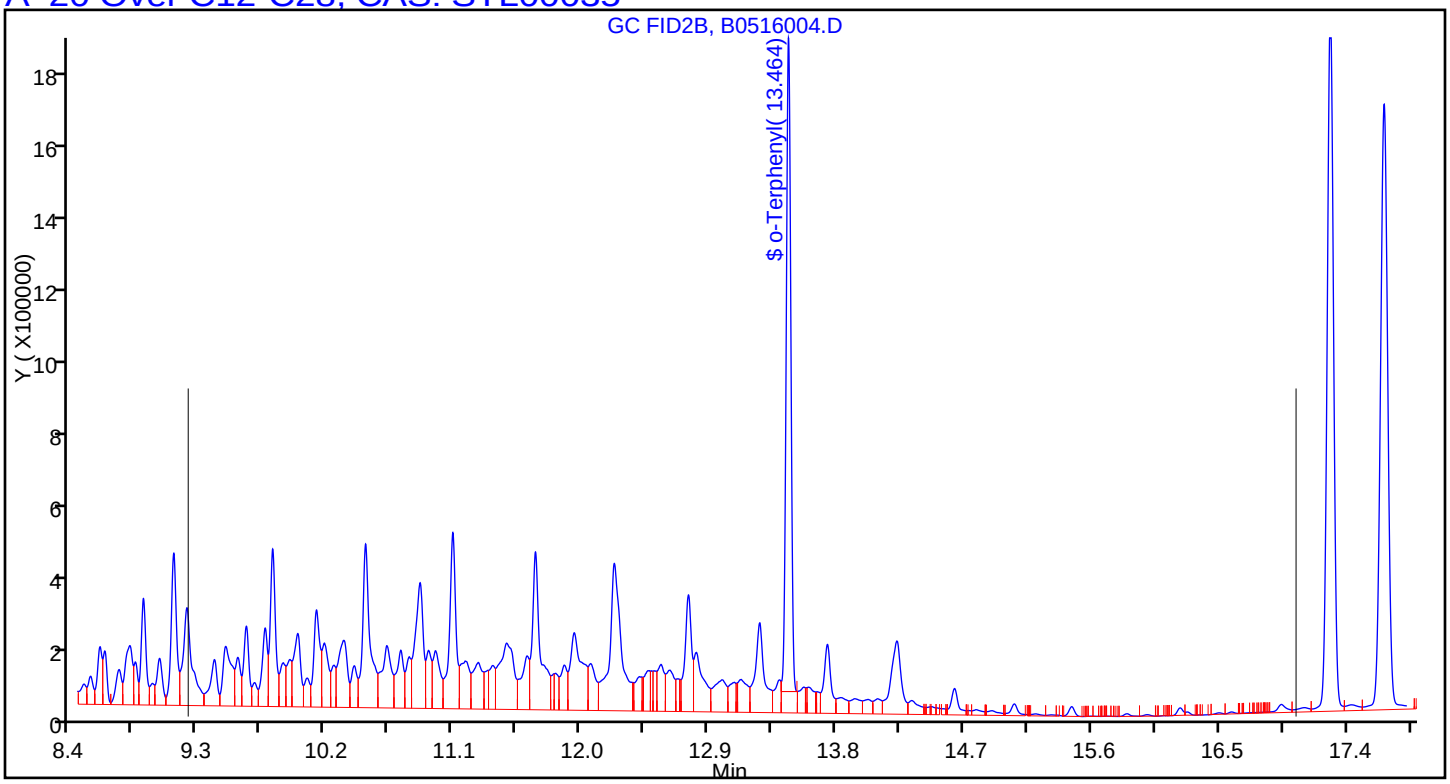


Report Date: 17-May-2016 10:18:42 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516004.D				
Injection Date:	16-May-2016 09:42:36	Instrument ID:	CHFID12_R		
Lims ID:	CCVRT				
Client ID:					
Operator ID:		ALS Bottle#:	54	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035



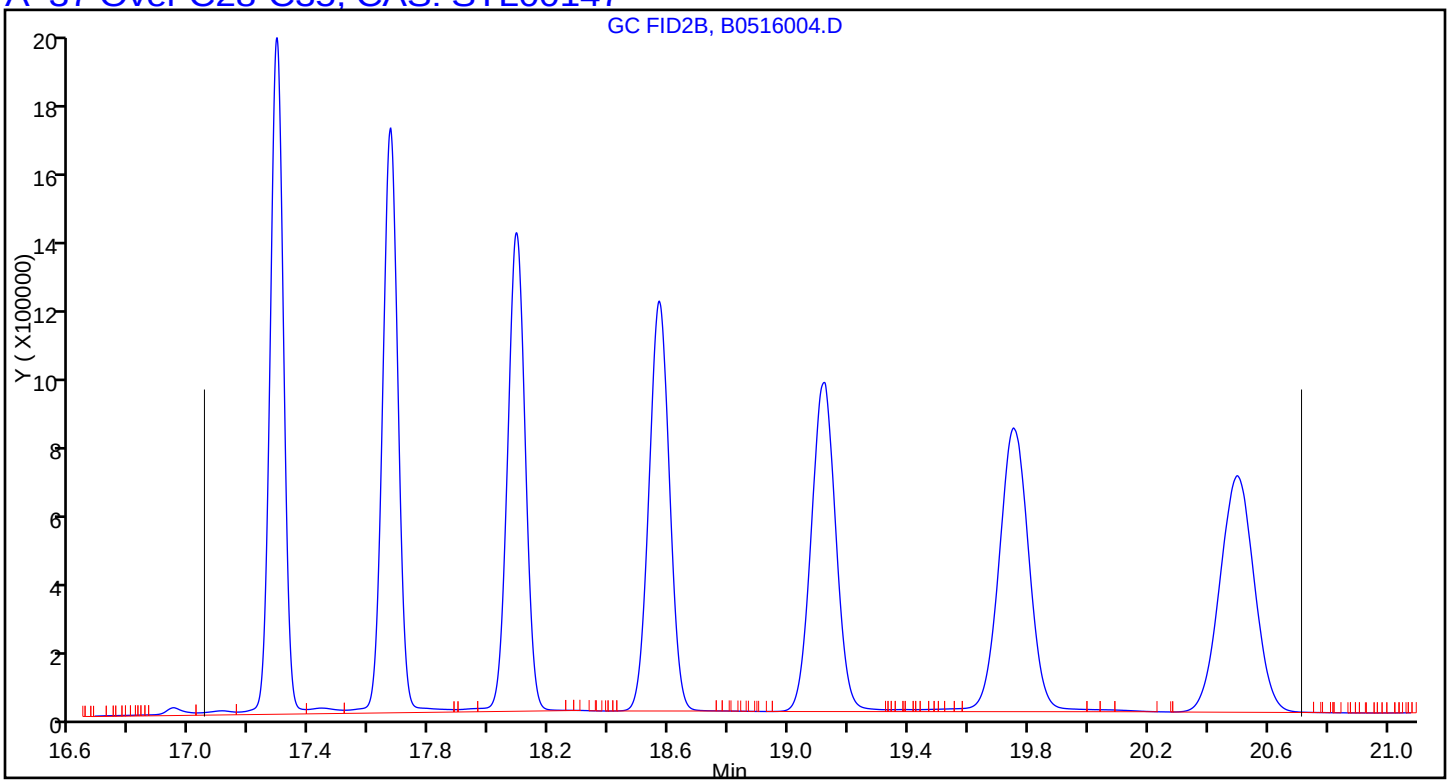
Report Date: 17-May-2016 10:18:42 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516004.D

Injection Date:	16-May-2016 09:42:36	Instrument ID:	CHFID12_R		
Lims ID:	CCVRT				
Client ID:					
Operator ID:		ALS Bottle#:	54	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCV 600-188552/9 Calibration Date: 05/16/2016 13:01

Instrument ID: CHFID12_R Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: B0516009.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C6-C12	Ave	184263	181857		197	200	-1.3	25.0
>C12-C28	Ave	176286	187832		213	200	6.5	25.0
>C28-C35	Ave	178893	185389		207	200	3.6	25.0
o-Terphenyl	Ave	261895	309042		14.8	12.5	18.0	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCV 600-188552/9 Calibration Date: 05/16/2016 13:01

Instrument ID: CHFID12_R Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: B0516009.D

Analyte	RT	RT WINDOW	
		FROM	TO
C6-C12	6.24	3.25	9.23
>C12-C28	13.13	9.23	17.05
>C28-C35	18.87	17.05	20.71
o-Terphenyl	13.47	13.36	13.56

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516009.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2016 13:01:44 ALS Bottle#: 59 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012073-009
Operator ID: Instrument ID: CHFID12_R
Sublist: chrom-GCSV - TX1005_1006R*sub1

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 16-May-2016 13:52:50 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK006

First Level Reviewer: vanderborghr Date: 16-May-2016 13:52:41

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A	6 C6-C12	6.236	(3.245-9.228)		36371393	200.0	197.4	
S	16 C6-C35						617.7	
A	20 Over C12-C28	13.134	(9.228-17.047)		37566439	200.0	213.1	
$	22 o-Terphenyl	13.465	13.464	0.001	3863021	12.5	14.8	
A	37 Over C28-C35	18.872	(17.047-20.714)		37062947	199.9	207.2	

Reagents:

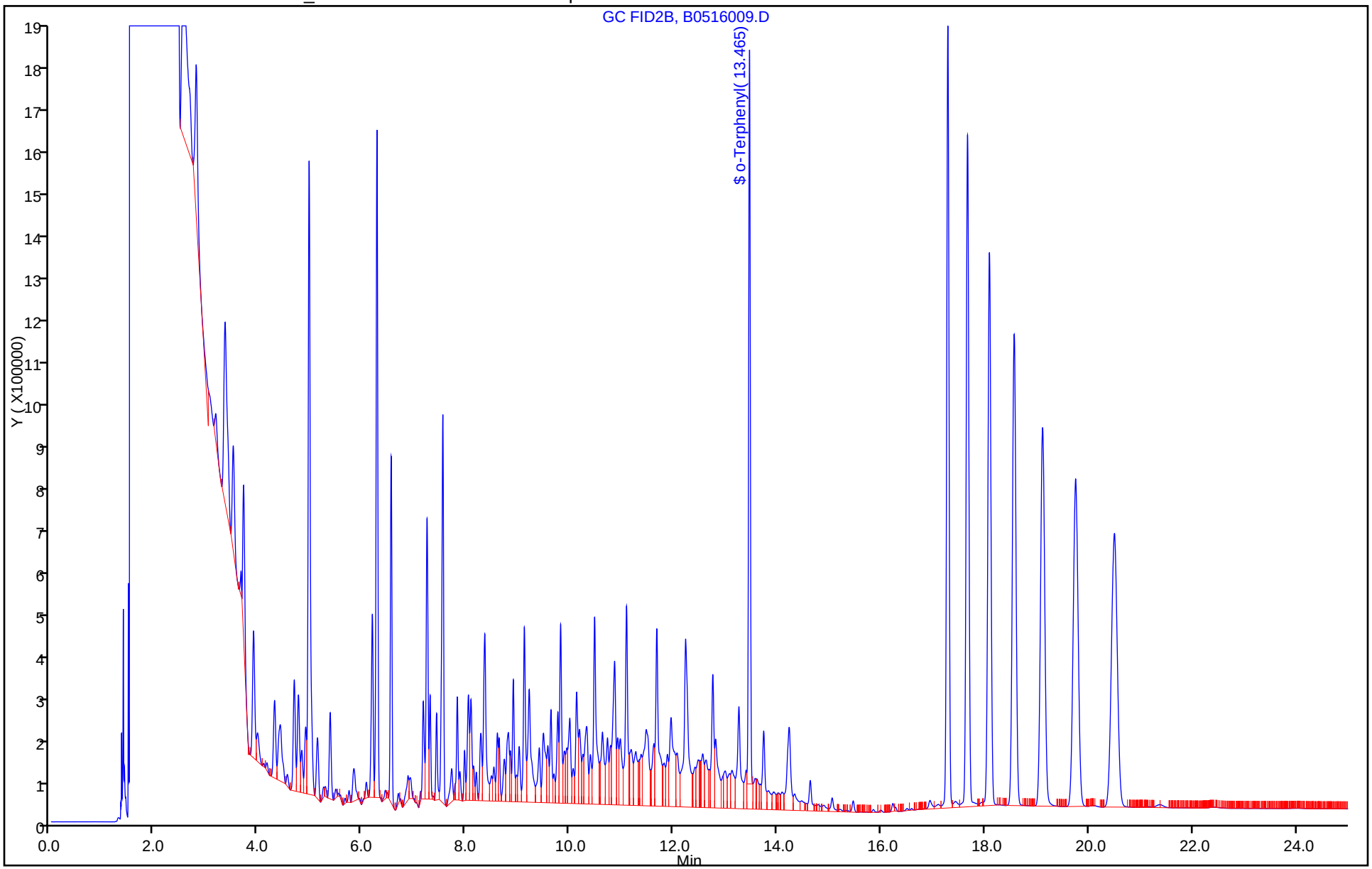
TX1005CCV_00138 Amount Added: 1.00 Units: mL

Report Date: 16-May-2016 13:52:51 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516009.D

Injection Date:	16-May-2016 13:01:44	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	9
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	59
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		



05/26/2016

Report Date: 16-May-2016 13:52:51 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516009.D

Injection Date: 16-May-2016 13:01:44 Instrument ID: CHFID12_R

Lims ID: CCV

Client ID:

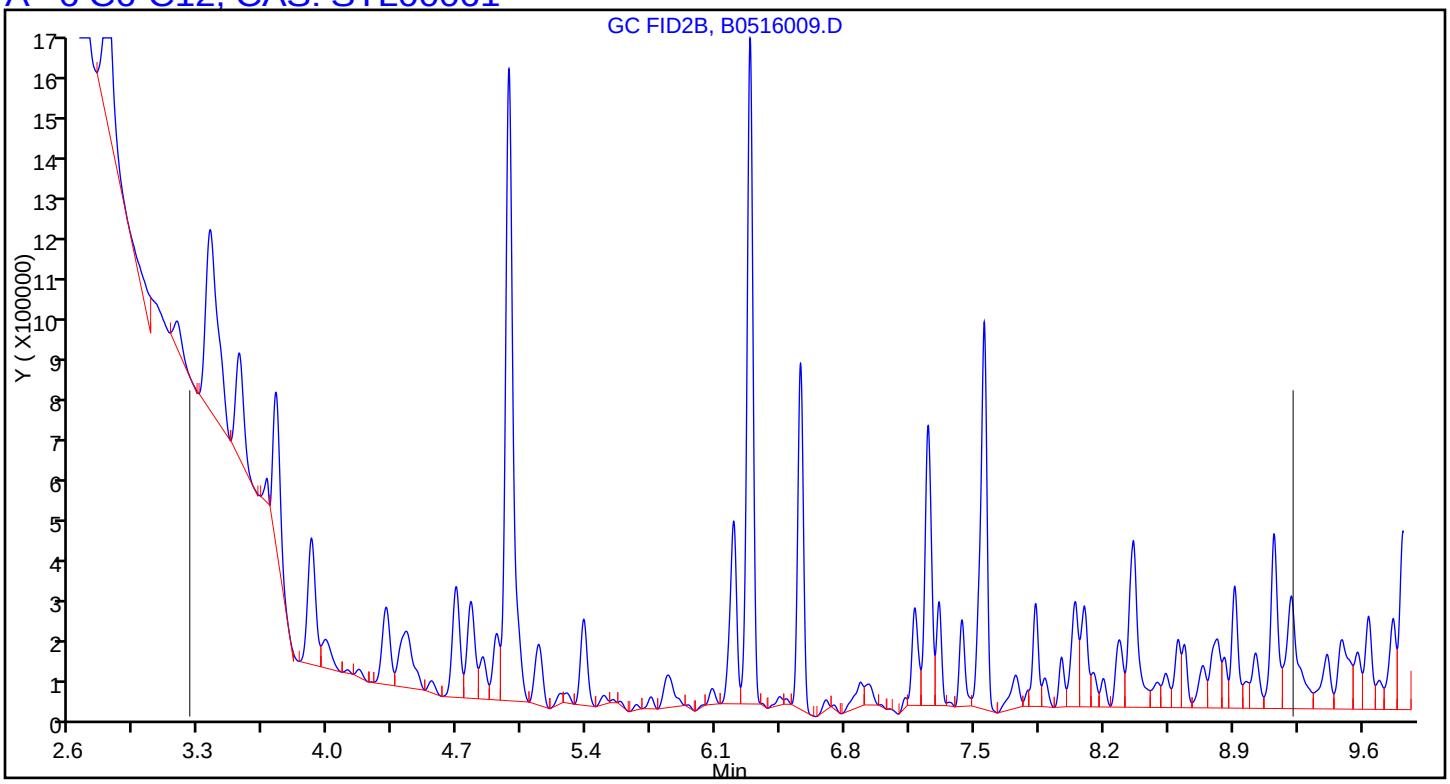
Operator ID: ALS Bottle#: 59 Worklist Smp#: 9

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: GCSV - TX1005_1006R Limit Group: GCSV - TX1005

Column: Detector GC FID1A

A 6 C6-C12, CAS: STL00061

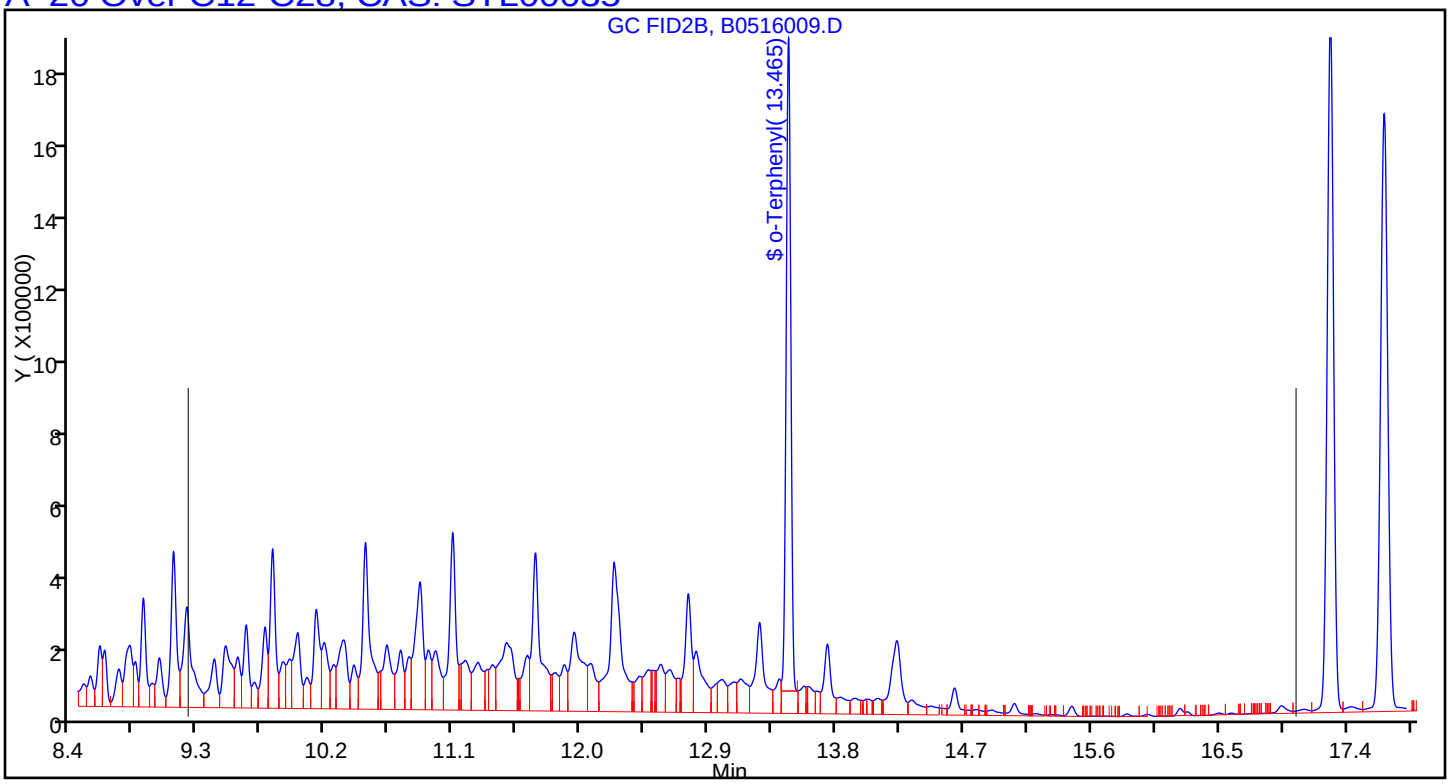


Report Date: 16-May-2016 13:52:51 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516009.D				
Injection Date:	16-May-2016 13:01:44	Instrument ID:	CHFID12_R		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	59	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035

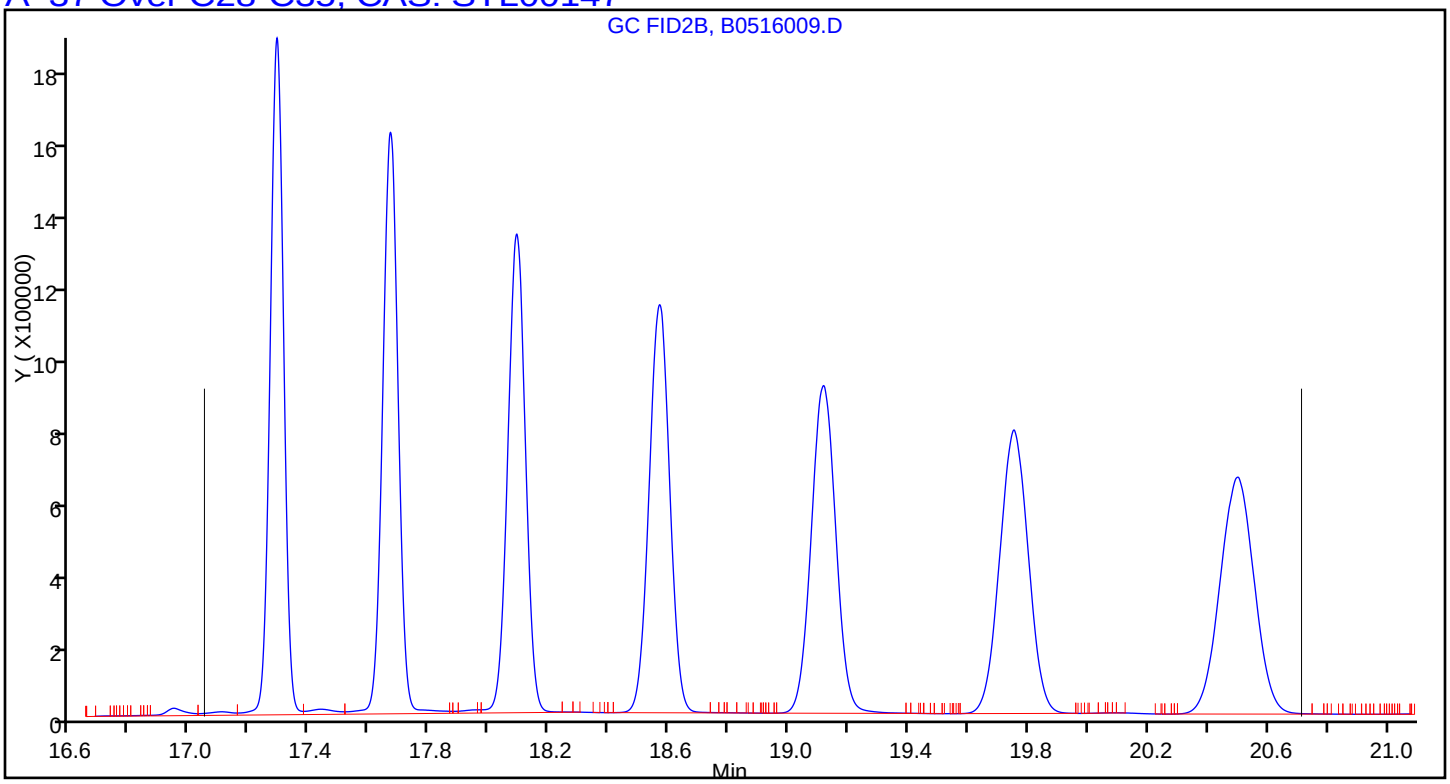


Report Date: 16-May-2016 13:52:51 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516009.D				
Injection Date:	16-May-2016 13:01:44	Instrument ID:	CHFID12_R		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	59	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCV 600-188552/20 Calibration Date: 05/16/2016 21:16

Instrument ID: CHFID12_R Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: B0516020.D Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
C6-C12	Ave	184263	183417		199	200	-0.5	25.0
>C12-C28	Ave	176286	182984		208	200	3.8	25.0
>C28-C35	Ave	178893	168279		188	200	-5.9	25.0
o-Terphenyl	Ave	261895	280256		13.4	12.5	7.0	30.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: CCV 600-188552/20 Calibration Date: 05/16/2016 21:16

Instrument ID: CHFID12_R Calib Start Date: 05/12/2016 10:32

GC Column: RTX-5 ID: 0.53(mm) Calib End Date: 05/12/2016 13:49

Lab File ID: B0516020.D

Analyte	RT	RT WINDOW	
		FROM	TO
C6-C12	6.24	3.25	9.23
>C12-C28	13.14	9.23	17.05
>C28-C35	18.88	17.05	20.71
o-Terphenyl	13.47	13.36	13.56

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516020.D
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 16-May-2016 21:16:24 ALS Bottle#: 70 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012073-020
Operator ID: Instrument ID: CHFID12_R
Sublist: chrom-GCSV - TX1005_1006R*sub1

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 17-May-2016 10:24:01 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: somjitp Date: 17-May-2016 10:24:01

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 6 C6-C12	6.237	(3.245-9.228)		36683341	200.0	199.1	
S 16 C6-C35						594.7	
A 20 Over C12-C28	13.137	(9.228-17.047)		36596788	200.0	207.6	
$ 22 o-Terphenyl	13.465	13.464	0.001	3503205	12.5	13.4	
A 37 Over C28-C35	18.880	(17.047-20.714)		33642316	199.9	188.1	

Reagents:

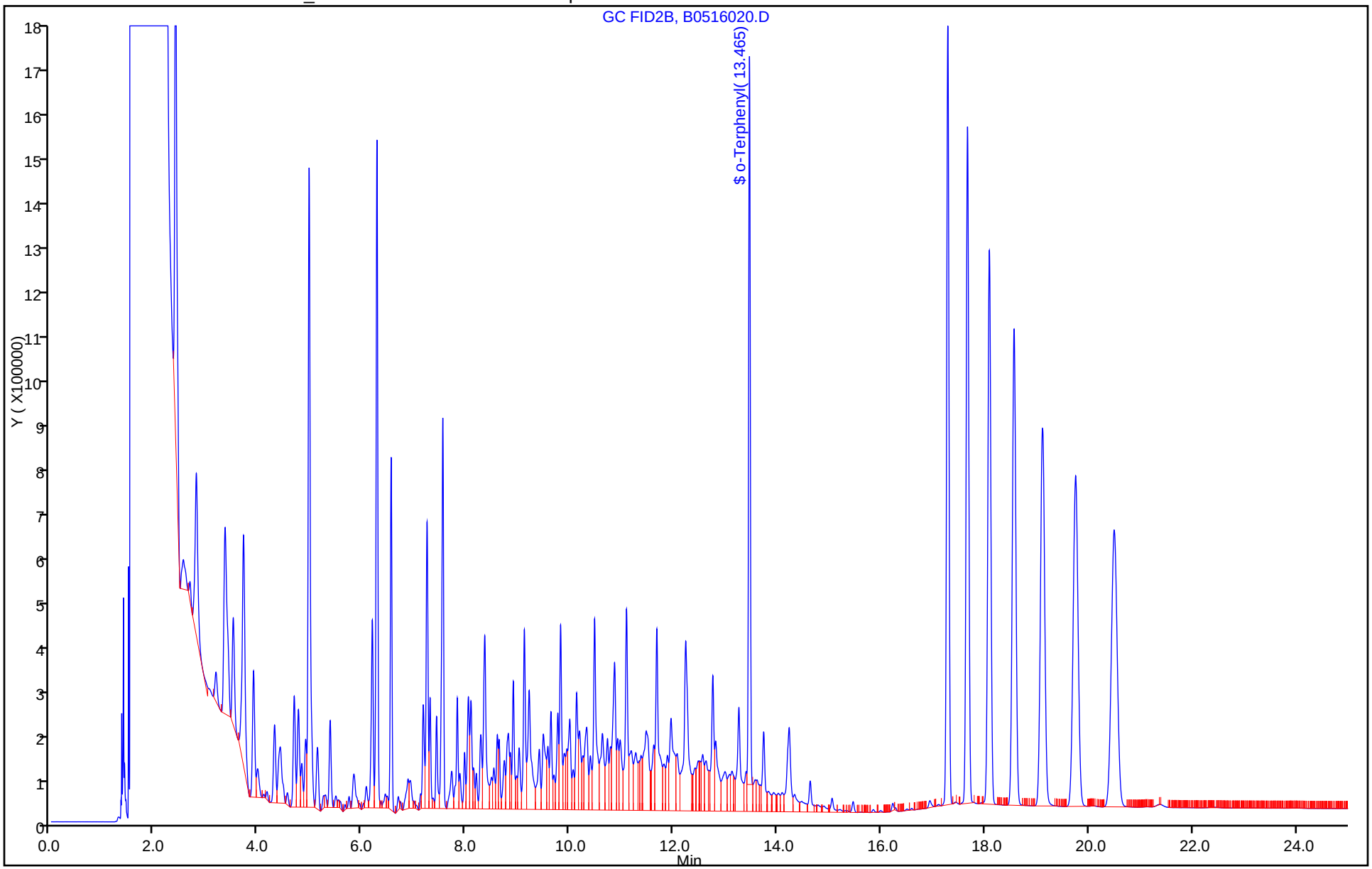
TX1005CCV_00138 Amount Added: 1.00 Units: mL

Report Date: 17-May-2016 10:24:02 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516020.D

Injection Date:	16-May-2016 21:16:24	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	CCV			Worklist Smp#:	20
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	70
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		

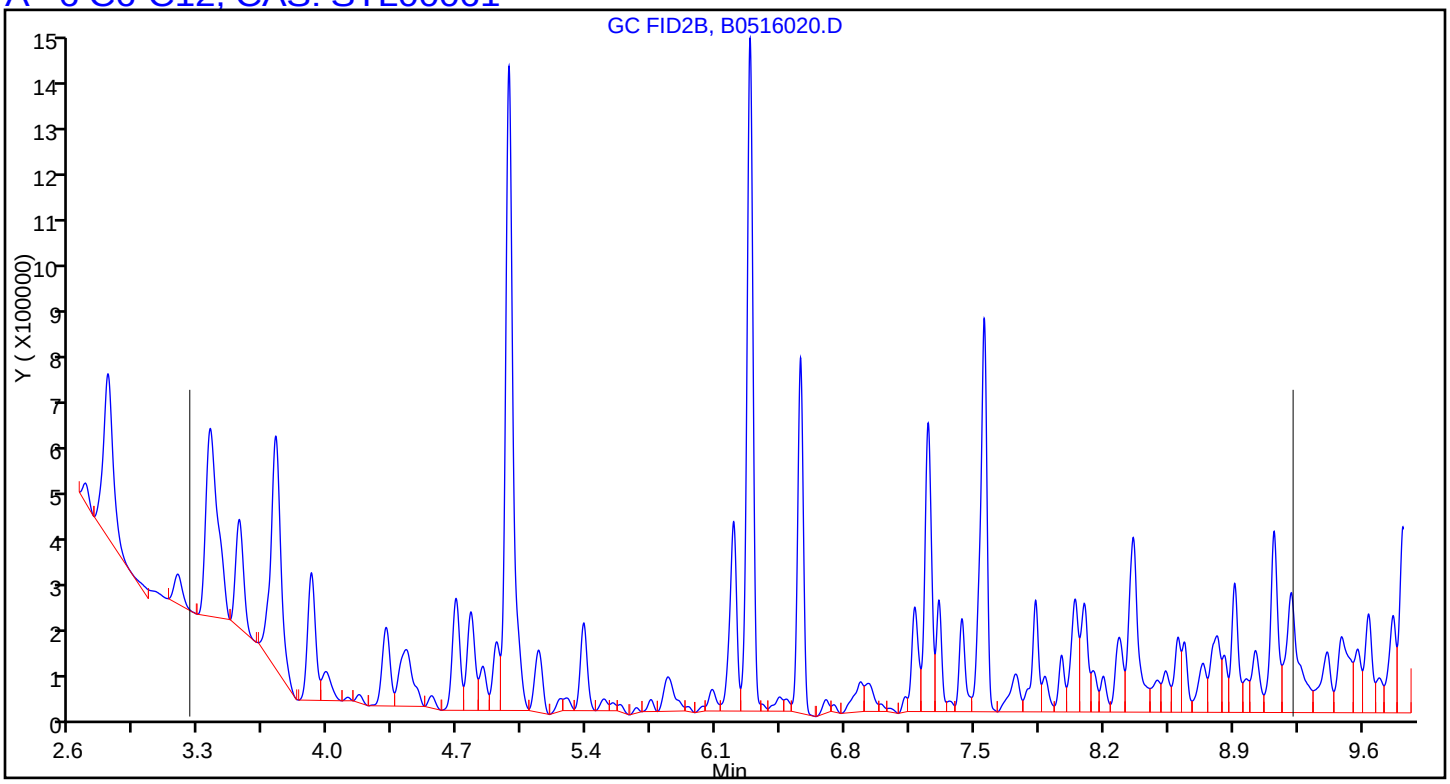


Report Date: 17-May-2016 10:24:02 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516020.D				
Injection Date:	16-May-2016 21:16:24	Instrument ID:	CHFID12_R		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	70	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 6 C6-C12, CAS: STL00061

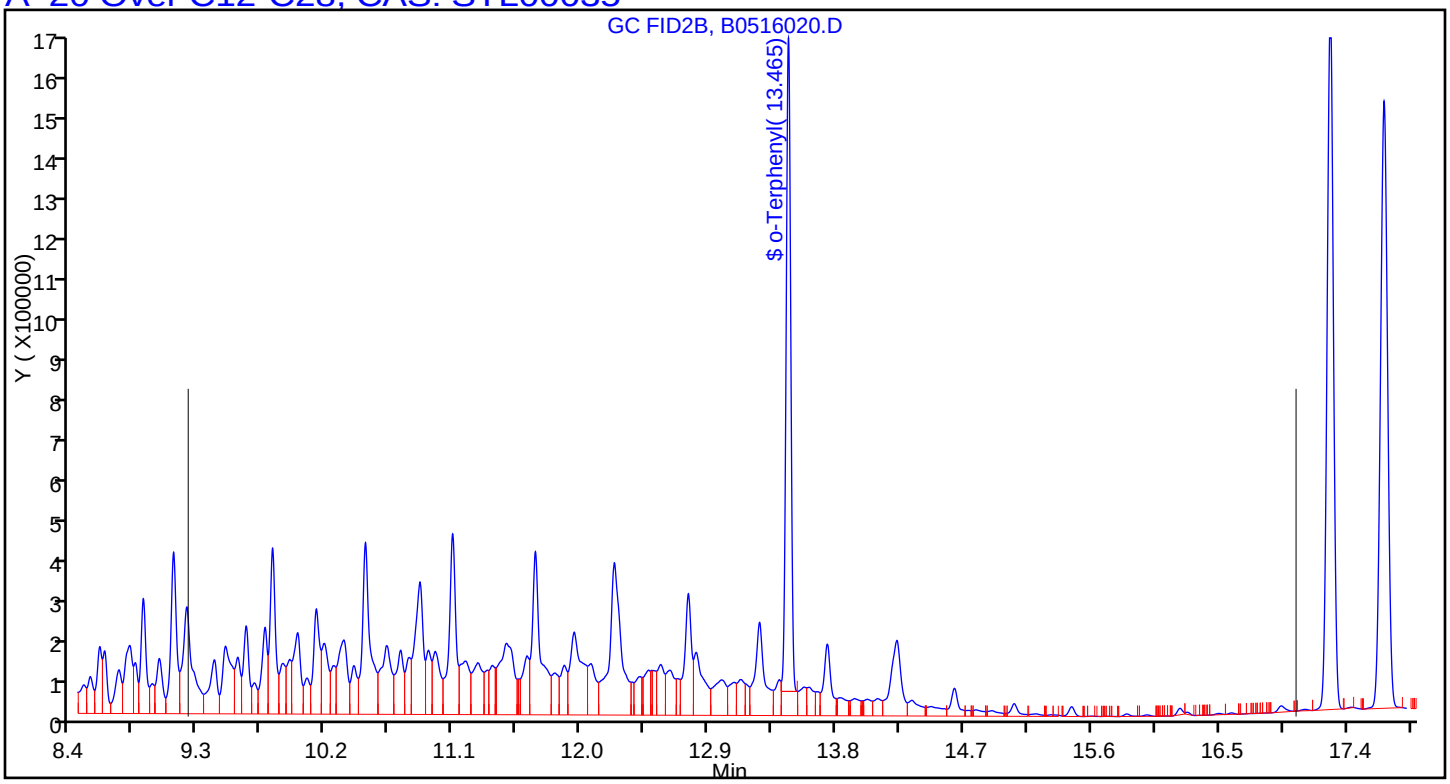


Report Date: 17-May-2016 10:24:02 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516020.D				
Injection Date:	16-May-2016 21:16:24	Instrument ID:	CHFID12_R		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	70	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035

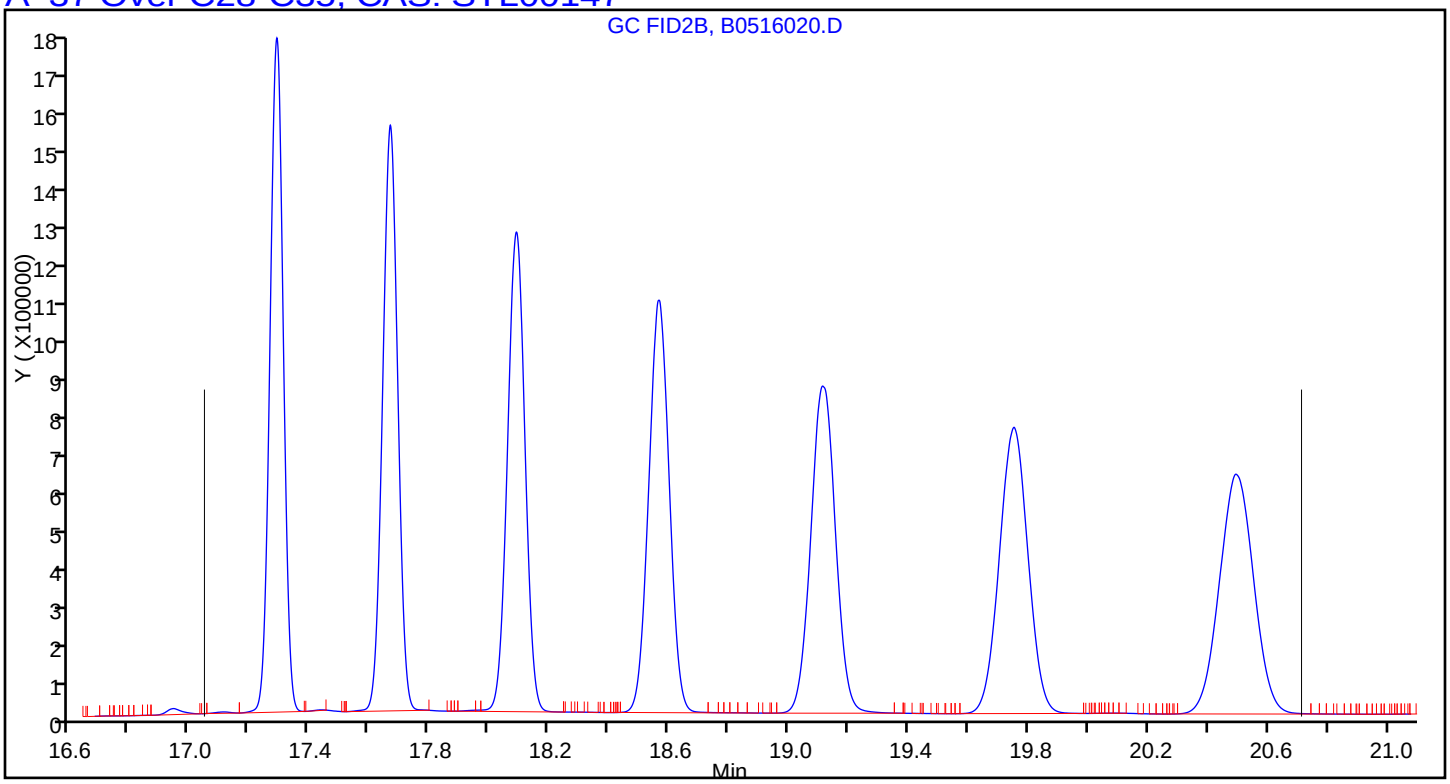


Report Date: 17-May-2016 10:24:02 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516020.D				
Injection Date:	16-May-2016 21:16:24	Instrument ID:	CHFID12_R		
Lims ID:	CCV				
Client ID:					
Operator ID:		ALS Bottle#:	70	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_37 Over C28-C35, CAS: STL00147



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 600-188433/1-B

Matrix: Solid | Lab File ID: F0513003.D

Analysis Method: TX 1005 | Date Collected:

Extraction Method: TX_1005_S_Prep | Date Extracted: 05/12/2016 15:15

Sample wt/vol: 10.00(g) | Date Analyzed: 05/13/2016 09:07

Con. Extract Vol.: 10.00(g) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188457 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	3.80	U	10.0	3.80
STL00035	>C12-C28	4.06	U	10.0	4.06
STL00147	>C28-C35	4.06	U	10.0	4.06
STL00006	Total Petroleum Hydrocarbons (C6-C35)	3.80	U	10.0	3.80

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	142	X	70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513003.D
Lims ID: MB 600-188433/1-B
Client ID:
Sample Type: MB
Inject. Date: 13-May-2016 09:07:12 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012052-003
Operator ID: Instrument ID: CHFID12

Method: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 16-May-2016 09:18:11 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK025

First Level Reviewer: somjitp Date: 16-May-2016 09:18:31

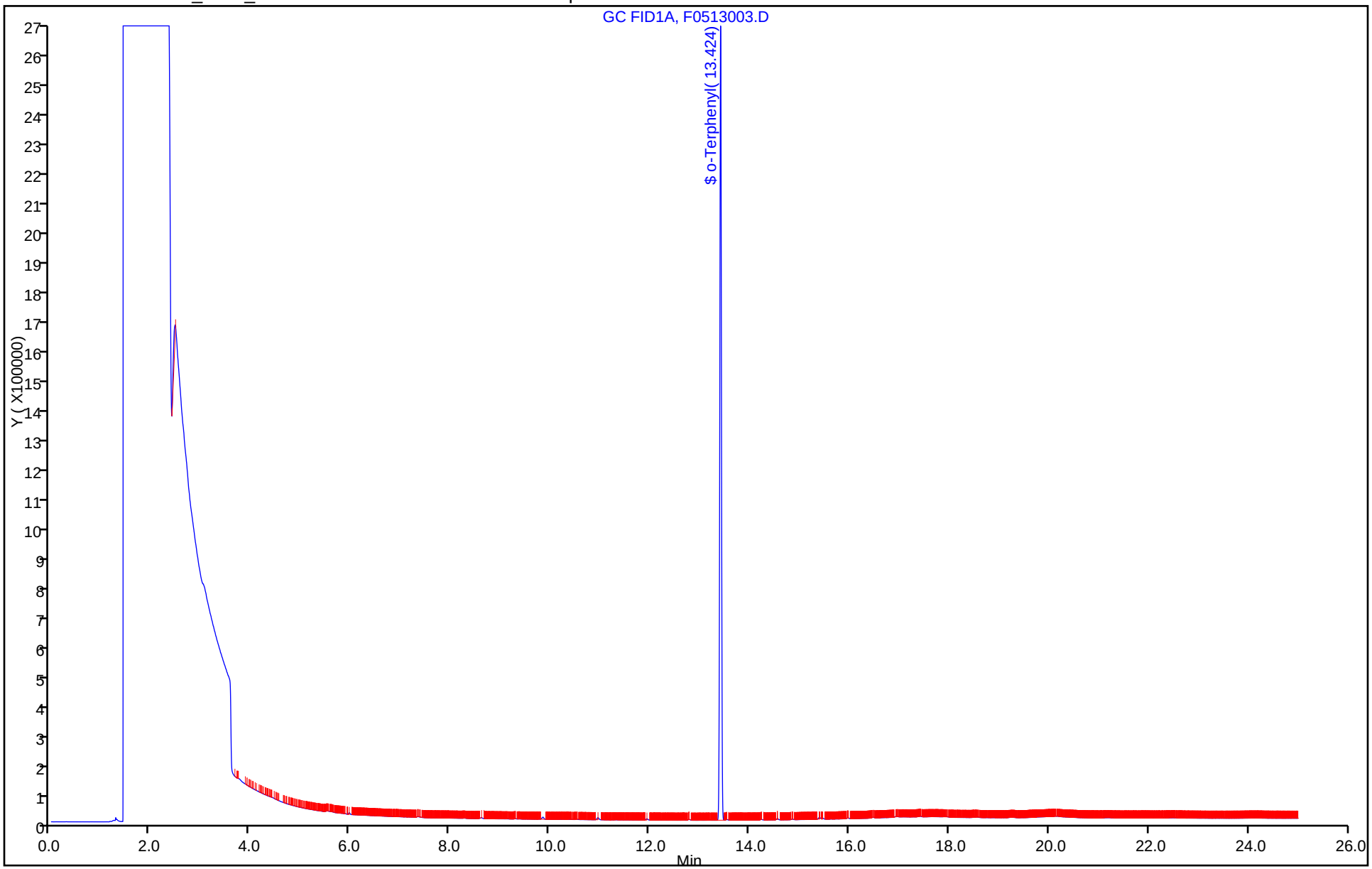
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 3 Over C6-C8 aliphatics	4.499	(3.617-5.380)		7164		0.0377	
A 6 Over C8-C10 aliphatics	6.469	(5.380-7.558)		10584		0.0557	
A 10 Over C10-C12 aliphatics	8.363	(7.558-9.169)		3549		0.0187	
A 13 Over C12-C16 aliphatics	10.382	(9.095-11.670)		31620		7.11	
A 19 Over C16-C21 aliphatics	13.003	(11.740-14.266)		9873		7.01	
$ 22 o-Terphenyl	13.424	13.426	-0.002	5945375	12.5	17.8	
A 33 Over C21-C35 aliphatics	17.454	(14.266-20.641)		72232		0.2813	
S 42 Over C6-C35 aliphatics						14.5	

Report Date: 16-May-2016 09:18:34 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513003.D

Injection Date:	13-May-2016 09:07:12	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	MB 600-188433/1-B			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 600-188603/1-A

Matrix: Water | Lab File ID: B0516010.D

Analysis Method: TX 1005 | Date Collected:

Extraction Method: TX_1005_W_Prep | Date Extracted: 05/16/2016 14:59

Sample wt/vol: 30.00(mL) | Date Analyzed: 05/16/2016 15:54

Con. Extract Vol.: 3.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188552 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	0.830	U	2.00	0.830
STL00035	>C12-C28	0.960	U	2.00	0.960
STL00147	>C28-C35	0.960	U	2.00	0.960
STL00006	Total Petroleum Hydrocarbons (C6-C35)	0.830	U	2.00	0.830

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	114		70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516010.D
Lims ID: MB 600-188603/1-A
Client ID:
Sample Type: MB
Inject. Date: 16-May-2016 15:54:55 ALS Bottle#: 60 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012073-010
Operator ID: Instrument ID: CHFID12_R

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 17-May-2016 10:20:06 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: somjitp Date: 17-May-2016 10:20:06

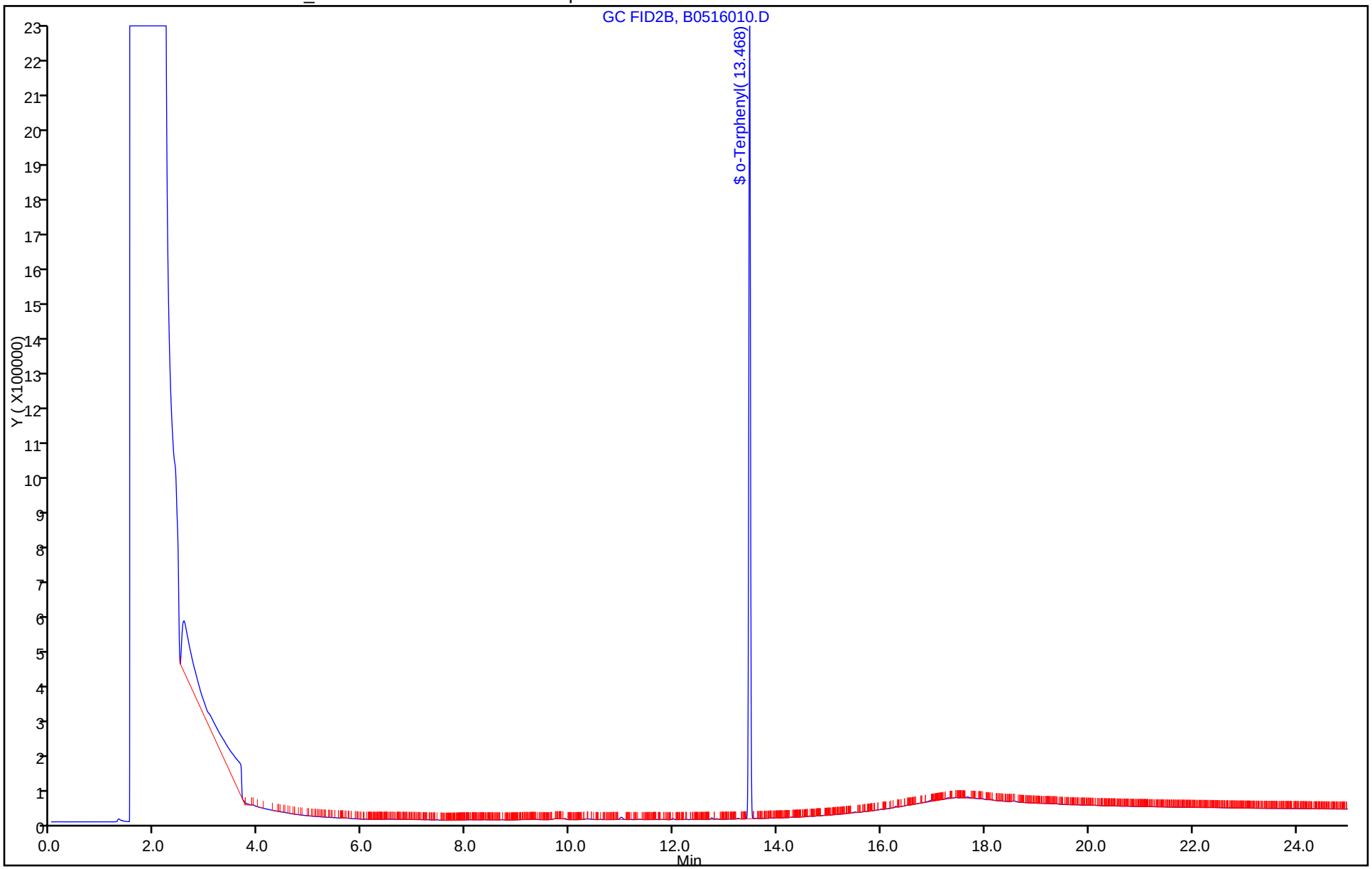
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 4 Over C7-C8 aromatics	4.740	(4.002-5.479)		4385		0.0238	
A 7 Over C8-C10 aromatics	6.554	(5.479-7.630)		5809		0.0315	
A 11 Over C10-C12 aromatics	8.429	(7.630-9.228)		4021		0.0218	
A 1 Over C12-C16 aromatics	10.506	(9.228-11.783)		39913		0.2264	
A 19 Over C16-C21 aromatics	13.041	(11.783-14.299)		30863		0.1751	
$ 22 o-Terphenyl	13.468	13.464	0.004	4975985	16.7	19.0	
A 32 Over C21-C35 aromatics	17.457	(14.299-20.614)		141896		0.7932	
S 42 C6-C35 Summary						1.27	

Report Date: 17-May-2016 10:20:07 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516010.D

Injection Date:	16-May-2016 15:54:55	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	MB 600-188603/1-A			Worklist Smp#:	10
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	60
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 600-188433/2-B

Matrix: Solid | Lab File ID: F0513004.D

Analysis Method: TX 1005 | Date Collected:

Extraction Method: TX_1005_S_Prep | Date Extracted: 05/12/2016 15:15

Sample wt/vol: 10.00(g) | Date Analyzed: 05/13/2016 09:39

Con. Extract Vol.: 10.00(g) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188457 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	272.6		10.0	3.80
STL00035	>C12-C28	267.3		10.0	4.06
STL00147	>C28-C35	4.06	U	10.0	4.06
STL00006	Total Petroleum Hydrocarbons (C6-C35)	539.9		10.0	3.80

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	135	X	70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513004.D
Lims ID: LCS 600-188433/2-B
Client ID:
Sample Type: LCS
Inject. Date: 13-May-2016 09:39:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012052-004
Operator ID: Instrument ID: CHFID12

Method: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 16-May-2016 09:19:00 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK025

First Level Reviewer: somjitp Date: 16-May-2016 09:19:00

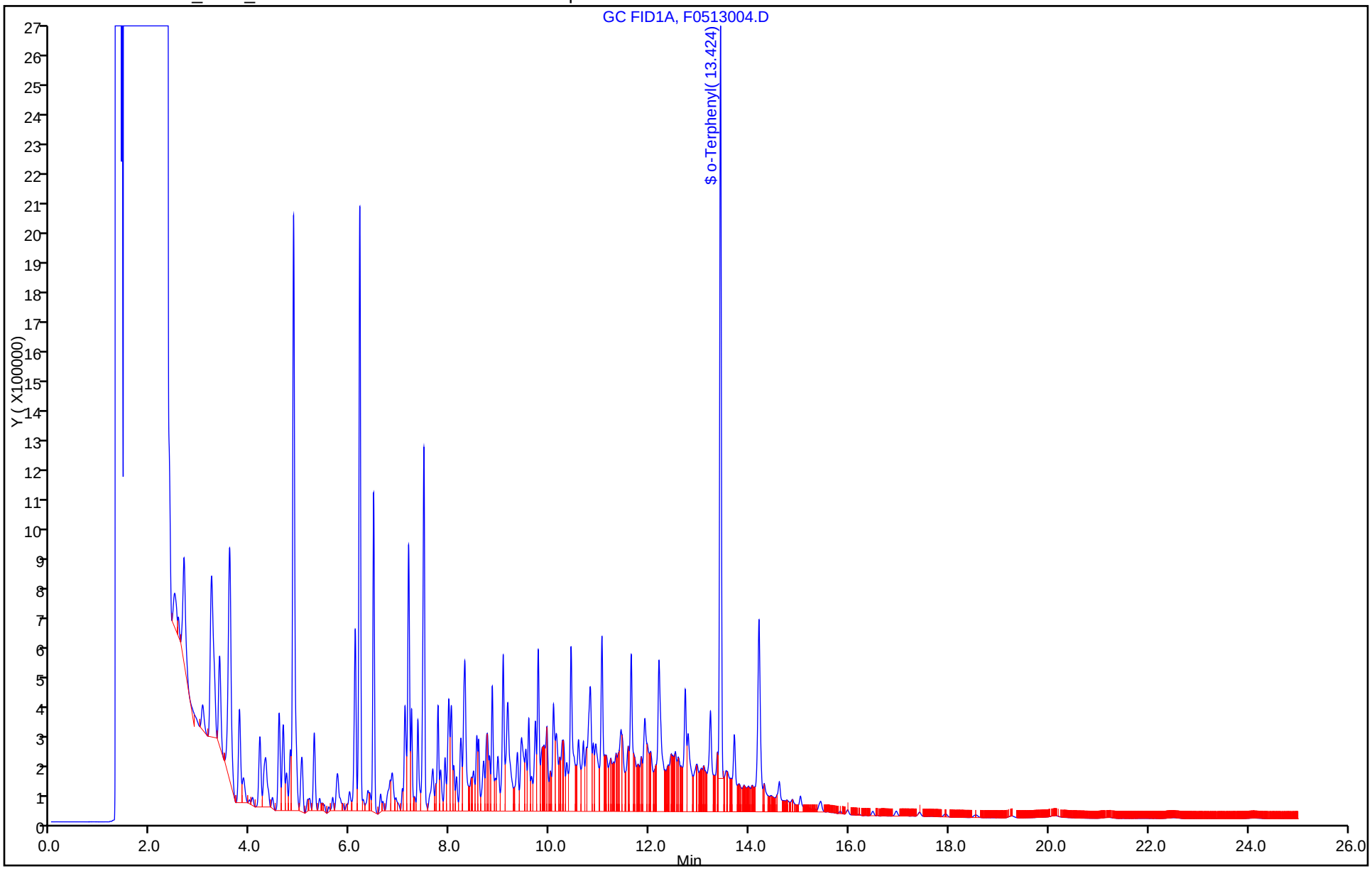
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 5 C6-C12	6.293	(3.417-9.169)		51788314	250.0	272.6	
S 16 C6-C35					500.0	539.9	
A 20 Over C12-C28	13.095	(9.169-17.022)		59140268	250.0	267.3	
$ 22 o-Terphenyl	13.424	13.426	-0.002	5636843	12.5	16.9	

Report Date: 16-May-2016 09:19:02 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513004.D

Injection Date:	13-May-2016 09:39:30	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	LCS 600-188433/2-B			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		



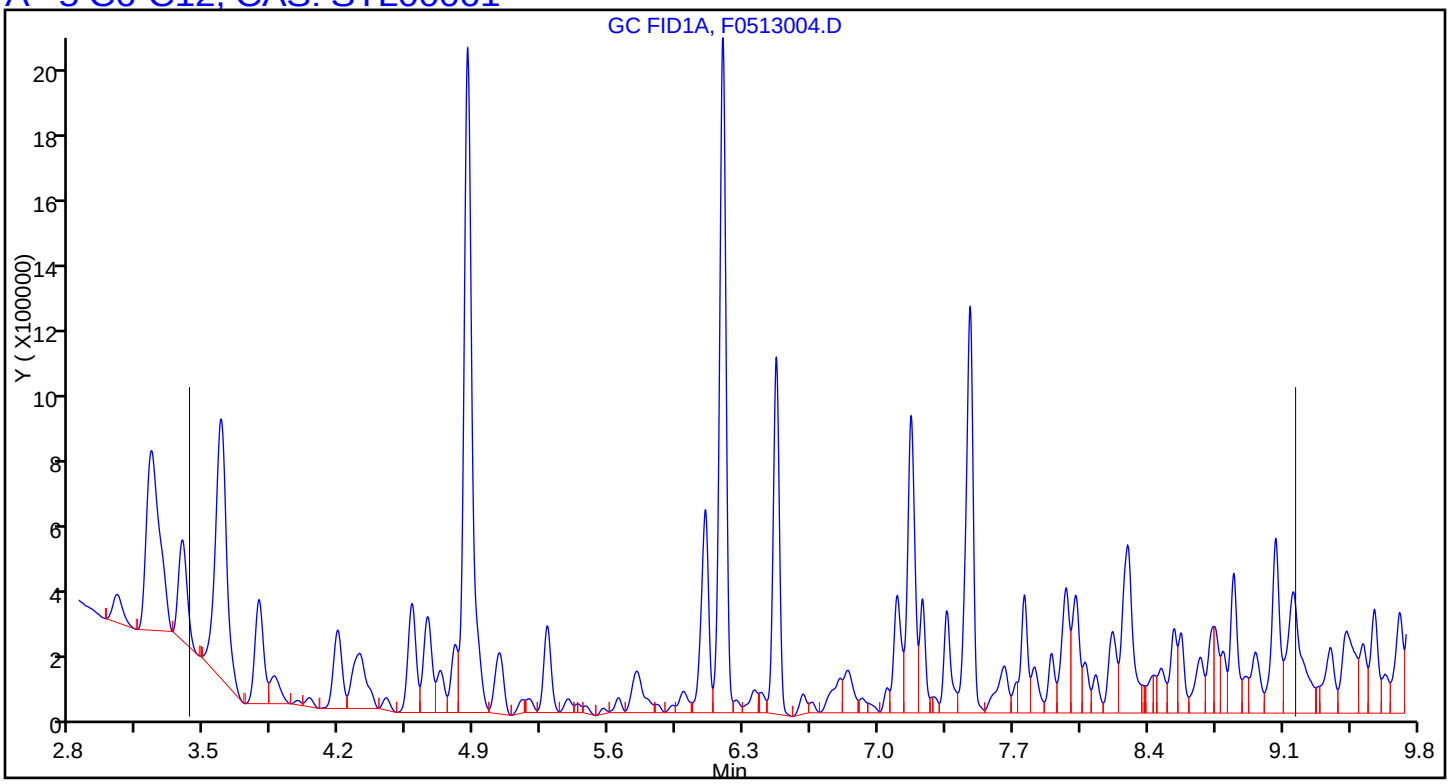
Report Date: 16-May-2016 09:19:03 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513004.D

Injection Date:	13-May-2016 09:39:30	Instrument ID:	CHFID12		
Lims ID:	LCS 600-188433/2-B				
Client ID:					
Operator ID:		ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061

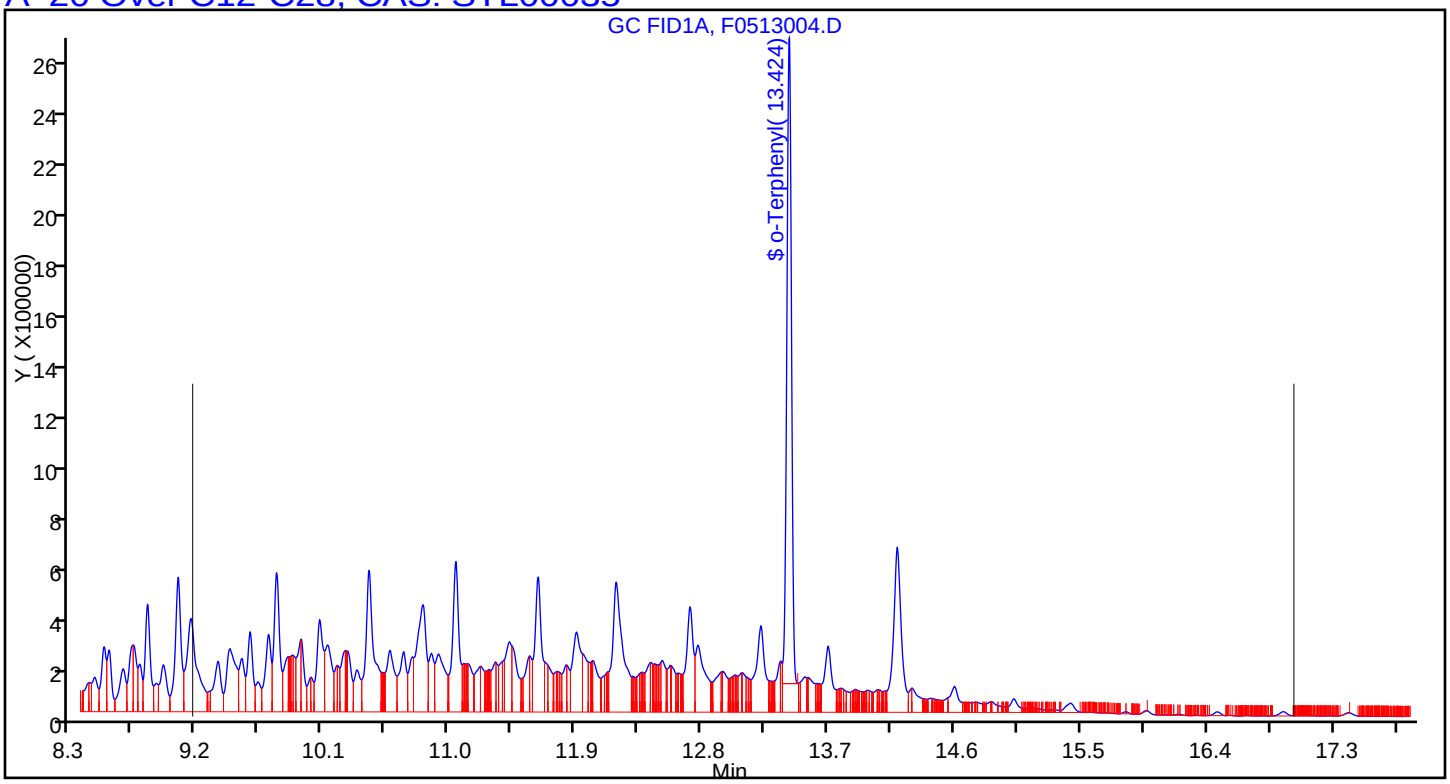


Report Date: 16-May-2016 09:19:03 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513004.D				
Injection Date:	13-May-2016 09:39:30	Instrument ID:	CHFID12		
Lims ID:	LCS 600-188433/2-B				
Client ID:					
Operator ID:		ALS Bottle#:	4	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_20 Over C12-C28, CAS: STL00035



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 600-188603/2-A

Matrix: Water | Lab File ID: B0516011.D

Analysis Method: TX 1005 | Date Collected:

Extraction Method: TX_1005_W_Prep | Date Extracted: 05/16/2016 14:59

Sample wt/vol: 30.00(mL) | Date Analyzed: 05/16/2016 16:26

Con. Extract Vol.: 3.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188552 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	33.49		2.00	0.830
STL00035	>C12-C28	33.15		2.00	0.960
STL00147	>C28-C35	0.960	U	2.00	0.960
STL00006	Total Petroleum Hydrocarbons (C6-C35)	66.64		2.00	0.830

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	123		70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516011.D
Lims ID: LCS 600-188603/2-A
Client ID:
Sample Type: LCS
Inject. Date: 16-May-2016 16:26:47 ALS Bottle#: 61 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012073-011
Operator ID: Instrument ID: CHFID12_R

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 17-May-2016 10:20:58 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: somjitp Date: 17-May-2016 10:20:58

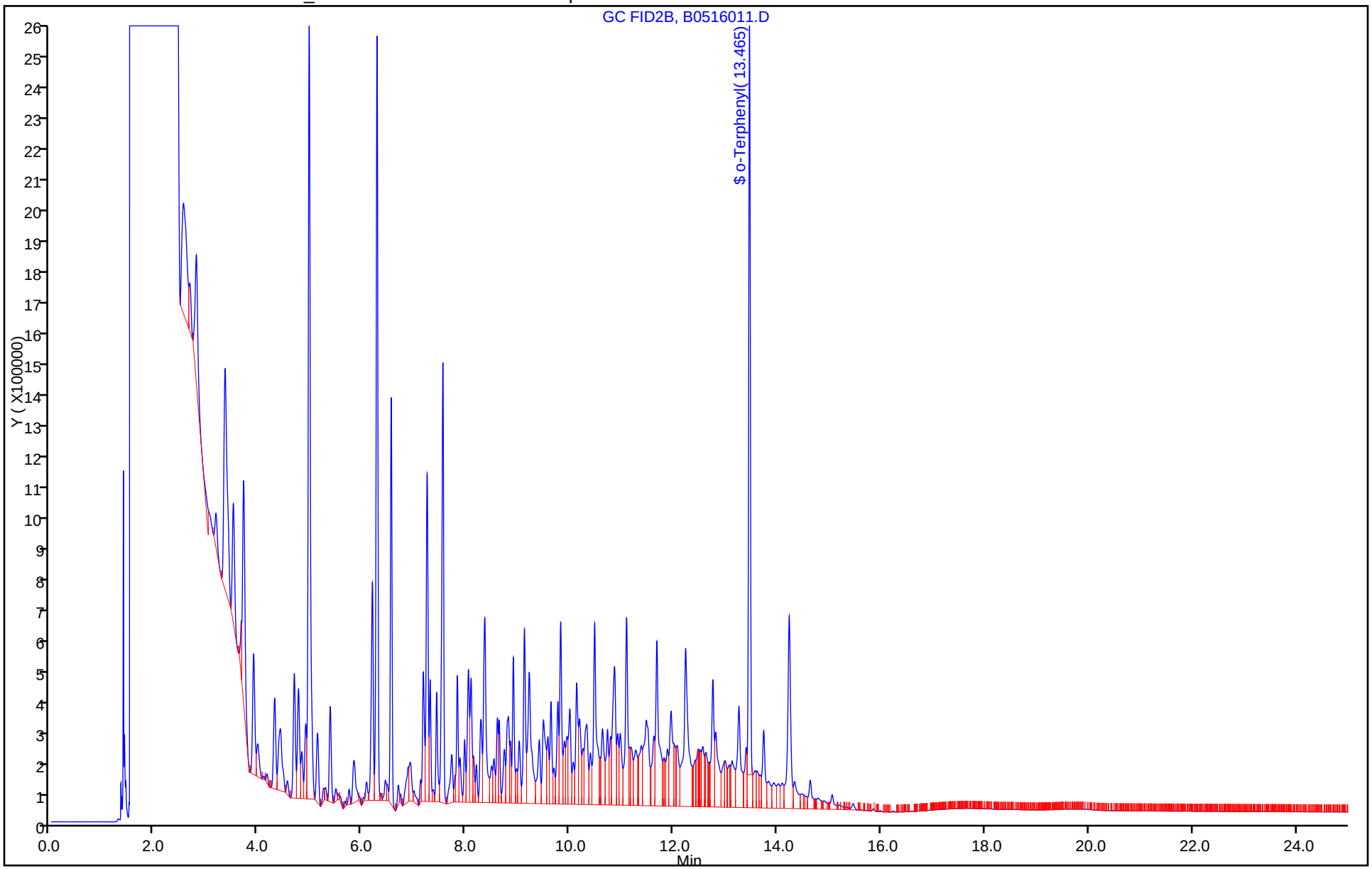
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 6 C6-C12	6.237	(3.245-9.228)		61715074	333.3	334.9	
S 16 C6-C35					666.7	666.5	
A 20 Over C12-C28	13.137	(9.228-17.047)		58446596	333.3	331.5	
$ 22 o-Terphenyl	13.465	13.464	0.001	5380716	16.7	20.5	

Report Date: 17-May-2016 10:20:59 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516011.D

Injection Date:	16-May-2016 16:26:47	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	LCS 600-188603/2-A			Worklist Smp#:	11
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	61
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		

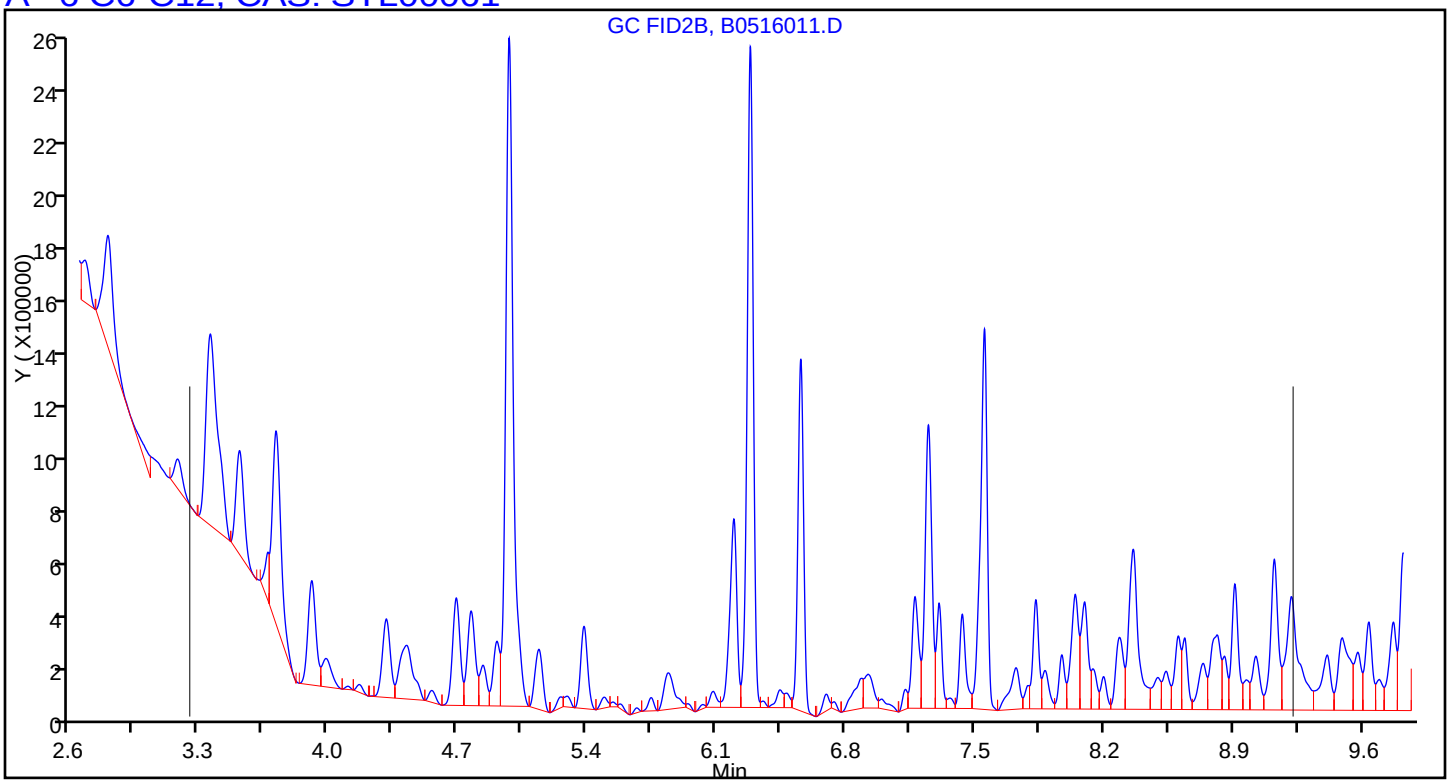


Report Date: 17-May-2016 10:20:59 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516011.D				
Injection Date:	16-May-2016 16:26:47	Instrument ID:	CHFID12_R		
Lims ID:	LCS 600-188603/2-A				
Client ID:					
Operator ID:		ALS Bottle#:	61	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 6 C6-C12, CAS: STL00061

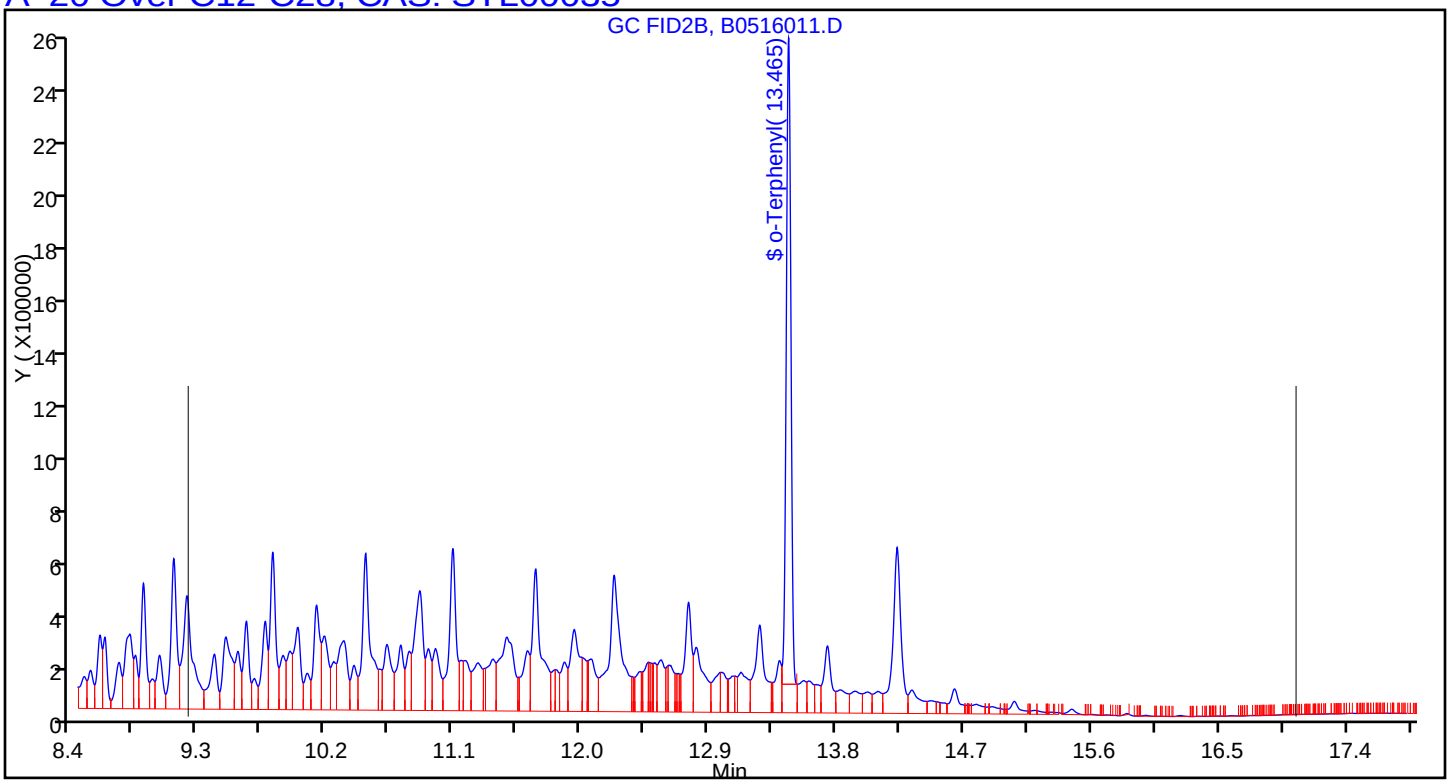


Report Date: 17-May-2016 10:20:59 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516011.D				
Injection Date:	16-May-2016 16:26:47	Instrument ID:	CHFID12_R		
Lims ID:	LCS 600-188603/2-A				
Client ID:					
Operator ID:		ALS Bottle#:	61	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_20 Over C12-C28, CAS: STL00035



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 600-188433/3-B

Matrix: Solid | Lab File ID: F0513005.D

Analysis Method: TX 1005 | Date Collected:

Extraction Method: TX_1005_S_Prep | Date Extracted: 05/12/2016 15:15

Sample wt/vol: 10.00(g) | Date Analyzed: 05/13/2016 10:11

Con. Extract Vol.: 10.00(g) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188457 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	280.0		10.0	3.80
STL00035	>C12-C28	280.3		10.0	4.06
STL00147	>C28-C35	4.06	U	10.0	4.06
STL00006	Total Petroleum Hydrocarbons (C6-C35)	560.3		10.0	3.80

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	132	X	70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513005.D
Lims ID: LCSD 600-188433/3-B
Client ID:
Sample Type: LCSD
Inject. Date: 13-May-2016 10:11:35 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012052-005
Operator ID: Instrument ID: CHFID12

Method: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 16-May-2016 09:19:49 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK025

First Level Reviewer: somjitp Date: 16-May-2016 09:19:49

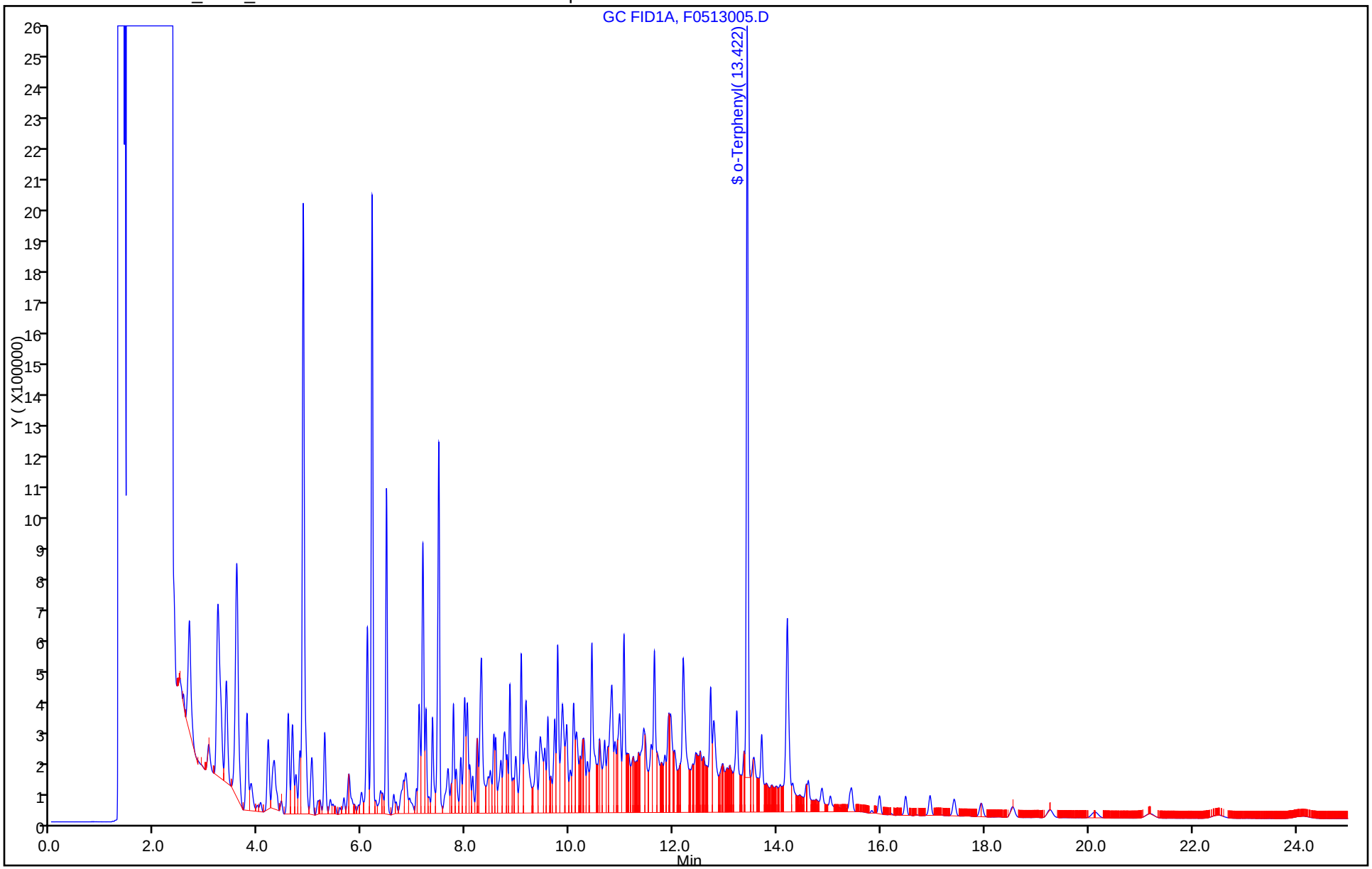
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 5 C6-C12	6.293	(3.417-9.169)		53201388	250.0	280.0	
S 16 C6-C35					500.0	560.3	
A 20 Over C12-C28	13.095	(9.169-17.022)		62084974	250.0	280.3	
$ 22 o-Terphenyl	13.422	13.426	-0.004	5511026	12.5	16.5	

Report Date: 16-May-2016 09:19:51 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513005.D

Injection Date:	13-May-2016 10:11:35	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	LCSD 600-188433/3-B			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		

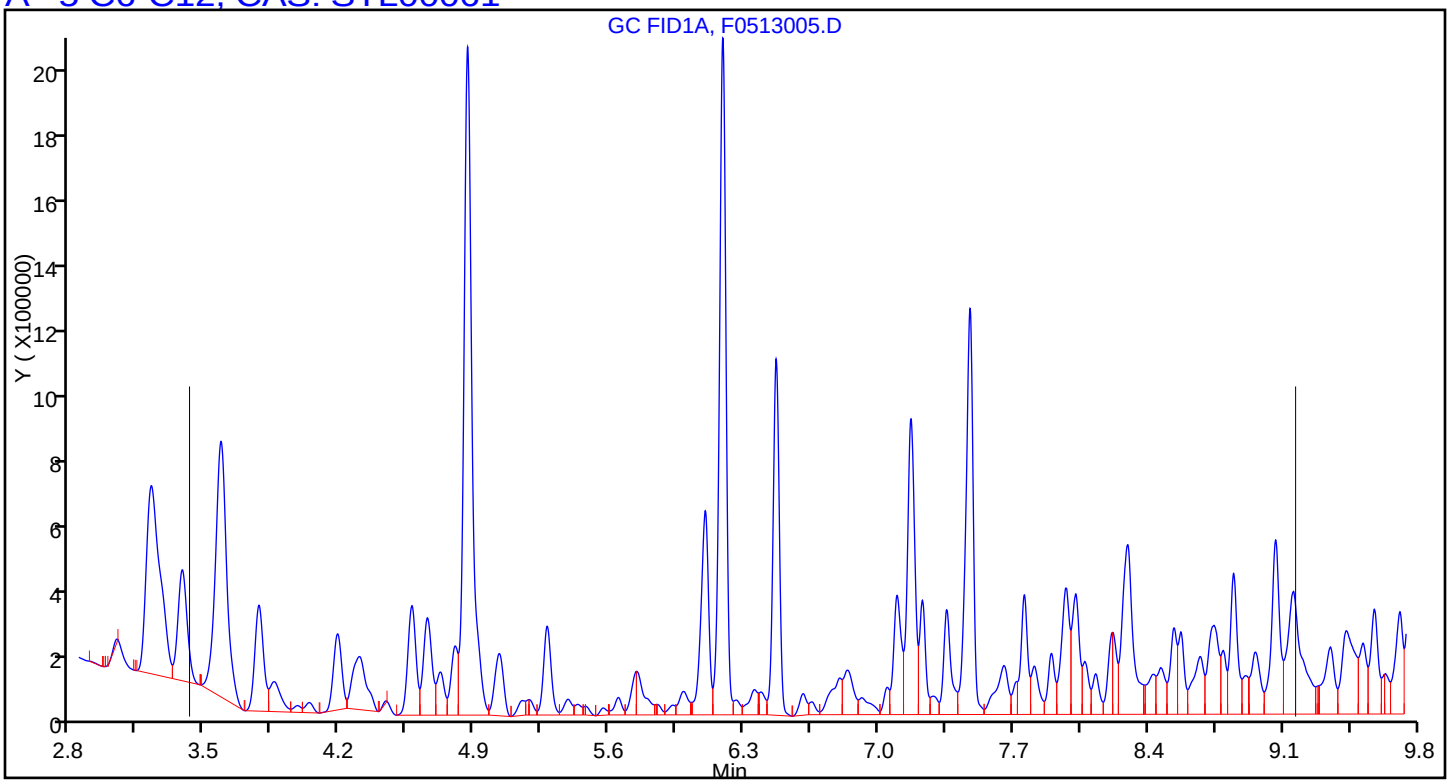


Report Date: 16-May-2016 09:19:51 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513005.D				
Injection Date:	13-May-2016 10:11:35	Instrument ID:	CHFID12		
Lims ID:	LCSD 600-188433/3-B				
Client ID:					
Operator ID:		ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061

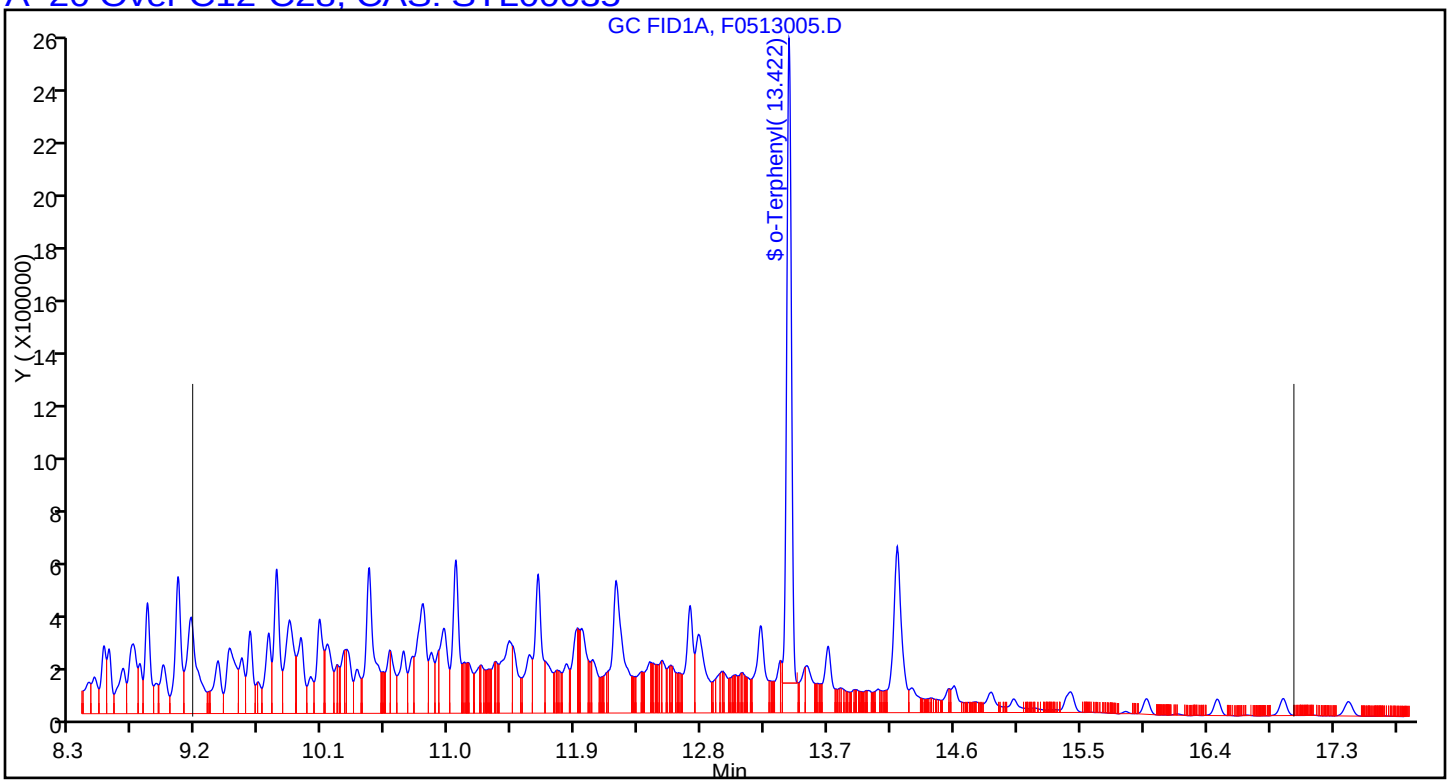


Report Date: 16-May-2016 09:19:51 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513005.D				
Injection Date:	13-May-2016 10:11:35	Instrument ID:	CHFID12		
Lims ID:	LCSD 600-188433/3-B				
Client ID:					
Operator ID:		ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A_20 Over C12-C28, CAS: STL00035



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 600-188603/3-A

Matrix: Water | Lab File ID: B0516012.D

Analysis Method: TX 1005 | Date Collected:

Extraction Method: TX_1005_W_Prep | Date Extracted: 05/16/2016 14:59

Sample wt/vol: 30.00(mL) | Date Analyzed: 05/16/2016 16:59

Con. Extract Vol.: 3.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188552 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	32.62		2.00	0.830
STL00035	>C12-C28	30.99		2.00	0.960
STL00147	>C28-C35	0.960	U	2.00	0.960
STL00006	Total Petroleum Hydrocarbons (C6-C35)	63.61		2.00	0.830

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	113		70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516012.D
Lims ID: LCSD 600-188603/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 16-May-2016 16:59:06 ALS Bottle#: 62 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012073-012
Operator ID: Instrument ID: CHFID12_R

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 17-May-2016 10:21:08 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: somjitp Date: 17-May-2016 10:21:08

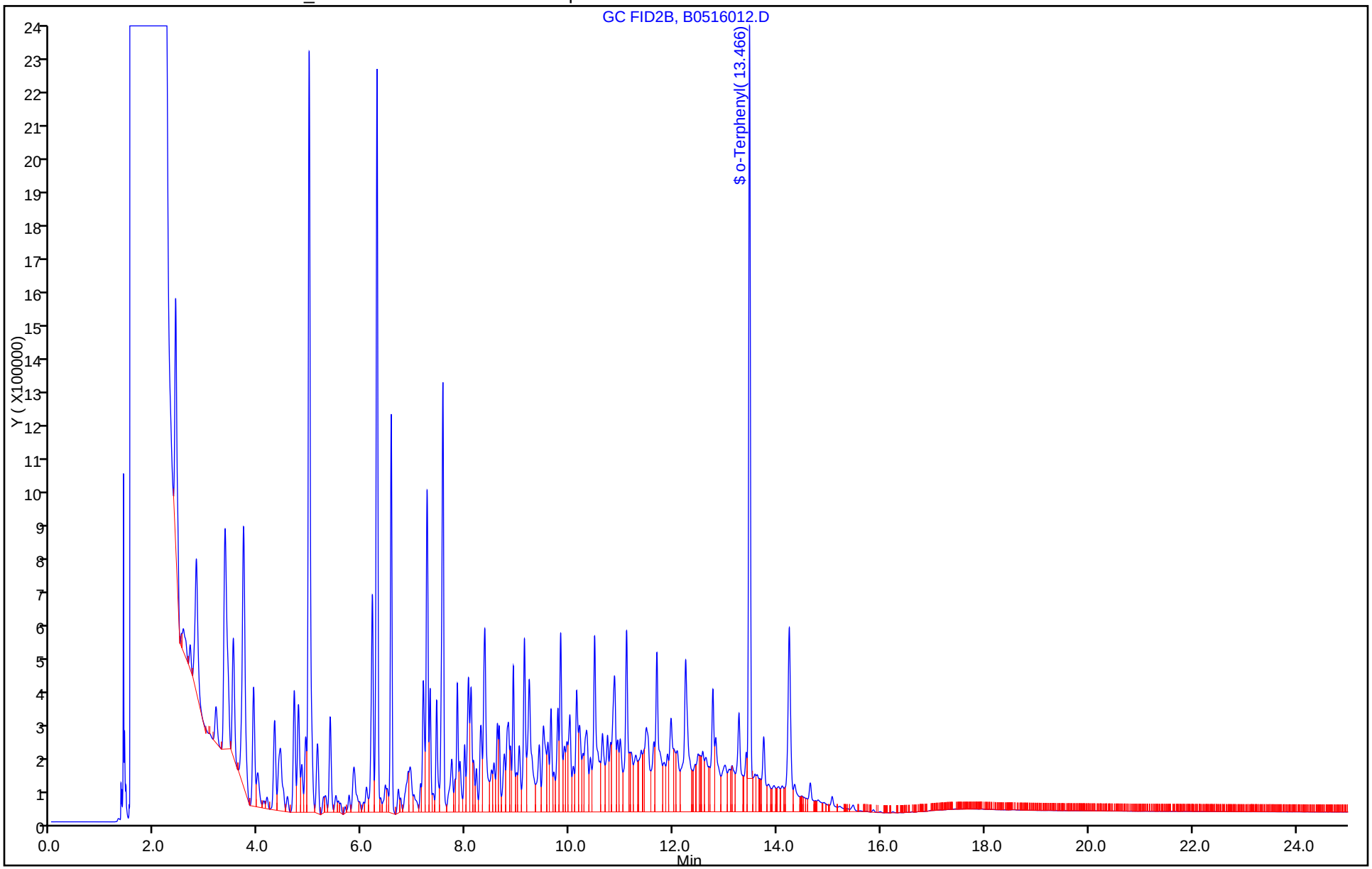
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 6 C6-C12	6.237	(3.245-9.228)		60106481	333.3	326.2	
S 16 C6-C35					666.7	636.1	
A 20 Over C12-C28	13.137	(9.228-17.047)		54624949	333.3	309.9	
$ 22 o-Terphenyl	13.466	13.464	0.002	4940327	16.7	18.9	

Report Date: 17-May-2016 10:21:09 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516012.D

Injection Date:	16-May-2016 16:59:06	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	LCSD 600-188603/3-A			Worklist Smp#:	12
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	62
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		

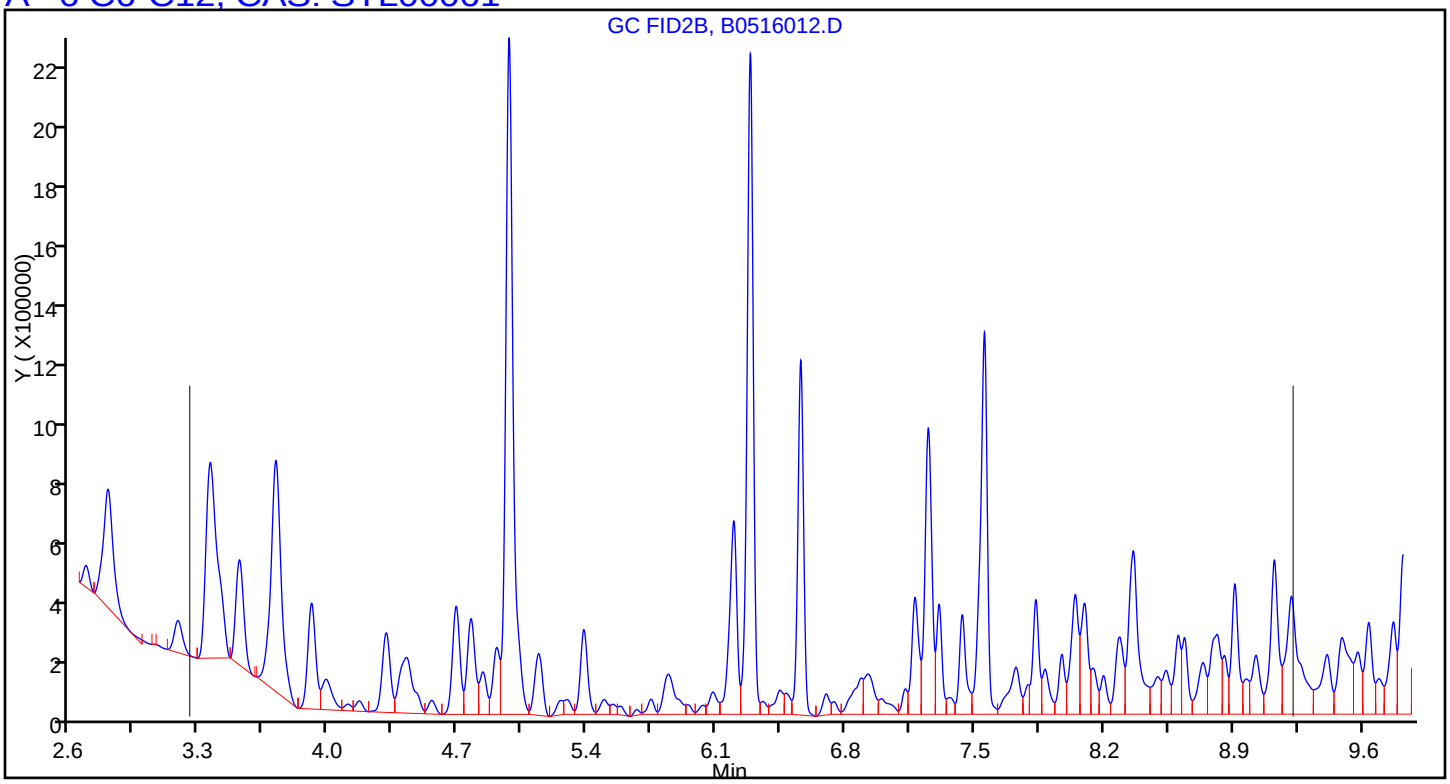


Report Date: 17-May-2016 10:21:09 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516012.D				
Injection Date:	16-May-2016 16:59:06	Instrument ID:	CHFID12_R		
Lims ID:	LCSD 600-188603/3-A				
Client ID:					
Operator ID:		ALS Bottle#:	62	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 6 C6-C12, CAS: STL00061

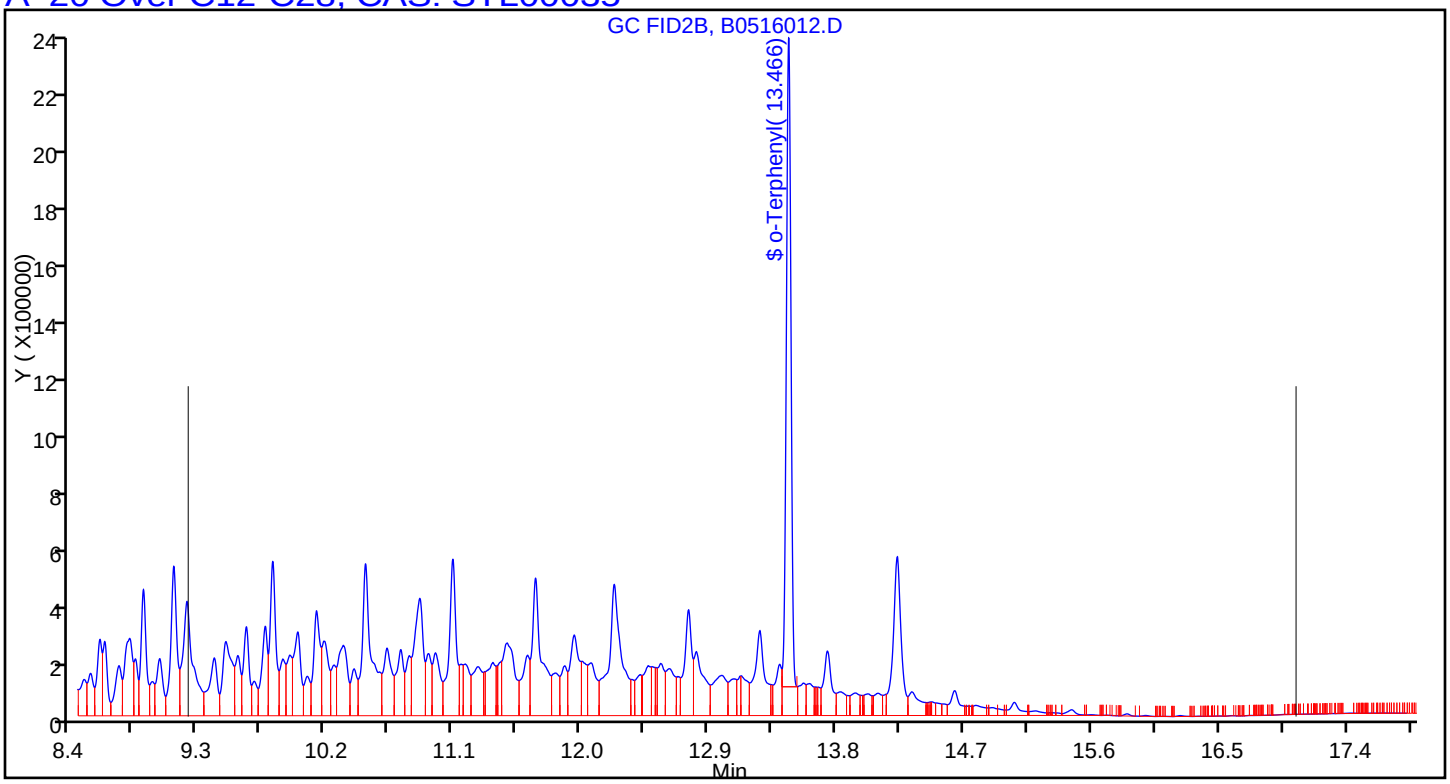


Report Date: 17-May-2016 10:21:09 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516012.D				
Injection Date:	16-May-2016 16:59:06	Instrument ID:	CHFID12_R		
Lims ID:	LCSD 600-188603/3-A				
Client ID:					
Operator ID:		ALS Bottle#:	62	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Soil MS | Lab Sample ID: 600-130758-1 MS

Matrix: Solid | Lab File ID: F0513016.D

Analysis Method: TX 1005 | Date Collected: 05/11/2016 10:00

Extraction Method: TX_1005_S_Prep | Date Extracted: 05/12/2016 15:15

Sample wt/vol: 13.659(g) | Date Analyzed: 05/13/2016 16:34

Con. Extract Vol.: 10.00(g) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 20.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188457 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	230.7		9.15	3.48
STL00035	>C12-C28	214.4		9.15	3.72
STL00147	>C28-C35	3.72	U	9.15	3.72
STL00006	Total Petroleum Hydrocarbons (C6-C35)	445.1		9.15	3.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	126		70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513016.D
Lims ID: 600-130758-P-1-B MS
Client ID:
Sample Type: MS
Inject. Date: 13-May-2016 16:34:50 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012052-016
Operator ID: Instrument ID: CHFID12

Method: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 16-May-2016 09:26:19 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK025

First Level Reviewer: somjitp Date: 16-May-2016 09:26:18

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Hexane	3.585	3.517	0.068	2822699		14.9	
2 n-Heptane	3.782	3.782	0.000	891613		NC	
A 3 Over C6-C8 aliphatics	4.499	(3.617-5.380)		14712962		77.4	
4 n-Octane	5.279	5.280	-0.001	619086		NC	
A 5 C6-C12	6.293	(3.417-9.169)		47890995	250.0	252.1	
A 6 Over C8-C10 aliphatics	6.469	(5.380-7.558)		17635748		92.8	
7 n-Nonane	6.470	6.477	-0.007	2119923		NC	
8 n-Decane	7.477	7.458	0.019	2783607		NC	
9 Undecane	8.297	8.303	-0.006	1711029		NC	
A 10 Over C10-C12 aliphatics	8.363	(7.558-9.169)		14676535		77.2	
11 Dodecane	9.067	9.069	-0.002	1320357		NC	
12 C13	9.769	9.770	-0.001	1297240		NC	
A 13 Over C12-C16 aliphatics	10.382	(9.095-11.670)		28668272		133.2	
14 n-Tetradecane	10.428	10.431	-0.003	1960915		NC	
15 C15	11.046	11.048	-0.002	1733749		NC	
S 16 C6-C35					500.0	486.3	
17 Hexadecane	11.634	11.640	-0.006	1438774		NC	
41 Heptadecane	12.137	12.139	-0.002	317960		NC	
18 n-Octadecane	12.717	12.724	-0.007	1244813		NC	
A 19 Over C16-C21 aliphatics	13.003	(11.740-14.266)		21558556		101.9	
A 20 Over C12-C28	13.095	(9.169-17.022)		51618831	250.0	234.2	
21 C19	13.222	13.224	-0.002	1241339		NC	
$ 22 o-Terphenyl	13.423	13.426	-0.003	5259403	12.5	15.7	
23 icosane	13.702	13.709	-0.007	802699		NC	
24 C21	14.193	14.166	0.027	2131287		NC	
25 n-Docosane	14.602	14.609	-0.007	356647		NC	
26 Tricosane	15.025	15.029	-0.004	176592		NC	
27 n-Tetracosane	15.428	15.441	-0.013	82617		NC	
28 C25	15.823	15.825	-0.002	20006		NC	
29 n-Hexacosane	16.210	16.208	0.002	3460		NC	
30 C27	16.567	16.567	0.000	217		NC	
31 n-Octacosane	16.922	16.922	0.000	89		NC	

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 C29	17.265	17.267	-0.002	34		NC	
A 33 Over C21-C35 aliphatics	17.454	(14.266-20.641)		4322559		16.8	
34 Triacontane	17.665	17.660	0.005	33		NC	
35 C31	18.076	18.077	-0.001	81		NC	
36 Dotriacontane	18.578	18.577	0.001	313		NC	
38 C33	19.139	19.132	0.007	61		NC	
39 Tetratriacontane	19.791	19.790	0.001	13		NC	
40 C35	20.542	20.541	0.001	42		NC	
S 42 Over C6-C35 aliphatics						499.4	

QC Flag Legend

Processing Flags

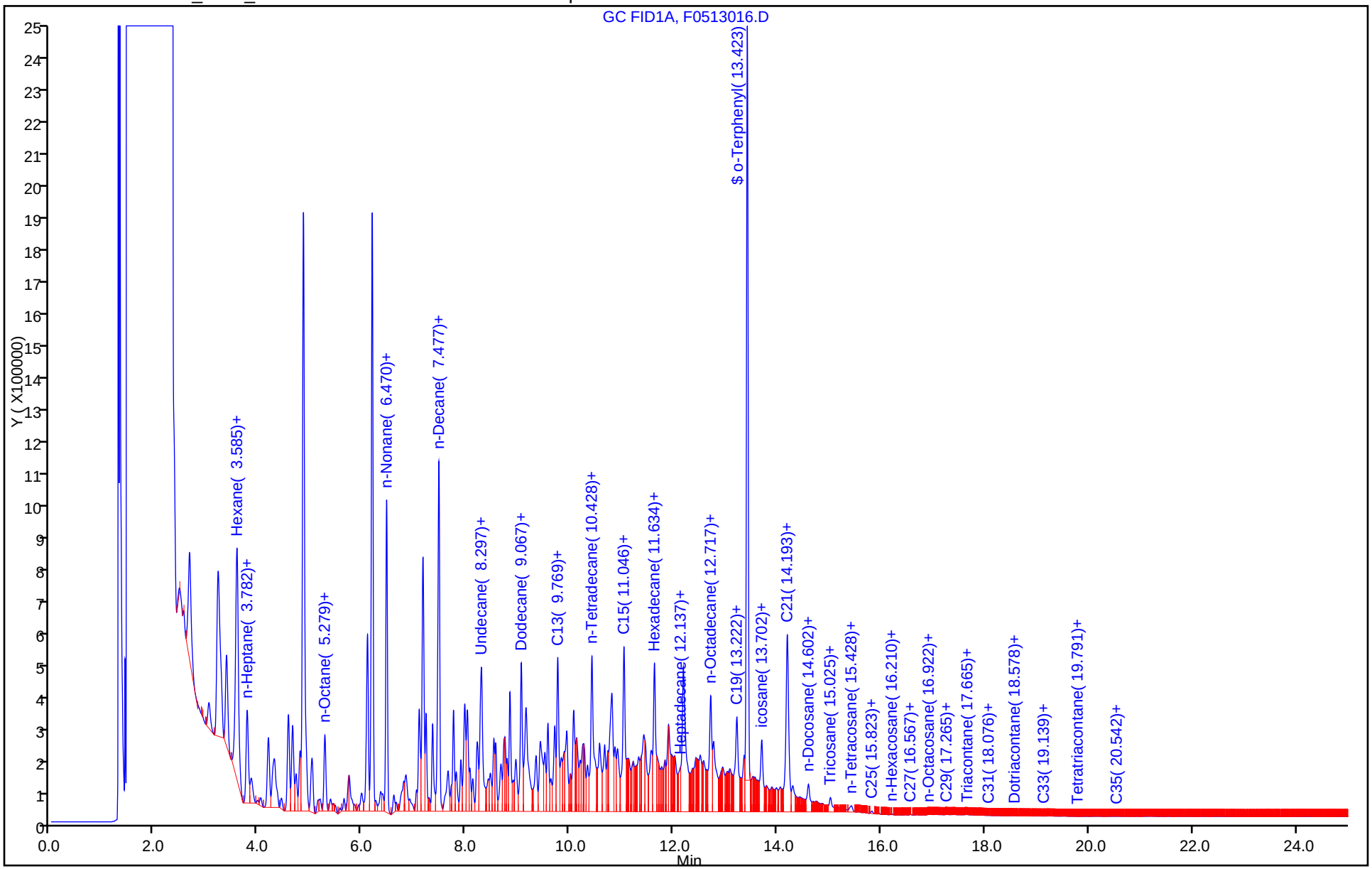
NC - Not Calibrated

Report Date: 16-May-2016 09:26:21 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513016.D

Injection Date:	13-May-2016 16:34:50	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	600-130758-P-1-B MS			Worklist Smp#:	16
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		



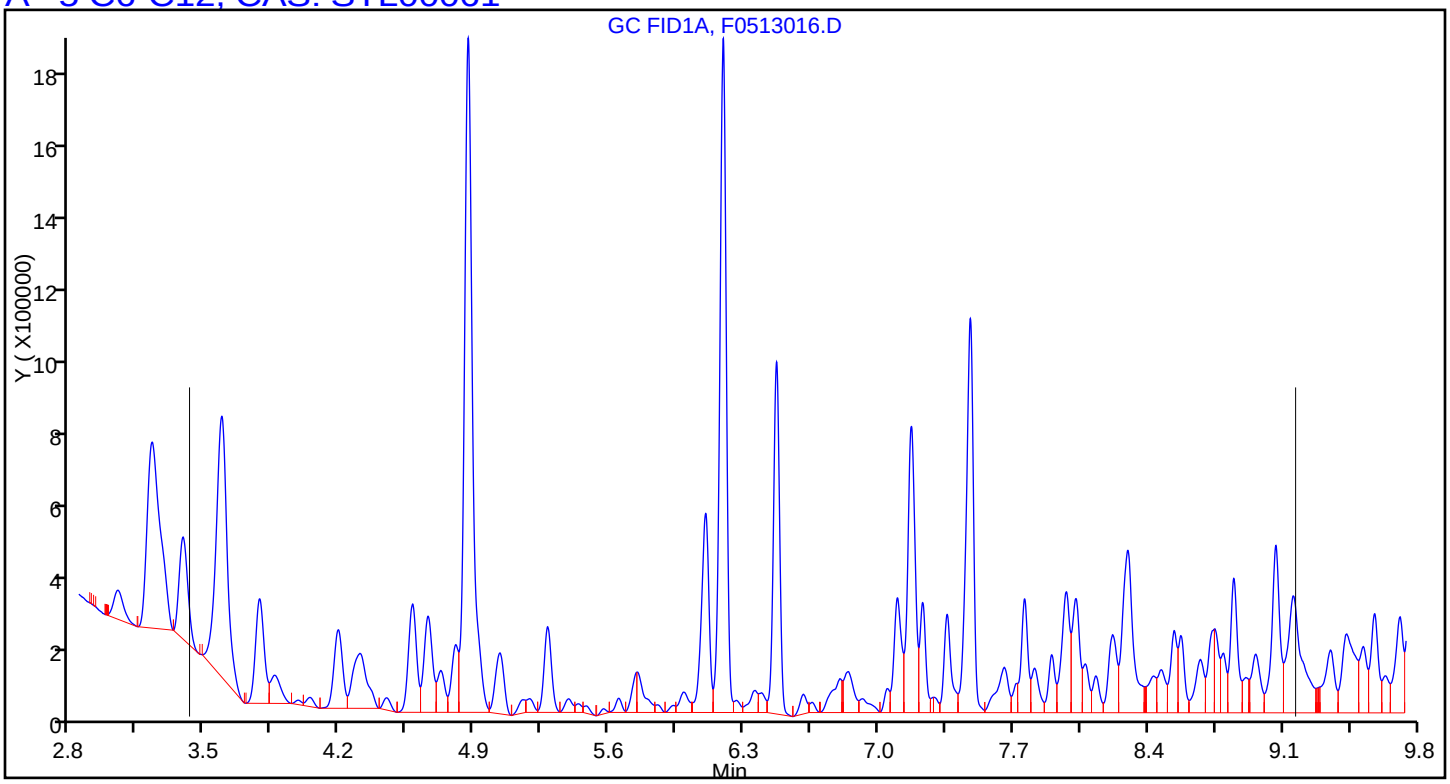
Report Date: 16-May-2016 09:26:21 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513016.D

Injection Date:	13-May-2016 16:34:50	Instrument ID:	CHFID12		
Lims ID:	600-130758-P-1-B MS				
Client ID:					
Operator ID:		ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, CAS: STL00061

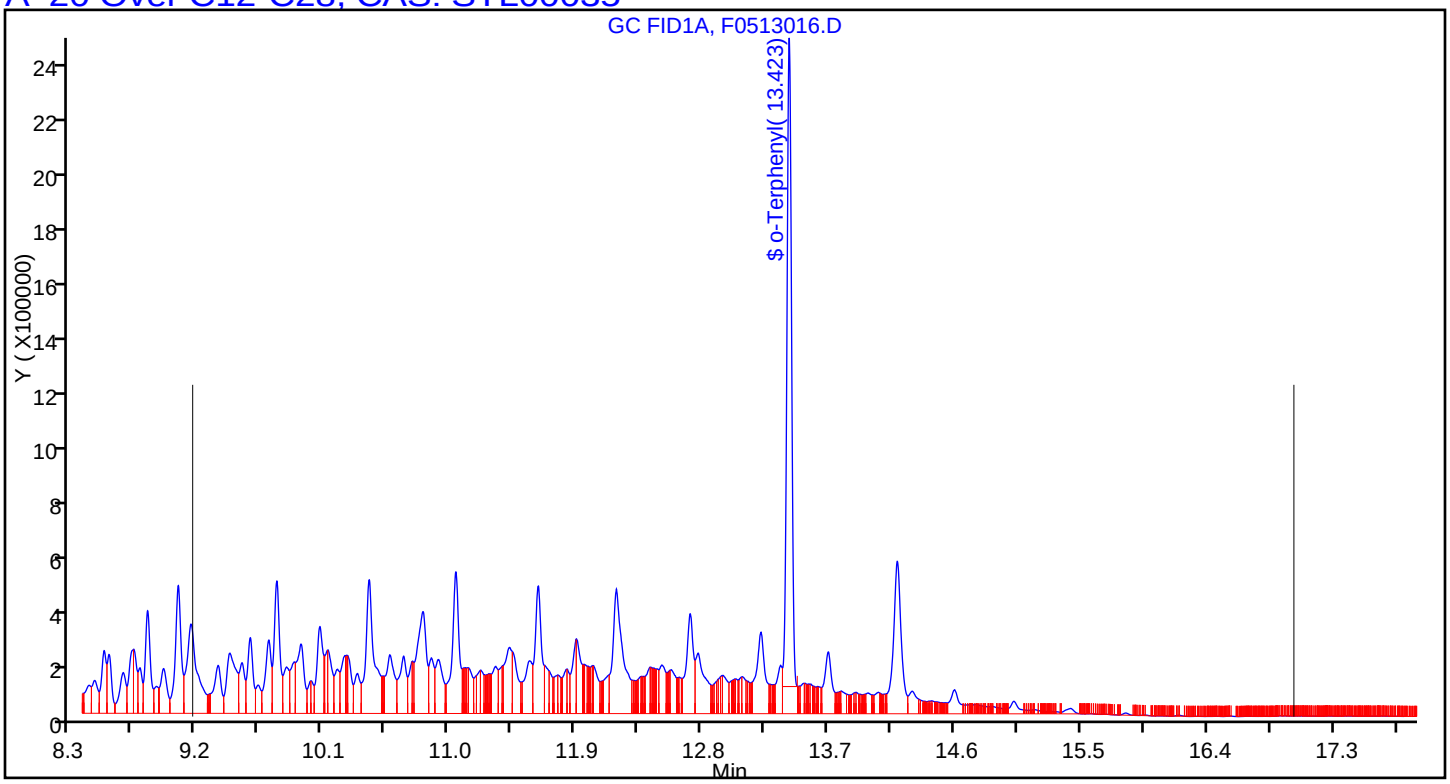


Report Date: 16-May-2016 09:26:21 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513016.D				
Injection Date:	13-May-2016 16:34:50	Instrument ID:	CHFID12		
Lims ID:	600-130758-P-1-B MS				
Client ID:					
Operator ID:		ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: 600-130738-I-1-A MS

Matrix: Water | Lab File ID: B0516014.D

Analysis Method: TX 1005 | Date Collected: 05/10/2016 10:30

Extraction Method: TX_1005_W_Prep | Date Extracted: 05/16/2016 14:59

Sample wt/vol: 36.26(mL) | Date Analyzed: 05/16/2016 18:03

Con. Extract Vol.: 3.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188552 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	28.12		1.65	0.687
STL00035	>C12-C28	27.67		1.65	0.794
STL00147	>C28-C35	0.794	U	1.65	0.794
STL00006	Total Petroleum Hydrocarbons (C6-C35)	55.79		1.65	0.687

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	121		70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516014.D
Lims ID: 600-130738-I-1-A MS
Client ID:
Sample Type: MS
Inject. Date: 16-May-2016 18:03:29 ALS Bottle#: 64 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012073-014
Operator ID: Instrument ID: CHFID12_R

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 17-May-2016 10:21:39 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: somjitp Date: 17-May-2016 10:21:39

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
2 Hexane	3.354	3.345	0.009	3166757		302.6	
3 n-Heptane	3.905	3.902	0.003	1155499		NC	
A 4 Over C7-C8 aromatics	4.740	(4.002-5.479)		14271037		77.4	
5 n-Octane	5.382	5.379	0.003	785278		NC	
A 6 C6-C12	6.237	(3.245-9.228)		62625434	333.3	339.9	
A 7 Over C8-C10 aromatics	6.554	(5.479-7.630)		22033396		119.6	
8 n-Nonane	6.558	6.560	-0.002	2763349		NC	
9 n-Decane	7.553	7.530	0.023	3575182		NC	
10 Undecane	8.361	8.369	-0.008	2153650		NC	
A 11 Over C10-C12 aromatics	8.429	(7.630-9.228)		17758087		96.4	
12 Dodecane	9.126	9.128	-0.002	1592592		NC	
13 C13	9.824	9.827	-0.003	1584573		NC	
14 n-Tetradecane	10.479	10.483	-0.004	2498117		NC	
A 1 Over C12-C16 aromatics	10.506	(9.228-11.783)		32722457		185.6	
15 C15	11.095	11.097	-0.002	2001313		NC	
S 16 C6-C35					666.7	674.3	
17 Hexadecane	11.679	11.683	-0.004	2306676		NC	
18 n-Octadecane	12.758	12.763	-0.005	1354227		NC	
A 19 Over C16-C21 aromatics	13.041	(11.783-14.299)		26282996		149.1	
A 20 Over C12-C28	13.137	(9.228-17.047)		58957579	333.3	334.4	
21 C19	13.261	13.262	-0.001	1667713		NC	
$ 22 o-Terphenyl	13.465	13.464	0.001	5287443	16.7	20.2	
23 icosane	13.740	13.745	-0.005	947744		NC	
24 C21	14.231	14.199	0.032	2459817		NC	
25 n-Docosane	14.637	14.642	-0.005	395861		NC	
26 Tricosane	14.884	14.889	-0.005	14306		NC	
27 n-Tetracosane	15.462	15.468	-0.006	66356		NC	
28 C25	15.857	15.855	0.002	22223		NC	
29 n-Hexacosane	16.230	16.232	-0.002	11684		NC	
30 C27	16.597	16.591	0.006	4340		NC	
31 n-Octacosane	16.936	16.947	-0.011	1038		NC	
33 C29	17.292	17.290	0.002	710		NC	

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 32 Over C21-C35 aromatics	17.457	(14.299-20.614)		4782753		26.7	
34 Triacontane	17.669	17.673	-0.004	2159		NC	
35 C31	18.090	18.092	-0.002	186		NC	
36 Dotriacontane	18.577	18.575	0.002	585		NC	
38 C33	19.124	19.123	0.001	118		NC	
39 Tetratriacontane	19.767	19.762	0.005	102		NC	
40 C35	20.505	20.514	-0.009	39		NC	
S 42 C6-C35 Summary						654.8	

QC Flag Legend

Processing Flags

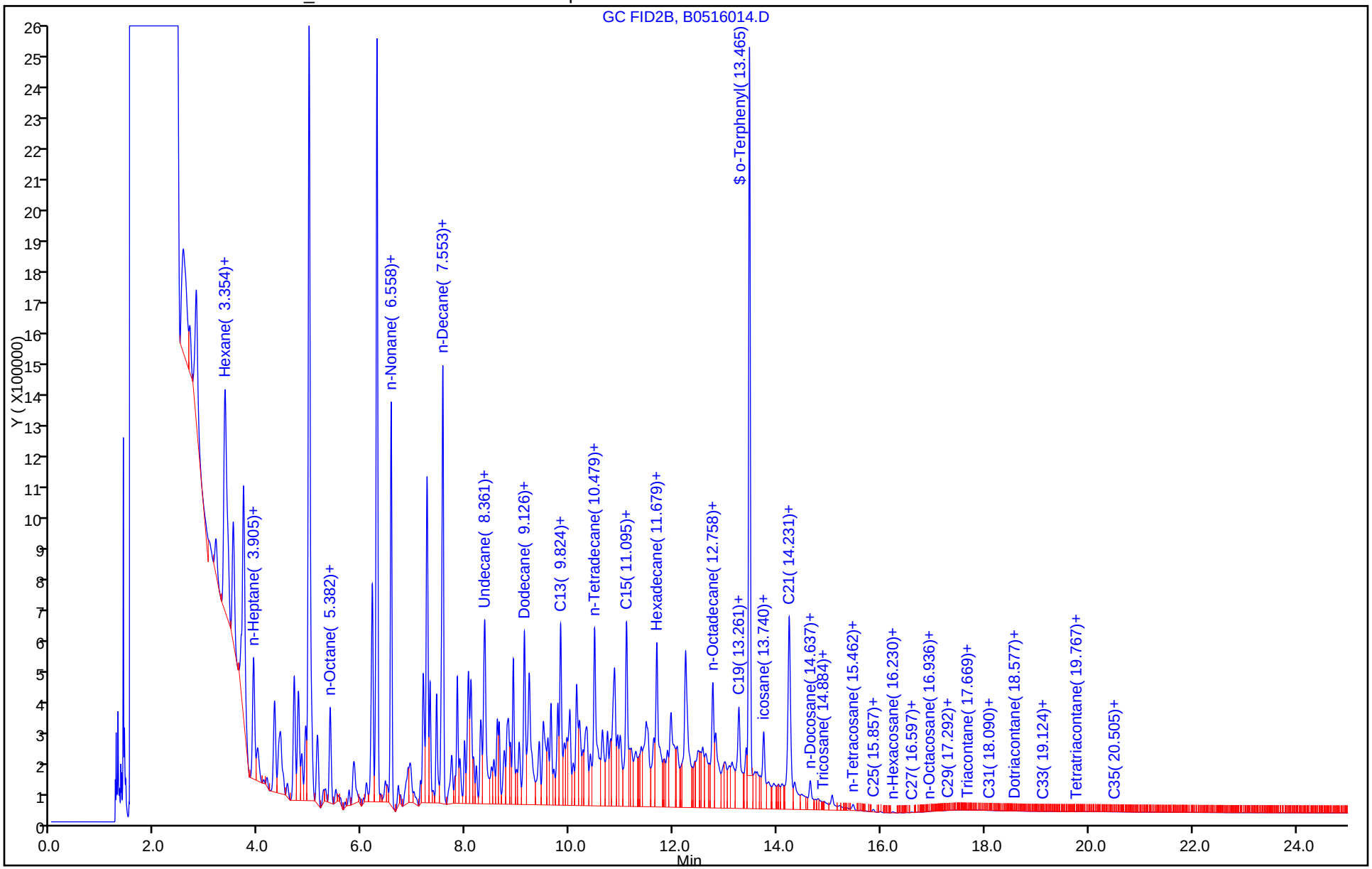
NC - Not Calibrated

Report Date: 17-May-2016 10:21:41 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516014.D

Injection Date:	16-May-2016 18:03:29	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	600-130738-I-1-A MS			Worklist Smp#:	14
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	64
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		



Report Date: 17-May-2016 10:21:41 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516014.D

Injection Date: 16-May-2016 18:03:29 Instrument ID: CHFID12_R

Lims ID: 600-130738-I-1-A MS

Client ID:

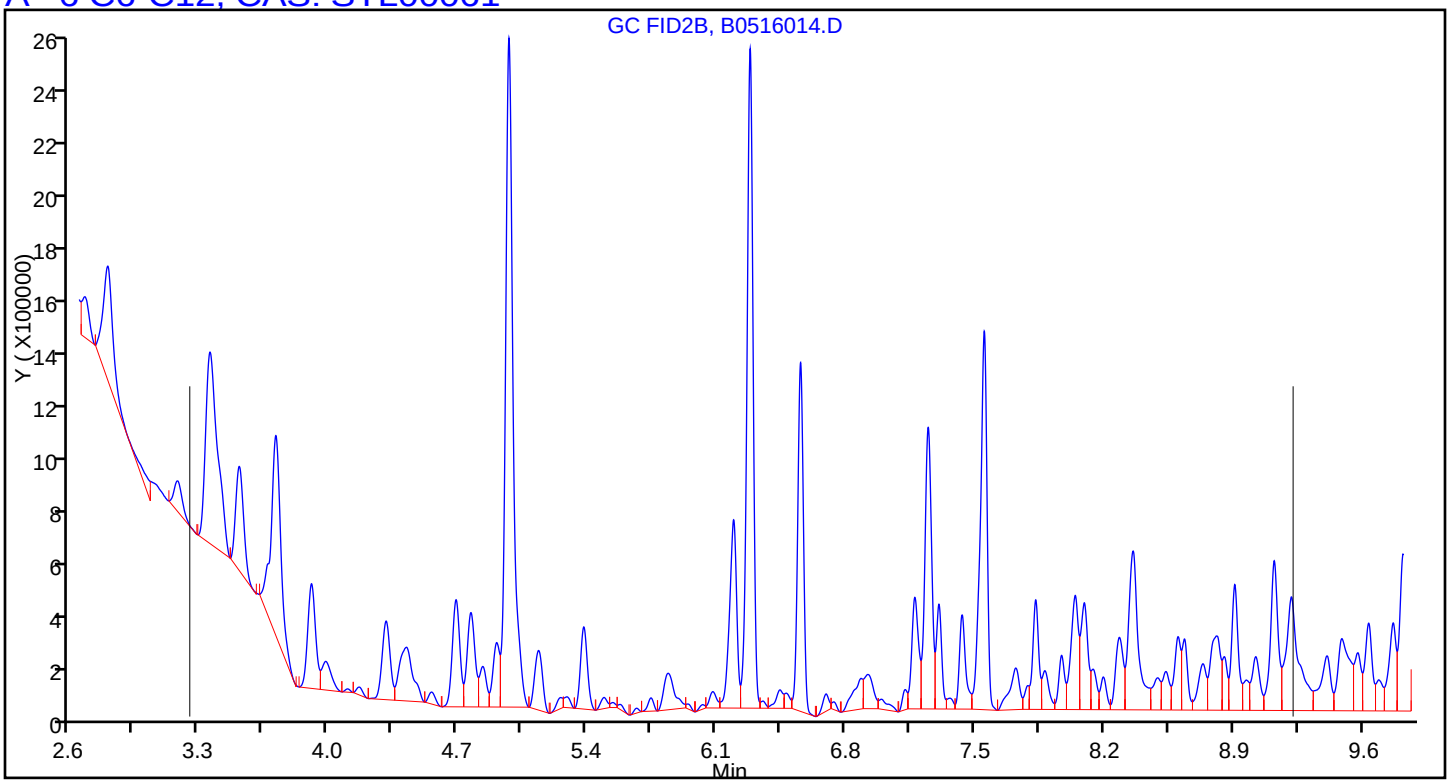
Operator ID: ALS Bottle#: 64 Worklist Smp#: 14

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: GCSV - TX1005_1006R Limit Group: GCSV - TX1005

Column: Detector GC FID1A

A 6 C6-C12, CAS: STL00061

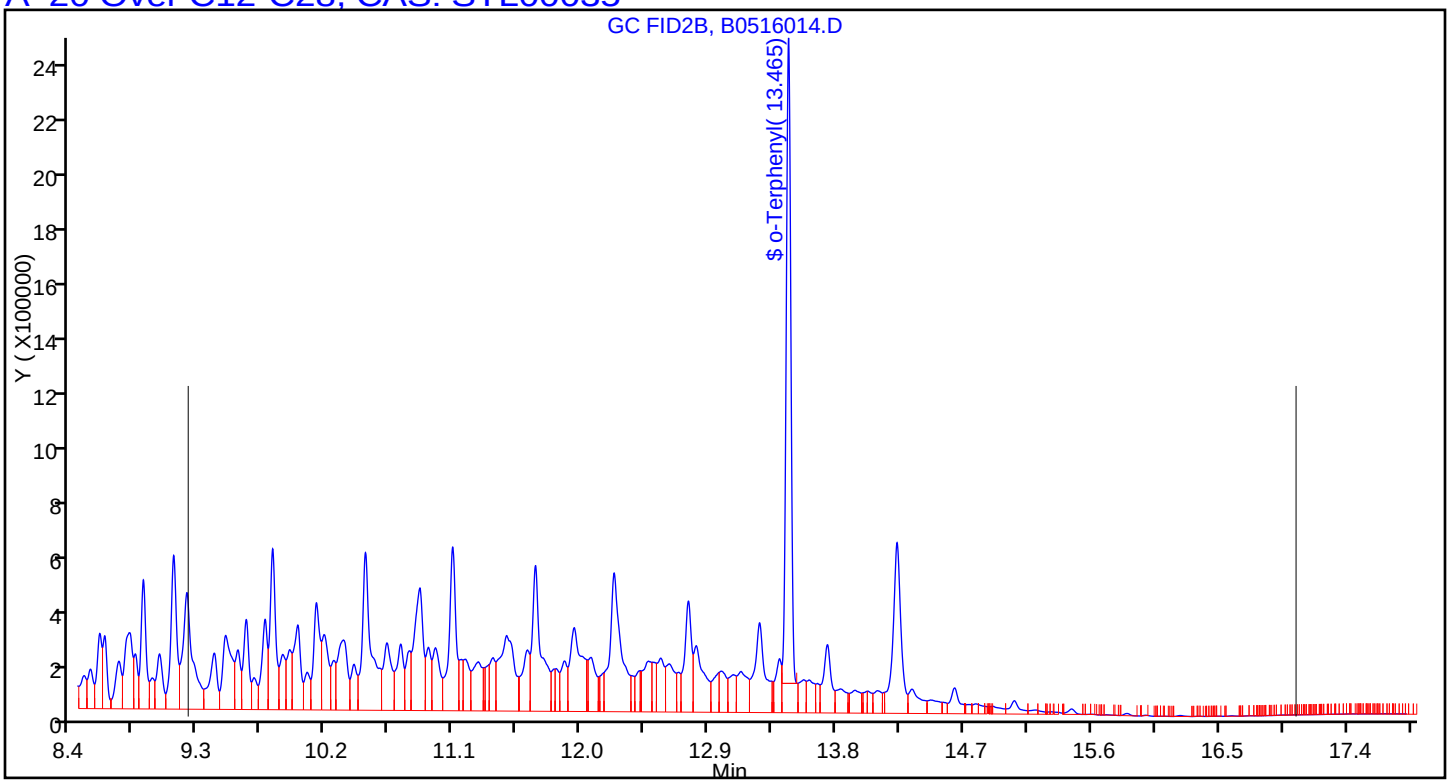


Report Date: 17-May-2016 10:21:41 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516014.D				
Injection Date:	16-May-2016 18:03:29	Instrument ID:	CHFID12_R		
Lims ID:	600-130738-I-1-A MS				
Client ID:					
Operator ID:		ALS Bottle#:	64	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035



FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: PC-IDW Soil MSD | Lab Sample ID: 600-130758-1 MSD

Matrix: Solid | Lab File ID: F0513017.D

Analysis Method: TX 1005 | Date Collected: 05/11/2016 10:00

Extraction Method: TX_1005_S_Prep | Date Extracted: 05/12/2016 15:15

Sample wt/vol: 13.714(g) | Date Analyzed: 05/13/2016 17:07

Con. Extract Vol.: 10.00(g) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: 20.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188457 | Units: mg/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	227.4		9.11	3.46
STL00035	>C12-C28	222.3		9.11	3.70
STL00147	>C28-C35	3.70	U	9.11	3.70
STL00006	Total Petroleum Hydrocarbons (C6-C35)	449.7		9.11	3.46

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	122		70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513017.D
Lims ID: 600-130758-Q-1-B MSD
Client ID:
Sample Type: MSD
Inject. Date: 13-May-2016 17:07:50 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012052-017
Operator ID: Instrument ID: CHFID12

Method: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\TX_1005_CHFID12.m
Limit Group: GCSV - TX1005
Last Update: 16-May-2016 09:26:53 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12\20160511-12028.b\F0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK025

First Level Reviewer: somjitp Date: 16-May-2016 09:26:52

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 Hexane	3.584	3.517	0.067	2798313		14.7	
	2 n-Heptane	3.781	3.782	-0.001	873330		NC	
A	3 Over C6-C8 aliphatics	4.499	(3.617-5.380)		14113123		74.3	
	4 n-Octane	5.279	5.280	-0.001	580920		NC	
A	5 C6-C12	6.293	(3.417-9.169)		47397498	250.0	249.5	M
A	6 Over C8-C10 aliphatics	6.469	(5.380-7.558)		17182313		90.4	M
	7 n-Nonane	6.470	6.477	-0.007	2023436		NC	
	8 n-Decane	7.478	7.458	0.020	2807379		NC	M
	9 Undecane	8.296	8.303	-0.007	1733313		NC	M
A	10 Over C10-C12 aliphatics	8.363	(7.558-9.169)		15262754		80.3	M
	11 Dodecane	9.067	9.069	-0.002	1351804		NC	M
	12 C13	9.768	9.770	-0.002	1329748		NC	M
A	13 Over C12-C16 aliphatics	10.382	(9.095-11.670)		29404051		136.4	M
	14 n-Tetradecane	10.428	10.431	-0.003	1965243		NC	M
	15 C15	11.047	11.048	-0.001	1740628		NC	M
S	16 C6-C35					500.0	493.4	
	17 Hexadecane	11.633	11.640	-0.007	1483880		NC	M
	41 Heptadecane	12.140	12.139	0.001	383660		NC	M
	18 n-Octadecane	12.718	12.724	-0.006	1270420		NC	M
A	19 Over C16-C21 aliphatics	13.003	(11.740-14.266)		22871265		107.7	M
A	20 Over C12-C28	13.095	(9.169-17.022)		53813785	250.0	243.9	M
	21 C19	13.222	13.224	-0.002	1317998		NC	M
$	22 o-Terphenyl	13.424	13.426	-0.002	5079441	12.5	15.2	
	23 icosane	13.700	13.709	-0.009	867496		NC	M
	24 C21	14.197	14.166	0.031	2171052		NC	M
	25 n-Docosane	14.603	14.609	-0.006	391976		NC	M
	26 Tricosane	15.026	15.029	-0.003	207787		NC	M
	27 n-Tetracosane	15.433	15.441	-0.008	70886		NC	M
	28 C25	15.824	15.825	-0.001	26883		NC	M
	29 n-Hexacosane	16.202	16.208	-0.006	3616		NC	M
	30 C27	16.570	16.567	0.003	556		NC	
	31 n-Octacosane	16.923	16.922	0.001	340		NC	

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
32 C29	17.265	17.267	-0.002	114		NC	
A 33 Over C21-C35 aliphatics	17.454	(14.266-20.641)		5088806		19.8	M
34 Triacontane	17.658	17.660	-0.002	498		NC	
35 C31	18.073	18.077	-0.004	39		NC	
36 Dotriacontane	18.584	18.577	0.007	66		NC	
38 C33	19.134	19.132	0.002	20		NC	
39 Tetratriacontane	19.788	19.790	-0.002	11		NC	
40 C35	20.543	20.541	0.002	28		NC	
S 42 Over C6-C35 aliphatics						509.0	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

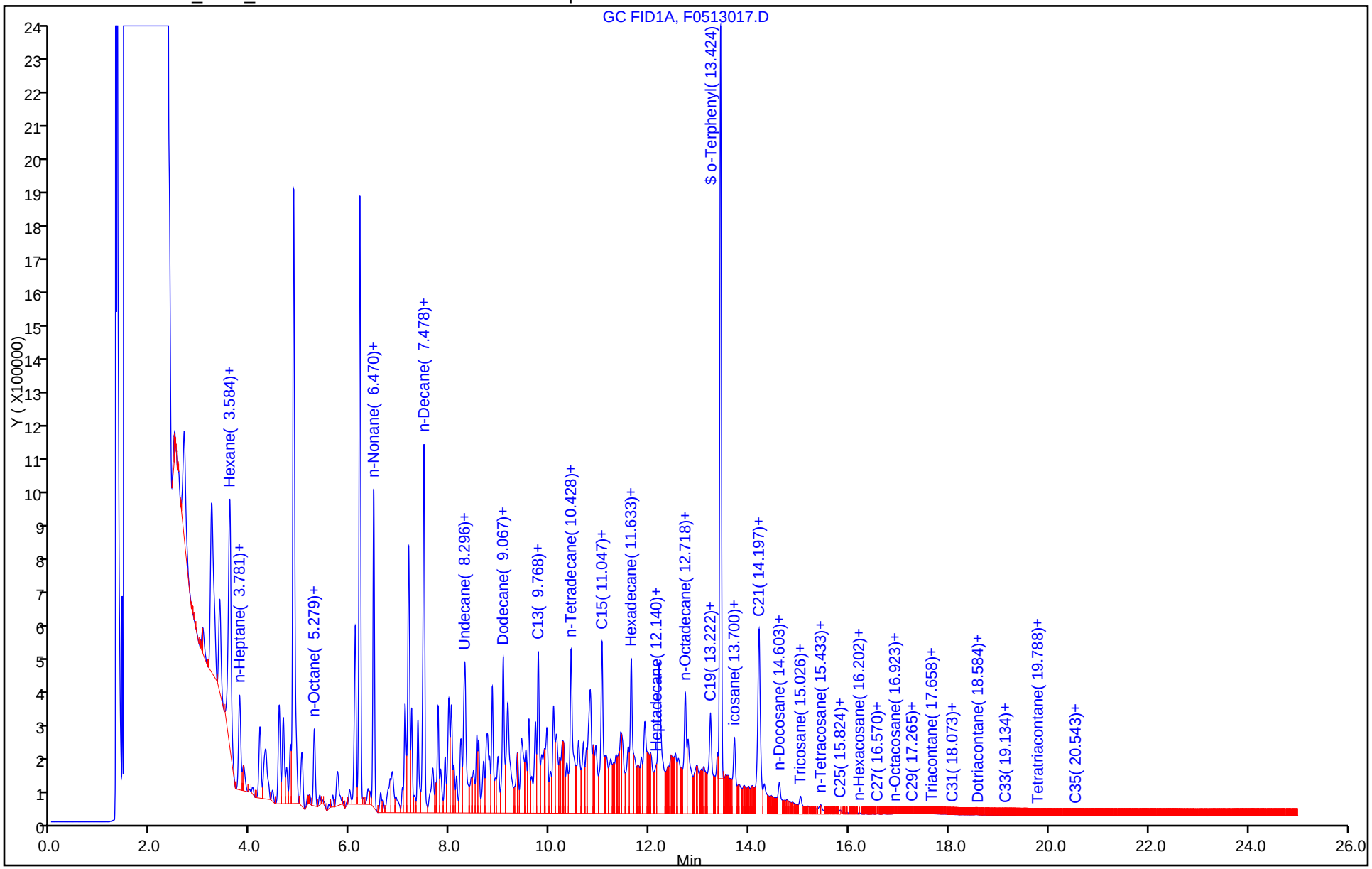
M - Manually Integrated

Report Date: 16-May-2016 09:26:55 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513017.D

Injection Date:	13-May-2016 17:07:50	Instrument ID:	CHFID12	Operator ID:	
Lims ID:	600-130758-Q-1-B MSD			Worklist Smp#:	17
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		



Report Date: 16-May-2016 09:26:55 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513017.D

Injection Date: 13-May-2016 17:07:50 Instrument ID: CHFID12

Lims ID: 600-130758-Q-1-B MSD

Client ID:

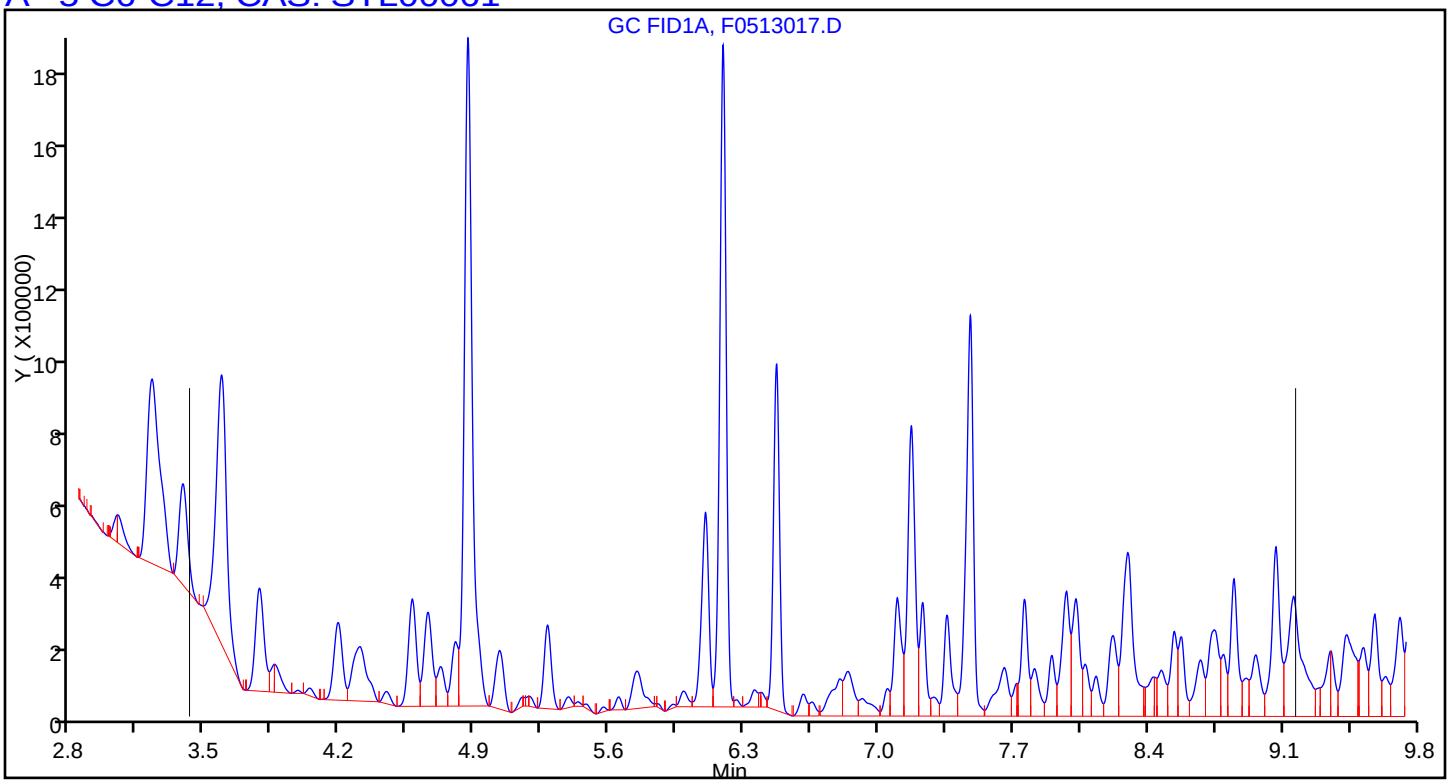
Operator ID: ALS Bottle#: 17 Worklist Smp#: 17

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: TX_1005_CHFID12 Limit Group: GCSV - TX1005

Column: Detector GC FID1A

A 5 C6-C12, CAS: STL00061



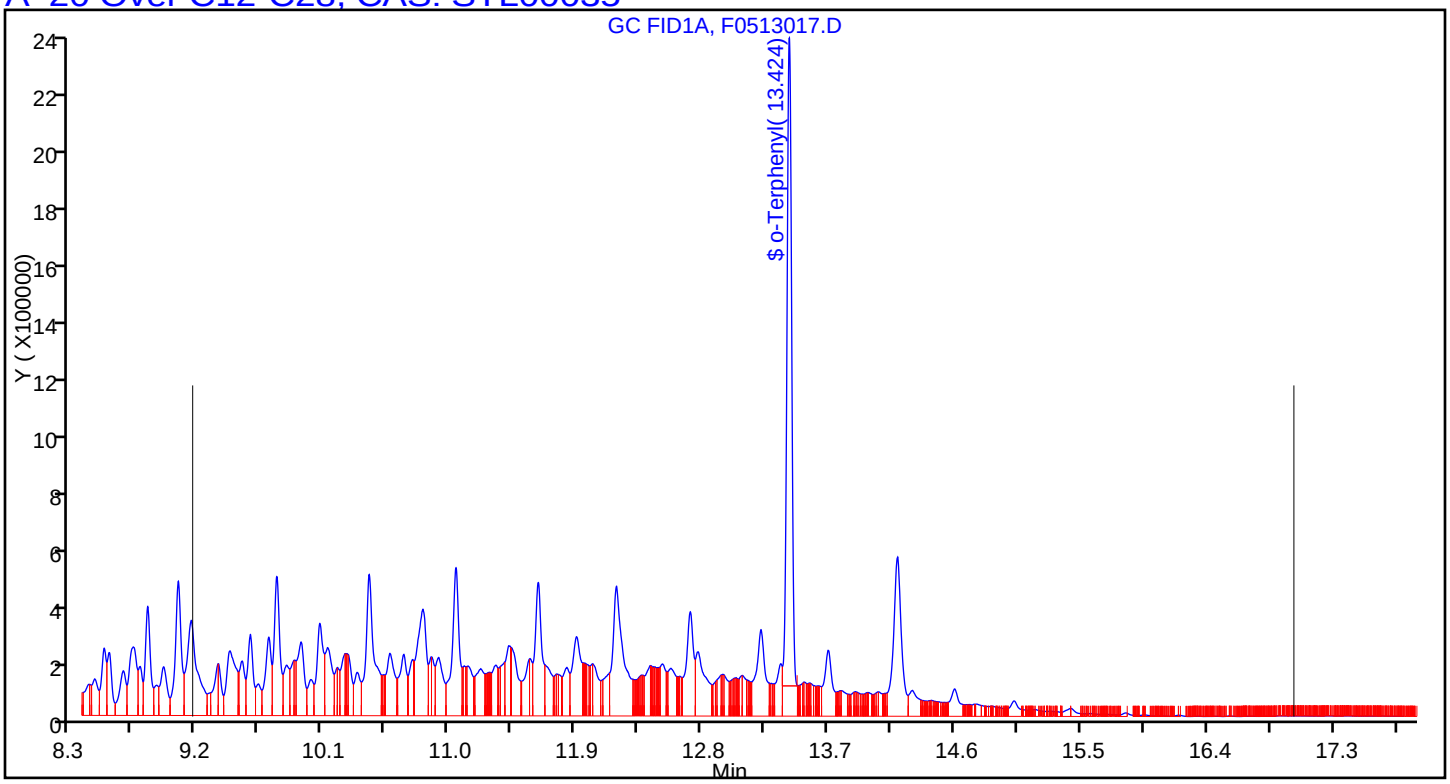
Report Date: 16-May-2016 09:26:57 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513017.D

Injection Date:	13-May-2016 17:07:50	Instrument ID:	CHFID12		
Lims ID:	600-130758-Q-1-B MSD				
Client ID:					
Operator ID:		ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035



Manual Integration/User Assign Peak Report

TestAmerica Houston

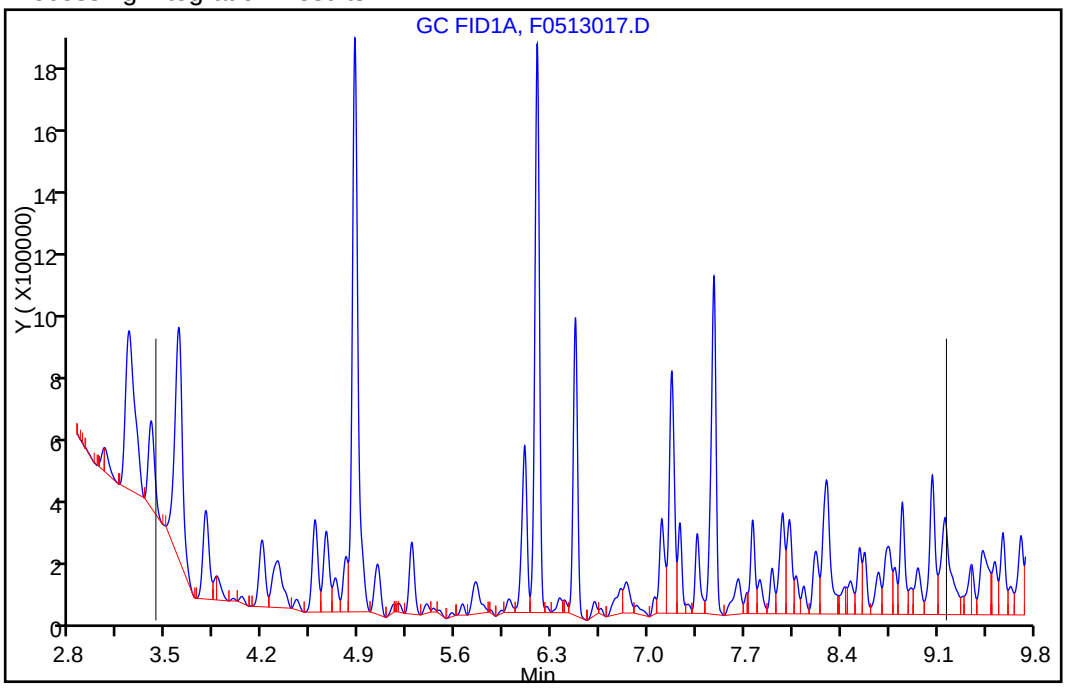
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513017.D				
Injection Date:	13-May-2016 17:07:50	Instrument ID:	CHFID12		
Lims ID:	600-130758-Q-1-B MSD				
Client ID:					
Operator ID:		ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 5 C6-C12, RT: 6.293, CAS: STL00061

Signal: 1

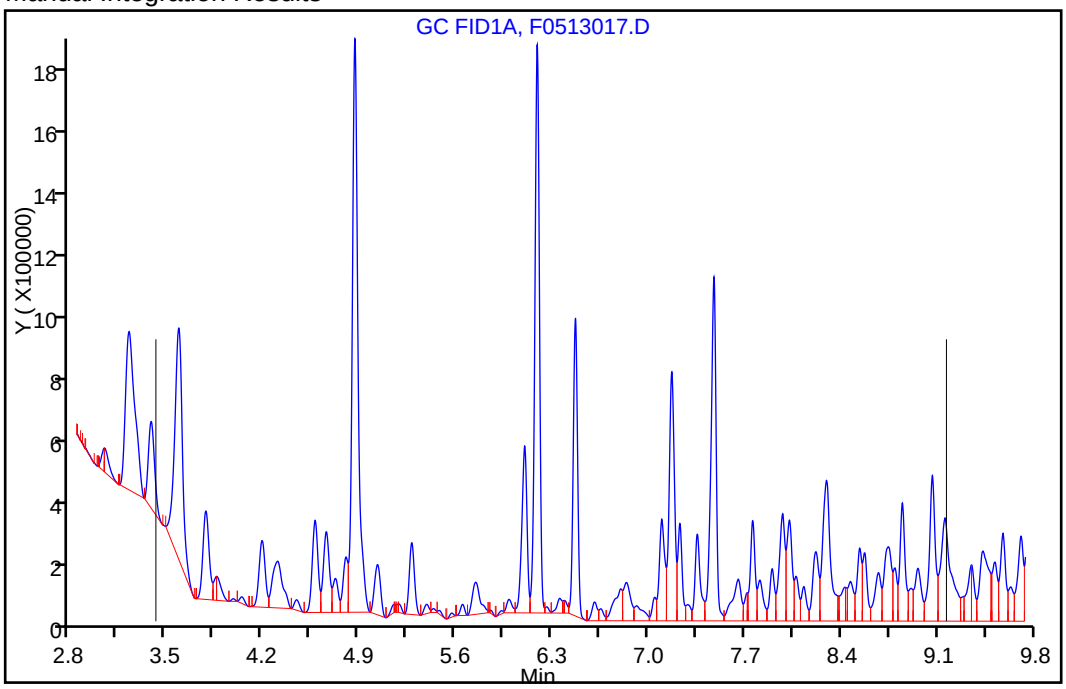
Processing Integration Results

RT: 6.29
Response: 44188479
Amount: 232.5729



Manual Integration Results

RT: 6.29
Response: 47397498
Amount: 249.4626



Reviewer: somjitp, 16-May-2016 09:26:52

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

TestAmerica Houston

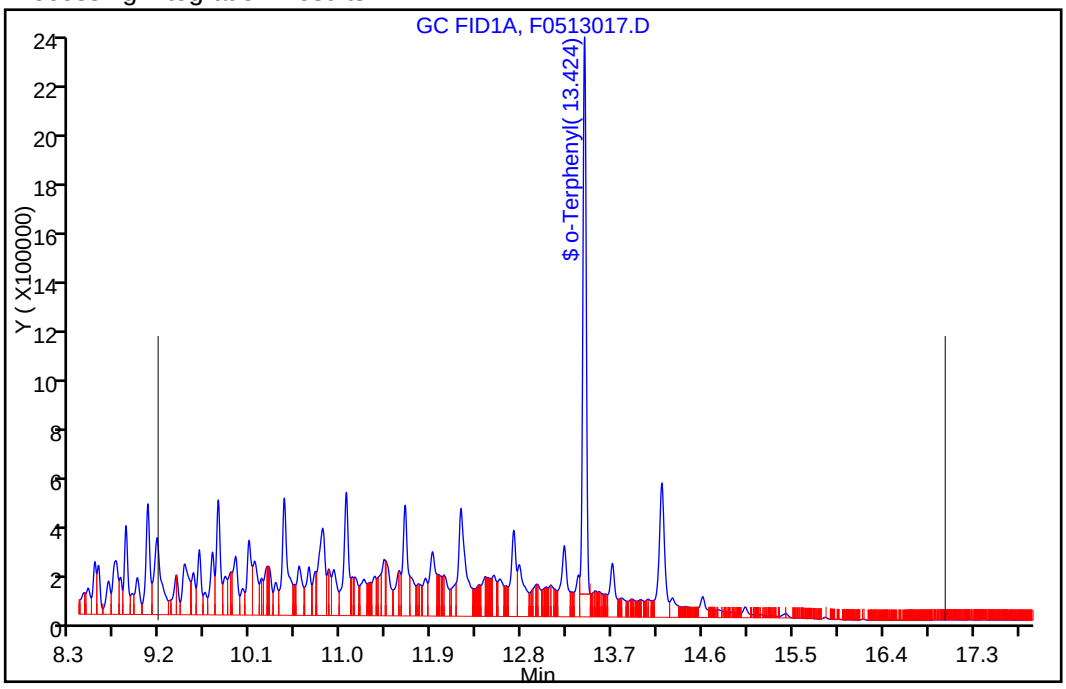
Data File:	\\ChromNA\Houston\ChromData\CHFID12\20160513-12052.b\F0513017.D				
Injection Date:	13-May-2016 17:07:50	Instrument ID:	CHFID12		
Lims ID:	600-130758-Q-1-B MSD				
Client ID:					
Operator ID:		ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	TX_1005_CHFID12	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, RT: 13.095, CAS: STL00035

Signal: 1

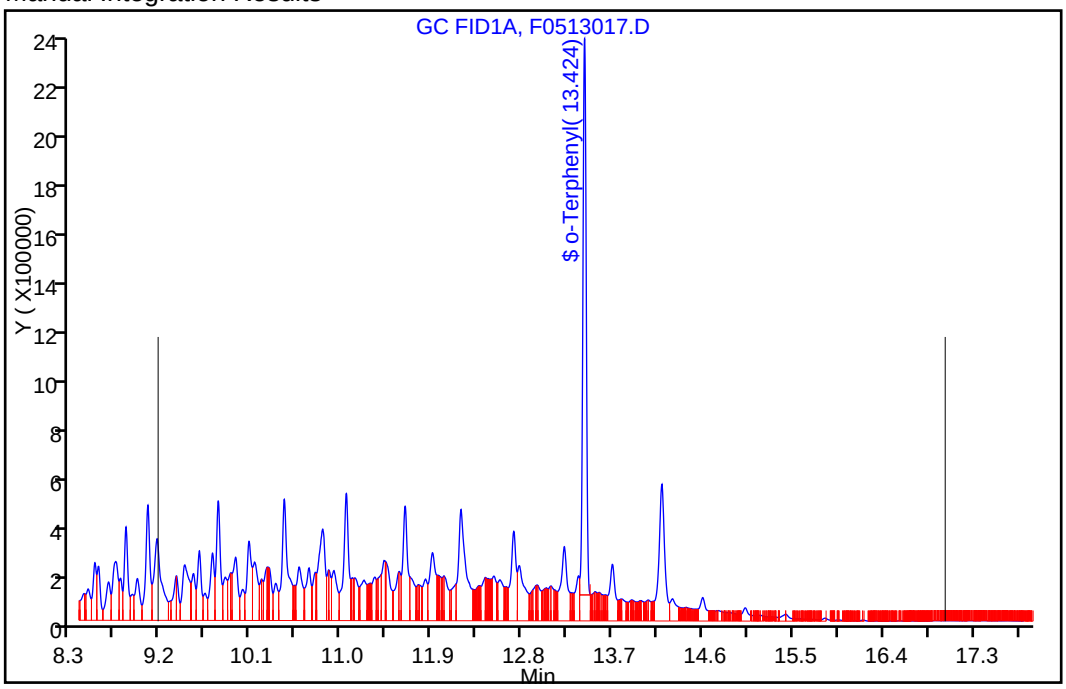
Processing Integration Results

RT: 13.10
Response: 48211282
Amount: 219.2272



Manual Integration Results

RT: 13.10
Response: 53813785
Amount: 243.8932



Reviewer: somjitp, 16-May-2016 09:26:52

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

Client Sample ID: | Lab Sample ID: 600-130738-J-1-A MSD

Matrix: Water | Lab File ID: B0516015.D

Analysis Method: TX 1005 | Date Collected: 05/10/2016 10:30

Extraction Method: TX_1005_W_Prep | Date Extracted: 05/16/2016 14:59

Sample wt/vol: 36.59(mL) | Date Analyzed: 05/16/2016 18:35

Con. Extract Vol.: 3.00(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 188552 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
STL00061	C6-C12	27.35		1.64	0.681
STL00035	>C12-C28	26.25		1.64	0.787
STL00147	>C28-C35	0.787	U	1.64	0.787
STL00006	Total Petroleum Hydrocarbons (C6-C35)	53.60		1.64	0.681

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	114		70-130

TestAmerica Houston
Target Compound Quantitation Report

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516015.D
Lims ID: 600-130738-J-1-A MSD
Client ID:
Sample Type: MSD
Inject. Date: 16-May-2016 18:35:34 ALS Bottle#: 65 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 600-0012073-015
Operator ID: Instrument ID: CHFID12_R

Method: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\GCSV - TX1005_1006R.m
Limit Group: GCSV - TX1005
Last Update: 17-May-2016 10:21:52 Calib Date: 12-May-2016 13:49:14
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Houston\ChromData\CHFID12_R\20160511-12029.b\B0512011.D

Column 1 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: somjitp Date: 17-May-2016 10:21:52

	Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	2 Hexane	3.357	3.345	0.012	2884129		275.6	
	3 n-Heptane	3.907	3.902	0.005	1066221		NC	
A	4 Over C7-C8 aromatics	4.740	(4.002-5.479)		13426759		72.9	
	5 n-Octane	5.383	5.379	0.004	771956		NC	
A	6 C6-C12	6.237	(3.245-9.228)		61472535	333.3	333.6	
A	7 Over C8-C10 aromatics	6.554	(5.479-7.630)		21816086		118.4	
	8 n-Nonane	6.559	6.560	-0.001	2556219		NC	
	9 n-Decane	7.554	7.530	0.024	3360422		NC	
	10 Undecane	8.361	8.369	-0.008	2089920		NC	
A	11 Over C10-C12 aromatics	8.429	(7.630-9.228)		17868771		97.0	
	12 Dodecane	9.126	9.128	-0.002	1534125		NC	
	13 C13	9.823	9.827	-0.004	1468738		NC	
	14 n-Tetradecane	10.479	10.483	-0.004	2212107		NC	
A	1 Over C12-C16 aromatics	10.506	(9.228-11.783)		31495338		178.7	
	15 C15	11.096	11.097	-0.001	1844495		NC	
S	16 C6-C35					666.7	653.7	
	17 Hexadecane	11.679	11.683	-0.004	2181680		NC	
	18 n-Octadecane	12.759	12.763	-0.004	1293576		NC	
A	19 Over C16-C21 aromatics	13.041	(11.783-14.299)		24685771		140.0	
A	20 Over C12-C28	13.137	(9.228-17.047)		56430087	333.3	320.1	
	21 C19	13.261	13.262	-0.001	1578097		NC	
$	22 o-Terphenyl	13.465	13.464	0.001	4977154	16.7	19.0	
	23 icosane	13.739	13.745	-0.006	896673		NC	
	24 C21	14.231	14.199	0.032	2294194		NC	
	25 n-Docosane	14.637	14.642	-0.005	413871		NC	
	26 Tricosane	14.903	14.889	0.014	165451		NC	
	27 n-Tetracosane	15.461	15.468	-0.007	97456		NC	
	28 C25	15.853	15.855	-0.002	22307		NC	
	29 n-Hexacosane	16.229	16.232	-0.003	9896		NC	
	30 C27	16.593	16.591	0.002	385		NC	
	31 n-Octacosane	16.953	16.947	0.006	451		NC	
	33 C29	17.298	17.290	0.008	294		NC	

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 32 Over C21-C35 aromatics	17.457	(14.299-20.614)		4743440		26.5	
34 Triacontane	17.681	17.673	0.008	260		NC	
35 C31	18.082	18.092	-0.010	88		NC	
36 Dotriacontane	18.582	18.575	0.007	122		NC	
38 C33	19.114	19.123	-0.009	86		NC	
39 Tetratriacontane	19.764	19.762	0.002	37		NC	
40 C35	20.510	20.514	-0.004	93		NC	
S 42 C6-C35 Summary						633.4	

QC Flag Legend

Processing Flags

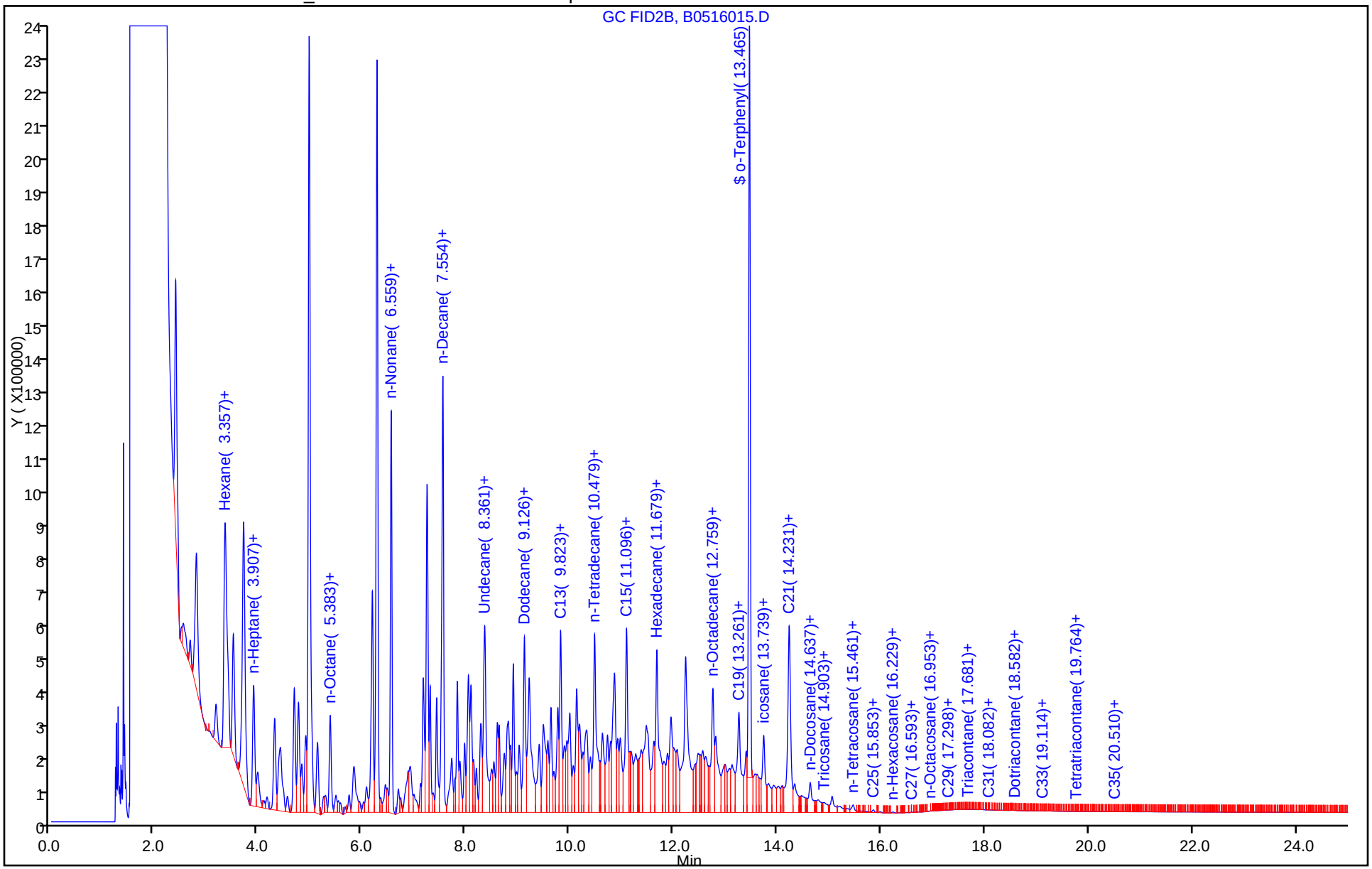
NC - Not Calibrated

Report Date: 17-May-2016 10:21:53 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516015.D

Injection Date:	16-May-2016 18:35:34	Instrument ID:	CHFID12_R	Operator ID:	
Lims ID:	600-130738-J-1-A MSD			Worklist Smp#:	15
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	65
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		



Report Date: 17-May-2016 10:21:53 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File: \\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516015.D

Injection Date: 16-May-2016 18:35:34 Instrument ID: CHFID12_R

Lims ID: 600-130738-J-1-A MSD

Client ID:

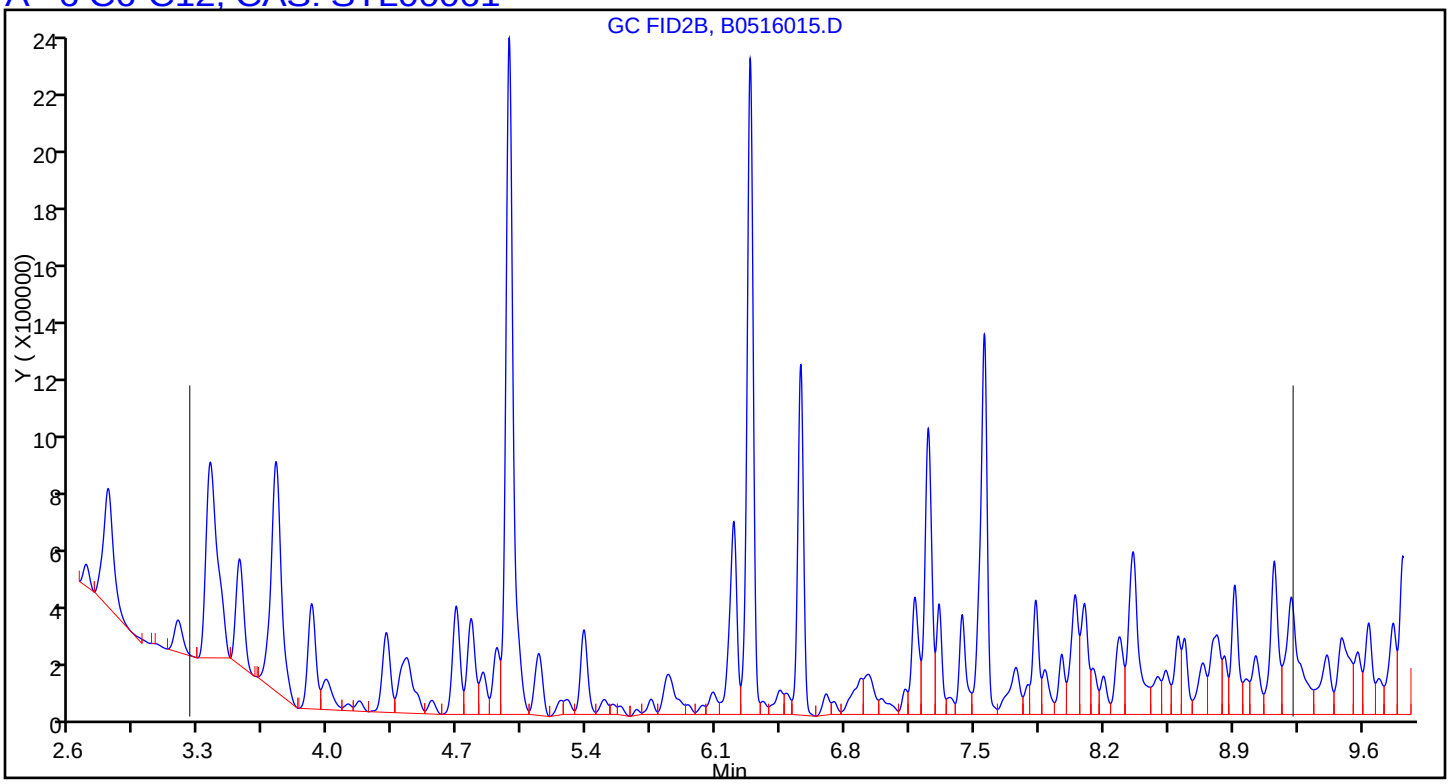
Operator ID: ALS Bottle#: 65 Worklist Smp#: 15

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: GCSV - TX1005_1006R Limit Group: GCSV - TX1005

Column: Detector GC FID1A

A 6 C6-C12, CAS: STL00061

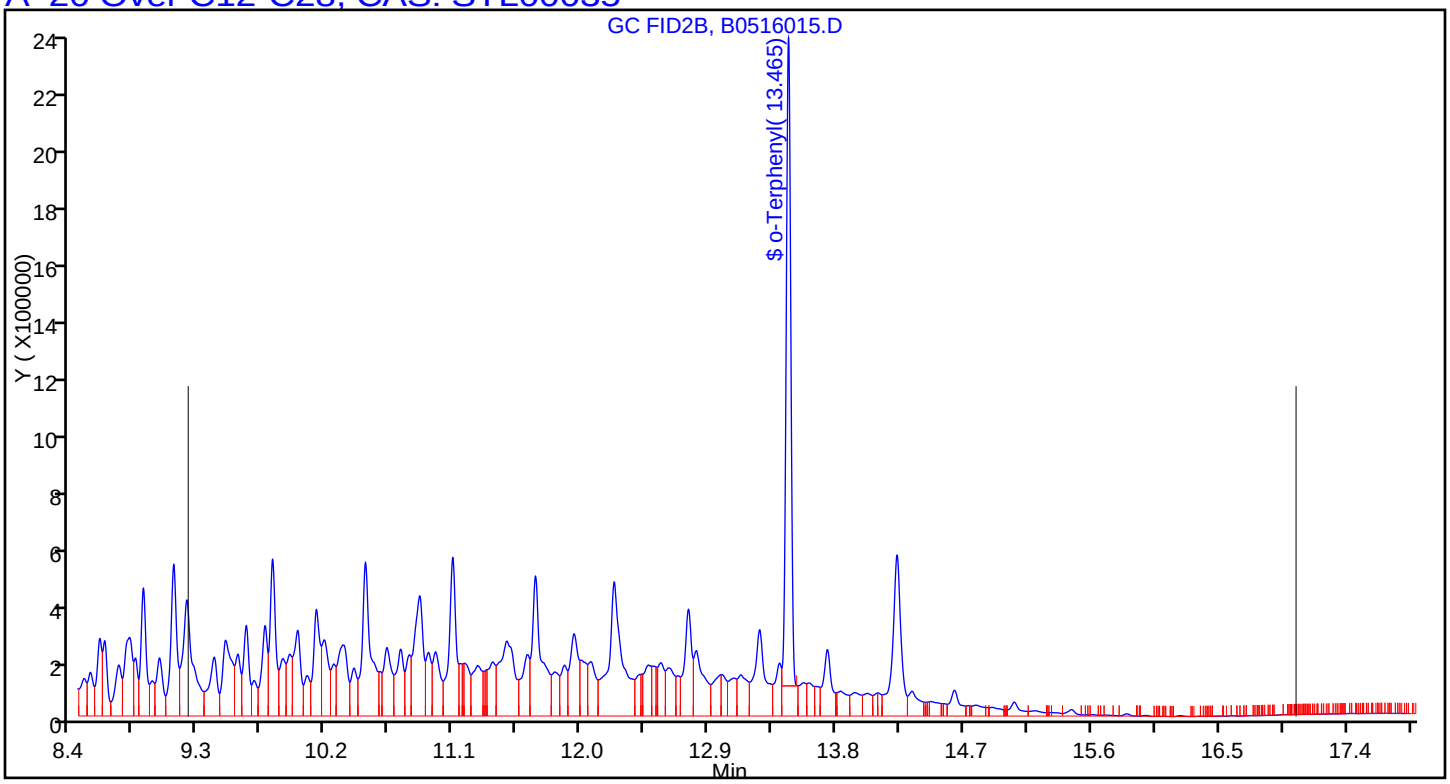


Report Date: 17-May-2016 10:21:53 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Houston

Data File:	\\ChromNA\Houston\ChromData\CHFID12_R\20160516-12073.b\B0516015.D				
Injection Date:	16-May-2016 18:35:34	Instrument ID:	CHFID12_R		
Lims ID:	600-130738-J-1-A MSD				
Client ID:					
Operator ID:		ALS Bottle#:	65	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	GCSV - TX1005_1006R	Limit Group:	GCSV - TX1005		
Column:		Detector	GC FID1A		

A 20 Over C12-C28, CAS: STL00035



GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHFID12 Start Date: 05/12/2016 08:22

Analysis Batch Number: 188340 End Date: 05/12/2016 14:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 600-188340/1		05/12/2016 08:22	1		RTX-5 0.53(mm)
RTC 600-188340/2		05/12/2016 08:54	1		RTX-5 0.53(mm)
ZZZZZ		05/12/2016 09:27	1		RTX-5 0.53(mm)
ZZZZZ		05/12/2016 09:59	1		RTX-5 0.53(mm)
IC 600-188340/5		05/12/2016 10:32	1	F0512005.D	RTX-5 0.53(mm)
IC 600-188340/6		05/12/2016 11:04	1	F0512006.D	RTX-5 0.53(mm)
IC 600-188340/7		05/12/2016 11:37	1	F0512007.D	RTX-5 0.53(mm)
ICRT 600-188340/8		05/12/2016 12:10	1	F0512008.D	RTX-5 0.53(mm)
IC 600-188340/9		05/12/2016 12:43	1	F0512009.D	RTX-5 0.53(mm)
IC 600-188340/10		05/12/2016 13:16	1	F0512010.D	RTX-5 0.53(mm)
IC 600-188340/11		05/12/2016 13:49	1	F0512011.D	RTX-5 0.53(mm)
ICV 600-188340/12		05/12/2016 14:22	1		RTX-5 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHFID12_R Start Date: 05/12/2016 08:22

Analysis Batch Number: 188342 End Date: 05/12/2016 14:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 600-188342/1		05/12/2016 08:22	1		RTX-5 0.53(mm)
RTC 600-188342/2		05/12/2016 08:54	1		RTX-5 0.53(mm)
ZZZZZ		05/12/2016 09:27	1		RTX-5 0.53(mm)
ZZZZZ		05/12/2016 09:59	1		RTX-5 0.53(mm)
IC 600-188342/5		05/12/2016 10:32	1	B0512005.D	RTX-5 0.53(mm)
IC 600-188342/6		05/12/2016 11:04	1	B0512006.D	RTX-5 0.53(mm)
IC 600-188342/7		05/12/2016 11:37	1	B0512007.D	RTX-5 0.53(mm)
ICRT 600-188342/8		05/12/2016 12:10	1	B0512008.D	RTX-5 0.53(mm)
IC 600-188342/9		05/12/2016 12:43	1	B0512009.D	RTX-5 0.53(mm)
IC 600-188342/10		05/12/2016 13:16	1	B0512010.D	RTX-5 0.53(mm)
IC 600-188342/11		05/12/2016 13:49	1	B0512011.D	RTX-5 0.53(mm)
ICV 600-188342/12		05/12/2016 14:22	1		RTX-5 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHFID12 Start Date: 05/13/2016 07:13

Analysis Batch Number: 188457 End Date: 05/14/2016 01:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 600-188457/1		05/13/2016 07:13	1	F0513001.D	RTX-5 0.53(mm)
CCVRT 600-188457/2		05/13/2016 08:31	1	F0513002.D	RTX-5 0.53(mm)
MB 600-188433/1-B		05/13/2016 09:07	1	F0513003.D	RTX-5 0.53(mm)
LCS 600-188433/2-B		05/13/2016 09:39	1	F0513004.D	RTX-5 0.53(mm)
LCSD 600-188433/3-B		05/13/2016 10:11	1	F0513005.D	RTX-5 0.53(mm)
ZZZZZ		05/13/2016 11:00	1		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 11:32	1		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 12:05	1		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 12:37	1		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 13:10	1		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 13:43	1		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 14:16	1		RTX-5 0.53(mm)
CCV 600-188457/13		05/13/2016 14:49	1	F0513013.D	RTX-5 0.53(mm)
ZZZZZ		05/13/2016 15:28	1		RTX-5 0.53(mm)
600-130758-1		05/13/2016 16:01	1	F0513015.D	RTX-5 0.53(mm)
600-130758-1 MS		05/13/2016 16:34	1	F0513016.D	RTX-5 0.53(mm)
600-130758-1 MSD		05/13/2016 17:07	1	F0513017.D	RTX-5 0.53(mm)
CCV 600-188457/18		05/13/2016 17:40	1	F0513018.D	RTX-5 0.53(mm)
ZZZZZ		05/13/2016 18:13	100		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 18:46	100		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 19:18	100		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 19:51	100		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 20:23	100		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 20:56	100		RTX-5 0.53(mm)
CCV 600-188457/25		05/13/2016 21:28	1		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 22:00	50		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 22:32	50		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 23:05	50		RTX-5 0.53(mm)
ZZZZZ		05/13/2016 23:37	50		RTX-5 0.53(mm)
ZZZZZ		05/14/2016 00:09	50		RTX-5 0.53(mm)
ZZZZZ		05/14/2016 00:41	50		RTX-5 0.53(mm)
CCV 600-188457/32		05/14/2016 01:14	1		RTX-5 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: CHFID12_R Start Date: 05/16/2016 08:07

Analysis Batch Number: 188552 End Date: 05/16/2016 21:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
RTC 600-188552/1		05/16/2016 08:07	1	B0516001.D	RTX-5 0.53(mm)
RTC 600-188552/2		05/16/2016 08:39	1	B0516002.D	RTX-5 0.53(mm)
CCVRT 600-188552/4		05/16/2016 09:42	1	B0516004.D	RTX-5 0.53(mm)
ZZZZZ		05/16/2016 10:14	1		RTX-5 0.53(mm)
ZZZZZ		05/16/2016 10:47	1		RTX-5 0.53(mm)
ZZZZZ		05/16/2016 11:18	1		RTX-5 0.53(mm)
ZZZZZ		05/16/2016 12:30	1		RTX-5 0.53(mm)
CCV 600-188552/9		05/16/2016 13:01	1	B0516009.D	RTX-5 0.53(mm)
MB 600-188603/1-A		05/16/2016 15:54	1	B0516010.D	RTX-5 0.53(mm)
LCS 600-188603/2-A		05/16/2016 16:26	1	B0516011.D	RTX-5 0.53(mm)
LCSD 600-188603/3-A		05/16/2016 16:59	1	B0516012.D	RTX-5 0.53(mm)
ZZZZZ		05/16/2016 17:31	1		RTX-5 0.53(mm)
600-130738-I-1-A MS		05/16/2016 18:03	1	B0516014.D	RTX-5 0.53(mm)
600-130738-J-1-A MSD		05/16/2016 18:35	1	B0516015.D	RTX-5 0.53(mm)
ZZZZZ		05/16/2016 19:07	1		RTX-5 0.53(mm)
600-130758-2		05/16/2016 19:39	1	B0516017.D	RTX-5 0.53(mm)
ZZZZZ		05/16/2016 20:12	1		RTX-5 0.53(mm)
ZZZZZ		05/16/2016 20:44	1		RTX-5 0.53(mm)
CCV 600-188552/20		05/16/2016 21:16	1	B0516020.D	RTX-5 0.53(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188433 Batch Start Date: 05/12/16 15:02 Batch Analyst: Vo Pham, Ngoc-Ly

Batch Method: 5035 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 600-188433/1		5035, TX_1005_S_Prep, TX 1005		10.00 g	10.00 g				
LCS 600-188433/2		5035, TX_1005_S_Prep, TX 1005		10.00 g	10.00 g				
LCSD 600-188433/3		5035, TX_1005_S_Prep, TX 1005		10.00 g	10.00 g				
600-130758-O-1	PC-IDW Soil	5035, TX_1005_S_Prep, TX 1005	T	12.983 g	10.00 g				
600-130758-P-1 MS	PC-IDW Soil	5035, TX_1005_S_Prep, TX 1005	T	13.659 g	10.00 g				
600-130758-Q-1 MSD	PC-IDW Soil	5035, TX_1005_S_Prep, TX 1005	T	13.714 g	10.00 g				

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188434 Batch Start Date: 05/12/16 15:15 Batch Analyst: Vo Pham, Ngoc-Ly

Batch Method: TX_1005_S_Prep Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	TX1005LCS 00140	TX1005SURR 00186	AnalysisComment	
MB 600-188433/1-A		TX_1005_S_Prep, TX 1005		10.00 g	10.00 mL		250 uL		
LCS 600-188433/2-A		TX_1005_S_Prep, TX 1005		10.00 g	10.00 mL	250 uL	250 uL		
LCSD 600-188433/3-A		TX_1005_S_Prep, TX 1005		10.00 g	10.00 mL	250 uL	250 uL		
600-130758-O-1-A	PC-IDW Soil	TX_1005_S_Prep, TX 1005	T	10.00 g	10.00 mL		250 uL	ENCORE, preweighed .	
600-130758-P-1-A MS	PC-IDW Soil	TX_1005_S_Prep, TX 1005	T	10.00 g	10.00 mL	250 uL	250 uL	ENCORE, preweighed .	
600-130758-Q-1-A MSD	PC-IDW Soil	TX_1005_S_Prep, TX 1005	T	10.00 g	10.00 mL	250 uL	250 uL	ENCORE, preweighed .	

Batch Notes	
Vendor lot number	155199
Na2SO4 ID	EX Sod Sulfate-00055
Nominal Amount Used	10 g
Reagent ID	Pentane-00027
Solvent	Pentane

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188603 Batch Start Date: 05/16/16 14:59 Batch Analyst: Vo Pham, Ngoc-Ly

Batch Method: TX_1005_W_Prep Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	TX1005LCS 00140	TX1005SURR 00186	
MB 600-188603/1		TX_1005_W_Prep, TX 1005		7 SU	30.00 mL	3.00 mL		100 uL	
LCS 600-188603/2		TX_1005_W_Prep, TX 1005		7 SU	30.00 mL	3.00 mL	100 uL	100 uL	
LCSD 600-188603/3		TX_1005_W_Prep, TX 1005		7 SU	30.00 mL	3.00 mL	100 uL	100 uL	
600-130738-I-1 MS		TX_1005_W_Prep, TX 1005	T	2 SU	36.26 mL	3.00 mL	100 uL	100 uL	
600-130738-J-1 MSD		TX_1005_W_Prep, TX 1005	T	2 SU	36.59 mL	3.00 mL	100 uL	100 uL	
600-130758-M-2	PC-IDW Water	TX_1005_W_Prep, TX 1005	T	2 SU	36.68 mL	3.00 mL		100 uL	

Batch Notes	
Vendor lot number	155199
Reagent ID	Pentane-00027
Solvent	Pentane

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG No.:

Project: Petro-Chemical Systems Turtle Bayou IDW

Client Sample ID	Lab Sample ID
PC-IDW Soil	600-130758-1
PC-IDW Water	600-130758-2

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: PC-IDW Soil
Lab Sample ID: 600-130758-1
Lab Name: TestAmerica Houston
Job No.: 600-130758-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/11/2016 10:00
Reporting Basis: WET
Date Received: 05/12/2016 11:16

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-22-4	Silver	0.0129	0.100	0.0129	mg/L	U		1	6010B
7440-38-2	Arsenic	0.0285	0.100	0.0285	mg/L	U		1	6010B
7440-39-3	Barium	1.03	0.200	0.00530	mg/L		B	1	6010B
7440-43-9	Cadmium	0.00280	0.0500	0.00280	mg/L	U		1	6010B
7440-47-3	Chromium	0.0159	0.100	0.0159	mg/L	U		1	6010B
7439-92-1	Lead	0.0219	0.100	0.0219	mg/L	U		1	6010B
7782-49-2	Selenium	0.0287	0.400	0.0287	mg/L	U		1	6010B
7439-97-6	Mercury	0.0000820	0.000200	0.0000820	mg/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS - TCLP

Client Sample ID: PC-IDW Water
Lab Sample ID: 600-130758-2
Lab Name: TestAmerica Houston
Job No.: 600-130758-1
SDG ID.:
Matrix: Water
Date Sampled: 05/11/2016 10:00
Reporting Basis: WET
Date Received: 05/12/2016 11:16

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-22-4	Silver	0.0129	0.100	0.0129	mg/L	U		1	6010B
7440-38-2	Arsenic	0.0285	0.100	0.0285	mg/L	U		1	6010B
7440-39-3	Barium	0.236	0.200	0.00530	mg/L		B	1	6010B
7440-43-9	Cadmium	0.00280	0.0500	0.00280	mg/L	U		1	6010B
7440-47-3	Chromium	0.0159	0.100	0.0159	mg/L	U		1	6010B
7439-92-1	Lead	0.0219	0.100	0.0219	mg/L	U		1	6010B
7782-49-2	Selenium	0.0287	0.400	0.0287	mg/L	U		1	6010B
7439-97-6	Mercury	0.0000820	0.000200	0.0000820	mg/L	U	F1	1	7470A

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

ICV Source: MET0516CCV_00001 Concentration Units: mg/L

CCV Source: MET0516CCV_00001

Analyte	ICV 600-188611/9 05/16/2016 14:34				CCV 600-188611/62 05/16/2016 17:30				CCV 600-188611/74 05/16/2016 17:54			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.4934		0.500	99	0.4888		0.500	98	0.4932		0.500	99
Barium	0.4916		0.500	98	0.4909		0.500	98	0.4893		0.500	98
Cadmium	0.4882		0.500	98	0.4890		0.500	98	0.4883		0.500	98
Chromium	0.5077		0.500	102	0.5103		0.500	102	0.5062		0.500	101
Lead	0.5079		0.500	102	0.5092		0.500	102	0.5044		0.500	101
Selenium	0.5041		0.500	101	0.5162		0.500	103	0.5100		0.500	102
Silver	0.2459		0.250	98	0.2510		0.250	100	0.2485		0.250	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

ICV Source: MET0516CCV_00001 Concentration Units: mg/L

CCV Source: MET0516CCV_00001

Analyte	CCV 600-188611/86 05/16/2016 18:18				CCV 600-188611/98 05/16/2016 18:42				CCV 600-188611/110 05/16/2016 19:05			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.4792		0.500	96	0.4878		0.500	98	0.4616		0.500	92
Barium	0.4944		0.500	99	0.4934		0.500	99	0.4658		0.500	93
Cadmium	0.4918		0.500	98	0.4921		0.500	98	0.4624		0.500	92
Chromium	0.5047		0.500	101	0.5113		0.500	102	0.4806		0.500	96
Lead	0.5033		0.500	101	0.5127		0.500	103	0.4788		0.500	96
Selenium	0.5055		0.500	101	0.5116		0.500	102	0.4809		0.500	96
Silver	0.2465		0.250	99	0.2481		0.250	99	0.2319		0.250	93

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

ICV Source: MER0516S2_00010 Concentration Units: ug/L

CCV Source: MER0516S2_00010

Analyte	ICV 600-188600/8 05/16/2016 13:02				CCV 600-188600/11 05/16/2016 13:08				CCV 600-188600/23 05/16/2016 13:31			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	3.086		3.00	103	3.151		3.00	105	3.116		3.00	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

ICV Source: MER0516S2_00010 Concentration Units: ug/L

CCV Source: MER0516S2_00010

Analyte	CCV 600-188600/35 05/16/2016 13:53				CCV 600-188600/47 05/16/2016 14:16				CCV 600-188600/51 05/16/2016 14:23			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	3.085		3.00	103	3.040		3.00	101	3.100		3.00	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Method: 7470A Instrument ID: FIMS01

Lab Sample ID: CRA 600-188600/10 Concentration Units: ug/L

CRQL Check Standard Source: MER0516S1_00010

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Mercury	0.200	0.1839	J	92	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICBIS 600-188611/10 05/16/2016 14:35		CCB 600-188611/63 05/16/2016 17:32		CCB 600-188611/75 05/16/2016 17:56		CCB 600-188611/87 05/16/2016 18:20	
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.0100	0.00285	U	0.00285	U	0.00285	U	0.00285	U
Barium	0.0200	0.000530	U	0.000530	U	0.000530	U	0.000530	U
Cadmium	0.00500	0.000280	U	0.000280	U	0.000280	U	0.000280	U
Chromium	0.0100	0.00159	U	0.00159	U	0.00159	U	0.00159	U
Lead	0.0100	0.00219	U	0.00219	U	0.00219	U	0.00219	U
Selenium	0.0400	0.00287	U	0.00287	U	0.00287	U	0.00287	U
Silver	0.0100	0.00129	U	0.00129	U	0.00129	U	0.00129	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 600-188611/99 05/16/2016 18:44		CCB 600-188611/111 05/16/2016 19:07					
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.0100	0.00285	U	0.00285	U				
Barium	0.0200	0.000530	U	0.000530	U				
Cadmium	0.00500	0.000280	U	0.000280	U				
Chromium	0.0100	0.00159	U	0.00159	U				
Lead	0.0100	0.00219	U	0.00219	U				
Selenium	0.0400	0.00287	U	0.00287	U				
Silver	0.0100	0.00129	U	0.00129	U				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 600-188600/9 05/16/2016 13:04		CCB 600-188600/12 05/16/2016 13:10		CCB 600-188600/24 05/16/2016 13:33		CCB 600-188600/36 05/16/2016 13:56	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.200	0.0820	U	0.0820	U	0.0820	U	0.0820	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB 600-188600/48 05/16/2016 14:18		CCB 600-188600/52 05/16/2016 14:26					
		Found	C	Found	C	Found	C	Found	C
Mercury	0.200	0.0820	U	0.0820	U				

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 600-188544/1-A

Instrument Code: SPECTRO1 Batch No.: 188611

CAS No.	Analyte	Concentration	C	Q	Method
7440-22-4	Silver	0.00129	U		6010B
7440-38-2	Arsenic	0.00285	U		6010B
7440-39-3	Barium	0.001646	J		6010B
7440-43-9	Cadmium	0.000280	U		6010B
7440-47-3	Chromium	0.00159	U		6010B
7439-92-1	Lead	0.00219	U		6010B
7782-49-2	Selenium	0.00287	U		6010B

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 600-188519/1-C

Instrument Code: SPECTRO1 Batch No.: 188611

CAS No.	Analyte	Concentration	C	Q	Method
7440-22-4	Silver	0.0129	U		6010B
7440-38-2	Arsenic	0.0285	U		6010B
7440-39-3	Barium	0.00530	U		6010B
7440-43-9	Cadmium	0.00280	U		6010B
7440-47-3	Chromium	0.0159	U		6010B
7439-92-1	Lead	0.0219	U		6010B
7782-49-2	Selenium	0.0287	U		6010B

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 600-188518/1-D

Instrument Code: SPECTRO1 Batch No.: 188611

CAS No.	Analyte	Concentration	C	Q	Method
7440-22-4	Silver	0.0129	U		6010B
7440-38-2	Arsenic	0.0285	U		6010B
7440-39-3	Barium	0.01269	J		6010B
7440-43-9	Cadmium	0.00280	U		6010B
7440-47-3	Chromium	0.0159	U		6010B
7439-92-1	Lead	0.0219	U		6010B
7782-49-2	Selenium	0.0287	U		6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 600-188546/7-A

Instrument Code: FIMS01 Batch No.: 188600

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.0000820	U		7470A

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 600-188519/1-D

Instrument Code: FIMS01 Batch No.: 188600

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.0000820	U		7470A

3-IN
METHOD BLANK
METALS - TCLP

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: LB 600-188518/1-E

Instrument Code: FIMS01 Batch No.: 188600

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.0000820	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: ICSA 600-188611/12 Instrument ID: SPECTRO1

Lab File ID: R051616.asc ICS Source: METISA_00118

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**-0.0142**	
Barium		**0.0014**	
Cadmium		**0.0001**	
Chromium		**-0.0023**	
Lead		**-0.0014**	
Selenium		**-0.0221**	
Silver		**-0.0006**	
Aluminum	*500*	*468*	*94*
Antimony		*0.0115*	
Beryllium		*-0.0004*	
Boron		*0.0548*	
Calcium	*500*	*474*	*95*
Cobalt		*0.0001*	
Copper		*0.0086*	
Iron	*200*	*207*	*103*
Lithium		*0.0014*	
Magnesium	*500*	*495*	*99*
Manganese		*0.0026*	
Molybdenum		*-0.0018*	
Nickel		*-0.0010*	
Potassium		*-0.0022*	
Silicon		*0.0477*	
Sodium		*-0.133*	
Strontium		*0.0042*	
Thallium		*-0.0023*	
Tin		*-0.0003*	
Titanium		*0.0023*	
Vanadium		*0.0027*	
Zinc		*-0.0004*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Lab Sample ID: ICSAB 600-188611/13 Instrument ID: SPECTRO1

Lab File ID: R051616.asc ICS Source: METISB_00114

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**1.00**	**1.12**	**112**
Barium	**1.00**	**1.06**	**106**
Cadmium	**0.500**	**0.494**	**99**
Chromium	**1.00**	**1.03**	**103**
Lead	**1.00**	**1.00**	**100**
Selenium	**1.00**	**1.02**	**102**
Silver	**0.500**	**0.546**	**109**
Aluminum	*510*	*485*	*95*
Antimony	*1.00*	*1.02*	*102*
Beryllium	*0.500*	*0.521*	*104*
Boron	*1.00*	*1.17*	*117*
Calcium	*510*	*501*	*98*
Cobalt	*1.00*	*1.01*	*101*
Copper	*1.00*	*1.06*	*106*
Iron	*210*	*219*	*104*
Lithium	*1.00*	*1.05*	*105*
Magnesium	*510*	*511*	*100*
Manganese	*1.00*	*1.04*	*104*
Molybdenum	*1.00*	*0.959*	*96*
Nickel	*1.00*	*0.974*	*97*
Potassium	*10.0*	*11.3*	*113*
Silicon	*1.00*	*0.964*	*96*
Sodium	*10.0*	*9.13*	*91*
Strontium	*0.500*	*0.560*	*112*
Thallium	*1.00*	*0.904*	*90*
Tin	*1.00*	*0.972*	*97*
Titanium	*1.00*	*0.981*	*98*
Vanadium	*1.00*	*1.08*	*108*
Zinc	*1.00*	*1.07*	*107*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS - TCLP

Client ID: PC-IDW Water MS
Lab ID: 600-130758-2 MS
Lab Name: TestAmerica Houston
Job No.: 600-130758-1
SDG No.:
Matrix: Solid
Concentration Units: mg/L
% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Silver	5.355		0.0129	U	5.00	107	75-125		6010B
Arsenic	10.79		0.0285	U	10.0	108	75-125		6010B
Barium	10.85		0.236		10.0	106	75-125		6010B
Cadmium	5.284		0.00280	U	5.00	106	75-125		6010B
Chromium	10.54		0.0159	U	10.0	105	75-125		6010B
Lead	10.67		0.0219	U	10.0	107	75-125		6010B
Selenium	10.68		0.0287	U	10.0	107	75-125		6010B
Mercury	0.001212		0.0000820	U	0.00300	40	75-125	F1	7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS - TCLP

Client ID: PC-IDW Water PDS
Lab ID: 600-130758-2 PDS
Lab Name: TestAmerica Houston
Job No.: 600-130758-1
SDG No.:
Matrix: Solid
Concentration Units: mg/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Silver	4.945		0.0129	U	5.00	99	75-125		6010B
Arsenic	10.32		0.0285	U	10.0	103	75-125		6010B
Barium	10.49		0.236		10.0	103	75-125		6010B
Cadmium	5.058		0.00280	U	5.00	101	75-125		6010B
Chromium	10.16		0.0159	U	10.0	102	75-125		6010B
Lead	10.31		0.0219	U	10.0	103	75-125		6010B
Selenium	10.23		0.0287	U	10.0	102	75-125		6010B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

6-IN
DUPLICATES
METALS - TCLP

Client ID: PC-IDW Water DU | Lab ID: 600-130758-2 DU

Lab Name: TestAmerica Houston | Job No.: 600-130758-1

SDG No.:

% Solids for Sample: | % Solids for Duplicate:

Matrix: Solid | Concentration Units: mg/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Silver	0.100	0.0129	U	0.0129	U	NC		6010B
Arsenic	0.100	0.0285	U	0.0285	U	NC		6010B
Barium	0.200	0.236		0.2285		3		6010B
Cadmium	0.0500	0.00280	U	0.00280	U	NC		6010B
Chromium	0.100	0.0159	U	0.0159	U	NC		6010B
Lead	0.100	0.0219	U	0.0219	U	NC		6010B
Selenium	0.400	0.0287	U	0.0287	U	NC		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES

Client ID: Lab ID: 600-130753-A-1-I DU

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

% Solids for Sample: % Solids for Duplicate:

Matrix: Solid Concentration Units: mg/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury	0.000200	0.0000820	U	0.0000820	U	NC		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 600-188544/2-A

Lab Name: TestAmerica Houston Job No.: 600-130758-1

Sample Matrix: Water LCS Source: METCALB_00023

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Silver	0.500	0.5235		105	80	120		6010B
Arsenic	1.00	1.042		104	80	120		6010B
Barium	1.00	1.037		104	80	120		6010B
Cadmium	0.500	0.5161		103	80	120		6010B
Chromium	1.00	1.033		103	80	120		6010B
Lead	1.00	1.049		105	80	120		6010B
Selenium	1.00	1.033		103	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 600-188546/8-A

Lab Name: TestAmerica Houston Job No.: 600-130758-1

Sample Matrix: Water LCS Source: MER0516S2_00010

Analyte	Water(mg/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.00300	0.003185		106	70	130		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS - TCLP

Lab ID: 600-130758-2

SDG No:

Lab Name: TestAmerica Houston Job No: 600-130758-1

Matrix: Solid Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Silver	0.0129	U	0.0645	U	NC		6010B
Arsenic	0.0285	U	0.143	U	NC		6010B
Barium	0.236		0.2516	J	NC		6010B
Cadmium	0.00280	U	0.0140	U	NC		6010B
Chromium	0.0159	U	0.0795	U	NC		6010B
Lead	0.0219	U	0.110	U	NC		6010B
Selenium	0.0287	U	0.144	U	NC		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS

Lab ID: 600-130753-A-1-H SD ^5

SDG No:

Lab Name: TestAmerica Houston Job No: 600-130758-1

Matrix: Solid Concentration Units: mg/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Mercury	0.0000820	U	0.000410	U	NC		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: SPECTRO1

Method: 6010B MDL Date: 06/19/2015 10:45

Prep Method: 3010A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Arsenic		0.01	0.00285
Barium		0.02	0.00053
Cadmium		0.005	0.00028
Chromium		0.01	0.00159
Lead		0.01	0.00219
Selenium		0.04	0.00287
Silver		0.01	0.00129

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: SPECTRO1

Method: 6010B XMDL Date: 06/19/2015 10:46

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Arsenic		0.01	0.00285
Barium		0.02	0.00053
Cadmium		0.005	0.00028
Chromium		0.01	0.00159
Lead		0.01	0.00219
Selenium		0.04	0.00287
Silver		0.01	0.00129

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: SPECTRO1

Method: 6010B MDL Date: 06/19/2015 10:45

Prep Method: 3010A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Arsenic		0.01	0.00285
Barium		0.02	0.00053
Cadmium		0.005	0.00028
Chromium		0.01	0.00159
Lead		0.01	0.00219
Selenium		0.04	0.00287
Silver		0.01	0.00129

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: SPECTRO1

Method: 6010B XMDL Date: 06/19/2015 10:46

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Arsenic		0.01	0.00285
Barium		0.02	0.00053
Cadmium		0.005	0.00028
Chromium		0.01	0.00159
Lead		0.01	0.00219
Selenium		0.04	0.00287
Silver		0.01	0.00129

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: FIMS01

Method: 7470A MDL Date: 01/30/2013 13:08

Prep Method: 7470A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.082

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: FIMS01

Method: 7470A XMDL Date: 05/16/2008 15:13

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.082

9-IN
DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: FIMS01

Method: 7470A MDL Date: 01/30/2013 13:08

Prep Method: 7470A

Leach Method: 1311

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Mercury		0.2	0.082

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS - TCLP

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: FIMS01

Method: 7470A XMDL Date: 05/16/2008 15:13

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury		0.2	0.082

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG No.:

ICP-AES Instrument ID: SPECTRO1 Date: 06/18/2015

Analyte	Wave Length	Ag	Al	B	Ba	Be	Ca	CaCO3	Cd	Co	Cr	Cu	Fe	K	Li
Aluminum															
Antimony											0.0030499				
Arsenic			-0.000006816								0.00091557		-0.0000381		
Barium															
Beryllium															
Boron															
Cadmium													0.000094242		
Calcium															
Chromium															
Cobalt															
Copper															
Iron															
Lead			0.00036073										-0.0005		
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel															
Potassium															
Selenium															
Silicon															
Silver															
Sodium															
Strontium															
Thallium										0.0025362					
Tin															
Titanium															
Vanadium															
Zinc															

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG No.:

ICP-AES Instrument ID: SPECTRO1 Date: 06/18/2015

Analyte	Wave Length	Mg	Mn	Mo	Na	Ni	Pb	Sb	Se	Si	Sn	Sr	Ti	Tl	V
Aluminum															
Antimony															
Arsenic															0.0027667
Barium															
Beryllium															
Boron															
Cadmium															
Calcium															
Chromium															
Cobalt						0.00022826							0.0024912		
Copper															
Iron															
Lead															
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel															
Potassium															
Selenium															
Silicon															
Silver															
Sodium															
Strontium															
Thallium															0.0017863
Tin															
Titanium															
Vanadium															
Zinc															

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG No.:

ICP-AES Instrument ID: SPECTRO1 Date: 06/18/2015

Analyte	Wave Length	Zn													
Aluminum															
Antimony															
Arsenic															
Barium															
Beryllium															
Boron															
Cadmium															
Calcium															
Chromium															
Cobalt															
Copper															
Iron															
Lead															
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel															
Potassium															
Selenium															
Silicon															
Silver															
Sodium															
Strontium															
Thallium															
Tin															
Titanium															
Vanadium															
Zinc															

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG No.:

ICP-AES Instrument ID: SPECTRO1 Date: 01/04/2016

Analyte	Wave Length	Ag	Al	B	Ba	Be	Ca	CaCO3	Cd	Co	Cr	Cu	Fe	K	Li
Aluminum															
Antimony											0.0030499				
Arsenic			-0.000004837								0.00091557		-0.000078867		
Barium															
Beryllium															
Boron															
Cadmium													0.00014244		
Calcium															
Chromium															
Cobalt															
Copper															
Iron															
Lead			0.0003293												
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel															
Potassium															
Selenium															
Silicon															
Silver															
Sodium															
Strontium															
Thallium										0.0025362					
Tin															
Titanium															
Vanadium															
Zinc													0.000141		

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG No.:

ICP-AES Instrument ID: SPECTRO1 Date: 01/04/2016

Analyte	Wave Length	Mg	Mn	Mo	Na	Ni	Pb	Sb	Se	Si	Sn	Sr	Ti	Tl	V
Aluminum															
Antimony															
Arsenic															0.0027667
Barium															
Beryllium															
Boron															
Cadmium															
Calcium															
Chromium															
Cobalt						0.00022826							0.0024912		
Copper															
Iron															
Lead															
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel															
Potassium															
Selenium															
Silicon															
Silver															
Sodium															
Strontium															
Thallium															0.0017863
Tin															
Titanium															
Vanadium															
Zinc															

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG No.:

ICP-AES Instrument ID: SPECTRO1 Date: 01/04/2016

Analyte	Wave Length	Zn													
Aluminum															
Antimony															
Arsenic															
Barium															
Beryllium															
Boron															
Cadmium															
Calcium															
Chromium															
Cobalt															
Copper															
Iron															
Lead															
Lithium															
Magnesium															
Manganese															
Molybdenum															
Nickel															
Potassium															
Selenium															
Silicon															
Silver															
Sodium															
Strontium															
Thallium															
Tin															
Titanium															
Vanadium															
Zinc															

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Houston Job No: 600-130758-1

SDG No.:

Instrument ID: SPECTRO1 Date: 04/04/2016 09:32

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Silver		2.00	6010B
Arsenic		50.0	6010B
Barium		40.0	6010B
Cadmium		25.0	6010B
Chromium		50.0	6010B
Lead		50.0	6010B
Selenium		25.0	6010B

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 600-188544/1-A	05/16/2016 06:12	188544		50	50
LCS 600-188544/2-A	05/16/2016 06:12	188544		50	50
LB 600-188519/1-C	05/16/2016 06:12	188544		5	50
600-130758-2	05/16/2016 06:12	188544		5	50
600-130758-2 DU	05/16/2016 06:12	188544		5	50
600-130758-2 MS	05/16/2016 06:12	188544		5	50
LB 600-188518/1-D	05/16/2016 06:12	188544		5	50
600-130758-1	05/16/2016 06:12	188544		5	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 600-188546/7-A	05/16/2016 06:52	188546		40	40
LCS 600-188546/8-A	05/16/2016 06:52	188546		50	50
LB 600-188519/1-D	05/16/2016 06:52	188546		40	40
600-130758-2	05/16/2016 06:52	188546		40	40
600-130758-2 MS	05/16/2016 06:52	188546		40	40
LB 600-188518/1-E	05/16/2016 06:52	188546		40	40
600-130753-A-1-I DU	05/16/2016 06:52	188546		40	40
600-130758-1	05/16/2016 06:52	188546		40	40

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: SPECTRO1 Analysis Method: 6010B

Start Date: 05/16/2016 14:18 End Date: 05/16/2016 19:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
ZZZZZZ			14:18																									
ZZZZZZ			14:20																									
STD 600-188611/3 IC			14:22	X	X	X	X	X	X	X																		
STD 600-188611/4 IC			14:23	X	X	X	X	X	X	X																		
STD 600-188611/5 IC			14:25	X	X	X	X	X	X	X																		
STD 600-188611/6 IC			14:27	X	X	X	X	X	X	X																		
STD 600-188611/7 IC			14:29	X	X	X	X	X	X	X																		
STD 600-188611/8 IC			14:31	X	X	X	X	X	X	X																		
ICV 600-188611/9	1		14:34	X	X	X	X	X	X	X																		
ICBIS 600-188611/10	1		14:35	X	X	X	X	X	X	X																		
ICVL 600-188611/11	1		14:37																									
ICSA 600-188611/12	1		14:39	X	X	X	X	X	X	X																		
ICSAB 600-188611/13	1		14:41	X	X	X	X	X	X	X																		
CCV 600-188611/14			14:42																									
CCB 600-188611/15			14:44																									
ZZZZZZ			16:00																									
ZZZZZZ			16:02																									
ZZZZZZ			16:04																									
ZZZZZZ			16:06																									
ZZZZZZ			16:08																									
ZZZZZZ			16:10																									
ZZZZZZ			16:12																									
ZZZZZZ			16:14																									
ZZZZZZ			16:15																									
ZZZZZZ			16:17																									
CCV 600-188611/26			16:19																									
CCB 600-188611/27			16:21																									
ZZZZZZ			16:23																									
ZZZZZZ			16:25																									
ZZZZZZ			16:27																									
ZZZZZZ			16:29																									
ZZZZZZ			16:31																									
ZZZZZZ			16:33																									
ZZZZZZ			16:35																									
ZZZZZZ			16:37																									
ZZZZZZ			16:39																									
ZZZZZZ			16:41																									
CCV 600-188611/38			16:43																									
CCB 600-188611/39			16:45																									
ZZZZZZ			16:47																									
ZZZZZZ			16:49																									
ZZZZZZ			16:51																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: SPECTRO1 Analysis Method: 6010B

Start Date: 05/16/2016 14:18 End Date: 05/16/2016 19:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
ZZZZZZ			16:53																									
ZZZZZZ			16:55																									
ZZZZZZ			16:57																									
ZZZZZZ			16:59																									
ZZZZZZ			17:01																									
ZZZZZZ			17:03																									
ZZZZZZ			17:05																									
CCV 600-188611/50			17:07																									
CCB 600-188611/51			17:09																									
ZZZZZZ			17:11																									
ZZZZZZ			17:13																									
ZZZZZZ			17:15																									
ZZZZZZ			17:17																									
ZZZZZZ			17:19																									
ZZZZZZ			17:21																									
ZZZZZZ			17:23																									
ZZZZZZ			17:25																									
ZZZZZZ			17:26																									
ZZZZZZ			17:28																									
CCV 600-188611/62	1		17:30	X	X	X	X	X	X	X																		
CCB 600-188611/63	1		17:32	X	X	X	X	X	X	X																		
ZZZZZZ			17:34																									
CCVL 600-188611/65	1		17:36																									
MB 600-188544/1-A	1	T	17:38	X	X	X	X	X	X	X																		
LCS 600-188544/2-A	1	T	17:40	X	X	X	X	X	X	X																		
LB 600-188519/1-C	1	P	17:42	X	X	X	X	X	X	X																		
600-130758-2	1	P	17:44	X	X	X	X	X	X	X																		
600-130758-2 DU	1	P	17:46	X	X	X	X	X	X	X																		
600-130758-2 MS	1	P	17:48	X	X	X	X	X	X	X																		
LB 600-188518/1-D	1	P	17:50	X	X	X	X	X	X	X																		
ZZZZZZ			17:52																									
CCV 600-188611/74	1		17:54	X	X	X	X	X	X	X																		
CCB 600-188611/75	1		17:56	X	X	X	X	X	X	X																		
ZZZZZZ			17:58																									
ZZZZZZ			18:00																									
ZZZZZZ			18:02																									
ZZZZZZ			18:04																									
ZZZZZZ			18:06																									
ZZZZZZ			18:08																									
ZZZZZZ			18:10																									
ZZZZZZ			18:12																									
ZZZZZZ			18:14																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: SPECTRO1 Analysis Method: 6010B

Start Date: 05/16/2016 14:18 End Date: 05/16/2016 19:11

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ag	As	Ba	Cd	Cr	Pb	Se																		
ZZZZZZ			18:16																									
CCV 600-188611/86	1		18:18	X	X	X	X	X	X	X																		
CCB 600-188611/87	1		18:20	X	X	X	X	X	X	X																		
ZZZZZZ			18:22																									
600-130758-1	1	P	18:24	X	X	X	X	X	X	X																		
ZZZZZZ			18:26																									
ZZZZZZ			18:28																									
ZZZZZZ			18:30																									
ZZZZZZ			18:32																									
ZZZZZZ			18:34																									
ZZZZZZ			18:36																									
ZZZZZZ			18:38																									
600-130758-2 PDS	1	P	18:40	X	X	X	X	X	X	X																		
CCV 600-188611/98	1		18:42	X	X	X	X	X	X	X																		
CCB 600-188611/99	1		18:44	X	X	X	X	X	X	X																		
600-130758-2 SD	5	P	18:46	X	X	X	X	X	X	X																		
CCVL 600-188611/101	1		18:48																									
ZZZZZZ			18:50																									
ZZZZZZ			18:52																									
ZZZZZZ			18:54																									
ZZZZZZ			18:56																									
ZZZZZZ			18:58																									
ZZZZZZ			19:00																									
ZZZZZZ			19:02																									
ZZZZZZ			19:03																									
CCV 600-188611/110	1		19:05	X	X	X	X	X	X	X																		
CCB 600-188611/111	1		19:07	X	X	X	X	X	X	X																		
CCV 600-188611/112			19:09																									
CCB 600-188611/113			19:11																									

Prep Types:
P = TCLP
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: FIMS01 Analysis Method: 7470A

Start Date: 05/16/2016 12:48 End Date: 05/16/2016 14:26

Lab Sample Id	D/F	Type	Time	Analytes
				Hg
ZZZZZZ			12:48	
ZZZZZZ			12:50	
ZZZZZZ			12:51	
ZZZZZZ			12:53	
ZZZZZZ			12:55	
ZZZZZZ			12:57	
ZZZZZZ			12:59	
ICV 600-188600/8	1		13:02	X
ICB 600-188600/9	1		13:04	X
CRA 600-188600/10	1		13:06	X
CCV 600-188600/11	1		13:08	X
CCB 600-188600/12	1		13:10	X
MB 600-188546/7-A	1	T	13:12	X
LCS 600-188546/8-A	1	T	13:14	X
LB 600-188519/1-D	1	P	13:16	X
600-130758-2	1	P	13:18	X
600-130758-2 MS	1	P	13:20	X
LB 600-188518/1-E	1	P	13:21	X
ZZZZZZ			13:23	
ZZZZZZ			13:25	
ZZZZZZ			13:27	
ZZZZZZ			13:29	
CCV 600-188600/23	1		13:31	X
CCB 600-188600/24	1		13:33	X
ZZZZZZ			13:35	
ZZZZZZ			13:37	
ZZZZZZ			13:38	
600-130753-A-1-I DU	1		13:40	X
ZZZZZZ			13:42	
ZZZZZZ			13:44	
ZZZZZZ			13:46	
ZZZZZZ			13:48	
ZZZZZZ			13:50	
600-130758-1	1	P	13:51	X
CCV 600-188600/35	1		13:53	X
CCB 600-188600/36	1		13:56	X
ZZZZZZ			13:57	
ZZZZZZ			13:59	
ZZZZZZ			14:01	
ZZZZZZ			14:03	
ZZZZZZ			14:04	
ZZZZZZ			14:06	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: FIMS01 Analysis Method: 7470A

Start Date: 05/16/2016 12:48 End Date: 05/16/2016 14:26

Lab Sample Id	D/F	Type	Time	Analytes																								
				Hg																								
ZZZZZZ			14:09																									
ZZZZZZ			14:10																									
ZZZZZZ			14:12																									
ZZZZZZ			14:14																									
CCV 600-188600/47	1		14:16	X																								
CCB 600-188600/48	1		14:18	X																								
ZZZZZZ			14:20																									
600-130753-A-1-H SD ^5	5		14:22	X																								
CCV 600-188600/51	1		14:23	X																								
CCB 600-188600/52	1		14:26	X																								

Prep Types:
P = TCLP
T = Total/NA

FORM XIII-IN

SPECTRO

Printing Date: 5/17/2016 8:48:45 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: Blank			Sample Type: Calibration Sample		
Measure Date: 2016-05-16 14:17:53	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
Blank						

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Int 1	17683.9	2758.78	1102370	2362.28	3214.87	4515.17	22388.9
Int 2	18267.9	2784.42	1121890	2383.00	3309.22	4575.25	23292.3
Int Mean	**17975.9**	**2771.60**	**1112130**	**2372.64**	**3262.05**	**4545.21**	**22840.6**
Int RSD	***2.297***	***0.654***	***1.241***	***0.618***	***2.045***	***0.935***	***2.797***
Int SD	***412.950***	***18.130***	***13802.7***	***14.651***	***66.715***	***42.483***	***638.800***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Int 1	23913.3	4655.55	3965.92	3546.76	52435.6	3383.90	5239.78
Int 2	23502.1	4723.18	3935.80	3574.06	53238.8	3375.88	5217.21
Int Mean	**23707.7**	**4689.36**	**3950.86**	**3560.41**	**52837.2**	**3379.89**	**5228.49**
Int RSD	***1.226***	***1.020***	***0.539***	***0.542***	***1.075***	***0.168***	***0.305***
Int SD	***290.762***	***47.822***	***21.298***	***19.304***	***567.948***	***5.671***	***15.959***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Int 1	5239.78	6897.86	7190.99	25845.9	25834.8	4225.28	3343.74
Int 2	5217.21	7037.03	7408.27	25908.4	25829.6	4247.52	3332.59
Int Mean	**5228.49**	**6967.44**	**7299.63**	**25877.2**	**25832.2**	**4236.40**	**3338.17**
Int RSD	***0.305***	***1.412***	***2.105***	***0.171***	***0.014***	***0.371***	***0.236***
Int SD	***15.959***	***98.408***	***153.640***	***44.194***	***3.677***	***15.726***	***7.884***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Int 1	2344.62	18549.1	18658.8	4074.58	3646.11	2884.66	1871.28
Int 2	2341.87	19038.7	19118.1	4150.20	3638.19	2869.31	1827.91
Int Mean	**2343.25**	**18793.9**	**18888.4**	**4112.39**	**3642.15**	**2876.98**	**1849.59**
Int RSD	***0.083***	***1.842***	***1.719***	***1.300***	***0.154***	***0.377***	***1.658***
Int SD	***1.945***	***346.199***	***324.774***	***53.471***	***5.600***	***10.854***	***30.667***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Int 1	62897.5	2508.87	29513.4	18801.8	2766.87	3219.97	4550880
Int 2	62625.8	2544.54	29457.7	19546.0	2739.04	3286.23	4574020
Int Mean	**62761.6**	**2526.70**	**29485.6**	**19173.9**	**2752.96**	**3253.10**	**4562450**
Int RSD	***0.306***	***0.998***	***0.134***	***2.745***	***0.715***	***1.440***	***0.359***
Int SD	***192.121***	***25.223***	***39.386***	***526.229***	***19.679***	***46.853***	***16362.5***

	Yb 371.034	Zn 213.856	Cu 324.754				
Int 1	4550880	4208.55	34723.1				
Int 2	4574020	4213.56	35478.0				
Int Mean	**4562450**	**4211.06**	**35100.6**				
Int RSD	***0.359***	***0.084***	***1.521***				

Int SD	***16362.5***	***3.543***	***533.795***				

Sample Name: Std 1			Sample Type: Calibration Sample		
Measure Date: 2016-05-16 14:19:38	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
Std 1						

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Int 1	54353.5	28237.0	1124190	5249.72	32531.0	74228.7	491602
Int 2	53515.6	27952.0	1112270	5280.60	32525.5	73778.1	492855
Int Mean	**53934.6**	**28094.5**	**1118230**	**5265.16**	**32528.3**	**74003.4**	**492228**
Int RSD	***1.099***	***0.717***	***0.754***	***0.415***	***0.012***	***0.431***	***0.180***
Int SD	***592.485***	***201.525***	***8428.71***	***21.836***	***3.889***	***318.622***	***886.005***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Int 1	234505	36380.5	27914.8	25434.0	53634.5	15730.3	439657
Int 2	235669	36195.6	27702.9	25284.8	52608.2	15829.5	441302
Int Mean	**235087**	**36288.1**	**27808.9**	**25359.4**	**53121.3**	**15779.9**	**440480**
Int RSD	***0.350***	***0.360***	***0.539***	***0.416***	***1.366***	***0.445***	***0.264***
Int SD	***823.072***	***130.744***	***149.836***	***105.500***	***725.704***	***70.145***	***1163.19***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Int 1	439657	216445	278353	1925750	1962590	39544.8	161420
Int 2	441302	217966	280360	1921580	1958150	39939.4	162510
Int Mean	**440480**	**217205**	**279357**	**1923670**	**1960370**	**39742.1**	**161965**
Int RSD	***0.264***	***0.495***	***0.508***	***0.153***	***0.160***	***0.702***	***0.476***
Int SD	***1163.19***	***1075.51***	***1419.16***	***2948.64***	***3139.55***	***279.024***	***770.746***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Int 1	20991.1	23592.5	23687.5	20085.0	8121.45	6588.90	4141.90
Int 2	21143.1	22740.5	22907.4	19923.6	8143.92	6546.90	4217.24
Int Mean	**21067.1**	**23166.5**	**23297.5**	**20004.3**	**8132.68**	**6567.90**	**4179.57**
Int RSD	***0.510***	***2.601***	***2.368***	***0.571***	***0.195***	***0.452***	***1.275***
Int SD	***107.480***	***602.455***	***551.614***	***114.127***	***15.889***	***29.699***	***53.273***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Int 1	73452.8	8375.89	1699930	288729	6231.00	15422.2	4528660
Int 2	74035.6	8414.72	1694910	288737	6260.35	15645.9	4499130
Int Mean	**73744.2**	**8395.31**	**1697420**	**288733**	**6245.67**	**15534.0**	**4513890**
Int RSD	***0.559***	***0.327***	***0.209***	***0.002***	***0.332***	***1.018***	***0.463***
Int SD	***412.102***	***27.457***	***3549.68***	***5.657***	***20.754***	***158.180***	***20880.9***

	Yb 371.034	Zn 213.856	Cu 324.754				
Int 1	4528660	72962.9	153782				
Int 2	4499130	72224.9	154163				
Int Mean	**4513890**	**72593.9**	**153973**				

Int RSD	***0.463***	***0.719***	***0.175***				
Int SD	***20880.9***	***521.845***	***269.408***				

Sample Name: Std 2			Sample Type: Calibration Sample		
Measure Date: 2016-05-16 14:21:22	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
Std 2						

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Int 1	91171.9	52586.4	1129890	8071.58	62589.0	141826	984567
Int 2	91499.2	53206.9	1120020	8204.21	62605.5	142388	986467
Int Mean	**91335.5**	**52896.6**	**1124950**	**8137.90**	**62597.3**	**142107**	**985517**
Int RSD	***0.253***	***0.829***	***0.620***	***1.152***	***0.019***	***0.280***	***0.136***
Int SD	***231.436***	***438.760***	***6979.14***	***93.784***	***11.667***	***397.394***	***1343.50***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Int 1	445875	67979.7	51819.7	47546.0	52813.9	27984.8	892899
Int 2	447960	68338.1	51687.6	47614.5	52775.9	28136.3	892644
Int Mean	**446917**	**68158.9**	**51753.6**	**47580.2**	**52794.9**	**28060.5**	**892771**
Int RSD	***0.330***	***0.372***	***0.180***	***0.102***	***0.051***	***0.382***	***0.020***
Int SD	***1474.32***	***253.427***	***93.409***	***48.437***	***26.870***	***107.127***	***180.312***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Int 1	892899	423052	546675	3885770	3963190	75266.1	323411
Int 2	892644	428671	554794	4020890	4100920	75402.0	323979
Int Mean	**892771**	**425861**	**550734**	**3953330**	**4032050**	**75334.0**	**323695**
Int RSD	***0.020***	***0.933***	***1.042***	***2.417***	***2.415***	***0.128***	***0.124***
Int SD	***180.312***	***3973.23***	***5741.00***	***95544.3***	***97389.8***	***96.096***	***401.637***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Int 1	39444.5	26791.0	26949.2	35728.9	12846.4	10485.3	6398.17
Int 2	40260.8	27419.8	27546.9	35817.9	12932.0	10579.2	6401.02
Int Mean	**39852.7**	**27105.4**	**27248.1**	**35773.4**	**12889.2**	**10532.3**	**6399.59**
Int RSD	***1.448***	***1.640***	***1.551***	***0.176***	***0.470***	***0.630***	***0.031***
Int SD	***577.211***	***444.629***	***422.638***	***62.932***	***60.528***	***66.397***	***2.015***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Int 1	84954.2	14550.8	3378500	568576	9860.86	27687.5	4468240
Int 2	84801.1	14525.5	3432200	569282	9914.09	28689.9	4488290
Int Mean	**84877.6**	**14538.1**	**3405350**	**568929**	**9887.48**	**28188.7**	**4478270**
Int RSD	***0.128***	***0.123***	***1.115***	***0.088***	***0.381***	***2.514***	***0.317***
Int SD	***108.258***	***17.890***	***37971.6***	***499.217***	***37.639***	***708.804***	***14177.5***

	Yb 371.034	Zn 213.856	Cu 324.754				
Int 1	4468240	139305	271466				
Int 2	4488290	139380	273857				

Int Mean	**4478270**	**139342**	**272661**				
Int RSD	***0.317***	***0.038***	***0.620***				
Int SD	***14177.5***	***53.033***	***1690.69***				

Sample Name: Std 3			Sample Type: Calibration Sample		
Measure Date: 2016-05-16 14:23:06	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
Std 3						

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Int 1	161641	103808	1130520	13723.5	119683	279463	1874310
Int 2	164389	103745	1133530	13612.0	120446	278521	1879370
Int Mean	**163015**	**103777**	**1132030**	**13667.8**	**120065**	**278992**	**1876840**
Int RSD	***1.192***	***0.043***	***0.188***	***0.577***	***0.449***	***0.239***	***0.191***
Int SD	***1943.13***	***44.548***	***2128.39***	***78.842***	***539.522***	***666.095***	***3577.96***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Int 1	875109	129402	99797.8	91927.9	53019.5	52039.2	1735480
Int 2	882164	130484	99987.6	92112.6	53653.2	52080.9	1734080
Int Mean	**878637**	**129943**	**99892.7**	**92020.3**	**53336.4**	**52060.1**	**1734780**
Int RSD	***0.568***	***0.589***	***0.134***	***0.142***	***0.840***	***0.057***	***0.057***
Int SD	***4988.64***	***765.090***	***134.209***	***130.603***	***448.094***	***29.486***	***989.949***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Int 1	1735480	854937	1118510	8101380	8260840	144074	647337
Int 2	1734080	855414	1106080	8008510	8166230	144442	645315
Int Mean	**1734780**	**855176**	**1112300**	**8054950**	**8213540**	**144258**	**646326**
Int RSD	***0.057***	***0.039***	***0.790***	***0.815***	***0.815***	***0.180***	***0.221***
Int SD	***989.949***	***337.290***	***8789.34***	***65669.0***	***66899.4***	***260.215***	***1429.77***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Int 1	78013.9	36912.6	37270.8	67136.8	21802.3	17699.6	10953.6
Int 2	78215.0	36417.4	36930.4	67433.2	21764.9	17703.5	10919.4
Int Mean	**78114.5**	**36665.0**	**37100.6**	**67285.0**	**21783.6**	**17701.5**	**10936.5**
Int RSD	***0.182***	***0.955***	***0.649***	***0.311***	***0.121***	***0.016***	***0.221***
Int SD	***142.199***	***350.159***	***240.699***	***209.586***	***26.446***	***2.758***	***24.183***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Int 1	105562	26211.2	6819870	1112510	16583.2	52839.9	4605390
Int 2	105490	26202.1	6770440	1121220	16849.3	52853.6	4582450
Int Mean	**105526**	**26206.7**	**6795160**	**1116870**	**16716.2**	**52846.8**	**4593920**
Int RSD	***0.048***	***0.025***	***0.514***	***0.551***	***1.126***	***0.018***	***0.353***
Int SD	***50.912***	***6.435***	***34952.3***	***6158.90***	***188.161***	***9.687***	***16221.0***

	Yb 371.034	Zn 213.856	Cu 324.754				
Int 1	4605390	272061	504788				

Int 2	4582450	272438	507977				
Int Mean	**4593920**	**272249**	**506382**				
Int RSD	***0.353***	***0.098***	***0.445***				
Int SD	***16221.0***	***266.579***	***2254.96***				

Sample Name: Std 4			Sample Type: Calibration Sample		
Measure Date: 2016-05-16 14:24:50	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
Std 4						

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Int 1	308374	199925	1145960	25109.6	238280	548978	3712730
Int 2	308038	199637	1157560	24673.0	237468	548398	3691230
Int Mean	**308206**	**199781**	**1151760**	**24891.3**	**237874**	**548688**	**3701980**
Int RSD	***0.077***	***0.102***	***0.712***	***1.240***	***0.241***	***0.075***	***0.411***
Int SD	***237.588***	***203.647***	***8202.44***	***308.723***	***574.171***	***410.122***	***15202.8***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Int 1	1692180	252145	189591	171759	53980.9	99469.6	3392350
Int 2	1678010	250713	189845	171349	54230.9	98832.5	3395540
Int Mean	**1685100**	**251429**	**189718**	**171554**	**54105.9**	**99151.1**	**3393950**
Int RSD	***0.595***	***0.403***	***0.095***	***0.169***	***0.327***	***0.454***	***0.066***
Int SD	***10019.7***	***1012.58***	***179.605***	***289.914***	***176.777***	***450.498***	***2255.67***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Int 1	3392350	1674080	2160820	15205500	15540600	285970	1247980
Int 2	3395540	1660630	2144050	15272100	15591500	285147	1246680
Int Mean	**3393950**	**1667350**	**2152440**	**15238800**	**15566100**	**285559**	**1247330**
Int RSD	***0.066***	***0.570***	***0.551***	***0.309***	***0.231***	***0.204***	***0.074***
Int SD	***2255.67***	***9510.59***	***11858.2***	***47093.3***	***35991.7***	***581.949***	***919.239***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Int 1	147758	54910.1	55912.4	126457	38825.9	31562.3	19222.2
Int 2	147626	54574.2	55496.2	126727	38771.8	31895.5	19195.2
Int Mean	**147692**	**54742.1**	**55704.3**	**126592**	**38798.9**	**31728.9**	**19208.7**
Int RSD	***0.063***	***0.434***	***0.528***	***0.151***	***0.099***	***0.743***	***0.099***
Int SD	***93.338***	***237.517***	***294.298***	***190.919***	***38.255***	***235.608***	***19.092***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Int 1	144274	49358.8	13108300	2189040	30633.4	101703	4527370
Int 2	144250	49275.2	13045900	2176910	30853.7	101318	4498970
Int Mean	**144262**	**49317.0**	**13077100**	**2182970**	**30743.6**	**101510**	**4513170**
Int RSD	***0.012***	***0.120***	***0.337***	***0.393***	***0.507***	***0.268***	***0.445***
Int SD	***16.971***	***59.114***	***44123.5***	***8577.21***	***155.776***	***272.236***	***20081.8***

	Yb 371.034	Zn 213.856	Cu 324.754				
Int 1	4527370	537154	988495				
Int 2	4498970	535727	977086				
Int Mean	**4513170**	**536440**	**982790**				
Int RSD	***0.445***	***0.188***	***0.821***				
Int SD	***20081.8***	***1009.04***	***8067.38***				

Sample Name: Std 5 | Sample Type: Calibration Sample

Measure Date: 2016-05-16 14:26:37 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
Std 5						

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Int 1	604030	398153	1189220	47122.3	471058	1096150	7487380
Int 2	604485	399014	1175810	47316.0	476772	1096220	7606900
Int Mean	**604258**	**398583**	**1182520**	**47219.1**	**473915**	**1096190**	**7547140**
Int RSD	***0.053***	***0.153***	***0.802***	***0.290***	***0.853***	***0.005***	***1.120***
Int SD	***321.734***	***608.819***	***9482.30***	***136.967***	***4040.41***	***49.498***	***84513.4***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Int 1	3318410	496231	376745	342698	56268.8	190667	6801460
Int 2	3374540	494540	375795	341504	55448.4	190442	6800930
Int Mean	**3346470**	**495385**	**376270**	**342101**	**55858.6**	**190555**	**6801190**
Int RSD	***1.186***	***0.241***	***0.179***	***0.247***	***1.039***	***0.083***	***0.006***
Int SD	***39689.9***	***1195.72***	***671.751***	***844.285***	***580.110***	***159.099***	***374.767***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Int 1	6801460	3392390	4366030	31732200	32358400	565554	2494840
Int 2	6800930	3330840	4278630	31720900	32338300	568739	2493230
Int Mean	**6801190**	**3361620**	**4322330**	**31726500**	**32348300**	**567147**	**2494030**
Int RSD	***0.006***	***1.295***	***1.430***	***0.025***	***0.044***	***0.397***	***0.046***
Int SD	***374.767***	***43522.4***	***61801.1***	***7990.31***	***14212.8***	***2252.14***	***1138.44***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Int 1	298109	91960.9	93963.2	248461	72926.7	61930.7	36698.5
Int 2	299812	91443.5	93416.0	248457	73067.8	62099.9	37004.9
Int Mean	**298961**	**91702.2**	**93689.6**	**248459**	**72997.2**	**62015.3**	**36851.7**
Int RSD	***0.403***	***0.399***	***0.413***	***0.001***	***0.137***	***0.193***	***0.588***
Int SD	***1204.20***	***365.857***	***386.929***	***2.828***	***99.773***	***119.642***	***216.658***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Int 1	227771	97877.1	25959600	4386490	58893.3	201701	4414750
Int 2	228866	97558.3	26075100	4422680	59205.0	201782	4496320
Int Mean	**228319**	**97717.7**	**26017400**	**4404590**	**59049.1**	**201742**	**4455540**
Int RSD	***0.339***	***0.231***	***0.314***	***0.581***	***0.373***	***0.028***	***1.295***

Int SD	***774.282***	***225.426***	***81670.8***	***25590.2***	***220.405***	***57.276***	***57678.7***

	Yb 371.034	Zn 213.856	Cu 324.754				
Int 1	4414750	1081970	1922960				
Int 2	4496320	1083410	1902180				
Int Mean	**4455540**	**1082690**	**1912570**				
Int RSD	***1.295***	***0.094***	***0.768***				
Int SD	***57678.7***	***1018.23***	***14693.7***				

Sample Name: Std 6 | Sample Type: Calibration Sample

Measure Date: 2016-05-16 14:28:25 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
Std 6						

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Int 1	18787.3	3501.73	1122940	2451.93	5926.55	5108.66	26407.4
Int 2	19057.6	3522.60	1146820	2399.92	5533.58	5097.60	26123.3
Int Mean	**18922.4**	**3512.17**	**1134880**	**2425.92**	**5730.07**	**5103.13**	**26265.4**
Int RSD	***1.010***	***0.420***	***1.488***	***1.516***	***4.849***	***0.153***	***0.765***
Int SD	***191.131***	***14.757***	***16885.7***	***36.777***	***277.872***	***7.821***	***200.889***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Int 1	35924.5	4958.20	4169.56	3853.85	62305.7	3668.39	7078.89
Int 2	35957.4	4946.59	4197.97	3848.53	61446.2	3714.53	6978.18
Int Mean	**35940.9**	**4952.39**	**4183.76**	**3851.19**	**61876.0**	**3691.46**	**7028.53**
Int RSD	***0.065***	***0.166***	***0.480***	***0.098***	***0.982***	***0.884***	***1.013***
Int SD	***23.264***	***8.210***	***20.089***	***3.762***	***607.758***	***32.626***	***71.213***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Int 1	7078.89	24860600	30570400	91346900	92844100	4612.41	4425.32
Int 2	6978.18	24545900	30167800	89888700	91373200	4609.90	4318.18
Int Mean	**7028.53**	**24703200**	**30369100**	**90617800**	**92108700**	**4611.16**	**4371.75**
Int RSD	***1.013***	***0.901***	***0.937***	***1.138***	***1.129***	***0.038***	***1.733***
Int SD	***71.213***	***222527***	***284681***	***1031100***	***1040080***	***1.775***	***75.759***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Int 1	3485.25	883540	909719	4330.74	3755.72	2955.79	1897.74
Int 2	3206.95	889546	915493	4353.46	3753.72	3007.14	1925.95
Int Mean	**3346.10**	**886543**	**912606**	**4342.10**	**3754.72**	**2981.47**	**1911.85**
Int RSD	***5.881***	***0.479***	***0.447***	***0.370***	***0.038***	***1.218***	***1.043***
Int SD	***196.788***	***4246.88***	***4082.83***	***16.066***	***1.414***	***36.310***	***19.948***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Int 1	66293.1	2677.98	55093.6	22371.9	3315.74	3617.84	4361880
Int 2	66098.5	2671.70	53768.1	22560.3	3191.47	3352.77	4407530
Int Mean	**66195.8**	**2674.84**	**54430.9**	**22466.1**	**3253.60**	**3485.31**	**4384710**

Int RSD	***0.208***	***0.166***	***1.722***	***0.593***	***2.701***	***5.378***	***0.736***
Int SD	***137.603***	***4.441***	***937.270***	***133.219***	***87.872***	***187.433***	***32279.4***

	Yb 371.034	Zn 213.856	Cu 324.754				
Int 1	4361880	5041.47	38067.8				
Int 2	4407530	5017.08	38684.0				
Int Mean	**4384710**	**5029.27**	**38375.9**				
Int RSD	***0.736***	***0.343***	***1.135***				
Int SD	***32279.4***	***17.246***	***435.719***				

Sample Name: Std 7 | Sample Type: Calibration Sample

Measure Date: 2016-05-16 14:30:12 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
Std 7						

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Int 1	19657.3	3170.67	1130090	2606.25	20041.7	7486.66	23226.3
Int 2	19381.7	3170.13	1103820	2576.43	20050.2	7296.87	23487.9
Int Mean	**19519.5**	**3170.40**	**1116950**	**2591.34**	**20045.9**	**7391.76**	**23357.1**
Int RSD	***0.998***	***0.012***	***1.663***	***0.814***	***0.030***	***1.816***	***0.792***
Int SD	***194.879***	***0.382***	***18575.7***	***21.086***	***6.010***	***134.202***	***184.979***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Int 1	29593.1	17897.8	4724.30	4105.20	53074.5	7365.11	57213800
Int 2	29416.0	17987.7	4729.33	4094.54	53565.6	7299.22	57359800
Int Mean	**29504.6**	**17942.8**	**4726.82**	**4099.87**	**53320.1**	**7332.16**	**57286800**
Int RSD	***0.424***	***0.354***	***0.075***	***0.184***	***0.651***	***0.635***	***0.180***
Int SD	***125.229***	***63.569***	***3.557***	***7.538***	***347.260***	***46.591***	***103238***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Int 1	57213800	27068.6	32952.8	67045.2	67920.2	5848.03	8417.32
Int 2	57359800	24631.8	30205.4	63080.6	63903.6	5894.92	8397.53
Int Mean	**57286800**	**25850.2**	**31579.1**	**65062.9**	**65911.9**	**5871.48**	**8407.42**
Int RSD	***0.180***	***6.666***	***6.152***	***4.309***	***4.309***	***0.565***	***0.166***
Int SD	***103238***	***1723.08***	***1942.71***	***2803.40***	***2840.17***	***33.156***	***13.994***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Int 1	3023.52	19433.9	19413.2	4673.07	4276.65	3272.91	2308.65
Int 2	3010.53	18834.9	18917.4	4688.07	4263.42	3255.70	2321.38
Int Mean	**3017.03**	**19134.4**	**19165.3**	**4680.57**	**4270.04**	**3264.30**	**2315.02**
Int RSD	***0.304***	***2.214***	***1.829***	***0.227***	***0.219***	***0.373***	***0.389***
Int SD	***9.185***	***423.557***	***350.584***	***10.607***	***9.355***	***12.169***	***9.001***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Int 1	66709.9	2898.88	38318.0	20037.6	3128.97	3279.43	4570950
Int 2	66321.6	2868.61	38278.7	19856.3	3083.21	3542.15	4575670

Int Mean	**66515.8**	**2883.74**	**38298.3**	**19947.0**	**3106.09**	**3410.79**	**4573310**
Int RSD	***0.413***	***0.742***	***0.073***	***0.643***	***1.042***	***5.447***	***0.073***
Int SD	***274.570***	***21.404***	***27.789***	***128.198***	***32.357***	***185.771***	***3337.54***

	Yb 371.034	**Zn 213.856**	**Cu 324.754**				
Int 1	4570950	17954.0	37706.9				
Int 2	4575670	17749.8	37745.7				
Int Mean	**4573310**	**17851.9**	**37726.3**				
Int RSD	***0.073***	***0.809***	***0.073***				
Int SD	***3337.54***	***144.391***	***27.436***				

SPECTRO

Printing Date: 5/17/2016 8:50:30 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: ICV				Sample Type: Control Sample		
Measure Date: 2016-05-16 14:33:16	Recalculation Date:	State: Check failed		Quality: Failed		Total Dilution: 1.000000

Sample Identification

Sample Name						
ICV						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.247[mg/l]	2.487[mg/l]	1130640	0.500[mg/l]	0.497[mg/l]	0.493[mg/l]	0.493[mg/l]
Conc 2	0.245[mg/l]	2.481[mg/l]	1131970	0.487[mg/l]	0.494[mg/l]	0.490[mg/l]	0.487[mg/l]
Conc MinRange	*95.000*	*95.000*	---	*95.000*	*95.000*	*95.000*	*95.000*
Conc Mean	**0.246[mg/l]**	**2.484[mg/l]**	**1131310**	**0.493[mg/l]**	**0.496[mg/l]**	**0.492[mg/l]**	**0.490[mg/l]**
Conc MaxRange	*105.000*	*105.000*	---	*105.000*	*105.000*	*105.000*	*105.000*
Conc RSD	***0.736***	***0.180***	***---***	***1.752***	***0.373***	***0.449***	***0.743***
Conc SD	***0.002[mg/l]***	***0.004[mg/l]***	***940.452***	***0.009[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	12.516[mg/l]	0.489[mg/l]	0.506[mg/l]	0.510[mg/l]	22461.4	0.511[mg/l]	2.558[mg/l]
Conc 2	12.304[mg/l]	0.487[mg/l]	0.503[mg/l]	0.505[mg/l]	22130.3	0.503[mg/l]	2.548[mg/l]
Conc MinRange	*95.000*	*95.000*	*95.000*	*95.000*	---	*95.000*	*95.000*
Conc Mean	**12.410[mg/l]**	**0.488[mg/l]**	**0.504[mg/l]**	**0.508[mg/l]**	**22295.8**	**0.507[mg/l]**	**2.553[mg/l]**
Conc MaxRange	*105.000*	*105.000*	*105.000*	*105.000*	---	*105.000*	*105.000*
Conc RSD	***1.211***	***0.311***	***0.410***	***0.643***	***---***	***1.087***	***0.272***
Conc SD	***0.150[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***234.123***	***0.006[mg/l]***	***0.007[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	19.267[mg/l]	1.930[mg/l]	4.765[mg/l]	0.496[mg/l]	0.516[mg/l]	19.784[mg/l]	0.501[mg/l]
Conc 2	20.342[mg/l]	2.027[mg/l]	4.777[mg/l]	0.496[mg/l]	0.513[mg/l]	19.782[mg/l]	0.496[mg/l]
Conc MinRange	*95.000*	*95.000*	*95.000*	*95.000*	*95.000*	*95.000*	*95.000*
Conc Mean	**19.805[mg/l]**	**1.978[mg/l]**	**4.771[mg/l]**	**0.496[mg/l]**	**0.514[mg/l]**	**19.783[mg/l]**	**0.498[mg/l]**
Conc MaxRange	*105.000*	*105.000*	*105.000*	*105.000*	*105.000*	*105.000*	*105.000*
Conc RSD	***3.838***	***3.454***	***0.178***	***0.001***	***0.404***	***0.008***	***0.696***
Conc SD	***0.760[mg/l]***	***0.068[mg/l]***	***0.009[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.511[mg/l]	0.491[mg/l]	0.503[mg/l]	0.916[mg/l]	0.498[mg/l]	0.253[mg/l]	0.492[mg/l]
Conc 2	0.505[mg/l]	0.495[mg/l]	0.505[mg/l]	0.915[mg/l]	0.502[mg/l]	0.253[mg/l]	0.487[mg/l]
Conc MinRange	*95.000*	*95.000*	*95.000*	*95.000*	*95.000*	*95.000*	*95.000*
Conc Mean	**0.508[mg/l]**	**0.493[mg/l]**	**0.504[mg/l]**	**<0.915[mg/l]**	**0.500[mg/l]**	**0.253[mg/l]**	**0.489[mg/l]**
Conc MaxRange	*105.000*	*105.000*	*105.000*	*105.000*	*105.000*	*105.000*	*105.000*
Conc RSD	***0.718***	***0.605***	***0.270***	***0.119***	***0.455***	***0.208***	***0.815***
Conc SD	***0.004[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.495[mg/l]	0.514[mg/l]	4487340	98.937[%]	0.488[mg/l]	98.937[%]	
Conc 2	0.496[mg/l]	0.516[mg/l]	4521420	99.704[%]	0.489[mg/l]	99.704[%]	

Conc MinRange	*95.000*	*95.000*	---	---	*95.000*	---	
Conc Mean	**0.495[mg/l]**	**0.515[mg/l]**	**4504380**	**99.321[%]**	**0.489[mg/l]**	**99.321[%]**	
Conc MaxRange	*105.000*	*105.000*	---	---	*105.000*	---	
Conc RSD	***0.073***	***0.261***	***---***	***0.546***	***0.083***	***0.546***	
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***24098.2***	***0.542[%]***	***0.000[mg/l]***	***0.542[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.247[mg/l]	2.487[mg/l]	1130640	0.500[mg/l]	0.497[mg/l]	0.493[mg/l]	0.493[mg/l]
Conc 2	0.245[mg/l]	2.481[mg/l]	1131970	0.487[mg/l]	0.494[mg/l]	0.490[mg/l]	0.487[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.246[mg/l]**	**2.484[mg/l]**	**1131310**	**0.493[mg/l]**	**0.496[mg/l]**	**0.492[mg/l]**	**0.490[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.736***	***0.180***	***---***	***1.752***	***0.373***	***0.449***	***0.743***
Conc SD	***0.002[mg/l]***	***0.004[mg/l]***	***940.452***	***0.009[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	12.516[mg/l]	0.489[mg/l]	0.506[mg/l]	0.510[mg/l]	22461.4	<0.501[mg/l]	2.558[mg/l]
Conc 2	12.304[mg/l]	0.487[mg/l]	0.503[mg/l]	0.505[mg/l]	22130.3	<0.495[mg/l]	2.548[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.410[mg/l]**	**0.488[mg/l]**	**0.504[mg/l]**	**0.508[mg/l]**	**22295.8**	**<0.498[mg/l]**	**2.553[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.211***	***0.311***	***0.410***	***0.643***	***---***	***0.982***	***0.272***
Conc SD	***0.150[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***234.123***	***0.005[mg/l]***	***0.007[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.762[mg/l]	19.340[mg/l]	19.267[mg/l]	1.930[mg/l]	1.930[mg/l]	4.765[mg/l]	0.496[mg/l]
Conc 2	<-1.776[mg/l]	19.894[mg/l]	20.342[mg/l]	2.009[mg/l]	2.027[mg/l]	4.777[mg/l]	0.496[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.769[mg/l]**	**19.617[mg/l]**	**19.805[mg/l]**	**1.970[mg/l]**	**1.978[mg/l]**	**4.771[mg/l]**	**0.496[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.530***	***1.995***	***3.838***	***2.848***	***3.454***	***0.178***	***0.001***
Conc SD	***0.009[mg/l]***	***0.391[mg/l]***	***0.760[mg/l]***	***0.056[mg/l]***	***0.068[mg/l]***	***0.009[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.516[mg/l]	19.973[mg/l]	19.784[mg/l]	0.501[mg/l]	0.511[mg/l]	0.491[mg/l]	0.503[mg/l]
Conc 2	0.513[mg/l]	19.892[mg/l]	19.782[mg/l]	0.496[mg/l]	0.505[mg/l]	0.495[mg/l]	0.505[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.514[mg/l]**	**19.933[mg/l]**	**19.783[mg/l]**	**0.498[mg/l]**	**0.508[mg/l]**	**0.493[mg/l]**	**0.504[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.404***	***0.290***	***0.008***	***0.696***	***0.718***	***0.605***	***0.270***
Conc SD	***0.002[mg/l]***	***0.058[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.916[mg/l]	0.498[mg/l]	0.253[mg/l]	0.492[mg/l]	0.495[mg/l]	0.514[mg/l]	4487340
Conc 2	0.915[mg/l]	0.502[mg/l]	0.253[mg/l]	0.487[mg/l]	0.496[mg/l]	0.516[mg/l]	4521420
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.915[mg/l]**	**0.500[mg/l]**	**0.253[mg/l]**	**0.489[mg/l]**	**0.495[mg/l]**	**0.515[mg/l]**	**4504380**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.119***	***0.455***	***0.208***	***0.815***	***0.073***	***0.261***	***---***

Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***24098.2***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.937[%]	0.488[mg/l]	0.511[mg/l]				
Conc 2	99.704[%]	0.489[mg/l]	0.503[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.321[%]**	**0.489[mg/l]**	**0.507[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.546***	***0.083***	***1.087***				
Conc SD	***0.542[%]***	***0.000[mg/l]***	***0.006[mg/l]***				

Sample Name: ICB				Sample Type: Control Sample		
Measure Date: 2016-05-16 14:35:02	Recalculation Date:	State: Checked	Quality:	Total Dilution: 1.000000		
Sample Identification						
Sample Name						
ICB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.001[mg/l]	0.011[mg/l]	1096500	<0.001[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.013[mg/l]	1113330	<-0.003[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.000[mg/l]**	**0.012[mg/l]**	**1104920**	**<-0.001[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***5556.35***	***6.398***	***---***	***414.732***	***17.502***	***18.902***	***3.189***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***11900.6***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.034[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	19831.5	<-0.003[mg/l]	0.000[mg/l]
Conc 2	0.038[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20043.8	<-0.003[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.036[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**19937.7**	**<-0.003[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***8.540***	***34.974***	***116.798***	***394.017***	***---***	***0.704***	***75.350***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***150.119***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.013[mg/l]	-0.000[mg/l]	<0.001[mg/l]	0.000[mg/l]	0.002[mg/l]	<0.049[mg/l]	0.000[mg/l]
Conc 2	0.010[mg/l]	-0.000[mg/l]	0.002[mg/l]	0.000[mg/l]	0.002[mg/l]	<-0.051[mg/l]	-0.001[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.011[mg/l]**	**-0.000[mg/l]**	**<0.001[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**<-0.001[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***15.344***	***77.453***	***48.365***	***1.776***	***25.444***	***9659.37***	***306.544***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.071[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.039[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]

Conc 2	-0.001[mg/l]	-0.001[mg/l]	-0.000[mg/l]	0.028[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.000[mg/l]**	**0.033[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***11.034***	***64.699***	***145.252***	***23.304***	***1.122***	***124.251***	***47.871***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.007[mg/l]	0.006[mg/l]	4444740	97.995[%]	0.004[mg/l]	97.995[%]	
Conc 2	0.003[mg/l]	-0.004[mg/l]	4489530	98.997[%]	0.003[mg/l]	98.997[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.005[mg/l]**	**0.001[mg/l]**	**4467130**	**98.496[%]**	**0.004[mg/l]**	**98.496[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***49.452***	***717.057***	***---***	***0.719***	***5.320***	***0.719***	
Conc SD	***0.003[mg/l]***	***0.007[mg/l]***	***31671.3***	***0.708[%]***	***0.000[mg/l]***	***0.708[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.001[mg/l]	0.011[mg/l]	1096500	<0.001[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.013[mg/l]	1113330	<-0.003[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.012[mg/l]**	**1104920**	**<-0.001[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***5556.35***	***6.398***	***---***	***414.732***	***17.502***	***18.902***	***3.189***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***11900.6***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.034[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	19831.5	<-0.009[mg/l]	0.000[mg/l]
Conc 2	0.038[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20043.8	<-0.010[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.036[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**19937.7**	**<-0.010[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***8.540***	***34.974***	***116.798***	***394.017***	***---***	***6.832***	***75.350***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***150.119***	***0.001[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.943[mg/l]	0.013[mg/l]	<-19.687[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	<0.001[mg/l]	0.000[mg/l]
Conc 2	<-4.944[mg/l]	0.010[mg/l]	<-19.691[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.002[mg/l]	0.000[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.943[mg/l]**	**0.011[mg/l]**	**<-19.689[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**<0.001[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.004***	***15.344***	***0.012***	***77.453***	***0.015***	***48.365***	***1.776***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.002[mg/l]	<0.049[mg/l]	<-1.007[mg/l]	0.000[mg/l]	-0.001[mg/l]	-0.001[mg/l]	0.001[mg/l]
Conc 2	0.002[mg/l]	<-0.051[mg/l]	<-1.009[mg/l]	-0.001[mg/l]	-0.001[mg/l]	-0.001[mg/l]	-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**<-0.001[mg/l]**	**<-1.008[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***25.444***	***9659.37***	***0.168***	***306.544***	***11.034***	***64.699***	***145.252***
Conc SD	***0.001[mg/l]***	***0.071[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.039[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.007[mg/l]	0.006[mg/l]	4444740
Conc 2	0.028[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]	0.003[mg/l]	-0.004[mg/l]	4489530
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.033[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.005[mg/l]**	**0.001[mg/l]**	**4467130**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***23.304***	***1.122***	***124.251***	***47.871***	***49.452***	***717.057***	***---***
Conc SD	***0.008[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.007[mg/l]***	***31671.3***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.995[%]	0.004[mg/l]	<-0.003[mg/l]				
Conc 2	98.997[%]	0.003[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.496[%]**	**0.004[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.719***	***5.320***	***0.704***				
Conc SD	***0.708[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: CRI | Sample Type: Control Sample

Measure Date: 2016-05-16 14:36:45 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
CRI						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.009[mg/l]	0.480[mg/l]	1111300	0.018[mg/l]	0.196[mg/l]	0.021[mg/l]	0.010[mg/l]
Conc 2	0.011[mg/l]	0.481[mg/l]	1102740	0.020[mg/l]	0.196[mg/l]	0.020[mg/l]	0.010[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.010[mg/l]**	**0.480[mg/l]**	**1107020**	**0.019[mg/l]**	**0.196[mg/l]**	**0.020[mg/l]**	**0.010[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***9.471***	***0.027***	***---***	***7.331***	***0.287***	***0.445***	***0.062***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***6052.83***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.995[mg/l]	0.011[mg/l]	0.021[mg/l]	0.022[mg/l]	20447.4	0.017[mg/l]	0.211[mg/l]
Conc 2	0.991[mg/l]	0.011[mg/l]	0.021[mg/l]	0.022[mg/l]	20676.9	0.016[mg/l]	0.211[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.993[mg/l]**	**0.011[mg/l]**	**0.021[mg/l]**	**0.022[mg/l]**	**20562.2**	**0.016[mg/l]**	**0.211[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***0.289***	***0.772***	***0.344***	***0.578***	***---***	***3.818***	***0.223***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***162.281***	***0.001[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	1.079[mg/l]	0.022[mg/l]	0.978[mg/l]	0.021[mg/l]	0.022[mg/l]	1.025[mg/l]	0.020[mg/l]
Conc 2	1.072[mg/l]	0.022[mg/l]	0.982[mg/l]	0.021[mg/l]	0.023[mg/l]	0.853[mg/l]	0.021[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**1.076[mg/l]**	**0.022[mg/l]**	**0.980[mg/l]**	**0.021[mg/l]**	**0.023[mg/l]**	**0.939[mg/l]**	**0.020[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***0.421***	***0.015***	***0.255***	***0.392***	***0.472***	***12.903***	***1.117***
Conc SD	***0.005[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.121[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.019[mg/l]	0.017[mg/l]	0.022[mg/l]	0.187[mg/l]	0.021[mg/l]	0.011[mg/l]	0.021[mg/l]
Conc 2	0.020[mg/l]	0.019[mg/l]	0.023[mg/l]	0.185[mg/l]	0.022[mg/l]	0.011[mg/l]	0.020[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.019[mg/l]**	**0.018[mg/l]**	**0.022[mg/l]**	**0.186[mg/l]**	**0.021[mg/l]**	**0.011[mg/l]**	**0.021[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***2.414***	***6.605***	***3.182***	***0.918***	***2.346***	***0.085***	***0.558***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.023[mg/l]	0.019[mg/l]	4535540	100.001[%]	0.021[mg/l]	100.001[%]	
Conc 2	0.022[mg/l]	0.020[mg/l]	4535160	100.003[%]	0.021[mg/l]	100.003[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.023[mg/l]**	**0.019[mg/l]**	**4535350**	**100.002[%]**	**0.021[mg/l]**	**100.002[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***3.615***	***4.342***	***---***	***0.001***	***0.465***	***0.001***	
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***268.701***	***0.001[%]***	***0.000[mg/l]***	***0.001[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.009[mg/l]	0.480[mg/l]	1111300	0.018[mg/l]	0.196[mg/l]	0.021[mg/l]	0.010[mg/l]
Conc 2	0.011[mg/l]	0.481[mg/l]	1102740	0.020[mg/l]	0.196[mg/l]	0.020[mg/l]	0.010[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.010[mg/l]**	**0.480[mg/l]**	**1107020**	**0.019[mg/l]**	**0.196[mg/l]**	**0.020[mg/l]**	**0.010[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***9.471***	***0.027***	***---***	***7.331***	***0.287***	***0.445***	***0.062***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***6052.83***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.995[mg/l]	0.011[mg/l]	0.021[mg/l]	0.022[mg/l]	20447.4	<0.012[mg/l]	0.211[mg/l]
Conc 2	0.991[mg/l]	0.011[mg/l]	0.021[mg/l]	0.022[mg/l]	20676.9	<0.012[mg/l]	0.211[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.993[mg/l]**	**0.011[mg/l]**	**0.021[mg/l]**	**0.022[mg/l]**	**20562.2**	**<0.012[mg/l]**	**0.211[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.289***	***0.772***	***0.344***	***0.578***	***---***	***1.036***	***0.223***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***162.281***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.682[mg/l]	1.079[mg/l]	<-17.531[mg/l]	0.022[mg/l]	<-0.393[mg/l]	0.978[mg/l]	0.021[mg/l]
Conc 2	<-4.681[mg/l]	1.072[mg/l]	<-17.533[mg/l]	0.022[mg/l]	<-0.393[mg/l]	0.982[mg/l]	0.021[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.681[mg/l]**	**1.076[mg/l]**	**<-17.532[mg/l]**	**0.022[mg/l]**	**<-0.393[mg/l]**	**0.980[mg/l]**	**0.021[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.015***	***0.421***	***0.008***	***0.015***	***0.015***	***0.255***	***0.392***
Conc SD	***0.001[mg/l]***	***0.005[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.022[mg/l]	1.025[mg/l]	<0.054[mg/l]	0.020[mg/l]	0.019[mg/l]	0.017[mg/l]	0.022[mg/l]
Conc 2	0.023[mg/l]	0.853[mg/l]	<-0.496[mg/l]	0.021[mg/l]	0.020[mg/l]	0.019[mg/l]	0.023[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.023[mg/l]**	**0.939[mg/l]**	**<-0.221[mg/l]**	**0.020[mg/l]**	**0.019[mg/l]**	**0.018[mg/l]**	**0.022[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.472***	***12.903***	***176.157***	***1.117***	***2.414***	***6.605***	***3.182***
Conc SD	***0.000[mg/l]***	***0.121[mg/l]***	***0.389[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.187[mg/l]	0.021[mg/l]	0.011[mg/l]	0.021[mg/l]	0.023[mg/l]	0.019[mg/l]	4535540
Conc 2	0.185[mg/l]	0.022[mg/l]	0.011[mg/l]	0.020[mg/l]	0.022[mg/l]	0.020[mg/l]	4535160
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.186[mg/l]**	**0.021[mg/l]**	**0.011[mg/l]**	**0.021[mg/l]**	**0.023[mg/l]**	**0.019[mg/l]**	**4535350**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.918***	***2.346***	***0.085***	***0.558***	***3.615***	***4.342***	***---***
Conc SD	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***268.701***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	100.001[%]	0.021[mg/l]	0.017[mg/l]				
Conc 2	100.003[%]	0.021[mg/l]	0.016[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**100.002[%]**	**0.021[mg/l]**	**0.016[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.001***	***0.465***	***3.818***				
Conc SD	***0.001[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: ICSA | Sample Type: Control Sample

Measure Date: 2016-05-16 14:38:30 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
ICSA						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	468.615[mg/l]	1089550	<-0.014[mg/l]	0.055[mg/l]	0.001[mg/l]	-0.000[mg/l]
Conc 2	-0.001[mg/l]	467.927[mg/l]	1084630	<-0.015[mg/l]	0.055[mg/l]	0.001[mg/l]	-0.000[mg/l]
Conc MinRange	---	*400.000[mg/l]*	---	---	---	---	---
Conc Mean	**-0.001[mg/l]**	**468.271[mg/l]**	**1087090**	**<-0.014[mg/l]**	**0.055[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	---	*600.000[mg/l]*	---	---	---	---	---
Conc RSD	***30.222***	***0.104***	***---***	***4.973***	***0.554***	***2.508***	***21.817***

Conc SD	***0.000[mg/l]***	***0.486[mg/l]***	***3478.97***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	472.603[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.002[mg/l]	26931.5	0.008[mg/l]	206.936[mg/l]
Conc 2	474.528[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.002[mg/l]	27539.6	0.009[mg/l]	206.751[mg/l]
Conc MinRange	*400.000[mg/l]*	---	---	---	---	---	*160.000[mg/l]*
Conc Mean	**473.566[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**-0.002[mg/l]**	**27235.6**	**0.009[mg/l]**	**206.844[mg/l]**
Conc MaxRange	*600.000[mg/l]*	---	---	---	---	---	*240.000[mg/l]*
Conc RSD	***0.287***	***83.704***	***105.466***	***4.256***	***---***	***2.227***	***0.063***
Conc SD	***1.361[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***429.992***	***0.000[mg/l]***	***0.131[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	-0.002[mg/l]	0.001[mg/l]	>497.708[mg/l]	0.003[mg/l]	-0.002[mg/l]	<-0.127[mg/l]	-0.000[mg/l]
Conc 2	-0.002[mg/l]	0.001[mg/l]	>492.604[mg/l]	0.003[mg/l]	-0.002[mg/l]	<-0.139[mg/l]	-0.002[mg/l]
Conc MinRange	---	---	*400.000[mg/l]*	---	---	---	---
Conc Mean	**-0.002[mg/l]**	**0.001[mg/l]**	**>495.156[mg/l]**	**0.003[mg/l]**	**-0.002[mg/l]**	**<-0.133[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	---	---	*600.000[mg/l]*	---	---	---	---
Conc RSD	***7.646***	***2.374***	***0.729***	***5.746***	***10.462***	***6.499***	***118.604***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***3.609[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.009[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.015[mg/l]	-0.028[mg/l]	0.049[mg/l]	-0.001[mg/l]	0.004[mg/l]	0.002[mg/l]
Conc 2	-0.002[mg/l]	0.008[mg/l]	-0.016[mg/l]	0.046[mg/l]	0.001[mg/l]	0.004[mg/l]	0.002[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.001[mg/l]**	**0.012[mg/l]**	**-0.022[mg/l]**	**0.048[mg/l]**	**-0.000[mg/l]**	**0.004[mg/l]**	**0.002[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***88.645***	***45.811***	***38.673***	***4.390***	***539.920***	***0.427***	***0.653***
Conc SD	***0.001[mg/l]***	***0.005[mg/l]***	***0.009[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.001[mg/l]	0.007[mg/l]	3956210	87.452[%]	<-0.001[mg/l]	87.452[%]	
Conc 2	-0.005[mg/l]	-0.001[mg/l]	3969140	87.718[%]	<0.000[mg/l]	87.718[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**-0.002[mg/l]**	**0.003[mg/l]**	**3962670**	**87.585[%]**	**<-0.000[mg/l]**	**87.585[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***177.044***	***215.273***	***---***	***0.215***	***141.963***	***0.215***	
Conc SD	***0.004[mg/l]***	***0.006[mg/l]***	***9142.89***	***0.188[%]***	***0.001[mg/l]***	***0.188[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	468.615[mg/l]	1089550	<-0.014[mg/l]	0.055[mg/l]	0.001[mg/l]	-0.000[mg/l]
Conc 2	-0.001[mg/l]	467.927[mg/l]	1084630	<-0.015[mg/l]	0.055[mg/l]	0.001[mg/l]	-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**468.271[mg/l]**	**1087090**	**<-0.014[mg/l]**	**0.055[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***30.222***	***0.104***	***---***	***4.973***	***0.554***	***2.508***	***21.817***
Conc SD	***0.000[mg/l]***	***0.486[mg/l]***	***3478.97***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	472.603[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.002[mg/l]	26931.5	<0.020[mg/l]	>170.496[mg/l]

Conc 2	474.528[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.002[mg/l]	27539.6	<0.025[mg/l]	>170.347[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**473.566[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**-0.002[mg/l]**	**27235.6**	**<0.022[mg/l]**	**>170.422[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.287***	***83.704***	***105.466***	***4.256***	***---***	***16.212***	***0.062***
Conc SD	***1.361[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***429.992***	***0.004[mg/l]***	***0.105[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	206.936[mg/l]	-0.002[mg/l]	<-19.709[mg/l]	0.001[mg/l]	<-0.418[mg/l]	>497.708[mg/l]	0.003[mg/l]
Conc 2	206.751[mg/l]	-0.002[mg/l]	<-19.712[mg/l]	0.001[mg/l]	<-0.418[mg/l]	>492.604[mg/l]	0.003[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**206.844[mg/l]**	**-0.002[mg/l]**	**<-19.710[mg/l]**	**0.001[mg/l]**	**<-0.418[mg/l]**	**>495.156[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.063***	***7.646***	***0.010***	***2.374***	***0.018***	***0.729***	***5.746***
Conc SD	***0.131[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***3.609[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	-0.002[mg/l]	<-0.127[mg/l]	<-1.906[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.015[mg/l]	-0.028[mg/l]
Conc 2	-0.002[mg/l]	<-0.139[mg/l]	<-2.088[mg/l]	-0.002[mg/l]	-0.002[mg/l]	0.008[mg/l]	-0.016[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**<-0.133[mg/l]**	**<-1.997[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.012[mg/l]**	**-0.022[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***10.462***	***6.499***	***6.438***	***118.604***	***88.645***	***45.811***	***38.673***
Conc SD	***0.000[mg/l]***	***0.009[mg/l]***	***0.129[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***	***0.009[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.049[mg/l]	-0.001[mg/l]	0.004[mg/l]	0.002[mg/l]	0.001[mg/l]	0.007[mg/l]	3956210
Conc 2	0.046[mg/l]	0.001[mg/l]	0.004[mg/l]	0.002[mg/l]	-0.005[mg/l]	-0.001[mg/l]	3969140
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.048[mg/l]**	**-0.000[mg/l]**	**0.004[mg/l]**	**0.002[mg/l]**	**-0.002[mg/l]**	**0.003[mg/l]**	**3962670**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***4.390***	***539.920***	***0.427***	***0.653***	***177.044***	***215.273***	***---***
Conc SD	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.006[mg/l]***	***9142.89***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	87.452[%]	<-0.001[mg/l]	0.008[mg/l]				
Conc 2	87.718[%]	<0.000[mg/l]	0.009[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**87.585[%]**	**<-0.000[mg/l]**	**0.009[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.215***	***141.963***	***2.227***				
Conc SD	***0.188[%]***	***0.001[mg/l]***	***0.000[mg/l]***				

Method Name: Hou Metals
Method Autor: Operator
Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: ICSAB			Sample Type: Control Sample		
Measure Date: 2016-05-16 14:40:16	Recalculation Date:	State: Checked	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
ICSAB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.545[mg/l]	485.309[mg/l]	1115500	1.108[mg/l]	1.167[mg/l]	1.056[mg/l]	0.520[mg/l]
Conc 2	0.546[mg/l]	484.665[mg/l]	1121210	1.122[mg/l]	1.173[mg/l]	1.063[mg/l]	0.522[mg/l]
Conc MinRange	*0.400[mg/l]*	*408.000[mg/l]*	---	*0.800[mg/l]*	*0.800[mg/l]*	*0.800[mg/l]*	*0.400[mg/l]*
Conc Mean	**0.546[mg/l]**	**484.987[mg/l]**	**1118360**	**1.115[mg/l]**	**1.170[mg/l]**	**1.060[mg/l]**	**0.521[mg/l]**
Conc MaxRange	*0.600[mg/l]*	*612.000[mg/l]*	---	*1.200[mg/l]*	*1.200[mg/l]*	*1.200[mg/l]*	*0.600[mg/l]*
Conc RSD	***0.107***	***0.094***	***---***	***0.927***	***0.345***	***0.472***	***0.321***
Conc SD	***0.001[mg/l]***	***0.455[mg/l]***	***4037.58***	***0.010[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***	***0.002[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	501.931[mg/l]	0.492[mg/l]	1.011[mg/l]	1.028[mg/l]	27291.1	1.061[mg/l]	218.823[mg/l]
Conc 2	500.948[mg/l]	0.497[mg/l]	1.013[mg/l]	1.032[mg/l]	27477.7	1.064[mg/l]	219.422[mg/l]
Conc MinRange	*408.000[mg/l]*	*0.400[mg/l]*	*0.800[mg/l]*	*0.800[mg/l]*	---	*0.800[mg/l]*	*168.000[mg/l]*
Conc Mean	**501.440[mg/l]**	**0.494[mg/l]**	**1.012[mg/l]**	**1.030[mg/l]**	**27384.4**	**1.063[mg/l]**	**219.123[mg/l]**
Conc MaxRange	*612.000[mg/l]*	*0.600[mg/l]*	*1.200[mg/l]*	*1.200[mg/l]*	---	*1.200[mg/l]*	*252.000[mg/l]*
Conc RSD	***0.139***	***0.673***	***0.133***	***0.275***	***---***	***0.194***	***0.193***
Conc SD	***0.695[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***131.946***	***0.002[mg/l]***	***0.424[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	11.086[mg/l]	1.052[mg/l]	>509.522[mg/l]	1.041[mg/l]	0.953[mg/l]	9.048[mg/l]	0.968[mg/l]
Conc 2	11.514[mg/l]	1.044[mg/l]	>511.617[mg/l]	1.044[mg/l]	0.964[mg/l]	9.207[mg/l]	0.979[mg/l]
Conc MinRange	*8.000[mg/l]*	*0.800[mg/l]*	*408.000[mg/l]*	*0.800[mg/l]*	*0.800[mg/l]*	*8.000[mg/l]*	*0.800[mg/l]*
Conc Mean	**11.300[mg/l]**	**1.048[mg/l]**	**>510.570[mg/l]**	**1.043[mg/l]**	**0.959[mg/l]**	**9.128[mg/l]**	**0.974[mg/l]**
Conc MaxRange	*12.000[mg/l]*	*1.200[mg/l]*	*612.000[mg/l]*	*1.200[mg/l]*	*1.200[mg/l]*	*12.000[mg/l]*	*1.200[mg/l]*
Conc RSD	***2.681***	***0.501***	***0.290***	***0.184***	***0.803***	***1.237***	***0.764***
Conc SD	***0.303[mg/l]***	***0.005[mg/l]***	***1.481[mg/l]***	***0.002[mg/l]***	***0.008[mg/l]***	***0.113[mg/l]***	***0.007[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.002[mg/l]	1.015[mg/l]	1.032[mg/l]	0.961[mg/l]	0.969[mg/l]	0.559[mg/l]	0.976[mg/l]
Conc 2	1.004[mg/l]	1.016[mg/l]	1.011[mg/l]	0.968[mg/l]	0.976[mg/l]	0.561[mg/l]	0.987[mg/l]
Conc MinRange	*0.800[mg/l]*	*0.800[mg/l]*	*0.800[mg/l]*	*0.800[mg/l]*	*0.800[mg/l]*	*0.400[mg/l]*	*0.800[mg/l]*
Conc Mean	**1.003[mg/l]**	**1.015[mg/l]**	**1.022[mg/l]**	**0.964[mg/l]**	**0.972[mg/l]**	**0.560[mg/l]**	**0.981[mg/l]**
Conc MaxRange	*1.200[mg/l]*	*1.200[mg/l]*	*1.200[mg/l]*	*1.200[mg/l]*	*1.200[mg/l]*	*0.600[mg/l]*	*1.200[mg/l]*
Conc RSD	***0.123***	***0.099***	***1.478***	***0.480***	***0.542***	***0.287***	***0.846***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.015[mg/l]***	***0.005[mg/l]***	***0.005[mg/l]***	***0.002[mg/l]***	***0.008[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.903[mg/l]	1.073[mg/l]	3894270	86.101[%]	1.062[mg/l]	86.101[%]	
Conc 2	0.904[mg/l]	1.088[mg/l]	3902820	86.274[%]	1.069[mg/l]	86.274[%]	

Conc MinRange	*0.800[mg/l]*	*0.800[mg/l]*	---	---	*0.800[mg/l]*	---	
Conc Mean	**0.904[mg/l]**	**1.081[mg/l]**	**3898540**	**86.188[%]**	**1.066[mg/l]**	**86.188[%]**	
Conc MaxRange	*1.200[mg/l]*	*1.200[mg/l]*	---	---	*1.200[mg/l]*	---	
Conc RSD	***0.103***	***0.978***	***---***	***0.142***	***0.462***	***0.142***	
Conc SD	***0.001[mg/l]***	***0.011[mg/l]***	***6045.76***	***0.122[%]***	***0.005[mg/l]***	***0.122[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.545[mg/l]	485.309[mg/l]	1115500	1.108[mg/l]	1.167[mg/l]	1.056[mg/l]	0.520[mg/l]
Conc 2	0.546[mg/l]	484.665[mg/l]	1121210	1.122[mg/l]	1.173[mg/l]	1.063[mg/l]	0.522[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.546[mg/l]**	**484.987[mg/l]**	**1118360**	**1.115[mg/l]**	**1.170[mg/l]**	**1.060[mg/l]**	**0.521[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.107***	***0.094***	***---***	***0.927***	***0.345***	***0.472***	***0.321***
Conc SD	***0.001[mg/l]***	***0.455[mg/l]***	***4037.58***	***0.010[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***	***0.002[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	501.931[mg/l]	0.492[mg/l]	1.011[mg/l]	1.028[mg/l]	27291.1	1.061[mg/l]	>180.054[mg/l]
Conc 2	500.948[mg/l]	0.497[mg/l]	1.013[mg/l]	1.032[mg/l]	27477.7	1.064[mg/l]	>180.532[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**501.440[mg/l]**	**0.494[mg/l]**	**1.012[mg/l]**	**1.030[mg/l]**	**27384.4**	**1.063[mg/l]**	**>180.293[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.139***	***0.673***	***0.133***	***0.275***	***---***	***0.194***	***0.187***
Conc SD	***0.695[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***131.946***	***0.002[mg/l]***	***0.338[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	218.823[mg/l]	11.086[mg/l]	<2.677[mg/l]	1.052[mg/l]	<0.862[mg/l]	>509.522[mg/l]	1.041[mg/l]
Conc 2	219.422[mg/l]	11.514[mg/l]	<3.572[mg/l]	1.044[mg/l]	<0.851[mg/l]	>511.617[mg/l]	1.044[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**219.123[mg/l]**	**11.300[mg/l]**	**<3.125[mg/l]**	**1.048[mg/l]**	**<0.857[mg/l]**	**>510.570[mg/l]**	**1.043[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.193***	***2.681***	***20.243***	***0.501***	***0.851***	***0.290***	***0.184***
Conc SD	***0.424[mg/l]***	***0.303[mg/l]***	***0.632[mg/l]***	***0.005[mg/l]***	***0.007[mg/l]***	***1.481[mg/l]***	***0.002[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.953[mg/l]	9.048[mg/l]	<8.265[mg/l]	0.968[mg/l]	1.002[mg/l]	1.015[mg/l]	1.032[mg/l]
Conc 2	0.964[mg/l]	9.207[mg/l]	<8.476[mg/l]	0.979[mg/l]	1.004[mg/l]	1.016[mg/l]	1.011[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.959[mg/l]**	**9.128[mg/l]**	**<8.370[mg/l]**	**0.974[mg/l]**	**1.003[mg/l]**	**1.015[mg/l]**	**1.022[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.803***	***1.237***	***1.782***	***0.764***	***0.123***	***0.099***	***1.478***
Conc SD	***0.008[mg/l]***	***0.113[mg/l]***	***0.149[mg/l]***	***0.007[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.015[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.961[mg/l]	0.969[mg/l]	0.559[mg/l]	0.976[mg/l]	0.903[mg/l]	1.073[mg/l]	3894270
Conc 2	0.968[mg/l]	0.976[mg/l]	0.561[mg/l]	0.987[mg/l]	0.904[mg/l]	1.088[mg/l]	3902820
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.964[mg/l]**	**0.972[mg/l]**	**0.560[mg/l]**	**0.981[mg/l]**	**0.904[mg/l]**	**1.081[mg/l]**	**3898540**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.480***	***0.542***	***0.287***	***0.846***	***0.103***	***0.978***	***---***

Conc SD	***0.005[mg/l]***	***0.005[mg/l]***	***0.002[mg/l]***	***0.008[mg/l]***	***0.001[mg/l]***	***0.011[mg/l]***	***6045.76***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	86.101[%]	1.062[mg/l]	>1.266[mg/l]				
Conc 2	86.274[%]	1.069[mg/l]	>1.269[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**86.188[%]**	**1.066[mg/l]**	**>1.267[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.142***	***0.462***	***0.151***				
Conc SD	***0.122[%]***	***0.005[mg/l]***	***0.002[mg/l]***				

Sample Name: CCV | Sample Type: Control Sample

Measure Date: 2016-05-16 14:42:01 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCV						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.254[mg/l]	2.617[mg/l]	1116360	0.493[mg/l]	0.507[mg/l]	0.503[mg/l]	0.500[mg/l]
Conc 2	0.248[mg/l]	2.572[mg/l]	1134390	0.487[mg/l]	0.500[mg/l]	0.491[mg/l]	0.493[mg/l]
Conc MinRange	*90.000*	*90.000*	---	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.251[mg/l]**	**2.594[mg/l]**	**1125380**	**0.490[mg/l]**	**0.504[mg/l]**	**0.497[mg/l]**	**0.496[mg/l]**
Conc MaxRange	*110.000*	*110.000*	---	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***1.698***	***1.232***	***---***	***0.921***	***0.908***	***1.706***	***0.906***
Conc SD	***0.004[mg/l]***	***0.032[mg/l]***	***12749.1***	***0.005[mg/l]***	***0.005[mg/l]***	***0.008[mg/l]***	***0.004[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	12.748[mg/l]	0.501[mg/l]	0.517[mg/l]	0.521[mg/l]	22165.9	0.527[mg/l]	2.611[mg/l]
Conc 2	12.537[mg/l]	0.489[mg/l]	0.509[mg/l]	0.513[mg/l]	22355.4	0.510[mg/l]	2.559[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	---	*90.000*	*90.000*
Conc Mean	**12.643[mg/l]**	**0.495[mg/l]**	**0.513[mg/l]**	**0.517[mg/l]**	**22260.7**	**0.518[mg/l]**	**2.585[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	---	*110.000*	*110.000*
Conc RSD	***1.185***	***1.684***	***1.155***	***0.979***	***---***	***2.214***	***1.440***
Conc SD	***0.150[mg/l]***	***0.008[mg/l]***	***0.006[mg/l]***	***0.005[mg/l]***	***133.997***	***0.011[mg/l]***	***0.037[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	20.324[mg/l]	2.007[mg/l]	4.964[mg/l]	0.507[mg/l]	0.529[mg/l]	20.865[mg/l]	0.511[mg/l]
Conc 2	19.332[mg/l]	1.979[mg/l]	4.854[mg/l]	0.497[mg/l]	0.519[mg/l]	20.369[mg/l]	0.504[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**19.828[mg/l]**	**1.993[mg/l]**	**4.909[mg/l]**	**0.502[mg/l]**	**0.524[mg/l]**	**20.617[mg/l]**	**0.507[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***3.538***	***0.986***	***1.586***	***1.449***	***1.270***	***1.701***	***0.898***
Conc SD	***0.701[mg/l]***	***0.020[mg/l]***	***0.078[mg/l]***	***0.007[mg/l]***	***0.007[mg/l]***	***0.351[mg/l]***	***0.005[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.514[mg/l]	0.509[mg/l]	0.515[mg/l]	0.928[mg/l]	0.517[mg/l]	0.259[mg/l]	0.505[mg/l]

Conc 2	0.505[mg/l]	0.500[mg/l]	0.508[mg/l]	0.908[mg/l]	0.502[mg/l]	0.253[mg/l]	0.492[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.510[mg/l]**	**0.504[mg/l]**	**0.511[mg/l]**	**0.918[mg/l]**	**0.509[mg/l]**	**0.256[mg/l]**	**0.499[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***1.317***	***1.288***	***0.914***	***1.580***	***2.074***	***1.689***	***1.736***
Conc SD	***0.007[mg/l]***	***0.006[mg/l]***	***0.005[mg/l]***	***0.015[mg/l]***	***0.011[mg/l]***	***0.004[mg/l]***	***0.009[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.504[mg/l]	0.526[mg/l]	4437090	97.846[%]	0.500[mg/l]	97.846[%]	
Conc 2	0.505[mg/l]	0.517[mg/l]	4518280	99.617[%]	0.489[mg/l]	99.617[%]	
Conc MinRange	*90.000*	*90.000*	---	---	*90.000*	---	
Conc Mean	**0.505[mg/l]**	**0.521[mg/l]**	**4477690**	**98.731[%]**	**0.494[mg/l]**	**98.731[%]**	
Conc MaxRange	*110.000*	*110.000*	---	---	*110.000*	---	
Conc RSD	***0.183***	***1.307***	***---***	***1.269***	***1.684***	***1.269***	
Conc SD	***0.001[mg/l]***	***0.007[mg/l]***	***57410.0***	***1.253[%]***	***0.008[mg/l]***	***1.253[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.254[mg/l]	2.617[mg/l]	1116360	0.493[mg/l]	0.507[mg/l]	0.503[mg/l]	0.500[mg/l]
Conc 2	0.248[mg/l]	2.572[mg/l]	1134390	0.487[mg/l]	0.500[mg/l]	0.491[mg/l]	0.493[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.251[mg/l]**	**2.594[mg/l]**	**1125380**	**0.490[mg/l]**	**0.504[mg/l]**	**0.497[mg/l]**	**0.496[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.698***	***1.232***	***---***	***0.921***	***0.908***	***1.706***	***0.906***
Conc SD	***0.004[mg/l]***	***0.032[mg/l]***	***12749.1***	***0.005[mg/l]***	***0.005[mg/l]***	***0.008[mg/l]***	***0.004[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	12.748[mg/l]	0.501[mg/l]	0.517[mg/l]	0.521[mg/l]	22165.9	<0.510[mg/l]	2.611[mg/l]
Conc 2	12.537[mg/l]	0.489[mg/l]	0.509[mg/l]	0.513[mg/l]	22355.4	<0.506[mg/l]	2.559[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.643[mg/l]**	**0.495[mg/l]**	**0.513[mg/l]**	**0.517[mg/l]**	**22260.7**	**<0.508[mg/l]**	**2.585[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.185***	***1.684***	***1.155***	***0.979***	***---***	***0.670***	***1.440***
Conc SD	***0.150[mg/l]***	***0.008[mg/l]***	***0.006[mg/l]***	***0.005[mg/l]***	***133.997***	***0.003[mg/l]***	***0.037[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.696[mg/l]	19.878[mg/l]	20.324[mg/l]	1.992[mg/l]	2.007[mg/l]	4.964[mg/l]	0.507[mg/l]
Conc 2	<-1.762[mg/l]	19.375[mg/l]	19.332[mg/l]	1.971[mg/l]	1.979[mg/l]	4.854[mg/l]	0.497[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.729[mg/l]**	**19.626[mg/l]**	**19.828[mg/l]**	**1.982[mg/l]**	**1.993[mg/l]**	**4.909[mg/l]**	**0.502[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.691***	***1.812***	***3.538***	***0.763***	***0.986***	***1.586***	***1.449***
Conc SD	***0.047[mg/l]***	***0.356[mg/l]***	***0.701[mg/l]***	***0.015[mg/l]***	***0.020[mg/l]***	***0.078[mg/l]***	***0.007[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.529[mg/l]	21.075[mg/l]	20.865[mg/l]	0.511[mg/l]	0.514[mg/l]	0.509[mg/l]	0.515[mg/l]
Conc 2	0.519[mg/l]	20.495[mg/l]	20.369[mg/l]	0.504[mg/l]	0.505[mg/l]	0.500[mg/l]	0.508[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.524[mg/l]**	**20.785[mg/l]**	**20.617[mg/l]**	**0.507[mg/l]**	**0.510[mg/l]**	**0.504[mg/l]**	**0.511[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***1.270***	***1.970***	***1.701***	***0.898***	***1.317***	***1.288***	***0.914***
Conc SD	***0.007[mg/l]***	***0.410[mg/l]***	***0.351[mg/l]***	***0.005[mg/l]***	***0.007[mg/l]***	***0.006[mg/l]***	***0.005[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.928[mg/l]	0.517[mg/l]	0.259[mg/l]	0.505[mg/l]	0.504[mg/l]	0.526[mg/l]	4437090
Conc 2	0.908[mg/l]	0.502[mg/l]	0.253[mg/l]	0.492[mg/l]	0.505[mg/l]	0.517[mg/l]	4518280
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.918[mg/l]**	**0.509[mg/l]**	**0.256[mg/l]**	**0.499[mg/l]**	**0.505[mg/l]**	**0.521[mg/l]**	**4477690**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.580***	***2.074***	***1.689***	***1.736***	***0.183***	***1.307***	***---***
Conc SD	***0.015[mg/l]***	***0.011[mg/l]***	***0.004[mg/l]***	***0.009[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***57410.0***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.846[%]	0.500[mg/l]	0.527[mg/l]				
Conc 2	99.617[%]	0.489[mg/l]	0.510[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.731[%]**	**0.494[mg/l]**	**0.518[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***1.269***	***1.684***	***2.214***				
Conc SD	***1.253[%]***	***0.008[mg/l]***	***0.011[mg/l]***				

Sample Name: CCB | Sample Type: Control Sample

Measure Date: 2016-05-16 14:43:48 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	0.013[mg/l]	1089060	<0.001[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.011[mg/l]	1086750	<-0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.000[mg/l]**	**0.012[mg/l]**	**1087900**	**<-0.000[mg/l]**	**0.003[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***210.565***	***13.381***	***---***	***8543.22***	***18.693***	***23.255***	***24.875***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***1633.42***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.017[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	21092.4	<-0.004[mg/l]	0.004[mg/l]
Conc 2	0.016[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	21243.3	<-0.004[mg/l]	0.004[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.016[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**21167.8**	**<-0.004[mg/l]**	**0.004[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***0.453***	***208.288***	***389.988***	***5300.06***	***---***	***1.303***	***4.716***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***106.702***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.009[mg/l]	0.000[mg/l]	0.008[mg/l]	0.000[mg/l]	0.003[mg/l]	<0.068[mg/l]	-0.001[mg/l]
Conc 2	0.008[mg/l]	0.000[mg/l]	0.008[mg/l]	0.000[mg/l]	0.002[mg/l]	<0.139[mg/l]	-0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.009[mg/l]**	**0.000[mg/l]**	**0.008[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**<0.104[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***7.903***	***19.641***	***1.696***	***4.695***	***26.412***	***48.124***	***47.465***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.050[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.002[mg/l]	0.001[mg/l]	-0.001[mg/l]	-0.012[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc 2	-0.002[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.002[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**-0.005[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***12.710***	***11211.7***	***15760.8***	***187.070***	***64.518***	***8.102***	***26.244***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.010[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.006[mg/l]	0.000[mg/l]	4645260	102.407[%]	0.001[mg/l]	102.407[%]	
Conc 2	0.006[mg/l]	-0.008[mg/l]	4544560	100.199[%]	0.001[mg/l]	100.199[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.006[mg/l]**	**-0.004[mg/l]**	**4594910**	**101.303[%]**	**0.001[mg/l]**	**101.303[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***5.015***	***153.081***	***---***	***1.541***	***3.516***	***1.541***	
Conc SD	***0.000[mg/l]***	***0.006[mg/l]***	***71205.7***	***1.561[%]***	***0.000[mg/l]***	***1.561[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	0.013[mg/l]	1089060	<0.001[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.011[mg/l]	1086750	<-0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.012[mg/l]**	**1087900**	**<-0.000[mg/l]**	**0.003[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***210.565***	***13.381***	***---***	***8543.22***	***18.693***	***23.255***	***24.875***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***1633.42***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.017[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	21092.4	<-0.010[mg/l]	0.004[mg/l]
Conc 2	0.016[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	21243.3	<-0.009[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.016[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**21167.8**	**<-0.010[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.453***	***208.288***	***389.988***	***5300.06***	***---***	***3.753***	***4.716***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***106.702***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.938[mg/l]	0.009[mg/l]	<-19.691[mg/l]	0.000[mg/l]	<-0.419[mg/l]	0.008[mg/l]	0.000[mg/l]
Conc 2	<-4.939[mg/l]	0.008[mg/l]	<-19.698[mg/l]	0.000[mg/l]	<-0.419[mg/l]	0.008[mg/l]	0.000[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.938[mg/l]**	**0.009[mg/l]**	**<-19.695[mg/l]**	**0.000[mg/l]**	**<-0.419[mg/l]**	**0.008[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.002***	***7.903***	***0.028***	***19.641***	***0.023***	***1.696***	***4.695***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.003[mg/l]	<0.068[mg/l]	<-1.270[mg/l]	-0.001[mg/l]	-0.002[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc 2	0.002[mg/l]	<0.139[mg/l]	<-1.287[mg/l]	-0.000[mg/l]	-0.002[mg/l]	-0.001[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**<0.104[mg/l]**	**<-1.279[mg/l]**	**-0.001[mg/l]**	**-0.002[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***26.412***	***48.124***	***0.941***	***47.465***	***12.710***	***11211.7***	***15760.8***
Conc SD	***0.001[mg/l]***	***0.050[mg/l]***	***0.012[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.012[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.006[mg/l]	0.000[mg/l]	4645260
Conc 2	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	0.006[mg/l]	-0.008[mg/l]	4544560
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.005[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.006[mg/l]**	**-0.004[mg/l]**	**4594910**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***187.070***	***64.518***	***8.102***	***26.244***	***5.015***	***153.081***	***---***
Conc SD	***0.010[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.006[mg/l]***	***71205.7***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	102.407[%]	0.001[mg/l]	<-0.004[mg/l]				
Conc 2	100.199[%]	0.001[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**101.303[%]**	**0.001[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***1.541***	***3.516***	***1.303***				
Conc SD	***1.561[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: MB 600-188548/1-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 15:59:42 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
MB 600-188548/1-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	-0.003[mg/l]	1095280	<0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	-0.008[mg/l]	1101320	<-0.001[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.006[mg/l]**	**1098300**	**<-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***117.811***	***72.517***	***---***	***292.023***	***213.015***	***5.302***	***61.134***

Conc SD	***0.001[mg/l]***	***0.004[mg/l]***	***4270.92***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.012[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	20422.0	<-0.003[mg/l]	0.007[mg/l]
Conc 2	0.009[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	20480.5	<-0.003[mg/l]	0.008[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.010[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**20451.3**	**<-0.003[mg/l]**	**0.008[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***24.168***	***84.992***	***4.918***	***66.823***	***---***	***18.973***	***6.495***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***41.366***	***0.001[mg/l]***	***0.001[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	-0.008[mg/l]	-0.001[mg/l]	0.003[mg/l]	0.001[mg/l]	-0.000[mg/l]	<0.021[mg/l]	-0.000[mg/l]
Conc 2	-0.009[mg/l]	-0.001[mg/l]	0.005[mg/l]	0.001[mg/l]	-0.000[mg/l]	<-0.023[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.009[mg/l]**	**-0.001[mg/l]**	**0.004[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**<-0.001[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***11.198***	***3.939***	***36.137***	***0.575***	***19.044***	***3237.95***	***108.108***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.031[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.000[mg/l]	-0.001[mg/l]	-0.002[mg/l]	-0.043[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.001[mg/l]
Conc 2	-0.000[mg/l]	-0.001[mg/l]	-0.001[mg/l]	-0.045[mg/l]	0.001[mg/l]	-0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.001[mg/l]**	**-0.002[mg/l]**	**-0.044[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3515.42***	***4.643***	***19.395***	***4.005***	***21.446***	***15.045***	***52.814***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.001[mg/l]	-0.001[mg/l]	4480680	98.795[%]	0.004[mg/l]	98.795[%]	
Conc 2	0.001[mg/l]	-0.004[mg/l]	4466550	98.468[%]	0.004[mg/l]	98.468[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**-0.003[mg/l]**	**4473610**	**98.631[%]**	**0.004[mg/l]**	**98.631[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***20.119***	***105.762***	***---***	***0.235***	***3.030***	***0.235***	
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***9991.42***	***0.231[%]***	***0.000[mg/l]***	***0.231[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	-0.003[mg/l]	1095280	<0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	-0.008[mg/l]	1101320	<-0.001[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.006[mg/l]**	**1098300**	**<-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***117.811***	***72.517***	***---***	***292.023***	***213.015***	***5.302***	***61.134***
Conc SD	***0.001[mg/l]***	***0.004[mg/l]***	***4270.92***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.012[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	20422.0	<-0.011[mg/l]	0.007[mg/l]

Conc 2	0.009[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	20480.5	<-0.010[mg/l]	0.008[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.010[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**20451.3**	**<-0.010[mg/l]**	**0.008[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***24.168***	***84.992***	***4.918***	***66.823***	***---***	***3.066***	***6.495***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***41.366***	***0.000[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.935[mg/l]	-0.008[mg/l]	<-19.725[mg/l]	-0.001[mg/l]	<-0.420[mg/l]	0.003[mg/l]	0.001[mg/l]
Conc 2	<-4.934[mg/l]	-0.009[mg/l]	<-19.734[mg/l]	-0.001[mg/l]	<-0.420[mg/l]	0.005[mg/l]	0.001[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.934[mg/l]**	**-0.009[mg/l]**	**<-19.729[mg/l]**	**-0.001[mg/l]**	**<-0.420[mg/l]**	**0.004[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.013***	***11.198***	***0.034***	***3.939***	***0.006***	***36.137***	***0.575***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	-0.000[mg/l]	<0.021[mg/l]	<-1.215[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.001[mg/l]	-0.002[mg/l]
Conc 2	-0.000[mg/l]	<-0.023[mg/l]	<-1.138[mg/l]	-0.001[mg/l]	-0.000[mg/l]	-0.001[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**<-0.001[mg/l]**	**<-1.176[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**-0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***19.044***	***3237.95***	***4.656***	***108.108***	***3515.42***	***4.643***	***19.395***
Conc SD	***0.000[mg/l]***	***0.031[mg/l]***	***0.055[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.043[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]	4480680
Conc 2	-0.045[mg/l]	0.001[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	-0.004[mg/l]	4466550
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.044[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**-0.003[mg/l]**	**4473610**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***4.005***	***21.446***	***15.045***	***52.814***	***20.119***	***105.762***	***---***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***9991.42***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.795[%]	0.004[mg/l]	<-0.003[mg/l]				
Conc 2	98.468[%]	0.004[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.631[%]**	**0.004[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.235***	***3.030***	***18.973***				
Conc SD	***0.231[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: LCS 600-188548/2-A			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 16:01:37	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
LCS 600-188548/2-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.508[mg/l]	10.232[mg/l]	1129610	1.028[mg/l]	1.028[mg/l]	1.022[mg/l]	0.504[mg/l]
Conc 2	0.501[mg/l]	10.140[mg/l]	1147110	1.027[mg/l]	1.008[mg/l]	1.016[mg/l]	0.503[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.505[mg/l]**	**10.186[mg/l]**	**1138360**	**1.028[mg/l]**	**1.018[mg/l]**	**1.019[mg/l]**	**0.504[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.917***	***0.644***	***---***	***0.028***	***1.359***	***0.386***	***0.124***
Conc SD	***0.005[mg/l]***	***0.066[mg/l]***	***12374.4***	***0.000[mg/l]***	***0.014[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	10.254[mg/l]	0.511[mg/l]	1.020[mg/l]	1.018[mg/l]	22120.3	1.051[mg/l]	10.274[mg/l]
Conc 2	10.252[mg/l]	0.507[mg/l]	1.014[mg/l]	1.011[mg/l]	22268.6	1.043[mg/l]	10.207[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**10.253[mg/l]**	**0.509[mg/l]**	**1.017[mg/l]**	**1.015[mg/l]**	**22194.4**	**1.047[mg/l]**	**10.241[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.017***	***0.574***	***0.380***	***0.534***	***---***	***0.591***	***0.460***
Conc SD	***0.002[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***	***104.864***	***0.006[mg/l]***	***0.047[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	10.752[mg/l]	1.025[mg/l]	10.344[mg/l]	1.029[mg/l]	0.983[mg/l]	10.382[mg/l]	1.031[mg/l]
Conc 2	10.798[mg/l]	1.087[mg/l]	10.190[mg/l]	1.022[mg/l]	0.980[mg/l]	10.109[mg/l]	1.020[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**10.775[mg/l]**	**1.056[mg/l]**	**10.267[mg/l]**	**1.025[mg/l]**	**0.981[mg/l]**	**10.246[mg/l]**	**1.025[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.300***	***4.196***	***1.066***	***0.468***	***0.212***	***1.880***	***0.775***
Conc SD	***0.032[mg/l]***	***0.044[mg/l]***	***0.109[mg/l]***	***0.005[mg/l]***	***0.002[mg/l]***	***0.193[mg/l]***	***0.008[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.036[mg/l]	0.992[mg/l]	1.045[mg/l]	0.899[mg/l]	1.000[mg/l]	0.522[mg/l]	0.984[mg/l]
Conc 2	1.026[mg/l]	0.976[mg/l]	1.017[mg/l]	0.882[mg/l]	0.988[mg/l]	0.515[mg/l]	0.987[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.031[mg/l]**	**0.984[mg/l]**	**1.031[mg/l]**	**0.891[mg/l]**	**0.994[mg/l]**	**0.518[mg/l]**	**0.985[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.721***	***1.185***	***1.905***	***1.318***	***0.908***	***0.856***	***0.201***
Conc SD	***0.007[mg/l]***	***0.012[mg/l]***	***0.020[mg/l]***	***0.012[mg/l]***	***0.009[mg/l]***	***0.004[mg/l]***	***0.002[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.990[mg/l]	1.048[mg/l]	4510130	99.440[%]	1.026[mg/l]	99.440[%]	
Conc 2	0.975[mg/l]	1.038[mg/l]	4561670	100.598[%]	1.014[mg/l]	100.598[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*---*	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.983[mg/l]**	**1.043[mg/l]**	**4535900**	**100.019[%]**	**1.020[mg/l]**	**100.019[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*---*	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***1.112***	***0.656***	***---***	***0.819***	***0.867***	***0.819***	
Conc SD	***0.011[mg/l]***	***0.007[mg/l]***	***36444.3***	***0.819[%]***	***0.009[mg/l]***	***0.819[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.508[mg/l]	10.232[mg/l]	1129610	1.028[mg/l]	1.028[mg/l]	1.022[mg/l]	0.504[mg/l]
Conc 2	0.501[mg/l]	10.140[mg/l]	1147110	1.027[mg/l]	1.008[mg/l]	1.016[mg/l]	0.503[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.505[mg/l]**	**10.186[mg/l]**	**1138360**	**1.028[mg/l]**	**1.018[mg/l]**	**1.019[mg/l]**	**0.504[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.917***	***0.644***	***---***	***0.028***	***1.359***	***0.386***	***0.124***
Conc SD	***0.005[mg/l]***	***0.066[mg/l]***	***12374.4***	***0.000[mg/l]***	***0.014[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	10.254[mg/l]	0.511[mg/l]	1.020[mg/l]	1.018[mg/l]	22120.3	1.051[mg/l]	10.274[mg/l]
Conc 2	10.252[mg/l]	0.507[mg/l]	1.014[mg/l]	1.011[mg/l]	22268.6	1.043[mg/l]	10.207[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**10.253[mg/l]**	**0.509[mg/l]**	**1.017[mg/l]**	**1.015[mg/l]**	**22194.4**	**1.047[mg/l]**	**10.241[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.017***	***0.574***	***0.380***	***0.534***	***---***	***0.591***	***0.460***
Conc SD	***0.002[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***	***104.864***	***0.006[mg/l]***	***0.047[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<7.830[mg/l]	10.752[mg/l]	<2.027[mg/l]	1.025[mg/l]	<0.831[mg/l]	10.344[mg/l]	1.029[mg/l]
Conc 2	<7.748[mg/l]	10.798[mg/l]	<2.128[mg/l]	1.087[mg/l]	<0.906[mg/l]	10.190[mg/l]	1.022[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<7.789[mg/l]**	**10.775[mg/l]**	**<2.078[mg/l]**	**1.056[mg/l]**	**<0.869[mg/l]**	**10.267[mg/l]**	**1.025[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.749***	***0.300***	***3.435***	***4.196***	***6.139***	***1.066***	***0.468***
Conc SD	***0.058[mg/l]***	***0.032[mg/l]***	***0.071[mg/l]***	***0.044[mg/l]***	***0.053[mg/l]***	***0.109[mg/l]***	***0.005[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.983[mg/l]	10.382[mg/l]	<10.035[mg/l]	1.031[mg/l]	1.036[mg/l]	0.992[mg/l]	1.045[mg/l]
Conc 2	0.980[mg/l]	10.109[mg/l]	<9.787[mg/l]	1.020[mg/l]	1.026[mg/l]	0.976[mg/l]	1.017[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.981[mg/l]**	**10.246[mg/l]**	**<9.911[mg/l]**	**1.025[mg/l]**	**1.031[mg/l]**	**0.984[mg/l]**	**1.031[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.212***	***1.880***	***1.773***	***0.775***	***0.721***	***1.185***	***1.905***
Conc SD	***0.002[mg/l]***	***0.193[mg/l]***	***0.176[mg/l]***	***0.008[mg/l]***	***0.007[mg/l]***	***0.012[mg/l]***	***0.020[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.899[mg/l]	1.000[mg/l]	0.522[mg/l]	0.984[mg/l]	0.990[mg/l]	1.048[mg/l]	4510130
Conc 2	0.882[mg/l]	0.988[mg/l]	0.515[mg/l]	0.987[mg/l]	0.975[mg/l]	1.038[mg/l]	4561670
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*
Conc Mean	**0.891[mg/l]**	**0.994[mg/l]**	**0.518[mg/l]**	**0.985[mg/l]**	**0.983[mg/l]**	**1.043[mg/l]**	**4535900**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*
Conc RSD	***1.318***	***0.908***	***0.856***	***0.201***	***1.112***	***0.656***	***---***

Conc SD	***0.012[mg/l]***	***0.009[mg/l]***	***0.004[mg/l]***	***0.002[mg/l]***	***0.011[mg/l]***	***0.007[mg/l]***	***36444.3***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.440[%]	1.026[mg/l]	>1.082[mg/l]				
Conc 2	100.598[%]	1.014[mg/l]	>1.062[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**100.019[%]**	**1.020[mg/l]**	**>1.072[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.819***	***0.867***	***1.340***				
Conc SD	***0.819[%]***	***0.009[mg/l]***	***0.014[mg/l]***				

Sample Name: 600-130818-C-1-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:03:33 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130818-C-1-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	0.126[mg/l]	1112130	0.005[mg/l]	0.299[mg/l]	0.107[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.126[mg/l]	1097490	0.003[mg/l]	0.299[mg/l]	0.107[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.126[mg/l]**	**1104810**	**0.004[mg/l]**	**0.299[mg/l]**	**0.107[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***43.371***	***0.044***	***---***	***46.431***	***0.155***	***0.068***	***12.827***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***10352.0***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	58.555[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.001[mg/l]	33618.2	<0.002[mg/l]	0.026[mg/l]
Conc 2	58.582[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.001[mg/l]	33678.3	<0.001[mg/l]	0.025[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**58.568[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**33648.3**	**<0.001[mg/l]**	**0.025[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.033***	***16.939***	***0.946***	***22.496***	***---***	***16.717***	***2.056***
Conc SD	***0.019[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***42.497***	***0.000[mg/l]***	***0.001[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	51.784[mg/l]	0.028[mg/l]	12.109[mg/l]	0.016[mg/l]	0.071[mg/l]	>789.351[mg/l]	0.005[mg/l]
Conc 2	52.446[mg/l]	0.029[mg/l]	12.134[mg/l]	0.016[mg/l]	0.071[mg/l]	>793.280[mg/l]	0.005[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**52.115[mg/l]**	**0.029[mg/l]**	**12.121[mg/l]**	**0.016[mg/l]**	**0.071[mg/l]**	**>791.315[mg/l]**	**0.005[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.898***	***1.173***	***0.145***	***0.250***	***0.033***	***0.351***	***3.953***
Conc SD	***0.468[mg/l]***	***0.000[mg/l]***	***0.018[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***2.778[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.016[mg/l]	0.083[mg/l]	5.044[mg/l]	0.002[mg/l]	0.757[mg/l]	0.001[mg/l]

Conc 2	-0.002[mg/l]	0.018[mg/l]	0.085[mg/l]	5.014[mg/l]	0.000[mg/l]	0.760[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**0.017[mg/l]**	**0.084[mg/l]**	**5.029[mg/l]**	**0.001[mg/l]**	**0.758[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***29.463***	***7.769***	***1.420***	***0.430***	***138.884***	***0.257***	***9.433***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.022[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.009[mg/l]	0.037[mg/l]	4281690	94.415[%]	0.085[mg/l]	94.415[%]	
Conc 2	0.006[mg/l]	0.036[mg/l]	4278780	94.354[%]	0.085[mg/l]	94.354[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.007[mg/l]**	**0.036[mg/l]**	**4280240**	**94.385[%]**	**0.085[mg/l]**	**94.385[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***31.482***	***2.049***	***---***	***0.046***	***0.335***	***0.046***	
Conc SD	***0.002[mg/l]***	***0.001[mg/l]***	***2057.68***	***0.043[%]***	***0.000[mg/l]***	***0.043[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	0.126[mg/l]	1112130	0.005[mg/l]	0.299[mg/l]	0.107[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.126[mg/l]	1097490	0.003[mg/l]	0.299[mg/l]	0.107[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.126[mg/l]**	**1104810**	**0.004[mg/l]**	**0.299[mg/l]**	**0.107[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***43.371***	***0.044***	***---***	***46.431***	***0.155***	***0.068***	***12.827***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***10352.0***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	58.555[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.001[mg/l]	33618.2	<-0.009[mg/l]	0.026[mg/l]
Conc 2	58.582[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.001[mg/l]	33678.3	<-0.008[mg/l]	0.025[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**58.568[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**33648.3**	**<-0.008[mg/l]**	**0.025[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.033***	***16.939***	***0.946***	***22.496***	***---***	***6.919***	***2.056***
Conc SD	***0.019[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***42.497***	***0.001[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.912[mg/l]	>36.051[mg/l]	51.784[mg/l]	0.028[mg/l]	<-0.386[mg/l]	12.109[mg/l]	0.016[mg/l]
Conc 2	<-4.912[mg/l]	>36.348[mg/l]	52.446[mg/l]	0.029[mg/l]	<-0.385[mg/l]	12.134[mg/l]	0.016[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.912[mg/l]**	**>36.200[mg/l]**	**52.115[mg/l]**	**0.029[mg/l]**	**<-0.386[mg/l]**	**12.121[mg/l]**	**0.016[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.011***	***0.580***	***0.898***	***1.173***	***0.104***	***0.145***	***0.250***
Conc SD	***0.001[mg/l]***	***0.210[mg/l]***	***0.468[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.018[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.071[mg/l]	>2475.90[mg/l]	>789.351[mg/l]	0.005[mg/l]	-0.001[mg/l]	0.016[mg/l]	0.083[mg/l]
Conc 2	0.071[mg/l]	>2499.44[mg/l]	>793.280[mg/l]	0.005[mg/l]	-0.002[mg/l]	0.018[mg/l]	0.085[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.071[mg/l]**	**>2487.67[mg/l]**	**>791.315[mg/l]**	**0.005[mg/l]**	**-0.002[mg/l]**	**0.017[mg/l]**	**0.084[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***0.033***	***0.669***	***0.351***	***3.953***	***29.463***	***7.769***	***1.420***
Conc SD	***0.000[mg/l]***	***16.645[mg/l]***	***2.778[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	5.044[mg/l]	0.002[mg/l]	0.757[mg/l]	0.001[mg/l]	0.009[mg/l]	0.037[mg/l]	4281690
Conc 2	5.014[mg/l]	0.000[mg/l]	0.760[mg/l]	0.001[mg/l]	0.006[mg/l]	0.036[mg/l]	4278780
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**5.029[mg/l]**	**0.001[mg/l]**	**0.758[mg/l]**	**0.001[mg/l]**	**0.007[mg/l]**	**0.036[mg/l]**	**4280240**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.430***	***138.884***	***0.257***	***9.433***	***31.482***	***2.049***	***---***
Conc SD	***0.022[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***2057.68***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	94.415[%]	0.085[mg/l]	<0.002[mg/l]				
Conc 2	94.354[%]	0.085[mg/l]	<0.001[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**94.385[%]**	**0.085[mg/l]**	**<0.001[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.046***	***0.335***	***16.717***				
Conc SD	***0.043[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130742-A-1-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:05:29 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130742-A-1-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	0.308[mg/l]	1076010	0.006[mg/l]	0.071[mg/l]	0.063[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.309[mg/l]	1066080	0.007[mg/l]	0.071[mg/l]	0.064[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.309[mg/l]**	**1071050**	**0.007[mg/l]**	**0.071[mg/l]**	**0.063[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3494.72***	***0.091***	***---***	***8.909***	***0.273***	***0.691***	***79.329***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***7021.57***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	25.091[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.003[mg/l]	24266.8	0.035[mg/l]	1.006[mg/l]
Conc 2	25.078[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.003[mg/l]	24438.3	0.034[mg/l]	1.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**25.084[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.003[mg/l]**	**24352.6**	**0.035[mg/l]**	**1.007[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.034***	***7.554***	***16.483***	***6.096***	***---***	***0.427***	***0.186***
Conc SD	***0.009[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***121.269***	***0.000[mg/l]***	***0.002[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	5.323[mg/l]	0.005[mg/l]	4.676[mg/l]	0.140[mg/l]	1.376[mg/l]	97.817[mg/l]	0.010[mg/l]
Conc 2	5.338[mg/l]	0.005[mg/l]	4.670[mg/l]	0.141[mg/l]	1.388[mg/l]	98.285[mg/l]	0.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**5.330[mg/l]**	**0.005[mg/l]**	**4.673[mg/l]**	**0.140[mg/l]**	**1.382[mg/l]**	**98.052[mg/l]**	**0.010[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.196***	***1.394***	***0.089***	***0.382***	***0.637***	***0.338***	***4.481***
Conc SD	***0.010[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.009[mg/l]***	***0.331[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.000[mg/l]	0.003[mg/l]	0.001[mg/l]	7.766[mg/l]	-0.001[mg/l]	0.146[mg/l]	0.004[mg/l]
Conc 2	-0.001[mg/l]	0.002[mg/l]	0.002[mg/l]	7.776[mg/l]	0.001[mg/l]	0.146[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**	**7.771[mg/l]**	**-0.000[mg/l]**	**0.146[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***53.300***	***30.467***	***49.310***	***0.092***	***561.420***	***0.220***	***0.821***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.002[mg/l]	0.001[mg/l]	4489430	98.980[%]	0.093[mg/l]	98.980[%]	
Conc 2	-0.002[mg/l]	0.001[mg/l]	4504010	99.306[%]	0.093[mg/l]	99.306[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.002[mg/l]**	**0.001[mg/l]**	**4496720**	**99.143[%]**	**0.093[mg/l]**	**99.143[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***1.117***	***28.755***	***---***	***0.232***	***0.226***	***0.232***	
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***10309.6***	***0.230[%]***	***0.000[mg/l]***	***0.230[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	0.308[mg/l]	1076010	0.006[mg/l]	0.071[mg/l]	0.063[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.309[mg/l]	1066080	0.007[mg/l]	0.071[mg/l]	0.064[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.309[mg/l]**	**1071050**	**0.007[mg/l]**	**0.071[mg/l]**	**0.063[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3494.72***	***0.091***	***---***	***8.909***	***0.273***	***0.691***	***79.329***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***7021.57***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	25.091[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.003[mg/l]	24266.8	<0.027[mg/l]	1.006[mg/l]
Conc 2	25.078[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.003[mg/l]	24438.3	<0.028[mg/l]	1.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**25.084[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.003[mg/l]**	**24352.6**	**<0.027[mg/l]**	**1.007[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.034***	***7.554***	***16.483***	***6.096***	***---***	***1.264***	***0.186***
Conc SD	***0.009[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***121.269***	***0.000[mg/l]***	***0.002[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-3.693[mg/l]	5.323[mg/l]	<-8.910[mg/l]	0.005[mg/l]	<-0.414[mg/l]	4.676[mg/l]	0.140[mg/l]
Conc 2	<-3.690[mg/l]	5.338[mg/l]	<-8.866[mg/l]	0.005[mg/l]	<-0.414[mg/l]	4.670[mg/l]	0.141[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-3.692[mg/l]**	**5.330[mg/l]**	**<-8.888[mg/l]**	**0.005[mg/l]**	**<-0.414[mg/l]**	**4.673[mg/l]**	**0.140[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.065***	***0.196***	***0.352***	***1.394***	***0.014***	***0.089***	***0.382***
Conc SD	***0.002[mg/l]***	***0.010[mg/l]***	***0.031[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	1.376[mg/l]	>115.800[mg/l]	97.817[mg/l]	0.010[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.001[mg/l]
Conc 2	1.388[mg/l]	>117.075[mg/l]	98.285[mg/l]	0.009[mg/l]	-0.001[mg/l]	0.002[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.382[mg/l]**	**>116.437[mg/l]**	**98.052[mg/l]**	**0.010[mg/l]**	**-0.001[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.637***	***0.774***	***0.338***	***4.481***	***53.300***	***30.467***	***49.310***
Conc SD	***0.009[mg/l]***	***0.902[mg/l]***	***0.331[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	7.766[mg/l]	-0.001[mg/l]	0.146[mg/l]	0.004[mg/l]	-0.002[mg/l]	0.001[mg/l]	4489430
Conc 2	7.776[mg/l]	0.001[mg/l]	0.146[mg/l]	0.004[mg/l]	-0.002[mg/l]	0.001[mg/l]	4504010
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**7.771[mg/l]**	**-0.000[mg/l]**	**0.146[mg/l]**	**0.004[mg/l]**	**-0.002[mg/l]**	**0.001[mg/l]**	**4496720**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.092***	***561.420***	***0.220***	***0.821***	***1.117***	***28.755***	***---***
Conc SD	***0.007[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***10309.6***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.980[%]	0.093[mg/l]	0.035[mg/l]				
Conc 2	99.306[%]	0.093[mg/l]	0.034[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.143[%]**	**0.093[mg/l]**	**0.035[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.232***	***0.226***	***0.427***				
Conc SD	***0.230[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130742-A-1-B DU			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 16:07:25	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130742-A-1-B DU						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	0.383[mg/l]	1088020	0.009[mg/l]	0.071[mg/l]	0.064[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.381[mg/l]	1082470	0.006[mg/l]	0.072[mg/l]	0.065[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.382[mg/l]**	**1085250**	**0.007[mg/l]**	**0.071[mg/l]**	**0.065[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***896.633***	***0.223***	***---***	***22.868***	***0.468***	***0.676***	***105.240***

Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***3924.44***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	25.130[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	24188.3	0.035[mg/l]	1.078[mg/l]
Conc 2	25.327[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.004[mg/l]	23875.4	0.035[mg/l]	1.084[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**25.228[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**	**24031.8**	**0.035[mg/l]**	**1.081[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.554***	***12.134***	***21.377***	***8.043***	***---***	***0.172***	***0.421***
Conc SD	***0.140[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***221.254***	***0.000[mg/l]***	***0.005[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	5.288[mg/l]	0.005[mg/l]	4.789[mg/l]	0.143[mg/l]	1.420[mg/l]	97.884[mg/l]	0.009[mg/l]
Conc 2	5.454[mg/l]	0.005[mg/l]	4.799[mg/l]	0.144[mg/l]	1.432[mg/l]	99.279[mg/l]	0.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**5.371[mg/l]**	**0.005[mg/l]**	**4.794[mg/l]**	**0.143[mg/l]**	**1.426[mg/l]**	**98.582[mg/l]**	**0.009[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.174***	***1.498***	***0.158***	***0.585***	***0.586***	***1.000***	***1.579***
Conc SD	***0.117[mg/l]***	***0.000[mg/l]***	***0.008[mg/l]***	***0.001[mg/l]***	***0.008[mg/l]***	***0.986[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.001[mg/l]	0.003[mg/l]	0.002[mg/l]	8.046[mg/l]	0.000[mg/l]	0.146[mg/l]	0.005[mg/l]
Conc 2	-0.000[mg/l]	-0.001[mg/l]	-0.003[mg/l]	8.117[mg/l]	0.001[mg/l]	0.148[mg/l]	0.005[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**8.082[mg/l]**	**0.001[mg/l]**	**0.147[mg/l]**	**0.005[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***442.787***	***212.240***	***811.980***	***0.618***	***98.899***	***0.819***	***1.148***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.050[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.003[mg/l]	0.003[mg/l]	4449060	98.099[%]	0.093[mg/l]	98.099[%]	
Conc 2	-0.004[mg/l]	-0.000[mg/l]	4432480	97.744[%]	0.094[mg/l]	97.744[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.004[mg/l]**	**0.001[mg/l]**	**4440770**	**97.922[%]**	**0.094[mg/l]**	**97.922[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***23.571***	***178.537***	***---***	***0.257***	***0.653***	***0.257***	
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***11723.8***	***0.251[%]***	***0.001[mg/l]***	***0.251[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	0.383[mg/l]	1088020	0.009[mg/l]	0.071[mg/l]	0.064[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.381[mg/l]	1082470	0.006[mg/l]	0.072[mg/l]	0.065[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.382[mg/l]**	**1085250**	**0.007[mg/l]**	**0.071[mg/l]**	**0.065[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***896.633***	***0.223***	***---***	***22.868***	***0.468***	***0.676***	***105.240***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***3924.44***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	25.130[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	24188.3	<0.028[mg/l]	1.078[mg/l]

Conc 2	25.327[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.004[mg/l]	23875.4	<0.028[mg/l]	1.084[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**25.228[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**	**24031.8**	**<0.028[mg/l]**	**1.081[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.554***	***12.134***	***21.377***	***8.043***	***---***	***1.453***	***0.421***
Conc SD	***0.140[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***221.254***	***0.000[mg/l]***	***0.005[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-3.604[mg/l]	5.288[mg/l]	<-9.005[mg/l]	0.005[mg/l]	<-0.414[mg/l]	4.789[mg/l]	0.143[mg/l]
Conc 2	<-3.596[mg/l]	5.454[mg/l]	<-8.641[mg/l]	0.005[mg/l]	<-0.414[mg/l]	4.799[mg/l]	0.144[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-3.600[mg/l]**	**5.371[mg/l]**	**<-8.823[mg/l]**	**0.005[mg/l]**	**<-0.414[mg/l]**	**4.794[mg/l]**	**0.143[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.159***	***2.174***	***2.911***	***1.498***	***0.018***	***0.158***	***0.585***
Conc SD	***0.006[mg/l]***	***0.117[mg/l]***	***0.257[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.008[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	1.420[mg/l]	>116.009[mg/l]	97.884[mg/l]	0.009[mg/l]	0.001[mg/l]	0.003[mg/l]	0.002[mg/l]
Conc 2	1.432[mg/l]	>117.971[mg/l]	99.279[mg/l]	0.009[mg/l]	-0.000[mg/l]	-0.001[mg/l]	-0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.426[mg/l]**	**>116.990[mg/l]**	**98.582[mg/l]**	**0.009[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.586***	***1.186***	***1.000***	***1.579***	***442.787***	***212.240***	***811.980***
Conc SD	***0.008[mg/l]***	***1.387[mg/l]***	***0.986[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	8.046[mg/l]	0.000[mg/l]	0.146[mg/l]	0.005[mg/l]	-0.003[mg/l]	0.003[mg/l]	4449060
Conc 2	8.117[mg/l]	0.001[mg/l]	0.148[mg/l]	0.005[mg/l]	-0.004[mg/l]	-0.000[mg/l]	4432480
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**8.082[mg/l]**	**0.001[mg/l]**	**0.147[mg/l]**	**0.005[mg/l]**	**-0.004[mg/l]**	**0.001[mg/l]**	**4440770**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.618***	***98.899***	***0.819***	***1.148***	***23.571***	***178.537***	***---***
Conc SD	***0.050[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***11723.8***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.099[%]	0.093[mg/l]	0.035[mg/l]				
Conc 2	97.744[%]	0.094[mg/l]	0.035[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.922[%]**	**0.094[mg/l]**	**0.035[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.257***	***0.653***	***0.172***				
Conc SD	***0.251[%]***	***0.001[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130742-A-1-C MS			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 16:09:21	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130742-A-1-C MS						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.523[mg/l]	11.574[mg/l]	1135920	1.099[mg/l]	1.144[mg/l]	1.121[mg/l]	0.524[mg/l]
Conc 2	0.530[mg/l]	11.570[mg/l]	1131690	1.086[mg/l]	1.141[mg/l]	1.126[mg/l]	0.531[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.526[mg/l]**	**11.572[mg/l]**	**1133810**	**1.092[mg/l]**	**1.142[mg/l]**	**1.124[mg/l]**	**0.528[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.926***	***0.021***	***---***	***0.846***	***0.202***	***0.336***	***0.990***
Conc SD	***0.005[mg/l]***	***0.002[mg/l]***	***2991.06***	***0.009[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	36.186[mg/l]	0.520[mg/l]	1.047[mg/l]	1.049[mg/l]	24812.5	1.105[mg/l]	11.711[mg/l]
Conc 2	36.650[mg/l]	0.523[mg/l]	1.058[mg/l]	1.051[mg/l]	24246.5	1.114[mg/l]	11.879[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**36.418[mg/l]**	**0.521[mg/l]**	**1.053[mg/l]**	**1.050[mg/l]**	**24529.5**	**1.109[mg/l]**	**11.795[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.901***	***0.449***	***0.711***	***0.169***	***---***	***0.596***	***1.007***
Conc SD	***0.328[mg/l]***	***0.002[mg/l]***	***0.007[mg/l]***	***0.002[mg/l]***	***400.222***	***0.007[mg/l]***	***0.119[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	15.879[mg/l]	1.110[mg/l]	15.447[mg/l]	1.190[mg/l]	2.407[mg/l]	109.728[mg/l]	1.057[mg/l]
Conc 2	16.241[mg/l]	1.117[mg/l]	15.438[mg/l]	1.206[mg/l]	2.427[mg/l]	113.257[mg/l]	1.061[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**16.060[mg/l]**	**1.113[mg/l]**	**15.442[mg/l]**	**1.198[mg/l]**	**2.417[mg/l]**	**111.492[mg/l]**	**1.059[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.597***	***0.487***	***0.040***	***0.975***	***0.604***	***2.238***	***0.307***
Conc SD	***0.256[mg/l]***	***0.005[mg/l]***	***0.006[mg/l]***	***0.012[mg/l]***	***0.015[mg/l]***	***2.495[mg/l]***	***0.003[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.052[mg/l]	1.008[mg/l]	1.080[mg/l]	10.080[mg/l]	1.020[mg/l]	0.673[mg/l]	1.015[mg/l]
Conc 2	1.059[mg/l]	1.022[mg/l]	1.079[mg/l]	10.082[mg/l]	1.036[mg/l]	0.681[mg/l]	1.027[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.055[mg/l]**	**1.015[mg/l]**	**1.080[mg/l]**	**10.081[mg/l]**	**1.028[mg/l]**	**0.677[mg/l]**	**1.021[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.473***	***0.976***	***0.117***	***0.011***	***1.152***	***0.895***	***0.814***
Conc SD	***0.005[mg/l]***	***0.010[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.012[mg/l]***	***0.006[mg/l]***	***0.008[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	1.010[mg/l]	1.071[mg/l]	4460910	98.386[%]	1.152[mg/l]	98.386[%]	
Conc 2	1.018[mg/l]	1.093[mg/l]	4435270	97.823[%]	1.157[mg/l]	97.823[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**1.014[mg/l]**	**1.082[mg/l]**	**4448090**	**98.104[%]**	**1.154[mg/l]**	**98.104[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.549***	***1.457***	***---***	***0.406***	***0.317***	***0.406***	
Conc SD	***0.006[mg/l]***	***0.016[mg/l]***	***18130.2***	***0.398[%]***	***0.004[mg/l]***	***0.398[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.523[mg/l]	11.574[mg/l]	1135920	1.099[mg/l]	1.144[mg/l]	1.121[mg/l]	0.524[mg/l]
Conc 2	0.530[mg/l]	11.570[mg/l]	1131690	1.086[mg/l]	1.141[mg/l]	1.126[mg/l]	0.531[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.526[mg/l]**	**11.572[mg/l]**	**1133810**	**1.092[mg/l]**	**1.142[mg/l]**	**1.124[mg/l]**	**0.528[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.926***	***0.021***	***---***	***0.846***	***0.202***	***0.336***	***0.990***
Conc SD	***0.005[mg/l]***	***0.002[mg/l]***	***2991.06***	***0.009[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	36.186[mg/l]	0.520[mg/l]	1.047[mg/l]	1.049[mg/l]	24812.5	1.105[mg/l]	11.711[mg/l]
Conc 2	36.650[mg/l]	0.523[mg/l]	1.058[mg/l]	1.051[mg/l]	24246.5	1.114[mg/l]	11.879[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**36.418[mg/l]**	**0.521[mg/l]**	**1.053[mg/l]**	**1.050[mg/l]**	**24529.5**	**1.109[mg/l]**	**11.795[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.901***	***0.449***	***0.711***	***0.169***	***---***	***0.596***	***1.007***
Conc SD	***0.328[mg/l]***	***0.002[mg/l]***	***0.007[mg/l]***	***0.002[mg/l]***	***400.222***	***0.007[mg/l]***	***0.119[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<9.617[mg/l]	15.879[mg/l]	<12.305[mg/l]	1.110[mg/l]	<0.932[mg/l]	15.447[mg/l]	1.190[mg/l]
Conc 2	<9.824[mg/l]	16.241[mg/l]	<13.010[mg/l]	1.117[mg/l]	<0.941[mg/l]	15.438[mg/l]	1.206[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<9.721[mg/l]**	**16.060[mg/l]**	**<12.658[mg/l]**	**1.113[mg/l]**	**<0.937[mg/l]**	**15.442[mg/l]**	**1.198[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.509***	***1.597***	***3.941***	***0.487***	***0.675***	***0.040***	***0.975***
Conc SD	***0.147[mg/l]***	***0.256[mg/l]***	***0.499[mg/l]***	***0.005[mg/l]***	***0.006[mg/l]***	***0.006[mg/l]***	***0.012[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	2.407[mg/l]	>133.462[mg/l]	109.728[mg/l]	1.057[mg/l]	1.052[mg/l]	1.008[mg/l]	1.080[mg/l]
Conc 2	2.427[mg/l]	>138.664[mg/l]	113.257[mg/l]	1.061[mg/l]	1.059[mg/l]	1.022[mg/l]	1.079[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**2.417[mg/l]**	**>136.063[mg/l]**	**111.492[mg/l]**	**1.059[mg/l]**	**1.055[mg/l]**	**1.015[mg/l]**	**1.080[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.604***	***2.703***	***2.238***	***0.307***	***0.473***	***0.976***	***0.117***
Conc SD	***0.015[mg/l]***	***3.678[mg/l]***	***2.495[mg/l]***	***0.003[mg/l]***	***0.005[mg/l]***	***0.010[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	10.080[mg/l]	1.020[mg/l]	0.673[mg/l]	1.015[mg/l]	1.010[mg/l]	1.071[mg/l]	4460910
Conc 2	10.082[mg/l]	1.036[mg/l]	0.681[mg/l]	1.027[mg/l]	1.018[mg/l]	1.093[mg/l]	4435270
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**10.081[mg/l]**	**1.028[mg/l]**	**0.677[mg/l]**	**1.021[mg/l]**	**1.014[mg/l]**	**1.082[mg/l]**	**4448090**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.011***	***1.152***	***0.895***	***0.814***	***0.549***	***1.457***	***---***

Conc SD	***0.001[mg/l]***	***0.012[mg/l]***	***0.006[mg/l]***	***0.008[mg/l]***	***0.006[mg/l]***	***0.016[mg/l]***	***18130.2***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.386[%]	1.152[mg/l]	>1.161[mg/l]				
Conc 2	97.823[%]	1.157[mg/l]	>1.179[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.104[%]**	**1.154[mg/l]**	**>1.170[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.406***	***0.317***	***1.040***				
Conc SD	***0.398[%]***	***0.004[mg/l]***	***0.012[mg/l]***				

Sample Name: 600-130742-A-1-D MSD | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:11:18 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130742-A-1-D MSD						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.465[mg/l]	10.898[mg/l]	1128540	1.020[mg/l]	1.067[mg/l]	1.049[mg/l]	0.492[mg/l]
Conc 2	0.467[mg/l]	10.803[mg/l]	1127210	1.027[mg/l]	1.078[mg/l]	1.052[mg/l]	0.491[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.466[mg/l]**	**10.850[mg/l]**	**1127880**	**1.024[mg/l]**	**1.072[mg/l]**	**1.051[mg/l]**	**0.492[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.333***	***0.620***	***---***	***0.440***	***0.719***	***0.230***	***0.126***
Conc SD	***0.002[mg/l]***	***0.067[mg/l]***	***940.452***	***0.005[mg/l]***	***0.008[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	33.535[mg/l]	0.486[mg/l]	0.984[mg/l]	0.989[mg/l]	24801.5	1.033[mg/l]	11.088[mg/l]
Conc 2	33.511[mg/l]	0.488[mg/l]	0.986[mg/l]	0.983[mg/l]	24696.6	1.041[mg/l]	11.071[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**33.523[mg/l]**	**0.487[mg/l]**	**0.985[mg/l]**	**0.986[mg/l]**	**24749.1**	**1.037[mg/l]**	**11.079[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.052***	***0.369***	***0.110***	***0.389***	***---***	***0.608***	***0.109***
Conc SD	***0.017[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***74.176***	***0.006[mg/l]***	***0.012[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	14.933[mg/l]	1.016[mg/l]	14.467[mg/l]	1.154[mg/l]	2.185[mg/l]	100.311[mg/l]	0.986[mg/l]
Conc 2	15.142[mg/l]	1.033[mg/l]	14.448[mg/l]	1.154[mg/l]	2.182[mg/l]	101.213[mg/l]	0.981[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**15.038[mg/l]**	**1.025[mg/l]**	**14.458[mg/l]**	**1.154[mg/l]**	**2.184[mg/l]**	**100.762[mg/l]**	**0.983[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.983***	***1.178***	***0.091***	***0.010***	***0.069***	***0.633***	***0.378***
Conc SD	***0.148[mg/l]***	***0.012[mg/l]***	***0.013[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.638[mg/l]***	***0.004[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.990[mg/l]	0.908[mg/l]	1.009[mg/l]	9.328[mg/l]	0.909[mg/l]	0.629[mg/l]	0.900[mg/l]

Conc 2	1.002[mg/l]	0.903[mg/l]	0.992[mg/l]	9.356[mg/l]	0.914[mg/l]	0.631[mg/l]	0.903[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.996[mg/l]**	**0.905[mg/l]**	**1.000[mg/l]**	**9.342[mg/l]**	**0.911[mg/l]**	**0.630[mg/l]**	**0.901[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.913***	***0.396***	***1.217***	***0.216***	***0.391***	***0.168***	***0.247***
Conc SD	***0.009[mg/l]***	***0.004[mg/l]***	***0.012[mg/l]***	***0.020[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.894[mg/l]	1.016[mg/l]	4441250	97.948[%]	1.089[mg/l]	97.948[%]	
Conc 2	0.892[mg/l]	1.008[mg/l]	4449970	98.139[%]	1.093[mg/l]	98.139[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.893[mg/l]**	**1.012[mg/l]**	**4445610**	**98.043[%]**	**1.091[mg/l]**	**98.043[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.194***	***0.553***	***---***	***0.138***	***0.292***	***0.138***	
Conc SD	***0.002[mg/l]***	***0.006[mg/l]***	***6165.97***	***0.136[%]***	***0.003[mg/l]***	***0.136[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.465[mg/l]	10.898[mg/l]	1128540	1.020[mg/l]	1.067[mg/l]	1.049[mg/l]	0.492[mg/l]
Conc 2	0.467[mg/l]	10.803[mg/l]	1127210	1.027[mg/l]	1.078[mg/l]	1.052[mg/l]	0.491[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.466[mg/l]**	**10.850[mg/l]**	**1127880**	**1.024[mg/l]**	**1.072[mg/l]**	**1.051[mg/l]**	**0.492[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.333***	***0.620***	***---***	***0.440***	***0.719***	***0.230***	***0.126***
Conc SD	***0.002[mg/l]***	***0.067[mg/l]***	***940.452***	***0.005[mg/l]***	***0.008[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	33.535[mg/l]	0.486[mg/l]	0.984[mg/l]	0.989[mg/l]	24801.5	1.033[mg/l]	11.088[mg/l]
Conc 2	33.511[mg/l]	0.488[mg/l]	0.986[mg/l]	0.983[mg/l]	24696.6	1.041[mg/l]	11.071[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**33.523[mg/l]**	**0.487[mg/l]**	**0.985[mg/l]**	**0.986[mg/l]**	**24749.1**	**1.037[mg/l]**	**11.079[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.052***	***0.369***	***0.110***	***0.389***	***---***	***0.608***	***0.109***
Conc SD	***0.017[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***74.176***	***0.006[mg/l]***	***0.012[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<8.842[mg/l]	14.933[mg/l]	<10.424[mg/l]	1.016[mg/l]	<0.821[mg/l]	14.467[mg/l]	1.154[mg/l]
Conc 2	<8.819[mg/l]	15.142[mg/l]	<10.805[mg/l]	1.033[mg/l]	<0.841[mg/l]	14.448[mg/l]	1.154[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<8.831[mg/l]**	**15.038[mg/l]**	**<10.615[mg/l]**	**1.025[mg/l]**	**<0.831[mg/l]**	**14.458[mg/l]**	**1.154[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.179***	***0.983***	***2.544***	***1.178***	***1.722***	***0.091***	***0.010***
Conc SD	***0.016[mg/l]***	***0.148[mg/l]***	***0.270[mg/l]***	***0.012[mg/l]***	***0.014[mg/l]***	***0.013[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	2.185[mg/l]	>119.400[mg/l]	100.311[mg/l]	0.986[mg/l]	0.990[mg/l]	0.908[mg/l]	1.009[mg/l]
Conc 2	2.182[mg/l]	>120.736[mg/l]	101.213[mg/l]	0.981[mg/l]	1.002[mg/l]	0.903[mg/l]	0.992[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**2.184[mg/l]**	**>120.068[mg/l]**	**100.762[mg/l]**	**0.983[mg/l]**	**0.996[mg/l]**	**0.905[mg/l]**	**1.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***0.069***	***0.787***	***0.633***	***0.378***	***0.913***	***0.396***	***1.217***
Conc SD	***0.002[mg/l]***	***0.945[mg/l]***	***0.638[mg/l]***	***0.004[mg/l]***	***0.009[mg/l]***	***0.004[mg/l]***	***0.012[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	9.328[mg/l]	0.909[mg/l]	0.629[mg/l]	0.900[mg/l]	0.894[mg/l]	1.016[mg/l]	4441250
Conc 2	9.356[mg/l]	0.914[mg/l]	0.631[mg/l]	0.903[mg/l]	0.892[mg/l]	1.008[mg/l]	4449970
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**9.342[mg/l]**	**0.911[mg/l]**	**0.630[mg/l]**	**0.901[mg/l]**	**0.893[mg/l]**	**1.012[mg/l]**	**4445610**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.216***	***0.391***	***0.168***	***0.247***	***0.194***	***0.553***	***---***
Conc SD	***0.020[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.006[mg/l]***	***6165.97***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.948[%]	1.089[mg/l]	>1.097[mg/l]				
Conc 2	98.139[%]	1.093[mg/l]	>1.094[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.043[%]**	**1.091[mg/l]**	**>1.096[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.138***	***0.292***	***0.201***				
Conc SD	***0.136[%]***	***0.003[mg/l]***	***0.002[mg/l]***				

Sample Name: 600-130704-D-1-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:13:14 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130704-D-1-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	0.382[mg/l]	1097250	0.014[mg/l]	0.199[mg/l]	0.171[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.374[mg/l]	1086240	0.012[mg/l]	0.197[mg/l]	0.167[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.378[mg/l]**	**1091750**	**0.013[mg/l]**	**0.198[mg/l]**	**0.169[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***337.363***	***1.528***	***---***	***6.941***	***0.787***	***1.288***	***24.274***
Conc SD	***0.001[mg/l]***	***0.006[mg/l]***	***7785.25***	***0.001[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	143.305[mg/l]	-0.001[mg/l]	0.000[mg/l]	0.007[mg/l]	23900.8	0.009[mg/l]	0.344[mg/l]
Conc 2	140.180[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.005[mg/l]	24340.9	0.009[mg/l]	0.351[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**141.742[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.006[mg/l]**	**24120.8**	**0.009[mg/l]**	**0.348[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.559***	***22.585***	***69.655***	***20.591***	***---***	***3.445***	***1.420***
Conc SD	***2.210[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***311.198***	***0.000[mg/l]***	***0.005[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	17.359[mg/l]	0.017[mg/l]	12.730[mg/l]	0.044[mg/l]	0.276[mg/l]	115.655[mg/l]	0.007[mg/l]
Conc 2	16.734[mg/l]	0.017[mg/l]	12.535[mg/l]	0.043[mg/l]	0.271[mg/l]	113.578[mg/l]	0.006[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**17.046[mg/l]**	**0.017[mg/l]**	**12.633[mg/l]**	**0.044[mg/l]**	**0.274[mg/l]**	**114.617[mg/l]**	**0.007[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.591***	***1.280***	***1.090***	***1.203***	***1.471***	***1.281***	***10.260***
Conc SD	***0.442[mg/l]***	***0.000[mg/l]***	***0.138[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***1.469[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.002[mg/l]	0.002[mg/l]	11.341[mg/l]	0.070[mg/l]	0.932[mg/l]	0.011[mg/l]
Conc 2	-0.001[mg/l]	0.001[mg/l]	-0.002[mg/l]	11.203[mg/l]	0.070[mg/l]	0.919[mg/l]	0.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**	**11.272[mg/l]**	**0.070[mg/l]**	**0.926[mg/l]**	**0.010[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***68.835***	***23.093***	***1766.40***	***0.870***	***0.762***	***0.974***	***17.357***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.098[mg/l]***	***0.001[mg/l]***	***0.009[mg/l]***	***0.002[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.006[mg/l]	0.009[mg/l]	4319080	95.256[%]	0.065[mg/l]	95.256[%]	
Conc 2	0.004[mg/l]	0.011[mg/l]	4377600	96.546[%]	0.064[mg/l]	96.546[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.005[mg/l]**	**0.010[mg/l]**	**4348340**	**95.901[%]**	**0.064[mg/l]**	**95.901[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***16.798***	***12.855***	***---***	***0.952***	***1.061***	***0.952***	
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***41379.9***	***0.913[%]***	***0.001[mg/l]***	***0.913[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	0.382[mg/l]	1097250	0.014[mg/l]	0.199[mg/l]	0.171[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.374[mg/l]	1086240	0.012[mg/l]	0.197[mg/l]	0.167[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.378[mg/l]**	**1091750**	**0.013[mg/l]**	**0.198[mg/l]**	**0.169[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***337.363***	***1.528***	***---***	***6.941***	***0.787***	***1.288***	***24.274***
Conc SD	***0.001[mg/l]***	***0.006[mg/l]***	***7785.25***	***0.001[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	143.305[mg/l]	-0.001[mg/l]	0.000[mg/l]	0.007[mg/l]	23900.8	<0.001[mg/l]	0.344[mg/l]
Conc 2	140.180[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.005[mg/l]	24340.9	<0.001[mg/l]	0.351[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**141.742[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.006[mg/l]**	**24120.8**	**<0.001[mg/l]**	**0.348[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.559***	***22.585***	***69.655***	***20.591***	***---***	***25.629***	***1.420***
Conc SD	***2.210[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***311.198***	***0.000[mg/l]***	***0.005[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.516[mg/l]	17.359[mg/l]	<15.343[mg/l]	0.017[mg/l]	<-0.399[mg/l]	12.730[mg/l]	0.044[mg/l]
Conc 2	<-4.507[mg/l]	16.734[mg/l]	<14.090[mg/l]	0.017[mg/l]	<-0.399[mg/l]	12.535[mg/l]	0.043[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.512[mg/l]**	**17.046[mg/l]**	**<14.717[mg/l]**	**0.017[mg/l]**	**<-0.399[mg/l]**	**12.633[mg/l]**	**0.044[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.135***	***2.591***	***6.021***	***1.280***	***0.073***	***1.090***	***1.203***
Conc SD	***0.006[mg/l]***	***0.442[mg/l]***	***0.886[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.138[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.276[mg/l]	>141.729[mg/l]	115.655[mg/l]	0.007[mg/l]	-0.001[mg/l]	0.002[mg/l]	0.002[mg/l]
Conc 2	0.271[mg/l]	>138.729[mg/l]	113.578[mg/l]	0.006[mg/l]	-0.001[mg/l]	0.001[mg/l]	-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.274[mg/l]**	**>140.229[mg/l]**	**114.617[mg/l]**	**0.007[mg/l]**	**-0.001[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.471***	***1.513***	***1.281***	***10.260***	***68.835***	***23.093***	***1766.40***
Conc SD	***0.004[mg/l]***	***2.121[mg/l]***	***1.469[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	11.341[mg/l]	0.070[mg/l]	0.932[mg/l]	0.011[mg/l]	0.006[mg/l]	0.009[mg/l]	4319080
Conc 2	11.203[mg/l]	0.070[mg/l]	0.919[mg/l]	0.009[mg/l]	0.004[mg/l]	0.011[mg/l]	4377600
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**11.272[mg/l]**	**0.070[mg/l]**	**0.926[mg/l]**	**0.010[mg/l]**	**0.005[mg/l]**	**0.010[mg/l]**	**4348340**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.870***	***0.762***	***0.974***	***17.357***	***16.798***	***12.855***	***---***
Conc SD	***0.098[mg/l]***	***0.001[mg/l]***	***0.009[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***41379.9***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	95.256[%]	0.065[mg/l]	0.009[mg/l]				
Conc 2	96.546[%]	0.064[mg/l]	0.009[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**95.901[%]**	**0.064[mg/l]**	**0.009[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.952***	***1.061***	***3.445***				
Conc SD	***0.913[%]***	***0.001[mg/l]***	***0.000[mg/l]***				

Sample Name: pds 600-130742-A-1-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:15:11 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
pds 600-130742-A-1-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.505[mg/l]	10.809[mg/l]	1134210	1.052[mg/l]	1.138[mg/l]	1.101[mg/l]	0.512[mg/l]
Conc 2	0.516[mg/l]	10.731[mg/l]	1110990	1.070[mg/l]	1.136[mg/l]	1.112[mg/l]	0.513[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.510[mg/l]**	**10.770[mg/l]**	**1122600**	**1.061[mg/l]**	**1.137[mg/l]**	**1.107[mg/l]**	**0.512[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.430***	***0.506***	***---***	***1.209***	***0.099***	***0.677***	***0.023***

Conc SD	***0.007[mg/l]***	***0.055[mg/l]***	***16419.0***	***0.013[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	37.548[mg/l]	0.509[mg/l]	1.033[mg/l]	1.034[mg/l]	24368.3	1.088[mg/l]	11.364[mg/l]
Conc 2	37.596[mg/l]	0.513[mg/l]	1.046[mg/l]	1.041[mg/l]	24655.7	1.092[mg/l]	11.403[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**37.572[mg/l]**	**0.511[mg/l]**	**1.040[mg/l]**	**1.037[mg/l]**	**24512.0**	**1.090[mg/l]**	**11.384[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.090***	***0.644***	***0.924***	***0.481***	***---***	***0.289***	***0.241***
Conc SD	***0.034[mg/l]***	***0.003[mg/l]***	***0.010[mg/l]***	***0.005[mg/l]***	***203.222***	***0.003[mg/l]***	***0.027[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	15.895[mg/l]	1.074[mg/l]	15.326[mg/l]	1.174[mg/l]	2.353[mg/l]	109.731[mg/l]	1.030[mg/l]
Conc 2	15.788[mg/l]	1.065[mg/l]	15.289[mg/l]	1.179[mg/l]	2.380[mg/l]	110.670[mg/l]	1.034[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**15.842[mg/l]**	**1.069[mg/l]**	**15.308[mg/l]**	**1.177[mg/l]**	**2.366[mg/l]**	**110.200[mg/l]**	**1.032[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.477***	***0.620***	***0.169***	***0.307***	***0.792***	***0.603***	***0.279***
Conc SD	***0.076[mg/l]***	***0.007[mg/l]***	***0.026[mg/l]***	***0.004[mg/l]***	***0.019[mg/l]***	***0.664[mg/l]***	***0.003[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.043[mg/l]	0.983[mg/l]	1.051[mg/l]	9.160[mg/l]	1.008[mg/l]	0.668[mg/l]	0.999[mg/l]
Conc 2	1.047[mg/l]	1.005[mg/l]	1.046[mg/l]	9.154[mg/l]	1.013[mg/l]	0.671[mg/l]	1.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.045[mg/l]**	**0.994[mg/l]**	**1.049[mg/l]**	**9.157[mg/l]**	**1.011[mg/l]**	**0.669[mg/l]**	**1.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.292***	***1.569***	***0.386***	***0.050***	***0.365***	***0.293***	***0.015***
Conc SD	***0.003[mg/l]***	***0.016[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***	***0.004[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	1.014[mg/l]	1.045[mg/l]	4395000	96.946[%]	1.158[mg/l]	96.946[%]	
Conc 2	1.018[mg/l]	1.075[mg/l]	4381430	96.613[%]	1.161[mg/l]	96.613[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**1.016[mg/l]**	**1.060[mg/l]**	**4388210**	**96.780[%]**	**1.160[mg/l]**	**96.780[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.324***	***1.998***	***---***	***0.243***	***0.167***	***0.243***	
Conc SD	***0.003[mg/l]***	***0.021[mg/l]***	***9595.44***	***0.235[%]***	***0.002[mg/l]***	***0.235[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.505[mg/l]	10.809[mg/l]	1134210	1.052[mg/l]	1.138[mg/l]	1.101[mg/l]	0.512[mg/l]
Conc 2	0.516[mg/l]	10.731[mg/l]	1110990	1.070[mg/l]	1.136[mg/l]	1.112[mg/l]	0.513[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.510[mg/l]**	**10.770[mg/l]**	**1122600**	**1.061[mg/l]**	**1.137[mg/l]**	**1.107[mg/l]**	**0.512[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.430***	***0.506***	***---***	***1.209***	***0.099***	***0.677***	***0.023***
Conc SD	***0.007[mg/l]***	***0.055[mg/l]***	***16419.0***	***0.013[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	37.548[mg/l]	0.509[mg/l]	1.033[mg/l]	1.034[mg/l]	24368.3	1.088[mg/l]	11.364[mg/l]

Conc 2	37.596[mg/l]	0.513[mg/l]	1.046[mg/l]	1.041[mg/l]	24655.7	1.092[mg/l]	11.403[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**37.572[mg/l]**	**0.511[mg/l]**	**1.040[mg/l]**	**1.037[mg/l]**	**24512.0**	**1.090[mg/l]**	**11.384[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.090***	***0.644***	***0.924***	***0.481***	***---***	***0.289***	***0.241***
Conc SD	***0.034[mg/l]***	***0.003[mg/l]***	***0.010[mg/l]***	***0.005[mg/l]***	***203.222***	***0.003[mg/l]***	***0.027[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<9.187[mg/l]	15.895[mg/l]	<12.356[mg/l]	1.074[mg/l]	<0.889[mg/l]	15.326[mg/l]	1.174[mg/l]
Conc 2	<9.235[mg/l]	15.788[mg/l]	<12.163[mg/l]	1.065[mg/l]	<0.877[mg/l]	15.289[mg/l]	1.179[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<9.211[mg/l]**	**15.842[mg/l]**	**<12.260[mg/l]**	**1.069[mg/l]**	**<0.883[mg/l]**	**15.308[mg/l]**	**1.177[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.371***	***0.477***	***1.118***	***0.620***	***0.905***	***0.169***	***0.307***
Conc SD	***0.034[mg/l]***	***0.076[mg/l]***	***0.137[mg/l]***	***0.007[mg/l]***	***0.008[mg/l]***	***0.026[mg/l]***	***0.004[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	2.353[mg/l]	>132.836[mg/l]	109.731[mg/l]	1.030[mg/l]	1.043[mg/l]	0.983[mg/l]	1.051[mg/l]
Conc 2	2.380[mg/l]	>134.370[mg/l]	110.670[mg/l]	1.034[mg/l]	1.047[mg/l]	1.005[mg/l]	1.046[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**2.366[mg/l]**	**>133.603[mg/l]**	**110.200[mg/l]**	**1.032[mg/l]**	**1.045[mg/l]**	**0.994[mg/l]**	**1.049[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.792***	***0.812***	***0.603***	***0.279***	***0.292***	***1.569***	***0.386***
Conc SD	***0.019[mg/l]***	***1.085[mg/l]***	***0.664[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***0.016[mg/l]***	***0.004[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	9.160[mg/l]	1.008[mg/l]	0.668[mg/l]	0.999[mg/l]	1.014[mg/l]	1.045[mg/l]	4395000
Conc 2	9.154[mg/l]	1.013[mg/l]	0.671[mg/l]	1.000[mg/l]	1.018[mg/l]	1.075[mg/l]	4381430
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**9.157[mg/l]**	**1.011[mg/l]**	**0.669[mg/l]**	**1.000[mg/l]**	**1.016[mg/l]**	**1.060[mg/l]**	**4388210**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.050***	***0.365***	***0.293***	***0.015***	***0.324***	***1.998***	***---***
Conc SD	***0.005[mg/l]***	***0.004[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.021[mg/l]***	***9595.44***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.946[%]	1.158[mg/l]	>1.141[mg/l]				
Conc 2	96.613[%]	1.161[mg/l]	>1.164[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.780[%]**	**1.160[mg/l]**	**>1.152[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.243***	***0.167***	***1.369***				
Conc SD	***0.235[%]***	***0.002[mg/l]***	***0.016[mg/l]***				

Sample Name: sd 600-130742-A-1-A@5			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 16:17:08	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
sd 600-130742-A-1-A@5						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	0.056[mg/l]	1098150	<-0.000[mg/l]	0.018[mg/l]	0.013[mg/l]	-0.000[mg/l]
Conc 2	0.000[mg/l]	0.056[mg/l]	1112640	0.003[mg/l]	0.017[mg/l]	0.013[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.056[mg/l]**	**1105390**	**<0.001[mg/l]**	**0.017[mg/l]**	**0.013[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***206.539***	***0.544***	***---***	***147.350***	***2.628***	***0.497***	***212.541***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***10246.0***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	5.445[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	21373.4	0.004[mg/l]	0.206[mg/l]
Conc 2	5.423[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	21834.9	0.003[mg/l]	0.203[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**5.434[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**21604.2**	**0.003[mg/l]**	**0.205[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.279***	***37.952***	***45.711***	***23.711***	***---***	***23.997***	***1.021***
Conc SD	***0.015[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***326.330***	***0.001[mg/l]***	***0.002[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	1.085[mg/l]	0.001[mg/l]	0.957[mg/l]	0.029[mg/l]	0.296[mg/l]	18.931[mg/l]	0.001[mg/l]
Conc 2	1.049[mg/l]	0.001[mg/l]	0.946[mg/l]	0.029[mg/l]	0.293[mg/l]	18.335[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.067[mg/l]**	**0.001[mg/l]**	**0.951[mg/l]**	**0.029[mg/l]**	**0.295[mg/l]**	**18.633[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.399***	***6.576***	***0.809***	***0.667***	***0.790***	***2.263***	***1.277***
Conc SD	***0.026[mg/l]***	***0.000[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.422[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.002[mg/l]	0.003[mg/l]	1.485[mg/l]	-0.000[mg/l]	0.029[mg/l]	0.001[mg/l]
Conc 2	-0.000[mg/l]	-0.000[mg/l]	-0.002[mg/l]	1.459[mg/l]	-0.000[mg/l]	0.029[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**1.472[mg/l]**	**-0.000[mg/l]**	**0.029[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***49.302***	***149.786***	***4285.20***	***1.239***	***65.553***	***1.035***	***24.169***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.018[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.002[mg/l]	-0.003[mg/l]	4511670	99.474[%]	0.024[mg/l]	99.474[%]	
Conc 2	0.001[mg/l]	-0.002[mg/l]	4534850	99.971[%]	0.024[mg/l]	99.971[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**-0.003[mg/l]**	**4523260**	**99.722[%]**	**0.024[mg/l]**	**99.722[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***38.859***	***20.455***	***---***	***0.353***	***0.369***	***0.353***	
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***16390.7***	***0.352[%]***	***0.000[mg/l]***	***0.352[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	0.056[mg/l]	1098150	<-0.000[mg/l]	0.018[mg/l]	0.013[mg/l]	-0.000[mg/l]
Conc 2	0.000[mg/l]	0.056[mg/l]	1112640	0.003[mg/l]	0.017[mg/l]	0.013[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.056[mg/l]**	**1105390**	**<0.001[mg/l]**	**0.017[mg/l]**	**0.013[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***206.539***	***0.544***	***---***	***147.350***	***2.628***	***0.497***	***212.541***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***10246.0***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	5.445[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	21373.4	<-0.003[mg/l]	0.206[mg/l]
Conc 2	5.423[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	21834.9	<-0.002[mg/l]	0.203[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**5.434[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**21604.2**	**<-0.002[mg/l]**	**0.205[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.279***	***37.952***	***45.711***	***23.711***	***---***	***26.458***	***1.021***
Conc SD	***0.015[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***326.330***	***0.001[mg/l]***	***0.002[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.687[mg/l]	1.085[mg/l]	<-17.518[mg/l]	0.001[mg/l]	<-0.419[mg/l]	0.957[mg/l]	0.029[mg/l]
Conc 2	<-4.691[mg/l]	1.049[mg/l]	<-17.581[mg/l]	0.001[mg/l]	<-0.419[mg/l]	0.946[mg/l]	0.029[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.689[mg/l]**	**1.067[mg/l]**	**<-17.549[mg/l]**	**0.001[mg/l]**	**<-0.419[mg/l]**	**0.951[mg/l]**	**0.029[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.057***	***2.399***	***0.252***	***6.576***	***0.021***	***0.809***	***0.667***
Conc SD	***0.003[mg/l]***	***0.026[mg/l]***	***0.044[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.296[mg/l]	18.909[mg/l]	18.931[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.002[mg/l]	0.003[mg/l]
Conc 2	0.293[mg/l]	18.336[mg/l]	18.335[mg/l]	0.001[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.295[mg/l]**	**18.622[mg/l]**	**18.633[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.790***	***2.177***	***2.263***	***1.277***	***49.302***	***149.786***	***4285.20***
Conc SD	***0.002[mg/l]***	***0.405[mg/l]***	***0.422[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	1.485[mg/l]	-0.000[mg/l]	0.029[mg/l]	0.001[mg/l]	0.002[mg/l]	-0.003[mg/l]	4511670
Conc 2	1.459[mg/l]	-0.000[mg/l]	0.029[mg/l]	0.001[mg/l]	0.001[mg/l]	-0.002[mg/l]	4534850
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**1.472[mg/l]**	**-0.000[mg/l]**	**0.029[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**-0.003[mg/l]**	**4523260**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.239***	***65.553***	***1.035***	***24.169***	***38.859***	***20.455***	***---***

Conc SD	***0.018[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***16390.7***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.474[%]	0.024[mg/l]	0.004[mg/l]				
Conc 2	99.971[%]	0.024[mg/l]	0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.722[%]**	**0.024[mg/l]**	**0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.353***	***0.369***	***23.997***				
Conc SD	***0.352[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: CCV			Sample Type: Control Sample			
Measure Date: 2016-05-16 16:19:06	Recalculation Date:	State: Check failed	Quality: Failed	Total Dilution: 1.000000		
Sample Identification						
Sample Name						
CCV						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.246[mg/l]	2.509[mg/l]	1130120	0.488[mg/l]	0.498[mg/l]	0.496[mg/l]	0.487[mg/l]
Conc 2	0.247[mg/l]	2.536[mg/l]	1118110	0.493[mg/l]	0.501[mg/l]	0.493[mg/l]	0.490[mg/l]
Conc MinRange	*90.000*	*90.000*	---	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.247[mg/l]**	**2.523[mg/l]**	**1124120**	**0.491[mg/l]**	**0.500[mg/l]**	**0.494[mg/l]**	**0.488[mg/l]**
Conc MaxRange	*110.000*	*110.000*	---	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***0.419***	***0.755***	***---***	***0.670***	***0.404***	***0.462***	***0.399***
Conc SD	***0.001[mg/l]***	***0.019[mg/l]***	***8492.35***	***0.003[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	12.378[mg/l]	0.491[mg/l]	0.507[mg/l]	0.511[mg/l]	22096.7	0.503[mg/l]	2.559[mg/l]
Conc 2	12.410[mg/l]	0.493[mg/l]	0.506[mg/l]	0.511[mg/l]	22741.9	0.509[mg/l]	2.562[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	---	*90.000*	*90.000*
Conc Mean	**12.394[mg/l]**	**0.492[mg/l]**	**0.507[mg/l]**	**0.511[mg/l]**	**22419.3**	**0.506[mg/l]**	**2.560[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	---	*110.000*	*110.000*
Conc RSD	***0.181***	***0.168***	***0.139***	***0.013***	***---***	***0.718***	***0.088***
Conc SD	***0.022[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***456.225***	***0.004[mg/l]***	***0.002[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	20.095[mg/l]	2.025[mg/l]	4.884[mg/l]	0.497[mg/l]	0.520[mg/l]	20.297[mg/l]	0.502[mg/l]
Conc 2	19.107[mg/l]	1.934[mg/l]	4.825[mg/l]	0.499[mg/l]	0.519[mg/l]	19.624[mg/l]	0.499[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**19.601[mg/l]**	**1.980[mg/l]**	**4.854[mg/l]**	**0.498[mg/l]**	**0.520[mg/l]**	**19.960[mg/l]**	**0.501[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***3.562***	***3.244***	***0.863***	***0.281***	***0.110***	***2.383***	***0.362***
Conc SD	***0.698[mg/l]***	***0.064[mg/l]***	***0.042[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.476[mg/l]***	***0.002[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.510[mg/l]	0.498[mg/l]	0.507[mg/l]	0.842[mg/l]	0.506[mg/l]	0.252[mg/l]	0.487[mg/l]

Conc 2	0.506[mg/l]	0.504[mg/l]	0.507[mg/l]	0.851[mg/l]	0.503[mg/l]	0.253[mg/l]	0.488[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.508[mg/l]**	**0.501[mg/l]**	**0.507[mg/l]**	**<0.846[mg/l]**	**0.505[mg/l]**	**0.253[mg/l]**	**0.488[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***0.641***	***0.854***	***0.017***	***0.702***	***0.369***	***0.471***	***0.161***
Conc SD	***0.003[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.006[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.499[mg/l]	0.504[mg/l]	4490430	99.012[%]	0.491[mg/l]	99.012[%]	
Conc 2	0.502[mg/l]	0.516[mg/l]	4492840	99.070[%]	0.492[mg/l]	99.070[%]	
Conc MinRange	*90.000*	*90.000*	---	---	*90.000*	---	
Conc Mean	**0.501[mg/l]**	**0.510[mg/l]**	**4491630**	**99.041[%]**	**0.491[mg/l]**	**99.041[%]**	
Conc MaxRange	*110.000*	*110.000*	---	---	*110.000*	---	
Conc RSD	***0.441***	***1.607***	***---***	***0.042***	***0.052***	***0.042***	
Conc SD	***0.002[mg/l]***	***0.008[mg/l]***	***1704.13***	***0.042[%]***	***0.000[mg/l]***	***0.042[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.246[mg/l]	2.509[mg/l]	1130120	0.488[mg/l]	0.498[mg/l]	0.496[mg/l]	0.487[mg/l]
Conc 2	0.247[mg/l]	2.536[mg/l]	1118110	0.493[mg/l]	0.501[mg/l]	0.493[mg/l]	0.490[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.247[mg/l]**	**2.523[mg/l]**	**1124120**	**0.491[mg/l]**	**0.500[mg/l]**	**0.494[mg/l]**	**0.488[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.419***	***0.755***	***---***	***0.670***	***0.404***	***0.462***	***0.399***
Conc SD	***0.001[mg/l]***	***0.019[mg/l]***	***8492.35***	***0.003[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	12.378[mg/l]	0.491[mg/l]	0.507[mg/l]	0.511[mg/l]	22096.7	<0.503[mg/l]	2.559[mg/l]
Conc 2	12.410[mg/l]	0.493[mg/l]	0.506[mg/l]	0.511[mg/l]	22741.9	<0.504[mg/l]	2.562[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.394[mg/l]**	**0.492[mg/l]**	**0.507[mg/l]**	**0.511[mg/l]**	**22419.3**	**<0.503[mg/l]**	**2.560[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.181***	***0.168***	***0.139***	***0.013***	***---***	***0.116***	***0.088***
Conc SD	***0.022[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***456.225***	***0.001[mg/l]***	***0.002[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.761[mg/l]	19.741[mg/l]	20.095[mg/l]	2.009[mg/l]	2.025[mg/l]	4.884[mg/l]	0.497[mg/l]
Conc 2	<-1.757[mg/l]	19.288[mg/l]	19.107[mg/l]	1.933[mg/l]	1.934[mg/l]	4.825[mg/l]	0.499[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.759[mg/l]**	**19.514[mg/l]**	**19.601[mg/l]**	**1.971[mg/l]**	**1.980[mg/l]**	**4.854[mg/l]**	**0.498[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.164***	***1.640***	***3.562***	***2.718***	***3.244***	***0.863***	***0.281***
Conc SD	***0.003[mg/l]***	***0.320[mg/l]***	***0.698[mg/l]***	***0.054[mg/l]***	***0.064[mg/l]***	***0.042[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.520[mg/l]	20.366[mg/l]	20.297[mg/l]	0.502[mg/l]	0.510[mg/l]	0.498[mg/l]	0.507[mg/l]
Conc 2	0.519[mg/l]	19.825[mg/l]	19.624[mg/l]	0.499[mg/l]	0.506[mg/l]	0.504[mg/l]	0.507[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.520[mg/l]**	**20.096[mg/l]**	**19.960[mg/l]**	**0.501[mg/l]**	**0.508[mg/l]**	**0.501[mg/l]**	**0.507[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***0.110***	***1.906***	***2.383***	***0.362***	***0.641***	***0.854***	***0.017***
Conc SD	***0.001[mg/l]***	***0.383[mg/l]***	***0.476[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.842[mg/l]	0.506[mg/l]	0.252[mg/l]	0.487[mg/l]	0.499[mg/l]	0.504[mg/l]	4490430
Conc 2	0.851[mg/l]	0.503[mg/l]	0.253[mg/l]	0.488[mg/l]	0.502[mg/l]	0.516[mg/l]	4492840
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.846[mg/l]**	**0.505[mg/l]**	**0.253[mg/l]**	**0.488[mg/l]**	**0.501[mg/l]**	**0.510[mg/l]**	**4491630**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.702***	***0.369***	***0.471***	***0.161***	***0.441***	***1.607***	***---***
Conc SD	***0.006[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.008[mg/l]***	***1704.13***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.012[%]	0.491[mg/l]	0.503[mg/l]				
Conc 2	99.070[%]	0.492[mg/l]	0.509[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.041[%]**	**0.491[mg/l]**	**0.506[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.042***	***0.052***	***0.718***				
Conc SD	***0.042[%]***	***0.000[mg/l]***	***0.004[mg/l]***				

Sample Name: CCB | Sample Type: Control Sample

Measure Date: 2016-05-16 16:21:06 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	0.010[mg/l]	1092920	<-0.002[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.008[mg/l]	1088280	<0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.000[mg/l]**	**0.009[mg/l]**	**1090600**	**<-0.001[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***31.091***	***16.473***	***---***	***278.604***	***24.241***	***25.944***	***42.883***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***3280.98***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.014[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	20670.3	<-0.005[mg/l]	0.002[mg/l]
Conc 2	0.015[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	21209.0	<-0.004[mg/l]	0.002[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.015[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**20939.6**	**<-0.005[mg/l]**	**0.002[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***4.308***	***215.050***	***5161.95***	***12.446***	***---***	***7.005***	***0.126***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***380.918***	***0.000[mg/l]***	***0.000[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.009[mg/l]	0.000[mg/l]	0.007[mg/l]	0.000[mg/l]	0.003[mg/l]	<-0.073[mg/l]	-0.000[mg/l]
Conc 2	0.010[mg/l]	0.000[mg/l]	0.008[mg/l]	0.000[mg/l]	0.003[mg/l]	<0.058[mg/l]	0.079[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.009[mg/l]**	**0.000[mg/l]**	**0.007[mg/l]**	**0.000[mg/l]**	**0.003[mg/l]**	**<-0.008[mg/l]**	**0.039[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***6.847***	***20.985***	***10.442***	***0.556***	***7.723***	***1226.98***	***143.147***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.093[mg/l]***	***0.056[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	-0.002[mg/l]	0.002[mg/l]	-0.081[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc 2	-0.001[mg/l]	0.001[mg/l]	-0.003[mg/l]	-0.084[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.001[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.082[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***22.865***	***1273.22***	***909.788***	***2.656***	***114.259***	***4.413***	***18.827***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.002[mg/l]	0.000[mg/l]	4678050	103.155[%]	0.001[mg/l]	103.155[%]	
Conc 2	0.003[mg/l]	-0.003[mg/l]	4584320	101.066[%]	0.001[mg/l]	101.066[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.003[mg/l]**	**-0.002[mg/l]**	**4631190**	**102.110[%]**	**0.001[mg/l]**	**102.110[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***21.330***	***147.147***	***---***	***1.447***	***7.414***	***1.447***	
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***66277.1***	***1.477[%]***	***0.000[mg/l]***	***1.477[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	0.010[mg/l]	1092920	<-0.002[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.008[mg/l]	1088280	<0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.009[mg/l]**	**1090600**	**<-0.001[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***31.091***	***16.473***	***---***	***278.604***	***24.241***	***25.944***	***42.883***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***3280.98***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.014[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	20670.3	<-0.010[mg/l]	0.002[mg/l]
Conc 2	0.015[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	21209.0	<-0.009[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.015[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**20939.6**	**<-0.009[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***4.308***	***215.050***	***5161.95***	***12.446***	***---***	***6.728***	***0.126***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***380.918***	***0.001[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.941[mg/l]	0.009[mg/l]	<-19.695[mg/l]	0.000[mg/l]	<-0.419[mg/l]	0.007[mg/l]	0.000[mg/l]
Conc 2	<-4.941[mg/l]	0.010[mg/l]	<-19.695[mg/l]	0.000[mg/l]	<-0.419[mg/l]	0.008[mg/l]	0.000[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.941[mg/l]**	**0.009[mg/l]**	**<-19.695[mg/l]**	**0.000[mg/l]**	**<-0.419[mg/l]**	**0.007[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.001***	***6.847***	***0.002***	***20.985***	***0.027***	***10.442***	***0.556***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.003[mg/l]	<-0.073[mg/l]	<-1.243[mg/l]	-0.000[mg/l]	-0.001[mg/l]	-0.002[mg/l]	0.002[mg/l]
Conc 2	0.003[mg/l]	<0.058[mg/l]	<-1.331[mg/l]	0.079[mg/l]	-0.001[mg/l]	0.001[mg/l]	-0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**<-0.008[mg/l]**	**<-1.287[mg/l]**	**0.039[mg/l]**	**-0.001[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***7.723***	***1226.98***	***4.824***	***143.147***	***22.865***	***1273.22***	***909.788***
Conc SD	***0.000[mg/l]***	***0.093[mg/l]***	***0.062[mg/l]***	***0.056[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.081[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	4678050
Conc 2	-0.084[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	0.003[mg/l]	-0.003[mg/l]	4584320
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.082[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**	**-0.002[mg/l]**	**4631190**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***2.656***	***114.259***	***4.413***	***18.827***	***21.330***	***147.147***	***---***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***66277.1***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	103.155[%]	0.001[mg/l]	<-0.005[mg/l]				
Conc 2	101.066[%]	0.001[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**102.110[%]**	**0.001[mg/l]**	**<-0.005[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***1.447***	***7.414***	***7.005***				
Conc SD	***1.477[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130695-A-3-B | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:23:06 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130695-A-3-B						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.002[mg/l]	0.075[mg/l]	1112320	0.005[mg/l]	0.811[mg/l]	0.029[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.079[mg/l]	1102400	0.004[mg/l]	0.822[mg/l]	0.029[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.077[mg/l]**	**1107360**	**0.004[mg/l]**	**0.816[mg/l]**	**0.029[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***48.865***	***3.199***	***---***	***10.395***	***0.979***	***0.947***	***18.562***

Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***7014.50***	***0.000[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	43.751[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.002[mg/l]	32476.6	0.057[mg/l]	0.331[mg/l]
Conc 2	43.884[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.002[mg/l]	31993.9	0.057[mg/l]	0.334[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**43.817[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**0.002[mg/l]**	**32235.3**	**0.057[mg/l]**	**0.332[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.214***	***0.564***	***17.687***	***8.202***	***---***	***0.525***	***0.686***
Conc SD	***0.094[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***341.320***	***0.000[mg/l]***	***0.002[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	64.348[mg/l]	0.083[mg/l]	12.633[mg/l]	0.005[mg/l]	0.018[mg/l]	>641.944[mg/l]	0.004[mg/l]
Conc 2	65.660[mg/l]	0.083[mg/l]	12.690[mg/l]	0.005[mg/l]	0.018[mg/l]	>645.897[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**65.004[mg/l]**	**0.083[mg/l]**	**12.661[mg/l]**	**0.005[mg/l]**	**0.018[mg/l]**	**>643.921[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.427***	***0.271***	***0.318***	***0.979***	***3.189***	***0.434***	***10.389***
Conc SD	***0.927[mg/l]***	***0.000[mg/l]***	***0.040[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***2.795[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.002[mg/l]	0.009[mg/l]	0.003[mg/l]	24.925[mg/l]	0.001[mg/l]	0.576[mg/l]	0.001[mg/l]
Conc 2	-0.002[mg/l]	0.009[mg/l]	0.002[mg/l]	25.084[mg/l]	0.001[mg/l]	0.576[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**0.009[mg/l]**	**0.002[mg/l]**	**25.005[mg/l]**	**0.001[mg/l]**	**0.576[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***5.694***	***2.082***	***6.399***	***0.452***	***50.379***	***0.035***	***0.468***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.113[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.001[mg/l]	-0.000[mg/l]	4350780	95.936[%]	0.083[mg/l]	95.936[%]	
Conc 2	0.001[mg/l]	-0.002[mg/l]	4337980	95.638[%]	0.078[mg/l]	95.638[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**-0.001[mg/l]**	**4344380**	**95.787[%]**	**0.080[mg/l]**	**95.787[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***6.705***	***132.425***	***---***	***0.220***	***4.379***	***0.220***	
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***9050.97***	***0.211[%]***	***0.004[mg/l]***	***0.211[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.002[mg/l]	0.075[mg/l]	1112320	0.005[mg/l]	0.811[mg/l]	0.029[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.079[mg/l]	1102400	0.004[mg/l]	0.822[mg/l]	0.029[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.077[mg/l]**	**1107360**	**0.004[mg/l]**	**0.816[mg/l]**	**0.029[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***48.865***	***3.199***	***---***	***10.395***	***0.979***	***0.947***	***18.562***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***7014.50***	***0.000[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	43.751[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.002[mg/l]	32476.6	<0.043[mg/l]	0.331[mg/l]

Conc 2	43.884[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.002[mg/l]	31993.9	<0.042[mg/l]	0.334[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**43.817[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**0.002[mg/l]**	**32235.3**	**<0.042[mg/l]**	**0.332[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.214***	***0.564***	***17.687***	***8.202***	***---***	***0.115***	***0.686***
Conc SD	***0.094[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***341.320***	***0.000[mg/l]***	***0.002[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.533[mg/l]	>42.380[mg/l]	64.348[mg/l]	0.083[mg/l]	<-0.320[mg/l]	12.633[mg/l]	0.005[mg/l]
Conc 2	<-4.529[mg/l]	>42.928[mg/l]	65.660[mg/l]	0.083[mg/l]	<-0.319[mg/l]	12.690[mg/l]	0.005[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.531[mg/l]**	**>42.654[mg/l]**	**65.004[mg/l]**	**0.083[mg/l]**	**<-0.319[mg/l]**	**12.661[mg/l]**	**0.005[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.062***	***0.908***	***1.427***	***0.271***	***0.102***	***0.318***	***0.979***
Conc SD	***0.003[mg/l]***	***0.387[mg/l]***	***0.927[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.040[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.018[mg/l]	>1748.53[mg/l]	>641.944[mg/l]	0.004[mg/l]	-0.002[mg/l]	0.009[mg/l]	0.003[mg/l]
Conc 2	0.018[mg/l]	>1764.01[mg/l]	>645.897[mg/l]	0.004[mg/l]	-0.002[mg/l]	0.009[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.018[mg/l]**	**>1756.27[mg/l]**	**>643.921[mg/l]**	**0.004[mg/l]**	**-0.002[mg/l]**	**0.009[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3.189***	***0.623***	***0.434***	***10.389***	***5.694***	***2.082***	***6.399***
Conc SD	***0.001[mg/l]***	***10.946[mg/l]***	***2.795[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	24.925[mg/l]	0.001[mg/l]	0.576[mg/l]	0.001[mg/l]	0.001[mg/l]	-0.000[mg/l]	4350780
Conc 2	25.084[mg/l]	0.001[mg/l]	0.576[mg/l]	0.001[mg/l]	0.001[mg/l]	-0.002[mg/l]	4337980
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**25.005[mg/l]**	**0.001[mg/l]**	**0.576[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**4344380**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.452***	***50.379***	***0.035***	***0.468***	***6.705***	***132.425***	***---***
Conc SD	***0.113[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***9050.97***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	95.936[%]	0.083[mg/l]	0.057[mg/l]				
Conc 2	95.638[%]	0.078[mg/l]	0.057[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**95.787[%]**	**0.080[mg/l]**	**0.057[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.220***	***4.379***	***0.525***				
Conc SD	***0.211[%]***	***0.004[mg/l]***	***0.000[mg/l]***				

Method Name: Hou Metals
Method Autor: Operator
Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: 600-130695-A-2-B			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 16:25:05	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130695-A-2-B						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	0.118[mg/l]	1074490	<-0.000[mg/l]	0.312[mg/l]	0.034[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.123[mg/l]	1106610	<-0.003[mg/l]	0.314[mg/l]	0.034[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.121[mg/l]**	**1090550**	**<-0.002[mg/l]**	**0.313[mg/l]**	**0.034[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1297.04***	***2.856***	***---***	***122.959***	***0.485***	***0.117***	***2.084***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***22712.3***	***0.002[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	27.546[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.001[mg/l]	29012.6	0.037[mg/l]	0.465[mg/l]
Conc 2	27.438[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	27342.0	0.036[mg/l]	0.462[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**27.492[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**28177.3**	**0.037[mg/l]**	**0.463[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.277***	***5.132***	***54.252***	***25.339***	***---***	***3.037***	***0.448***
Conc SD	***0.076[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1181.29***	***0.001[mg/l]***	***0.002[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	77.138[mg/l]	0.023[mg/l]	7.902[mg/l]	0.030[mg/l]	0.005[mg/l]	232.573[mg/l]	0.006[mg/l]
Conc 2	84.253[mg/l]	0.024[mg/l]	7.975[mg/l]	0.030[mg/l]	0.005[mg/l]	>240.734[mg/l]	0.006[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**80.695[mg/l]**	**0.024[mg/l]**	**7.938[mg/l]**	**0.030[mg/l]**	**0.005[mg/l]**	**>236.653[mg/l]**	**0.006[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***6.235***	***2.514***	***0.654***	***0.048***	***3.866***	***2.438***	***0.521***
Conc SD	***5.031[mg/l]***	***0.001[mg/l]***	***0.052[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***5.771[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.000[mg/l]	0.000[mg/l]	-0.001[mg/l]	6.979[mg/l]	0.001[mg/l]	0.244[mg/l]	0.002[mg/l]
Conc 2	-0.001[mg/l]	0.000[mg/l]	0.002[mg/l]	7.053[mg/l]	0.002[mg/l]	0.244[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**7.016[mg/l]**	**0.002[mg/l]**	**0.244[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***47.689***	***19.014***	***267.615***	***0.741***	***38.507***	***0.143***	***3.597***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.052[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.000[mg/l]	0.006[mg/l]	4451040	98.135[%]	0.053[mg/l]	98.135[%]	
Conc 2	-0.001[mg/l]	0.003[mg/l]	4453390	98.201[%]	0.054[mg/l]	98.201[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*---*	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.001[mg/l]**	**0.004[mg/l]**	**4452210**	**98.168[%]**	**0.054[mg/l]**	**98.168[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*---*	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***72.066***	***56.055***	***---***	***0.047***	***0.463***	***0.047***	
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***1661.70***	***0.047[%]***	***0.000[mg/l]***	***0.047[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	0.118[mg/l]	1074490	<-0.000[mg/l]	0.312[mg/l]	0.034[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.123[mg/l]	1106610	<-0.003[mg/l]	0.314[mg/l]	0.034[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.121[mg/l]**	**1090550**	**<-0.002[mg/l]**	**0.313[mg/l]**	**0.034[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1297.04***	***2.856***	***---***	***122.959***	***0.485***	***0.117***	***2.084***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***22712.3***	***0.002[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	27.546[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.001[mg/l]	29012.6	<0.026[mg/l]	0.465[mg/l]
Conc 2	27.438[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	27342.0	<0.026[mg/l]	0.462[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**27.492[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**28177.3**	**<0.026[mg/l]**	**0.463[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.277***	***5.132***	***54.252***	***25.339***	***---***	***0.102***	***0.448***
Conc SD	***0.076[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1181.29***	***0.000[mg/l]***	***0.002[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.366[mg/l]	>48.866[mg/l]	77.138[mg/l]	0.023[mg/l]	<-0.392[mg/l]	7.902[mg/l]	0.030[mg/l]
Conc 2	<-4.370[mg/l]	>52.552[mg/l]	84.253[mg/l]	0.024[mg/l]	<-0.391[mg/l]	7.975[mg/l]	0.030[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.368[mg/l]**	**>50.709[mg/l]**	**80.695[mg/l]**	**0.024[mg/l]**	**<-0.391[mg/l]**	**7.938[mg/l]**	**0.030[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.062***	***5.141***	***6.235***	***2.514***	***0.207***	***0.654***	***0.048***
Conc SD	***0.003[mg/l]***	***2.607[mg/l]***	***5.031[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.052[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.005[mg/l]	>363.540[mg/l]	232.573[mg/l]	0.006[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.001[mg/l]
Conc 2	0.005[mg/l]	>381.128[mg/l]	>240.734[mg/l]	0.006[mg/l]	-0.001[mg/l]	0.000[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.005[mg/l]**	**>372.334[mg/l]**	**>236.653[mg/l]**	**0.006[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3.866***	***3.340***	***2.438***	***0.521***	***47.689***	***19.014***	***267.615***
Conc SD	***0.000[mg/l]***	***12.437[mg/l]***	***5.771[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	6.979[mg/l]	0.001[mg/l]	0.244[mg/l]	0.002[mg/l]	-0.000[mg/l]	0.006[mg/l]	4451040
Conc 2	7.053[mg/l]	0.002[mg/l]	0.244[mg/l]	0.002[mg/l]	-0.001[mg/l]	0.003[mg/l]	4453390
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*
Conc Mean	**7.016[mg/l]**	**0.002[mg/l]**	**0.244[mg/l]**	**0.002[mg/l]**	**-0.001[mg/l]**	**0.004[mg/l]**	**4452210**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*
Conc RSD	***0.741***	***38.507***	***0.143***	***3.597***	***72.066***	***56.055***	***---***

Conc SD	***0.052[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***1661.70***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.135[%]	0.053[mg/l]	0.037[mg/l]				
Conc 2	98.201[%]	0.054[mg/l]	0.036[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.168[%]**	**0.054[mg/l]**	**0.037[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.047***	***0.463***	***3.037***				
Conc SD	***0.047[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130695-A-1-B			Sample Type: Unknown Sample			
Measure Date: 2016-05-16 16:27:04	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000		
Sample Identification						
Sample Name						
600-130695-A-1-B						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	0.170[mg/l]	1104630	<0.000[mg/l]	0.258[mg/l]	0.102[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.172[mg/l]	1120280	<-0.001[mg/l]	0.257[mg/l]	0.103[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.171[mg/l]**	**1112460**	**<-0.000[mg/l]**	**0.257[mg/l]**	**0.102[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***211.898***	***1.137***	***---***	***164.900***	***0.078***	***0.836***	***49.200***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***11066.2***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	32.700[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	27732.0	0.098[mg/l]	0.416[mg/l]
Conc 2	32.703[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	27488.6	0.097[mg/l]	0.414[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**32.701[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**27610.3**	**0.097[mg/l]**	**0.415[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.006***	***42.102***	***7.902***	***0.798***	***---***	***0.660***	***0.386***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***172.110***	***0.001[mg/l]***	***0.002[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	108.654[mg/l]	0.025[mg/l]	10.647[mg/l]	0.079[mg/l]	0.003[mg/l]	>247.745[mg/l]	0.005[mg/l]
Conc 2	112.938[mg/l]	0.025[mg/l]	10.602[mg/l]	0.079[mg/l]	0.002[mg/l]	>248.966[mg/l]	0.007[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**110.796[mg/l]**	**0.025[mg/l]**	**10.625[mg/l]**	**0.079[mg/l]**	**0.003[mg/l]**	**>248.356[mg/l]**	**0.006[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.734***	***0.132***	***0.294***	***0.365***	***11.503***	***0.348***	***14.644***
Conc SD	***3.029[mg/l]***	***0.000[mg/l]***	***0.031[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.863[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.000[mg/l]	0.000[mg/l]	-0.001[mg/l]	8.032[mg/l]	0.006[mg/l]	0.242[mg/l]	0.001[mg/l]

Conc 2	-0.001[mg/l]	-0.002[mg/l]	-0.002[mg/l]	7.976[mg/l]	0.004[mg/l]	0.243[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**8.004[mg/l]**	**0.005[mg/l]**	**0.243[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***159.837***	***170.427***	***56.934***	***0.490***	***29.387***	***0.385***	***9.259***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.039[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.000[mg/l]	0.004[mg/l]	4391380	96.832[%]	0.166[mg/l]	96.832[%]	
Conc 2	-0.002[mg/l]	0.000[mg/l]	4393230	96.866[%]	0.168[mg/l]	96.866[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.001[mg/l]**	**0.002[mg/l]**	**4392310**	**96.849[%]**	**0.167[mg/l]**	**96.849[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***112.679***	***141.374***	***---***	***0.025***	***0.524***	***0.025***	
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***1308.15***	***0.024[%]***	***0.001[mg/l]***	***0.024[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	0.170[mg/l]	1104630	<0.000[mg/l]	0.258[mg/l]	0.102[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.172[mg/l]	1120280	<-0.001[mg/l]	0.257[mg/l]	0.103[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.171[mg/l]**	**1112460**	**<-0.000[mg/l]**	**0.257[mg/l]**	**0.102[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***211.898***	***1.137***	***---***	***164.900***	***0.078***	***0.836***	***49.200***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***11066.2***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	32.700[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	27732.0	<0.085[mg/l]	0.416[mg/l]
Conc 2	32.703[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	27488.6	<0.084[mg/l]	0.414[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**32.701[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**27610.3**	**<0.085[mg/l]**	**0.415[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.006***	***42.102***	***7.902***	***0.798***	***---***	***0.449***	***0.386***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***172.110***	***0.000[mg/l]***	***0.002[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.426[mg/l]	>65.691[mg/l]	108.654[mg/l]	0.025[mg/l]	<-0.390[mg/l]	10.647[mg/l]	0.079[mg/l]
Conc 2	<-4.429[mg/l]	>67.570[mg/l]	112.938[mg/l]	0.025[mg/l]	<-0.390[mg/l]	10.602[mg/l]	0.079[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.427[mg/l]**	**>66.630[mg/l]**	**110.796[mg/l]**	**0.025[mg/l]**	**<-0.390[mg/l]**	**10.625[mg/l]**	**0.079[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.049***	***1.994***	***2.734***	***0.132***	***0.017***	***0.294***	***0.365***
Conc SD	***0.002[mg/l]***	***1.329[mg/l]***	***3.029[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.031[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.003[mg/l]	>397.648[mg/l]	>247.745[mg/l]	0.005[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.001[mg/l]
Conc 2	0.002[mg/l]	>400.292[mg/l]	>248.966[mg/l]	0.007[mg/l]	-0.001[mg/l]	-0.002[mg/l]	-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**>398.970[mg/l]**	**>248.356[mg/l]**	**0.006[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***11.503***	***0.469***	***0.348***	***14.644***	***159.837***	***170.427***	***56.934***
Conc SD	***0.000[mg/l]***	***1.870[mg/l]***	***0.863[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	8.032[mg/l]	0.006[mg/l]	0.242[mg/l]	0.001[mg/l]	-0.000[mg/l]	0.004[mg/l]	4391380
Conc 2	7.976[mg/l]	0.004[mg/l]	0.243[mg/l]	0.001[mg/l]	-0.002[mg/l]	0.000[mg/l]	4393230
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**8.004[mg/l]**	**0.005[mg/l]**	**0.243[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**0.002[mg/l]**	**4392310**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.490***	***29.387***	***0.385***	***9.259***	***112.679***	***141.374***	***---***
Conc SD	***0.039[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***1308.15***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.832[%]	0.166[mg/l]	0.098[mg/l]				
Conc 2	96.866[%]	0.168[mg/l]	0.097[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.849[%]**	**0.167[mg/l]**	**0.097[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.025***	***0.524***	***0.660***				
Conc SD	***0.024[%]***	***0.001[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130695-A-4-B | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:29:01 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130695-A-4-B						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	0.119[mg/l]	1135590	0.004[mg/l]	0.970[mg/l]	0.131[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.116[mg/l]	1116100	<0.002[mg/l]	0.990[mg/l]	0.131[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.117[mg/l]**	**1125850**	**0.003[mg/l]**	**0.980[mg/l]**	**0.131[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***75.020***	***1.900***	***---***	***40.916***	***1.454***	***0.167***	***68.135***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***13781.5***	***0.001[mg/l]***	***0.014[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	40.049[mg/l]	-0.001[mg/l]	0.000[mg/l]	0.002[mg/l]	32071.7	0.148[mg/l]	1.593[mg/l]
Conc 2	40.411[mg/l]	-0.001[mg/l]	0.000[mg/l]	0.002[mg/l]	32623.9	0.155[mg/l]	1.608[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**40.230[mg/l]**	**-0.001[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**32347.8**	**0.151[mg/l]**	**1.600[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.637***	***10.035***	***72.445***	***1.655***	***---***	***3.142***	***0.654***
Conc SD	***0.256[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***390.464***	***0.005[mg/l]***	***0.010[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	9.265[mg/l]	0.103[mg/l]	10.756[mg/l]	0.045[mg/l]	0.012[mg/l]	>751.864[mg/l]	0.002[mg/l]
Conc 2	8.946[mg/l]	0.100[mg/l]	10.890[mg/l]	0.046[mg/l]	0.013[mg/l]	>731.423[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**9.105[mg/l]**	**0.101[mg/l]**	**10.823[mg/l]**	**0.046[mg/l]**	**0.012[mg/l]**	**>741.643[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.479***	***2.161***	***0.875***	***0.614***	***2.604***	***1.949***	***1.859***
Conc SD	***0.226[mg/l]***	***0.002[mg/l]***	***0.095[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***14.454[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.002[mg/l]	0.001[mg/l]	0.002[mg/l]	31.314[mg/l]	0.002[mg/l]	0.905[mg/l]	0.002[mg/l]
Conc 2	-0.002[mg/l]	-0.000[mg/l]	-0.000[mg/l]	31.803[mg/l]	-0.001[mg/l]	0.916[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**31.559[mg/l]**	**0.001[mg/l]**	**0.910[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.199***	***234.510***	***163.270***	***1.096***	***299.584***	***0.806***	***10.216***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.346[mg/l]***	***0.002[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.000[mg/l]	-0.001[mg/l]	4321330	95.286[%]	0.111[mg/l]	95.286[%]	
Conc 2	0.002[mg/l]	-0.001[mg/l]	4276850	94.297[%]	0.112[mg/l]	94.297[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**-0.001[mg/l]**	**4299090**	**94.792[%]**	**0.112[mg/l]**	**94.792[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***217.395***	***29.401***	***---***	***0.738***	***0.720***	***0.738***	
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***31452.1***	***0.700[%]***	***0.001[mg/l]***	***0.700[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	0.119[mg/l]	1135590	0.004[mg/l]	0.970[mg/l]	0.131[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.116[mg/l]	1116100	<0.002[mg/l]	0.990[mg/l]	0.131[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.117[mg/l]**	**1125850**	**<0.003[mg/l]**	**0.980[mg/l]**	**0.131[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***75.020***	***1.900***	***---***	***40.916***	***1.454***	***0.167***	***68.135***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***13781.5***	***0.001[mg/l]***	***0.014[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	40.049[mg/l]	-0.001[mg/l]	0.000[mg/l]	0.002[mg/l]	32071.7	<0.129[mg/l]	1.593[mg/l]
Conc 2	40.411[mg/l]	-0.001[mg/l]	0.000[mg/l]	0.002[mg/l]	32623.9	<0.127[mg/l]	1.608[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**40.230[mg/l]**	**-0.001[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**32347.8**	**<0.128[mg/l]**	**1.600[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.637***	***10.035***	***72.445***	***1.655***	***---***	***1.155***	***0.654***
Conc SD	***0.256[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***390.464***	***0.001[mg/l]***	***0.010[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-2.964[mg/l]	9.265[mg/l]	<-0.957[mg/l]	0.103[mg/l]	<-0.295[mg/l]	10.756[mg/l]	0.045[mg/l]
Conc 2	<-2.946[mg/l]	8.946[mg/l]	<-1.637[mg/l]	0.100[mg/l]	<-0.299[mg/l]	10.890[mg/l]	0.046[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-2.955[mg/l]**	**9.105[mg/l]**	**<-1.297[mg/l]**	**0.101[mg/l]**	**<-0.297[mg/l]**	**10.823[mg/l]**	**0.046[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.440***	***2.479***	***37.046***	***2.161***	***0.914***	***0.875***	***0.614***
Conc SD	***0.013[mg/l]***	***0.226[mg/l]***	***0.481[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.095[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.012[mg/l]	>2284.65[mg/l]	>751.864[mg/l]	0.002[mg/l]	-0.002[mg/l]	0.001[mg/l]	0.002[mg/l]
Conc 2	0.013[mg/l]	>2174.97[mg/l]	>731.423[mg/l]	0.002[mg/l]	-0.002[mg/l]	-0.000[mg/l]	-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.012[mg/l]**	**>2229.81[mg/l]**	**>741.643[mg/l]**	**0.002[mg/l]**	**-0.002[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.604***	***3.478***	***1.949***	***1.859***	***0.199***	***234.510***	***163.270***
Conc SD	***0.000[mg/l]***	***77.555[mg/l]***	***14.454[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	31.314[mg/l]	0.002[mg/l]	0.905[mg/l]	0.002[mg/l]	-0.000[mg/l]	-0.001[mg/l]	4321330
Conc 2	31.803[mg/l]	-0.001[mg/l]	0.916[mg/l]	0.002[mg/l]	0.002[mg/l]	-0.001[mg/l]	4276850
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**31.559[mg/l]**	**0.001[mg/l]**	**0.910[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**4299090**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.096***	***299.584***	***0.806***	***10.216***	***217.395***	***29.401***	***---***
Conc SD	***0.346[mg/l]***	***0.002[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***31452.1***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	95.286[%]	0.111[mg/l]	0.148[mg/l]				
Conc 2	94.297[%]	0.112[mg/l]	0.155[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**94.792[%]**	**0.112[mg/l]**	**0.151[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.738***	***0.720***	***3.142***				
Conc SD	***0.700[%]***	***0.001[mg/l]***	***0.005[mg/l]***				

Sample Name: 600-130742-A-4-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:30:59 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130742-A-4-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	8.816[mg/l]	1089830	<-0.002[mg/l]	0.030[mg/l]	0.280[mg/l]	0.001[mg/l]
Conc 2	0.000[mg/l]	8.637[mg/l]	1074380	<-0.004[mg/l]	0.029[mg/l]	0.277[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**8.726[mg/l]**	**1082110**	**<-0.003[mg/l]**	**0.030[mg/l]**	**0.279[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***184.674***	***1.450***	***---***	***47.747***	***1.571***	***0.720***	***0.928***

Conc SD	***0.000[mg/l]***	***0.126[mg/l]***	***10924.8***	***0.002[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	39.004[mg/l]	0.008[mg/l]	0.010[mg/l]	0.012[mg/l]	21643.7	0.059[mg/l]	17.072[mg/l]
Conc 2	38.726[mg/l]	0.008[mg/l]	0.010[mg/l]	0.012[mg/l]	21503.5	0.060[mg/l]	16.876[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**38.865[mg/l]**	**0.008[mg/l]**	**0.010[mg/l]**	**0.012[mg/l]**	**21573.6**	**0.060[mg/l]**	**16.974[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.505***	***0.620***	***0.022***	***0.582***	***---***	***0.706***	***0.814***
Conc SD	***0.196[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***99.136***	***0.000[mg/l]***	***0.138[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	2.424[mg/l]	0.006[mg/l]	5.476[mg/l]	3.018[mg/l]	0.337[mg/l]	8.035[mg/l]	0.016[mg/l]
Conc 2	2.461[mg/l]	0.006[mg/l]	5.459[mg/l]	2.986[mg/l]	0.337[mg/l]	7.915[mg/l]	0.016[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**2.442[mg/l]**	**0.006[mg/l]**	**5.468[mg/l]**	**3.002[mg/l]**	**0.337[mg/l]**	**7.975[mg/l]**	**0.016[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.083***	***1.071***	***0.224***	***0.757***	***0.009***	***1.061***	***0.109***
Conc SD	***0.026[mg/l]***	***0.000[mg/l]***	***0.012[mg/l]***	***0.023[mg/l]***	***0.000[mg/l]***	***0.085[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.038[mg/l]	-0.001[mg/l]	-0.002[mg/l]	14.243[mg/l]	0.001[mg/l]	0.094[mg/l]	0.048[mg/l]
Conc 2	0.040[mg/l]	0.001[mg/l]	0.001[mg/l]	14.126[mg/l]	0.000[mg/l]	0.094[mg/l]	0.049[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.039[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**14.185[mg/l]**	**0.001[mg/l]**	**0.094[mg/l]**	**0.048[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.299***	***444.560***	***1551.57***	***0.583***	***62.461***	***0.023***	***0.401***
Conc SD	***0.002[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.083[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.003[mg/l]	0.021[mg/l]	4519390	99.669[%]	>5.183[mg/l]	99.669[%]	
Conc 2	0.000[mg/l]	0.017[mg/l]	4513970	99.561[%]	>5.145[mg/l]	99.561[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.002[mg/l]**	**0.019[mg/l]**	**4516680**	**99.615[%]**	**>5.164[mg/l]**	**99.615[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***183.145***	***13.526***	***---***	***0.077***	***0.518***	***0.077***	
Conc SD	***0.003[mg/l]***	***0.003[mg/l]***	***3832.52***	***0.076[%]***	***0.027[mg/l]***	***0.076[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	8.816[mg/l]	1089830	<-0.002[mg/l]	0.030[mg/l]	0.280[mg/l]	0.001[mg/l]
Conc 2	0.000[mg/l]	8.637[mg/l]	1074380	<-0.004[mg/l]	0.029[mg/l]	0.277[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**8.726[mg/l]**	**1082110**	**<-0.003[mg/l]**	**0.030[mg/l]**	**0.279[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***184.674***	***1.450***	***---***	***47.747***	***1.571***	***0.720***	***0.928***
Conc SD	***0.000[mg/l]***	***0.126[mg/l]***	***10924.8***	***0.002[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	39.004[mg/l]	0.008[mg/l]	0.010[mg/l]	0.012[mg/l]	21643.7	<0.055[mg/l]	17.072[mg/l]

Conc 2	38.726[mg/l]	0.008[mg/l]	0.010[mg/l]	0.012[mg/l]	21503.5	<0.056[mg/l]	16.876[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**38.865[mg/l]**	**0.008[mg/l]**	**0.010[mg/l]**	**0.012[mg/l]**	**21573.6**	**<0.055[mg/l]**	**16.974[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.505***	***0.620***	***0.022***	***0.582***	***---***	***1.361***	***0.814***
Conc SD	***0.196[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***99.136***	***0.001[mg/l]***	***0.138[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<16.292[mg/l]	2.424[mg/l]	<-14.795[mg/l]	0.006[mg/l]	<-0.413[mg/l]	5.476[mg/l]	3.018[mg/l]
Conc 2	<16.048[mg/l]	2.461[mg/l]	<-14.720[mg/l]	0.006[mg/l]	<-0.413[mg/l]	5.459[mg/l]	2.986[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<16.170[mg/l]**	**2.442[mg/l]**	**<-14.758[mg/l]**	**0.006[mg/l]**	**<-0.413[mg/l]**	**5.468[mg/l]**	**3.002[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.066***	***1.083***	***0.358***	***1.071***	***0.014***	***0.224***	***0.757***
Conc SD	***0.172[mg/l]***	***0.026[mg/l]***	***0.053[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.012[mg/l]***	***0.023[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.337[mg/l]	8.035[mg/l]	<7.449[mg/l]	0.016[mg/l]	0.038[mg/l]	-0.001[mg/l]	-0.002[mg/l]
Conc 2	0.337[mg/l]	7.915[mg/l]	<7.426[mg/l]	0.016[mg/l]	0.040[mg/l]	0.001[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.337[mg/l]**	**7.975[mg/l]**	**<7.438[mg/l]**	**0.016[mg/l]**	**0.039[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.009***	***1.061***	***0.214***	***0.109***	***4.299***	***444.560***	***1551.57***
Conc SD	***0.000[mg/l]***	***0.085[mg/l]***	***0.016[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	14.243[mg/l]	0.001[mg/l]	0.094[mg/l]	0.048[mg/l]	-0.003[mg/l]	0.021[mg/l]	4519390
Conc 2	14.126[mg/l]	0.000[mg/l]	0.094[mg/l]	0.049[mg/l]	0.000[mg/l]	0.017[mg/l]	4513970
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**14.185[mg/l]**	**0.001[mg/l]**	**0.094[mg/l]**	**0.048[mg/l]**	**-0.002[mg/l]**	**0.019[mg/l]**	**4516680**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.583***	***62.461***	***0.023***	***0.401***	***183.145***	***13.526***	***---***
Conc SD	***0.083[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***3832.52***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.669[%]	>5.183[mg/l]	0.059[mg/l]				
Conc 2	99.561[%]	>5.145[mg/l]	0.060[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.615[%]**	**>5.164[mg/l]**	**0.060[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.077***	***0.518***	***0.706***				
Conc SD	***0.076[%]***	***0.027[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130742-A-2-A			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 16:32:58	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130742-A-2-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	0.313[mg/l]	1081410	<-0.000[mg/l]	0.048[mg/l]	0.053[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	0.304[mg/l]	1101870	0.003[mg/l]	0.047[mg/l]	0.052[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.308[mg/l]**	**1091640**	**<0.001[mg/l]**	**0.047[mg/l]**	**0.053[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***124.938***	***2.142***	***---***	***148.886***	***1.936***	***0.644***	***34.768***
Conc SD	***0.001[mg/l]***	***0.007[mg/l]***	***14467.4***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	44.325[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	22238.2	<0.001[mg/l]	0.704[mg/l]
Conc 2	44.026[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21928.1	<0.001[mg/l]	0.696[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**44.175[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**22083.2**	**<0.001[mg/l]**	**0.700[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.479***	***37.862***	***43.814***	***11.218***	***---***	***3.522***	***0.796***
Conc SD	***0.211[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***219.274***	***0.000[mg/l]***	***0.006[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	2.830[mg/l]	0.003[mg/l]	4.297[mg/l]	0.099[mg/l]	1.121[mg/l]	50.636[mg/l]	0.003[mg/l]
Conc 2	2.840[mg/l]	0.003[mg/l]	4.260[mg/l]	0.099[mg/l]	1.112[mg/l]	50.746[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**2.835[mg/l]**	**0.003[mg/l]**	**4.278[mg/l]**	**0.099[mg/l]**	**1.116[mg/l]**	**50.691[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.241***	***0.125***	***0.606***	***0.519***	***0.554***	***0.154***	***5.288***
Conc SD	***0.007[mg/l]***	***0.000[mg/l]***	***0.026[mg/l]***	***0.001[mg/l]***	***0.006[mg/l]***	***0.078[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]	2.410[mg/l]	0.000[mg/l]	0.194[mg/l]	0.011[mg/l]
Conc 2	-0.001[mg/l]	0.001[mg/l]	-0.003[mg/l]	2.456[mg/l]	0.000[mg/l]	0.193[mg/l]	0.010[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.001[mg/l]**	**-0.002[mg/l]**	**2.433[mg/l]**	**0.000[mg/l]**	**0.194[mg/l]**	**0.010[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***37.412***	***8.420***	***85.820***	***1.360***	***131.654***	***0.446***	***9.549***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.033[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.003[mg/l]	0.002[mg/l]	4378990	96.558[%]	0.042[mg/l]	96.558[%]	
Conc 2	-0.003[mg/l]	0.004[mg/l]	4416510	97.380[%]	0.042[mg/l]	97.380[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.003[mg/l]**	**0.003[mg/l]**	**4397750**	**96.969[%]**	**0.042[mg/l]**	**96.969[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***18.284***	***64.126***	***---***	***0.599***	***0.149***	***0.599***	
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***26530.6***	***0.581[%]***	***0.000[mg/l]***	***0.581[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	0.313[mg/l]	1081410	<-0.000[mg/l]	0.048[mg/l]	0.053[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	0.304[mg/l]	1101870	0.003[mg/l]	0.047[mg/l]	0.052[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.308[mg/l]**	**1091640**	**<0.001[mg/l]**	**0.047[mg/l]**	**0.053[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***124.938***	***2.142***	***---***	***148.886***	***1.936***	***0.644***	***34.768***
Conc SD	***0.001[mg/l]***	***0.007[mg/l]***	***14467.4***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	44.325[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	22238.2	<-0.004[mg/l]	0.704[mg/l]
Conc 2	44.026[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21928.1	<-0.005[mg/l]	0.696[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**44.175[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**22083.2**	**<-0.004[mg/l]**	**0.700[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.479***	***37.862***	***43.814***	***11.218***	***---***	***10.803***	***0.796***
Conc SD	***0.211[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***219.274***	***0.000[mg/l]***	***0.006[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.068[mg/l]	2.830[mg/l]	<-13.958[mg/l]	0.003[mg/l]	<-0.416[mg/l]	4.297[mg/l]	0.099[mg/l]
Conc 2	<-4.078[mg/l]	2.840[mg/l]	<-13.938[mg/l]	0.003[mg/l]	<-0.416[mg/l]	4.260[mg/l]	0.099[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.073[mg/l]**	**2.835[mg/l]**	**<-13.948[mg/l]**	**0.003[mg/l]**	**<-0.416[mg/l]**	**4.278[mg/l]**	**0.099[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.173***	***0.241***	***0.102***	***0.125***	***0.013***	***0.606***	***0.519***
Conc SD	***0.007[mg/l]***	***0.007[mg/l]***	***0.014[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.026[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	1.121[mg/l]	>53.504[mg/l]	50.636[mg/l]	0.003[mg/l]	-0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc 2	1.112[mg/l]	>53.368[mg/l]	50.746[mg/l]	0.003[mg/l]	-0.001[mg/l]	0.001[mg/l]	-0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.116[mg/l]**	**>53.436[mg/l]**	**50.691[mg/l]**	**0.003[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**-0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.554***	***0.181***	***0.154***	***5.288***	***37.412***	***8.420***	***85.820***
Conc SD	***0.006[mg/l]***	***0.097[mg/l]***	***0.078[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	2.410[mg/l]	0.000[mg/l]	0.194[mg/l]	0.011[mg/l]	-0.003[mg/l]	0.002[mg/l]	4378990
Conc 2	2.456[mg/l]	0.000[mg/l]	0.193[mg/l]	0.010[mg/l]	-0.003[mg/l]	0.004[mg/l]	4416510
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**2.433[mg/l]**	**0.000[mg/l]**	**0.194[mg/l]**	**0.010[mg/l]**	**-0.003[mg/l]**	**0.003[mg/l]**	**4397750**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.360***	***131.654***	***0.446***	***9.549***	***18.284***	***64.126***	***---***

Conc SD	***0.033[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***26530.6***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.558[%]	0.042[mg/l]	<0.001[mg/l]				
Conc 2	97.380[%]	0.042[mg/l]	<0.001[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.969[%]**	**0.042[mg/l]**	**<0.001[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.599***	***0.149***	***3.522***				
Conc SD	***0.581[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130742-A-5-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:34:59 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130742-A-5-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	0.335[mg/l]	1077820	<0.002[mg/l]	0.020[mg/l]	0.053[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.335[mg/l]	1058790	<0.000[mg/l]	0.020[mg/l]	0.052[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.335[mg/l]**	**1068310**	**<0.001[mg/l]**	**0.020[mg/l]**	**0.053[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***282.611***	***0.013***	***---***	***137.414***	***0.189***	***0.394***	***24.753***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***13456.2***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	5.600[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	20566.4	<-0.002[mg/l]	1.201[mg/l]
Conc 2	5.544[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21750.0	<-0.002[mg/l]	1.188[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**5.572[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**21158.2**	**<-0.002[mg/l]**	**1.195[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.718***	***3.441***	***6.521***	***92.179***	***---***	***16.671***	***0.735***
Conc SD	***0.040[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***836.932***	***0.000[mg/l]***	***0.009[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	1.407[mg/l]	0.001[mg/l]	1.200[mg/l]	0.158[mg/l]	0.003[mg/l]	3.692[mg/l]	0.001[mg/l]
Conc 2	1.354[mg/l]	0.001[mg/l]	1.184[mg/l]	0.155[mg/l]	0.002[mg/l]	3.568[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.380[mg/l]**	**0.001[mg/l]**	**1.192[mg/l]**	**0.156[mg/l]**	**0.002[mg/l]**	**3.630[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.719***	***4.930***	***0.962***	***1.205***	***28.701***	***2.419***	***3.994***
Conc SD	***0.038[mg/l]***	***0.000[mg/l]***	***0.011[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.088[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.002[mg/l]	0.000[mg/l]	-0.002[mg/l]	2.748[mg/l]	0.000[mg/l]	0.036[mg/l]	0.001[mg/l]

Conc 2	-0.000[mg/l]	-0.001[mg/l]	0.001[mg/l]	2.669[mg/l]	0.000[mg/l]	0.036[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**2.709[mg/l]**	**0.000[mg/l]**	**0.036[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***165.605***	***218.547***	***360.106***	***2.053***	***52.453***	***0.069***	***41.847***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.056[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	-0.002[mg/l]	4410500	97.227[%]	0.026[mg/l]	97.227[%]	
Conc 2	0.000[mg/l]	0.003[mg/l]	4457030	98.268[%]	0.026[mg/l]	98.268[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.000[mg/l]**	**0.001[mg/l]**	**4433770**	**97.747[%]**	**0.026[mg/l]**	**97.747[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***380.054***	***605.180***	***---***	***0.753***	***0.445***	***0.753***	
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***32901.7***	***0.736[%]***	***0.000[mg/l]***	***0.736[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	0.335[mg/l]	1077820	<0.002[mg/l]	0.020[mg/l]	0.053[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.335[mg/l]	1058790	<0.000[mg/l]	0.020[mg/l]	0.052[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.335[mg/l]**	**1068310**	**<0.001[mg/l]**	**0.020[mg/l]**	**0.053[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***282.611***	***0.013***	***---***	***137.414***	***0.189***	***0.394***	***24.753***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***13456.2***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	5.600[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	20566.4	<-0.008[mg/l]	1.201[mg/l]
Conc 2	5.544[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21750.0	<-0.008[mg/l]	1.188[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**5.572[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**21158.2**	**<-0.008[mg/l]**	**1.195[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.718***	***3.441***	***6.521***	***92.179***	***---***	***1.438***	***0.735***
Conc SD	***0.040[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***836.932***	***0.000[mg/l]***	***0.009[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-3.451[mg/l]	1.407[mg/l]	<-16.869[mg/l]	0.001[mg/l]	<-0.419[mg/l]	1.200[mg/l]	0.158[mg/l]
Conc 2	<-3.466[mg/l]	1.354[mg/l]	<-16.974[mg/l]	0.001[mg/l]	<-0.419[mg/l]	1.184[mg/l]	0.155[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-3.459[mg/l]**	**1.380[mg/l]**	**<-16.921[mg/l]**	**0.001[mg/l]**	**<-0.419[mg/l]**	**1.192[mg/l]**	**0.156[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.304***	***2.719***	***0.439***	***4.930***	***0.036***	***0.962***	***1.205***
Conc SD	***0.011[mg/l]***	***0.038[mg/l]***	***0.074[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.011[mg/l]***	***0.002[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.003[mg/l]	3.692[mg/l]	<2.891[mg/l]	0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	-0.002[mg/l]
Conc 2	0.002[mg/l]	3.568[mg/l]	<2.362[mg/l]	0.001[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**3.630[mg/l]**	**<2.626[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***28.701***	***2.419***	***14.244***	***3.994***	***165.605***	***218.547***	***360.106***
Conc SD	***0.001[mg/l]***	***0.088[mg/l]***	***0.374[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	2.748[mg/l]	0.000[mg/l]	0.036[mg/l]	0.001[mg/l]	-0.001[mg/l]	-0.002[mg/l]	4410500
Conc 2	2.669[mg/l]	0.000[mg/l]	0.036[mg/l]	0.001[mg/l]	0.000[mg/l]	0.003[mg/l]	4457030
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**2.709[mg/l]**	**0.000[mg/l]**	**0.036[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**4433770**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***2.053***	***52.453***	***0.069***	***41.847***	***380.054***	***605.180***	***---***
Conc SD	***0.056[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***32901.7***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.227[%]	0.026[mg/l]	<-0.002[mg/l]				
Conc 2	98.268[%]	0.026[mg/l]	<-0.002[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.747[%]**	**0.026[mg/l]**	**<-0.002[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.753***	***0.445***	***16.671***				
Conc SD	***0.736[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130662-A-2-A@2 | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:36:57 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130662-A-2-A@2						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	14.249[mg/l]	1080290	<-0.013[mg/l]	0.148[mg/l]	0.142[mg/l]	0.003[mg/l]
Conc 2	-0.002[mg/l]	14.028[mg/l]	1107450	<-0.013[mg/l]	0.147[mg/l]	0.141[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**14.138[mg/l]**	**1093870**	**<-0.013[mg/l]**	**0.147[mg/l]**	**0.141[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***75.995***	***1.102***	***---***	***3.888***	***0.513***	***0.530***	***0.181***
Conc SD	***0.001[mg/l]***	***0.156[mg/l]***	***19205.0***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	88.076[mg/l]	-0.001[mg/l]	0.015[mg/l]	0.039[mg/l]	28407.6	0.028[mg/l]	17.343[mg/l]
Conc 2	87.247[mg/l]	-0.001[mg/l]	0.015[mg/l]	0.039[mg/l]	28611.6	0.026[mg/l]	17.154[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**87.662[mg/l]**	**-0.001[mg/l]**	**0.015[mg/l]**	**0.039[mg/l]**	**28509.6**	**0.027[mg/l]**	**17.249[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.669***	***4.070***	***0.770***	***1.092***	***---***	***3.427***	***0.776***
Conc SD	***0.586[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***144.250***	***0.001[mg/l]***	***0.134[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	5.350[mg/l]	0.039[mg/l]	>41.580[mg/l]	1.200[mg/l]	0.003[mg/l]	>360.945[mg/l]	0.029[mg/l]
Conc 2	5.403[mg/l]	0.037[mg/l]	>41.002[mg/l]	1.188[mg/l]	0.003[mg/l]	>364.224[mg/l]	0.029[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**5.376[mg/l]**	**0.038[mg/l]**	**>41.291[mg/l]**	**1.194[mg/l]**	**0.003[mg/l]**	**>362.585[mg/l]**	**0.029[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.686***	***2.265***	***0.990***	***0.681***	***5.891***	***0.639***	***1.149***
Conc SD	***0.037[mg/l]***	***0.001[mg/l]***	***0.409[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***	***2.319[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.036[mg/l]	0.000[mg/l]	0.002[mg/l]	24.845[mg/l]	0.001[mg/l]	0.551[mg/l]	0.169[mg/l]
Conc 2	0.033[mg/l]	0.001[mg/l]	-0.003[mg/l]	24.539[mg/l]	0.001[mg/l]	0.554[mg/l]	0.167[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.034[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**24.692[mg/l]**	**0.001[mg/l]**	**0.553[mg/l]**	**0.168[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***5.127***	***118.826***	***624.520***	***0.877***	***13.512***	***0.382***	***0.661***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.217[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.000[mg/l]	0.062[mg/l]	4373910	96.477[%]	0.109[mg/l]	96.477[%]	
Conc 2	-0.000[mg/l]	0.060[mg/l]	4408720	97.233[%]	0.108[mg/l]	97.233[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.000[mg/l]**	**0.061[mg/l]**	**4391310**	**96.855[%]**	**0.109[mg/l]**	**96.855[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***16.183***	***2.578***	***---***	***0.552***	***0.789***	***0.552***	
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***24614.4***	***0.535[%]***	***0.001[mg/l]***	***0.535[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	14.249[mg/l]	1080290	<-0.013[mg/l]	0.148[mg/l]	0.142[mg/l]	0.003[mg/l]
Conc 2	-0.002[mg/l]	14.028[mg/l]	1107450	<-0.013[mg/l]	0.147[mg/l]	0.141[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**14.138[mg/l]**	**1093870**	**<-0.013[mg/l]**	**0.147[mg/l]**	**0.141[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***75.995***	***1.102***	***---***	***3.888***	***0.513***	***0.530***	***0.181***
Conc SD	***0.001[mg/l]***	***0.156[mg/l]***	***19205.0***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	88.076[mg/l]	-0.001[mg/l]	0.015[mg/l]	0.039[mg/l]	28407.6	<0.018[mg/l]	17.343[mg/l]
Conc 2	87.247[mg/l]	-0.001[mg/l]	0.015[mg/l]	0.039[mg/l]	28611.6	<0.018[mg/l]	17.154[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**87.662[mg/l]**	**-0.001[mg/l]**	**0.015[mg/l]**	**0.039[mg/l]**	**28509.6**	**<0.018[mg/l]**	**17.249[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.669***	***4.070***	***0.770***	***1.092***	***---***	***1.295***	***0.776***
Conc SD	***0.586[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***144.250***	***0.000[mg/l]***	***0.134[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<16.616[mg/l]	5.350[mg/l]	<-8.938[mg/l]	0.039[mg/l]	<-0.373[mg/l]	>41.580[mg/l]	1.200[mg/l]
Conc 2	<16.381[mg/l]	5.403[mg/l]	<-8.745[mg/l]	0.037[mg/l]	<-0.375[mg/l]	>41.002[mg/l]	1.188[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<16.498[mg/l]**	**5.376[mg/l]**	**<-8.842[mg/l]**	**0.038[mg/l]**	**<-0.374[mg/l]**	**>41.291[mg/l]**	**1.194[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.006***	***0.686***	***1.545***	***2.265***	***0.278***	***0.990***	***0.681***
Conc SD	***0.166[mg/l]***	***0.037[mg/l]***	***0.137[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.409[mg/l]***	***0.008[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.003[mg/l]	>694.020[mg/l]	>360.945[mg/l]	0.029[mg/l]	0.036[mg/l]	0.000[mg/l]	0.002[mg/l]
Conc 2	0.003[mg/l]	>703.213[mg/l]	>364.224[mg/l]	0.029[mg/l]	0.033[mg/l]	0.001[mg/l]	-0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**>698.616[mg/l]**	**>362.585[mg/l]**	**0.029[mg/l]**	**0.034[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***5.891***	***0.930***	***0.639***	***1.149***	***5.127***	***118.826***	***624.520***
Conc SD	***0.000[mg/l]***	***6.500[mg/l]***	***2.319[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	24.845[mg/l]	0.001[mg/l]	0.551[mg/l]	0.169[mg/l]	-0.000[mg/l]	0.062[mg/l]	4373910
Conc 2	24.539[mg/l]	0.001[mg/l]	0.554[mg/l]	0.167[mg/l]	-0.000[mg/l]	0.060[mg/l]	4408720
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**24.692[mg/l]**	**0.001[mg/l]**	**0.553[mg/l]**	**0.168[mg/l]**	**-0.000[mg/l]**	**0.061[mg/l]**	**4391310**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.877***	***13.512***	***0.382***	***0.661***	***16.183***	***2.578***	***---***
Conc SD	***0.217[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***24614.4***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.477[%]	0.109[mg/l]	0.028[mg/l]				
Conc 2	97.233[%]	0.108[mg/l]	0.026[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.855[%]**	**0.109[mg/l]**	**0.027[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.552***	***0.789***	***3.427***				
Conc SD	***0.535[%]***	***0.001[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130662-A-3-A@2 | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:38:55 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130662-A-3-A@2						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	3.588[mg/l]	1104740	<-0.008[mg/l]	0.127[mg/l]	0.037[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	3.644[mg/l]	1082750	<-0.006[mg/l]	0.127[mg/l]	0.038[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**3.616[mg/l]**	**1093750**	**<-0.007[mg/l]**	**0.127[mg/l]**	**0.037[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***36.566***	***1.094***	***---***	***17.078***	***0.333***	***1.369***	***10.468***

Conc SD	***0.001[mg/l]***	***0.040[mg/l]***	***15549.3***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	78.376[mg/l]	-0.000[mg/l]	0.004[mg/l]	0.006[mg/l]	28435.1	<-0.001[mg/l]	4.356[mg/l]
Conc 2	78.080[mg/l]	-0.001[mg/l]	0.004[mg/l]	0.006[mg/l]	29115.5	<0.001[mg/l]	4.363[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**78.228[mg/l]**	**-0.001[mg/l]**	**0.004[mg/l]**	**0.006[mg/l]**	**28775.3**	**<0.000[mg/l]**	**4.359[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.267***	***14.212***	***0.454***	***0.823***	***---***	***1052.58***	***0.101***
Conc SD	***0.209[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***481.115***	***0.001[mg/l]***	***0.004[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	3.430[mg/l]	0.029[mg/l]	>34.084[mg/l]	0.399[mg/l]	0.004[mg/l]	>422.286[mg/l]	0.006[mg/l]
Conc 2	3.468[mg/l]	0.029[mg/l]	>34.077[mg/l]	0.398[mg/l]	0.004[mg/l]	>411.846[mg/l]	0.006[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**3.449[mg/l]**	**0.029[mg/l]**	**>34.081[mg/l]**	**0.398[mg/l]**	**0.004[mg/l]**	**>417.066[mg/l]**	**0.006[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.781***	***0.872***	***0.013***	***0.190***	***1.063***	***1.770***	***1.275***
Conc SD	***0.027[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***7.382[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.002[mg/l]	0.000[mg/l]	0.002[mg/l]	12.711[mg/l]	0.001[mg/l]	0.493[mg/l]	0.060[mg/l]
Conc 2	-0.000[mg/l]	-0.000[mg/l]	-0.001[mg/l]	12.724[mg/l]	0.002[mg/l]	0.495[mg/l]	0.061[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**12.717[mg/l]**	**0.001[mg/l]**	**0.494[mg/l]**	**0.061[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***194.481***	***265.888***	***312.229***	***0.073***	***65.893***	***0.317***	***1.849***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.009[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.002[mg/l]	0.006[mg/l]	4372250	96.432[%]	0.016[mg/l]	96.432[%]	
Conc 2	-0.000[mg/l]	0.007[mg/l]	4369800	96.366[%]	0.016[mg/l]	96.366[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**0.006[mg/l]**	**4371030**	**96.399[%]**	**0.016[mg/l]**	**96.399[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***184.403***	***4.784***	***---***	***0.049***	***1.948***	***0.049***	
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***1732.41***	***0.047[%]***	***0.000[mg/l]***	***0.047[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	3.588[mg/l]	1104740	<-0.008[mg/l]	0.127[mg/l]	0.037[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	3.644[mg/l]	1082750	<-0.006[mg/l]	0.127[mg/l]	0.038[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**3.616[mg/l]**	**1093750**	**<-0.007[mg/l]**	**0.127[mg/l]**	**0.037[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***36.566***	***1.094***	***---***	***17.078***	***0.333***	***1.369***	***10.468***
Conc SD	***0.001[mg/l]***	***0.040[mg/l]***	***15549.3***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	78.376[mg/l]	-0.000[mg/l]	0.004[mg/l]	0.006[mg/l]	28435.1	<-0.008[mg/l]	4.356[mg/l]

Conc 2	78.080[mg/l]	-0.001[mg/l]	0.004[mg/l]	0.006[mg/l]	29115.5	<-0.007[mg/l]	4.363[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**78.228[mg/l]**	**-0.001[mg/l]**	**0.004[mg/l]**	**0.006[mg/l]**	**28775.3**	**<-0.007[mg/l]**	**4.359[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.267***	***14.212***	***0.454***	***0.823***	***---***	***5.065***	***0.101***
Conc SD	***0.209[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***481.115***	***0.000[mg/l]***	***0.004[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<0.472[mg/l]	3.430[mg/l]	<-12.732[mg/l]	0.029[mg/l]	<-0.385[mg/l]	>34.084[mg/l]	0.399[mg/l]
Conc 2	<0.480[mg/l]	3.468[mg/l]	<-12.664[mg/l]	0.029[mg/l]	<-0.385[mg/l]	>34.077[mg/l]	0.398[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<0.476[mg/l]**	**3.449[mg/l]**	**<-12.698[mg/l]**	**0.029[mg/l]**	**<-0.385[mg/l]**	**>34.081[mg/l]**	**0.398[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.187***	***0.781***	***0.376***	***0.872***	***0.082***	***0.013***	***0.190***
Conc SD	***0.006[mg/l]***	***0.027[mg/l]***	***0.048[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.004[mg/l]	>886.741[mg/l]	>422.286[mg/l]	0.006[mg/l]	0.002[mg/l]	0.000[mg/l]	0.002[mg/l]
Conc 2	0.004[mg/l]	>852.892[mg/l]	>411.846[mg/l]	0.006[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.004[mg/l]**	**>869.816[mg/l]**	**>417.066[mg/l]**	**0.006[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.063***	***2.752***	***1.770***	***1.275***	***194.481***	***265.888***	***312.229***
Conc SD	***0.000[mg/l]***	***23.935[mg/l]***	***7.382[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	12.711[mg/l]	0.001[mg/l]	0.493[mg/l]	0.060[mg/l]	0.002[mg/l]	0.006[mg/l]	4372250
Conc 2	12.724[mg/l]	0.002[mg/l]	0.495[mg/l]	0.061[mg/l]	-0.000[mg/l]	0.007[mg/l]	4369800
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**12.717[mg/l]**	**0.001[mg/l]**	**0.494[mg/l]**	**0.061[mg/l]**	**0.001[mg/l]**	**0.006[mg/l]**	**4371030**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.073***	***65.893***	***0.317***	***1.849***	***184.403***	***4.784***	***---***
Conc SD	***0.009[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***1732.41***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.432[%]	0.016[mg/l]	<-0.001[mg/l]				
Conc 2	96.366[%]	0.016[mg/l]	<0.001[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.399[%]**	**0.016[mg/l]**	**<0.000[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.049***	***1.948***	***1052.58***				
Conc SD	***0.047[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130662-A-3-B DU@2			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 16:40:54	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130662-A-3-B DU@2						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	3.808[mg/l]	1116240	<-0.008[mg/l]	0.122[mg/l]	0.038[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	3.866[mg/l]	1118980	<-0.005[mg/l]	0.124[mg/l]	0.039[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**3.837[mg/l]**	**1117610**	**<-0.007[mg/l]**	**0.123[mg/l]**	**0.039[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***12.754***	***1.076***	***---***	***34.681***	***1.131***	***1.050***	***35.088***
Conc SD	***0.000[mg/l]***	***0.041[mg/l]***	***1937.47***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	75.293[mg/l]	-0.000[mg/l]	0.004[mg/l]	0.007[mg/l]	28338.0	<0.001[mg/l]	4.675[mg/l]
Conc 2	75.924[mg/l]	-0.001[mg/l]	0.004[mg/l]	0.007[mg/l]	28329.7	<0.001[mg/l]	4.723[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**75.609[mg/l]**	**-0.000[mg/l]**	**0.004[mg/l]**	**0.007[mg/l]**	**28333.8**	**<0.001[mg/l]**	**4.699[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.591***	***18.814***	***1.503***	***2.025***	***---***	***24.670***	***0.734***
Conc SD	***0.447[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***5.869***	***0.000[mg/l]***	***0.034[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	3.322[mg/l]	0.028[mg/l]	>33.038[mg/l]	0.388[mg/l]	0.004[mg/l]	>415.732[mg/l]	0.006[mg/l]
Conc 2	3.327[mg/l]	0.028[mg/l]	>33.236[mg/l]	0.388[mg/l]	0.004[mg/l]	>412.789[mg/l]	0.006[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**3.324[mg/l]**	**0.028[mg/l]**	**>33.137[mg/l]**	**0.388[mg/l]**	**0.004[mg/l]**	**>414.260[mg/l]**	**0.006[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.104***	***0.032***	***0.422***	***0.050***	***4.281***	***0.502***	***4.360***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.140[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***2.081[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]	12.845[mg/l]	0.001[mg/l]	0.481[mg/l]	0.069[mg/l]
Conc 2	0.000[mg/l]	0.001[mg/l]	-0.001[mg/l]	12.911[mg/l]	0.001[mg/l]	0.480[mg/l]	0.068[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**12.878[mg/l]**	**0.001[mg/l]**	**0.481[mg/l]**	**0.068[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***76.605***	***14.139***	***24.282***	***0.363***	***16.257***	***0.072***	***0.953***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.047[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.000[mg/l]	0.008[mg/l]	4367400	96.295[%]	0.016[mg/l]	96.295[%]	
Conc 2	0.002[mg/l]	0.013[mg/l]	4349750	95.911[%]	0.016[mg/l]	95.911[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*---*	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**0.011[mg/l]**	**4358580**	**96.103[%]**	**0.016[mg/l]**	**96.103[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*---*	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***79.407***	***39.372***	***---***	***0.282***	***0.427***	***0.282***	
Conc SD	***0.001[mg/l]***	***0.004[mg/l]***	***12480.4***	***0.271[%]***	***0.000[mg/l]***	***0.271[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	3.808[mg/l]	1116240	<-0.008[mg/l]	0.122[mg/l]	0.038[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	3.866[mg/l]	1118980	<-0.005[mg/l]	0.124[mg/l]	0.039[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**3.837[mg/l]**	**1117610**	**<-0.007[mg/l]**	**0.123[mg/l]**	**0.039[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***12.754***	***1.076***	***---***	***34.681***	***1.131***	***1.050***	***35.088***
Conc SD	***0.000[mg/l]***	***0.041[mg/l]***	***1937.47***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	75.293[mg/l]	-0.000[mg/l]	0.004[mg/l]	0.007[mg/l]	28338.0	<-0.007[mg/l]	4.675[mg/l]
Conc 2	75.924[mg/l]	-0.001[mg/l]	0.004[mg/l]	0.007[mg/l]	28329.7	<-0.006[mg/l]	4.723[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**75.609[mg/l]**	**-0.000[mg/l]**	**0.004[mg/l]**	**0.007[mg/l]**	**28333.8**	**<-0.007[mg/l]**	**4.699[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.591***	***18.814***	***1.503***	***2.025***	***---***	***9.402***	***0.734***
Conc SD	***0.447[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***5.869***	***0.001[mg/l]***	***0.034[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<0.867[mg/l]	3.322[mg/l]	<-12.947[mg/l]	0.028[mg/l]	<-0.386[mg/l]	>33.038[mg/l]	0.388[mg/l]
Conc 2	<0.928[mg/l]	3.327[mg/l]	<-12.941[mg/l]	0.028[mg/l]	<-0.386[mg/l]	>33.236[mg/l]	0.388[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<0.898[mg/l]**	**3.324[mg/l]**	**<-12.944[mg/l]**	**0.028[mg/l]**	**<-0.386[mg/l]**	**>33.137[mg/l]**	**0.388[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.787***	***0.104***	***0.032***	***0.032***	***0.001***	***0.422***	***0.050***
Conc SD	***0.043[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.140[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.004[mg/l]	>862.557[mg/l]	>415.732[mg/l]	0.006[mg/l]	0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc 2	0.004[mg/l]	>851.027[mg/l]	>412.789[mg/l]	0.006[mg/l]	0.000[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.004[mg/l]**	**>856.792[mg/l]**	**>414.260[mg/l]**	**0.006[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.281***	***0.952***	***0.502***	***4.360***	***76.605***	***14.139***	***24.282***
Conc SD	***0.000[mg/l]***	***8.153[mg/l]***	***2.081[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	12.845[mg/l]	0.001[mg/l]	0.481[mg/l]	0.069[mg/l]	0.000[mg/l]	0.008[mg/l]	4367400
Conc 2	12.911[mg/l]	0.001[mg/l]	0.480[mg/l]	0.068[mg/l]	0.002[mg/l]	0.013[mg/l]	4349750
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*
Conc Mean	**12.878[mg/l]**	**0.001[mg/l]**	**0.481[mg/l]**	**0.068[mg/l]**	**0.001[mg/l]**	**0.011[mg/l]**	**4358580**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*
Conc RSD	***0.363***	***16.257***	***0.072***	***0.953***	***79.407***	***39.372***	***---***

Conc SD	***0.047[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***12480.4***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.295[%]	0.016[mg/l]	<0.001[mg/l]				
Conc 2	95.911[%]	0.016[mg/l]	<0.001[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.103[%]**	**0.016[mg/l]**	**<0.001[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.282***	***0.427***	***24.670***				
Conc SD	***0.271[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: CCV | Sample Type: Control Sample

Measure Date: 2016-05-16 16:42:53 | Recalculation Date: | State: Check failed | Quality: Failed | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCV						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.243[mg/l]	2.475[mg/l]	1108780	0.470[mg/l]	0.496[mg/l]	0.482[mg/l]	0.474[mg/l]
Conc 2	0.244[mg/l]	2.476[mg/l]	1102080	0.484[mg/l]	0.491[mg/l]	0.488[mg/l]	0.481[mg/l]
Conc MinRange	*90.000*	*90.000*	---	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.243[mg/l]**	**2.476[mg/l]**	**1105430**	**0.477[mg/l]**	**0.494[mg/l]**	**0.485[mg/l]**	**0.477[mg/l]**
Conc MaxRange	*110.000*	*110.000*	---	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***0.431***	***0.030***	***---***	***2.054***	***0.718***	***0.829***	***0.959***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***4737.62***	***0.010[mg/l]***	***0.004[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	12.100[mg/l]	0.475[mg/l]	0.496[mg/l]	0.498[mg/l]	22121.9	0.498[mg/l]	2.499[mg/l]
Conc 2	12.305[mg/l]	0.486[mg/l]	0.500[mg/l]	0.503[mg/l]	22712.7	0.501[mg/l]	2.524[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	---	*90.000*	*90.000*
Conc Mean	**12.202[mg/l]**	**0.481[mg/l]**	**0.498[mg/l]**	**0.501[mg/l]**	**22417.3**	**0.499[mg/l]**	**2.511[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	---	*110.000*	*110.000*
Conc RSD	***1.184***	***1.662***	***0.567***	***0.655***	***---***	***0.412***	***0.699***
Conc SD	***0.145[mg/l]***	***0.008[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***417.759***	***0.002[mg/l]***	***0.018[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	19.856[mg/l]	2.005[mg/l]	4.749[mg/l]	0.486[mg/l]	0.505[mg/l]	20.076[mg/l]	0.489[mg/l]
Conc 2	18.704[mg/l]	1.898[mg/l]	4.769[mg/l]	0.490[mg/l]	0.509[mg/l]	19.565[mg/l]	0.491[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**19.280[mg/l]**	**1.952[mg/l]**	**4.759[mg/l]**	**0.488[mg/l]**	**0.507[mg/l]**	**19.820[mg/l]**	**0.490[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***4.224***	***3.877***	***0.293***	***0.689***	***0.628***	***1.826***	***0.293***
Conc SD	***0.814[mg/l]***	***0.076[mg/l]***	***0.014[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***0.362[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.495[mg/l]	0.484[mg/l]	0.496[mg/l]	0.817[mg/l]	0.487[mg/l]	0.247[mg/l]	0.480[mg/l]

Conc 2	0.497[mg/l]	0.494[mg/l]	0.500[mg/l]	0.837[mg/l]	0.491[mg/l]	0.249[mg/l]	0.484[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.496[mg/l]**	**0.489[mg/l]**	**0.498[mg/l]**	**<0.827[mg/l]**	**0.489[mg/l]**	**0.248[mg/l]**	**0.482[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***0.394***	***1.527***	***0.637***	***1.717***	***0.641***	***0.653***	***0.524***
Conc SD	***0.002[mg/l]***	***0.007[mg/l]***	***0.003[mg/l]***	***0.014[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.484[mg/l]	0.497[mg/l]	4537640	100.052[%]	0.479[mg/l]	100.052[%]	
Conc 2	0.494[mg/l]	0.504[mg/l]	4504280	99.308[%]	0.485[mg/l]	99.308[%]	
Conc MinRange	*90.000*	*90.000*	---	---	*90.000*	---	
Conc Mean	**0.489[mg/l]**	**0.500[mg/l]**	**4520960**	**99.680[%]**	**0.482[mg/l]**	**99.680[%]**	
Conc MaxRange	*110.000*	*110.000*	---	---	*110.000*	---	
Conc RSD	***1.417***	***0.956***	***---***	***0.528***	***0.973***	***0.528***	
Conc SD	***0.007[mg/l]***	***0.005[mg/l]***	***23589.1***	***0.526[%]***	***0.005[mg/l]***	***0.526[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.243[mg/l]	2.475[mg/l]	1108780	0.470[mg/l]	0.496[mg/l]	0.482[mg/l]	0.474[mg/l]
Conc 2	0.244[mg/l]	2.476[mg/l]	1102080	0.484[mg/l]	0.491[mg/l]	0.488[mg/l]	0.481[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.243[mg/l]**	**2.476[mg/l]**	**1105430**	**0.477[mg/l]**	**0.494[mg/l]**	**0.485[mg/l]**	**0.477[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.431***	***0.030***	***---***	***2.054***	***0.718***	***0.829***	***0.959***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***4737.62***	***0.010[mg/l]***	***0.004[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	12.100[mg/l]	0.475[mg/l]	0.496[mg/l]	0.498[mg/l]	22121.9	<0.488[mg/l]	2.499[mg/l]
Conc 2	12.305[mg/l]	0.486[mg/l]	0.500[mg/l]	0.503[mg/l]	22712.7	<0.494[mg/l]	2.524[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.202[mg/l]**	**0.481[mg/l]**	**0.498[mg/l]**	**0.501[mg/l]**	**22417.3**	**<0.491[mg/l]**	**2.511[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.184***	***1.662***	***0.567***	***0.655***	***---***	***0.823***	***0.699***
Conc SD	***0.145[mg/l]***	***0.008[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***417.759***	***0.004[mg/l]***	***0.018[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.836[mg/l]	19.637[mg/l]	19.856[mg/l]	1.993[mg/l]	2.005[mg/l]	4.749[mg/l]	0.486[mg/l]
Conc 2	<-1.805[mg/l]	19.057[mg/l]	18.704[mg/l]	1.905[mg/l]	1.898[mg/l]	4.769[mg/l]	0.490[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.821[mg/l]**	**19.347[mg/l]**	**19.280[mg/l]**	**1.949[mg/l]**	**1.952[mg/l]**	**4.759[mg/l]**	**0.488[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.218***	***2.118***	***4.224***	***3.206***	***3.877***	***0.293***	***0.689***
Conc SD	***0.022[mg/l]***	***0.410[mg/l]***	***0.814[mg/l]***	***0.062[mg/l]***	***0.076[mg/l]***	***0.014[mg/l]***	***0.003[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.505[mg/l]	20.117[mg/l]	20.076[mg/l]	0.489[mg/l]	0.495[mg/l]	0.484[mg/l]	0.496[mg/l]
Conc 2	0.509[mg/l]	19.730[mg/l]	19.565[mg/l]	0.491[mg/l]	0.497[mg/l]	0.494[mg/l]	0.500[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.507[mg/l]**	**19.923[mg/l]**	**19.820[mg/l]**	**0.490[mg/l]**	**0.496[mg/l]**	**0.489[mg/l]**	**0.498[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***0.628***	***1.375***	***1.826***	***0.293***	***0.394***	***1.527***	***0.637***
Conc SD	***0.003[mg/l]***	***0.274[mg/l]***	***0.362[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.007[mg/l]***	***0.003[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.817[mg/l]	0.487[mg/l]	0.247[mg/l]	0.480[mg/l]	0.484[mg/l]	0.497[mg/l]	4537640
Conc 2	0.837[mg/l]	0.491[mg/l]	0.249[mg/l]	0.484[mg/l]	0.494[mg/l]	0.504[mg/l]	4504280
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.827[mg/l]**	**0.489[mg/l]**	**0.248[mg/l]**	**0.482[mg/l]**	**0.489[mg/l]**	**0.500[mg/l]**	**4520960**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.717***	***0.641***	***0.653***	***0.524***	***1.417***	***0.956***	***---***
Conc SD	***0.014[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.007[mg/l]***	***0.005[mg/l]***	***23589.1***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	100.052[%]	0.479[mg/l]	0.498[mg/l]				
Conc 2	99.308[%]	0.485[mg/l]	0.501[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.680[%]**	**0.482[mg/l]**	**0.499[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.528***	***0.973***	***0.412***				
Conc SD	***0.526[%]***	***0.005[mg/l]***	***0.002[mg/l]***				

Sample Name: CCB | Sample Type: Control Sample

Measure Date: 2016-05-16 16:44:51 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	0.010[mg/l]	1079910	<-0.003[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.015[mg/l]	1092920	<-0.002[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.000[mg/l]**	**0.013[mg/l]**	**1086410**	**<-0.002[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***170.721***	***28.155***	***---***	***34.846***	***16.743***	***5.523***	***33.148***
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***9199.46***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.013[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21412.7	<-0.006[mg/l]	0.002[mg/l]
Conc 2	0.016[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20568.0	<-0.005[mg/l]	0.002[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.015[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**20990.3**	**<-0.005[mg/l]**	**0.002[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***16.191***	***34.232***	***47.490***	***300.170***	***---***	***14.320***	***8.748***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***597.293***	***0.001[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.013[mg/l]	0.000[mg/l]	0.007[mg/l]	0.000[mg/l]	0.001[mg/l]	<0.047[mg/l]	-0.000[mg/l]
Conc 2	0.015[mg/l]	0.000[mg/l]	0.007[mg/l]	0.000[mg/l]	0.001[mg/l]	<0.199[mg/l]	-0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.014[mg/l]**	**0.000[mg/l]**	**0.007[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**<0.123[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***9.438***	***17.259***	***0.583***	***13.733***	***4.090***	***87.503***	***45.164***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.108[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.002[mg/l]	0.000[mg/l]	-0.002[mg/l]	-0.084[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc 2	-0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]	-0.074[mg/l]	0.002[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.001[mg/l]**	**0.000[mg/l]**	**-0.002[mg/l]**	**-0.079[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***4.813***	***41.342***	***17.940***	***9.677***	***34.319***	***38.521***	***20.896***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.004[mg/l]	0.002[mg/l]	4631020	102.106[%]	0.001[mg/l]	102.106[%]	
Conc 2	0.003[mg/l]	-0.004[mg/l]	4556970	100.456[%]	0.001[mg/l]	100.456[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.003[mg/l]**	**-0.001[mg/l]**	**4593990**	**101.281[%]**	**0.001[mg/l]**	**101.281[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***24.849***	***287.609***	***---***	***1.152***	***11.443***	***1.152***	
Conc SD	***0.001[mg/l]***	***0.004[mg/l]***	***52361.3***	***1.167[%]***	***0.000[mg/l]***	***1.167[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	0.010[mg/l]	1079910	<-0.003[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.015[mg/l]	1092920	<-0.002[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.013[mg/l]**	**1086410**	**<-0.002[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***170.721***	***28.155***	***---***	***34.846***	***16.743***	***5.523***	***33.148***
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***9199.46***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.013[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21412.7	<-0.010[mg/l]	0.002[mg/l]
Conc 2	0.016[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20568.0	<-0.010[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.015[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**20990.3**	**<-0.010[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***16.191***	***34.232***	***47.490***	***300.170***	***---***	***0.286***	***8.748***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***597.293***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.942[mg/l]	0.013[mg/l]	<-19.682[mg/l]	0.000[mg/l]	<-0.420[mg/l]	0.007[mg/l]	0.000[mg/l]
Conc 2	<-4.942[mg/l]	0.015[mg/l]	<-19.684[mg/l]	0.000[mg/l]	<-0.419[mg/l]	0.007[mg/l]	0.000[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.942[mg/l]**	**0.014[mg/l]**	**<-19.683[mg/l]**	**0.000[mg/l]**	**<-0.419[mg/l]**	**0.007[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.003***	***9.438***	***0.006***	***17.259***	***0.021***	***0.583***	***13.733***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	<0.047[mg/l]	<-1.469[mg/l]	-0.000[mg/l]	-0.002[mg/l]	0.000[mg/l]	-0.002[mg/l]
Conc 2	0.001[mg/l]	<0.199[mg/l]	<-1.057[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**<0.123[mg/l]**	**<-1.263[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**0.000[mg/l]**	**-0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.090***	***87.503***	***23.048***	***45.164***	***4.813***	***41.342***	***17.940***
Conc SD	***0.000[mg/l]***	***0.108[mg/l]***	***0.291[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.084[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.004[mg/l]	0.002[mg/l]	4631020
Conc 2	-0.074[mg/l]	0.002[mg/l]	0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	-0.004[mg/l]	4556970
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.079[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**	**-0.001[mg/l]**	**4593990**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***9.677***	***34.319***	***38.521***	***20.896***	***24.849***	***287.609***	***---***
Conc SD	***0.008[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***52361.3***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	102.106[%]	0.001[mg/l]	<-0.006[mg/l]				
Conc 2	100.456[%]	0.001[mg/l]	<-0.005[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**101.281[%]**	**0.001[mg/l]**	**<-0.005[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***1.152***	***11.443***	***14.320***				
Conc SD	***1.167[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130662-B-3-A MS@2 | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:46:52 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130662-B-3-A MS@2						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.267[mg/l]	11.525[mg/l]	1118100	0.510[mg/l]	0.626[mg/l]	0.538[mg/l]	0.241[mg/l]
Conc 2	0.269[mg/l]	11.557[mg/l]	1133740	0.505[mg/l]	0.638[mg/l]	0.537[mg/l]	0.244[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.268[mg/l]**	**11.541[mg/l]**	**1125920**	**0.507[mg/l]**	**0.632[mg/l]**	**0.538[mg/l]**	**0.243[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.575***	***0.192***	***---***	***0.605***	***1.315***	***0.170***	***0.886***

Conc SD	***0.002[mg/l]***	***0.022[mg/l]***	***11059.2***	***0.003[mg/l]***	***0.008[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	83.491[mg/l]	0.242[mg/l]	0.498[mg/l]	0.508[mg/l]	28157.4	0.526[mg/l]	10.375[mg/l]
Conc 2	83.171[mg/l]	0.243[mg/l]	0.501[mg/l]	0.510[mg/l]	28133.5	0.531[mg/l]	10.466[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**83.331[mg/l]**	**0.242[mg/l]**	**0.499[mg/l]**	**0.509[mg/l]**	**28145.4**	**0.529[mg/l]**	**10.421[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.271***	***0.305***	***0.433***	***0.292***	***---***	***0.675***	***0.618***
Conc SD	***0.226[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***16.900***	***0.004[mg/l]***	***0.064[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	9.222[mg/l]	0.549[mg/l]	>39.727[mg/l]	0.890[mg/l]	0.528[mg/l]	>438.435[mg/l]	0.492[mg/l]
Conc 2	9.277[mg/l]	0.553[mg/l]	>40.114[mg/l]	0.896[mg/l]	0.528[mg/l]	>444.403[mg/l]	0.494[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**9.249[mg/l]**	**0.551[mg/l]**	**>39.921[mg/l]**	**0.893[mg/l]**	**0.528[mg/l]**	**>441.419[mg/l]**	**0.493[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.417***	***0.481***	***0.685***	***0.510***	***0.024***	***0.956***	***0.286***
Conc SD	***0.039[mg/l]***	***0.003[mg/l]***	***0.274[mg/l]***	***0.005[mg/l]***	***0.000[mg/l]***	***4.220[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.488[mg/l]	0.505[mg/l]	0.519[mg/l]	17.564[mg/l]	0.526[mg/l]	0.750[mg/l]	0.573[mg/l]
Conc 2	0.495[mg/l]	0.504[mg/l]	0.518[mg/l]	17.797[mg/l]	0.530[mg/l]	0.752[mg/l]	0.577[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.492[mg/l]**	**0.504[mg/l]**	**0.519[mg/l]**	**17.680[mg/l]**	**0.528[mg/l]**	**0.751[mg/l]**	**0.575[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.957***	***0.195***	***0.157***	***0.932***	***0.467***	***0.180***	***0.474***
Conc SD	***0.005[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.165[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.488[mg/l]	0.515[mg/l]	4333610	95.564[%]	0.511[mg/l]	95.564[%]	
Conc 2	0.491[mg/l]	0.525[mg/l]	4302840	94.921[%]	0.518[mg/l]	94.921[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.489[mg/l]**	**0.520[mg/l]**	**4318230**	**95.243[%]**	**0.515[mg/l]**	**95.243[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.407***	***1.303***	***---***	***0.478***	***0.933***	***0.478***	
Conc SD	***0.002[mg/l]***	***0.007[mg/l]***	***21757.7***	***0.455[%]***	***0.005[mg/l]***	***0.455[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.267[mg/l]	11.525[mg/l]	1118100	0.510[mg/l]	0.626[mg/l]	0.538[mg/l]	0.241[mg/l]
Conc 2	0.269[mg/l]	11.557[mg/l]	1133740	0.505[mg/l]	0.638[mg/l]	0.537[mg/l]	0.244[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.268[mg/l]**	**11.541[mg/l]**	**1125920**	**0.507[mg/l]**	**0.632[mg/l]**	**0.538[mg/l]**	**0.243[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.575***	***0.192***	***---***	***0.605***	***1.315***	***0.170***	***0.886***
Conc SD	***0.002[mg/l]***	***0.022[mg/l]***	***11059.2***	***0.003[mg/l]***	***0.008[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	83.491[mg/l]	0.242[mg/l]	0.498[mg/l]	0.508[mg/l]	28157.4	<0.482[mg/l]	10.375[mg/l]

Conc 2	83.171[mg/l]	0.243[mg/l]	0.501[mg/l]	0.510[mg/l]	28133.5	<0.489[mg/l]	10.466[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**83.331[mg/l]**	**0.242[mg/l]**	**0.499[mg/l]**	**0.509[mg/l]**	**28145.4**	**<0.485[mg/l]**	**10.421[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.271***	***0.305***	***0.433***	***0.292***	***---***	***0.961***	***0.618***
Conc SD	***0.226[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***16.900***	***0.005[mg/l]***	***0.064[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<7.956[mg/l]	9.222[mg/l]	<-1.065[mg/l]	0.549[mg/l]	<0.248[mg/l]	>39.727[mg/l]	0.890[mg/l]
Conc 2	<8.066[mg/l]	9.277[mg/l]	<-0.948[mg/l]	0.553[mg/l]	<0.252[mg/l]	>40.114[mg/l]	0.896[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<8.011[mg/l]**	**9.249[mg/l]**	**<-1.007[mg/l]**	**0.551[mg/l]**	**<0.250[mg/l]**	**>39.921[mg/l]**	**0.893[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.972***	***0.417***	***8.182***	***0.481***	***1.326***	***0.685***	***0.510***
Conc SD	***0.078[mg/l]***	***0.039[mg/l]***	***0.082[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***0.274[mg/l]***	***0.005[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.528[mg/l]	>936.780[mg/l]	>438.435[mg/l]	0.492[mg/l]	0.488[mg/l]	0.505[mg/l]	0.519[mg/l]
Conc 2	0.528[mg/l]	>956.339[mg/l]	>444.403[mg/l]	0.494[mg/l]	0.495[mg/l]	0.504[mg/l]	0.518[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.528[mg/l]**	**>946.560[mg/l]**	**>441.419[mg/l]**	**0.493[mg/l]**	**0.492[mg/l]**	**0.504[mg/l]**	**0.519[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.024***	***1.461***	***0.956***	***0.286***	***0.957***	***0.195***	***0.157***
Conc SD	***0.000[mg/l]***	***13.830[mg/l]***	***4.220[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	17.564[mg/l]	0.526[mg/l]	0.750[mg/l]	0.573[mg/l]	0.488[mg/l]	0.515[mg/l]	4333610
Conc 2	17.797[mg/l]	0.530[mg/l]	0.752[mg/l]	0.577[mg/l]	0.491[mg/l]	0.525[mg/l]	4302840
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**17.680[mg/l]**	**0.528[mg/l]**	**0.751[mg/l]**	**0.575[mg/l]**	**0.489[mg/l]**	**0.520[mg/l]**	**4318230**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.932***	***0.467***	***0.180***	***0.474***	***0.407***	***1.303***	***---***
Conc SD	***0.165[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***0.007[mg/l]***	***21757.7***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	95.564[%]	0.511[mg/l]	0.526[mg/l]				
Conc 2	94.921[%]	0.518[mg/l]	0.531[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**95.243[%]**	**0.515[mg/l]**	**0.529[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.478***	***0.933***	***0.675***				
Conc SD	***0.455[%]***	***0.005[mg/l]***	***0.004[mg/l]***				

Sample Name: 600-130662-A-3-C MSD@2			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 16:48:52	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130662-A-3-C MSD@2						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.263[mg/l]	11.245[mg/l]	1135950	0.501[mg/l]	0.625[mg/l]	0.524[mg/l]	0.237[mg/l]
Conc 2	0.268[mg/l]	11.497[mg/l]	1119310	0.514[mg/l]	0.634[mg/l]	0.535[mg/l]	0.241[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.265[mg/l]**	**11.371[mg/l]**	**1127630**	**0.507[mg/l]**	**0.629[mg/l]**	**0.530[mg/l]**	**0.239[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.135***	***1.567***	***---***	***1.701***	***0.926***	***1.394***	***1.054***
Conc SD	***0.003[mg/l]***	***0.178[mg/l]***	***11766.3***	***0.009[mg/l]***	***0.006[mg/l]***	***0.007[mg/l]***	***0.003[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	81.405[mg/l]	0.237[mg/l]	0.487[mg/l]	0.496[mg/l]	29172.2	0.516[mg/l]	10.350[mg/l]
Conc 2	82.174[mg/l]	0.240[mg/l]	0.496[mg/l]	0.504[mg/l]	29120.6	0.528[mg/l]	10.516[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**81.790[mg/l]**	**0.238[mg/l]**	**0.491[mg/l]**	**0.500[mg/l]**	**29146.4**	**0.522[mg/l]**	**10.433[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.665***	***1.135***	***1.292***	***1.101***	***---***	***1.681***	***1.128***
Conc SD	***0.544[mg/l]***	***0.003[mg/l]***	***0.006[mg/l]***	***0.006[mg/l]***	***36.487***	***0.009[mg/l]***	***0.118[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	8.853[mg/l]	0.526[mg/l]	>39.145[mg/l]	0.869[mg/l]	0.518[mg/l]	>420.836[mg/l]	0.481[mg/l]
Conc 2	8.715[mg/l]	0.518[mg/l]	>39.613[mg/l]	0.885[mg/l]	0.528[mg/l]	>414.660[mg/l]	0.489[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**8.784[mg/l]**	**0.522[mg/l]**	**>39.379[mg/l]**	**0.877[mg/l]**	**0.523[mg/l]**	**>417.748[mg/l]**	**0.485[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.109***	***1.069***	***0.841***	***1.329***	***1.421***	***1.045***	***1.108***
Conc SD	***0.097[mg/l]***	***0.006[mg/l]***	***0.331[mg/l]***	***0.012[mg/l]***	***0.007[mg/l]***	***4.367[mg/l]***	***0.005[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.482[mg/l]	0.492[mg/l]	0.510[mg/l]	17.519[mg/l]	0.513[mg/l]	0.720[mg/l]	0.563[mg/l]
Conc 2	0.492[mg/l]	0.504[mg/l]	0.517[mg/l]	18.011[mg/l]	0.528[mg/l]	0.737[mg/l]	0.573[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.487[mg/l]**	**0.498[mg/l]**	**0.513[mg/l]**	**17.765[mg/l]**	**0.520[mg/l]**	**0.729[mg/l]**	**0.568[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.487***	***1.763***	***0.968***	***1.958***	***1.974***	***1.627***	***1.295***
Conc SD	***0.007[mg/l]***	***0.009[mg/l]***	***0.005[mg/l]***	***0.348[mg/l]***	***0.010[mg/l]***	***0.012[mg/l]***	***0.007[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.488[mg/l]	0.512[mg/l]	4372640	96.440[%]	0.502[mg/l]	96.440[%]	
Conc 2	0.494[mg/l]	0.519[mg/l]	4312250	95.112[%]	0.509[mg/l]	95.112[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*---*	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.491[mg/l]**	**0.515[mg/l]**	**4342440**	**95.776[%]**	**0.506[mg/l]**	**95.776[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*---*	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.802***	***0.936***	***---***	***0.981***	***0.925***	***0.981***	
Conc SD	***0.004[mg/l]***	***0.005[mg/l]***	***42702.2***	***0.939[%]***	***0.005[mg/l]***	***0.939[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.263[mg/l]	11.245[mg/l]	1135950	0.501[mg/l]	0.625[mg/l]	0.524[mg/l]	0.237[mg/l]
Conc 2	0.268[mg/l]	11.497[mg/l]	1119310	0.514[mg/l]	0.634[mg/l]	0.535[mg/l]	0.241[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.265[mg/l]**	**11.371[mg/l]**	**1127630**	**0.507[mg/l]**	**0.629[mg/l]**	**0.530[mg/l]**	**0.239[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.135***	***1.567***	***---***	***1.701***	***0.926***	***1.394***	***1.054***
Conc SD	***0.003[mg/l]***	***0.178[mg/l]***	***11766.3***	***0.009[mg/l]***	***0.006[mg/l]***	***0.007[mg/l]***	***0.003[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	81.405[mg/l]	0.237[mg/l]	0.487[mg/l]	0.496[mg/l]	29172.2	<0.475[mg/l]	10.350[mg/l]
Conc 2	82.174[mg/l]	0.240[mg/l]	0.496[mg/l]	0.504[mg/l]	29120.6	<0.482[mg/l]	10.516[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**81.790[mg/l]**	**0.238[mg/l]**	**0.491[mg/l]**	**0.500[mg/l]**	**29146.4**	**<0.479[mg/l]**	**10.433[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.665***	***1.135***	***1.292***	***1.101***	***---***	***1.077***	***1.128***
Conc SD	***0.544[mg/l]***	***0.003[mg/l]***	***0.006[mg/l]***	***0.006[mg/l]***	***36.487***	***0.005[mg/l]***	***0.118[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<7.923[mg/l]	8.853[mg/l]	<-1.801[mg/l]	0.526[mg/l]	<0.220[mg/l]	>39.145[mg/l]	0.869[mg/l]
Conc 2	<8.128[mg/l]	8.715[mg/l]	<-2.089[mg/l]	0.518[mg/l]	<0.210[mg/l]	>39.613[mg/l]	0.885[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<8.026[mg/l]**	**8.784[mg/l]**	**<-1.945[mg/l]**	**0.522[mg/l]**	**<0.215[mg/l]**	**>39.379[mg/l]**	**0.877[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.808***	***1.109***	***10.469***	***1.069***	***3.198***	***0.841***	***1.329***
Conc SD	***0.145[mg/l]***	***0.097[mg/l]***	***0.204[mg/l]***	***0.006[mg/l]***	***0.007[mg/l]***	***0.331[mg/l]***	***0.012[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.518[mg/l]	>877.461[mg/l]	>420.836[mg/l]	0.481[mg/l]	0.482[mg/l]	0.492[mg/l]	0.510[mg/l]
Conc 2	0.528[mg/l]	>857.237[mg/l]	>414.660[mg/l]	0.489[mg/l]	0.492[mg/l]	0.504[mg/l]	0.517[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.523[mg/l]**	**>867.349[mg/l]**	**>417.748[mg/l]**	**0.485[mg/l]**	**0.487[mg/l]**	**0.498[mg/l]**	**0.513[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.421***	***1.649***	***1.045***	***1.108***	***1.487***	***1.763***	***0.968***
Conc SD	***0.007[mg/l]***	***14.301[mg/l]***	***4.367[mg/l]***	***0.005[mg/l]***	***0.007[mg/l]***	***0.009[mg/l]***	***0.005[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	17.519[mg/l]	0.513[mg/l]	0.720[mg/l]	0.563[mg/l]	0.488[mg/l]	0.512[mg/l]	4372640
Conc 2	18.011[mg/l]	0.528[mg/l]	0.737[mg/l]	0.573[mg/l]	0.494[mg/l]	0.519[mg/l]	4312250
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*
Conc Mean	**17.765[mg/l]**	**0.520[mg/l]**	**0.729[mg/l]**	**0.568[mg/l]**	**0.491[mg/l]**	**0.515[mg/l]**	**4342440**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*
Conc RSD	***1.958***	***1.974***	***1.627***	***1.295***	***0.802***	***0.936***	***---***

Conc SD	***0.348[mg/l]***	***0.010[mg/l]***	***0.012[mg/l]***	***0.007[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***	***42702.2***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.440[%]	0.502[mg/l]	0.516[mg/l]				
Conc 2	95.112[%]	0.509[mg/l]	0.528[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**95.776[%]**	**0.506[mg/l]**	**0.522[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.981***	***0.925***	***1.681***				
Conc SD	***0.939[%]***	***0.005[mg/l]***	***0.009[mg/l]***				

Sample Name: 600-130662-A-7-A@2 | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:50:50 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130662-A-7-A@2						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	8.072[mg/l]	1088390	<-0.016[mg/l]	0.083[mg/l]	0.152[mg/l]	0.001[mg/l]
Conc 2	-0.002[mg/l]	8.136[mg/l]	1087380	<-0.015[mg/l]	0.085[mg/l]	0.154[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**8.104[mg/l]**	**1087890**	**<-0.016[mg/l]**	**0.084[mg/l]**	**0.153[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***195.793***	***0.562***	***---***	***4.598***	***1.276***	***0.936***	***4.302***
Conc SD	***0.002[mg/l]***	***0.046[mg/l]***	***714.178***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	38.492[mg/l]	-0.001[mg/l]	0.006[mg/l]	0.015[mg/l]	24485.3	0.004[mg/l]	12.225[mg/l]
Conc 2	39.194[mg/l]	-0.001[mg/l]	0.006[mg/l]	0.015[mg/l]	24522.5	0.005[mg/l]	12.495[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**38.843[mg/l]**	**-0.001[mg/l]**	**0.006[mg/l]**	**0.015[mg/l]**	**24503.9**	**0.005[mg/l]**	**12.360[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.277***	***5.678***	***3.038***	***0.370***	***---***	***13.361***	***1.547***
Conc SD	***0.496[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***26.304***	***0.001[mg/l]***	***0.191[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	2.991[mg/l]	0.022[mg/l]	14.271[mg/l]	0.560[mg/l]	0.004[mg/l]	113.219[mg/l]	0.014[mg/l]
Conc 2	2.983[mg/l]	0.022[mg/l]	14.477[mg/l]	0.569[mg/l]	0.004[mg/l]	114.272[mg/l]	0.014[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**2.987[mg/l]**	**0.022[mg/l]**	**14.374[mg/l]**	**0.564[mg/l]**	**0.004[mg/l]**	**113.746[mg/l]**	**0.014[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.205***	***0.039***	***1.015***	***1.072***	***2.612***	***0.655***	***1.275***
Conc SD	***0.006[mg/l]***	***0.000[mg/l]***	***0.146[mg/l]***	***0.006[mg/l]***	***0.000[mg/l]***	***0.745[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.006[mg/l]	0.001[mg/l]	-0.001[mg/l]	20.917[mg/l]	0.001[mg/l]	0.243[mg/l]	0.157[mg/l]

Conc 2	0.006[mg/l]	0.002[mg/l]	-0.001[mg/l]	21.069[mg/l]	0.001[mg/l]	0.245[mg/l]	0.169[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.006[mg/l]**	**0.002[mg/l]**	**-0.001[mg/l]**	**20.993[mg/l]**	**0.001[mg/l]**	**0.244[mg/l]**	**0.163[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***7.263***	***37.565***	***35.132***	***0.513***	***29.135***	***0.612***	***4.854***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.108[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.008[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.002[mg/l]	0.020[mg/l]	4440070	97.909[%]	0.033[mg/l]	97.909[%]	
Conc 2	0.002[mg/l]	0.018[mg/l]	4379510	96.574[%]	0.034[mg/l]	96.574[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.002[mg/l]**	**0.019[mg/l]**	**4409790**	**97.242[%]**	**0.033[mg/l]**	**97.242[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.327***	***7.656***	***---***	***0.970***	***0.998***	***0.970***	
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***42822.4***	***0.944[%]***	***0.000[mg/l]***	***0.944[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	8.072[mg/l]	1088390	<-0.016[mg/l]	0.083[mg/l]	0.152[mg/l]	0.001[mg/l]
Conc 2	-0.002[mg/l]	8.136[mg/l]	1087380	<-0.015[mg/l]	0.085[mg/l]	0.154[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**8.104[mg/l]**	**1087890**	**<-0.016[mg/l]**	**0.084[mg/l]**	**0.153[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***195.793***	***0.562***	***---***	***4.598***	***1.276***	***0.936***	***4.302***
Conc SD	***0.002[mg/l]***	***0.046[mg/l]***	***714.178***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	38.492[mg/l]	-0.001[mg/l]	0.006[mg/l]	0.015[mg/l]	24485.3	<-0.001[mg/l]	12.225[mg/l]
Conc 2	39.194[mg/l]	-0.001[mg/l]	0.006[mg/l]	0.015[mg/l]	24522.5	<-0.001[mg/l]	12.495[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**38.843[mg/l]**	**-0.001[mg/l]**	**0.006[mg/l]**	**0.015[mg/l]**	**24503.9**	**<-0.001[mg/l]**	**12.360[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.277***	***5.678***	***3.038***	***0.370***	***---***	***5.041***	***1.547***
Conc SD	***0.496[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***26.304***	***0.000[mg/l]***	***0.191[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<10.253[mg/l]	2.991[mg/l]	<-13.632[mg/l]	0.022[mg/l]	<-0.393[mg/l]	14.271[mg/l]	0.560[mg/l]
Conc 2	<10.587[mg/l]	2.983[mg/l]	<-13.652[mg/l]	0.022[mg/l]	<-0.393[mg/l]	14.477[mg/l]	0.569[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<10.420[mg/l]**	**2.987[mg/l]**	**<-13.642[mg/l]**	**0.022[mg/l]**	**<-0.393[mg/l]**	**14.374[mg/l]**	**0.564[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.268***	***0.205***	***0.103***	***0.039***	***0.005***	***1.015***	***1.072***
Conc SD	***0.236[mg/l]***	***0.006[mg/l]***	***0.014[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.146[mg/l]***	***0.006[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.004[mg/l]	>138.421[mg/l]	113.219[mg/l]	0.014[mg/l]	0.006[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc 2	0.004[mg/l]	>139.765[mg/l]	114.272[mg/l]	0.014[mg/l]	0.006[mg/l]	0.002[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.004[mg/l]**	**>139.093[mg/l]**	**113.746[mg/l]**	**0.014[mg/l]**	**0.006[mg/l]**	**0.002[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***2.612***	***0.683***	***0.655***	***1.275***	***7.263***	***37.565***	***35.132***
Conc SD	***0.000[mg/l]***	***0.950[mg/l]***	***0.745[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	20.917[mg/l]	0.001[mg/l]	0.243[mg/l]	0.157[mg/l]	0.002[mg/l]	0.020[mg/l]	4440070
Conc 2	21.069[mg/l]	0.001[mg/l]	0.245[mg/l]	0.169[mg/l]	0.002[mg/l]	0.018[mg/l]	4379510
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**20.993[mg/l]**	**0.001[mg/l]**	**0.244[mg/l]**	**0.163[mg/l]**	**0.002[mg/l]**	**0.019[mg/l]**	**4409790**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.513***	***29.135***	***0.612***	***4.854***	***0.327***	***7.656***	***---***
Conc SD	***0.108[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***42822.4***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.909[%]	0.033[mg/l]	0.004[mg/l]				
Conc 2	96.574[%]	0.034[mg/l]	0.005[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.242[%]**	**0.033[mg/l]**	**0.005[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.970***	***0.998***	***13.361***				
Conc SD	***0.944[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: LB 600-188491/1-C | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:52:48 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
LB 600-188491/1-C						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	-0.009[mg/l]	1076030	<-0.002[mg/l]	0.006[mg/l]	0.012[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.011[mg/l]	1082950	<-0.003[mg/l]	0.005[mg/l]	0.012[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**-0.010[mg/l]**	**1079490**	**<-0.003[mg/l]**	**0.006[mg/l]**	**0.012[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***199.246***	***9.856***	***---***	***37.382***	***3.325***	***0.860***	***94.157***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***4893.18***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.015[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24669.4	<-0.005[mg/l]	0.025[mg/l]
Conc 2	0.012[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	25288.5	<-0.004[mg/l]	0.025[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.014[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**24979.0**	**<-0.004[mg/l]**	**0.025[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***17.271***	***24.896***	***4.390***	***2066.68***	***---***	***6.383***	***0.163***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***437.770***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.112[mg/l]	-0.000[mg/l]	0.005[mg/l]	0.001[mg/l]	0.000[mg/l]	142.955[mg/l]	-0.000[mg/l]
Conc 2	0.110[mg/l]	-0.001[mg/l]	0.006[mg/l]	0.001[mg/l]	0.000[mg/l]	139.372[mg/l]	-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.111[mg/l]**	**-0.000[mg/l]**	**0.006[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**141.164[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.397***	***5.585***	***17.187***	***1.472***	***25.717***	***1.795***	***4.667***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***2.534[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.002[mg/l]	-0.001[mg/l]	0.002[mg/l]	-0.074[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc 2	-0.000[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.081[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.002[mg/l]**	**-0.078[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***97.823***	***101.967***	***44.657***	***5.688***	***21.052***	***7.849***	***44.068***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.001[mg/l]	0.002[mg/l]	4526490	99.819[%]	0.010[mg/l]	99.819[%]	
Conc 2	0.001[mg/l]	-0.001[mg/l]	4531060	99.912[%]	0.010[mg/l]	99.912[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**0.000[mg/l]**	**4528780**	**99.865[%]**	**0.010[mg/l]**	**99.865[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***59.325***	***917.685***	***---***	***0.066***	***0.337***	***0.066***	
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***3231.48***	***0.066[%]***	***0.000[mg/l]***	***0.066[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	-0.009[mg/l]	1076030	<-0.002[mg/l]	0.006[mg/l]	0.012[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.011[mg/l]	1082950	<-0.003[mg/l]	0.005[mg/l]	0.012[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**-0.010[mg/l]**	**1079490**	**<-0.003[mg/l]**	**0.006[mg/l]**	**0.012[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***199.246***	***9.856***	***---***	***37.382***	***3.325***	***0.860***	***94.157***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***4893.18***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.015[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24669.4	<-0.010[mg/l]	0.025[mg/l]
Conc 2	0.012[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	25288.5	<-0.010[mg/l]	0.025[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.014[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**24979.0**	**<-0.010[mg/l]**	**0.025[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***17.271***	***24.896***	***4.390***	***2066.68***	***---***	***2.445***	***0.163***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***437.770***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.913[mg/l]	0.112[mg/l]	<-19.479[mg/l]	-0.000[mg/l]	<-0.421[mg/l]	0.005[mg/l]	0.001[mg/l]
Conc 2	<-4.913[mg/l]	0.110[mg/l]	<-19.485[mg/l]	-0.001[mg/l]	<-0.421[mg/l]	0.006[mg/l]	0.001[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.913[mg/l]**	**0.111[mg/l]**	**<-19.482[mg/l]**	**-0.000[mg/l]**	**<-0.421[mg/l]**	**0.006[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.002***	***1.397***	***0.022***	***5.585***	***0.011***	***17.187***	***1.472***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>186.726[mg/l]	142.955[mg/l]	-0.000[mg/l]	-0.002[mg/l]	-0.001[mg/l]	0.002[mg/l]
Conc 2	0.000[mg/l]	>180.970[mg/l]	139.372[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>183.848[mg/l]**	**141.164[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***25.717***	***2.214***	***1.795***	***4.667***	***97.823***	***101.967***	***44.657***
Conc SD	***0.000[mg/l]***	***4.070[mg/l]***	***2.534[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.074[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.001[mg/l]	0.002[mg/l]	4526490
Conc 2	-0.081[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	-0.001[mg/l]	4531060
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.078[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**4528780**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***5.688***	***21.052***	***7.849***	***44.068***	***59.325***	***917.685***	***---***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***3231.48***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.819[%]	0.010[mg/l]	<-0.005[mg/l]				
Conc 2	99.912[%]	0.010[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.865[%]**	**0.010[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.066***	***0.337***	***6.383***				
Conc SD	***0.066[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130735-A-1-F | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:54:45 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130735-A-1-F						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	-0.001[mg/l]	1068190	<-0.000[mg/l]	0.010[mg/l]	0.024[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	-0.002[mg/l]	1054880	<0.001[mg/l]	0.011[mg/l]	0.024[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.002[mg/l]**	**1061530**	**<0.000[mg/l]**	**0.011[mg/l]**	**0.024[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***107.617***	***37.888***	***---***	***247.940***	***1.071***	***1.192***	***55.223***

Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***9411.59***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	79.070[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	24415.5	<-0.003[mg/l]	0.008[mg/l]
Conc 2	80.090[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	25317.3	<-0.003[mg/l]	0.008[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**79.580[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**24866.4**	**<-0.003[mg/l]**	**0.008[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.906***	***17250.0***	***29.204***	***353.059***	***---***	***14.928***	***1.381***
Conc SD	***0.721[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***637.669***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.306[mg/l]	0.000[mg/l]	1.903[mg/l]	0.307[mg/l]	0.001[mg/l]	140.628[mg/l]	0.002[mg/l]
Conc 2	0.300[mg/l]	0.000[mg/l]	1.909[mg/l]	0.312[mg/l]	0.001[mg/l]	137.852[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.303[mg/l]**	**0.000[mg/l]**	**1.906[mg/l]**	**0.309[mg/l]**	**0.001[mg/l]**	**139.240[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.364***	***41.841***	***0.247***	***1.295***	***37.025***	***1.410***	***1.630***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***1.963[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.000[mg/l]	0.001[mg/l]	-0.002[mg/l]	0.579[mg/l]	0.006[mg/l]	0.177[mg/l]	0.001[mg/l]
Conc 2	0.001[mg/l]	0.002[mg/l]	-0.001[mg/l]	0.577[mg/l]	0.007[mg/l]	0.177[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**0.578[mg/l]**	**0.007[mg/l]**	**0.177[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***110.995***	***10.395***	***57.310***	***0.233***	***5.857***	***0.301***	***4.366***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	0.009[mg/l]	4420630	97.495[%]	0.023[mg/l]	97.495[%]	
Conc 2	0.001[mg/l]	0.003[mg/l]	4386770	96.737[%]	0.023[mg/l]	96.737[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.000[mg/l]**	**0.006[mg/l]**	**4403700**	**97.116[%]**	**0.023[mg/l]**	**97.116[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***2488.20***	***62.759***	***---***	***0.552***	***0.616***	***0.552***	
Conc SD	***0.002[mg/l]***	***0.004[mg/l]***	***23942.6***	***0.536[%]***	***0.000[mg/l]***	***0.536[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	-0.001[mg/l]	1068190	<-0.000[mg/l]	0.010[mg/l]	0.024[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	-0.002[mg/l]	1054880	<0.001[mg/l]	0.011[mg/l]	0.024[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.002[mg/l]**	**1061530**	**<0.000[mg/l]**	**0.011[mg/l]**	**0.024[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***107.617***	***37.888***	***---***	***247.940***	***1.071***	***1.192***	***55.223***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***9411.59***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	79.070[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	24415.5	<-0.009[mg/l]	0.008[mg/l]

Conc 2	80.090[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	25317.3	<-0.009[mg/l]	0.008[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**79.580[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**24866.4**	**<-0.009[mg/l]**	**0.008[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.906***	***17250.0***	***29.204***	***353.059***	***---***	***0.329***	***1.381***
Conc SD	***0.721[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***637.669***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.931[mg/l]	0.306[mg/l]	<-19.087[mg/l]	0.000[mg/l]	<-0.420[mg/l]	1.903[mg/l]	0.307[mg/l]
Conc 2	<-4.931[mg/l]	0.300[mg/l]	<-19.096[mg/l]	0.000[mg/l]	<-0.420[mg/l]	1.909[mg/l]	0.312[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.931[mg/l]**	**0.303[mg/l]**	**<-19.092[mg/l]**	**0.000[mg/l]**	**<-0.420[mg/l]**	**1.906[mg/l]**	**0.309[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.004***	***1.364***	***0.034***	***41.841***	***0.025***	***0.247***	***1.295***
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***0.004[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	>182.670[mg/l]	140.628[mg/l]	0.002[mg/l]	0.000[mg/l]	0.001[mg/l]	-0.002[mg/l]
Conc 2	0.001[mg/l]	>178.465[mg/l]	137.852[mg/l]	0.002[mg/l]	0.001[mg/l]	0.002[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**>180.567[mg/l]**	**139.240[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***37.025***	***1.647***	***1.410***	***1.630***	***110.995***	***10.395***	***57.310***
Conc SD	***0.000[mg/l]***	***2.973[mg/l]***	***1.963[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.579[mg/l]	0.006[mg/l]	0.177[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.009[mg/l]	4420630
Conc 2	0.577[mg/l]	0.007[mg/l]	0.177[mg/l]	0.001[mg/l]	0.001[mg/l]	0.003[mg/l]	4386770
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.578[mg/l]**	**0.007[mg/l]**	**0.177[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**0.006[mg/l]**	**4403700**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.233***	***5.857***	***0.301***	***4.366***	***2488.20***	***62.759***	***---***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***	***23942.6***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.495[%]	0.023[mg/l]	<-0.003[mg/l]				
Conc 2	96.737[%]	0.023[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.116[%]**	**0.023[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.552***	***0.616***	***14.928***				
Conc SD	***0.536[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130735-A-1-G DU			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 16:56:43	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130735-A-1-G DU						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	-0.008[mg/l]	1089370	<-0.002[mg/l]	0.011[mg/l]	0.025[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.009[mg/l]	1063910	<-0.003[mg/l]	0.011[mg/l]	0.025[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.008[mg/l]**	**1076640**	**<-0.002[mg/l]**	**0.011[mg/l]**	**0.025[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***148.172***	***5.998***	***---***	***32.963***	***0.344***	***0.139***	***13.433***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***18002.9***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	82.398[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	24937.1	<-0.005[mg/l]	0.003[mg/l]
Conc 2	81.879[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	25691.5	<-0.004[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**82.138[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**25314.3**	**<-0.005[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.447***	***44.193***	***14.908***	***242.455***	***---***	***30.053***	***3.853***
Conc SD	***0.367[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***533.441***	***0.001[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.300[mg/l]	-0.000[mg/l]	1.963[mg/l]	0.318[mg/l]	0.001[mg/l]	145.341[mg/l]	0.001[mg/l]
Conc 2	0.305[mg/l]	0.000[mg/l]	1.975[mg/l]	0.318[mg/l]	0.001[mg/l]	144.039[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.302[mg/l]**	**0.000[mg/l]**	**1.969[mg/l]**	**0.318[mg/l]**	**0.001[mg/l]**	**144.690[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.136***	***3404.73***	***0.433***	***0.048***	***4.611***	***0.636***	***19.648***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.009[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.921[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.002[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.574[mg/l]	0.001[mg/l]	0.183[mg/l]	0.001[mg/l]
Conc 2	-0.001[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.584[mg/l]	-0.001[mg/l]	0.183[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**0.579[mg/l]**	**0.000[mg/l]**	**0.183[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***48.680***	***0.160***	***34.731***	***1.194***	***1021.22***	***0.042***	***3.404***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.007[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.000[mg/l]	0.001[mg/l]	4484620	98.915[%]	0.015[mg/l]	98.915[%]	
Conc 2	0.000[mg/l]	-0.002[mg/l]	4478160	98.746[%]	0.015[mg/l]	98.746[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.000[mg/l]**	**-0.001[mg/l]**	**4481390**	**98.830[%]**	**0.015[mg/l]**	**98.830[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***67.062***	***250.605***	***---***	***0.121***	***0.393***	***0.121***	
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***4567.91***	***0.119[%]***	***0.000[mg/l]***	***0.119[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	-0.008[mg/l]	1089370	<-0.002[mg/l]	0.011[mg/l]	0.025[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.009[mg/l]	1063910	<-0.003[mg/l]	0.011[mg/l]	0.025[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.008[mg/l]**	**1076640**	**<-0.002[mg/l]**	**0.011[mg/l]**	**0.025[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***148.172***	***5.998***	***---***	***32.963***	***0.344***	***0.139***	***13.433***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***18002.9***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	82.398[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	24937.1	<-0.009[mg/l]	0.003[mg/l]
Conc 2	81.879[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	25691.5	<-0.010[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**82.138[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**25314.3**	**<-0.009[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.447***	***44.193***	***14.908***	***242.455***	***---***	***3.359***	***3.853***
Conc SD	***0.367[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***533.441***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.939[mg/l]	0.300[mg/l]	<-19.098[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	1.963[mg/l]	0.318[mg/l]
Conc 2	<-4.938[mg/l]	0.305[mg/l]	<-19.089[mg/l]	0.000[mg/l]	<-0.420[mg/l]	1.975[mg/l]	0.318[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.938[mg/l]**	**0.302[mg/l]**	**<-19.094[mg/l]**	**0.000[mg/l]**	**<-0.420[mg/l]**	**1.969[mg/l]**	**0.318[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.001***	***1.136***	***0.033***	***3404.73***	***0.015***	***0.433***	***0.048***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***0.006[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.009[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	>190.994[mg/l]	145.341[mg/l]	0.001[mg/l]	-0.002[mg/l]	-0.000[mg/l]	-0.001[mg/l]
Conc 2	0.001[mg/l]	>188.820[mg/l]	144.039[mg/l]	0.001[mg/l]	-0.001[mg/l]	-0.000[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**>189.907[mg/l]**	**144.690[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.611***	***0.809***	***0.636***	***19.648***	***48.680***	***0.160***	***34.731***
Conc SD	***0.000[mg/l]***	***1.537[mg/l]***	***0.921[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.574[mg/l]	0.001[mg/l]	0.183[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	4484620
Conc 2	0.584[mg/l]	-0.001[mg/l]	0.183[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.002[mg/l]	4478160
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.579[mg/l]**	**0.000[mg/l]**	**0.183[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**4481390**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.194***	***1021.22***	***0.042***	***3.404***	***67.062***	***250.605***	***---***

Conc SD	***0.007[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***4567.91***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.915[%]	0.015[mg/l]	<-0.005[mg/l]				
Conc 2	98.746[%]	0.015[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.830[%]**	**0.015[mg/l]**	**<-0.005[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.121***	***0.393***	***30.053***				
Conc SD	***0.119[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130735-A-1-H MS | Sample Type: Unknown Sample

Measure Date: 2016-05-16 16:58:39 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130735-A-1-H MS						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.523[mg/l]	10.597[mg/l]	1144050	1.086[mg/l]	1.073[mg/l]	1.053[mg/l]	0.509[mg/l]
Conc 2	0.523[mg/l]	10.582[mg/l]	1113870	1.072[mg/l]	1.074[mg/l]	1.055[mg/l]	0.511[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.523[mg/l]**	**10.589[mg/l]**	**1128960**	**1.079[mg/l]**	**1.073[mg/l]**	**1.054[mg/l]**	**0.510[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.015***	***0.106***	***---***	***0.889***	***0.086***	***0.077***	***0.233***
Conc SD	***0.000[mg/l]***	***0.011[mg/l]***	***21340.5***	***0.010[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	95.740[mg/l]	0.501[mg/l]	1.018[mg/l]	1.023[mg/l]	25309.3	1.052[mg/l]	10.321[mg/l]
Conc 2	95.761[mg/l]	0.503[mg/l]	1.020[mg/l]	1.023[mg/l]	25972.8	1.045[mg/l]	10.247[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**95.750[mg/l]**	**0.502[mg/l]**	**1.019[mg/l]**	**1.023[mg/l]**	**25641.1**	**1.049[mg/l]**	**10.284[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.016***	***0.285***	***0.126***	***0.048***	***---***	***0.459***	***0.512***
Conc SD	***0.015[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***469.165***	***0.005[mg/l]***	***0.053[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	11.575[mg/l]	1.077[mg/l]	12.453[mg/l]	1.366[mg/l]	0.995[mg/l]	162.033[mg/l]	1.011[mg/l]
Conc 2	11.549[mg/l]	1.072[mg/l]	12.451[mg/l]	1.353[mg/l]	1.003[mg/l]	161.831[mg/l]	1.013[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**11.562[mg/l]**	**1.075[mg/l]**	**12.452[mg/l]**	**1.360[mg/l]**	**0.999[mg/l]**	**161.932[mg/l]**	**1.012[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.157***	***0.343***	***0.007***	***0.680***	***0.610***	***0.088***	***0.113***
Conc SD	***0.018[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.009[mg/l]***	***0.006[mg/l]***	***0.143[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.034[mg/l]	1.006[mg/l]	1.069[mg/l]	1.663[mg/l]	1.013[mg/l]	0.705[mg/l]	0.992[mg/l]

Conc 2	1.034[mg/l]	1.009[mg/l]	1.068[mg/l]	1.656[mg/l]	1.003[mg/l]	0.711[mg/l]	0.999[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.034[mg/l]**	**1.008[mg/l]**	**1.069[mg/l]**	**1.660[mg/l]**	**1.008[mg/l]**	**0.708[mg/l]**	**0.996[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.015***	***0.220***	***0.033***	***0.293***	***0.640***	***0.561***	***0.453***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***0.006[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.992[mg/l]	1.070[mg/l]	4389450	96.823[%]	1.052[mg/l]	96.823[%]	
Conc 2	0.997[mg/l]	1.057[mg/l]	4404840	97.170[%]	1.049[mg/l]	97.170[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.995[mg/l]**	**1.063[mg/l]**	**4397150**	**96.997[%]**	**1.051[mg/l]**	**96.997[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.395***	***0.887***	***---***	***0.253***	***0.221***	***0.253***	
Conc SD	***0.004[mg/l]***	***0.009[mg/l]***	***10882.4***	***0.245[%]***	***0.002[mg/l]***	***0.245[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.523[mg/l]	10.597[mg/l]	1144050	1.086[mg/l]	1.073[mg/l]	1.053[mg/l]	0.509[mg/l]
Conc 2	0.523[mg/l]	10.582[mg/l]	1113870	1.072[mg/l]	1.074[mg/l]	1.055[mg/l]	0.511[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.523[mg/l]**	**10.589[mg/l]**	**1128960**	**1.079[mg/l]**	**1.073[mg/l]**	**1.054[mg/l]**	**0.510[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.015***	***0.106***	***---***	***0.889***	***0.086***	***0.077***	***0.233***
Conc SD	***0.000[mg/l]***	***0.011[mg/l]***	***21340.5***	***0.010[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	95.740[mg/l]	0.501[mg/l]	1.018[mg/l]	1.023[mg/l]	25309.3	1.052[mg/l]	10.321[mg/l]
Conc 2	95.761[mg/l]	0.503[mg/l]	1.020[mg/l]	1.023[mg/l]	25972.8	1.045[mg/l]	10.247[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**95.750[mg/l]**	**0.502[mg/l]**	**1.019[mg/l]**	**1.023[mg/l]**	**25641.1**	**1.049[mg/l]**	**10.284[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.016***	***0.285***	***0.126***	***0.048***	***---***	***0.459***	***0.512***
Conc SD	***0.015[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***469.165***	***0.005[mg/l]***	***0.053[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<7.889[mg/l]	11.575[mg/l]	<3.694[mg/l]	1.077[mg/l]	<0.892[mg/l]	12.453[mg/l]	1.366[mg/l]
Conc 2	<7.798[mg/l]	11.549[mg/l]	<3.644[mg/l]	1.072[mg/l]	<0.885[mg/l]	12.451[mg/l]	1.353[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<7.844[mg/l]**	**11.562[mg/l]**	**<3.669[mg/l]**	**1.075[mg/l]**	**<0.888[mg/l]**	**12.452[mg/l]**	**1.360[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.821***	***0.157***	***0.948***	***0.343***	***0.506***	***0.007***	***0.680***
Conc SD	***0.064[mg/l]***	***0.018[mg/l]***	***0.035[mg/l]***	***0.004[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.009[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.995[mg/l]	>219.510[mg/l]	162.033[mg/l]	1.011[mg/l]	1.034[mg/l]	1.006[mg/l]	1.069[mg/l]
Conc 2	1.003[mg/l]	>219.773[mg/l]	161.831[mg/l]	1.013[mg/l]	1.034[mg/l]	1.009[mg/l]	1.068[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.999[mg/l]**	**>219.642[mg/l]**	**161.932[mg/l]**	**1.012[mg/l]**	**1.034[mg/l]**	**1.008[mg/l]**	**1.069[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***0.610***	***0.085***	***0.088***	***0.113***	***0.015***	***0.220***	***0.033***
Conc SD	***0.006[mg/l]***	***0.186[mg/l]***	***0.143[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	1.663[mg/l]	1.013[mg/l]	0.705[mg/l]	0.992[mg/l]	0.992[mg/l]	1.070[mg/l]	4389450
Conc 2	1.656[mg/l]	1.003[mg/l]	0.711[mg/l]	0.999[mg/l]	0.997[mg/l]	1.057[mg/l]	4404840
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**1.660[mg/l]**	**1.008[mg/l]**	**0.708[mg/l]**	**0.996[mg/l]**	**0.995[mg/l]**	**1.063[mg/l]**	**4397150**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.293***	***0.640***	***0.561***	***0.453***	***0.395***	***0.887***	***---***
Conc SD	***0.005[mg/l]***	***0.006[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***	***0.004[mg/l]***	***0.009[mg/l]***	***10882.4***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.823[%]	1.052[mg/l]	>1.108[mg/l]				
Conc 2	97.170[%]	1.049[mg/l]	>1.122[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.997[%]**	**1.051[mg/l]**	**>1.115[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.253***	***0.221***	***0.911***				
Conc SD	***0.245[%]***	***0.002[mg/l]***	***0.010[mg/l]***				

Sample Name: 600-130735-A-2-G | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:00:37 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130735-A-2-G						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	-0.005[mg/l]	1065210	<0.002[mg/l]	0.013[mg/l]	0.057[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.002[mg/l]	1062380	0.002[mg/l]	0.012[mg/l]	0.057[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**-0.004[mg/l]**	**1063800**	**0.002[mg/l]**	**0.013[mg/l]**	**0.057[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***162.523***	***59.433***	***---***	***23.372***	***3.019***	***0.283***	***116.832***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***2001.11***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	86.671[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	25676.4	<-0.003[mg/l]	0.013[mg/l]
Conc 2	87.371[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	26127.2	<-0.003[mg/l]	0.013[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**87.021[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**25901.8**	**<-0.003[mg/l]**	**0.013[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.569***	***58.271***	***3.789***	***99.747***	***---***	***0.254***	***0.021***
Conc SD	***0.495[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***318.764***	***0.000[mg/l]***	***0.000[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.255[mg/l]	0.000[mg/l]	2.600[mg/l]	0.479[mg/l]	0.002[mg/l]	149.394[mg/l]	0.001[mg/l]
Conc 2	0.251[mg/l]	-0.000[mg/l]	2.588[mg/l]	0.475[mg/l]	0.002[mg/l]	147.872[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.253[mg/l]**	**-0.000[mg/l]**	**2.594[mg/l]**	**0.477[mg/l]**	**0.002[mg/l]**	**148.633[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.136***	***150.674***	***0.324***	***0.574***	***1.901***	***0.724***	***6.085***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.008[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***1.076[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.001[mg/l]	0.000[mg/l]	0.004[mg/l]	0.267[mg/l]	0.003[mg/l]	0.153[mg/l]	0.001[mg/l]
Conc 2	0.000[mg/l]	0.002[mg/l]	0.001[mg/l]	0.264[mg/l]	0.003[mg/l]	0.153[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.001[mg/l]**	**0.002[mg/l]**	**0.265[mg/l]**	**0.003[mg/l]**	**0.153[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***125.268***	***104.864***	***69.086***	***0.983***	***13.412***	***0.262***	***29.000***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.005[mg/l]	0.000[mg/l]	4446710	98.050[%]	0.010[mg/l]	98.050[%]	
Conc 2	0.004[mg/l]	0.006[mg/l]	4446780	98.070[%]	0.010[mg/l]	98.070[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.004[mg/l]**	**0.003[mg/l]**	**4446740**	**98.060[%]**	**0.010[mg/l]**	**98.060[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***19.509***	***137.696***	***---***	***0.014***	***0.098***	***0.014***	
Conc SD	***0.001[mg/l]***	***0.004[mg/l]***	***49.498***	***0.014[%]***	***0.000[mg/l]***	***0.014[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	-0.005[mg/l]	1065210	<0.002[mg/l]	0.013[mg/l]	0.057[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.002[mg/l]	1062380	0.002[mg/l]	0.012[mg/l]	0.057[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**-0.004[mg/l]**	**1063800**	**<0.002[mg/l]**	**0.013[mg/l]**	**0.057[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***162.523***	***59.433***	***---***	***23.372***	***3.019***	***0.283***	***116.832***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***2001.11***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	86.671[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	25676.4	<-0.010[mg/l]	0.013[mg/l]
Conc 2	87.371[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	26127.2	<-0.009[mg/l]	0.013[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**87.021[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**25901.8**	**<-0.009[mg/l]**	**0.013[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.569***	***58.271***	***3.789***	***99.747***	***---***	***3.890***	***0.021***
Conc SD	***0.495[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***318.764***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.925[mg/l]	0.255[mg/l]	<-19.189[mg/l]	0.000[mg/l]	<-0.420[mg/l]	2.600[mg/l]	0.479[mg/l]
Conc 2	<-4.925[mg/l]	0.251[mg/l]	<-19.198[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.588[mg/l]	0.475[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.925[mg/l]**	**0.253[mg/l]**	**<-19.193[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**2.594[mg/l]**	**0.477[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.005***	***1.136***	***0.035***	***150.674***	***0.017***	***0.324***	***0.574***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.008[mg/l]***	***0.003[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.002[mg/l]	>197.643[mg/l]	149.394[mg/l]	0.001[mg/l]	0.001[mg/l]	0.000[mg/l]	0.004[mg/l]
Conc 2	0.002[mg/l]	>195.271[mg/l]	147.872[mg/l]	0.001[mg/l]	0.000[mg/l]	0.002[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**>196.457[mg/l]**	**148.633[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.901***	***0.854***	***0.724***	***6.085***	***125.268***	***104.864***	***69.086***
Conc SD	***0.000[mg/l]***	***1.677[mg/l]***	***1.076[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.267[mg/l]	0.003[mg/l]	0.153[mg/l]	0.001[mg/l]	0.005[mg/l]	0.000[mg/l]	4446710
Conc 2	0.264[mg/l]	0.003[mg/l]	0.153[mg/l]	0.001[mg/l]	0.004[mg/l]	0.006[mg/l]	4446780
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.265[mg/l]**	**0.003[mg/l]**	**0.153[mg/l]**	**0.001[mg/l]**	**0.004[mg/l]**	**0.003[mg/l]**	**4446740**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.983***	***13.412***	***0.262***	***29.000***	***19.509***	***137.696***	***---***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***49.498***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.050[%]	0.010[mg/l]	<-0.003[mg/l]				
Conc 2	98.070[%]	0.010[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.060[%]**	**0.010[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.014***	***0.098***	***0.254***				
Conc SD	***0.014[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130735-A-3-D | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:02:35 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130735-A-3-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	-0.009[mg/l]	1072710	<-0.002[mg/l]	0.014[mg/l]	0.184[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.008[mg/l]	1059400	<-0.004[mg/l]	0.013[mg/l]	0.185[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.009[mg/l]**	**1066060**	**<-0.003[mg/l]**	**0.013[mg/l]**	**0.184[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***19.901***	***9.411***	***---***	***63.702***	***0.472***	***0.320***	***21.245***

Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***9411.59***	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	71.240[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	24884.6	<-0.004[mg/l]	<-0.000[mg/l]
Conc 2	72.344[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	25237.5	<-0.004[mg/l]	<-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**71.792[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**25061.0**	**<-0.004[mg/l]**	**<-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.087***	***68.403***	***7.693***	***69.161***	***---***	***7.055***	***135.688***
Conc SD	***0.781[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***249.538***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.179[mg/l]	-0.000[mg/l]	1.973[mg/l]	0.310[mg/l]	0.000[mg/l]	153.558[mg/l]	0.001[mg/l]
Conc 2	0.182[mg/l]	-0.000[mg/l]	1.973[mg/l]	0.311[mg/l]	0.000[mg/l]	153.470[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.180[mg/l]**	**-0.000[mg/l]**	**1.973[mg/l]**	**0.311[mg/l]**	**0.000[mg/l]**	**153.514[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.883***	***10.342***	***0.013***	***0.268***	***5.578***	***0.041***	***9.691***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.062[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.001[mg/l]	0.000[mg/l]	0.472[mg/l]	0.001[mg/l]	0.128[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.477[mg/l]	0.000[mg/l]	0.130[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**0.475[mg/l]**	**0.001[mg/l]**	**0.129[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***38.946***	***165.209***	***158.673***	***0.717***	***103.526***	***1.025***	***47.897***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.002[mg/l]	-0.003[mg/l]	4451680	98.167[%]	0.010[mg/l]	98.167[%]	
Conc 2	-0.001[mg/l]	0.003[mg/l]	4429760	97.672[%]	0.010[mg/l]	97.672[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**0.000[mg/l]**	**4440720**	**97.919[%]**	**0.010[mg/l]**	**97.919[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***378.791***	***1619.17***	***---***	***0.357***	***0.084***	***0.357***	
Conc SD	***0.002[mg/l]***	***0.004[mg/l]***	***15499.8***	***0.350[%]***	***0.000[mg/l]***	***0.350[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	-0.009[mg/l]	1072710	<-0.002[mg/l]	0.014[mg/l]	0.184[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.008[mg/l]	1059400	<-0.004[mg/l]	0.013[mg/l]	0.185[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.009[mg/l]**	**1066060**	**<-0.003[mg/l]**	**0.013[mg/l]**	**0.184[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***19.901***	***9.411***	***---***	***63.702***	***0.472***	***0.320***	***21.245***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***9411.59***	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	71.240[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	24884.6	<-0.010[mg/l]	<-0.000[mg/l]

Conc 2	72.344[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	25237.5	<-0.010[mg/l]	<-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**71.792[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**25061.0**	**<-0.010[mg/l]**	**<-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.087***	***68.403***	***7.693***	***69.161***	***---***	***3.973***	***135.688***
Conc SD	***0.781[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***249.538***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.942[mg/l]	0.179[mg/l]	<-19.350[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	1.973[mg/l]	0.310[mg/l]
Conc 2	<-4.942[mg/l]	0.182[mg/l]	<-19.337[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	1.973[mg/l]	0.311[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.942[mg/l]**	**0.180[mg/l]**	**<-19.343[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**1.973[mg/l]**	**0.311[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.002***	***0.883***	***0.047***	***10.342***	***0.012***	***0.013***	***0.268***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***0.009[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>205.296[mg/l]	153.558[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	>205.196[mg/l]	153.470[mg/l]	0.001[mg/l]	-0.002[mg/l]	-0.000[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>205.246[mg/l]**	**153.514[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***5.578***	***0.034***	***0.041***	***9.691***	***38.946***	***165.209***	***158.673***
Conc SD	***0.000[mg/l]***	***0.071[mg/l]***	***0.062[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.472[mg/l]	0.001[mg/l]	0.128[mg/l]	0.000[mg/l]	0.002[mg/l]	-0.003[mg/l]	4451680
Conc 2	0.477[mg/l]	0.000[mg/l]	0.130[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.003[mg/l]	4429760
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.475[mg/l]**	**0.001[mg/l]**	**0.129[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**4440720**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.717***	***103.526***	***1.025***	***47.897***	***378.791***	***1619.17***	***---***
Conc SD	***0.003[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***	***15499.8***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.167[%]	0.010[mg/l]	<-0.004[mg/l]				
Conc 2	97.672[%]	0.010[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.919[%]**	**0.010[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.357***	***0.084***	***7.055***				
Conc SD	***0.350[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

SPECTRO

Printing Date: 5/17/2016 8:50:51 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: 600-130735-A-4-D			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 17:04:32	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130735-A-4-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	-0.006[mg/l]	1075780	<-0.001[mg/l]	0.010[mg/l]	0.141[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.009[mg/l]	1079210	<0.001[mg/l]	0.010[mg/l]	0.140[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.008[mg/l]**	**1077500**	**<-0.000[mg/l]**	**0.010[mg/l]**	**0.141[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***220.528***	***27.334***	***---***	***336.541***	***0.651***	***0.292***	***51.916***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***2425.38***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	67.120[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	24389.3	<-0.003[mg/l]	0.001[mg/l]
Conc 2	67.665[mg/l]	0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	24918.0	<-0.003[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**67.392[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**24653.7**	**<-0.003[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.572***	***274.115***	***43.030***	***80.514***	***---***	***11.050***	***10.261***
Conc SD	***0.385[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***373.847***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.171[mg/l]	-0.000[mg/l]	1.971[mg/l]	0.229[mg/l]	0.000[mg/l]	139.574[mg/l]	0.000[mg/l]
Conc 2	0.166[mg/l]	-0.000[mg/l]	1.977[mg/l]	0.231[mg/l]	0.000[mg/l]	136.822[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.168[mg/l]**	**-0.000[mg/l]**	**1.974[mg/l]**	**0.230[mg/l]**	**0.000[mg/l]**	**138.198[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.128***	***25.639***	***0.209***	***0.416***	***10.775***	***1.408***	***71.859***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***1.946[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.000[mg/l]	-0.001[mg/l]	0.195[mg/l]	0.002[mg/l]	0.139[mg/l]	0.001[mg/l]
Conc 2	-0.001[mg/l]	-0.001[mg/l]	-0.001[mg/l]	0.199[mg/l]	0.002[mg/l]	0.141[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**0.197[mg/l]**	**0.002[mg/l]**	**0.140[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***16.242***	***361.013***	***17.935***	***1.322***	***19.902***	***0.819***	***1.917***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.002[mg/l]	-0.005[mg/l]	4353360	96.006[%]	0.010[mg/l]	96.006[%]	
Conc 2	-0.000[mg/l]	-0.003[mg/l]	4353060	95.986[%]	0.009[mg/l]	95.986[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.001[mg/l]**	**-0.004[mg/l]**	**4353210**	**95.996[%]**	**0.009[mg/l]**	**95.996[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***91.171***	***42.124***	***---***	***0.015***	***0.112***	***0.015***	
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***212.132***	***0.015[%]***	***0.000[mg/l]***	***0.015[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	-0.006[mg/l]	1075780	<-0.001[mg/l]	0.010[mg/l]	0.141[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.009[mg/l]	1079210	<0.001[mg/l]	0.010[mg/l]	0.140[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.008[mg/l]**	**1077500**	**<-0.000[mg/l]**	**0.010[mg/l]**	**0.141[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***220.528***	***27.334***	***---***	***336.541***	***0.651***	***0.292***	***51.916***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***2425.38***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	67.120[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	24389.3	<-0.010[mg/l]	0.001[mg/l]
Conc 2	67.665[mg/l]	0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	24918.0	<-0.010[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**67.392[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**24653.7**	**<-0.010[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.572***	***274.115***	***43.030***	***80.514***	***---***	***3.188***	***10.261***
Conc SD	***0.385[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***373.847***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.941[mg/l]	0.171[mg/l]	<-19.362[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	1.971[mg/l]	0.229[mg/l]
Conc 2	<-4.941[mg/l]	0.166[mg/l]	<-19.367[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	1.977[mg/l]	0.231[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.941[mg/l]**	**0.168[mg/l]**	**<-19.365[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**1.974[mg/l]**	**0.230[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.004***	***2.128***	***0.018***	***25.639***	***0.007***	***0.209***	***0.416***
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>181.203[mg/l]	139.574[mg/l]	0.000[mg/l]	-0.001[mg/l]	0.000[mg/l]	-0.001[mg/l]
Conc 2	0.000[mg/l]	>176.788[mg/l]	136.822[mg/l]	0.001[mg/l]	-0.001[mg/l]	-0.001[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>178.996[mg/l]**	**138.198[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***10.775***	***1.744***	***1.408***	***71.859***	***16.242***	***361.013***	***17.935***
Conc SD	***0.000[mg/l]***	***3.122[mg/l]***	***1.946[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.195[mg/l]	0.002[mg/l]	0.139[mg/l]	0.001[mg/l]	-0.002[mg/l]	-0.005[mg/l]	4353360
Conc 2	0.199[mg/l]	0.002[mg/l]	0.141[mg/l]	0.001[mg/l]	-0.000[mg/l]	-0.003[mg/l]	4353060
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.197[mg/l]**	**0.002[mg/l]**	**0.140[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**-0.004[mg/l]**	**4353210**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.322***	***19.902***	***0.819***	***1.917***	***91.171***	***42.124***	***---***

Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***212.132***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.006[%]	0.010[mg/l]	<-0.003[mg/l]				
Conc 2	95.986[%]	0.009[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**95.996[%]**	**0.009[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.015***	***0.112***	***11.050***				
Conc SD	***0.015[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: CCV | Sample Type: Control Sample

Measure Date: 2016-05-16 17:06:30 | Recalculation Date: | State: Check failed | Quality: Failed | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCV						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.252[mg/l]	2.544[mg/l]	1054360	0.498[mg/l]	0.509[mg/l]	0.495[mg/l]	0.490[mg/l]
Conc 2	0.253[mg/l]	2.544[mg/l]	1060160	0.500[mg/l]	0.508[mg/l]	0.497[mg/l]	0.494[mg/l]
Conc MinRange	*90.000*	*90.000*	---	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.252[mg/l]**	**2.544[mg/l]**	**1057260**	**0.499[mg/l]**	**0.509[mg/l]**	**0.496[mg/l]**	**0.492[mg/l]**
Conc MaxRange	*110.000*	*110.000*	---	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***0.323***	***0.005***	***---***	***0.382***	***0.078***	***0.262***	***0.493***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***4101.22***	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	12.405[mg/l]	0.493[mg/l]	0.511[mg/l]	0.515[mg/l]	23523.6	0.526[mg/l]	2.580[mg/l]
Conc 2	12.509[mg/l]	0.493[mg/l]	0.513[mg/l]	0.515[mg/l]	22346.3	0.527[mg/l]	2.587[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	---	*90.000*	*90.000*
Conc Mean	**12.457[mg/l]**	**0.493[mg/l]**	**0.512[mg/l]**	**0.515[mg/l]**	**22935.0**	**0.526[mg/l]**	**2.583[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	---	*110.000*	*110.000*
Conc RSD	***0.589***	***0.026***	***0.259***	***0.010***	***---***	***0.135***	***0.168***
Conc SD	***0.073[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***832.477***	***0.001[mg/l]***	***0.004[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	17.980[mg/l]	1.871[mg/l]	4.886[mg/l]	0.502[mg/l]	0.523[mg/l]	18.540[mg/l]	0.505[mg/l]
Conc 2	19.370[mg/l]	1.976[mg/l]	4.930[mg/l]	0.503[mg/l]	0.520[mg/l]	20.137[mg/l]	0.505[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**18.675[mg/l]**	**1.923[mg/l]**	**4.908[mg/l]**	**0.503[mg/l]**	**0.522[mg/l]**	**19.338[mg/l]**	**0.505[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***5.266***	***3.865***	***0.633***	***0.128***	***0.389***	***5.840***	***0.056***
Conc SD	***0.983[mg/l]***	***0.074[mg/l]***	***0.031[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***1.129[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.513[mg/l]	0.504[mg/l]	0.512[mg/l]	0.836[mg/l]	0.505[mg/l]	0.257[mg/l]	0.496[mg/l]

Conc 2	0.513[mg/l]	0.505[mg/l]	0.522[mg/l]	0.840[mg/l]	0.506[mg/l]	0.257[mg/l]	0.498[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.513[mg/l]**	**0.504[mg/l]**	**0.517[mg/l]**	**<0.838[mg/l]**	**0.505[mg/l]**	**0.257[mg/l]**	**0.497[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***0.099***	***0.145***	***1.427***	***0.335***	***0.213***	***0.013***	***0.260***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.499[mg/l]	0.508[mg/l]	4382600	96.642[%]	0.495[mg/l]	96.642[%]	
Conc 2	0.503[mg/l]	0.517[mg/l]	4361970	96.158[%]	0.495[mg/l]	96.158[%]	
Conc MinRange	*90.000*	*90.000*	---	---	*90.000*	---	
Conc Mean	**0.501[mg/l]**	**0.513[mg/l]**	**4372280**	**96.400[%]**	**0.495[mg/l]**	**96.400[%]**	
Conc MaxRange	*110.000*	*110.000*	---	---	*110.000*	---	
Conc RSD	***0.458***	***1.222***	***---***	***0.355***	***0.060***	***0.355***	
Conc SD	***0.002[mg/l]***	***0.006[mg/l]***	***14587.6***	***0.342[%]***	***0.000[mg/l]***	***0.342[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.252[mg/l]	2.544[mg/l]	1054360	0.498[mg/l]	0.509[mg/l]	0.495[mg/l]	0.490[mg/l]
Conc 2	0.253[mg/l]	2.544[mg/l]	1060160	0.500[mg/l]	0.508[mg/l]	0.497[mg/l]	0.494[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.252[mg/l]**	**2.544[mg/l]**	**1057260**	**0.499[mg/l]**	**0.509[mg/l]**	**0.496[mg/l]**	**0.492[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.323***	***0.005***	***---***	***0.382***	***0.078***	***0.262***	***0.493***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***4101.22***	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	12.405[mg/l]	0.493[mg/l]	0.511[mg/l]	0.515[mg/l]	23523.6	<0.511[mg/l]	2.580[mg/l]
Conc 2	12.509[mg/l]	0.493[mg/l]	0.513[mg/l]	0.515[mg/l]	22346.3	<0.511[mg/l]	2.587[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.457[mg/l]**	**0.493[mg/l]**	**0.512[mg/l]**	**0.515[mg/l]**	**22935.0**	**<0.511[mg/l]**	**2.583[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.589***	***0.026***	***0.259***	***0.010***	***---***	***0.013***	***0.168***
Conc SD	***0.073[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***832.477***	***0.000[mg/l]***	***0.004[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.734[mg/l]	18.697[mg/l]	17.980[mg/l]	1.882[mg/l]	1.871[mg/l]	4.886[mg/l]	0.502[mg/l]
Conc 2	<-1.726[mg/l]	19.378[mg/l]	19.370[mg/l]	1.968[mg/l]	1.976[mg/l]	4.930[mg/l]	0.503[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.730[mg/l]**	**19.038[mg/l]**	**18.675[mg/l]**	**1.925[mg/l]**	**1.923[mg/l]**	**4.908[mg/l]**	**0.503[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.327***	***2.529***	***5.266***	***3.157***	***3.865***	***0.633***	***0.128***
Conc SD	***0.006[mg/l]***	***0.482[mg/l]***	***0.983[mg/l]***	***0.061[mg/l]***	***0.074[mg/l]***	***0.031[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.523[mg/l]	19.154[mg/l]	18.540[mg/l]	0.505[mg/l]	0.513[mg/l]	0.504[mg/l]	0.512[mg/l]
Conc 2	0.520[mg/l]	20.642[mg/l]	20.137[mg/l]	0.505[mg/l]	0.513[mg/l]	0.505[mg/l]	0.522[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.522[mg/l]**	**19.898[mg/l]**	**19.338[mg/l]**	**0.505[mg/l]**	**0.513[mg/l]**	**0.504[mg/l]**	**0.517[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***0.389***	***5.286***	***5.840***	***0.056***	***0.099***	***0.145***	***1.427***
Conc SD	***0.002[mg/l]***	***1.052[mg/l]***	***1.129[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.836[mg/l]	0.505[mg/l]	0.257[mg/l]	0.496[mg/l]	0.499[mg/l]	0.508[mg/l]	4382600
Conc 2	0.840[mg/l]	0.506[mg/l]	0.257[mg/l]	0.498[mg/l]	0.503[mg/l]	0.517[mg/l]	4361970
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.838[mg/l]**	**0.505[mg/l]**	**0.257[mg/l]**	**0.497[mg/l]**	**0.501[mg/l]**	**0.513[mg/l]**	**4372280**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.335***	***0.213***	***0.013***	***0.260***	***0.458***	***1.222***	***---***
Conc SD	***0.003[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.006[mg/l]***	***14587.6***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.642[%]	0.495[mg/l]	0.526[mg/l]				
Conc 2	96.158[%]	0.495[mg/l]	0.527[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.400[%]**	**0.495[mg/l]**	**0.526[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.355***	***0.060***	***0.135***				
Conc SD	***0.342[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: CCB | Sample Type: Control Sample

Measure Date: 2016-05-16 17:08:28 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.002[mg/l]	0.012[mg/l]	1053810	<0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.010[mg/l]	1067750	<-0.003[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.001[mg/l]**	**0.011[mg/l]**	**1060780**	**<-0.001[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***215.042***	***8.531***	***---***	***361.233***	***6.457***	***36.700***	***14.323***
Conc SD	***0.002[mg/l]***	***0.001[mg/l]***	***9857.07***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.014[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21089.5	<-0.006[mg/l]	0.002[mg/l]
Conc 2	0.015[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21029.4	<-0.005[mg/l]	0.002[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.014[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**21059.4**	**<-0.006[mg/l]**	**0.002[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***5.451***	***5.525***	***183.397***	***167.349***	***---***	***9.032***	***4.871***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***42.497***	***0.001[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.008[mg/l]	0.000[mg/l]	0.005[mg/l]	0.000[mg/l]	0.001[mg/l]	<0.154[mg/l]	-0.000[mg/l]
Conc 2	0.011[mg/l]	0.000[mg/l]	0.006[mg/l]	0.000[mg/l]	0.002[mg/l]	<0.037[mg/l]	-0.001[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.009[mg/l]**	**0.000[mg/l]**	**0.006[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**<0.096[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***21.213***	***9.229***	***8.532***	***3.951***	***2.286***	***86.754***	***28.346***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.083[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.002[mg/l]	0.001[mg/l]	-0.000[mg/l]	-0.091[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.002[mg/l]	-0.000[mg/l]	-0.097[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.001[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**-0.094[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***17.201***	***62.475***	***68.774***	***4.565***	***59.653***	***16.265***	***3.610***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.004[mg/l]	-0.011[mg/l]	4501710	99.264[%]	0.001[mg/l]	99.264[%]	
Conc 2	0.002[mg/l]	-0.001[mg/l]	4547750	100.266[%]	0.001[mg/l]	100.266[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.003[mg/l]**	**-0.006[mg/l]**	**4524730**	**99.765[%]**	**0.001[mg/l]**	**99.765[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***51.479***	***126.451***	***---***	***0.710***	***2.187***	***0.710***	
Conc SD	***0.002[mg/l]***	***0.007[mg/l]***	***32555.2***	***0.709[%]***	***0.000[mg/l]***	***0.709[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.002[mg/l]	0.012[mg/l]	1053810	<0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.010[mg/l]	1067750	<-0.003[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.011[mg/l]**	**1060780**	**<-0.001[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***215.042***	***8.531***	***---***	***361.233***	***6.457***	***36.700***	***14.323***
Conc SD	***0.002[mg/l]***	***0.001[mg/l]***	***9857.07***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.014[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21089.5	<-0.010[mg/l]	0.002[mg/l]
Conc 2	0.015[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21029.4	<-0.010[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.014[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**21059.4**	**<-0.010[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***5.451***	***5.525***	***183.397***	***167.349***	***---***	***4.189***	***4.871***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***42.497***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.941[mg/l]	0.008[mg/l]	<-19.691[mg/l]	0.000[mg/l]	<-0.420[mg/l]	0.005[mg/l]	0.000[mg/l]
Conc 2	<-4.941[mg/l]	0.011[mg/l]	<-19.689[mg/l]	0.000[mg/l]	<-0.420[mg/l]	0.006[mg/l]	0.000[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.941[mg/l]**	**0.009[mg/l]**	**<-19.690[mg/l]**	**0.000[mg/l]**	**<-0.420[mg/l]**	**0.006[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.001***	***21.213***	***0.008***	***9.229***	***0.020***	***8.532***	***3.951***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	<0.154[mg/l]	<-1.694[mg/l]	-0.000[mg/l]	-0.002[mg/l]	0.001[mg/l]	-0.000[mg/l]
Conc 2	0.002[mg/l]	<0.037[mg/l]	<-1.462[mg/l]	-0.001[mg/l]	-0.001[mg/l]	0.002[mg/l]	-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**<0.096[mg/l]**	**<-1.578[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.286***	***86.754***	***10.378***	***28.346***	***17.201***	***62.475***	***68.774***
Conc SD	***0.000[mg/l]***	***0.083[mg/l]***	***0.164[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.091[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]	0.004[mg/l]	-0.011[mg/l]	4501710
Conc 2	-0.097[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]	0.002[mg/l]	-0.001[mg/l]	4547750
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.094[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.003[mg/l]**	**-0.006[mg/l]**	**4524730**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***4.565***	***59.653***	***16.265***	***3.610***	***51.479***	***126.451***	***---***
Conc SD	***0.004[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.007[mg/l]***	***32555.2***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.264[%]	0.001[mg/l]	<-0.006[mg/l]				
Conc 2	100.266[%]	0.001[mg/l]	<-0.005[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.765[%]**	**0.001[mg/l]**	**<-0.006[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.710***	***2.187***	***9.032***				
Conc SD	***0.709[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130735-A-5-D | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:10:27 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130735-A-5-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	-0.007[mg/l]	1071280	<-0.001[mg/l]	0.010[mg/l]	0.017[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.008[mg/l]	1085450	<-0.004[mg/l]	0.010[mg/l]	0.017[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.008[mg/l]**	**1078370**	**<-0.002[mg/l]**	**0.010[mg/l]**	**0.017[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***171.442***	***9.553***	***---***	***103.523***	***0.877***	***0.107***	***13.781***

Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***10019.7***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	49.944[mg/l]	0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	27118.7	<-0.003[mg/l]	0.001[mg/l]
Conc 2	49.776[mg/l]	0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	25417.3	<-0.003[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**49.860[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**26268.0**	**<-0.003[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.240***	***12.509***	***7.115***	***85.889***	***---***	***1.250***	***1.895***
Conc SD	***0.119[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1203.07***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.401[mg/l]	0.000[mg/l]	1.245[mg/l]	0.289[mg/l]	0.002[mg/l]	187.798[mg/l]	0.000[mg/l]
Conc 2	0.428[mg/l]	0.000[mg/l]	1.231[mg/l]	0.285[mg/l]	0.001[mg/l]	199.627[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.415[mg/l]**	**0.000[mg/l]**	**1.238[mg/l]**	**0.287[mg/l]**	**0.001[mg/l]**	**193.713[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.545***	***8.351***	***0.777***	***1.019***	***29.189***	***4.318***	***133.362***
Conc SD	***0.019[mg/l]***	***0.000[mg/l]***	***0.010[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***8.364[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.000[mg/l]	-0.001[mg/l]	0.987[mg/l]	0.001[mg/l]	0.044[mg/l]	0.001[mg/l]
Conc 2	0.000[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.964[mg/l]	-0.000[mg/l]	0.044[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**0.975[mg/l]**	**0.000[mg/l]**	**0.044[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***181.558***	***82.601***	***46.272***	***1.650***	***169.585***	***0.033***	***22.393***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.016[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	0.004[mg/l]	4396060	96.933[%]	0.009[mg/l]	96.933[%]	
Conc 2	-0.001[mg/l]	0.005[mg/l]	4429710	97.685[%]	0.009[mg/l]	97.685[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.001[mg/l]**	**0.004[mg/l]**	**4412890**	**97.309[%]**	**0.009[mg/l]**	**97.309[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***19.910***	***16.028***	***---***	***0.546***	***0.408***	***0.546***	
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***23794.1***	***0.531[%]***	***0.000[mg/l]***	***0.531[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	-0.007[mg/l]	1071280	<-0.001[mg/l]	0.010[mg/l]	0.017[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.008[mg/l]	1085450	<-0.004[mg/l]	0.010[mg/l]	0.017[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.008[mg/l]**	**1078370**	**<-0.002[mg/l]**	**0.010[mg/l]**	**0.017[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***171.442***	***9.553***	***---***	***103.523***	***0.877***	***0.107***	***13.781***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***10019.7***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	49.944[mg/l]	0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	27118.7	<-0.010[mg/l]	0.001[mg/l]

Conc 2	49.776[mg/l]	0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	25417.3	<-0.010[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**49.860[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**26268.0**	**<-0.010[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.240***	***12.509***	***7.115***	***85.889***	***---***	***0.105***	***1.895***
Conc SD	***0.119[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1203.07***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.941[mg/l]	0.401[mg/l]	<-18.895[mg/l]	0.000[mg/l]	<-0.420[mg/l]	1.245[mg/l]	0.289[mg/l]
Conc 2	<-4.941[mg/l]	0.428[mg/l]	<-18.842[mg/l]	0.000[mg/l]	<-0.419[mg/l]	1.231[mg/l]	0.285[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.941[mg/l]**	**0.415[mg/l]**	**<-18.869[mg/l]**	**0.000[mg/l]**	**<-0.420[mg/l]**	**1.238[mg/l]**	**0.287[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.002***	***4.545***	***0.202***	***8.351***	***0.030***	***0.777***	***1.019***
Conc SD	***0.000[mg/l]***	***0.019[mg/l]***	***0.038[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.010[mg/l]***	***0.003[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.002[mg/l]	>269.751[mg/l]	187.798[mg/l]	0.000[mg/l]	-0.001[mg/l]	0.000[mg/l]	-0.001[mg/l]
Conc 2	0.001[mg/l]	>292.421[mg/l]	199.627[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**>281.086[mg/l]**	**193.713[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***29.189***	***5.703***	***4.318***	***133.362***	***181.558***	***82.601***	***46.272***
Conc SD	***0.000[mg/l]***	***16.030[mg/l]***	***8.364[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.987[mg/l]	0.001[mg/l]	0.044[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.004[mg/l]	4396060
Conc 2	0.964[mg/l]	-0.000[mg/l]	0.044[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.005[mg/l]	4429710
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.975[mg/l]**	**0.000[mg/l]**	**0.044[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**0.004[mg/l]**	**4412890**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.650***	***169.585***	***0.033***	***22.393***	***19.910***	***16.028***	***---***
Conc SD	***0.016[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***23794.1***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.933[%]	0.009[mg/l]	<-0.003[mg/l]				
Conc 2	97.685[%]	0.009[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.309[%]**	**0.009[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.546***	***0.408***	***1.250***				
Conc SD	***0.531[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

SPECTRO

Printing Date: 5/17/2016 8:50:53 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: 600-130735-A-6-D			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 17:12:26	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130735-A-6-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	-0.009[mg/l]	1067200	<-0.001[mg/l]	0.009[mg/l]	0.020[mg/l]	-0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.007[mg/l]	1081270	<-0.001[mg/l]	0.009[mg/l]	0.020[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.008[mg/l]**	**1074240**	**<-0.001[mg/l]**	**0.009[mg/l]**	**0.020[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***99.072***	***22.423***	***---***	***32.921***	***1.523***	***0.564***	***143.832***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***9948.99***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	53.026[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	25491.0	<-0.004[mg/l]	0.010[mg/l]
Conc 2	53.833[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	25431.7	<-0.004[mg/l]	0.010[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**53.430[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**25461.4**	**<-0.004[mg/l]**	**0.010[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.068***	***112.805***	***5.775***	***573.741***	***---***	***0.870***	***0.665***
Conc SD	***0.570[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***41.931***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.434[mg/l]	0.000[mg/l]	1.443[mg/l]	0.188[mg/l]	0.001[mg/l]	187.571[mg/l]	0.001[mg/l]
Conc 2	0.434[mg/l]	0.000[mg/l]	1.451[mg/l]	0.189[mg/l]	0.001[mg/l]	188.498[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.434[mg/l]**	**0.000[mg/l]**	**1.447[mg/l]**	**0.188[mg/l]**	**0.001[mg/l]**	**188.034[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.040***	***1.822***	***0.389***	***0.681***	***12.925***	***0.349***	***21.953***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.006[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.655[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.000[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.870[mg/l]	0.001[mg/l]	0.049[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.883[mg/l]	0.000[mg/l]	0.049[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.002[mg/l]**	**0.876[mg/l]**	**0.000[mg/l]**	**0.049[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***82.905***	***100.710***	***47.963***	***1.033***	***83.355***	***0.030***	***28.455***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.009[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.000[mg/l]	0.000[mg/l]	4426420	97.605[%]	0.009[mg/l]	97.605[%]	
Conc 2	0.000[mg/l]	0.002[mg/l]	4401410	97.038[%]	0.010[mg/l]	97.038[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.000[mg/l]**	**0.001[mg/l]**	**4413920**	**97.321[%]**	**0.010[mg/l]**	**97.321[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***309.233***	***109.468***	***---***	***0.412***	***1.273***	***0.412***	
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***17684.7***	***0.401[%]***	***0.000[mg/l]***	***0.401[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	-0.009[mg/l]	1067200	<-0.001[mg/l]	0.009[mg/l]	0.020[mg/l]	-0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.007[mg/l]	1081270	<-0.001[mg/l]	0.009[mg/l]	0.020[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.008[mg/l]**	**1074240**	**<-0.001[mg/l]**	**0.009[mg/l]**	**0.020[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***99.072***	***22.423***	***---***	***32.921***	***1.523***	***0.564***	***143.832***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***9948.99***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	53.026[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	25491.0	<-0.010[mg/l]	0.010[mg/l]
Conc 2	53.833[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	25431.7	<-0.009[mg/l]	0.010[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**53.430[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**25461.4**	**<-0.010[mg/l]**	**0.010[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.068***	***112.805***	***5.775***	***573.741***	***---***	***9.468***	***0.665***
Conc SD	***0.570[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***41.931***	***0.001[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.930[mg/l]	0.434[mg/l]	<-18.826[mg/l]	0.000[mg/l]	<-0.420[mg/l]	1.443[mg/l]	0.188[mg/l]
Conc 2	<-4.931[mg/l]	0.434[mg/l]	<-18.829[mg/l]	0.000[mg/l]	<-0.420[mg/l]	1.451[mg/l]	0.189[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.930[mg/l]**	**0.434[mg/l]**	**<-18.828[mg/l]**	**0.000[mg/l]**	**<-0.420[mg/l]**	**1.447[mg/l]**	**0.188[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.001***	***0.040***	***0.010***	***1.822***	***0.005***	***0.389***	***0.681***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.006[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	>268.960[mg/l]	187.571[mg/l]	0.001[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.001[mg/l]
Conc 2	0.001[mg/l]	>270.196[mg/l]	188.498[mg/l]	0.002[mg/l]	-0.001[mg/l]	-0.000[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**>269.578[mg/l]**	**188.034[mg/l]**	**0.002[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***12.925***	***0.324***	***0.349***	***21.953***	***82.905***	***100.710***	***47.963***
Conc SD	***0.000[mg/l]***	***0.874[mg/l]***	***0.655[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.870[mg/l]	0.001[mg/l]	0.049[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	4426420
Conc 2	0.883[mg/l]	0.000[mg/l]	0.049[mg/l]	0.001[mg/l]	0.000[mg/l]	0.002[mg/l]	4401410
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.876[mg/l]**	**0.000[mg/l]**	**0.049[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**4413920**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.033***	***83.355***	***0.030***	***28.455***	***309.233***	***109.468***	***---***

Conc SD	***0.009[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***17684.7***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.605[%]	0.009[mg/l]	<-0.004[mg/l]				
Conc 2	97.038[%]	0.010[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.321[%]**	**0.010[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.412***	***1.273***	***0.870***				
Conc SD	***0.401[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130657-A-1-E | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:14:26 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130657-A-1-E						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.003[mg/l]	0.154[mg/l]	1052360	<-0.002[mg/l]	0.006[mg/l]	0.023[mg/l]	-0.000[mg/l]
Conc 2	0.002[mg/l]	0.152[mg/l]	1068000	<-0.001[mg/l]	0.005[mg/l]	0.022[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**0.153[mg/l]**	**1060180**	**<-0.001[mg/l]**	**0.006[mg/l]**	**0.022[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***14.206***	***0.513***	***---***	***59.832***	***5.917***	***1.313***	***458.589***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***11059.2***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.076[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	24622.3	>2.420[mg/l]	0.012[mg/l]
Conc 2	0.076[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24696.3	2.397[mg/l]	0.012[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.076[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**24659.3**	**>2.409[mg/l]**	**0.012[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.007***	***104.234***	***7.373***	***166.801***	***---***	***0.675***	***5.229***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***52.326***	***0.016[mg/l]***	***0.001[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.177[mg/l]	0.012[mg/l]	0.010[mg/l]	0.002[mg/l]	0.001[mg/l]	148.638[mg/l]	0.001[mg/l]
Conc 2	0.181[mg/l]	0.012[mg/l]	0.013[mg/l]	0.002[mg/l]	0.000[mg/l]	146.882[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.179[mg/l]**	**0.012[mg/l]**	**0.012[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**147.760[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.533***	***0.944***	***13.248***	***0.608***	***79.909***	***0.840***	***42.642***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1.242[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	-0.000[mg/l]	-0.002[mg/l]	-0.009[mg/l]	0.001[mg/l]	0.001[mg/l]	0.001[mg/l]

Conc 2	-0.000[mg/l]	0.001[mg/l]	-0.001[mg/l]	-0.014[mg/l]	0.001[mg/l]	0.001[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**-0.012[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***113.888***	***186.854***	***61.590***	***31.410***	***1.228***	***1.101***	***16.662***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.000[mg/l]	0.008[mg/l]	4441230	97.929[%]	0.831[mg/l]	97.929[%]	
Conc 2	-0.001[mg/l]	-0.005[mg/l]	4461070	98.349[%]	0.824[mg/l]	98.349[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.001[mg/l]**	**0.002[mg/l]**	**4451150**	**98.139[%]**	**0.827[mg/l]**	**98.139[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***127.599***	***557.489***	***---***	***0.302***	***0.567***	***0.302***	
Conc SD	***0.001[mg/l]***	***0.009[mg/l]***	***14029.0***	***0.296[%]***	***0.005[mg/l]***	***0.296[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.003[mg/l]	0.154[mg/l]	1052360	<-0.002[mg/l]	0.006[mg/l]	0.023[mg/l]	-0.000[mg/l]
Conc 2	0.002[mg/l]	0.152[mg/l]	1068000	<-0.001[mg/l]	0.005[mg/l]	0.022[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**0.153[mg/l]**	**1060180**	**<-0.001[mg/l]**	**0.006[mg/l]**	**0.022[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***14.206***	***0.513***	***---***	***59.832***	***5.917***	***1.313***	***458.589***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***11059.2***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.076[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	24622.3	>2.420[mg/l]	0.012[mg/l]
Conc 2	0.076[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24696.3	2.397[mg/l]	0.012[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.076[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**24659.3**	**>2.409[mg/l]**	**0.012[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.007***	***104.234***	***7.373***	***166.801***	***---***	***0.675***	***5.229***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***52.326***	***0.016[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.928[mg/l]	0.177[mg/l]	<-19.348[mg/l]	0.012[mg/l]	<-0.406[mg/l]	0.010[mg/l]	0.002[mg/l]
Conc 2	<-4.929[mg/l]	0.181[mg/l]	<-19.342[mg/l]	0.012[mg/l]	<-0.406[mg/l]	0.013[mg/l]	0.002[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.929[mg/l]**	**0.179[mg/l]**	**<-19.345[mg/l]**	**0.012[mg/l]**	**<-0.406[mg/l]**	**0.012[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.015***	***1.533***	***0.020***	***0.944***	***0.016***	***13.248***	***0.608***
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	>196.885[mg/l]	148.638[mg/l]	0.001[mg/l]	-0.001[mg/l]	-0.000[mg/l]	-0.002[mg/l]
Conc 2	0.000[mg/l]	>193.269[mg/l]	146.882[mg/l]	0.001[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>195.077[mg/l]**	**147.760[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***79.909***	***1.311***	***0.840***	***42.642***	***113.888***	***186.854***	***61.590***
Conc SD	***0.000[mg/l]***	***2.557[mg/l]***	***1.242[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.009[mg/l]	0.001[mg/l]	0.001[mg/l]	0.001[mg/l]	-0.000[mg/l]	0.008[mg/l]	4441230
Conc 2	-0.014[mg/l]	0.001[mg/l]	0.001[mg/l]	0.002[mg/l]	-0.001[mg/l]	-0.005[mg/l]	4461070
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.012[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**0.002[mg/l]**	**4451150**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***31.410***	***1.228***	***1.101***	***16.662***	***127.599***	***557.489***	***---***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.009[mg/l]***	***14029.0***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.929[%]	0.831[mg/l]	>2.503[mg/l]				
Conc 2	98.349[%]	0.824[mg/l]	>2.501[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.139[%]**	**0.827[mg/l]**	**>2.502[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.302***	***0.567***	***0.056***				
Conc SD	***0.296[%]***	***0.005[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130657-A-1-F DU | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:16:24 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130657-A-1-F DU						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.003[mg/l]	0.162[mg/l]	1063400	<-0.000[mg/l]	0.006[mg/l]	0.024[mg/l]	0.000[mg/l]
Conc 2	0.002[mg/l]	0.157[mg/l]	1052980	<-0.002[mg/l]	0.006[mg/l]	0.023[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**0.160[mg/l]**	**1058190**	**<-0.001[mg/l]**	**0.006[mg/l]**	**0.023[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***30.821***	***1.969***	***---***	***99.084***	***1.829***	***2.418***	***8.631***
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***7368.05***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.061[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	23983.5	>2.599[mg/l]	0.011[mg/l]
Conc 2	0.060[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	24544.7	>2.478[mg/l]	0.010[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.060[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**24264.1**	**>2.539[mg/l]**	**0.011[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.378***	***8.840***	***17.670***	***78.802***	***---***	***3.384***	***5.642***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***396.828***	***0.086[mg/l]***	***0.001[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.190[mg/l]	0.012[mg/l]	0.010[mg/l]	0.002[mg/l]	0.000[mg/l]	158.712[mg/l]	0.000[mg/l]
Conc 2	0.189[mg/l]	0.012[mg/l]	0.010[mg/l]	0.002[mg/l]	0.001[mg/l]	156.808[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.190[mg/l]**	**0.012[mg/l]**	**0.010[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**157.760[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.400***	***0.271***	***0.030***	***1.578***	***110.180***	***0.853***	***88.818***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1.346[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	-0.002[mg/l]	-0.001[mg/l]	0.017[mg/l]	0.002[mg/l]	0.001[mg/l]	0.001[mg/l]
Conc 2	-0.000[mg/l]	0.001[mg/l]	-0.001[mg/l]	-0.020[mg/l]	0.002[mg/l]	0.001[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**-0.002[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***35.229***	***286.213***	***35.384***	***1696.49***	***14.000***	***3.065***	***32.530***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.026[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	0.003[mg/l]	4309000	94.982[%]	0.893[mg/l]	94.982[%]	
Conc 2	-0.001[mg/l]	0.002[mg/l]	4501550	99.253[%]	0.854[mg/l]	99.253[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.001[mg/l]**	**0.002[mg/l]**	**4405270**	**97.117[%]**	**0.873[mg/l]**	**97.117[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***43.477***	***10.640***	***---***	***3.110***	***3.127***	***3.110***	
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***136153***	***3.020[%]***	***0.027[mg/l]***	***3.020[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.003[mg/l]	0.162[mg/l]	1063400	<-0.000[mg/l]	0.006[mg/l]	0.024[mg/l]	0.000[mg/l]
Conc 2	0.002[mg/l]	0.157[mg/l]	1052980	<-0.002[mg/l]	0.006[mg/l]	0.023[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**0.160[mg/l]**	**1058190**	**<-0.001[mg/l]**	**0.006[mg/l]**	**0.023[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***30.821***	***1.969***	***---***	***99.084***	***1.829***	***2.418***	***8.631***
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***7368.05***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.061[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	23983.5	>2.599[mg/l]	0.011[mg/l]
Conc 2	0.060[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	24544.7	>2.478[mg/l]	0.010[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.060[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**24264.1**	**>2.539[mg/l]**	**0.011[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.378***	***8.840***	***17.670***	***78.802***	***---***	***3.384***	***5.642***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***396.828***	***0.086[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.930[mg/l]	0.190[mg/l]	<-19.322[mg/l]	0.012[mg/l]	<-0.405[mg/l]	0.010[mg/l]	0.002[mg/l]
Conc 2	<-4.931[mg/l]	0.189[mg/l]	<-19.321[mg/l]	0.012[mg/l]	<-0.405[mg/l]	0.010[mg/l]	0.002[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.931[mg/l]**	**0.190[mg/l]**	**<-19.322[mg/l]**	**0.012[mg/l]**	**<-0.405[mg/l]**	**0.010[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.016***	***0.400***	***0.003***	***0.271***	***0.021***	***0.030***	***1.578***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>213.618[mg/l]	158.712[mg/l]	0.000[mg/l]	-0.001[mg/l]	-0.002[mg/l]	-0.001[mg/l]
Conc 2	0.001[mg/l]	>210.522[mg/l]	156.808[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>212.070[mg/l]**	**157.760[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***110.180***	***1.032***	***0.853***	***88.818***	***35.229***	***286.213***	***35.384***
Conc SD	***0.000[mg/l]***	***2.189[mg/l]***	***1.346[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.017[mg/l]	0.002[mg/l]	0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.003[mg/l]	4309000
Conc 2	-0.020[mg/l]	0.002[mg/l]	0.001[mg/l]	0.002[mg/l]	-0.001[mg/l]	0.002[mg/l]	4501550
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.002[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**0.002[mg/l]**	**4405270**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1696.49***	***14.000***	***3.065***	***32.530***	***43.477***	***10.640***	***---***
Conc SD	***0.026[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***136153***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	94.982[%]	0.893[mg/l]	>2.656[mg/l]				
Conc 2	99.253[%]	0.854[mg/l]	>2.617[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.117[%]**	**0.873[mg/l]**	**>2.637[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***3.110***	***3.127***	***1.052***				
Conc SD	***3.020[%]***	***0.027[mg/l]***	***0.028[mg/l]***				

Sample Name: 600-130657-A-1-G MS			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 17:18:20	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130657-A-1-G MS						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.536[mg/l]	11.126[mg/l]	1096780	1.123[mg/l]	1.098[mg/l]	1.111[mg/l]	0.533[mg/l]
Conc 2	0.537[mg/l]	11.141[mg/l]	1085220	1.112[mg/l]	1.101[mg/l]	1.115[mg/l]	0.533[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.536[mg/l]**	**11.133[mg/l]**	**1091000**	**1.118[mg/l]**	**1.100[mg/l]**	**1.113[mg/l]**	**0.533[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.125***	***0.095***	***---***	***0.656***	***0.221***	***0.243***	***0.048***

Conc SD	***0.001[mg/l]***	***0.011[mg/l]***	***8174.15***	***0.007[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	10.855[mg/l]	0.533[mg/l]	1.077[mg/l]	1.074[mg/l]	25138.7	>3.647[mg/l]	10.814[mg/l]
Conc 2	10.848[mg/l]	0.535[mg/l]	1.080[mg/l]	1.078[mg/l]	24939.4	>3.653[mg/l]	10.843[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**10.851[mg/l]**	**0.534[mg/l]**	**1.079[mg/l]**	**1.076[mg/l]**	**25039.0**	**>3.650[mg/l]**	**10.829[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.042***	***0.261***	***0.205***	***0.283***	***---***	***0.134***	***0.192***
Conc SD	***0.005[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***140.926***	***0.005[mg/l]***	***0.021[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	11.602[mg/l]	1.108[mg/l]	10.769[mg/l]	1.080[mg/l]	1.033[mg/l]	170.236[mg/l]	1.073[mg/l]
Conc 2	11.798[mg/l]	1.123[mg/l]	10.814[mg/l]	1.082[mg/l]	1.036[mg/l]	173.266[mg/l]	1.076[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**11.700[mg/l]**	**1.115[mg/l]**	**10.792[mg/l]**	**1.081[mg/l]**	**1.035[mg/l]**	**171.751[mg/l]**	**1.074[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.183***	***0.929***	***0.293***	***0.123***	***0.189***	***1.247***	***0.203***
Conc SD	***0.138[mg/l]***	***0.010[mg/l]***	***0.032[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***2.143[mg/l]***	***0.002[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.091[mg/l]	1.052[mg/l]	1.130[mg/l]	1.002[mg/l]	1.041[mg/l]	0.550[mg/l]	1.029[mg/l]
Conc 2	1.086[mg/l]	1.036[mg/l]	1.103[mg/l]	0.990[mg/l]	1.039[mg/l]	0.553[mg/l]	1.026[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.088[mg/l]**	**1.044[mg/l]**	**1.117[mg/l]**	**0.996[mg/l]**	**1.040[mg/l]**	**0.552[mg/l]**	**1.027[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.350***	***1.131***	***1.697***	***0.866***	***0.096***	***0.434***	***0.188***
Conc SD	***0.004[mg/l]***	***0.012[mg/l]***	***0.019[mg/l]***	***0.009[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	1.045[mg/l]	1.104[mg/l]	4334450	95.603[%]	2.002[mg/l]	95.603[%]	
Conc 2	1.031[mg/l]	1.110[mg/l]	4346790	95.841[%]	2.011[mg/l]	95.841[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**1.038[mg/l]**	**1.107[mg/l]**	**4340620**	**95.722[%]**	**2.006[mg/l]**	**95.722[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.960***	***0.407***	***---***	***0.176***	***0.296***	***0.176***	
Conc SD	***0.010[mg/l]***	***0.005[mg/l]***	***8725.70***	***0.168[%]***	***0.006[mg/l]***	***0.168[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.536[mg/l]	11.126[mg/l]	1096780	1.123[mg/l]	1.098[mg/l]	1.111[mg/l]	0.533[mg/l]
Conc 2	0.537[mg/l]	11.141[mg/l]	1085220	1.112[mg/l]	1.101[mg/l]	1.115[mg/l]	0.533[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.536[mg/l]**	**11.133[mg/l]**	**1091000**	**1.118[mg/l]**	**1.100[mg/l]**	**1.113[mg/l]**	**0.533[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.125***	***0.095***	***---***	***0.656***	***0.221***	***0.243***	***0.048***
Conc SD	***0.001[mg/l]***	***0.011[mg/l]***	***8174.15***	***0.007[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	10.855[mg/l]	0.533[mg/l]	1.077[mg/l]	1.074[mg/l]	25138.7	>3.647[mg/l]	10.814[mg/l]

Conc 2	10.848[mg/l]	0.535[mg/l]	1.080[mg/l]	1.078[mg/l]	24939.4	>3.653[mg/l]	10.843[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**10.851[mg/l]**	**0.534[mg/l]**	**1.079[mg/l]**	**1.076[mg/l]**	**25039.0**	**>3.650[mg/l]**	**10.829[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.042***	***0.261***	***0.205***	***0.283***	***---***	***0.134***	***0.192***
Conc SD	***0.005[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***140.926***	***0.005[mg/l]***	***0.021[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<8.501[mg/l]	11.602[mg/l]	<3.753[mg/l]	1.108[mg/l]	<0.929[mg/l]	10.769[mg/l]	1.080[mg/l]
Conc 2	<8.537[mg/l]	11.798[mg/l]	<4.147[mg/l]	1.123[mg/l]	<0.946[mg/l]	10.814[mg/l]	1.082[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<8.519[mg/l]**	**11.700[mg/l]**	**<3.950[mg/l]**	**1.115[mg/l]**	**<0.938[mg/l]**	**10.792[mg/l]**	**1.081[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.304***	***1.183***	***7.040***	***0.929***	***1.278***	***0.293***	***0.123***
Conc SD	***0.026[mg/l]***	***0.138[mg/l]***	***0.278[mg/l]***	***0.010[mg/l]***	***0.012[mg/l]***	***0.032[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	1.033[mg/l]	>233.984[mg/l]	170.236[mg/l]	1.073[mg/l]	1.091[mg/l]	1.052[mg/l]	1.130[mg/l]
Conc 2	1.036[mg/l]	>239.938[mg/l]	173.266[mg/l]	1.076[mg/l]	1.086[mg/l]	1.036[mg/l]	1.103[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.035[mg/l]**	**>236.961[mg/l]**	**171.751[mg/l]**	**1.074[mg/l]**	**1.088[mg/l]**	**1.044[mg/l]**	**1.117[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.189***	***1.777***	***1.247***	***0.203***	***0.350***	***1.131***	***1.697***
Conc SD	***0.002[mg/l]***	***4.210[mg/l]***	***2.143[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***	***0.012[mg/l]***	***0.019[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	1.002[mg/l]	1.041[mg/l]	0.550[mg/l]	1.029[mg/l]	1.045[mg/l]	1.104[mg/l]	4334450
Conc 2	0.990[mg/l]	1.039[mg/l]	0.553[mg/l]	1.026[mg/l]	1.031[mg/l]	1.110[mg/l]	4346790
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.996[mg/l]**	**1.040[mg/l]**	**0.552[mg/l]**	**1.027[mg/l]**	**1.038[mg/l]**	**1.107[mg/l]**	**4340620**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.866***	***0.096***	***0.434***	***0.188***	***0.960***	***0.407***	***---***
Conc SD	***0.009[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.010[mg/l]***	***0.005[mg/l]***	***8725.70***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	95.603[%]	2.002[mg/l]	>3.862[mg/l]				
Conc 2	95.841[%]	2.011[mg/l]	>3.870[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**95.722[%]**	**2.006[mg/l]**	**>3.866[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.176***	***0.296***	***0.156***				
Conc SD	***0.168[%]***	***0.006[mg/l]***	***0.006[mg/l]***				

Sample Name: 600-130657-A-2-E			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 17:20:17	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130657-A-2-E						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.013[mg/l]	0.304[mg/l]	1026830	<-0.003[mg/l]	0.012[mg/l]	0.074[mg/l]	0.000[mg/l]
Conc 2	0.014[mg/l]	0.305[mg/l]	1053320	<-0.003[mg/l]	0.012[mg/l]	0.074[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.013[mg/l]**	**0.305[mg/l]**	**1040080**	**<-0.003[mg/l]**	**0.012[mg/l]**	**0.074[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***5.013***	***0.291***	***---***	***5.167***	***3.726***	***0.132***	***19.339***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***18731.3***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	2.606[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.001[mg/l]	24031.1	<-0.001[mg/l]	0.539[mg/l]
Conc 2	2.631[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	25015.0	<-0.000[mg/l]	0.542[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**2.618[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**24523.1**	**<-0.001[mg/l]**	**0.540[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.684***	***25.039***	***20.969***	***36.916***	***---***	***30.739***	***0.384***
Conc SD	***0.018[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***695.722***	***0.000[mg/l]***	***0.002[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.137[mg/l]	0.006[mg/l]	0.277[mg/l]	0.006[mg/l]	0.010[mg/l]	146.321[mg/l]	0.001[mg/l]
Conc 2	0.130[mg/l]	0.006[mg/l]	0.277[mg/l]	0.006[mg/l]	0.009[mg/l]	137.919[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.133[mg/l]**	**0.006[mg/l]**	**0.277[mg/l]**	**0.006[mg/l]**	**0.010[mg/l]**	**142.120[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3.553***	***5.170***	***0.152***	***0.547***	***4.567***	***4.180***	***14.689***
Conc SD	***0.005[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***5.941[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]	0.509[mg/l]	0.001[mg/l]	0.031[mg/l]	0.005[mg/l]
Conc 2	-0.002[mg/l]	0.001[mg/l]	0.000[mg/l]	0.518[mg/l]	-0.000[mg/l]	0.031[mg/l]	0.005[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.514[mg/l]**	**0.001[mg/l]**	**0.031[mg/l]**	**0.005[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***181.124***	***50.834***	***320.158***	***1.177***	***169.738***	***0.013***	***0.097***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.006[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.006[mg/l]	-0.002[mg/l]	4491010	99.028[%]	0.025[mg/l]	99.028[%]	
Conc 2	0.005[mg/l]	0.000[mg/l]	4500940	99.235[%]	0.025[mg/l]	99.235[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.005[mg/l]**	**-0.001[mg/l]**	**4495970**	**99.132[%]**	**0.025[mg/l]**	**99.132[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***7.945***	***144.025***	***---***	***0.147***	***1.925***	***0.147***	
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***7021.57***	***0.146[%]***	***0.000[mg/l]***	***0.146[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.013[mg/l]	0.304[mg/l]	1026830	<-0.003[mg/l]	0.012[mg/l]	0.074[mg/l]	0.000[mg/l]
Conc 2	0.014[mg/l]	0.305[mg/l]	1053320	<-0.003[mg/l]	0.012[mg/l]	0.074[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.013[mg/l]**	**0.305[mg/l]**	**1040080**	**<-0.003[mg/l]**	**0.012[mg/l]**	**0.074[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***5.013***	***0.291***	***---***	***5.167***	***3.726***	***0.132***	***19.339***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***18731.3***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	2.606[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.001[mg/l]	24031.1	<-0.006[mg/l]	0.539[mg/l]
Conc 2	2.631[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	25015.0	<-0.006[mg/l]	0.542[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**2.618[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**24523.1**	**<-0.006[mg/l]**	**0.540[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.684***	***25.039***	***20.969***	***36.916***	***---***	***2.307***	***0.384***
Conc SD	***0.018[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***695.722***	***0.000[mg/l]***	***0.002[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.274[mg/l]	0.137[mg/l]	<-19.434[mg/l]	0.006[mg/l]	<-0.413[mg/l]	0.277[mg/l]	0.006[mg/l]
Conc 2	<-4.271[mg/l]	0.130[mg/l]	<-19.445[mg/l]	0.006[mg/l]	<-0.413[mg/l]	0.277[mg/l]	0.006[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.272[mg/l]**	**0.133[mg/l]**	**<-19.439[mg/l]**	**0.006[mg/l]**	**<-0.413[mg/l]**	**0.277[mg/l]**	**0.006[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.059***	***3.553***	***0.040***	***5.170***	***0.093***	***0.152***	***0.547***
Conc SD	***0.003[mg/l]***	***0.005[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.010[mg/l]	>192.038[mg/l]	146.321[mg/l]	0.001[mg/l]	0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]
Conc 2	0.009[mg/l]	>177.779[mg/l]	137.919[mg/l]	0.001[mg/l]	-0.002[mg/l]	0.001[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.010[mg/l]**	**>184.909[mg/l]**	**142.120[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.567***	***5.453***	***4.180***	***14.689***	***181.124***	***50.834***	***320.158***
Conc SD	***0.000[mg/l]***	***10.083[mg/l]***	***5.941[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.509[mg/l]	0.001[mg/l]	0.031[mg/l]	0.005[mg/l]	0.006[mg/l]	-0.002[mg/l]	4491010
Conc 2	0.518[mg/l]	-0.000[mg/l]	0.031[mg/l]	0.005[mg/l]	0.005[mg/l]	0.000[mg/l]	4500940
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.514[mg/l]**	**0.001[mg/l]**	**0.031[mg/l]**	**0.005[mg/l]**	**0.005[mg/l]**	**-0.001[mg/l]**	**4495970**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.177***	***169.738***	***0.013***	***0.097***	***7.945***	***144.025***	***---***

Conc SD	***0.006[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***7021.57***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.028[%]	0.025[mg/l]	<-0.001[mg/l]				
Conc 2	99.235[%]	0.025[mg/l]	<-0.000[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.132[%]**	**0.025[mg/l]**	**<-0.001[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.147***	***1.925***	***30.739***				
Conc SD	***0.146[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130657-A-2-F MS | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:22:15 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130657-A-2-F MS						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.518[mg/l]	10.688[mg/l]	1098530	1.046[mg/l]	1.050[mg/l]	1.102[mg/l]	0.502[mg/l]
Conc 2	0.524[mg/l]	10.657[mg/l]	1068410	1.062[mg/l]	1.056[mg/l]	1.098[mg/l]	0.507[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.521[mg/l]**	**10.672[mg/l]**	**1083470**	**1.054[mg/l]**	**1.053[mg/l]**	**1.100[mg/l]**	**0.505[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.793***	***0.206***	***---***	***1.080***	***0.417***	***0.268***	***0.710***
Conc SD	***0.004[mg/l]***	***0.022[mg/l]***	***21298.1***	***0.011[mg/l]***	***0.004[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	12.740[mg/l]	0.506[mg/l]	1.025[mg/l]	1.020[mg/l]	25602.5	1.038[mg/l]	10.758[mg/l]
Conc 2	12.860[mg/l]	0.504[mg/l]	1.015[mg/l]	1.026[mg/l]	25984.0	1.054[mg/l]	10.786[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.800[mg/l]**	**0.505[mg/l]**	**1.020[mg/l]**	**1.023[mg/l]**	**25793.2**	**1.046[mg/l]**	**10.772[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.665***	***0.233***	***0.671***	***0.422***	***---***	***1.053***	***0.187***
Conc SD	***0.085[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***0.004[mg/l]***	***269.761***	***0.011[mg/l]***	***0.020[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	11.265[mg/l]	1.052[mg/l]	10.466[mg/l]	1.028[mg/l]	0.983[mg/l]	150.013[mg/l]	1.016[mg/l]
Conc 2	10.906[mg/l]	1.042[mg/l]	10.515[mg/l]	1.034[mg/l]	0.979[mg/l]	149.155[mg/l]	1.018[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**11.086[mg/l]**	**1.047[mg/l]**	**10.491[mg/l]**	**1.031[mg/l]**	**0.981[mg/l]**	**149.584[mg/l]**	**1.017[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.290***	***0.665***	***0.328***	***0.408***	***0.312***	***0.406***	***0.086***
Conc SD	***0.254[mg/l]***	***0.007[mg/l]***	***0.034[mg/l]***	***0.004[mg/l]***	***0.003[mg/l]***	***0.607[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.022[mg/l]	0.970[mg/l]	1.034[mg/l]	1.434[mg/l]	0.969[mg/l]	0.551[mg/l]	0.973[mg/l]

Conc 2	1.040[mg/l]	0.980[mg/l]	1.047[mg/l]	1.446[mg/l]	0.980[mg/l]	0.555[mg/l]	0.978[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.031[mg/l]**	**0.975[mg/l]**	**1.041[mg/l]**	**1.440[mg/l]**	**0.975[mg/l]**	**0.553[mg/l]**	**0.976[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.192***	***0.700***	***0.884***	***0.631***	***0.749***	***0.492***	***0.357***
Conc SD	***0.012[mg/l]***	***0.007[mg/l]***	***0.009[mg/l]***	***0.009[mg/l]***	***0.007[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.969[mg/l]	1.051[mg/l]	4459440	98.343[%]	1.055[mg/l]	98.343[%]	
Conc 2	0.975[mg/l]	1.040[mg/l]	4435420	97.828[%]	1.054[mg/l]	97.828[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.972[mg/l]**	**1.045[mg/l]**	**4447430**	**98.085[%]**	**1.055[mg/l]**	**98.085[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.413***	***0.720***	***---***	***0.372***	***0.070***	***0.372***	
Conc SD	***0.004[mg/l]***	***0.008[mg/l]***	***16984.7***	***0.364[%]***	***0.001[mg/l]***	***0.364[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.518[mg/l]	10.688[mg/l]	1098530	1.046[mg/l]	1.050[mg/l]	1.102[mg/l]	0.502[mg/l]
Conc 2	0.524[mg/l]	10.657[mg/l]	1068410	1.062[mg/l]	1.056[mg/l]	1.098[mg/l]	0.507[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.521[mg/l]**	**10.672[mg/l]**	**1083470**	**1.054[mg/l]**	**1.053[mg/l]**	**1.100[mg/l]**	**0.505[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.793***	***0.206***	***---***	***1.080***	***0.417***	***0.268***	***0.710***
Conc SD	***0.004[mg/l]***	***0.022[mg/l]***	***21298.1***	***0.011[mg/l]***	***0.004[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	12.740[mg/l]	0.506[mg/l]	1.025[mg/l]	1.020[mg/l]	25602.5	1.038[mg/l]	10.758[mg/l]
Conc 2	12.860[mg/l]	0.504[mg/l]	1.015[mg/l]	1.026[mg/l]	25984.0	1.054[mg/l]	10.786[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.800[mg/l]**	**0.505[mg/l]**	**1.020[mg/l]**	**1.023[mg/l]**	**25793.2**	**1.046[mg/l]**	**10.772[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.665***	***0.233***	***0.671***	***0.422***	***---***	***1.053***	***0.187***
Conc SD	***0.085[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***0.004[mg/l]***	***269.761***	***0.011[mg/l]***	***0.020[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<8.432[mg/l]	11.265[mg/l]	<3.084[mg/l]	1.052[mg/l]	<0.860[mg/l]	10.466[mg/l]	1.028[mg/l]
Conc 2	<8.467[mg/l]	10.906[mg/l]	<2.327[mg/l]	1.042[mg/l]	<0.848[mg/l]	10.515[mg/l]	1.034[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<8.450[mg/l]**	**11.086[mg/l]**	**<2.705[mg/l]**	**1.047[mg/l]**	**<0.854[mg/l]**	**10.491[mg/l]**	**1.031[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.293***	***2.290***	***19.797***	***0.665***	***0.979***	***0.328***	***0.408***
Conc SD	***0.025[mg/l]***	***0.254[mg/l]***	***0.536[mg/l]***	***0.007[mg/l]***	***0.008[mg/l]***	***0.034[mg/l]***	***0.004[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.983[mg/l]	>198.680[mg/l]	150.013[mg/l]	1.016[mg/l]	1.022[mg/l]	0.970[mg/l]	1.034[mg/l]
Conc 2	0.979[mg/l]	>197.366[mg/l]	149.155[mg/l]	1.018[mg/l]	1.040[mg/l]	0.980[mg/l]	1.047[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.981[mg/l]**	**>198.023[mg/l]**	**149.584[mg/l]**	**1.017[mg/l]**	**1.031[mg/l]**	**0.975[mg/l]**	**1.041[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***0.312***	***0.469***	***0.406***	***0.086***	***1.192***	***0.700***	***0.884***
Conc SD	***0.003[mg/l]***	***0.929[mg/l]***	***0.607[mg/l]***	***0.001[mg/l]***	***0.012[mg/l]***	***0.007[mg/l]***	***0.009[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	1.434[mg/l]	0.969[mg/l]	0.551[mg/l]	0.973[mg/l]	0.969[mg/l]	1.051[mg/l]	4459440
Conc 2	1.446[mg/l]	0.980[mg/l]	0.555[mg/l]	0.978[mg/l]	0.975[mg/l]	1.040[mg/l]	4435420
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**1.440[mg/l]**	**0.975[mg/l]**	**0.553[mg/l]**	**0.976[mg/l]**	**0.972[mg/l]**	**1.045[mg/l]**	**4447430**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.631***	***0.749***	***0.492***	***0.357***	***0.413***	***0.720***	***---***
Conc SD	***0.009[mg/l]***	***0.007[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***	***0.008[mg/l]***	***16984.7***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.343[%]	1.055[mg/l]	>1.114[mg/l]				
Conc 2	97.828[%]	1.054[mg/l]	>1.126[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.085[%]**	**1.055[mg/l]**	**>1.120[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.372***	***0.070***	***0.750***				
Conc SD	***0.364[%]***	***0.001[mg/l]***	***0.008[mg/l]***				

Sample Name: 600-130674-A-1-D | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:24:13 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130674-A-1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	-0.005[mg/l]	1071720	<-0.001[mg/l]	0.007[mg/l]	0.253[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	-0.007[mg/l]	1059920	<-0.001[mg/l]	0.008[mg/l]	0.282[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.006[mg/l]**	**1065820**	**<-0.001[mg/l]**	**0.007[mg/l]**	**0.268[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.339***	***20.961***	***---***	***19.481***	***3.154***	***7.676***	***33.247***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***8343.86***	***0.000[mg/l]***	***0.000[mg/l]***	***0.021[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	59.611[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	28692.9	<-0.008[mg/l]	0.028[mg/l]
Conc 2	67.648[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24688.0	<-0.004[mg/l]	0.032[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**63.630[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**26690.4**	**<-0.006[mg/l]**	**0.030[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***8.931***	***16.454***	***819.406***	***119.481***	***---***	***40.462***	***9.549***
Conc SD	***5.683[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***2831.89***	***0.002[mg/l]***	***0.003[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.113[mg/l]	-0.000[mg/l]	1.541[mg/l]	0.093[mg/l]	0.002[mg/l]	114.669[mg/l]	0.000[mg/l]
Conc 2	0.140[mg/l]	-0.000[mg/l]	1.728[mg/l]	0.102[mg/l]	0.002[mg/l]	142.648[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.126[mg/l]**	**-0.000[mg/l]**	**1.634[mg/l]**	**0.097[mg/l]**	**0.002[mg/l]**	**128.659[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***15.164***	***7.376***	***8.086***	***6.933***	***8.970***	***15.377***	***9.462***
Conc SD	***0.019[mg/l]***	***0.000[mg/l]***	***0.132[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***	***19.784[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.025[mg/l]	0.002[mg/l]	0.055[mg/l]	0.001[mg/l]
Conc 2	-0.002[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.054[mg/l]	0.003[mg/l]	0.062[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.015[mg/l]**	**0.003[mg/l]**	**0.059[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***11.811***	***567.872***	***216.535***	***384.228***	***27.081***	***8.629***	***3.792***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.056[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.005[mg/l]	-0.002[mg/l]	4944150	109.003[%]	0.007[mg/l]	109.003[%]	
Conc 2	0.004[mg/l]	-0.005[mg/l]	4457730	98.296[%]	0.008[mg/l]	98.296[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.005[mg/l]**	**-0.003[mg/l]**	**4700940**	**103.649[%]**	**0.007[mg/l]**	**103.649[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***7.935***	***73.835***	***---***	***7.305***	***8.076***	***7.305***	
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***343951***	***7.571[%]***	***0.001[mg/l]***	***7.571[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	-0.005[mg/l]	1071720	<-0.001[mg/l]	0.007[mg/l]	0.253[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	-0.007[mg/l]	1059920	<-0.001[mg/l]	0.008[mg/l]	0.282[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.006[mg/l]**	**1065820**	**<-0.001[mg/l]**	**0.007[mg/l]**	**0.268[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.339***	***20.961***	***---***	***19.481***	***3.154***	***7.676***	***33.247***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***8343.86***	***0.000[mg/l]***	***0.000[mg/l]***	***0.021[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	59.611[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	28692.9	<-0.010[mg/l]	0.028[mg/l]
Conc 2	67.648[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24688.0	<-0.010[mg/l]	0.032[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**63.630[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**26690.4**	**<-0.010[mg/l]**	**0.030[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***8.931***	***16.454***	***819.406***	***119.481***	***---***	***2.653***	***9.549***
Conc SD	***5.683[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***2831.89***	***0.000[mg/l]***	***0.003[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.909[mg/l]	0.113[mg/l]	<-19.476[mg/l]	-0.000[mg/l]	<-0.421[mg/l]	1.541[mg/l]	0.093[mg/l]
Conc 2	<-4.904[mg/l]	0.140[mg/l]	<-19.426[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	1.728[mg/l]	0.102[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.906[mg/l]**	**0.126[mg/l]**	**<-19.451[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**1.634[mg/l]**	**0.097[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.073***	***15.164***	***0.179***	***7.376***	***0.044***	***8.086***	***6.933***
Conc SD	***0.004[mg/l]***	***0.019[mg/l]***	***0.035[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.132[mg/l]***	***0.007[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.002[mg/l]	>141.749[mg/l]	114.669[mg/l]	0.000[mg/l]	-0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.002[mg/l]	>186.030[mg/l]	142.648[mg/l]	0.000[mg/l]	-0.002[mg/l]	-0.000[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**>163.890[mg/l]**	**128.659[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***8.970***	***19.105***	***15.377***	***9.462***	***11.811***	***567.872***	***216.535***
Conc SD	***0.000[mg/l]***	***31.311[mg/l]***	***19.784[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.025[mg/l]	0.002[mg/l]	0.055[mg/l]	0.001[mg/l]	0.005[mg/l]	-0.002[mg/l]	4944150
Conc 2	0.054[mg/l]	0.003[mg/l]	0.062[mg/l]	0.001[mg/l]	0.004[mg/l]	-0.005[mg/l]	4457730
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.015[mg/l]**	**0.003[mg/l]**	**0.059[mg/l]**	**0.001[mg/l]**	**0.005[mg/l]**	**-0.003[mg/l]**	**4700940**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***384.228***	***27.081***	***8.629***	***3.792***	***7.935***	***73.835***	***---***
Conc SD	***0.056[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***343951***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	109.003[%]	0.007[mg/l]	<-0.008[mg/l]				
Conc 2	98.296[%]	0.008[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**103.649[%]**	**0.007[mg/l]**	**<-0.006[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***7.305***	***8.076***	***40.462***				
Conc SD	***7.571[%]***	***0.001[mg/l]***	***0.002[mg/l]***				

Sample Name: 600-130675-A-1-D | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:26:10 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130675-A-1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	0.000[mg/l]	1046700	<-0.003[mg/l]	0.009[mg/l]	0.168[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.001[mg/l]	1061230	<-0.002[mg/l]	0.009[mg/l]	0.169[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.001[mg/l]**	**1053970**	**<-0.002[mg/l]**	**0.009[mg/l]**	**0.169[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***131.824***	***111.155***	***---***	***35.991***	***0.474***	***0.525***	***18.838***

Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***10274.3***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	41.066[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]	24274.9	<-0.004[mg/l]	0.079[mg/l]
Conc 2	41.674[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]	25214.4	<-0.003[mg/l]	0.075[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**41.370[mg/l]**	**-0.000[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**	**24744.7**	**<-0.004[mg/l]**	**0.077[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.040***	***61.038***	***10.393***	***32.876***	***---***	***6.015***	***3.712***
Conc SD	***0.430[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***664.327***	***0.000[mg/l]***	***0.003[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.156[mg/l]	-0.000[mg/l]	2.539[mg/l]	0.388[mg/l]	0.001[mg/l]	139.186[mg/l]	0.004[mg/l]
Conc 2	0.147[mg/l]	-0.000[mg/l]	2.542[mg/l]	0.392[mg/l]	-0.000[mg/l]	133.532[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.152[mg/l]**	**-0.000[mg/l]**	**2.540[mg/l]**	**0.390[mg/l]**	**0.000[mg/l]**	**136.359[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.031***	***3.358***	***0.084***	***0.740***	***439.270***	***2.932***	***7.117***
Conc SD	***0.006[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***3.998[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	-0.002[mg/l]	-0.002[mg/l]	0.170[mg/l]	0.001[mg/l]	0.103[mg/l]	0.001[mg/l]
Conc 2	-0.001[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.172[mg/l]	0.002[mg/l]	0.104[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.171[mg/l]**	**0.002[mg/l]**	**0.104[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***14.608***	***28.993***	***221.709***	***0.576***	***27.875***	***0.625***	***12.339***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.002[mg/l]	-0.003[mg/l]	4432270	97.720[%]	0.011[mg/l]	97.720[%]	
Conc 2	-0.000[mg/l]	-0.001[mg/l]	4392690	96.857[%]	0.012[mg/l]	96.857[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**-0.002[mg/l]**	**4412480**	**97.289[%]**	**0.012[mg/l]**	**97.289[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***165.291***	***77.023***	***---***	***0.627***	***0.940***	***0.627***	
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***27987.3***	***0.610[%]***	***0.000[mg/l]***	***0.610[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	0.000[mg/l]	1046700	<-0.003[mg/l]	0.009[mg/l]	0.168[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.001[mg/l]	1061230	<-0.002[mg/l]	0.009[mg/l]	0.169[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.001[mg/l]**	**1053970**	**<-0.002[mg/l]**	**0.009[mg/l]**	**0.169[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***131.824***	***111.155***	***---***	***35.991***	***0.474***	***0.525***	***18.838***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***10274.3***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	41.066[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]	24274.9	<-0.009[mg/l]	0.079[mg/l]

Conc 2	41.674[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]	25214.4	<-0.010[mg/l]	0.075[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**41.370[mg/l]**	**-0.000[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**	**24744.7**	**<-0.009[mg/l]**	**0.077[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.040***	***61.038***	***10.393***	***32.876***	***---***	***3.484***	***3.712***
Conc SD	***0.430[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***664.327***	***0.000[mg/l]***	***0.003[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.843[mg/l]	0.156[mg/l]	<-19.393[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.539[mg/l]	0.388[mg/l]
Conc 2	<-4.848[mg/l]	0.147[mg/l]	<-19.410[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.542[mg/l]	0.392[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.846[mg/l]**	**0.152[mg/l]**	**<-19.401[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**2.540[mg/l]**	**0.390[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.070***	***4.031***	***0.061***	***3.358***	***0.002***	***0.084***	***0.740***
Conc SD	***0.003[mg/l]***	***0.006[mg/l]***	***0.012[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	>180.072[mg/l]	139.186[mg/l]	0.004[mg/l]	-0.001[mg/l]	-0.002[mg/l]	-0.002[mg/l]
Conc 2	-0.000[mg/l]	>171.142[mg/l]	133.532[mg/l]	0.004[mg/l]	-0.001[mg/l]	-0.001[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>175.607[mg/l]**	**136.359[mg/l]**	**0.004[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***439.270***	***3.596***	***2.932***	***7.117***	***14.608***	***28.993***	***221.709***
Conc SD	***0.001[mg/l]***	***6.314[mg/l]***	***3.998[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.170[mg/l]	0.001[mg/l]	0.103[mg/l]	0.001[mg/l]	0.002[mg/l]	-0.003[mg/l]	4432270
Conc 2	0.172[mg/l]	0.002[mg/l]	0.104[mg/l]	0.001[mg/l]	-0.000[mg/l]	-0.001[mg/l]	4392690
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.171[mg/l]**	**0.002[mg/l]**	**0.104[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**-0.002[mg/l]**	**4412480**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.576***	***27.875***	***0.625***	***12.339***	***165.291***	***77.023***	***---***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***27987.3***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.720[%]	0.011[mg/l]	<-0.004[mg/l]				
Conc 2	96.857[%]	0.012[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.289[%]**	**0.012[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.627***	***0.940***	***6.015***				
Conc SD	***0.610[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: pds 600-130735-A-1-F			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 17:28:08	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
pds 600-130735-A-1-F						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.503[mg/l]	10.448[mg/l]	1096630	1.058[mg/l]	1.068[mg/l]	1.034[mg/l]	0.499[mg/l]
Conc 2	0.516[mg/l]	10.467[mg/l]	1097930	1.074[mg/l]	1.075[mg/l]	1.041[mg/l]	0.510[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.509[mg/l]**	**10.457[mg/l]**	**1097280**	**1.066[mg/l]**	**1.071[mg/l]**	**1.037[mg/l]**	**0.504[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.778***	***0.126***	***---***	***1.067***	***0.445***	***0.519***	***1.618***
Conc SD	***0.009[mg/l]***	***0.013[mg/l]***	***919.239***	***0.011[mg/l]***	***0.005[mg/l]***	***0.005[mg/l]***	***0.008[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	86.805[mg/l]	0.498[mg/l]	1.016[mg/l]	1.003[mg/l]	25665.3	1.035[mg/l]	10.065[mg/l]
Conc 2	87.217[mg/l]	0.502[mg/l]	1.028[mg/l]	1.016[mg/l]	26131.9	1.055[mg/l]	10.255[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**87.011[mg/l]**	**0.500[mg/l]**	**1.022[mg/l]**	**1.009[mg/l]**	**25898.6**	**1.045[mg/l]**	**10.160[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.335***	***0.648***	***0.828***	***0.932***	***---***	***1.291***	***1.318***
Conc SD	***0.291[mg/l]***	***0.003[mg/l]***	***0.008[mg/l]***	***0.009[mg/l]***	***329.936***	***0.013[mg/l]***	***0.134[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	11.382[mg/l]	1.047[mg/l]	12.102[mg/l]	1.304[mg/l]	0.981[mg/l]	144.817[mg/l]	0.992[mg/l]
Conc 2	11.315[mg/l]	1.072[mg/l]	12.227[mg/l]	1.324[mg/l]	0.992[mg/l]	143.663[mg/l]	1.012[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**11.349[mg/l]**	**1.059[mg/l]**	**12.164[mg/l]**	**1.314[mg/l]**	**0.987[mg/l]**	**144.240[mg/l]**	**1.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.413***	***1.689***	***0.727***	***1.029***	***0.812***	***0.566***	***1.396***
Conc SD	***0.047[mg/l]***	***0.018[mg/l]***	***0.088[mg/l]***	***0.014[mg/l]***	***0.008[mg/l]***	***0.816[mg/l]***	***0.014[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.012[mg/l]	0.974[mg/l]	1.049[mg/l]	1.532[mg/l]	0.987[mg/l]	0.692[mg/l]	0.973[mg/l]
Conc 2	1.027[mg/l]	0.993[mg/l]	1.069[mg/l]	1.542[mg/l]	1.001[mg/l]	0.695[mg/l]	0.993[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.020[mg/l]**	**0.983[mg/l]**	**1.059[mg/l]**	**1.537[mg/l]**	**0.994[mg/l]**	**0.694[mg/l]**	**0.983[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.042***	***1.320***	***1.320***	***0.449***	***0.958***	***0.319***	***1.409***
Conc SD	***0.011[mg/l]***	***0.013[mg/l]***	***0.014[mg/l]***	***0.007[mg/l]***	***0.010[mg/l]***	***0.002[mg/l]***	***0.014[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.993[mg/l]	1.040[mg/l]	4441240	97.951[%]	1.034[mg/l]	97.951[%]	
Conc 2	1.010[mg/l]	1.055[mg/l]	4381180	96.644[%]	1.045[mg/l]	96.644[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**1.001[mg/l]**	**1.047[mg/l]**	**4411210**	**97.298[%]**	**1.039[mg/l]**	**97.298[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***1.240***	***1.036***	***---***	***0.950***	***0.784***	***0.950***	
Conc SD	***0.012[mg/l]***	***0.011[mg/l]***	***42468.8***	***0.924[%]***	***0.008[mg/l]***	***0.924[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.503[mg/l]	10.448[mg/l]	1096630	1.058[mg/l]	1.068[mg/l]	1.034[mg/l]	0.499[mg/l]
Conc 2	0.516[mg/l]	10.467[mg/l]	1097930	1.074[mg/l]	1.075[mg/l]	1.041[mg/l]	0.510[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.509[mg/l]**	**10.457[mg/l]**	**1097280**	**1.066[mg/l]**	**1.071[mg/l]**	**1.037[mg/l]**	**0.504[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.778***	***0.126***	***---***	***1.067***	***0.445***	***0.519***	***1.618***
Conc SD	***0.009[mg/l]***	***0.013[mg/l]***	***919.239***	***0.011[mg/l]***	***0.005[mg/l]***	***0.005[mg/l]***	***0.008[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	86.805[mg/l]	0.498[mg/l]	1.016[mg/l]	1.003[mg/l]	25665.3	1.035[mg/l]	10.065[mg/l]
Conc 2	87.217[mg/l]	0.502[mg/l]	1.028[mg/l]	1.016[mg/l]	26131.9	1.055[mg/l]	10.255[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**87.011[mg/l]**	**0.500[mg/l]**	**1.022[mg/l]**	**1.009[mg/l]**	**25898.6**	**1.045[mg/l]**	**10.160[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.335***	***0.648***	***0.828***	***0.932***	***---***	***1.291***	***1.318***
Conc SD	***0.291[mg/l]***	***0.003[mg/l]***	***0.008[mg/l]***	***0.009[mg/l]***	***329.936***	***0.013[mg/l]***	***0.134[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<7.571[mg/l]	11.382[mg/l]	<3.302[mg/l]	1.047[mg/l]	<0.854[mg/l]	12.102[mg/l]	1.304[mg/l]
Conc 2	<7.807[mg/l]	11.315[mg/l]	<3.146[mg/l]	1.072[mg/l]	<0.885[mg/l]	12.227[mg/l]	1.324[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<7.689[mg/l]**	**11.349[mg/l]**	**<3.224[mg/l]**	**1.059[mg/l]**	**<0.870[mg/l]**	**12.164[mg/l]**	**1.314[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.173***	***0.413***	***3.427***	***1.689***	***2.520***	***0.727***	***1.029***
Conc SD	***0.167[mg/l]***	***0.047[mg/l]***	***0.110[mg/l]***	***0.018[mg/l]***	***0.022[mg/l]***	***0.088[mg/l]***	***0.014[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.981[mg/l]	>189.916[mg/l]	144.817[mg/l]	0.992[mg/l]	1.012[mg/l]	0.974[mg/l]	1.049[mg/l]
Conc 2	0.992[mg/l]	>187.932[mg/l]	143.663[mg/l]	1.012[mg/l]	1.027[mg/l]	0.993[mg/l]	1.069[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.987[mg/l]**	**>188.924[mg/l]**	**144.240[mg/l]**	**1.002[mg/l]**	**1.020[mg/l]**	**0.983[mg/l]**	**1.059[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.812***	***0.743***	***0.566***	***1.396***	***1.042***	***1.320***	***1.320***
Conc SD	***0.008[mg/l]***	***1.403[mg/l]***	***0.816[mg/l]***	***0.014[mg/l]***	***0.011[mg/l]***	***0.013[mg/l]***	***0.014[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	1.532[mg/l]	0.987[mg/l]	0.692[mg/l]	0.973[mg/l]	0.993[mg/l]	1.040[mg/l]	4441240
Conc 2	1.542[mg/l]	1.001[mg/l]	0.695[mg/l]	0.993[mg/l]	1.010[mg/l]	1.055[mg/l]	4381180
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**1.537[mg/l]**	**0.994[mg/l]**	**0.694[mg/l]**	**0.983[mg/l]**	**1.001[mg/l]**	**1.047[mg/l]**	**4411210**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.449***	***0.958***	***0.319***	***1.409***	***1.240***	***1.036***	***---***

Conc SD	***0.007[mg/l]***	***0.010[mg/l]***	***0.002[mg/l]***	***0.014[mg/l]***	***0.012[mg/l]***	***0.011[mg/l]***	***42468.8***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.951[%]	1.034[mg/l]	>1.100[mg/l]				
Conc 2	96.644[%]	1.045[mg/l]	>1.124[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.298[%]**	**1.039[mg/l]**	**>1.112[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.950***	***0.784***	***1.547***				
Conc SD	***0.924[%]***	***0.008[mg/l]***	***0.017[mg/l]***				

Sample Name: CCV | Sample Type: Control Sample

Measure Date: 2016-05-16 17:30:05 | Recalculation Date: | State: Check failed | Quality: Failed | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCV						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.257[mg/l]	2.559[mg/l]	1067540	0.496[mg/l]	0.515[mg/l]	0.500[mg/l]	0.499[mg/l]
Conc 2	0.245[mg/l]	2.463[mg/l]	1078020	0.481[mg/l]	0.499[mg/l]	0.482[mg/l]	0.481[mg/l]
Conc MinRange	*90.000*	*90.000*	---	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.251[mg/l]**	**2.511[mg/l]**	**1072780**	**0.489[mg/l]**	**0.507[mg/l]**	**0.491[mg/l]**	**0.490[mg/l]**
Conc MaxRange	*110.000*	*110.000*	---	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***3.275***	***2.703***	***---***	***2.129***	***2.318***	***2.616***	***2.691***
Conc SD	***0.008[mg/l]***	***0.068[mg/l]***	***7410.48***	***0.010[mg/l]***	***0.012[mg/l]***	***0.013[mg/l]***	***0.013[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	12.647[mg/l]	0.496[mg/l]	0.516[mg/l]	0.519[mg/l]	21933.2	0.531[mg/l]	2.611[mg/l]
Conc 2	12.155[mg/l]	0.482[mg/l]	0.498[mg/l]	0.502[mg/l]	23146.2	0.510[mg/l]	2.527[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	---	*90.000*	*90.000*
Conc Mean	**12.401[mg/l]**	**0.489[mg/l]**	**0.507[mg/l]**	**0.510[mg/l]**	**22539.7**	**0.521[mg/l]**	**2.569[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	---	*110.000*	*110.000*
Conc RSD	***2.802***	***2.145***	***2.500***	***2.335***	***---***	***2.879***	***2.325***
Conc SD	***0.347[mg/l]***	***0.010[mg/l]***	***0.013[mg/l]***	***0.012[mg/l]***	***857.721***	***0.015[mg/l]***	***0.060[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	20.517[mg/l]	2.005[mg/l]	4.956[mg/l]	0.508[mg/l]	0.529[mg/l]	20.513[mg/l]	0.510[mg/l]
Conc 2	19.347[mg/l]	1.891[mg/l]	4.787[mg/l]	0.492[mg/l]	0.506[mg/l]	18.954[mg/l]	0.493[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**19.932[mg/l]**	**1.948[mg/l]**	**4.872[mg/l]**	**0.500[mg/l]**	**0.518[mg/l]**	**19.734[mg/l]**	**0.501[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***4.150***	***4.131***	***2.439***	***2.258***	***3.162***	***5.584***	***2.362***
Conc SD	***0.827[mg/l]***	***0.080[mg/l]***	***0.119[mg/l]***	***0.011[mg/l]***	***0.016[mg/l]***	***1.102[mg/l]***	***0.012[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.521[mg/l]	0.513[mg/l]	0.521[mg/l]	0.840[mg/l]	0.514[mg/l]	0.262[mg/l]	0.503[mg/l]

Conc 2	0.498[mg/l]	0.503[mg/l]	0.512[mg/l]	0.785[mg/l]	0.498[mg/l]	0.254[mg/l]	0.487[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.509[mg/l]**	**0.508[mg/l]**	**0.516[mg/l]**	**<0.812[mg/l]**	**0.506[mg/l]**	**0.258[mg/l]**	**0.495[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***3.198***	***1.428***	***1.214***	***4.775***	***2.293***	***2.218***	***2.333***
Conc SD	***0.016[mg/l]***	***0.007[mg/l]***	***0.006[mg/l]***	***0.039[mg/l]***	***0.012[mg/l]***	***0.006[mg/l]***	***0.012[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.507[mg/l]	0.516[mg/l]	4325000	95.367[%]	0.500[mg/l]	95.367[%]	
Conc 2	0.488[mg/l]	0.497[mg/l]	4479560	98.768[%]	0.486[mg/l]	98.768[%]	
Conc MinRange	*90.000*	*90.000*	---	---	*90.000*	---	
Conc Mean	**0.498[mg/l]**	**0.507[mg/l]**	**4402280**	**97.068[%]**	**0.493[mg/l]**	**97.068[%]**	
Conc MaxRange	*110.000*	*110.000*	---	---	*110.000*	---	
Conc RSD	***2.714***	***2.664***	***---***	***2.478***	***1.992***	***2.478***	
Conc SD	***0.014[mg/l]***	***0.014[mg/l]***	***109290***	***2.405[%]***	***0.010[mg/l]***	***2.405[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.257[mg/l]	2.559[mg/l]	1067540	0.496[mg/l]	0.515[mg/l]	0.500[mg/l]	0.499[mg/l]
Conc 2	0.245[mg/l]	2.463[mg/l]	1078020	0.481[mg/l]	0.499[mg/l]	0.482[mg/l]	0.481[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.251[mg/l]**	**2.511[mg/l]**	**1072780**	**0.489[mg/l]**	**0.507[mg/l]**	**0.491[mg/l]**	**0.490[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3.275***	***2.703***	***---***	***2.129***	***2.318***	***2.616***	***2.691***
Conc SD	***0.008[mg/l]***	***0.068[mg/l]***	***7410.48***	***0.010[mg/l]***	***0.012[mg/l]***	***0.013[mg/l]***	***0.013[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	12.647[mg/l]	0.496[mg/l]	0.516[mg/l]	0.519[mg/l]	21933.2	<0.514[mg/l]	2.611[mg/l]
Conc 2	12.155[mg/l]	0.482[mg/l]	0.498[mg/l]	0.502[mg/l]	23146.2	<0.497[mg/l]	2.527[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.401[mg/l]**	**0.489[mg/l]**	**0.507[mg/l]**	**0.510[mg/l]**	**22539.7**	**<0.506[mg/l]**	**2.569[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***2.802***	***2.145***	***2.500***	***2.335***	***---***	***2.458***	***2.325***
Conc SD	***0.347[mg/l]***	***0.010[mg/l]***	***0.013[mg/l]***	***0.012[mg/l]***	***857.721***	***0.012[mg/l]***	***0.060[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.696[mg/l]	19.944[mg/l]	20.517[mg/l]	1.993[mg/l]	2.005[mg/l]	4.956[mg/l]	0.508[mg/l]
Conc 2	<-1.801[mg/l]	19.375[mg/l]	19.347[mg/l]	1.898[mg/l]	1.891[mg/l]	4.787[mg/l]	0.492[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.748[mg/l]**	**19.660[mg/l]**	**19.932[mg/l]**	**1.946[mg/l]**	**1.948[mg/l]**	**4.872[mg/l]**	**0.500[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.243***	***2.048***	***4.150***	***3.450***	***4.131***	***2.439***	***2.258***
Conc SD	***0.074[mg/l]***	***0.403[mg/l]***	***0.827[mg/l]***	***0.067[mg/l]***	***0.080[mg/l]***	***0.119[mg/l]***	***0.011[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.529[mg/l]	20.772[mg/l]	20.513[mg/l]	0.510[mg/l]	0.521[mg/l]	0.513[mg/l]	0.521[mg/l]
Conc 2	0.506[mg/l]	19.480[mg/l]	18.954[mg/l]	0.493[mg/l]	0.498[mg/l]	0.503[mg/l]	0.512[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.518[mg/l]**	**20.126[mg/l]**	**19.734[mg/l]**	**0.501[mg/l]**	**0.509[mg/l]**	**0.508[mg/l]**	**0.516[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***3.162***	***4.541***	***5.584***	***2.362***	***3.198***	***1.428***	***1.214***
Conc SD	***0.016[mg/l]***	***0.914[mg/l]***	***1.102[mg/l]***	***0.012[mg/l]***	***0.016[mg/l]***	***0.007[mg/l]***	***0.006[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.840[mg/l]	0.514[mg/l]	0.262[mg/l]	0.503[mg/l]	0.507[mg/l]	0.516[mg/l]	4325000
Conc 2	0.785[mg/l]	0.498[mg/l]	0.254[mg/l]	0.487[mg/l]	0.488[mg/l]	0.497[mg/l]	4479560
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.812[mg/l]**	**0.506[mg/l]**	**0.258[mg/l]**	**0.495[mg/l]**	**0.498[mg/l]**	**0.507[mg/l]**	**4402280**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***4.775***	***2.293***	***2.218***	***2.333***	***2.714***	***2.664***	***---***
Conc SD	***0.039[mg/l]***	***0.012[mg/l]***	***0.006[mg/l]***	***0.012[mg/l]***	***0.014[mg/l]***	***0.014[mg/l]***	***109290***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	95.367[%]	0.500[mg/l]	0.531[mg/l]				
Conc 2	98.768[%]	0.486[mg/l]	0.510[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.068[%]**	**0.493[mg/l]**	**0.521[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***2.478***	***1.992***	***2.879***				
Conc SD	***2.405[%]***	***0.010[mg/l]***	***0.015[mg/l]***				

Sample Name: CCB | Sample Type: Control Sample

Measure Date: 2016-05-16 17:32:04 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	0.009[mg/l]	1034050	<0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.012[mg/l]	1066890	<-0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.000[mg/l]**	**0.011[mg/l]**	**1050470**	**<-0.000[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***1629.75***	***16.808***	***---***	***805.900***	***5.676***	***4.371***	***22.624***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***23221.4***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.018[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	20965.7	<-0.005[mg/l]	0.002[mg/l]
Conc 2	0.014[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21638.0	<-0.005[mg/l]	0.002[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.016[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**21301.9**	**<-0.005[mg/l]**	**0.002[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***18.568***	***61.150***	***199.518***	***304.752***	***---***	***6.125***	***0.453***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***475.388***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.010[mg/l]	0.000[mg/l]	0.007[mg/l]	0.000[mg/l]	0.002[mg/l]	<0.089[mg/l]	-0.001[mg/l]
Conc 2	0.008[mg/l]	0.000[mg/l]	0.007[mg/l]	0.000[mg/l]	0.002[mg/l]	<-0.009[mg/l]	-0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.009[mg/l]**	**0.000[mg/l]**	**0.007[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**<0.040[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***16.593***	***15.753***	***1.978***	***5.815***	***14.947***	***173.364***	***30.701***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.069[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.000[mg/l]	0.002[mg/l]	-0.002[mg/l]	-0.111[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc 2	-0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]	-0.115[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.001[mg/l]**	**0.002[mg/l]**	**-0.001[mg/l]**	**-0.113[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***57.645***	***10.316***	***65.273***	***2.448***	***152.516***	***27.952***	***6.591***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.003[mg/l]	0.000[mg/l]	4493240	99.062[%]	0.001[mg/l]	99.062[%]	
Conc 2	0.003[mg/l]	0.002[mg/l]	4528130	99.836[%]	0.001[mg/l]	99.836[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.003[mg/l]**	**0.001[mg/l]**	**4510680**	**99.449[%]**	**0.001[mg/l]**	**99.449[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***8.320***	***96.041***	***---***	***0.550***	***2.982***	***0.550***	
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***24671.0***	***0.547[%]***	***0.000[mg/l]***	***0.547[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	0.009[mg/l]	1034050	<0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.012[mg/l]	1066890	<-0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.011[mg/l]**	**1050470**	**<-0.000[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1629.75***	***16.808***	***---***	***805.900***	***5.676***	***4.371***	***22.624***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***23221.4***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.018[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	20965.7	<-0.009[mg/l]	0.002[mg/l]
Conc 2	0.014[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21638.0	<-0.009[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.016[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**21301.9**	**<-0.009[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***18.568***	***61.150***	***199.518***	***304.752***	***---***	***0.695***	***0.453***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***475.388***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.941[mg/l]	0.010[mg/l]	<-19.690[mg/l]	0.000[mg/l]	<-0.419[mg/l]	0.007[mg/l]	0.000[mg/l]
Conc 2	<-4.941[mg/l]	0.008[mg/l]	<-19.691[mg/l]	0.000[mg/l]	<-0.419[mg/l]	0.007[mg/l]	0.000[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.941[mg/l]**	**0.009[mg/l]**	**<-19.691[mg/l]**	**0.000[mg/l]**	**<-0.419[mg/l]**	**0.007[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.001***	***16.593***	***0.006***	***15.753***	***0.010***	***1.978***	***5.815***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.002[mg/l]	<0.089[mg/l]	<-1.435[mg/l]	-0.001[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.002[mg/l]
Conc 2	0.002[mg/l]	<-0.009[mg/l]	<-1.624[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**<0.040[mg/l]**	**<-1.530[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.002[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***14.947***	***173.364***	***8.741***	***30.701***	***57.645***	***10.316***	***65.273***
Conc SD	***0.000[mg/l]***	***0.069[mg/l]***	***0.134[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.111[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	0.000[mg/l]	4493240
Conc 2	-0.115[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	0.002[mg/l]	4528130
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.113[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**	**0.001[mg/l]**	**4510680**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***2.448***	***152.516***	***27.952***	***6.591***	***8.320***	***96.041***	***---***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***24671.0***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.062[%]	0.001[mg/l]	<-0.005[mg/l]				
Conc 2	99.836[%]	0.001[mg/l]	<-0.005[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.449[%]**	**0.001[mg/l]**	**<-0.005[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.550***	***2.982***	***6.125***				
Conc SD	***0.547[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: sd 600-130735-A-1-F@5 | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:34:03 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
sd 600-130735-A-1-F@5						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	-0.008[mg/l]	1052790	<-0.002[mg/l]	0.003[mg/l]	0.005[mg/l]	0.000[mg/l]
Conc 2	0.001[mg/l]	-0.008[mg/l]	1052960	<-0.003[mg/l]	0.003[mg/l]	0.005[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**-0.008[mg/l]**	**1052880**	**<-0.002[mg/l]**	**0.003[mg/l]**	**0.005[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***131.763***	***7.689***	***---***	***37.017***	***2.588***	***2.847***	***10.628***

Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***120.208***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	15.206[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	22393.0	<-0.006[mg/l]	<-0.002[mg/l]
Conc 2	15.367[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	22452.6	<-0.006[mg/l]	<-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**15.286[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**22422.8**	**<-0.006[mg/l]**	**<-0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.743***	***13.152***	***91.785***	***95.927***	***---***	***4.264***	***1.148***
Conc SD	***0.114[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***42.144***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.055[mg/l]	-0.000[mg/l]	0.358[mg/l]	0.059[mg/l]	0.001[mg/l]	24.832[mg/l]	-0.001[mg/l]
Conc 2	0.054[mg/l]	-0.000[mg/l]	0.356[mg/l]	0.060[mg/l]	0.000[mg/l]	25.256[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.054[mg/l]**	**-0.000[mg/l]**	**0.357[mg/l]**	**0.060[mg/l]**	**0.001[mg/l]**	**25.044[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.689***	***5.250***	***0.265***	***0.439***	***69.192***	***1.197***	***28.814***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.300[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	-0.000[mg/l]	-0.002[mg/l]	0.001[mg/l]	0.000[mg/l]	0.034[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	0.000[mg/l]	0.000[mg/l]	0.004[mg/l]	0.001[mg/l]	0.034[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**0.003[mg/l]**	**0.001[mg/l]**	**0.034[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***18.833***	***899.460***	***205.760***	***81.133***	***44.849***	***0.852***	***29.661***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.003[mg/l]	-0.007[mg/l]	4602530	101.483[%]	0.002[mg/l]	101.483[%]	
Conc 2	0.001[mg/l]	0.004[mg/l]	4576960	100.910[%]	0.002[mg/l]	100.910[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.002[mg/l]**	**-0.001[mg/l]**	**4589740**	**101.197[%]**	**0.002[mg/l]**	**101.197[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***46.765***	***515.750***	***---***	***0.400***	***0.824***	***0.400***	
Conc SD	***0.001[mg/l]***	***0.008[mg/l]***	***18080.7***	***0.405[%]***	***0.000[mg/l]***	***0.405[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	-0.008[mg/l]	1052790	<-0.002[mg/l]	0.003[mg/l]	0.005[mg/l]	0.000[mg/l]
Conc 2	0.001[mg/l]	-0.008[mg/l]	1052960	<-0.003[mg/l]	0.003[mg/l]	0.005[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**-0.008[mg/l]**	**1052880**	**<-0.002[mg/l]**	**0.003[mg/l]**	**0.005[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***131.763***	***7.689***	***---***	***37.017***	***2.588***	***2.847***	***10.628***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***120.208***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	15.206[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	22393.0	<-0.010[mg/l]	<-0.002[mg/l]

Conc 2	15.367[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	22452.6	<-0.010[mg/l]	<-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**15.286[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**22422.8**	**<-0.010[mg/l]**	**<-0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.743***	***13.152***	***91.785***	***95.927***	***---***	***0.561***	***1.148***
Conc SD	***0.114[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***42.144***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.946[mg/l]	0.055[mg/l]	<-19.599[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.358[mg/l]	0.059[mg/l]
Conc 2	<-4.946[mg/l]	0.054[mg/l]	<-19.602[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.356[mg/l]	0.060[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.946[mg/l]**	**0.054[mg/l]**	**<-19.601[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**0.357[mg/l]**	**0.060[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.002***	***0.689***	***0.012***	***5.250***	***0.001***	***0.265***	***0.439***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	>25.255[mg/l]	24.832[mg/l]	-0.001[mg/l]	-0.001[mg/l]	-0.000[mg/l]	-0.002[mg/l]
Conc 2	0.000[mg/l]	>25.667[mg/l]	25.256[mg/l]	-0.001[mg/l]	-0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**>25.461[mg/l]**	**25.044[mg/l]**	**-0.001[mg/l]**	**-0.002[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***69.192***	***1.145***	***1.197***	***28.814***	***18.833***	***899.460***	***205.760***
Conc SD	***0.000[mg/l]***	***0.292[mg/l]***	***0.300[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.001[mg/l]	0.000[mg/l]	0.034[mg/l]	0.000[mg/l]	0.003[mg/l]	-0.007[mg/l]	4602530
Conc 2	0.004[mg/l]	0.001[mg/l]	0.034[mg/l]	0.001[mg/l]	0.001[mg/l]	0.004[mg/l]	4576960
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.003[mg/l]**	**0.001[mg/l]**	**0.034[mg/l]**	**0.001[mg/l]**	**0.002[mg/l]**	**-0.001[mg/l]**	**4589740**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***81.133***	***44.849***	***0.852***	***29.661***	***46.765***	***515.750***	***---***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.008[mg/l]***	***18080.7***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	101.483[%]	0.002[mg/l]	<-0.006[mg/l]				
Conc 2	100.910[%]	0.002[mg/l]	<-0.006[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**101.197[%]**	**0.002[mg/l]**	**<-0.006[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.400***	***0.824***	***4.264***				
Conc SD	***0.405[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: ccvl 2196761			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 17:36:00	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
ccvl 2196761						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.009[mg/l]	0.489[mg/l]	1042470	0.020[mg/l]	0.197[mg/l]	0.020[mg/l]	0.010[mg/l]
Conc 2	0.010[mg/l]	0.485[mg/l]	1056040	0.019[mg/l]	0.195[mg/l]	0.020[mg/l]	0.010[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.010[mg/l]**	**0.487[mg/l]**	**1049260**	**0.020[mg/l]**	**0.196[mg/l]**	**0.020[mg/l]**	**0.010[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***10.974***	***0.647***	***---***	***2.789***	***0.557***	***1.369***	***0.166***
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***9595.44***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.986[mg/l]	0.011[mg/l]	0.021[mg/l]	0.021[mg/l]	20882.1	0.017[mg/l]	0.211[mg/l]
Conc 2	0.980[mg/l]	0.010[mg/l]	0.021[mg/l]	0.021[mg/l]	21789.2	0.015[mg/l]	0.209[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.983[mg/l]**	**0.011[mg/l]**	**0.021[mg/l]**	**0.021[mg/l]**	**21335.6**	**0.016[mg/l]**	**0.210[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.450***	***0.724***	***1.949***	***1.640***	***---***	***5.022***	***0.436***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***641.417***	***0.001[mg/l]***	***0.001[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	1.111[mg/l]	0.022[mg/l]	0.982[mg/l]	0.021[mg/l]	0.021[mg/l]	1.035[mg/l]	0.020[mg/l]
Conc 2	1.058[mg/l]	0.021[mg/l]	0.978[mg/l]	0.021[mg/l]	0.021[mg/l]	0.873[mg/l]	0.021[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.085[mg/l]**	**0.022[mg/l]**	**0.980[mg/l]**	**0.021[mg/l]**	**0.021[mg/l]**	**0.954[mg/l]**	**0.020[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3.443***	***3.277***	***0.261***	***0.539***	***0.624***	***11.955***	***0.853***
Conc SD	***0.037[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.114[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.019[mg/l]	0.022[mg/l]	0.021[mg/l]	0.067[mg/l]	0.021[mg/l]	0.011[mg/l]	0.020[mg/l]
Conc 2	0.019[mg/l]	0.019[mg/l]	0.019[mg/l]	0.059[mg/l]	0.021[mg/l]	0.011[mg/l]	0.021[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.019[mg/l]**	**0.020[mg/l]**	**0.020[mg/l]**	**0.063[mg/l]**	**0.021[mg/l]**	**0.011[mg/l]**	**0.020[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.371***	***7.924***	***7.329***	***8.907***	***0.772***	***0.059***	***0.825***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.006[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.020[mg/l]	0.014[mg/l]	4548450	100.279[%]	0.021[mg/l]	100.279[%]	
Conc 2	0.020[mg/l]	0.021[mg/l]	4569270	100.746[%]	0.021[mg/l]	100.746[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.020[mg/l]**	**0.018[mg/l]**	**4558860**	**100.513[%]**	**0.021[mg/l]**	**100.513[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***1.938***	***30.624***	***---***	***0.329***	***1.185***	***0.329***	
Conc SD	***0.000[mg/l]***	***0.005[mg/l]***	***14722.0***	***0.330[%]***	***0.000[mg/l]***	***0.330[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.009[mg/l]	0.489[mg/l]	1042470	0.020[mg/l]	0.197[mg/l]	0.020[mg/l]	0.010[mg/l]
Conc 2	0.010[mg/l]	0.485[mg/l]	1056040	0.019[mg/l]	0.195[mg/l]	0.020[mg/l]	0.010[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.010[mg/l]**	**0.487[mg/l]**	**1049260**	**0.020[mg/l]**	**0.196[mg/l]**	**0.020[mg/l]**	**0.010[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***10.974***	***0.647***	***---***	***2.789***	***0.557***	***1.369***	***0.166***
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***9595.44***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.986[mg/l]	0.011[mg/l]	0.021[mg/l]	0.021[mg/l]	20882.1	<0.012[mg/l]	0.211[mg/l]
Conc 2	0.980[mg/l]	0.010[mg/l]	0.021[mg/l]	0.021[mg/l]	21789.2	<0.012[mg/l]	0.209[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.983[mg/l]**	**0.011[mg/l]**	**0.021[mg/l]**	**0.021[mg/l]**	**21335.6**	**<0.012[mg/l]**	**0.210[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.450***	***0.724***	***1.949***	***1.640***	***---***	***1.115***	***0.436***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***641.417***	***0.000[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.682[mg/l]	1.111[mg/l]	<-17.454[mg/l]	0.022[mg/l]	<-0.393[mg/l]	0.982[mg/l]	0.021[mg/l]
Conc 2	<-4.684[mg/l]	1.058[mg/l]	<-17.563[mg/l]	0.021[mg/l]	<-0.394[mg/l]	0.978[mg/l]	0.021[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.683[mg/l]**	**1.085[mg/l]**	**<-17.509[mg/l]**	**0.022[mg/l]**	**<-0.394[mg/l]**	**0.980[mg/l]**	**0.021[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.026***	***3.443***	***0.441***	***3.277***	***0.240***	***0.261***	***0.539***
Conc SD	***0.001[mg/l]***	***0.037[mg/l]***	***0.077[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.021[mg/l]	1.035[mg/l]	<-0.312[mg/l]	0.020[mg/l]	0.019[mg/l]	0.022[mg/l]	0.021[mg/l]
Conc 2	0.021[mg/l]	0.873[mg/l]	<-0.739[mg/l]	0.021[mg/l]	0.019[mg/l]	0.019[mg/l]	0.019[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.021[mg/l]**	**0.954[mg/l]**	**<-0.525[mg/l]**	**0.020[mg/l]**	**0.019[mg/l]**	**0.020[mg/l]**	**0.020[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.624***	***11.955***	***57.417***	***0.853***	***0.371***	***7.924***	***7.329***
Conc SD	***0.000[mg/l]***	***0.114[mg/l]***	***0.302[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.067[mg/l]	0.021[mg/l]	0.011[mg/l]	0.020[mg/l]	0.020[mg/l]	0.014[mg/l]	4548450
Conc 2	0.059[mg/l]	0.021[mg/l]	0.011[mg/l]	0.021[mg/l]	0.020[mg/l]	0.021[mg/l]	4569270
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.063[mg/l]**	**0.021[mg/l]**	**0.011[mg/l]**	**0.020[mg/l]**	**0.020[mg/l]**	**0.018[mg/l]**	**4558860**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***8.907***	***0.772***	***0.059***	***0.825***	***1.938***	***30.624***	***---***

Conc SD	***0.006[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***14722.0***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	100.279[%]	0.021[mg/l]	0.017[mg/l]				
Conc 2	100.746[%]	0.021[mg/l]	0.015[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**100.513[%]**	**0.021[mg/l]**	**0.016[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.329***	***1.185***	***5.022***				
Conc SD	***0.330[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: MB 600-188544/1-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:37:57 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
MB 600-188544/1-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	-0.006[mg/l]	1061300	<-0.002[mg/l]	0.001[mg/l]	0.002[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.007[mg/l]	1053540	<0.001[mg/l]	0.001[mg/l]	0.002[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**-0.007[mg/l]**	**1057420**	**<-0.000[mg/l]**	**0.001[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***184.947***	***7.268***	***---***	***435.312***	***13.279***	***0.541***	***68.333***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***5487.15***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.014[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21573.2	<-0.006[mg/l]	0.003[mg/l]
Conc 2	0.014[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21921.1	<-0.006[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.014[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**21747.2**	**<-0.006[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.845***	***70.195***	***219.729***	***185.015***	***---***	***8.073***	***3.489***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***246.002***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.004[mg/l]	-0.000[mg/l]	0.006[mg/l]	0.001[mg/l]	0.000[mg/l]	<0.001[mg/l]	0.002[mg/l]
Conc 2	0.002[mg/l]	-0.000[mg/l]	0.008[mg/l]	0.001[mg/l]	0.000[mg/l]	<0.121[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**-0.000[mg/l]**	**0.007[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**<0.061[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***33.206***	***0.082***	***23.251***	***4.713***	***82.338***	***140.190***	***14.977***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.085[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.000[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.127[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]

Conc 2	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.122[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**-0.125[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.544***	***28.343***	***22.606***	***2.861***	***34.562***	***43.598***	***28.106***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.000[mg/l]	0.003[mg/l]	4637910	102.252[%]	0.006[mg/l]	102.252[%]	
Conc 2	0.001[mg/l]	-0.000[mg/l]	4625550	101.981[%]	0.006[mg/l]	101.981[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.000[mg/l]**	**0.001[mg/l]**	**4631730**	**102.117[%]**	**0.006[mg/l]**	**102.117[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***192.538***	***198.664***	***---***	***0.188***	***0.910***	***0.188***	
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***8739.84***	***0.192[%]***	***0.000[mg/l]***	***0.192[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	-0.006[mg/l]	1061300	<-0.002[mg/l]	0.001[mg/l]	0.002[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.007[mg/l]	1053540	<0.001[mg/l]	0.001[mg/l]	0.002[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**-0.007[mg/l]**	**1057420**	**<-0.000[mg/l]**	**0.001[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***184.947***	***7.268***	***---***	***435.312***	***13.279***	***0.541***	***68.333***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***5487.15***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.014[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21573.2	<-0.010[mg/l]	0.003[mg/l]
Conc 2	0.014[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21921.1	<-0.010[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.014[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**21747.2**	**<-0.010[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.845***	***70.195***	***219.729***	***185.015***	***---***	***1.162***	***3.489***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***246.002***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.940[mg/l]	0.004[mg/l]	<-19.705[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.006[mg/l]	0.001[mg/l]
Conc 2	<-4.940[mg/l]	0.002[mg/l]	<-19.704[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.008[mg/l]	0.001[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.940[mg/l]**	**0.003[mg/l]**	**<-19.704[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**0.007[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.005***	***33.206***	***0.001***	***0.082***	***0.016***	***23.251***	***4.713***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	<0.001[mg/l]	<-1.759[mg/l]	0.002[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.001[mg/l]
Conc 2	0.000[mg/l]	<0.121[mg/l]	<-1.612[mg/l]	0.002[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**<0.061[mg/l]**	**<-1.686[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***82.338***	***140.190***	***6.160***	***14.977***	***1.544***	***28.343***	***22.606***
Conc SD	***0.000[mg/l]***	***0.085[mg/l]***	***0.104[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.127[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.003[mg/l]	4637910
Conc 2	-0.122[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	4625550
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.125[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**4631730**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***2.861***	***34.562***	***43.598***	***28.106***	***192.538***	***198.664***	***---***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***8739.84***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	102.252[%]	0.006[mg/l]	<-0.006[mg/l]				
Conc 2	101.981[%]	0.006[mg/l]	<-0.006[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**102.117[%]**	**0.006[mg/l]**	**<-0.006[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.188***	***0.910***	***8.073***				
Conc SD	***0.192[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: LCS 600-188544/2-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:39:56 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
LCS 600-188544/2-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.526[mg/l]	10.327[mg/l]	1076740	1.038[mg/l]	1.032[mg/l]	1.033[mg/l]	0.511[mg/l]
Conc 2	0.521[mg/l]	10.371[mg/l]	1097310	1.045[mg/l]	1.036[mg/l]	1.041[mg/l]	0.507[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.523[mg/l]**	**10.349[mg/l]**	**1087020**	**1.042[mg/l]**	**1.034[mg/l]**	**1.037[mg/l]**	**0.509[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.657***	***0.301***	***---***	***0.474***	***0.289***	***0.519***	***0.532***
Conc SD	***0.003[mg/l]***	***0.031[mg/l]***	***14545.2***	***0.005[mg/l]***	***0.003[mg/l]***	***0.005[mg/l]***	***0.003[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	10.393[mg/l]	0.516[mg/l]	1.036[mg/l]	1.034[mg/l]	22413.5	1.057[mg/l]	10.482[mg/l]
Conc 2	10.325[mg/l]	0.516[mg/l]	1.039[mg/l]	1.031[mg/l]	22803.1	1.068[mg/l]	10.483[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**10.359[mg/l]**	**0.516[mg/l]**	**1.038[mg/l]**	**1.033[mg/l]**	**22608.3**	**1.063[mg/l]**	**10.482[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.464***	***0.074***	***0.185***	***0.251***	***---***	***0.685***	***0.010***
Conc SD	***0.048[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***275.489***	***0.007[mg/l]***	***0.001[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	11.016[mg/l]	1.075[mg/l]	10.432[mg/l]	1.050[mg/l]	1.014[mg/l]	10.624[mg/l]	1.045[mg/l]
Conc 2	10.889[mg/l]	1.057[mg/l]	10.526[mg/l]	1.052[mg/l]	1.013[mg/l]	10.021[mg/l]	1.037[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**10.952[mg/l]**	**1.066[mg/l]**	**10.479[mg/l]**	**1.051[mg/l]**	**1.013[mg/l]**	**10.322[mg/l]**	**1.041[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.821***	***1.190***	***0.636***	***0.108***	***0.088***	***4.133***	***0.524***
Conc SD	***0.090[mg/l]***	***0.013[mg/l]***	***0.067[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.427[mg/l]***	***0.005[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.047[mg/l]	1.010[mg/l]	1.031[mg/l]	0.849[mg/l]	1.014[mg/l]	0.534[mg/l]	1.021[mg/l]
Conc 2	1.052[mg/l]	1.015[mg/l]	1.034[mg/l]	0.854[mg/l]	1.026[mg/l]	0.528[mg/l]	1.019[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.049[mg/l]**	**1.012[mg/l]**	**1.033[mg/l]**	**0.851[mg/l]**	**1.020[mg/l]**	**0.531[mg/l]**	**1.020[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.380***	***0.340***	***0.222***	***0.483***	***0.779***	***0.804***	***0.167***
Conc SD	***0.004[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***	***0.008[mg/l]***	***0.004[mg/l]***	***0.002[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	1.010[mg/l]	1.072[mg/l]	4503230	99.299[%]	1.046[mg/l]	99.299[%]	
Conc 2	1.026[mg/l]	1.059[mg/l]	4516670	99.588[%]	1.050[mg/l]	99.588[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**1.018[mg/l]**	**1.065[mg/l]**	**4509950**	**99.444[%]**	**1.048[mg/l]**	**99.444[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***1.082***	***0.884***	***---***	***0.205***	***0.275***	***0.205***	
Conc SD	***0.011[mg/l]***	***0.009[mg/l]***	***9503.52***	***0.204[%]***	***0.003[mg/l]***	***0.204[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.526[mg/l]	10.327[mg/l]	1076740	1.038[mg/l]	1.032[mg/l]	1.033[mg/l]	0.511[mg/l]
Conc 2	0.521[mg/l]	10.371[mg/l]	1097310	1.045[mg/l]	1.036[mg/l]	1.041[mg/l]	0.507[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.523[mg/l]**	**10.349[mg/l]**	**1087020**	**1.042[mg/l]**	**1.034[mg/l]**	**1.037[mg/l]**	**0.509[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.657***	***0.301***	***---***	***0.474***	***0.289***	***0.519***	***0.532***
Conc SD	***0.003[mg/l]***	***0.031[mg/l]***	***14545.2***	***0.005[mg/l]***	***0.003[mg/l]***	***0.005[mg/l]***	***0.003[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	10.393[mg/l]	0.516[mg/l]	1.036[mg/l]	1.034[mg/l]	22413.5	1.057[mg/l]	10.482[mg/l]
Conc 2	10.325[mg/l]	0.516[mg/l]	1.039[mg/l]	1.031[mg/l]	22803.1	1.068[mg/l]	10.483[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**10.359[mg/l]**	**0.516[mg/l]**	**1.038[mg/l]**	**1.033[mg/l]**	**22608.3**	**1.063[mg/l]**	**10.482[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.464***	***0.074***	***0.185***	***0.251***	***---***	***0.685***	***0.010***
Conc SD	***0.048[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***275.489***	***0.007[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<8.087[mg/l]	11.016[mg/l]	<2.577[mg/l]	1.075[mg/l]	<0.891[mg/l]	10.432[mg/l]	1.050[mg/l]
Conc 2	<8.091[mg/l]	10.889[mg/l]	<2.337[mg/l]	1.057[mg/l]	<0.870[mg/l]	10.526[mg/l]	1.052[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<8.089[mg/l]**	**10.952[mg/l]**	**<2.457[mg/l]**	**1.066[mg/l]**	**<0.881[mg/l]**	**10.479[mg/l]**	**1.051[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.035***	***0.821***	***6.915***	***1.190***	***1.684***	***0.636***	***0.108***
Conc SD	***0.003[mg/l]***	***0.090[mg/l]***	***0.170[mg/l]***	***0.013[mg/l]***	***0.015[mg/l]***	***0.067[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	1.014[mg/l]	10.624[mg/l]	<9.894[mg/l]	1.045[mg/l]	1.047[mg/l]	1.010[mg/l]	1.031[mg/l]
Conc 2	1.013[mg/l]	10.021[mg/l]	<9.329[mg/l]	1.037[mg/l]	1.052[mg/l]	1.015[mg/l]	1.034[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.013[mg/l]**	**10.322[mg/l]**	**<9.611[mg/l]**	**1.041[mg/l]**	**1.049[mg/l]**	**1.012[mg/l]**	**1.033[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.088***	***4.133***	***4.156***	***0.524***	***0.380***	***0.340***	***0.222***
Conc SD	***0.001[mg/l]***	***0.427[mg/l]***	***0.399[mg/l]***	***0.005[mg/l]***	***0.004[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.849[mg/l]	1.014[mg/l]	0.534[mg/l]	1.021[mg/l]	1.010[mg/l]	1.072[mg/l]	4503230
Conc 2	0.854[mg/l]	1.026[mg/l]	0.528[mg/l]	1.019[mg/l]	1.026[mg/l]	1.059[mg/l]	4516670
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.851[mg/l]**	**1.020[mg/l]**	**0.531[mg/l]**	**1.020[mg/l]**	**1.018[mg/l]**	**1.065[mg/l]**	**4509950**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.483***	***0.779***	***0.804***	***0.167***	***1.082***	***0.884***	***---***
Conc SD	***0.004[mg/l]***	***0.008[mg/l]***	***0.004[mg/l]***	***0.002[mg/l]***	***0.011[mg/l]***	***0.009[mg/l]***	***9503.52***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.299[%]	1.046[mg/l]	>1.117[mg/l]				
Conc 2	99.588[%]	1.050[mg/l]	>1.101[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.444[%]**	**1.048[mg/l]**	**>1.109[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.205***	***0.275***	***1.028***				
Conc SD	***0.204[%]***	***0.003[mg/l]***	***0.011[mg/l]***				

Sample Name: LB 600-188519/1-C | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:41:56 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
LB 600-188519/1-C						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.001[mg/l]	-0.007[mg/l]	1047450	<-0.000[mg/l]	0.005[mg/l]	0.001[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	-0.007[mg/l]	1060720	0.003[mg/l]	0.004[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.007[mg/l]**	**1054080**	**<0.001[mg/l]**	**0.005[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***523.363***	***5.793***	***---***	***162.072***	***9.327***	***5.580***	***73.299***

Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***9383.31***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.027[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20887.3	<-0.004[mg/l]	0.005[mg/l]
Conc 2	0.035[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	20984.6	<-0.004[mg/l]	0.005[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.031[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**20936.0**	**<-0.004[mg/l]**	**0.005[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***17.535***	***44.200***	***189.301***	***198.282***	***---***	***6.478***	***1.458***
Conc SD	***0.005[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***68.802***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.002[mg/l]	-0.000[mg/l]	0.008[mg/l]	0.001[mg/l]	0.002[mg/l]	<0.000[mg/l]	0.005[mg/l]
Conc 2	0.002[mg/l]	-0.000[mg/l]	0.007[mg/l]	0.001[mg/l]	0.001[mg/l]	<0.141[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**-0.000[mg/l]**	**0.007[mg/l]**	**0.001[mg/l]**	**0.002[mg/l]**	**<0.071[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.428***	***4.565***	***5.092***	***2.019***	***29.269***	***141.238***	***8.989***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.100[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.002[mg/l]	-0.000[mg/l]	-0.002[mg/l]	-0.100[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.001[mg/l]	0.000[mg/l]	-0.002[mg/l]	-0.105[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**0.000[mg/l]**	**-0.002[mg/l]**	**-0.103[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***42.257***	***485.628***	***23.630***	***3.380***	***20.829***	***8.086***	***15.176***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.006[mg/l]	0.001[mg/l]	4501640	99.249[%]	0.005[mg/l]	99.249[%]	
Conc 2	0.004[mg/l]	0.006[mg/l]	4473620	98.636[%]	0.005[mg/l]	98.636[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.005[mg/l]**	**0.004[mg/l]**	**4487630**	**98.942[%]**	**0.005[mg/l]**	**98.942[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***31.464***	***90.013***	***---***	***0.438***	***1.591***	***0.438***	
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***19813.1***	***0.434[%]***	***0.000[mg/l]***	***0.434[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.001[mg/l]	-0.007[mg/l]	1047450	<-0.000[mg/l]	0.005[mg/l]	0.001[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	-0.007[mg/l]	1060720	0.003[mg/l]	0.004[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.007[mg/l]**	**1054080**	**<0.001[mg/l]**	**0.005[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***523.363***	***5.793***	***---***	***162.072***	***9.327***	***5.580***	***73.299***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***9383.31***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.027[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20887.3	<-0.009[mg/l]	0.005[mg/l]

Conc 2	0.035[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	20984.6	<-0.009[mg/l]	0.005[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.031[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**20936.0**	**<-0.009[mg/l]**	**0.005[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***17.535***	***44.200***	***189.301***	***198.282***	***---***	***3.479***	***1.458***
Conc SD	***0.005[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***68.802***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.938[mg/l]	0.002[mg/l]	<-19.707[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.008[mg/l]	0.001[mg/l]
Conc 2	<-4.938[mg/l]	0.002[mg/l]	<-19.710[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.007[mg/l]	0.001[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.938[mg/l]**	**0.002[mg/l]**	**<-19.709[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**0.007[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.002***	***0.428***	***0.008***	***4.565***	***0.003***	***5.092***	***2.019***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.002[mg/l]	<0.000[mg/l]	<-1.591[mg/l]	0.005[mg/l]	0.002[mg/l]	-0.000[mg/l]	-0.002[mg/l]
Conc 2	0.001[mg/l]	<0.141[mg/l]	<-1.316[mg/l]	0.004[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**<0.071[mg/l]**	**<-1.454[mg/l]**	**0.004[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**-0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***29.269***	***141.238***	***13.365***	***8.989***	***42.257***	***485.628***	***23.630***
Conc SD	***0.000[mg/l]***	***0.100[mg/l]***	***0.194[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.100[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]	0.006[mg/l]	0.001[mg/l]	4501640
Conc 2	-0.105[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.004[mg/l]	0.006[mg/l]	4473620
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.103[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.005[mg/l]**	**0.004[mg/l]**	**4487630**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***3.380***	***20.829***	***8.086***	***15.176***	***31.464***	***90.013***	***---***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***19813.1***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.249[%]	0.005[mg/l]	<-0.004[mg/l]				
Conc 2	98.636[%]	0.005[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.942[%]**	**0.005[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.438***	***1.591***	***6.478***				
Conc SD	***0.434[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130758-A-2-E			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 17:43:53	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130758-A-2-E						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.001[mg/l]	0.010[mg/l]	1062020	<-0.002[mg/l]	0.026[mg/l]	0.024[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.006[mg/l]	1047040	<-0.003[mg/l]	0.024[mg/l]	0.023[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.008[mg/l]**	**1054530**	**<-0.003[mg/l]**	**0.025[mg/l]**	**0.024[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***97.378***	***42.336***	***---***	***36.046***	***4.322***	***4.998***	***89.752***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***10592.5***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	5.763[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	21324.5	<-0.003[mg/l]	0.009[mg/l]
Conc 2	5.367[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	21680.3	<-0.007[mg/l]	0.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**5.565[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**21502.4**	**<-0.005[mg/l]**	**0.009[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***5.035***	***28.844***	***6.343***	***72.036***	***---***	***48.375***	***2.458***
Conc SD	***0.280[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***251.589***	***0.003[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.724[mg/l]	0.003[mg/l]	0.851[mg/l]	0.004[mg/l]	0.003[mg/l]	27.479[mg/l]	0.003[mg/l]
Conc 2	0.711[mg/l]	0.003[mg/l]	0.802[mg/l]	0.004[mg/l]	0.003[mg/l]	26.275[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.717[mg/l]**	**0.003[mg/l]**	**0.827[mg/l]**	**0.004[mg/l]**	**0.003[mg/l]**	**26.877[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.235***	***3.072***	***4.138***	***2.032***	***8.226***	***3.168***	***18.634***
Conc SD	***0.009[mg/l]***	***0.000[mg/l]***	***0.034[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.851[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.970[mg/l]	-0.000[mg/l]	0.045[mg/l]	0.001[mg/l]
Conc 2	0.001[mg/l]	-0.002[mg/l]	-0.002[mg/l]	0.889[mg/l]	0.001[mg/l]	0.043[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.930[mg/l]**	**0.000[mg/l]**	**0.044[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***71.533***	***186.053***	***106.794***	***6.162***	***193.556***	***4.428***	***9.786***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.057[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.000[mg/l]	0.005[mg/l]	4411090	97.272[%]	0.007[mg/l]	97.272[%]	
Conc 2	0.000[mg/l]	-0.002[mg/l]	4660560	102.756[%]	0.007[mg/l]	102.756[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.000[mg/l]**	**0.001[mg/l]**	**4535830**	**100.014[%]**	**0.007[mg/l]**	**100.014[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***69.551***	***341.161***	***---***	***3.877***	***3.523***	***3.877***	
Conc SD	***0.000[mg/l]***	***0.005[mg/l]***	***176402***	***3.878[%]***	***0.000[mg/l]***	***3.878[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.001[mg/l]	0.010[mg/l]	1062020	<-0.002[mg/l]	0.026[mg/l]	0.024[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.006[mg/l]	1047040	<-0.003[mg/l]	0.024[mg/l]	0.023[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.008[mg/l]**	**1054530**	**<-0.003[mg/l]**	**0.025[mg/l]**	**0.024[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***97.378***	***42.336***	***---***	***36.046***	***4.322***	***4.998***	***89.752***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***10592.5***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	5.763[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	21324.5	<-0.009[mg/l]	0.009[mg/l]
Conc 2	5.367[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	21680.3	<-0.009[mg/l]	0.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**5.565[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**21502.4**	**<-0.009[mg/l]**	**0.009[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***5.035***	***28.844***	***6.343***	***72.036***	***---***	***2.693***	***2.458***
Conc SD	***0.280[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***251.589***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.932[mg/l]	0.724[mg/l]	<-18.242[mg/l]	0.003[mg/l]	<-0.417[mg/l]	0.851[mg/l]	0.004[mg/l]
Conc 2	<-4.932[mg/l]	0.711[mg/l]	<-18.262[mg/l]	0.003[mg/l]	<-0.417[mg/l]	0.802[mg/l]	0.004[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.932[mg/l]**	**0.717[mg/l]**	**<-18.252[mg/l]**	**0.003[mg/l]**	**<-0.417[mg/l]**	**0.827[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.006***	***1.235***	***0.078***	***3.072***	***0.045***	***4.138***	***2.032***
Conc SD	***0.000[mg/l]***	***0.009[mg/l]***	***0.014[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.034[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.003[mg/l]	>27.578[mg/l]	27.479[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]
Conc 2	0.003[mg/l]	>26.719[mg/l]	26.275[mg/l]	0.002[mg/l]	0.001[mg/l]	-0.002[mg/l]	-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**>27.149[mg/l]**	**26.877[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***8.226***	***2.238***	***3.168***	***18.634***	***71.533***	***186.053***	***106.794***
Conc SD	***0.000[mg/l]***	***0.608[mg/l]***	***0.851[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.970[mg/l]	-0.000[mg/l]	0.045[mg/l]	0.001[mg/l]	0.000[mg/l]	0.005[mg/l]	4411090
Conc 2	0.889[mg/l]	0.001[mg/l]	0.043[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.002[mg/l]	4660560
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.930[mg/l]**	**0.000[mg/l]**	**0.044[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**4535830**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***6.162***	***193.556***	***4.428***	***9.786***	***69.551***	***341.161***	***---***

Conc SD	***0.057[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***176402***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.272[%]	0.007[mg/l]	<-0.003[mg/l]				
Conc 2	102.756[%]	0.007[mg/l]	<-0.007[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**100.014[%]**	**0.007[mg/l]**	**<-0.005[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***3.877***	***3.523***	***48.375***				
Conc SD	***3.878[%]***	***0.000[mg/l]***	***0.003[mg/l]***				

Sample Name: 600-130758-A-2-F DU | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:45:53 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130758-A-2-F DU						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.002[mg/l]	0.010[mg/l]	1055220	<-0.000[mg/l]	0.024[mg/l]	0.023[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	0.007[mg/l]	1050660	<-0.002[mg/l]	0.024[mg/l]	0.023[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**0.009[mg/l]**	**1052940**	**<-0.001[mg/l]**	**0.024[mg/l]**	**0.023[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***12.936***	***25.152***	***---***	***88.397***	***0.586***	***1.595***	***26.803***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***3224.41***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	5.414[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	22222.8	<-0.005[mg/l]	0.009[mg/l]
Conc 2	5.414[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	22558.3	<-0.005[mg/l]	0.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**5.414[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**22390.6**	**<-0.005[mg/l]**	**0.009[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.005***	***9.296***	***29.731***	***40.933***	***---***	***0.148***	***1.192***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***237.234***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.697[mg/l]	0.003[mg/l]	0.794[mg/l]	0.005[mg/l]	0.003[mg/l]	25.661[mg/l]	0.000[mg/l]
Conc 2	0.683[mg/l]	0.002[mg/l]	0.790[mg/l]	0.005[mg/l]	0.003[mg/l]	25.215[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.690[mg/l]**	**0.002[mg/l]**	**0.792[mg/l]**	**0.005[mg/l]**	**0.003[mg/l]**	**25.438[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.414***	***3.874***	***0.356***	***0.494***	***13.690***	***1.239***	***52.210***
Conc SD	***0.010[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.315[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.898[mg/l]	0.000[mg/l]	0.043[mg/l]	0.001[mg/l]

Conc 2	-0.000[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.906[mg/l]	0.001[mg/l]	0.043[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**0.902[mg/l]**	**0.000[mg/l]**	**0.043[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***246.327***	***331.234***	***4.382***	***0.669***	***97.296***	***0.182***	***7.212***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.006[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	0.002[mg/l]	4592540	101.260[%]	0.005[mg/l]	101.260[%]	
Conc 2	0.002[mg/l]	-0.007[mg/l]	4571300	100.792[%]	0.005[mg/l]	100.792[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.000[mg/l]**	**-0.002[mg/l]**	**4581920**	**101.026[%]**	**0.005[mg/l]**	**101.026[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***337.134***	***261.161***	***---***	***0.328***	***0.831***	***0.328***	
Conc SD	***0.002[mg/l]***	***0.006[mg/l]***	***15018.9***	***0.331[%]***	***0.000[mg/l]***	***0.331[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.002[mg/l]	0.010[mg/l]	1055220	<-0.000[mg/l]	0.024[mg/l]	0.023[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	0.007[mg/l]	1050660	<-0.002[mg/l]	0.024[mg/l]	0.023[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**0.009[mg/l]**	**1052940**	**<-0.001[mg/l]**	**0.024[mg/l]**	**0.023[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***12.936***	***25.152***	***---***	***88.397***	***0.586***	***1.595***	***26.803***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***3224.41***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	5.414[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	22222.8	<-0.009[mg/l]	0.009[mg/l]
Conc 2	5.414[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	22558.3	<-0.010[mg/l]	0.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**5.414[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**22390.6**	**<-0.010[mg/l]**	**0.009[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.005***	***9.296***	***29.731***	***40.933***	***---***	***5.856***	***1.192***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***237.234***	***0.001[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.933[mg/l]	0.697[mg/l]	<-18.298[mg/l]	0.003[mg/l]	<-0.417[mg/l]	0.794[mg/l]	0.005[mg/l]
Conc 2	<-4.933[mg/l]	0.683[mg/l]	<-18.321[mg/l]	0.002[mg/l]	<-0.417[mg/l]	0.790[mg/l]	0.005[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.933[mg/l]**	**0.690[mg/l]**	**<-18.309[mg/l]**	**0.002[mg/l]**	**<-0.417[mg/l]**	**0.792[mg/l]**	**0.005[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.006***	***1.414***	***0.088***	***3.874***	***0.034***	***0.356***	***0.494***
Conc SD	***0.000[mg/l]***	***0.010[mg/l]***	***0.016[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.003[mg/l]	>26.026[mg/l]	25.661[mg/l]	0.000[mg/l]	0.001[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc 2	0.003[mg/l]	>25.724[mg/l]	25.215[mg/l]	0.001[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**>25.875[mg/l]**	**25.438[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***13.690***	***0.825***	***1.239***	***52.210***	***246.327***	***331.234***	***4.382***
Conc SD	***0.000[mg/l]***	***0.213[mg/l]***	***0.315[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.898[mg/l]	0.000[mg/l]	0.043[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.002[mg/l]	4592540
Conc 2	0.906[mg/l]	0.001[mg/l]	0.043[mg/l]	0.001[mg/l]	0.002[mg/l]	-0.007[mg/l]	4571300
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.902[mg/l]**	**0.000[mg/l]**	**0.043[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**-0.002[mg/l]**	**4581920**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.669***	***97.296***	***0.182***	***7.212***	***337.134***	***261.161***	***---***
Conc SD	***0.006[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.006[mg/l]***	***15018.9***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	101.260[%]	0.005[mg/l]	<-0.005[mg/l]				
Conc 2	100.792[%]	0.005[mg/l]	<-0.005[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**101.026[%]**	**0.005[mg/l]**	**<-0.005[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.328***	***0.831***	***0.148***				
Conc SD	***0.331[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130758-A-2-G MS | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:47:50 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130758-A-2-G MS						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.537[mg/l]	10.615[mg/l]	1098270	1.081[mg/l]	1.089[mg/l]	1.086[mg/l]	0.516[mg/l]
Conc 2	0.534[mg/l]	10.597[mg/l]	1102270	1.076[mg/l]	1.086[mg/l]	1.084[mg/l]	0.521[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.536[mg/l]**	**10.606[mg/l]**	**1100270**	**1.079[mg/l]**	**1.087[mg/l]**	**1.085[mg/l]**	**0.519[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.299***	***0.119***	***---***	***0.319***	***0.143***	***0.146***	***0.724***
Conc SD	***0.002[mg/l]***	***0.013[mg/l]***	***2828.43***	***0.003[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	15.731[mg/l]	0.530[mg/l]	1.058[mg/l]	1.056[mg/l]	22661.8	1.082[mg/l]	10.692[mg/l]
Conc 2	15.893[mg/l]	0.527[mg/l]	1.060[mg/l]	1.051[mg/l]	23921.6	1.081[mg/l]	10.641[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**15.812[mg/l]**	**0.528[mg/l]**	**1.059[mg/l]**	**1.054[mg/l]**	**23291.7**	**1.081[mg/l]**	**10.667[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.725***	***0.299***	***0.186***	***0.354***	***---***	***0.082***	***0.341***
Conc SD	***0.115[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***	***890.813***	***0.001[mg/l]***	***0.036[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	12.365[mg/l]	1.137[mg/l]	11.527[mg/l]	1.069[mg/l]	1.051[mg/l]	38.821[mg/l]	1.063[mg/l]
Conc 2	11.540[mg/l]	1.058[mg/l]	11.464[mg/l]	1.065[mg/l]	1.047[mg/l]	36.204[mg/l]	1.057[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**11.952[mg/l]**	**1.097[mg/l]**	**11.495[mg/l]**	**1.067[mg/l]**	**1.049[mg/l]**	**37.513[mg/l]**	**1.060[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.880***	***5.118***	***0.389***	***0.260***	***0.328***	***4.933***	***0.406***
Conc SD	***0.583[mg/l]***	***0.056[mg/l]***	***0.045[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***1.850[mg/l]***	***0.004[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.069[mg/l]	1.061[mg/l]	1.074[mg/l]	2.007[mg/l]	1.057[mg/l]	0.577[mg/l]	1.041[mg/l]
Conc 2	1.066[mg/l]	1.060[mg/l]	1.061[mg/l]	2.009[mg/l]	1.049[mg/l]	0.576[mg/l]	1.047[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.067[mg/l]**	**1.061[mg/l]**	**1.068[mg/l]**	**2.008[mg/l]**	**1.053[mg/l]**	**0.577[mg/l]**	**1.044[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.211***	***0.078***	***0.865***	***0.043***	***0.548***	***0.156***	***0.411***
Conc SD	***0.002[mg/l]***	***0.001[mg/l]***	***0.009[mg/l]***	***0.001[mg/l]***	***0.006[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	1.054[mg/l]	1.076[mg/l]	4530870	99.921[%]	1.063[mg/l]	99.921[%]	
Conc 2	1.057[mg/l]	1.066[mg/l]	4545070	100.238[%]	1.059[mg/l]	100.238[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**1.055[mg/l]**	**1.071[mg/l]**	**4537970**	**100.080[%]**	**1.061[mg/l]**	**100.080[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.252***	***0.686***	***---***	***0.224***	***0.311***	***0.224***	
Conc SD	***0.003[mg/l]***	***0.007[mg/l]***	***10040.9***	***0.224[%]***	***0.003[mg/l]***	***0.224[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.537[mg/l]	10.615[mg/l]	1098270	1.081[mg/l]	1.089[mg/l]	1.086[mg/l]	0.516[mg/l]
Conc 2	0.534[mg/l]	10.597[mg/l]	1102270	1.076[mg/l]	1.086[mg/l]	1.084[mg/l]	0.521[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.536[mg/l]**	**10.606[mg/l]**	**1100270**	**1.079[mg/l]**	**1.087[mg/l]**	**1.085[mg/l]**	**0.519[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.299***	***0.119***	***---***	***0.319***	***0.143***	***0.146***	***0.724***
Conc SD	***0.002[mg/l]***	***0.013[mg/l]***	***2828.43***	***0.003[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	15.731[mg/l]	0.530[mg/l]	1.058[mg/l]	1.056[mg/l]	22661.8	1.082[mg/l]	10.692[mg/l]
Conc 2	15.893[mg/l]	0.527[mg/l]	1.060[mg/l]	1.051[mg/l]	23921.6	1.081[mg/l]	10.641[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**15.812[mg/l]**	**0.528[mg/l]**	**1.059[mg/l]**	**1.054[mg/l]**	**23291.7**	**1.081[mg/l]**	**10.667[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.725***	***0.299***	***0.186***	***0.354***	***---***	***0.082***	***0.341***
Conc SD	***0.115[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***	***890.813***	***0.001[mg/l]***	***0.036[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<8.349[mg/l]	12.365[mg/l]	<5.271[mg/l]	1.137[mg/l]	<0.967[mg/l]	11.527[mg/l]	1.069[mg/l]
Conc 2	<8.287[mg/l]	11.540[mg/l]	<3.609[mg/l]	1.058[mg/l]	<0.870[mg/l]	11.464[mg/l]	1.065[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<8.318[mg/l]**	**11.952[mg/l]**	**<4.440[mg/l]**	**1.097[mg/l]**	**<0.919[mg/l]**	**11.495[mg/l]**	**1.067[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.528***	***4.880***	***26.468***	***5.118***	***7.460***	***0.389***	***0.260***
Conc SD	***0.044[mg/l]***	***0.583[mg/l]***	***1.175[mg/l]***	***0.056[mg/l]***	***0.069[mg/l]***	***0.045[mg/l]***	***0.003[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	1.051[mg/l]	>40.027[mg/l]	38.821[mg/l]	1.063[mg/l]	1.069[mg/l]	1.061[mg/l]	1.074[mg/l]
Conc 2	1.047[mg/l]	>37.542[mg/l]	36.204[mg/l]	1.057[mg/l]	1.066[mg/l]	1.060[mg/l]	1.061[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.049[mg/l]**	**>38.785[mg/l]**	**37.513[mg/l]**	**1.060[mg/l]**	**1.067[mg/l]**	**1.061[mg/l]**	**1.068[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.328***	***4.531***	***4.933***	***0.406***	***0.211***	***0.078***	***0.865***
Conc SD	***0.003[mg/l]***	***1.757[mg/l]***	***1.850[mg/l]***	***0.004[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.009[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	2.007[mg/l]	1.057[mg/l]	0.577[mg/l]	1.041[mg/l]	1.054[mg/l]	1.076[mg/l]	4530870
Conc 2	2.009[mg/l]	1.049[mg/l]	0.576[mg/l]	1.047[mg/l]	1.057[mg/l]	1.066[mg/l]	4545070
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**2.008[mg/l]**	**1.053[mg/l]**	**0.577[mg/l]**	**1.044[mg/l]**	**1.055[mg/l]**	**1.071[mg/l]**	**4537970**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.043***	***0.548***	***0.156***	***0.411***	***0.252***	***0.686***	***---***
Conc SD	***0.001[mg/l]***	***0.006[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***0.003[mg/l]***	***0.007[mg/l]***	***10040.9***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.921[%]	1.063[mg/l]	>1.121[mg/l]				
Conc 2	100.238[%]	1.059[mg/l]	>1.122[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**100.080[%]**	**1.061[mg/l]**	**>1.121[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.224***	***0.311***	***0.057***				
Conc SD	***0.224[%]***	***0.003[mg/l]***	***0.001[mg/l]***				

Sample Name: LB 600-188518/1-D | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:49:50 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
LB 600-188518/1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	-0.009[mg/l]	1046490	<-0.002[mg/l]	0.005[mg/l]	0.001[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	-0.012[mg/l]	1058350	<-0.001[mg/l]	0.004[mg/l]	0.001[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.011[mg/l]**	**1052420**	**<-0.001[mg/l]**	**0.004[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***72.154***	***17.214***	***---***	***86.018***	***15.274***	***9.994***	***74.125***

Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***8386.29***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.028[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	25377.7	<-0.005[mg/l]	0.003[mg/l]
Conc 2	0.025[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24967.7	<-0.004[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.026[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**25172.7**	**<-0.004[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***8.221***	***29.699***	***25.924***	***799.446***	***---***	***5.481***	***11.920***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***289.914***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.097[mg/l]	-0.000[mg/l]	0.004[mg/l]	0.001[mg/l]	0.002[mg/l]	156.359[mg/l]	0.002[mg/l]
Conc 2	0.097[mg/l]	-0.000[mg/l]	0.005[mg/l]	0.001[mg/l]	0.001[mg/l]	157.894[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.097[mg/l]**	**-0.000[mg/l]**	**0.004[mg/l]**	**0.001[mg/l]**	**0.002[mg/l]**	**157.126[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.294***	***3.664***	***12.195***	***0.771***	***26.525***	***0.691***	***7.992***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1.085[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.111[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc 2	0.000[mg/l]	0.001[mg/l]	-0.002[mg/l]	-0.102[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**-0.106[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***202.393***	***294.992***	***94.508***	***6.102***	***53.122***	***19.744***	***21.081***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.006[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.004[mg/l]	-0.004[mg/l]	4482460	98.827[%]	0.004[mg/l]	98.827[%]	
Conc 2	0.002[mg/l]	0.001[mg/l]	4474820	98.653[%]	0.004[mg/l]	98.653[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.003[mg/l]**	**-0.001[mg/l]**	**4478640**	**98.740[%]**	**0.004[mg/l]**	**98.740[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***41.506***	***264.754***	***---***	***0.125***	***0.421***	***0.125***	
Conc SD	***0.001[mg/l]***	***0.004[mg/l]***	***5402.30***	***0.123[%]***	***0.000[mg/l]***	***0.123[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	-0.009[mg/l]	1046490	<-0.002[mg/l]	0.005[mg/l]	0.001[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	-0.012[mg/l]	1058350	<-0.001[mg/l]	0.004[mg/l]	0.001[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.011[mg/l]**	**1052420**	**<-0.001[mg/l]**	**0.004[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***72.154***	***17.214***	***---***	***86.018***	***15.274***	***9.994***	***74.125***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***8386.29***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.028[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	25377.7	<-0.009[mg/l]	0.003[mg/l]

Conc 2	0.025[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24967.7	<-0.010[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.026[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**25172.7**	**<-0.009[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***8.221***	***29.699***	***25.924***	***799.446***	***---***	***1.514***	***11.920***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***289.914***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.940[mg/l]	0.097[mg/l]	<-19.509[mg/l]	-0.000[mg/l]	<-0.421[mg/l]	0.004[mg/l]	0.001[mg/l]
Conc 2	<-4.940[mg/l]	0.097[mg/l]	<-19.506[mg/l]	-0.000[mg/l]	<-0.421[mg/l]	0.005[mg/l]	0.001[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.940[mg/l]**	**0.097[mg/l]**	**<-19.508[mg/l]**	**-0.000[mg/l]**	**<-0.421[mg/l]**	**0.004[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.008***	***0.294***	***0.009***	***3.664***	***0.004***	***12.195***	***0.771***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.002[mg/l]	>210.474[mg/l]	156.359[mg/l]	0.002[mg/l]	-0.001[mg/l]	-0.000[mg/l]	-0.000[mg/l]
Conc 2	0.001[mg/l]	>212.518[mg/l]	157.894[mg/l]	0.002[mg/l]	0.000[mg/l]	0.001[mg/l]	-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**>211.496[mg/l]**	**157.126[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***26.525***	***0.683***	***0.691***	***7.992***	***202.393***	***294.992***	***94.508***
Conc SD	***0.000[mg/l]***	***1.445[mg/l]***	***1.085[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.111[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.004[mg/l]	-0.004[mg/l]	4482460
Conc 2	-0.102[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.002[mg/l]	0.001[mg/l]	4474820
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.106[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**	**-0.001[mg/l]**	**4478640**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***6.102***	***53.122***	***19.744***	***21.081***	***41.506***	***264.754***	***---***
Conc SD	***0.006[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***5402.30***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.827[%]	0.004[mg/l]	<-0.005[mg/l]				
Conc 2	98.653[%]	0.004[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.740[%]**	**0.004[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.125***	***0.421***	***5.481***				
Conc SD	***0.123[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

SPECTRO

Printing Date: 5/17/2016 8:51:04 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: 600-130676-A-1-F			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 17:51:48	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130676-A-1-F						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	0.021[mg/l]	1061830	<-0.000[mg/l]	0.018[mg/l]	0.188[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.018[mg/l]	1056710	0.002[mg/l]	0.018[mg/l]	0.186[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.020[mg/l]**	**1059270**	**<0.001[mg/l]**	**0.018[mg/l]**	**0.187[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***39.803***	***11.378***	***---***	***159.064***	***0.503***	***0.924***	***8.099***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***3620.39***	***0.002[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	39.505[mg/l]	0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	24960.9	<-0.004[mg/l]	0.898[mg/l]
Conc 2	39.400[mg/l]	0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	25120.8	<-0.004[mg/l]	0.898[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**39.452[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**25040.8**	**<-0.004[mg/l]**	**0.898[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.189***	***139.427***	***25.796***	***10.301***	***---***	***4.184***	***0.023***
Conc SD	***0.075[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***113.066***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.190[mg/l]	0.000[mg/l]	1.285[mg/l]	0.066[mg/l]	0.000[mg/l]	154.147[mg/l]	0.007[mg/l]
Conc 2	0.192[mg/l]	0.000[mg/l]	1.287[mg/l]	0.065[mg/l]	0.000[mg/l]	156.222[mg/l]	0.007[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.191[mg/l]**	**0.000[mg/l]**	**1.286[mg/l]**	**0.065[mg/l]**	**0.000[mg/l]**	**155.184[mg/l]**	**0.007[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.856***	***0.012***	***0.074***	***0.470***	***12.935***	***0.945***	***1.321***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1.467[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.091[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.102[mg/l]	0.001[mg/l]	0.054[mg/l]	0.001[mg/l]
Conc 2	0.090[mg/l]	0.001[mg/l]	0.001[mg/l]	0.097[mg/l]	0.002[mg/l]	0.054[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.091[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.099[mg/l]**	**0.001[mg/l]**	**0.054[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.638***	***2895.42***	***50.838***	***3.848***	***52.260***	***0.142***	***12.472***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.000[mg/l]	-0.000[mg/l]	4441960	97.937[%]	0.023[mg/l]	97.937[%]	
Conc 2	-0.002[mg/l]	-0.003[mg/l]	4464700	98.448[%]	0.024[mg/l]	98.448[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.001[mg/l]**	**-0.002[mg/l]**	**4453330**	**98.193[%]**	**0.024[mg/l]**	**98.193[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***221.666***	***126.334***	***---***	***0.368***	***0.795***	***0.368***	
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***16079.6***	***0.362[%]***	***0.000[mg/l]***	***0.362[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	0.021[mg/l]	1061830	<-0.000[mg/l]	0.018[mg/l]	0.188[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.018[mg/l]	1056710	0.002[mg/l]	0.018[mg/l]	0.186[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.020[mg/l]**	**1059270**	**<0.001[mg/l]**	**0.018[mg/l]**	**0.187[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***39.803***	***11.378***	***---***	***159.064***	***0.503***	***0.924***	***8.099***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***3620.39***	***0.002[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	39.505[mg/l]	0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	24960.9	<-0.009[mg/l]	0.898[mg/l]
Conc 2	39.400[mg/l]	0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	25120.8	<-0.009[mg/l]	0.898[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**39.452[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**25040.8**	**<-0.009[mg/l]**	**0.898[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.189***	***139.427***	***25.796***	***10.301***	***---***	***1.231***	***0.023***
Conc SD	***0.075[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***113.066***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-3.827[mg/l]	0.190[mg/l]	<-19.322[mg/l]	0.000[mg/l]	<-0.420[mg/l]	1.285[mg/l]	0.066[mg/l]
Conc 2	<-3.827[mg/l]	0.192[mg/l]	<-19.319[mg/l]	0.000[mg/l]	<-0.420[mg/l]	1.287[mg/l]	0.065[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-3.827[mg/l]**	**0.191[mg/l]**	**<-19.321[mg/l]**	**0.000[mg/l]**	**<-0.420[mg/l]**	**1.286[mg/l]**	**0.065[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.005***	***0.856***	***0.011***	***0.012***	***0.004***	***0.074***	***0.470***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>205.400[mg/l]	154.147[mg/l]	0.007[mg/l]	0.091[mg/l]	-0.001[mg/l]	0.001[mg/l]
Conc 2	0.000[mg/l]	>209.616[mg/l]	156.222[mg/l]	0.007[mg/l]	0.090[mg/l]	0.001[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>207.508[mg/l]**	**155.184[mg/l]**	**0.007[mg/l]**	**0.091[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***12.935***	***1.437***	***0.945***	***1.321***	***0.638***	***2895.42***	***50.838***
Conc SD	***0.000[mg/l]***	***2.981[mg/l]***	***1.467[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.102[mg/l]	0.001[mg/l]	0.054[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.000[mg/l]	4441960
Conc 2	0.097[mg/l]	0.002[mg/l]	0.054[mg/l]	0.001[mg/l]	-0.002[mg/l]	-0.003[mg/l]	4464700
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.099[mg/l]**	**0.001[mg/l]**	**0.054[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**-0.002[mg/l]**	**4453330**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***3.848***	***52.260***	***0.142***	***12.472***	***221.666***	***126.334***	***---***

Conc SD	***0.004[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***16079.6***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.937[%]	0.023[mg/l]	<-0.004[mg/l]				
Conc 2	98.448[%]	0.024[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.193[%]**	**0.024[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.368***	***0.795***	***4.184***				
Conc SD	***0.362[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: CCV				Sample Type: Control Sample		
Measure Date: 2016-05-16 17:53:48	Recalculation Date:	State: Check failed	Quality: Failed	Total Dilution: 1.000000		
Sample Identification						
Sample Name						
CCV						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.249[mg/l]	2.523[mg/l]	1098270	0.501[mg/l]	0.502[mg/l]	0.492[mg/l]	0.491[mg/l]
Conc 2	0.248[mg/l]	2.476[mg/l]	1078340	0.486[mg/l]	0.489[mg/l]	0.486[mg/l]	0.486[mg/l]
Conc MinRange	*90.000*	*90.000*	---	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.248[mg/l]**	**2.500[mg/l]**	**1088310**	**0.493[mg/l]**	**0.495[mg/l]**	**0.489[mg/l]**	**0.489[mg/l]**
Conc MaxRange	*110.000*	*110.000*	---	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***0.147***	***1.314***	***---***	***2.118***	***1.743***	***0.878***	***0.645***
Conc SD	***0.000[mg/l]***	***0.033[mg/l]***	***14092.6***	***0.010[mg/l]***	***0.009[mg/l]***	***0.004[mg/l]***	***0.003[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	12.342[mg/l]	0.492[mg/l]	0.507[mg/l]	0.510[mg/l]	22015.4	0.514[mg/l]	2.569[mg/l]
Conc 2	12.247[mg/l]	0.485[mg/l]	0.500[mg/l]	0.502[mg/l]	22099.3	0.513[mg/l]	2.526[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	---	*90.000*	*90.000*
Conc Mean	**12.294[mg/l]**	**0.488[mg/l]**	**0.503[mg/l]**	**0.506[mg/l]**	**22057.3**	**0.513[mg/l]**	**2.548[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	---	*110.000*	*110.000*
Conc RSD	***0.543***	***0.968***	***1.076***	***1.046***	***---***	***0.229***	***1.196***
Conc SD	***0.067[mg/l]***	***0.005[mg/l]***	***0.005[mg/l]***	***0.005[mg/l]***	***59.326***	***0.001[mg/l]***	***0.030[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	21.259[mg/l]	2.043[mg/l]	4.904[mg/l]	0.497[mg/l]	0.519[mg/l]	20.106[mg/l]	0.498[mg/l]
Conc 2	20.851[mg/l]	2.091[mg/l]	4.785[mg/l]	0.491[mg/l]	0.510[mg/l]	20.655[mg/l]	0.491[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**21.055[mg/l]**	**2.067[mg/l]**	**4.845[mg/l]**	**0.494[mg/l]**	**0.515[mg/l]**	**20.381[mg/l]**	**0.495[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***1.369***	***1.638***	***1.741***	***0.879***	***1.198***	***1.904***	***1.024***
Conc SD	***0.288[mg/l]***	***0.034[mg/l]***	***0.084[mg/l]***	***0.004[mg/l]***	***0.006[mg/l]***	***0.388[mg/l]***	***0.005[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.508[mg/l]	0.508[mg/l]	0.514[mg/l]	0.802[mg/l]	0.506[mg/l]	0.258[mg/l]	0.496[mg/l]

Conc 2	0.500[mg/l]	0.488[mg/l]	0.506[mg/l]	0.779[mg/l]	0.495[mg/l]	0.254[mg/l]	0.491[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.504[mg/l]**	**0.498[mg/l]**	**0.510[mg/l]**	**<0.790[mg/l]**	**0.501[mg/l]**	**0.256[mg/l]**	**0.493[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***1.147***	***2.845***	***1.101***	***2.031***	***1.605***	***1.113***	***0.699***
Conc SD	***0.006[mg/l]***	***0.014[mg/l]***	***0.006[mg/l]***	***0.016[mg/l]***	***0.008[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.502[mg/l]	0.523[mg/l]	4460020	98.345[%]	0.492[mg/l]	98.345[%]	
Conc 2	0.494[mg/l]	0.503[mg/l]	4508680	99.416[%]	0.483[mg/l]	99.416[%]	
Conc MinRange	*90.000*	*90.000*	---	---	*90.000*	---	
Conc Mean	**0.498[mg/l]**	**0.513[mg/l]**	**4484350**	**98.881[%]**	**0.488[mg/l]**	**98.881[%]**	
Conc MaxRange	*110.000*	*110.000*	---	---	*110.000*	---	
Conc RSD	***1.086***	***2.738***	***---***	***0.765***	***1.328***	***0.765***	
Conc SD	***0.005[mg/l]***	***0.014[mg/l]***	***34407.8***	***0.757[%]***	***0.006[mg/l]***	***0.757[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.249[mg/l]	2.523[mg/l]	1098270	0.501[mg/l]	0.502[mg/l]	0.492[mg/l]	0.491[mg/l]
Conc 2	0.248[mg/l]	2.476[mg/l]	1078340	0.486[mg/l]	0.489[mg/l]	0.486[mg/l]	0.486[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.248[mg/l]**	**2.500[mg/l]**	**1088310**	**0.493[mg/l]**	**0.495[mg/l]**	**0.489[mg/l]**	**0.489[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.147***	***1.314***	***---***	***2.118***	***1.743***	***0.878***	***0.645***
Conc SD	***0.000[mg/l]***	***0.033[mg/l]***	***14092.6***	***0.010[mg/l]***	***0.009[mg/l]***	***0.004[mg/l]***	***0.003[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	12.342[mg/l]	0.492[mg/l]	0.507[mg/l]	0.510[mg/l]	22015.4	<0.507[mg/l]	2.569[mg/l]
Conc 2	12.247[mg/l]	0.485[mg/l]	0.500[mg/l]	0.502[mg/l]	22099.3	<0.494[mg/l]	2.526[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.294[mg/l]**	**0.488[mg/l]**	**0.503[mg/l]**	**0.506[mg/l]**	**22057.3**	**<0.501[mg/l]**	**2.548[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.543***	***0.968***	***1.076***	***1.046***	***---***	***1.884***	***1.196***
Conc SD	***0.067[mg/l]***	***0.005[mg/l]***	***0.005[mg/l]***	***0.005[mg/l]***	***59.326***	***0.009[mg/l]***	***0.030[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.748[mg/l]	20.369[mg/l]	21.259[mg/l]	2.023[mg/l]	2.043[mg/l]	4.904[mg/l]	0.497[mg/l]
Conc 2	<-1.801[mg/l]	20.122[mg/l]	20.851[mg/l]	2.063[mg/l]	2.091[mg/l]	4.785[mg/l]	0.491[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.775[mg/l]**	**20.245[mg/l]**	**21.055[mg/l]**	**2.043[mg/l]**	**2.067[mg/l]**	**4.845[mg/l]**	**0.494[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.123***	***0.861***	***1.369***	***1.367***	***1.638***	***1.741***	***0.879***
Conc SD	***0.038[mg/l]***	***0.174[mg/l]***	***0.288[mg/l]***	***0.028[mg/l]***	***0.034[mg/l]***	***0.084[mg/l]***	***0.004[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.519[mg/l]	20.266[mg/l]	20.106[mg/l]	0.498[mg/l]	0.508[mg/l]	0.508[mg/l]	0.514[mg/l]
Conc 2	0.510[mg/l]	20.794[mg/l]	20.655[mg/l]	0.491[mg/l]	0.500[mg/l]	0.488[mg/l]	0.506[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.515[mg/l]**	**20.530[mg/l]**	**20.381[mg/l]**	**0.495[mg/l]**	**0.504[mg/l]**	**0.498[mg/l]**	**0.510[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***1.198***	***1.820***	***1.904***	***1.024***	***1.147***	***2.845***	***1.101***
Conc SD	***0.006[mg/l]***	***0.374[mg/l]***	***0.388[mg/l]***	***0.005[mg/l]***	***0.006[mg/l]***	***0.014[mg/l]***	***0.006[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.802[mg/l]	0.506[mg/l]	0.258[mg/l]	0.496[mg/l]	0.502[mg/l]	0.523[mg/l]	4460020
Conc 2	0.779[mg/l]	0.495[mg/l]	0.254[mg/l]	0.491[mg/l]	0.494[mg/l]	0.503[mg/l]	4508680
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.790[mg/l]**	**0.501[mg/l]**	**0.256[mg/l]**	**0.493[mg/l]**	**0.498[mg/l]**	**0.513[mg/l]**	**4484350**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***2.031***	***1.605***	***1.113***	***0.699***	***1.086***	***2.738***	***---***
Conc SD	***0.016[mg/l]***	***0.008[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***0.005[mg/l]***	***0.014[mg/l]***	***34407.8***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.345[%]	0.492[mg/l]	0.514[mg/l]				
Conc 2	99.416[%]	0.483[mg/l]	0.513[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.881[%]**	**0.488[mg/l]**	**0.513[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.765***	***1.328***	***0.229***				
Conc SD	***0.757[%]***	***0.006[mg/l]***	***0.001[mg/l]***				

Sample Name: CCB | Sample Type: Control Sample

Measure Date: 2016-05-16 17:55:48 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	0.012[mg/l]	1054930	<0.000[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.008[mg/l]	1080940	<-0.002[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.000[mg/l]**	**0.010[mg/l]**	**1067940**	**<-0.001[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***63.017***	***21.675***	***---***	***170.456***	***6.612***	***8.505***	***11.797***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***18391.8***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.019[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20941.2	<-0.005[mg/l]	0.002[mg/l]
Conc 2	0.018[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21164.4	<-0.004[mg/l]	0.002[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.019[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**21052.8**	**<-0.005[mg/l]**	**0.002[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***4.200***	***170.035***	***448.401***	***18.366***	***---***	***15.850***	***0.304***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***157.826***	***0.001[mg/l]***	***0.000[mg/l]***

SPECTRO

Printing Date: 5/17/2016 8:51:05 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.010[mg/l]	0.000[mg/l]	0.007[mg/l]	0.000[mg/l]	0.001[mg/l]	<0.097[mg/l]	-0.001[mg/l]
Conc 2	0.009[mg/l]	0.000[mg/l]	0.008[mg/l]	0.000[mg/l]	0.001[mg/l]	<-0.071[mg/l]	-0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.010[mg/l]**	**0.000[mg/l]**	**0.008[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**<0.013[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***5.868***	***6.054***	***10.985***	***5.296***	***8.317***	***924.354***	***32.305***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.119[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.111[mg/l]	0.002[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc 2	-0.001[mg/l]	-0.001[mg/l]	-0.000[mg/l]	-0.105[mg/l]	0.002[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.001[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.108[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***41.577***	***7665.69***	***157.296***	***3.447***	***2.612***	***2.118***	***9.670***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.005[mg/l]	0.000[mg/l]	4578410	100.929[%]	0.001[mg/l]	100.929[%]	
Conc 2	0.003[mg/l]	0.001[mg/l]	4511540	99.465[%]	0.001[mg/l]	99.465[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.004[mg/l]**	**0.001[mg/l]**	**4544980**	**100.197[%]**	**0.001[mg/l]**	**100.197[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***32.228***	***83.212***	***---***	***1.033***	***0.588***	***1.033***	
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***47284.2***	***1.035[%]***	***0.000[mg/l]***	***1.035[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	0.012[mg/l]	1054930	<0.000[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.008[mg/l]	1080940	<-0.002[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.010[mg/l]**	**1067940**	**<-0.001[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***63.017***	***21.675***	***---***	***170.456***	***6.612***	***8.505***	***11.797***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***18391.8***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.019[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20941.2	<-0.009[mg/l]	0.002[mg/l]
Conc 2	0.018[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21164.4	<-0.010[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.019[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**21052.8**	**<-0.010[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***4.200***	***170.035***	***448.401***	***18.366***	***---***	***9.390***	***0.304***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***157.826***	***0.001[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.941[mg/l]	0.010[mg/l]	<-19.687[mg/l]	0.000[mg/l]	<-0.419[mg/l]	0.007[mg/l]	0.000[mg/l]
Conc 2	<-4.941[mg/l]	0.009[mg/l]	<-19.696[mg/l]	0.000[mg/l]	<-0.419[mg/l]	0.008[mg/l]	0.000[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.941[mg/l]**	**0.010[mg/l]**	**<-19.692[mg/l]**	**0.000[mg/l]**	**<-0.419[mg/l]**	**0.008[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.000***	***5.868***	***0.031***	***6.054***	***0.004***	***10.985***	***5.296***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.006[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	<0.097[mg/l]	<-1.369[mg/l]	-0.001[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.000[mg/l]
Conc 2	0.001[mg/l]	<-0.071[mg/l]	<-1.504[mg/l]	-0.000[mg/l]	-0.001[mg/l]	-0.001[mg/l]	-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**<0.013[mg/l]**	**<-1.436[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***8.317***	***924.354***	***6.655***	***32.305***	***41.577***	***7665.69***	***157.296***
Conc SD	***0.000[mg/l]***	***0.119[mg/l]***	***0.096[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.111[mg/l]	0.002[mg/l]	0.000[mg/l]	0.001[mg/l]	0.005[mg/l]	0.000[mg/l]	4578410
Conc 2	-0.105[mg/l]	0.002[mg/l]	0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	0.001[mg/l]	4511540
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.108[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.004[mg/l]**	**0.001[mg/l]**	**4544980**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***3.447***	***2.612***	***2.118***	***9.670***	***32.228***	***83.212***	***---***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***47284.2***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	100.929[%]	0.001[mg/l]	<-0.005[mg/l]				
Conc 2	99.465[%]	0.001[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**100.197[%]**	**0.001[mg/l]**	**<-0.005[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***1.033***	***0.588***	***15.850***				
Conc SD	***1.035[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130676-A-1-G DU | Sample Type: Unknown Sample

Measure Date: 2016-05-16 17:57:46 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130676-A-1-G DU						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	0.019[mg/l]	1094200	<-0.001[mg/l]	0.018[mg/l]	0.190[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.017[mg/l]	1090820	0.004[mg/l]	0.017[mg/l]	0.191[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.018[mg/l]**	**1092510**	**<0.001[mg/l]**	**0.017[mg/l]**	**0.191[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***215.874***	***9.671***	***---***	***329.376***	***2.114***	***0.367***	***37.917***

Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***2390.02***	***0.004[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	39.984[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	24998.1	<-0.003[mg/l]	0.907[mg/l]
Conc 2	40.231[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	24650.4	<-0.003[mg/l]	0.906[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**40.108[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**24824.3**	**<-0.003[mg/l]**	**0.906[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.436***	***8.933***	***0.668***	***507.194***	***---***	***11.885***	***0.075***
Conc SD	***0.175[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***245.861***	***0.000[mg/l]***	***0.001[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.179[mg/l]	-0.000[mg/l]	1.282[mg/l]	0.065[mg/l]	0.000[mg/l]	152.336[mg/l]	0.008[mg/l]
Conc 2	0.184[mg/l]	-0.000[mg/l]	1.290[mg/l]	0.066[mg/l]	-0.000[mg/l]	156.234[mg/l]	0.008[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.181[mg/l]**	**-0.000[mg/l]**	**1.286[mg/l]**	**0.066[mg/l]**	**0.000[mg/l]**	**154.285[mg/l]**	**0.008[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.002***	***8.316***	***0.421***	***0.623***	***142.518***	***1.786***	***0.921***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***2.756[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.092[mg/l]	-0.000[mg/l]	-0.002[mg/l]	0.121[mg/l]	0.003[mg/l]	0.054[mg/l]	0.001[mg/l]
Conc 2	0.093[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.129[mg/l]	0.000[mg/l]	0.053[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.092[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**0.125[mg/l]**	**0.002[mg/l]**	**0.053[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.846***	***335.804***	***15.272***	***4.664***	***99.089***	***0.225***	***43.774***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.006[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.000[mg/l]	0.001[mg/l]	4387730	96.759[%]	0.023[mg/l]	96.759[%]	
Conc 2	0.002[mg/l]	-0.001[mg/l]	4374670	96.474[%]	0.023[mg/l]	96.474[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**0.000[mg/l]**	**4381200**	**96.616[%]**	**0.023[mg/l]**	**96.616[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***87.164***	***327.037***	***---***	***0.208***	***0.352***	***0.208***	
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***9234.81***	***0.201[%]***	***0.000[mg/l]***	***0.201[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	0.019[mg/l]	1094200	<-0.001[mg/l]	0.018[mg/l]	0.190[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.017[mg/l]	1090820	0.004[mg/l]	0.017[mg/l]	0.191[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.018[mg/l]**	**1092510**	**<0.001[mg/l]**	**0.017[mg/l]**	**0.191[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***215.874***	***9.671***	***---***	***329.376***	***2.114***	***0.367***	***37.917***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***2390.02***	***0.004[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	39.984[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	24998.1	<-0.010[mg/l]	0.907[mg/l]

Conc 2	40.231[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	24650.4	<-0.009[mg/l]	0.906[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**40.108[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**24824.3**	**<-0.010[mg/l]**	**0.906[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.436***	***8.933***	***0.668***	***507.194***	***---***	***4.405***	***0.075***
Conc SD	***0.175[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***245.861***	***0.000[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-3.817[mg/l]	0.179[mg/l]	<-19.344[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	1.282[mg/l]	0.065[mg/l]
Conc 2	<-3.819[mg/l]	0.184[mg/l]	<-19.336[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	1.290[mg/l]	0.066[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-3.818[mg/l]**	**0.181[mg/l]**	**<-19.340[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**1.286[mg/l]**	**0.066[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.031***	***2.002***	***0.031***	***8.316***	***0.002***	***0.421***	***0.623***
Conc SD	***0.001[mg/l]***	***0.004[mg/l]***	***0.006[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>202.679[mg/l]	152.336[mg/l]	0.008[mg/l]	0.092[mg/l]	-0.000[mg/l]	-0.002[mg/l]
Conc 2	-0.000[mg/l]	>209.724[mg/l]	156.234[mg/l]	0.008[mg/l]	0.093[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>206.202[mg/l]**	**154.285[mg/l]**	**0.008[mg/l]**	**0.092[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***142.518***	***2.416***	***1.786***	***0.921***	***0.846***	***335.804***	***15.272***
Conc SD	***0.000[mg/l]***	***4.982[mg/l]***	***2.756[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.121[mg/l]	0.003[mg/l]	0.054[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	4387730
Conc 2	0.129[mg/l]	0.000[mg/l]	0.053[mg/l]	0.003[mg/l]	0.002[mg/l]	-0.001[mg/l]	4374670
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.125[mg/l]**	**0.002[mg/l]**	**0.053[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**4381200**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***4.664***	***99.089***	***0.225***	***43.774***	***87.164***	***327.037***	***---***
Conc SD	***0.006[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***9234.81***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.759[%]	0.023[mg/l]	<-0.003[mg/l]				
Conc 2	96.474[%]	0.023[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.616[%]**	**0.023[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.208***	***0.352***	***11.885***				
Conc SD	***0.201[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130676-A-1-H MS			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 17:59:43	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130676-A-1-H MS						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.530[mg/l]	10.741[mg/l]	1153920	1.085[mg/l]	1.071[mg/l]	1.240[mg/l]	0.517[mg/l]
Conc 2	0.532[mg/l]	10.789[mg/l]	1145410	1.073[mg/l]	1.078[mg/l]	1.246[mg/l]	0.520[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.531[mg/l]**	**10.765[mg/l]**	**1149660**	**1.079[mg/l]**	**1.074[mg/l]**	**1.243[mg/l]**	**0.519[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.165***	***0.321***	***---***	***0.776***	***0.487***	***0.311***	***0.329***
Conc SD	***0.001[mg/l]***	***0.035[mg/l]***	***6017.48***	***0.008[mg/l]***	***0.005[mg/l]***	***0.004[mg/l]***	***0.002[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	50.190[mg/l]	0.522[mg/l]	1.049[mg/l]	1.042[mg/l]	24574.1	1.063[mg/l]	11.434[mg/l]
Conc 2	50.394[mg/l]	0.524[mg/l]	1.049[mg/l]	1.045[mg/l]	24775.4	1.062[mg/l]	11.421[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**50.292[mg/l]**	**0.523[mg/l]**	**1.049[mg/l]**	**1.044[mg/l]**	**24674.7**	**1.063[mg/l]**	**11.427[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.287***	***0.321***	***0.029***	***0.155***	***---***	***0.028***	***0.078***
Conc SD	***0.144[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***142.341***	***0.000[mg/l]***	***0.009[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	11.418[mg/l]	1.092[mg/l]	11.579[mg/l]	1.117[mg/l]	1.039[mg/l]	164.102[mg/l]	1.041[mg/l]
Conc 2	11.484[mg/l]	1.078[mg/l]	11.700[mg/l]	1.117[mg/l]	1.045[mg/l]	165.152[mg/l]	1.043[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**11.451[mg/l]**	**1.085[mg/l]**	**11.639[mg/l]**	**1.117[mg/l]**	**1.042[mg/l]**	**164.627[mg/l]**	**1.042[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.403***	***0.872***	***0.733***	***0.011***	***0.438***	***0.451***	***0.153***
Conc SD	***0.046[mg/l]***	***0.009[mg/l]***	***0.085[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***0.742[mg/l]***	***0.002[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.148[mg/l]	1.043[mg/l]	1.068[mg/l]	1.106[mg/l]	1.056[mg/l]	0.576[mg/l]	1.029[mg/l]
Conc 2	1.145[mg/l]	1.036[mg/l]	1.065[mg/l]	1.113[mg/l]	1.050[mg/l]	0.569[mg/l]	1.032[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.146[mg/l]**	**1.039[mg/l]**	**1.067[mg/l]**	**1.109[mg/l]**	**1.053[mg/l]**	**0.573[mg/l]**	**1.031[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.151***	***0.486***	***0.161***	***0.451***	***0.358***	***0.841***	***0.187***
Conc SD	***0.002[mg/l]***	***0.005[mg/l]***	***0.002[mg/l]***	***0.005[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***	***0.002[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	1.036[mg/l]	1.073[mg/l]	4399050	97.024[%]	1.074[mg/l]	97.024[%]	
Conc 2	1.038[mg/l]	1.062[mg/l]	4401760	97.075[%]	1.079[mg/l]	97.075[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*---*	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**1.037[mg/l]**	**1.067[mg/l]**	**4400410**	**97.049[%]**	**1.077[mg/l]**	**97.049[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*---*	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.152***	***0.690***	***---***	***0.037***	***0.326***	***0.037***	
Conc SD	***0.002[mg/l]***	***0.007[mg/l]***	***1916.26***	***0.036[%]***	***0.004[mg/l]***	***0.036[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.530[mg/l]	10.741[mg/l]	1153920	1.085[mg/l]	1.071[mg/l]	1.240[mg/l]	0.517[mg/l]
Conc 2	0.532[mg/l]	10.789[mg/l]	1145410	1.073[mg/l]	1.078[mg/l]	1.246[mg/l]	0.520[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.531[mg/l]**	**10.765[mg/l]**	**1149660**	**1.079[mg/l]**	**1.074[mg/l]**	**1.243[mg/l]**	**0.519[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.165***	***0.321***	***---***	***0.776***	***0.487***	***0.311***	***0.329***
Conc SD	***0.001[mg/l]***	***0.035[mg/l]***	***6017.48***	***0.008[mg/l]***	***0.005[mg/l]***	***0.004[mg/l]***	***0.002[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	50.190[mg/l]	0.522[mg/l]	1.049[mg/l]	1.042[mg/l]	24574.1	1.063[mg/l]	11.434[mg/l]
Conc 2	50.394[mg/l]	0.524[mg/l]	1.049[mg/l]	1.045[mg/l]	24775.4	1.062[mg/l]	11.421[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**50.292[mg/l]**	**0.523[mg/l]**	**1.049[mg/l]**	**1.044[mg/l]**	**24674.7**	**1.063[mg/l]**	**11.427[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.287***	***0.321***	***0.029***	***0.155***	***---***	***0.028***	***0.078***
Conc SD	***0.144[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***142.341***	***0.000[mg/l]***	***0.009[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<9.271[mg/l]	11.418[mg/l]	<3.381[mg/l]	1.092[mg/l]	<0.910[mg/l]	11.579[mg/l]	1.117[mg/l]
Conc 2	<9.256[mg/l]	11.484[mg/l]	<3.506[mg/l]	1.078[mg/l]	<0.893[mg/l]	11.700[mg/l]	1.117[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<9.264[mg/l]**	**11.451[mg/l]**	**<3.443[mg/l]**	**1.085[mg/l]**	**<0.902[mg/l]**	**11.639[mg/l]**	**1.117[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.118***	***0.403***	***2.567***	***0.872***	***1.330***	***0.733***	***0.011***
Conc SD	***0.011[mg/l]***	***0.046[mg/l]***	***0.088[mg/l]***	***0.009[mg/l]***	***0.012[mg/l]***	***0.085[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	1.039[mg/l]	>223.028[mg/l]	164.102[mg/l]	1.041[mg/l]	1.148[mg/l]	1.043[mg/l]	1.068[mg/l]
Conc 2	1.045[mg/l]	>225.134[mg/l]	165.152[mg/l]	1.043[mg/l]	1.145[mg/l]	1.036[mg/l]	1.065[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.042[mg/l]**	**>224.081[mg/l]**	**164.627[mg/l]**	**1.042[mg/l]**	**1.146[mg/l]**	**1.039[mg/l]**	**1.067[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.438***	***0.665***	***0.451***	***0.153***	***0.151***	***0.486***	***0.161***
Conc SD	***0.005[mg/l]***	***1.489[mg/l]***	***0.742[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.005[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	1.106[mg/l]	1.056[mg/l]	0.576[mg/l]	1.029[mg/l]	1.036[mg/l]	1.073[mg/l]	4399050
Conc 2	1.113[mg/l]	1.050[mg/l]	0.569[mg/l]	1.032[mg/l]	1.038[mg/l]	1.062[mg/l]	4401760
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*
Conc Mean	**1.109[mg/l]**	**1.053[mg/l]**	**0.573[mg/l]**	**1.031[mg/l]**	**1.037[mg/l]**	**1.067[mg/l]**	**4400410**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*
Conc RSD	***0.451***	***0.358***	***0.841***	***0.187***	***0.152***	***0.690***	***---***

Conc SD	***0.005[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.007[mg/l]***	***1916.26***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.024[%]	1.074[mg/l]	>1.104[mg/l]				
Conc 2	97.075[%]	1.079[mg/l]	>1.110[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.049[%]**	**1.077[mg/l]**	**>1.107[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.037***	***0.326***	***0.375***				
Conc SD	***0.036[%]***	***0.004[mg/l]***	***0.004[mg/l]***				

Sample Name: 600-130677-A-1-D | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:01:42 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130677-A-1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	0.011[mg/l]	1103760	<0.002[mg/l]	0.015[mg/l]	0.363[mg/l]	0.000[mg/l]
Conc 2	0.001[mg/l]	0.013[mg/l]	1122030	<0.001[mg/l]	0.015[mg/l]	0.367[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.012[mg/l]**	**1112900**	**<0.001[mg/l]**	**0.015[mg/l]**	**0.365[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***195.046***	***11.780***	***---***	***50.299***	***0.976***	***0.890***	***30.873***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***12918.8***	***0.001[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	75.206[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	25269.8	<-0.002[mg/l]	0.018[mg/l]
Conc 2	77.321[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	24208.4	<-0.002[mg/l]	0.018[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**76.263[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**24739.1**	**<-0.002[mg/l]**	**0.018[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.962***	***28.289***	***19.813***	***655.888***	***---***	***4.684***	***0.473***
Conc SD	***1.496[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***750.523***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.223[mg/l]	-0.000[mg/l]	1.863[mg/l]	0.313[mg/l]	0.003[mg/l]	148.229[mg/l]	0.002[mg/l]
Conc 2	0.231[mg/l]	-0.000[mg/l]	1.884[mg/l]	0.317[mg/l]	0.002[mg/l]	153.314[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.227[mg/l]**	**-0.000[mg/l]**	**1.874[mg/l]**	**0.315[mg/l]**	**0.003[mg/l]**	**150.771[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.315***	***53.258***	***0.796***	***0.950***	***4.868***	***2.385***	***0.540***
Conc SD	***0.005[mg/l]***	***0.000[mg/l]***	***0.015[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***3.596[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.008[mg/l]	-0.001[mg/l]	-0.000[mg/l]	0.639[mg/l]	0.002[mg/l]	0.097[mg/l]	0.002[mg/l]

Conc 2	0.008[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.656[mg/l]	0.002[mg/l]	0.100[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.008[mg/l]**	**-0.001[mg/l]**	**0.000[mg/l]**	**0.648[mg/l]**	**0.002[mg/l]**	**0.098[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***5.745***	***15.295***	***185.566***	***1.858***	***11.458***	***1.669***	***40.949***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.012[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.006[mg/l]	0.003[mg/l]	4396880	96.964[%]	0.014[mg/l]	96.964[%]	
Conc 2	0.004[mg/l]	0.003[mg/l]	4319070	95.242[%]	0.014[mg/l]	95.242[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.005[mg/l]**	**0.003[mg/l]**	**4357970**	**96.103[%]**	**0.014[mg/l]**	**96.103[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***21.890***	***0.291***	***---***	***1.267***	***0.818***	***1.267***	
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***55020.0***	***1.218[%]***	***0.000[mg/l]***	***1.218[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	0.011[mg/l]	1103760	<0.002[mg/l]	0.015[mg/l]	0.363[mg/l]	0.000[mg/l]
Conc 2	0.001[mg/l]	0.013[mg/l]	1122030	<0.001[mg/l]	0.015[mg/l]	0.367[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.012[mg/l]**	**1112900**	**<0.001[mg/l]**	**0.015[mg/l]**	**0.365[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***195.046***	***11.780***	***---***	***50.299***	***0.976***	***0.890***	***30.873***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***12918.8***	***0.001[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	75.206[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	25269.8	<-0.009[mg/l]	0.018[mg/l]
Conc 2	77.321[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	24208.4	<-0.010[mg/l]	0.018[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**76.263[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**24739.1**	**<-0.010[mg/l]**	**0.018[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.962***	***28.289***	***19.813***	***655.888***	***---***	***6.087***	***0.473***
Conc SD	***1.496[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***750.523***	***0.001[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.919[mg/l]	0.223[mg/l]	<-19.256[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	1.863[mg/l]	0.313[mg/l]
Conc 2	<-4.919[mg/l]	0.231[mg/l]	<-19.245[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	1.884[mg/l]	0.317[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.919[mg/l]**	**0.227[mg/l]**	**<-19.250[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**1.874[mg/l]**	**0.315[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.006***	***2.315***	***0.039***	***53.258***	***0.021***	***0.796***	***0.950***
Conc SD	***0.000[mg/l]***	***0.005[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.015[mg/l]***	***0.003[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.003[mg/l]	>195.789[mg/l]	148.229[mg/l]	0.002[mg/l]	0.008[mg/l]	-0.001[mg/l]	-0.000[mg/l]
Conc 2	0.002[mg/l]	>204.152[mg/l]	153.314[mg/l]	0.002[mg/l]	0.008[mg/l]	-0.001[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**>199.971[mg/l]**	**150.771[mg/l]**	**0.002[mg/l]**	**0.008[mg/l]**	**-0.001[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***4.868***	***2.957***	***2.385***	***0.540***	***5.745***	***15.295***	***185.566***
Conc SD	***0.000[mg/l]***	***5.914[mg/l]***	***3.596[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.639[mg/l]	0.002[mg/l]	0.097[mg/l]	0.002[mg/l]	0.006[mg/l]	0.003[mg/l]	4396880
Conc 2	0.656[mg/l]	0.002[mg/l]	0.100[mg/l]	0.001[mg/l]	0.004[mg/l]	0.003[mg/l]	4319070
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.648[mg/l]**	**0.002[mg/l]**	**0.098[mg/l]**	**0.001[mg/l]**	**0.005[mg/l]**	**0.003[mg/l]**	**4357970**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.858***	***11.458***	***1.669***	***40.949***	***21.890***	***0.291***	***---***
Conc SD	***0.012[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***55020.0***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.964[%]	0.014[mg/l]	<-0.002[mg/l]				
Conc 2	95.242[%]	0.014[mg/l]	<-0.002[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.103[%]**	**0.014[mg/l]**	**<-0.002[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***1.267***	***0.818***	***4.684***				
Conc SD	***1.218[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130678-A-1-D | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:03:42 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130678-A-1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	-0.003[mg/l]	1124440	<-0.002[mg/l]	0.017[mg/l]	0.232[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.001[mg/l]	1118440	<-0.003[mg/l]	0.017[mg/l]	0.232[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.002[mg/l]**	**1121440**	**<-0.003[mg/l]**	**0.017[mg/l]**	**0.232[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***294.067***	***59.666***	***---***	***28.592***	***0.725***	***0.140***	***24.528***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***4242.64***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	25.239[mg/l]	-0.000[mg/l]	0.002[mg/l]	0.000[mg/l]	24603.2	<-0.004[mg/l]	0.091[mg/l]
Conc 2	25.529[mg/l]	-0.000[mg/l]	0.002[mg/l]	0.000[mg/l]	25290.2	<-0.003[mg/l]	0.092[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**25.384[mg/l]**	**-0.000[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**24946.7**	**<-0.004[mg/l]**	**0.092[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.808***	***41.212***	***5.699***	***12.056***	***---***	***3.672***	***0.476***
Conc SD	***0.205[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***485.782***	***0.000[mg/l]***	***0.000[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.173[mg/l]	-0.000[mg/l]	2.277[mg/l]	0.375[mg/l]	0.001[mg/l]	153.493[mg/l]	0.001[mg/l]
Conc 2	0.171[mg/l]	-0.000[mg/l]	2.288[mg/l]	0.375[mg/l]	-0.000[mg/l]	150.193[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.172[mg/l]**	**-0.000[mg/l]**	**2.282[mg/l]**	**0.375[mg/l]**	**0.000[mg/l]**	**151.843[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.803***	***11.692***	***0.352***	***0.026***	***152.073***	***1.537***	***32.696***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***2.333[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.002[mg/l]	-0.002[mg/l]	-0.001[mg/l]	0.333[mg/l]	0.001[mg/l]	0.086[mg/l]	0.001[mg/l]
Conc 2	0.004[mg/l]	-0.002[mg/l]	0.002[mg/l]	0.332[mg/l]	0.001[mg/l]	0.086[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**-0.002[mg/l]**	**0.000[mg/l]**	**0.332[mg/l]**	**0.001[mg/l]**	**0.086[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***36.738***	***10.044***	***413.387***	***0.182***	***1.414***	***0.269***	***13.341***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	0.005[mg/l]	4503610	99.311[%]	0.026[mg/l]	99.311[%]	
Conc 2	0.001[mg/l]	-0.003[mg/l]	4496410	99.141[%]	0.026[mg/l]	99.141[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.000[mg/l]**	**0.001[mg/l]**	**4500010**	**99.226[%]**	**0.026[mg/l]**	**99.226[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***1086.95***	***597.813***	***---***	***0.121***	***0.140***	***0.121***	
Conc SD	***0.002[mg/l]***	***0.006[mg/l]***	***5091.17***	***0.120[%]***	***0.000[mg/l]***	***0.120[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	-0.003[mg/l]	1124440	<-0.002[mg/l]	0.017[mg/l]	0.232[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.001[mg/l]	1118440	<-0.003[mg/l]	0.017[mg/l]	0.232[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.002[mg/l]**	**1121440**	**<-0.003[mg/l]**	**0.017[mg/l]**	**0.232[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***294.067***	***59.666***	***---***	***28.592***	***0.725***	***0.140***	***24.528***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***4242.64***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	25.239[mg/l]	-0.000[mg/l]	0.002[mg/l]	0.000[mg/l]	24603.2	<-0.009[mg/l]	0.091[mg/l]
Conc 2	25.529[mg/l]	-0.000[mg/l]	0.002[mg/l]	0.000[mg/l]	25290.2	<-0.010[mg/l]	0.092[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**25.384[mg/l]**	**-0.000[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**24946.7**	**<-0.009[mg/l]**	**0.092[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.808***	***41.212***	***5.699***	***12.056***	***---***	***4.092***	***0.476***
Conc SD	***0.205[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***485.782***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.828[mg/l]	0.173[mg/l]	<-19.355[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.277[mg/l]	0.375[mg/l]
Conc 2	<-4.827[mg/l]	0.171[mg/l]	<-19.361[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.288[mg/l]	0.375[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.827[mg/l]**	**0.172[mg/l]**	**<-19.358[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**2.282[mg/l]**	**0.375[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.012***	***0.803***	***0.022***	***11.692***	***0.020***	***0.352***	***0.026***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	>204.576[mg/l]	153.493[mg/l]	0.001[mg/l]	0.002[mg/l]	-0.002[mg/l]	-0.001[mg/l]
Conc 2	-0.000[mg/l]	>199.021[mg/l]	150.193[mg/l]	0.001[mg/l]	0.004[mg/l]	-0.002[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>201.798[mg/l]**	**151.843[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**	**-0.002[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***152.073***	***1.946***	***1.537***	***32.696***	***36.738***	***10.044***	***413.387***
Conc SD	***0.000[mg/l]***	***3.928[mg/l]***	***2.333[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.333[mg/l]	0.001[mg/l]	0.086[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.005[mg/l]	4503610
Conc 2	0.332[mg/l]	0.001[mg/l]	0.086[mg/l]	0.001[mg/l]	0.001[mg/l]	-0.003[mg/l]	4496410
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.332[mg/l]**	**0.001[mg/l]**	**0.086[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**4500010**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.182***	***1.414***	***0.269***	***13.341***	***1086.95***	***597.813***	***---***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.006[mg/l]***	***5091.17***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.311[%]	0.026[mg/l]	<-0.004[mg/l]				
Conc 2	99.141[%]	0.026[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.226[%]**	**0.026[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.121***	***0.140***	***3.672***				
Conc SD	***0.120[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130679-A-1-D | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:05:41 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130679-A-1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	-0.006[mg/l]	1090930	<-0.004[mg/l]	0.012[mg/l]	0.077[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.006[mg/l]	1125370	<0.001[mg/l]	0.012[mg/l]	0.073[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.006[mg/l]**	**1108150**	**<-0.002[mg/l]**	**0.012[mg/l]**	**0.075[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***86.328***	***2.190***	***---***	***242.148***	***1.965***	***3.218***	***90.249***

Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***24352.8***	***0.004[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	78.987[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	22198.6	<-0.001[mg/l]	0.001[mg/l]
Conc 2	75.186[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	24052.6	<-0.004[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**77.087[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**23125.6**	**<-0.003[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***3.487***	***32.379***	***8.335***	***272.602***	***---***	***65.941***	***8.349***
Conc SD	***2.688[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1310.98***	***0.002[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.328[mg/l]	0.000[mg/l]	0.756[mg/l]	0.124[mg/l]	0.002[mg/l]	175.264[mg/l]	0.002[mg/l]
Conc 2	0.292[mg/l]	-0.000[mg/l]	0.724[mg/l]	0.117[mg/l]	0.002[mg/l]	156.142[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.310[mg/l]**	**0.000[mg/l]**	**0.740[mg/l]**	**0.121[mg/l]**	**0.002[mg/l]**	**165.703[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***8.246***	***216.765***	***3.051***	***3.831***	***19.984***	***8.160***	***12.027***
Conc SD	***0.026[mg/l]***	***0.000[mg/l]***	***0.023[mg/l]***	***0.005[mg/l]***	***0.000[mg/l]***	***13.521[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	-0.001[mg/l]	0.000[mg/l]	0.601[mg/l]	0.002[mg/l]	0.092[mg/l]	0.001[mg/l]
Conc 2	-0.000[mg/l]	-0.001[mg/l]	-0.003[mg/l]	0.525[mg/l]	0.001[mg/l]	0.087[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.563[mg/l]**	**0.001[mg/l]**	**0.089[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***91.788***	***21.289***	***175.919***	***9.527***	***15.861***	***4.575***	***49.728***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.054[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	-0.002[mg/l]	4178500	92.147[%]	0.029[mg/l]	92.147[%]	
Conc 2	-0.002[mg/l]	-0.007[mg/l]	4423290	97.542[%]	0.028[mg/l]	97.542[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.002[mg/l]**	**-0.004[mg/l]**	**4300890**	**94.845[%]**	**0.029[mg/l]**	**94.845[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***20.891***	***87.467***	***---***	***4.022***	***3.719***	***4.022***	
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***173093***	***3.814[%]***	***0.001[mg/l]***	***3.814[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	-0.006[mg/l]	1090930	<-0.004[mg/l]	0.012[mg/l]	0.077[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.006[mg/l]	1125370	<0.001[mg/l]	0.012[mg/l]	0.073[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.006[mg/l]**	**1108150**	**<-0.002[mg/l]**	**0.012[mg/l]**	**0.075[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***86.328***	***2.190***	***---***	***242.148***	***1.965***	***3.218***	***90.249***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***24352.8***	***0.004[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	78.987[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.000[mg/l]	22198.6	<-0.010[mg/l]	0.001[mg/l]

Conc 2	75.186[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	24052.6	<-0.010[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**77.087[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**23125.6**	**<-0.010[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***3.487***	***32.379***	***8.335***	***272.602***	***---***	***0.816***	***8.349***
Conc SD	***2.688[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1310.98***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.941[mg/l]	0.328[mg/l]	<-19.049[mg/l]	0.000[mg/l]	<-0.420[mg/l]	0.756[mg/l]	0.124[mg/l]
Conc 2	<-4.941[mg/l]	0.292[mg/l]	<-19.114[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.724[mg/l]	0.117[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.941[mg/l]**	**0.310[mg/l]**	**<-19.082[mg/l]**	**0.000[mg/l]**	**<-0.420[mg/l]**	**0.740[mg/l]**	**0.121[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.004***	***8.246***	***0.242***	***216.765***	***0.033***	***3.051***	***3.831***
Conc SD	***0.000[mg/l]***	***0.026[mg/l]***	***0.046[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.023[mg/l]***	***0.005[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.002[mg/l]	>242.716[mg/l]	175.264[mg/l]	0.002[mg/l]	-0.001[mg/l]	-0.001[mg/l]	0.000[mg/l]
Conc 2	0.002[mg/l]	>208.229[mg/l]	156.142[mg/l]	0.003[mg/l]	-0.000[mg/l]	-0.001[mg/l]	-0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**>225.473[mg/l]**	**165.703[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***19.984***	***10.815***	***8.160***	***12.027***	***91.788***	***21.289***	***175.919***
Conc SD	***0.000[mg/l]***	***24.386[mg/l]***	***13.521[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.601[mg/l]	0.002[mg/l]	0.092[mg/l]	0.001[mg/l]	-0.001[mg/l]	-0.002[mg/l]	4178500
Conc 2	0.525[mg/l]	0.001[mg/l]	0.087[mg/l]	0.001[mg/l]	-0.002[mg/l]	-0.007[mg/l]	4423290
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.563[mg/l]**	**0.001[mg/l]**	**0.089[mg/l]**	**0.001[mg/l]**	**-0.002[mg/l]**	**-0.004[mg/l]**	**4300890**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***9.527***	***15.861***	***4.575***	***49.728***	***20.891***	***87.467***	***---***
Conc SD	***0.054[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***173093***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	92.147[%]	0.029[mg/l]	<-0.001[mg/l]				
Conc 2	97.542[%]	0.028[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**94.845[%]**	**0.029[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***4.022***	***3.719***	***65.941***				
Conc SD	***3.814[%]***	***0.001[mg/l]***	***0.002[mg/l]***				

SPECTRO

Printing Date: 5/17/2016 8:51:08 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: 600-130680-A-1-D			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 18:07:41	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130680-A-1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	0.082[mg/l]	1083410	<-0.001[mg/l]	0.019[mg/l]	0.202[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.082[mg/l]	1073030	<-0.002[mg/l]	0.020[mg/l]	0.205[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.082[mg/l]**	**1078220**	**<-0.001[mg/l]**	**0.019[mg/l]**	**0.204[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***36.799***	***0.232***	***---***	***70.036***	***0.608***	***1.096***	***42.189***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***7339.77***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	25.348[mg/l]	-0.000[mg/l]	0.005[mg/l]	-0.000[mg/l]	24956.9	<-0.004[mg/l]	1.247[mg/l]
Conc 2	25.704[mg/l]	-0.000[mg/l]	0.006[mg/l]	0.000[mg/l]	25198.5	<-0.004[mg/l]	1.258[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**25.526[mg/l]**	**-0.000[mg/l]**	**0.006[mg/l]**	**-0.000[mg/l]**	**25077.7**	**<-0.004[mg/l]**	**1.253[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.985***	***56.058***	***5.570***	***694.030***	***---***	***0.290***	***0.596***
Conc SD	***0.251[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***170.837***	***0.000[mg/l]***	***0.007[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.186[mg/l]	-0.000[mg/l]	2.395[mg/l]	0.169[mg/l]	-0.000[mg/l]	146.696[mg/l]	0.018[mg/l]
Conc 2	0.186[mg/l]	-0.000[mg/l]	2.392[mg/l]	0.171[mg/l]	0.000[mg/l]	146.494[mg/l]	0.018[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.186[mg/l]**	**-0.000[mg/l]**	**2.393[mg/l]**	**0.170[mg/l]**	**0.000[mg/l]**	**146.595[mg/l]**	**0.018[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.095***	***5.677***	***0.103***	***0.620***	***1300.89***	***0.097***	***0.757***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.143[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.003[mg/l]	-0.001[mg/l]	0.002[mg/l]	0.291[mg/l]	0.002[mg/l]	0.061[mg/l]	0.003[mg/l]
Conc 2	0.003[mg/l]	-0.001[mg/l]	-0.000[mg/l]	0.300[mg/l]	0.000[mg/l]	0.061[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**0.295[mg/l]**	**0.001[mg/l]**	**0.061[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.143***	***41.232***	***196.844***	***2.184***	***101.928***	***0.165***	***7.249***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.006[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.001[mg/l]	-0.002[mg/l]	4454690	98.213[%]	0.022[mg/l]	98.213[%]	
Conc 2	0.000[mg/l]	0.006[mg/l]	4434390	97.756[%]	0.022[mg/l]	97.756[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*---*	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.000[mg/l]**	**0.002[mg/l]**	**4444540**	**97.985[%]**	**0.022[mg/l]**	**97.985[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*---*	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***103.401***	***325.711***	***---***	***0.330***	***0.258***	***0.330***	
Conc SD	***0.000[mg/l]***	***0.006[mg/l]***	***14354.3***	***0.324[%]***	***0.000[mg/l]***	***0.324[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	0.082[mg/l]	1083410	<-0.001[mg/l]	0.019[mg/l]	0.202[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.082[mg/l]	1073030	<-0.002[mg/l]	0.020[mg/l]	0.205[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.082[mg/l]**	**1078220**	**<-0.001[mg/l]**	**0.019[mg/l]**	**0.204[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***36.799***	***0.232***	***---***	***70.036***	***0.608***	***1.096***	***42.189***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***7339.77***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	25.348[mg/l]	-0.000[mg/l]	0.005[mg/l]	-0.000[mg/l]	24956.9	<-0.010[mg/l]	1.247[mg/l]
Conc 2	25.704[mg/l]	-0.000[mg/l]	0.006[mg/l]	0.000[mg/l]	25198.5	<-0.009[mg/l]	1.258[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**25.526[mg/l]**	**-0.000[mg/l]**	**0.006[mg/l]**	**-0.000[mg/l]**	**25077.7**	**<-0.010[mg/l]**	**1.253[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.985***	***56.058***	***5.570***	***694.030***	***---***	***3.145***	***0.596***
Conc SD	***0.251[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***170.837***	***0.000[mg/l]***	***0.007[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-3.394[mg/l]	0.186[mg/l]	<-19.327[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.395[mg/l]	0.169[mg/l]
Conc 2	<-3.380[mg/l]	0.186[mg/l]	<-19.327[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.392[mg/l]	0.171[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-3.387[mg/l]**	**0.186[mg/l]**	**<-19.327[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**2.393[mg/l]**	**0.170[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.284***	***0.095***	***0.000***	***5.677***	***0.000***	***0.103***	***0.620***
Conc SD	***0.010[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	-0.000[mg/l]	>192.171[mg/l]	146.696[mg/l]	0.018[mg/l]	0.003[mg/l]	-0.001[mg/l]	0.002[mg/l]
Conc 2	0.000[mg/l]	>192.223[mg/l]	146.494[mg/l]	0.018[mg/l]	0.003[mg/l]	-0.001[mg/l]	-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>192.197[mg/l]**	**146.595[mg/l]**	**0.018[mg/l]**	**0.003[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1300.89***	***0.019***	***0.097***	***0.757***	***4.143***	***41.232***	***196.844***
Conc SD	***0.000[mg/l]***	***0.037[mg/l]***	***0.143[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.291[mg/l]	0.002[mg/l]	0.061[mg/l]	0.003[mg/l]	0.001[mg/l]	-0.002[mg/l]	4454690
Conc 2	0.300[mg/l]	0.000[mg/l]	0.061[mg/l]	0.002[mg/l]	0.000[mg/l]	0.006[mg/l]	4434390
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*
Conc Mean	**0.295[mg/l]**	**0.001[mg/l]**	**0.061[mg/l]**	**0.003[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**4444540**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*
Conc RSD	***2.184***	***101.928***	***0.165***	***7.249***	***103.401***	***325.711***	***---***

Conc SD	***0.006[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.006[mg/l]***	***14354.3***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.213[%]	0.022[mg/l]	<-0.004[mg/l]				
Conc 2	97.756[%]	0.022[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.985[%]**	**0.022[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.330***	***0.258***	***0.290***				
Conc SD	***0.324[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130773-A-1-D | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:09:39 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130773-A-1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	-0.003[mg/l]	1099170	<0.000[mg/l]	0.020[mg/l]	0.238[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	-0.002[mg/l]	1095620	<-0.003[mg/l]	0.020[mg/l]	0.237[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.003[mg/l]**	**1097390**	**<-0.001[mg/l]**	**0.020[mg/l]**	**0.237[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***91.560***	***19.757***	***---***	***149.473***	***0.204***	***0.368***	***56.638***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***2510.23***	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	74.556[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]	24980.6	<-0.003[mg/l]	0.003[mg/l]
Conc 2	73.795[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]	24894.9	<-0.004[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**74.176[mg/l]**	**-0.000[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**	**24937.7**	**<-0.004[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.725***	***84.743***	***5.827***	***94.386***	***---***	***23.148***	***1.133***
Conc SD	***0.538[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***60.599***	***0.001[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.197[mg/l]	-0.000[mg/l]	2.570[mg/l]	0.638[mg/l]	0.000[mg/l]	148.739[mg/l]	0.034[mg/l]
Conc 2	0.195[mg/l]	-0.000[mg/l]	2.551[mg/l]	0.634[mg/l]	0.000[mg/l]	148.372[mg/l]	0.035[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.196[mg/l]**	**-0.000[mg/l]**	**2.561[mg/l]**	**0.636[mg/l]**	**0.000[mg/l]**	**148.556[mg/l]**	**0.035[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.595***	***6.814***	***0.538***	***0.495***	***90.911***	***0.175***	***0.740***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.014[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***0.260[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.001[mg/l]	0.000[mg/l]	0.002[mg/l]	0.336[mg/l]	0.002[mg/l]	0.116[mg/l]	0.001[mg/l]

Conc 2	0.002[mg/l]	-0.001[mg/l]	0.000[mg/l]	0.331[mg/l]	0.003[mg/l]	0.117[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**0.334[mg/l]**	**0.002[mg/l]**	**0.116[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***11.883***	***186.826***	***131.222***	***1.010***	***23.622***	***0.127***	***33.913***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.001[mg/l]	0.009[mg/l]	4388000	96.774[%]	0.030[mg/l]	96.774[%]	
Conc 2	0.001[mg/l]	-0.008[mg/l]	4427470	97.623[%]	0.030[mg/l]	97.623[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**0.001[mg/l]**	**4407730**	**97.199[%]**	**0.030[mg/l]**	**97.199[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***50.672***	***2210.10***	***---***	***0.618***	***0.143***	***0.618***	
Conc SD	***0.000[mg/l]***	***0.013[mg/l]***	***27909.5***	***0.600[%]***	***0.000[mg/l]***	***0.600[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	-0.003[mg/l]	1099170	<0.000[mg/l]	0.020[mg/l]	0.238[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	-0.002[mg/l]	1095620	<-0.003[mg/l]	0.020[mg/l]	0.237[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.003[mg/l]**	**1097390**	**<-0.001[mg/l]**	**0.020[mg/l]**	**0.237[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***91.560***	***19.757***	***---***	***149.473***	***0.204***	***0.368***	***56.638***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***2510.23***	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	74.556[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]	24980.6	<-0.009[mg/l]	0.003[mg/l]
Conc 2	73.795[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]	24894.9	<-0.010[mg/l]	0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**74.176[mg/l]**	**-0.000[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**	**24937.7**	**<-0.010[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.725***	***84.743***	***5.827***	***94.386***	***---***	***6.260***	***1.133***
Conc SD	***0.538[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***60.599***	***0.001[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.936[mg/l]	0.197[mg/l]	<-19.308[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.570[mg/l]	0.638[mg/l]
Conc 2	<-4.936[mg/l]	0.195[mg/l]	<-19.310[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.551[mg/l]	0.634[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.936[mg/l]**	**0.196[mg/l]**	**<-19.309[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**2.561[mg/l]**	**0.636[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.001***	***0.595***	***0.008***	***6.814***	***0.007***	***0.538***	***0.495***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.014[mg/l]***	***0.003[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>195.878[mg/l]	148.739[mg/l]	0.034[mg/l]	0.001[mg/l]	0.000[mg/l]	0.002[mg/l]
Conc 2	0.000[mg/l]	>195.261[mg/l]	148.372[mg/l]	0.035[mg/l]	0.002[mg/l]	-0.001[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>195.570[mg/l]**	**148.556[mg/l]**	**0.035[mg/l]**	**0.002[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***90.911***	***0.223***	***0.175***	***0.740***	***11.883***	***186.826***	***131.222***
Conc SD	***0.000[mg/l]***	***0.436[mg/l]***	***0.260[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.336[mg/l]	0.002[mg/l]	0.116[mg/l]	0.001[mg/l]	0.001[mg/l]	0.009[mg/l]	4388000
Conc 2	0.331[mg/l]	0.003[mg/l]	0.117[mg/l]	0.000[mg/l]	0.001[mg/l]	-0.008[mg/l]	4427470
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.334[mg/l]**	**0.002[mg/l]**	**0.116[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**4407730**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.010***	***23.622***	***0.127***	***33.913***	***50.672***	***2210.10***	***---***
Conc SD	***0.003[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.013[mg/l]***	***27909.5***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.774[%]	0.030[mg/l]	<-0.003[mg/l]				
Conc 2	97.623[%]	0.030[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.199[%]**	**0.030[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.618***	***0.143***	***23.148***				
Conc SD	***0.600[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130774-A-1-D | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:11:35 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130774-A-1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	0.011[mg/l]	1126230	<-0.001[mg/l]	0.019[mg/l]	0.287[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.005[mg/l]	1095830	<0.001[mg/l]	0.019[mg/l]	0.290[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.008[mg/l]**	**1111030**	**<-0.000[mg/l]**	**0.019[mg/l]**	**0.289[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.611***	***57.279***	***---***	***1413.19***	***0.545***	***0.706***	***10.605***
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***21496.0***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	61.842[mg/l]	-0.000[mg/l]	0.011[mg/l]	-0.000[mg/l]	24143.0	<-0.003[mg/l]	0.030[mg/l]
Conc 2	61.214[mg/l]	0.000[mg/l]	0.010[mg/l]	-0.000[mg/l]	24927.3	<-0.003[mg/l]	0.029[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**61.528[mg/l]**	**-0.000[mg/l]**	**0.010[mg/l]**	**-0.000[mg/l]**	**24535.2**	**<-0.003[mg/l]**	**0.030[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.722***	***214.767***	***1.202***	***33.124***	***---***	***10.387***	***0.444***
Conc SD	***0.444[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***554.584***	***0.000[mg/l]***	***0.000[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.204[mg/l]	-0.000[mg/l]	2.971[mg/l]	0.330[mg/l]	0.001[mg/l]	158.198[mg/l]	0.011[mg/l]
Conc 2	0.200[mg/l]	-0.000[mg/l]	2.993[mg/l]	0.331[mg/l]	0.001[mg/l]	155.187[mg/l]	0.011[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.202[mg/l]**	**-0.000[mg/l]**	**2.982[mg/l]**	**0.330[mg/l]**	**0.001[mg/l]**	**156.692[mg/l]**	**0.011[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.156***	***65.026***	***0.541***	***0.263***	***10.041***	***1.359***	***1.067***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.016[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***2.129[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.007[mg/l]	-0.001[mg/l]	0.001[mg/l]	0.177[mg/l]	0.002[mg/l]	0.116[mg/l]	0.001[mg/l]
Conc 2	0.008[mg/l]	0.001[mg/l]	0.001[mg/l]	0.182[mg/l]	0.000[mg/l]	0.116[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.007[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.179[mg/l]**	**0.001[mg/l]**	**0.116[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***10.497***	***679.151***	***0.160***	***2.102***	***77.189***	***0.003***	***3.515***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.000[mg/l]	-0.001[mg/l]	4397450	96.979[%]	0.043[mg/l]	96.979[%]	
Conc 2	-0.001[mg/l]	0.001[mg/l]	4365560	96.256[%]	0.043[mg/l]	96.256[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.001[mg/l]**	**0.000[mg/l]**	**4381500**	**96.618[%]**	**0.043[mg/l]**	**96.618[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***90.532***	***1500.46***	***---***	***0.529***	***1.038***	***0.529***	
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***22549.6***	***0.511[%]***	***0.000[mg/l]***	***0.511[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	0.011[mg/l]	1126230	<-0.001[mg/l]	0.019[mg/l]	0.287[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	0.005[mg/l]	1095830	<0.001[mg/l]	0.019[mg/l]	0.290[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.008[mg/l]**	**1111030**	**<-0.000[mg/l]**	**0.019[mg/l]**	**0.289[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.611***	***57.279***	***---***	***1413.19***	***0.545***	***0.706***	***10.605***
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***21496.0***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	61.842[mg/l]	-0.000[mg/l]	0.011[mg/l]	-0.000[mg/l]	24143.0	<-0.009[mg/l]	0.030[mg/l]
Conc 2	61.214[mg/l]	0.000[mg/l]	0.010[mg/l]	-0.000[mg/l]	24927.3	<-0.009[mg/l]	0.029[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**61.528[mg/l]**	**-0.000[mg/l]**	**0.010[mg/l]**	**-0.000[mg/l]**	**24535.2**	**<-0.009[mg/l]**	**0.030[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.722***	***214.767***	***1.202***	***33.124***	***---***	***0.050***	***0.444***
Conc SD	***0.444[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***554.584***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.905[mg/l]	0.204[mg/l]	<-19.298[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.971[mg/l]	0.330[mg/l]
Conc 2	<-4.905[mg/l]	0.200[mg/l]	<-19.301[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.993[mg/l]	0.331[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.905[mg/l]**	**0.202[mg/l]**	**<-19.299[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**2.982[mg/l]**	**0.330[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.003***	***1.156***	***0.011***	***65.026***	***0.026***	***0.541***	***0.263***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.016[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	>212.286[mg/l]	158.198[mg/l]	0.011[mg/l]	0.007[mg/l]	-0.001[mg/l]	0.001[mg/l]
Conc 2	0.001[mg/l]	>207.482[mg/l]	155.187[mg/l]	0.011[mg/l]	0.008[mg/l]	0.001[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**>209.884[mg/l]**	**156.692[mg/l]**	**0.011[mg/l]**	**0.007[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***10.041***	***1.618***	***1.359***	***1.067***	***10.497***	***679.151***	***0.160***
Conc SD	***0.000[mg/l]***	***3.397[mg/l]***	***2.129[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.177[mg/l]	0.002[mg/l]	0.116[mg/l]	0.001[mg/l]	-0.000[mg/l]	-0.001[mg/l]	4397450
Conc 2	0.182[mg/l]	0.000[mg/l]	0.116[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.001[mg/l]	4365560
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.179[mg/l]**	**0.001[mg/l]**	**0.116[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**0.000[mg/l]**	**4381500**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***2.102***	***77.189***	***0.003***	***3.515***	***90.532***	***1500.46***	***---***
Conc SD	***0.004[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***22549.6***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.979[%]	0.043[mg/l]	<-0.003[mg/l]				
Conc 2	96.256[%]	0.043[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.618[%]**	**0.043[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.529***	***1.038***	***10.387***				
Conc SD	***0.511[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130749-A-1-B			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 18:13:33	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130749-A-1-B						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	0.002[mg/l]	1091460	0.002[mg/l]	0.009[mg/l]	0.088[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.004[mg/l]	1104390	<-0.002[mg/l]	0.009[mg/l]	0.088[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**-0.001[mg/l]**	**1097930**	**<0.000[mg/l]**	**0.009[mg/l]**	**0.088[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***117.771***	***440.978***	***---***	***1058.81***	***0.710***	***0.205***	***49.819***

Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***9142.89***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	73.163[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	24893.8	<-0.003[mg/l]	0.009[mg/l]
Conc 2	73.499[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	24876.8	<-0.002[mg/l]	0.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**73.331[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**24885.3**	**<-0.003[mg/l]**	**0.009[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.324***	***134.393***	***20.163***	***44.077***	***---***	***7.308***	***0.500***
Conc SD	***0.238[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***12.021***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.244[mg/l]	-0.000[mg/l]	2.953[mg/l]	0.106[mg/l]	0.000[mg/l]	146.836[mg/l]	0.001[mg/l]
Conc 2	0.244[mg/l]	-0.000[mg/l]	2.975[mg/l]	0.106[mg/l]	0.000[mg/l]	147.039[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.244[mg/l]**	**-0.000[mg/l]**	**2.964[mg/l]**	**0.106[mg/l]**	**0.000[mg/l]**	**146.938[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.015***	***0.651***	***0.513***	***0.203***	***31.724***	***0.098***	***0.791***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.015[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.144[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.005[mg/l]	-0.000[mg/l]	-0.002[mg/l]	0.263[mg/l]	0.002[mg/l]	0.129[mg/l]	0.001[mg/l]
Conc 2	0.005[mg/l]	0.000[mg/l]	0.001[mg/l]	0.261[mg/l]	0.001[mg/l]	0.130[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.005[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**0.262[mg/l]**	**0.001[mg/l]**	**0.129[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4.410***	***297.318***	***424.987***	***0.347***	***34.456***	***0.364***	***23.849***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	0.004[mg/l]	4379740	96.581[%]	0.014[mg/l]	96.581[%]	
Conc 2	0.000[mg/l]	-0.000[mg/l]	4382460	96.637[%]	0.014[mg/l]	96.637[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.000[mg/l]**	**0.002[mg/l]**	**4381100**	**96.609[%]**	**0.014[mg/l]**	**96.609[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***198.448***	***169.836***	***---***	***0.041***	***0.223***	***0.041***	
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***1923.33***	***0.040[%]***	***0.000[mg/l]***	***0.040[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	0.002[mg/l]	1091460	0.002[mg/l]	0.009[mg/l]	0.088[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.004[mg/l]	1104390	<-0.002[mg/l]	0.009[mg/l]	0.088[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**-0.001[mg/l]**	**1097930**	**<0.000[mg/l]**	**0.009[mg/l]**	**0.088[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***117.771***	***440.978***	***---***	***1058.81***	***0.710***	***0.205***	***49.819***
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***9142.89***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	73.163[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	24893.8	<-0.009[mg/l]	0.009[mg/l]

Conc 2	73.499[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	24876.8	<-0.009[mg/l]	0.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**73.331[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**24885.3**	**<-0.009[mg/l]**	**0.009[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.324***	***134.393***	***20.163***	***44.077***	***---***	***0.366***	***0.500***
Conc SD	***0.238[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***12.021***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.931[mg/l]	0.244[mg/l]	<-19.214[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.953[mg/l]	0.106[mg/l]
Conc 2	<-4.931[mg/l]	0.244[mg/l]	<-19.213[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.975[mg/l]	0.106[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.931[mg/l]**	**0.244[mg/l]**	**<-19.214[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**2.964[mg/l]**	**0.106[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.001***	***0.015***	***0.003***	***0.651***	***0.005***	***0.513***	***0.203***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.015[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>193.086[mg/l]	146.836[mg/l]	0.001[mg/l]	0.005[mg/l]	-0.000[mg/l]	-0.002[mg/l]
Conc 2	0.000[mg/l]	>193.536[mg/l]	147.039[mg/l]	0.001[mg/l]	0.005[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>193.311[mg/l]**	**146.938[mg/l]**	**0.001[mg/l]**	**0.005[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***31.724***	***0.165***	***0.098***	***0.791***	***4.410***	***297.318***	***424.987***
Conc SD	***0.000[mg/l]***	***0.318[mg/l]***	***0.144[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.263[mg/l]	0.002[mg/l]	0.129[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.004[mg/l]	4379740
Conc 2	0.261[mg/l]	0.001[mg/l]	0.130[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.000[mg/l]	4382460
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.262[mg/l]**	**0.001[mg/l]**	**0.129[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**0.002[mg/l]**	**4381100**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.347***	***34.456***	***0.364***	***23.849***	***198.448***	***169.836***	***---***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***1923.33***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.581[%]	0.014[mg/l]	<-0.003[mg/l]				
Conc 2	96.637[%]	0.014[mg/l]	<-0.002[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.609[%]**	**0.014[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.041***	***0.223***	***7.308***				
Conc SD	***0.040[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Method Name: Hou Metals
Method Autor: Operator
Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: 600-130749-A-2-C			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 18:15:31	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130749-A-2-C						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.002[mg/l]	-0.006[mg/l]	1103900	<-0.001[mg/l]	0.011[mg/l]	0.084[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	-0.001[mg/l]	1105800	<-0.002[mg/l]	0.010[mg/l]	0.082[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**-0.004[mg/l]**	**1104850**	**<-0.001[mg/l]**	**0.010[mg/l]**	**0.083[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***15.819***	***87.361***	***---***	***24.514***	***2.674***	***1.573***	***45.296***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***1343.50***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	71.441[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	24667.7	<-0.003[mg/l]	0.006[mg/l]
Conc 2	71.597[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	24673.6	<-0.003[mg/l]	0.006[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**71.519[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**24670.7**	**<-0.003[mg/l]**	**0.006[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.154***	***38.732***	***49.585***	***3.670***	***---***	***2.749***	***0.194***
Conc SD	***0.110[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***4.172***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.239[mg/l]	-0.000[mg/l]	3.891[mg/l]	0.158[mg/l]	0.000[mg/l]	148.419[mg/l]	0.002[mg/l]
Conc 2	0.241[mg/l]	-0.000[mg/l]	3.851[mg/l]	0.155[mg/l]	0.000[mg/l]	149.338[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.240[mg/l]**	**-0.000[mg/l]**	**3.871[mg/l]**	**0.157[mg/l]**	**0.000[mg/l]**	**148.879[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.546***	***7.550***	***0.717***	***1.583***	***32.365***	***0.436***	***11.637***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.028[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.650[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.001[mg/l]	0.001[mg/l]	0.001[mg/l]	0.207[mg/l]	0.001[mg/l]	0.123[mg/l]	0.001[mg/l]
Conc 2	0.001[mg/l]	0.000[mg/l]	-0.004[mg/l]	0.194[mg/l]	0.002[mg/l]	0.123[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**0.001[mg/l]**	**-0.002[mg/l]**	**0.201[mg/l]**	**0.002[mg/l]**	**0.123[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***49.181***	***85.242***	***203.563***	***4.533***	***17.946***	***0.152***	***28.084***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.009[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.000[mg/l]	0.001[mg/l]	4380160	96.586[%]	0.015[mg/l]	96.586[%]	
Conc 2	0.000[mg/l]	-0.005[mg/l]	4417510	97.416[%]	0.015[mg/l]	97.416[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*---*	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.000[mg/l]**	**-0.002[mg/l]**	**4398840**	**97.001[%]**	**0.015[mg/l]**	**97.001[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*---*	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***505.373***	***221.491***	***---***	***0.605***	***0.111***	***0.605***	
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***26410.4***	***0.587[%]***	***0.000[mg/l]***	***0.587[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.002[mg/l]	-0.006[mg/l]	1103900	<-0.001[mg/l]	0.011[mg/l]	0.084[mg/l]	0.000[mg/l]
Conc 2	-0.002[mg/l]	-0.001[mg/l]	1105800	<-0.002[mg/l]	0.010[mg/l]	0.082[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**-0.004[mg/l]**	**1104850**	**<-0.001[mg/l]**	**0.010[mg/l]**	**0.083[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***15.819***	***87.361***	***---***	***24.514***	***2.674***	***1.573***	***45.296***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***1343.50***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	71.441[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	24667.7	<-0.010[mg/l]	0.006[mg/l]
Conc 2	71.597[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	24673.6	<-0.010[mg/l]	0.006[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**71.519[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**24670.7**	**<-0.010[mg/l]**	**0.006[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.154***	***38.732***	***49.585***	***3.670***	***---***	***2.135***	***0.194***
Conc SD	***0.110[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***4.172***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.935[mg/l]	0.239[mg/l]	<-19.224[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	3.891[mg/l]	0.158[mg/l]
Conc 2	<-4.936[mg/l]	0.241[mg/l]	<-19.224[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	3.851[mg/l]	0.155[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.935[mg/l]**	**0.240[mg/l]**	**<-19.224[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**3.871[mg/l]**	**0.157[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.002***	***0.546***	***0.000***	***7.550***	***0.004***	***0.717***	***1.583***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.028[mg/l]***	***0.002[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>196.041[mg/l]	148.419[mg/l]	0.002[mg/l]	0.001[mg/l]	0.001[mg/l]	0.001[mg/l]
Conc 2	0.000[mg/l]	>197.244[mg/l]	149.338[mg/l]	0.002[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>196.643[mg/l]**	**148.879[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**-0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***32.365***	***0.433***	***0.436***	***11.637***	***49.181***	***85.242***	***203.563***
Conc SD	***0.000[mg/l]***	***0.851[mg/l]***	***0.650[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.207[mg/l]	0.001[mg/l]	0.123[mg/l]	0.001[mg/l]	-0.000[mg/l]	0.001[mg/l]	4380160
Conc 2	0.194[mg/l]	0.002[mg/l]	0.123[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.005[mg/l]	4417510
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*---*
Conc Mean	**0.201[mg/l]**	**0.002[mg/l]**	**0.123[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**-0.002[mg/l]**	**4398840**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*---*
Conc RSD	***4.533***	***17.946***	***0.152***	***28.084***	***505.373***	***221.491***	***---***

Conc SD	***0.009[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***26410.4***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.586[%]	0.015[mg/l]	<-0.003[mg/l]				
Conc 2	97.416[%]	0.015[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.001[%]**	**0.015[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.605***	***0.111***	***2.749***				
Conc SD	***0.587[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: CCV | Sample Type: Control Sample

Measure Date: 2016-05-16 18:17:30 | Recalculation Date: | State: Check failed | Quality: Failed | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCV						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.248[mg/l]	2.471[mg/l]	1120190	0.470[mg/l]	0.495[mg/l]	0.492[mg/l]	0.489[mg/l]
Conc 2	0.245[mg/l]	2.479[mg/l]	1143060	0.489[mg/l]	0.503[mg/l]	0.497[mg/l]	0.490[mg/l]
Conc MinRange	*90.000*	*90.000*	---	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.246[mg/l]**	**2.475[mg/l]**	**1131630**	**0.479[mg/l]**	**0.499[mg/l]**	**0.494[mg/l]**	**0.489[mg/l]**
Conc MaxRange	*110.000*	*110.000*	---	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***0.973***	***0.229***	***---***	***2.826***	***1.102***	***0.768***	***0.122***
Conc SD	***0.002[mg/l]***	***0.006[mg/l]***	***16171.5***	***0.014[mg/l]***	***0.005[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	12.467[mg/l]	0.492[mg/l]	0.499[mg/l]	0.500[mg/l]	22051.7	0.505[mg/l]	2.559[mg/l]
Conc 2	12.573[mg/l]	0.492[mg/l]	0.507[mg/l]	0.509[mg/l]	22047.1	0.499[mg/l]	2.562[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	---	*90.000*	*90.000*
Conc Mean	**12.519[mg/l]**	**0.492[mg/l]**	**0.503[mg/l]**	**0.505[mg/l]**	**22049.4**	**0.502[mg/l]**	**2.561[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	---	*110.000*	*110.000*
Conc RSD	***0.598***	***0.004***	***1.140***	***1.242***	***---***	***0.796***	***0.064***
Conc SD	***0.075[mg/l]***	***0.000[mg/l]***	***0.006[mg/l]***	***0.006[mg/l]***	***3.253***	***0.004[mg/l]***	***0.002[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	18.861[mg/l]	1.953[mg/l]	4.860[mg/l]	0.496[mg/l]	0.506[mg/l]	20.314[mg/l]	0.490[mg/l]
Conc 2	18.514[mg/l]	1.955[mg/l]	4.829[mg/l]	0.497[mg/l]	0.512[mg/l]	20.033[mg/l]	0.499[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**18.687[mg/l]**	**1.954[mg/l]**	**4.845[mg/l]**	**0.497[mg/l]**	**0.509[mg/l]**	**20.174[mg/l]**	**0.495[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***1.311***	***0.093***	***0.452***	***0.214***	***0.739***	***0.986***	***1.315***
Conc SD	***0.245[mg/l]***	***0.002[mg/l]***	***0.022[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***0.199[mg/l]***	***0.007[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.499[mg/l]	0.482[mg/l]	0.512[mg/l]	0.807[mg/l]	0.493[mg/l]	0.251[mg/l]	0.490[mg/l]

Conc 2	0.508[mg/l]	0.488[mg/l]	0.499[mg/l]	0.803[mg/l]	0.503[mg/l]	0.250[mg/l]	0.487[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.503[mg/l]**	**0.485[mg/l]**	**0.505[mg/l]**	**<0.805[mg/l]**	**0.498[mg/l]**	**0.250[mg/l]**	**0.489[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***1.219***	***0.747***	***1.938***	***0.345***	***1.425***	***0.085***	***0.530***
Conc SD	***0.006[mg/l]***	***0.004[mg/l]***	***0.010[mg/l]***	***0.003[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.488[mg/l]	0.511[mg/l]	4441430	97.931[%]	0.488[mg/l]	97.931[%]	
Conc 2	0.495[mg/l]	0.510[mg/l]	4453270	98.187[%]	0.489[mg/l]	98.187[%]	
Conc MinRange	*90.000*	*90.000*	---	---	*90.000*	---	
Conc Mean	**0.492[mg/l]**	**0.510[mg/l]**	**4447350**	**98.059[%]**	**0.489[mg/l]**	**98.059[%]**	
Conc MaxRange	*110.000*	*110.000*	---	---	*110.000*	---	
Conc RSD	***1.008***	***0.262***	***---***	***0.185***	***0.137***	***0.185***	
Conc SD	***0.005[mg/l]***	***0.001[mg/l]***	***8372.14***	***0.181[%]***	***0.001[mg/l]***	***0.181[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.248[mg/l]	2.471[mg/l]	1120190	0.470[mg/l]	0.495[mg/l]	0.492[mg/l]	0.489[mg/l]
Conc 2	0.245[mg/l]	2.479[mg/l]	1143060	0.489[mg/l]	0.503[mg/l]	0.497[mg/l]	0.490[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.246[mg/l]**	**2.475[mg/l]**	**1131630**	**0.479[mg/l]**	**0.499[mg/l]**	**0.494[mg/l]**	**0.489[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.973***	***0.229***	***---***	***2.826***	***1.102***	***0.768***	***0.122***
Conc SD	***0.002[mg/l]***	***0.006[mg/l]***	***16171.5***	***0.014[mg/l]***	***0.005[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	12.467[mg/l]	0.492[mg/l]	0.499[mg/l]	0.500[mg/l]	22051.7	<0.493[mg/l]	2.559[mg/l]
Conc 2	12.573[mg/l]	0.492[mg/l]	0.507[mg/l]	0.509[mg/l]	22047.1	<0.501[mg/l]	2.562[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.519[mg/l]**	**0.492[mg/l]**	**0.503[mg/l]**	**0.505[mg/l]**	**22049.4**	**<0.497[mg/l]**	**2.561[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.598***	***0.004***	***1.140***	***1.242***	***---***	***1.103***	***0.064***
Conc SD	***0.075[mg/l]***	***0.000[mg/l]***	***0.006[mg/l]***	***0.006[mg/l]***	***3.253***	***0.005[mg/l]***	***0.002[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.760[mg/l]	19.123[mg/l]	18.861[mg/l]	1.949[mg/l]	1.953[mg/l]	4.860[mg/l]	0.496[mg/l]
Conc 2	<-1.758[mg/l]	18.972[mg/l]	18.514[mg/l]	1.951[mg/l]	1.955[mg/l]	4.829[mg/l]	0.497[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.759[mg/l]**	**19.048[mg/l]**	**18.687[mg/l]**	**1.950[mg/l]**	**1.954[mg/l]**	**4.845[mg/l]**	**0.497[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.110***	***0.558***	***1.311***	***0.079***	***0.093***	***0.452***	***0.214***
Conc SD	***0.002[mg/l]***	***0.106[mg/l]***	***0.245[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.022[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.506[mg/l]	20.382[mg/l]	20.314[mg/l]	0.490[mg/l]	0.499[mg/l]	0.482[mg/l]	0.512[mg/l]
Conc 2	0.512[mg/l]	19.930[mg/l]	20.033[mg/l]	0.499[mg/l]	0.508[mg/l]	0.488[mg/l]	0.499[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.509[mg/l]**	**20.156[mg/l]**	**20.174[mg/l]**	**0.495[mg/l]**	**0.503[mg/l]**	**0.485[mg/l]**	**0.505[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***0.739***	***1.588***	***0.986***	***1.315***	***1.219***	***0.747***	***1.938***
Conc SD	***0.004[mg/l]***	***0.320[mg/l]***	***0.199[mg/l]***	***0.007[mg/l]***	***0.006[mg/l]***	***0.004[mg/l]***	***0.010[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.807[mg/l]	0.493[mg/l]	0.251[mg/l]	0.490[mg/l]	0.488[mg/l]	0.511[mg/l]	4441430
Conc 2	0.803[mg/l]	0.503[mg/l]	0.250[mg/l]	0.487[mg/l]	0.495[mg/l]	0.510[mg/l]	4453270
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.805[mg/l]**	**0.498[mg/l]**	**0.250[mg/l]**	**0.489[mg/l]**	**0.492[mg/l]**	**0.510[mg/l]**	**4447350**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.345***	***1.425***	***0.085***	***0.530***	***1.008***	***0.262***	***---***
Conc SD	***0.003[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.005[mg/l]***	***0.001[mg/l]***	***8372.14***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.931[%]	0.488[mg/l]	0.505[mg/l]				
Conc 2	98.187[%]	0.489[mg/l]	0.499[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.059[%]**	**0.489[mg/l]**	**0.502[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.185***	***0.137***	***0.796***				
Conc SD	***0.181[%]***	***0.001[mg/l]***	***0.004[mg/l]***				

Sample Name: CCB | Sample Type: Control Sample

Measure Date: 2016-05-16 18:19:28 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	0.010[mg/l]	1109500	0.003[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.012[mg/l]	1082650	<0.000[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.000[mg/l]**	**0.011[mg/l]**	**1096070**	**<0.002[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***22.044***	***13.684***	***---***	***107.101***	***6.075***	***22.952***	***29.619***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***18985.8***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.012[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	22597.5	<-0.007[mg/l]	0.002[mg/l]
Conc 2	0.017[mg/l]	0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21584.9	<-0.005[mg/l]	0.002[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.014[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**22091.2**	**<-0.006[mg/l]**	**0.002[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***24.993***	***715.312***	***178.588***	***279.982***	***---***	***23.679***	***17.278***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***716.016***	***0.001[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.008[mg/l]	0.000[mg/l]	0.008[mg/l]	0.000[mg/l]	0.001[mg/l]	<0.024[mg/l]	-0.000[mg/l]
Conc 2	0.010[mg/l]	0.000[mg/l]	0.005[mg/l]	0.000[mg/l]	0.001[mg/l]	0.329[mg/l]	-0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.009[mg/l]**	**0.000[mg/l]**	**0.006[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**<0.176[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***11.184***	***2.814***	***26.656***	***3.166***	***20.247***	***122.460***	***99.535***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.216[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.000[mg/l]	-0.001[mg/l]	-0.145[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc 2	-0.001[mg/l]	0.003[mg/l]	-0.000[mg/l]	-0.104[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.001[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**-0.125[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***16.580***	***137.677***	***102.258***	***22.843***	***26.334***	***21.736***	***14.780***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.028[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.003[mg/l]	-0.003[mg/l]	4907190	108.179[%]	0.001[mg/l]	108.179[%]	
Conc 2	0.003[mg/l]	0.002[mg/l]	4543320	100.165[%]	0.001[mg/l]	100.165[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.003[mg/l]**	**-0.000[mg/l]**	**4725250**	**104.172[%]**	**0.001[mg/l]**	**104.172[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***10.076***	***1433.91***	***---***	***5.440***	***19.389***	***5.440***	
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***257295***	***5.667[%]***	***0.000[mg/l]***	***5.667[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	0.010[mg/l]	1109500	0.003[mg/l]	0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.012[mg/l]	1082650	<0.000[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**0.011[mg/l]**	**1096070**	**<0.002[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***22.044***	***13.684***	***---***	***107.101***	***6.075***	***22.952***	***29.619***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***18985.8***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.012[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	22597.5	<-0.010[mg/l]	0.002[mg/l]
Conc 2	0.017[mg/l]	0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21584.9	<-0.009[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.014[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**22091.2**	**<-0.009[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***24.993***	***715.312***	***178.588***	***279.982***	***---***	***6.745***	***17.278***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***716.016***	***0.001[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.942[mg/l]	0.008[mg/l]	<-19.697[mg/l]	0.000[mg/l]	<-0.419[mg/l]	0.008[mg/l]	0.000[mg/l]
Conc 2	<-4.941[mg/l]	0.010[mg/l]	<-19.691[mg/l]	0.000[mg/l]	<-0.419[mg/l]	0.005[mg/l]	0.000[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.942[mg/l]**	**0.009[mg/l]**	**<-19.694[mg/l]**	**0.000[mg/l]**	**<-0.419[mg/l]**	**0.006[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.006***	***11.184***	***0.020***	***2.814***	***0.016***	***26.656***	***3.166***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	<0.024[mg/l]	<-1.600[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.000[mg/l]	-0.001[mg/l]
Conc 2	0.001[mg/l]	0.329[mg/l]	<-1.347[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.003[mg/l]	-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**<0.176[mg/l]**	**<-1.473[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***20.247***	***122.460***	***12.165***	***99.535***	***16.580***	***137.677***	***102.258***
Conc SD	***0.000[mg/l]***	***0.216[mg/l]***	***0.179[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.145[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	-0.003[mg/l]	4907190
Conc 2	-0.104[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	0.002[mg/l]	4543320
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.125[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**	**-0.000[mg/l]**	**4725250**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***22.843***	***26.334***	***21.736***	***14.780***	***10.076***	***1433.91***	***---***
Conc SD	***0.028[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***257295***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	108.179[%]	0.001[mg/l]	<-0.007[mg/l]				
Conc 2	100.165[%]	0.001[mg/l]	<-0.005[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**104.172[%]**	**0.001[mg/l]**	**<-0.006[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***5.440***	***19.389***	***23.679***				
Conc SD	***5.667[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130749-A-3-C | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:21:27 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130749-A-3-C						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	-0.008[mg/l]	1118570	<0.001[mg/l]	0.010[mg/l]	0.083[mg/l]	0.000[mg/l]
Conc 2	0.001[mg/l]	-0.009[mg/l]	1098920	<-0.001[mg/l]	0.010[mg/l]	0.083[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**-0.008[mg/l]**	**1108750**	**<0.000[mg/l]**	**0.010[mg/l]**	**0.083[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***117.331***	***7.763***	***---***	***460.146***	***0.711***	***0.199***	***56.391***

Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***13894.6***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	74.670[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	24885.1	<-0.003[mg/l]	<-0.001[mg/l]
Conc 2	75.227[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24839.5	<-0.004[mg/l]	<-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**74.949[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**24862.3**	**<-0.003[mg/l]**	**<-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.525***	***57.491***	***2638.93***	***263.036***	***---***	***12.695***	***0.842***
Conc SD	***0.393[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***32.244***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.199[mg/l]	-0.000[mg/l]	3.317[mg/l]	0.125[mg/l]	0.000[mg/l]	146.985[mg/l]	0.002[mg/l]
Conc 2	0.206[mg/l]	-0.000[mg/l]	3.323[mg/l]	0.124[mg/l]	-0.000[mg/l]	150.129[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.203[mg/l]**	**-0.000[mg/l]**	**3.320[mg/l]**	**0.124[mg/l]**	**0.000[mg/l]**	**148.557[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.520***	***3.008***	***0.122***	***0.464***	***166.463***	***1.496***	***5.430***
Conc SD	***0.005[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***2.223[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.002[mg/l]	-0.000[mg/l]	0.001[mg/l]	0.250[mg/l]	-0.000[mg/l]	0.130[mg/l]	0.001[mg/l]
Conc 2	0.000[mg/l]	-0.002[mg/l]	0.001[mg/l]	0.245[mg/l]	0.001[mg/l]	0.132[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**0.247[mg/l]**	**0.000[mg/l]**	**0.131[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***186.721***	***98.176***	***2.084***	***1.499***	***179.335***	***0.844***	***6.421***
Conc SD	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	0.004[mg/l]	4326980	95.418[%]	0.011[mg/l]	95.418[%]	
Conc 2	0.000[mg/l]	-0.003[mg/l]	4325740	95.381[%]	0.011[mg/l]	95.381[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.000[mg/l]**	**0.000[mg/l]**	**4326360**	**95.400[%]**	**0.011[mg/l]**	**95.400[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***341.778***	***1166.32***	***---***	***0.028***	***0.575***	***0.028***	
Conc SD	***0.001[mg/l]***	***0.005[mg/l]***	***876.812***	***0.026[%]***	***0.000[mg/l]***	***0.026[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	-0.008[mg/l]	1118570	<0.001[mg/l]	0.010[mg/l]	0.083[mg/l]	0.000[mg/l]
Conc 2	0.001[mg/l]	-0.009[mg/l]	1098920	<-0.001[mg/l]	0.010[mg/l]	0.083[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**-0.008[mg/l]**	**1108750**	**<0.000[mg/l]**	**0.010[mg/l]**	**0.083[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***117.331***	***7.763***	***---***	***460.146***	***0.711***	***0.199***	***56.391***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***13894.6***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	74.670[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	24885.1	<-0.010[mg/l]	<-0.001[mg/l]

Conc 2	75.227[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24839.5	<-0.010[mg/l]	<-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**74.949[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**24862.3**	**<-0.010[mg/l]**	**<-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.525***	***57.491***	***2638.93***	***263.036***	***---***	***3.277***	***0.842***
Conc SD	***0.393[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***32.244***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.944[mg/l]	0.199[mg/l]	<-19.306[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	3.317[mg/l]	0.125[mg/l]
Conc 2	<-4.944[mg/l]	0.206[mg/l]	<-19.288[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	3.323[mg/l]	0.124[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.944[mg/l]**	**0.203[mg/l]**	**<-19.297[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**3.320[mg/l]**	**0.124[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.002***	***2.520***	***0.067***	***3.008***	***0.002***	***0.122***	***0.464***
Conc SD	***0.000[mg/l]***	***0.005[mg/l]***	***0.013[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>192.633[mg/l]	146.985[mg/l]	0.002[mg/l]	-0.002[mg/l]	-0.000[mg/l]	0.001[mg/l]
Conc 2	-0.000[mg/l]	>198.162[mg/l]	150.129[mg/l]	0.002[mg/l]	0.000[mg/l]	-0.002[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>195.398[mg/l]**	**148.557[mg/l]**	**0.002[mg/l]**	**-0.001[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***166.463***	***2.001***	***1.496***	***5.430***	***186.721***	***98.176***	***2.084***
Conc SD	***0.000[mg/l]***	***3.910[mg/l]***	***2.223[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.250[mg/l]	-0.000[mg/l]	0.130[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.004[mg/l]	4326980
Conc 2	0.245[mg/l]	0.001[mg/l]	0.132[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.003[mg/l]	4325740
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.247[mg/l]**	**0.000[mg/l]**	**0.131[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**4326360**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.499***	***179.335***	***0.844***	***6.421***	***341.778***	***1166.32***	***---***
Conc SD	***0.004[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***	***876.812***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	95.418[%]	0.011[mg/l]	<-0.003[mg/l]				
Conc 2	95.381[%]	0.011[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**95.400[%]**	**0.011[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.028***	***0.575***	***12.695***				
Conc SD	***0.026[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Method Name: Hou Metals
Method Autor: Operator
Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: 600-130758-A-1-C			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 18:23:24	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130758-A-1-C						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	-0.006[mg/l]	1086730	<0.000[mg/l]	0.011[mg/l]	0.104[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.008[mg/l]	1071770	<-0.002[mg/l]	0.010[mg/l]	0.102[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.007[mg/l]**	**1079250**	**<-0.001[mg/l]**	**0.010[mg/l]**	**0.103[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.252***	***16.212***	***---***	***237.222***	***1.498***	***1.836***	***0.587***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***10578.3***	***0.002[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	54.727[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	24029.9	<-0.004[mg/l]	<-0.002[mg/l]
Conc 2	54.788[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	25015.5	<-0.004[mg/l]	<-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**54.757[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**24522.7**	**<-0.004[mg/l]**	**<-0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.079***	***1.091***	***7.164***	***62.604***	***---***	***3.520***	***1.051***
Conc SD	***0.043[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***696.924***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.374[mg/l]	0.000[mg/l]	2.242[mg/l]	0.111[mg/l]	-0.000[mg/l]	149.481[mg/l]	0.002[mg/l]
Conc 2	0.365[mg/l]	0.000[mg/l]	2.206[mg/l]	0.109[mg/l]	-0.000[mg/l]	144.803[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.370[mg/l]**	**0.000[mg/l]**	**2.224[mg/l]**	**0.110[mg/l]**	**-0.000[mg/l]**	**147.142[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.794***	***7.114***	***1.137***	***0.719***	***75.165***	***2.248***	***0.418***
Conc SD	***0.007[mg/l]***	***0.000[mg/l]***	***0.025[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***3.308[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.002[mg/l]	0.001[mg/l]	-0.002[mg/l]	1.648[mg/l]	0.001[mg/l]	0.114[mg/l]	0.001[mg/l]
Conc 2	-0.001[mg/l]	-0.001[mg/l]	-0.003[mg/l]	1.624[mg/l]	0.001[mg/l]	0.115[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**0.000[mg/l]**	**-0.002[mg/l]**	**1.636[mg/l]**	**0.001[mg/l]**	**0.115[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***45.539***	***392.738***	***32.937***	***1.036***	***2.546***	***0.522***	***15.613***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.017[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	0.008[mg/l]	4400390	97.018[%]	0.010[mg/l]	97.018[%]	
Conc 2	0.000[mg/l]	-0.002[mg/l]	4434850	97.802[%]	0.009[mg/l]	97.802[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.000[mg/l]**	**0.003[mg/l]**	**4417620**	**97.410[%]**	**0.009[mg/l]**	**97.410[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***319.703***	***237.421***	***---***	***0.569***	***1.402***	***0.569***	
Conc SD	***0.001[mg/l]***	***0.007[mg/l]***	***24366.9***	***0.554[%]***	***0.000[mg/l]***	***0.554[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	-0.006[mg/l]	1086730	<0.000[mg/l]	0.011[mg/l]	0.104[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.008[mg/l]	1071770	<-0.002[mg/l]	0.010[mg/l]	0.102[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.007[mg/l]**	**1079250**	**<-0.001[mg/l]**	**0.010[mg/l]**	**0.103[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.252***	***16.212***	***---***	***237.222***	***1.498***	***1.836***	***0.587***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***10578.3***	***0.002[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	54.727[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	24029.9	<-0.010[mg/l]	<-0.002[mg/l]
Conc 2	54.788[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.000[mg/l]	25015.5	<-0.010[mg/l]	<-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**54.757[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**24522.7**	**<-0.010[mg/l]**	**<-0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.079***	***1.091***	***7.164***	***62.604***	***---***	***4.724***	***1.051***
Conc SD	***0.043[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***696.924***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.946[mg/l]	0.374[mg/l]	<-18.951[mg/l]	0.000[mg/l]	<-0.419[mg/l]	2.242[mg/l]	0.111[mg/l]
Conc 2	<-4.946[mg/l]	0.365[mg/l]	<-18.965[mg/l]	0.000[mg/l]	<-0.419[mg/l]	2.206[mg/l]	0.109[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.946[mg/l]**	**0.370[mg/l]**	**<-18.958[mg/l]**	**0.000[mg/l]**	**<-0.419[mg/l]**	**2.224[mg/l]**	**0.110[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.001***	***1.794***	***0.053***	***7.114***	***0.018***	***1.137***	***0.719***
Conc SD	***0.000[mg/l]***	***0.007[mg/l]***	***0.010[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.025[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	-0.000[mg/l]	>196.319[mg/l]	149.481[mg/l]	0.002[mg/l]	-0.002[mg/l]	0.001[mg/l]	-0.002[mg/l]
Conc 2	-0.000[mg/l]	>188.613[mg/l]	144.803[mg/l]	0.002[mg/l]	-0.001[mg/l]	-0.001[mg/l]	-0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**>192.466[mg/l]**	**147.142[mg/l]**	**0.002[mg/l]**	**-0.002[mg/l]**	**0.000[mg/l]**	**-0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***75.165***	***2.831***	***2.248***	***0.418***	***45.539***	***392.738***	***32.937***
Conc SD	***0.000[mg/l]***	***5.449[mg/l]***	***3.308[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	1.648[mg/l]	0.001[mg/l]	0.114[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.008[mg/l]	4400390
Conc 2	1.624[mg/l]	0.001[mg/l]	0.115[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.002[mg/l]	4434850
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**1.636[mg/l]**	**0.001[mg/l]**	**0.115[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**0.003[mg/l]**	**4417620**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.036***	***2.546***	***0.522***	***15.613***	***319.703***	***237.421***	***---***

Conc SD	***0.017[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***24366.9***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.018[%]	0.010[mg/l]	<-0.004[mg/l]				
Conc 2	97.802[%]	0.009[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.410[%]**	**0.009[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.569***	***1.402***	***3.520***				
Conc SD	***0.554[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130753-A-1-F | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:25:22 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130753-A-1-F						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	0.023[mg/l]	1094140	<-0.003[mg/l]	0.011[mg/l]	0.037[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.020[mg/l]	1104790	<-0.001[mg/l]	0.011[mg/l]	0.037[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.022[mg/l]**	**1099460**	**<-0.002[mg/l]**	**0.011[mg/l]**	**0.037[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***68.674***	***8.518***	***---***	***72.361***	***0.900***	***0.449***	***4.090***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***7530.69***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.899[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24069.5	<-0.005[mg/l]	0.119[mg/l]
Conc 2	0.901[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	25178.3	<-0.004[mg/l]	0.118[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.900[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**24623.9**	**<-0.004[mg/l]**	**0.119[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.186***	***6.553***	***361.498***	***138.730***	***---***	***13.833***	***0.387***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***784.040***	***0.001[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.156[mg/l]	-0.000[mg/l]	0.271[mg/l]	0.068[mg/l]	0.000[mg/l]	156.118[mg/l]	0.001[mg/l]
Conc 2	0.148[mg/l]	-0.000[mg/l]	0.270[mg/l]	0.067[mg/l]	-0.000[mg/l]	149.923[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.152[mg/l]**	**-0.000[mg/l]**	**0.271[mg/l]**	**0.068[mg/l]**	**-0.000[mg/l]**	**153.021[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3.661***	***3.982***	***0.232***	***0.608***	***197.086***	***2.863***	***19.036***
Conc SD	***0.006[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***4.381[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.000[mg/l]	-0.001[mg/l]	-0.002[mg/l]	0.082[mg/l]	0.000[mg/l]	0.021[mg/l]	0.000[mg/l]

Conc 2	-0.001[mg/l]	-0.000[mg/l]	-0.003[mg/l]	0.076[mg/l]	0.000[mg/l]	0.021[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.001[mg/l]**	**-0.003[mg/l]**	**0.079[mg/l]**	**0.000[mg/l]**	**0.021[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***180.919***	***62.734***	***31.801***	***5.543***	***20.401***	***0.281***	***54.994***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.000[mg/l]	-0.009[mg/l]	4397240	96.957[%]	0.015[mg/l]	96.957[%]	
Conc 2	-0.002[mg/l]	-0.004[mg/l]	4425900	97.579[%]	0.014[mg/l]	97.579[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.001[mg/l]**	**-0.006[mg/l]**	**4411570**	**97.269[%]**	**0.015[mg/l]**	**97.269[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***151.850***	***55.013***	***---***	***0.452***	***0.478***	***0.452***	
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***20265.7***	***0.440[%]***	***0.000[mg/l]***	***0.440[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	0.023[mg/l]	1094140	<-0.003[mg/l]	0.011[mg/l]	0.037[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.020[mg/l]	1104790	<-0.001[mg/l]	0.011[mg/l]	0.037[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.022[mg/l]**	**1099460**	**<-0.002[mg/l]**	**0.011[mg/l]**	**0.037[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***68.674***	***8.518***	***---***	***72.361***	***0.900***	***0.449***	***4.090***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***7530.69***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.899[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	24069.5	<-0.010[mg/l]	0.119[mg/l]
Conc 2	0.901[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	25178.3	<-0.009[mg/l]	0.118[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.900[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**24623.9**	**<-0.009[mg/l]**	**0.119[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.186***	***6.553***	***361.498***	***138.730***	***---***	***6.072***	***0.387***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***784.040***	***0.001[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.796[mg/l]	0.156[mg/l]	<-19.392[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.271[mg/l]	0.068[mg/l]
Conc 2	<-4.796[mg/l]	0.148[mg/l]	<-19.409[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.270[mg/l]	0.067[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.796[mg/l]**	**0.152[mg/l]**	**<-19.401[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**0.271[mg/l]**	**0.068[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.009***	***3.661***	***0.063***	***3.982***	***0.010***	***0.232***	***0.608***
Conc SD	***0.000[mg/l]***	***0.006[mg/l]***	***0.012[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>207.694[mg/l]	156.118[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.001[mg/l]	-0.002[mg/l]
Conc 2	-0.000[mg/l]	>197.385[mg/l]	149.923[mg/l]	0.002[mg/l]	-0.001[mg/l]	-0.000[mg/l]	-0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**>202.540[mg/l]**	**153.021[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**-0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***197.086***	***3.599***	***2.863***	***19.036***	***180.919***	***62.734***	***31.801***
Conc SD	***0.000[mg/l]***	***7.290[mg/l]***	***4.381[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.082[mg/l]	0.000[mg/l]	0.021[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.009[mg/l]	4397240
Conc 2	0.076[mg/l]	0.000[mg/l]	0.021[mg/l]	0.001[mg/l]	-0.002[mg/l]	-0.004[mg/l]	4425900
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.079[mg/l]**	**0.000[mg/l]**	**0.021[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**-0.006[mg/l]**	**4411570**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***5.543***	***20.401***	***0.281***	***54.994***	***151.850***	***55.013***	***---***
Conc SD	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***20265.7***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.957[%]	0.015[mg/l]	<-0.005[mg/l]				
Conc 2	97.579[%]	0.014[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.269[%]**	**0.015[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.452***	***0.478***	***13.833***				
Conc SD	***0.440[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130753-A-1-G MS | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:27:20 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130753-A-1-G MS						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.531[mg/l]	10.594[mg/l]	1128780	1.067[mg/l]	1.058[mg/l]	1.100[mg/l]	0.510[mg/l]
Conc 2	0.528[mg/l]	10.599[mg/l]	1142290	1.066[mg/l]	1.055[mg/l]	1.096[mg/l]	0.510[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.529[mg/l]**	**10.596[mg/l]**	**1135540**	**1.066[mg/l]**	**1.056[mg/l]**	**1.098[mg/l]**	**0.510[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.352***	***0.034***	***---***	***0.068***	***0.228***	***0.252***	***0.025***
Conc SD	***0.002[mg/l]***	***0.004[mg/l]***	***9553.01***	***0.001[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	11.302[mg/l]	0.525[mg/l]	1.050[mg/l]	1.052[mg/l]	24458.9	1.062[mg/l]	10.573[mg/l]
Conc 2	11.277[mg/l]	0.523[mg/l]	1.049[mg/l]	1.048[mg/l]	24621.0	1.053[mg/l]	10.496[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**11.290[mg/l]**	**0.524[mg/l]**	**1.050[mg/l]**	**1.050[mg/l]**	**24539.9**	**1.057[mg/l]**	**10.534[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.154***	***0.201***	***0.041***	***0.244***	***---***	***0.638***	***0.520***
Conc SD	***0.017[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***114.622***	***0.007[mg/l]***	***0.055[mg/l]***

SPECTRO

Printing Date: 5/17/2016 8:51:13 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	11.184[mg/l]	1.053[mg/l]	10.593[mg/l]	1.113[mg/l]	1.033[mg/l]	166.140[mg/l]	1.044[mg/l]
Conc 2	11.436[mg/l]	1.034[mg/l]	10.551[mg/l]	1.104[mg/l]	1.029[mg/l]	164.152[mg/l]	1.051[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**11.310[mg/l]**	**1.044[mg/l]**	**10.572[mg/l]**	**1.108[mg/l]**	**1.031[mg/l]**	**165.146[mg/l]**	**1.047[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.575***	***1.290***	***0.279***	***0.531***	***0.306***	***0.851***	***0.467***
Conc SD	***0.178[mg/l]***	***0.013[mg/l]***	***0.029[mg/l]***	***0.006[mg/l]***	***0.003[mg/l]***	***1.406[mg/l]***	***0.005[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.053[mg/l]	1.025[mg/l]	1.071[mg/l]	1.052[mg/l]	1.040[mg/l]	0.545[mg/l]	1.014[mg/l]
Conc 2	1.052[mg/l]	1.013[mg/l]	1.058[mg/l]	1.051[mg/l]	1.036[mg/l]	0.541[mg/l]	1.019[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.052[mg/l]**	**1.019[mg/l]**	**1.064[mg/l]**	**1.052[mg/l]**	**1.038[mg/l]**	**0.543[mg/l]**	**1.017[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.075***	***0.828***	***0.848***	***0.104***	***0.272***	***0.532***	***0.354***
Conc SD	***0.001[mg/l]***	***0.008[mg/l]***	***0.009[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	1.026[mg/l]	1.072[mg/l]	4351590	95.967[%]	1.070[mg/l]	95.967[%]	
Conc 2	1.027[mg/l]	1.070[mg/l]	4349670	95.918[%]	1.064[mg/l]	95.918[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**1.026[mg/l]**	**1.071[mg/l]**	**4350630**	**95.943[%]**	**1.067[mg/l]**	**95.943[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.080***	***0.101***	***---***	***0.036***	***0.357***	***0.036***	
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***1357.65***	***0.035[%]***	***0.004[mg/l]***	***0.035[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.531[mg/l]	10.594[mg/l]	1128780	1.067[mg/l]	1.058[mg/l]	1.100[mg/l]	0.510[mg/l]
Conc 2	0.528[mg/l]	10.599[mg/l]	1142290	1.066[mg/l]	1.055[mg/l]	1.096[mg/l]	0.510[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.529[mg/l]**	**10.596[mg/l]**	**1135540**	**1.066[mg/l]**	**1.056[mg/l]**	**1.098[mg/l]**	**0.510[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.352***	***0.034***	***---***	***0.068***	***0.228***	***0.252***	***0.025***
Conc SD	***0.002[mg/l]***	***0.004[mg/l]***	***9553.01***	***0.001[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	11.302[mg/l]	0.525[mg/l]	1.050[mg/l]	1.052[mg/l]	24458.9	1.062[mg/l]	10.573[mg/l]
Conc 2	11.277[mg/l]	0.523[mg/l]	1.049[mg/l]	1.048[mg/l]	24621.0	1.053[mg/l]	10.496[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**11.290[mg/l]**	**0.524[mg/l]**	**1.050[mg/l]**	**1.050[mg/l]**	**24539.9**	**1.057[mg/l]**	**10.534[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.154***	***0.201***	***0.041***	***0.244***	***---***	***0.638***	***0.520***
Conc SD	***0.017[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***114.622***	***0.007[mg/l]***	***0.055[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<8.201[mg/l]	11.184[mg/l]	<2.935[mg/l]	1.053[mg/l]	<0.862[mg/l]	10.593[mg/l]	1.113[mg/l]
Conc 2	<8.106[mg/l]	11.436[mg/l]	<3.430[mg/l]	1.034[mg/l]	<0.841[mg/l]	10.551[mg/l]	1.104[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<8.153[mg/l]**	**11.310[mg/l]**	**<3.183[mg/l]**	**1.044[mg/l]**	**<0.852[mg/l]**	**10.572[mg/l]**	**1.108[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.828***	***1.575***	***10.990***	***1.290***	***1.731***	***0.279***	***0.531***
Conc SD	***0.067[mg/l]***	***0.178[mg/l]***	***0.350[mg/l]***	***0.013[mg/l]***	***0.015[mg/l]***	***0.029[mg/l]***	***0.006[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	1.033[mg/l]	>225.761[mg/l]	166.140[mg/l]	1.044[mg/l]	1.053[mg/l]	1.025[mg/l]	1.071[mg/l]
Conc 2	1.029[mg/l]	>222.337[mg/l]	164.152[mg/l]	1.051[mg/l]	1.052[mg/l]	1.013[mg/l]	1.058[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.031[mg/l]**	**>224.049[mg/l]**	**165.146[mg/l]**	**1.047[mg/l]**	**1.052[mg/l]**	**1.019[mg/l]**	**1.064[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.306***	***1.081***	***0.851***	***0.467***	***0.075***	***0.828***	***0.848***
Conc SD	***0.003[mg/l]***	***2.421[mg/l]***	***1.406[mg/l]***	***0.005[mg/l]***	***0.001[mg/l]***	***0.008[mg/l]***	***0.009[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	1.052[mg/l]	1.040[mg/l]	0.545[mg/l]	1.014[mg/l]	1.026[mg/l]	1.072[mg/l]	4351590
Conc 2	1.051[mg/l]	1.036[mg/l]	0.541[mg/l]	1.019[mg/l]	1.027[mg/l]	1.070[mg/l]	4349670
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**1.052[mg/l]**	**1.038[mg/l]**	**0.543[mg/l]**	**1.017[mg/l]**	**1.026[mg/l]**	**1.071[mg/l]**	**4350630**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.104***	***0.272***	***0.532***	***0.354***	***0.080***	***0.101***	***---***
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***1357.65***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	95.967[%]	1.070[mg/l]	>1.106[mg/l]				
Conc 2	95.918[%]	1.064[mg/l]	>1.098[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**95.943[%]**	**1.067[mg/l]**	**>1.102[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.036***	***0.357***	***0.547***				
Conc SD	***0.035[%]***	***0.004[mg/l]***	***0.006[mg/l]***				

Sample Name: 600-130755-A-1-D			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 18:29:18	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130755-A-1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.001[mg/l]	0.252[mg/l]	1114630	<-0.000[mg/l]	0.013[mg/l]	0.006[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.246[mg/l]	1100470	<-0.001[mg/l]	0.012[mg/l]	0.006[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.249[mg/l]**	**1107550**	**<-0.001[mg/l]**	**0.012[mg/l]**	**0.006[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***255.583***	***1.707***	***---***	***129.605***	***2.687***	***1.195***	***25.900***

Conc SD	***0.001[mg/l]***	***0.004[mg/l]***	***10012.6***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	2.945[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	24448.8	<-0.005[mg/l]	0.005[mg/l]
Conc 2	2.955[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	25218.3	<-0.005[mg/l]	0.006[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**2.950[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**24833.6**	**<-0.005[mg/l]**	**0.006[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.235***	***613.672***	***35.993***	***211.492***	***---***	***4.679***	***10.358***
Conc SD	***0.007[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***544.119***	***0.000[mg/l]***	***0.001[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.324[mg/l]	-0.000[mg/l]	0.015[mg/l]	0.002[mg/l]	0.001[mg/l]	149.929[mg/l]	0.015[mg/l]
Conc 2	0.320[mg/l]	-0.000[mg/l]	0.015[mg/l]	0.002[mg/l]	0.001[mg/l]	146.793[mg/l]	0.016[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.322[mg/l]**	**-0.000[mg/l]**	**0.015[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**	**148.361[mg/l]**	**0.015[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.817***	***1.032***	***2.395***	***4.709***	***20.770***	***1.495***	***2.316***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***2.217[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	227.431[mg/l]	-0.001[mg/l]	0.001[mg/l]	-0.103[mg/l]	0.004[mg/l]	0.002[mg/l]	0.001[mg/l]
Conc 2	228.164[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.104[mg/l]	0.004[mg/l]	0.002[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**227.798[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**-0.104[mg/l]**	**0.004[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.228***	***447.880***	***81.091***	***0.939***	***9.504***	***0.098***	***14.797***
Conc SD	***0.518[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.019[mg/l]	-0.000[mg/l]	4507340	99.366[%]	0.022[mg/l]	99.366[%]	
Conc 2	0.019[mg/l]	-0.004[mg/l]	4517210	99.602[%]	0.021[mg/l]	99.602[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.019[mg/l]**	**-0.002[mg/l]**	**4512270**	**99.484[%]**	**0.022[mg/l]**	**99.484[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***2.027***	***139.159***	***---***	***0.168***	***1.106***	***0.168***	
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***6979.14***	***0.167[%]***	***0.000[mg/l]***	***0.167[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.001[mg/l]	0.252[mg/l]	1114630	<-0.000[mg/l]	0.013[mg/l]	0.006[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	0.246[mg/l]	1100470	<-0.001[mg/l]	0.012[mg/l]	0.006[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.249[mg/l]**	**1107550**	**<-0.001[mg/l]**	**0.012[mg/l]**	**0.006[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***255.583***	***1.707***	***---***	***129.605***	***2.687***	***1.195***	***25.900***
Conc SD	***0.001[mg/l]***	***0.004[mg/l]***	***10012.6***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	2.945[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	24448.8	<0.367[mg/l]	0.005[mg/l]

Conc 2	2.955[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	25218.3	<0.367[mg/l]	0.006[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**2.950[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**24833.6**	**<0.367[mg/l]**	**0.006[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.235***	***613.672***	***35.993***	***211.492***	***---***	***0.023***	***10.358***
Conc SD	***0.007[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***544.119***	***0.000[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.937[mg/l]	0.324[mg/l]	<-19.050[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.015[mg/l]	0.002[mg/l]
Conc 2	<-4.936[mg/l]	0.320[mg/l]	<-19.053[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	0.015[mg/l]	0.002[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.937[mg/l]**	**0.322[mg/l]**	**<-19.052[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**0.015[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.016***	***0.817***	***0.009***	***1.032***	***0.014***	***2.395***	***4.709***
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	>197.726[mg/l]	149.929[mg/l]	0.015[mg/l]	227.431[mg/l]	-0.001[mg/l]	0.001[mg/l]
Conc 2	0.001[mg/l]	>192.356[mg/l]	146.793[mg/l]	0.016[mg/l]	228.164[mg/l]	0.001[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**>195.041[mg/l]**	**148.361[mg/l]**	**0.015[mg/l]**	**227.798[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***20.770***	***1.947***	***1.495***	***2.316***	***0.228***	***447.880***	***81.091***
Conc SD	***0.000[mg/l]***	***3.797[mg/l]***	***2.217[mg/l]***	***0.000[mg/l]***	***0.518[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.103[mg/l]	0.004[mg/l]	0.002[mg/l]	0.001[mg/l]	0.019[mg/l]	-0.000[mg/l]	4507340
Conc 2	-0.104[mg/l]	0.004[mg/l]	0.002[mg/l]	0.000[mg/l]	0.019[mg/l]	-0.004[mg/l]	4517210
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.104[mg/l]**	**0.004[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**	**0.019[mg/l]**	**-0.002[mg/l]**	**4512270**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.939***	***9.504***	***0.098***	***14.797***	***2.027***	***139.159***	***---***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***6979.14***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.366[%]	0.022[mg/l]	<-0.005[mg/l]				
Conc 2	99.602[%]	0.021[mg/l]	<-0.005[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.484[%]**	**0.022[mg/l]**	**<-0.005[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.168***	***1.106***	***4.679***				
Conc SD	***0.167[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

SPECTRO

Printing Date: 5/17/2016 8:51:14 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: 600-130775-A-1-D			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 18:31:21	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130775-A-1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	-0.005[mg/l]	1059300	<-0.001[mg/l]	0.029[mg/l]	0.156[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.004[mg/l]	1062050	<0.002[mg/l]	0.029[mg/l]	0.155[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.004[mg/l]**	**1060680**	**<0.000[mg/l]**	**0.029[mg/l]**	**0.155[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***217.963***	***10.919***	***---***	***702.954***	***0.547***	***0.411***	***3.441***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***1944.54***	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	27.916[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.001[mg/l]	24188.0	<-0.003[mg/l]	0.371[mg/l]
Conc 2	27.401[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]	24528.6	<-0.004[mg/l]	0.369[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**27.659[mg/l]**	**-0.000[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**	**24358.3**	**<-0.004[mg/l]**	**0.370[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.315***	***5.568***	***3.201***	***116.272***	***---***	***28.626***	***0.285***
Conc SD	***0.364[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***240.841***	***0.001[mg/l]***	***0.001[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.220[mg/l]	-0.000[mg/l]	2.247[mg/l]	0.096[mg/l]	0.000[mg/l]	152.585[mg/l]	0.002[mg/l]
Conc 2	0.217[mg/l]	-0.000[mg/l]	2.231[mg/l]	0.095[mg/l]	0.000[mg/l]	150.189[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.219[mg/l]**	**-0.000[mg/l]**	**2.239[mg/l]**	**0.095[mg/l]**	**0.000[mg/l]**	**151.387[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.894***	***6.678***	***0.519***	***1.058***	***30.134***	***1.119***	***2.850***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.012[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***1.694[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.042[mg/l]	0.000[mg/l]	0.000[mg/l]	0.245[mg/l]	0.001[mg/l]	0.080[mg/l]	0.001[mg/l]
Conc 2	0.028[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.238[mg/l]	0.001[mg/l]	0.080[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.035[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**0.242[mg/l]**	**0.001[mg/l]**	**0.080[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***27.101***	***537.836***	***355.481***	***1.977***	***12.323***	***0.115***	***22.685***
Conc SD	***0.010[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	0.004[mg/l]	4339510	95.692[%]	0.047[mg/l]	95.692[%]	
Conc 2	0.000[mg/l]	-0.007[mg/l]	4365960	96.273[%]	0.047[mg/l]	96.273[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.000[mg/l]**	**-0.001[mg/l]**	**4352740**	**95.983[%]**	**0.047[mg/l]**	**95.983[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***364.285***	***546.644***	***---***	***0.428***	***0.503***	***0.428***	
Conc SD	***0.001[mg/l]***	***0.008[mg/l]***	***18703.0***	***0.411[%]***	***0.000[mg/l]***	***0.411[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	-0.005[mg/l]	1059300	<-0.001[mg/l]	0.029[mg/l]	0.156[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	-0.004[mg/l]	1062050	<0.002[mg/l]	0.029[mg/l]	0.155[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.004[mg/l]**	**1060680**	**<0.000[mg/l]**	**0.029[mg/l]**	**0.155[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***217.963***	***10.919***	***---***	***702.954***	***0.547***	***0.411***	***3.441***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***1944.54***	***0.002[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	27.916[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.001[mg/l]	24188.0	<-0.010[mg/l]	0.371[mg/l]
Conc 2	27.401[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.000[mg/l]	24528.6	<-0.009[mg/l]	0.369[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**27.659[mg/l]**	**-0.000[mg/l]**	**0.002[mg/l]**	**-0.000[mg/l]**	**24358.3**	**<-0.009[mg/l]**	**0.370[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.315***	***5.568***	***3.201***	***116.272***	***---***	***2.190***	***0.285***
Conc SD	***0.364[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***240.841***	***0.000[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.482[mg/l]	0.220[mg/l]	<-19.259[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.247[mg/l]	0.096[mg/l]
Conc 2	<-4.484[mg/l]	0.217[mg/l]	<-19.267[mg/l]	-0.000[mg/l]	<-0.420[mg/l]	2.231[mg/l]	0.095[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.483[mg/l]**	**0.219[mg/l]**	**<-19.263[mg/l]**	**-0.000[mg/l]**	**<-0.420[mg/l]**	**2.239[mg/l]**	**0.095[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.032***	***0.894***	***0.031***	***6.678***	***0.006***	***0.519***	***1.058***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***0.006[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.012[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>202.971[mg/l]	152.585[mg/l]	0.002[mg/l]	0.042[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	>198.862[mg/l]	150.189[mg/l]	0.002[mg/l]	0.028[mg/l]	-0.000[mg/l]	-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>200.916[mg/l]**	**151.387[mg/l]**	**0.002[mg/l]**	**0.035[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***30.134***	***1.446***	***1.119***	***2.850***	***27.101***	***537.836***	***355.481***
Conc SD	***0.000[mg/l]***	***2.906[mg/l]***	***1.694[mg/l]***	***0.000[mg/l]***	***0.010[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.245[mg/l]	0.001[mg/l]	0.080[mg/l]	0.001[mg/l]	-0.001[mg/l]	0.004[mg/l]	4339510
Conc 2	0.238[mg/l]	0.001[mg/l]	0.080[mg/l]	0.001[mg/l]	0.000[mg/l]	-0.007[mg/l]	4365960
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.242[mg/l]**	**0.001[mg/l]**	**0.080[mg/l]**	**0.001[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**4352740**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.977***	***12.323***	***0.115***	***22.685***	***364.285***	***546.644***	***---***

Conc SD	***0.005[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.008[mg/l]***	***18703.0***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	95.692[%]	0.047[mg/l]	<-0.003[mg/l]				
Conc 2	96.273[%]	0.047[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**95.983[%]**	**0.047[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.428***	***0.503***	***28.626***				
Conc SD	***0.411[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130681-A-1-D | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:33:21 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130681-A-1-D						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	0.992[mg/l]	1073900	<-0.005[mg/l]	0.064[mg/l]	0.199[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	1.007[mg/l]	1060610	<-0.006[mg/l]	0.064[mg/l]	0.201[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.999[mg/l]**	**1067260**	**<-0.005[mg/l]**	**0.064[mg/l]**	**0.200[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3.244***	***0.994***	***---***	***9.147***	***0.333***	***0.738***	***0.951***
Conc SD	***0.000[mg/l]***	***0.010[mg/l]***	***9397.45***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	4.118[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.001[mg/l]	24355.1	<-0.004[mg/l]	0.724[mg/l]
Conc 2	4.119[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.001[mg/l]	23941.0	<-0.004[mg/l]	0.731[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**4.118[mg/l]**	**-0.000[mg/l]**	**0.003[mg/l]**	**0.001[mg/l]**	**24148.0**	**<-0.004[mg/l]**	**0.727[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.027***	***14.969***	***3.409***	***45.434***	***---***	***2.230***	***0.663***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***292.813***	***0.000[mg/l]***	***0.005[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.460[mg/l]	0.000[mg/l]	1.418[mg/l]	0.661[mg/l]	0.000[mg/l]	139.527[mg/l]	0.003[mg/l]
Conc 2	0.475[mg/l]	0.000[mg/l]	1.428[mg/l]	0.666[mg/l]	-0.000[mg/l]	144.196[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.467[mg/l]**	**0.000[mg/l]**	**1.423[mg/l]**	**0.663[mg/l]**	**0.000[mg/l]**	**141.862[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.177***	***15.004***	***0.508***	***0.618***	***179.558***	***2.327***	***7.669***
Conc SD	***0.010[mg/l]***	***0.000[mg/l]***	***0.007[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***3.301[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.010[mg/l]	0.001[mg/l]	0.003[mg/l]	2.095[mg/l]	0.001[mg/l]	0.031[mg/l]	0.039[mg/l]

Conc 2	0.008[mg/l]	-0.001[mg/l]	-0.001[mg/l]	2.068[mg/l]	0.001[mg/l]	0.031[mg/l]	0.038[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.009[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**2.082[mg/l]**	**0.001[mg/l]**	**0.031[mg/l]**	**0.038[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***12.236***	***743.153***	***351.966***	***0.934***	***16.204***	***0.779***	***2.934***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.019[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.000[mg/l]	0.004[mg/l]	4452610	98.171[%]	0.106[mg/l]	98.171[%]	
Conc 2	-0.002[mg/l]	-0.000[mg/l]	4430600	97.698[%]	0.106[mg/l]	97.698[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.001[mg/l]**	**0.002[mg/l]**	**4441610**	**97.934[%]**	**0.106[mg/l]**	**97.934[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***138.266***	***142.772***	***---***	***0.342***	***0.347***	***0.342***	
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***15563.4***	***0.335[%]***	***0.000[mg/l]***	***0.335[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	0.992[mg/l]	1073900	<-0.005[mg/l]	0.064[mg/l]	0.199[mg/l]	0.000[mg/l]
Conc 2	-0.001[mg/l]	1.007[mg/l]	1060610	<-0.006[mg/l]	0.064[mg/l]	0.201[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**0.999[mg/l]**	**1067260**	**<-0.005[mg/l]**	**0.064[mg/l]**	**0.200[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3.244***	***0.994***	***---***	***9.147***	***0.333***	***0.738***	***0.951***
Conc SD	***0.000[mg/l]***	***0.010[mg/l]***	***9397.45***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	4.118[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.001[mg/l]	24355.1	<-0.010[mg/l]	0.724[mg/l]
Conc 2	4.119[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.001[mg/l]	23941.0	<-0.010[mg/l]	0.731[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**4.118[mg/l]**	**-0.000[mg/l]**	**0.003[mg/l]**	**0.001[mg/l]**	**24148.0**	**<-0.010[mg/l]**	**0.727[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.027***	***14.969***	***3.409***	***45.434***	***---***	***1.800***	***0.663***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***292.813***	***0.000[mg/l]***	***0.005[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.040[mg/l]	0.460[mg/l]	<-18.779[mg/l]	0.000[mg/l]	<-0.420[mg/l]	1.418[mg/l]	0.661[mg/l]
Conc 2	<-4.032[mg/l]	0.475[mg/l]	<-18.744[mg/l]	0.000[mg/l]	<-0.419[mg/l]	1.428[mg/l]	0.666[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.036[mg/l]**	**0.467[mg/l]**	**<-18.761[mg/l]**	**0.000[mg/l]**	**<-0.420[mg/l]**	**1.423[mg/l]**	**0.663[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.150***	***2.177***	***0.132***	***15.004***	***0.019***	***0.508***	***0.618***
Conc SD	***0.006[mg/l]***	***0.010[mg/l]***	***0.025[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.007[mg/l]***	***0.004[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.000[mg/l]	>180.516[mg/l]	139.527[mg/l]	0.003[mg/l]	0.010[mg/l]	0.001[mg/l]	0.003[mg/l]
Conc 2	-0.000[mg/l]	>188.671[mg/l]	144.196[mg/l]	0.002[mg/l]	0.008[mg/l]	-0.001[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**>184.594[mg/l]**	**141.862[mg/l]**	**0.003[mg/l]**	**0.009[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***179.558***	***3.124***	***2.327***	***7.669***	***12.236***	***743.153***	***351.966***
Conc SD	***0.000[mg/l]***	***5.766[mg/l]***	***3.301[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	2.095[mg/l]	0.001[mg/l]	0.031[mg/l]	0.039[mg/l]	-0.000[mg/l]	0.004[mg/l]	4452610
Conc 2	2.068[mg/l]	0.001[mg/l]	0.031[mg/l]	0.038[mg/l]	-0.002[mg/l]	-0.000[mg/l]	4430600
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**2.082[mg/l]**	**0.001[mg/l]**	**0.031[mg/l]**	**0.038[mg/l]**	**-0.001[mg/l]**	**0.002[mg/l]**	**4441610**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.934***	***16.204***	***0.779***	***2.934***	***138.266***	***142.772***	***---***
Conc SD	***0.019[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***15563.4***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.171[%]	0.106[mg/l]	<-0.004[mg/l]				
Conc 2	97.698[%]	0.106[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.934[%]**	**0.106[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.342***	***0.347***	***2.230***				
Conc SD	***0.335[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130750-B-1-F | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:35:21 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130750-B-1-F						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.001[mg/l]	0.006[mg/l]	1066770	<-0.002[mg/l]	0.040[mg/l]	0.089[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.002[mg/l]	1077130	<0.002[mg/l]	0.039[mg/l]	0.089[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.004[mg/l]**	**1071950**	**<0.000[mg/l]**	**0.040[mg/l]**	**0.089[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***87.466***	***69.770***	***---***	***3445.41***	***1.444***	***0.367***	***60.237***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***7325.63***	***0.003[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.559[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.001[mg/l]	23459.3	0.006[mg/l]	0.004[mg/l]
Conc 2	0.557[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	25085.7	0.006[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.558[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**24272.5**	**0.006[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.234***	***75.730***	***146.064***	***3.639***	***---***	***0.743***	***11.156***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1150.04***	***0.000[mg/l]***	***0.000[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	1.503[mg/l]	0.001[mg/l]	0.017[mg/l]	0.002[mg/l]	0.001[mg/l]	145.454[mg/l]	0.002[mg/l]
Conc 2	1.397[mg/l]	0.001[mg/l]	0.019[mg/l]	0.002[mg/l]	0.001[mg/l]	134.060[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.450[mg/l]**	**0.001[mg/l]**	**0.018[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**	**139.757[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***5.165***	***8.067***	***6.178***	***1.616***	***6.854***	***5.765***	***14.410***
Conc SD	***0.075[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***8.057[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.003[mg/l]	-0.002[mg/l]	0.001[mg/l]	-0.068[mg/l]	0.001[mg/l]	0.005[mg/l]	0.000[mg/l]
Conc 2	0.003[mg/l]	-0.002[mg/l]	-0.002[mg/l]	-0.069[mg/l]	0.002[mg/l]	0.005[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**-0.002[mg/l]**	**-0.000[mg/l]**	**-0.069[mg/l]**	**0.002[mg/l]**	**0.005[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***18.252***	***4.263***	***671.972***	***1.395***	***10.889***	***0.712***	***70.250***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	-0.006[mg/l]	4435350	97.787[%]	0.072[mg/l]	97.787[%]	
Conc 2	0.002[mg/l]	0.005[mg/l]	4460200	98.330[%]	0.071[mg/l]	98.330[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**-0.001[mg/l]**	**4447780**	**98.058[%]**	**0.072[mg/l]**	**98.058[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***244.419***	***916.041***	***---***	***0.391***	***1.335***	***0.391***	
Conc SD	***0.002[mg/l]***	***0.008[mg/l]***	***17571.6***	***0.384[%]***	***0.001[mg/l]***	***0.384[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.001[mg/l]	0.006[mg/l]	1066770	<-0.002[mg/l]	0.040[mg/l]	0.089[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.002[mg/l]	1077130	<0.002[mg/l]	0.039[mg/l]	0.089[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.004[mg/l]**	**1071950**	**<0.000[mg/l]**	**0.040[mg/l]**	**0.089[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***87.466***	***69.770***	***---***	***3445.41***	***1.444***	***0.367***	***60.237***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***7325.63***	***0.003[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.559[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.001[mg/l]	23459.3	<-0.000[mg/l]	0.004[mg/l]
Conc 2	0.557[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	25085.7	<-0.000[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.558[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**24272.5**	**<-0.000[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.234***	***75.730***	***146.064***	***3.639***	***---***	***54.358***	***11.156***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1150.04***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.939[mg/l]	1.503[mg/l]	<-16.657[mg/l]	0.001[mg/l]	<-0.419[mg/l]	0.017[mg/l]	0.002[mg/l]
Conc 2	<-4.939[mg/l]	1.397[mg/l]	<-16.872[mg/l]	0.001[mg/l]	<-0.419[mg/l]	0.019[mg/l]	0.002[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.939[mg/l]**	**1.450[mg/l]**	**<-16.765[mg/l]**	**0.001[mg/l]**	**<-0.419[mg/l]**	**0.018[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.010***	***5.165***	***0.908***	***8.067***	***0.035***	***6.178***	***1.616***
Conc SD	***0.000[mg/l]***	***0.075[mg/l]***	***0.152[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	>190.522[mg/l]	145.454[mg/l]	0.002[mg/l]	0.003[mg/l]	-0.002[mg/l]	0.001[mg/l]
Conc 2	0.001[mg/l]	>171.889[mg/l]	134.060[mg/l]	0.001[mg/l]	0.003[mg/l]	-0.002[mg/l]	-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**>181.206[mg/l]**	**139.757[mg/l]**	**0.002[mg/l]**	**0.003[mg/l]**	**-0.002[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***6.854***	***7.271***	***5.765***	***14.410***	***18.252***	***4.263***	***671.972***
Conc SD	***0.000[mg/l]***	***13.176[mg/l]***	***8.057[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.068[mg/l]	0.001[mg/l]	0.005[mg/l]	0.000[mg/l]	-0.001[mg/l]	-0.006[mg/l]	4435350
Conc 2	-0.069[mg/l]	0.002[mg/l]	0.005[mg/l]	0.000[mg/l]	0.002[mg/l]	0.005[mg/l]	4460200
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.069[mg/l]**	**0.002[mg/l]**	**0.005[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**4447780**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.395***	***10.889***	***0.712***	***70.250***	***244.419***	***916.041***	***---***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.008[mg/l]***	***17571.6***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.787[%]	0.072[mg/l]	0.006[mg/l]				
Conc 2	98.330[%]	0.071[mg/l]	0.006[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.058[%]**	**0.072[mg/l]**	**0.006[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.391***	***1.335***	***0.743***				
Conc SD	***0.384[%]***	***0.001[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130750-B-1-G MS | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:37:19 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130750-B-1-G MS						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.516[mg/l]	10.236[mg/l]	1108160	1.021[mg/l]	1.064[mg/l]	1.098[mg/l]	0.495[mg/l]
Conc 2	0.512[mg/l]	10.140[mg/l]	1108430	1.030[mg/l]	1.062[mg/l]	1.099[mg/l]	0.496[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.514[mg/l]**	**10.188[mg/l]**	**1108300**	**1.025[mg/l]**	**1.063[mg/l]**	**1.098[mg/l]**	**0.496[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.519***	***0.667***	***---***	***0.653***	***0.136***	***0.025***	***0.144***

Conc SD	***0.003[mg/l]***	***0.068[mg/l]***	***190.919***	***0.007[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	10.570[mg/l]	0.502[mg/l]	1.011[mg/l]	1.004[mg/l]	25086.8	1.035[mg/l]	10.177[mg/l]
Conc 2	10.555[mg/l]	0.501[mg/l]	1.007[mg/l]	1.006[mg/l]	23884.9	1.030[mg/l]	10.069[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**10.562[mg/l]**	**0.501[mg/l]**	**1.009[mg/l]**	**1.005[mg/l]**	**24485.9**	**1.033[mg/l]**	**10.123[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.101***	***0.080***	***0.277***	***0.106***	***---***	***0.363***	***0.750***
Conc SD	***0.011[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***849.872***	***0.004[mg/l]***	***0.076[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	12.032[mg/l]	1.019[mg/l]	10.064[mg/l]	1.031[mg/l]	0.999[mg/l]	146.241[mg/l]	1.000[mg/l]
Conc 2	12.701[mg/l]	1.100[mg/l]	10.038[mg/l]	1.019[mg/l]	0.996[mg/l]	153.034[mg/l]	1.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**12.367[mg/l]**	**1.060[mg/l]**	**10.051[mg/l]**	**1.025[mg/l]**	**0.997[mg/l]**	**149.638[mg/l]**	**1.001[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3.824***	***5.415***	***0.182***	***0.823***	***0.257***	***3.210***	***0.072***
Conc SD	***0.473[mg/l]***	***0.057[mg/l]***	***0.018[mg/l]***	***0.008[mg/l]***	***0.003[mg/l]***	***4.803[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.013[mg/l]	1.006[mg/l]	1.035[mg/l]	0.882[mg/l]	1.001[mg/l]	0.517[mg/l]	0.990[mg/l]
Conc 2	1.017[mg/l]	0.998[mg/l]	1.040[mg/l]	0.881[mg/l]	1.000[mg/l]	0.523[mg/l]	0.992[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.015[mg/l]**	**1.002[mg/l]**	**1.037[mg/l]**	**0.881[mg/l]**	**1.001[mg/l]**	**0.520[mg/l]**	**0.991[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.241***	***0.604***	***0.357***	***0.088***	***0.056***	***0.836***	***0.106***
Conc SD	***0.002[mg/l]***	***0.006[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.996[mg/l]	1.035[mg/l]	4436190	97.840[%]	1.088[mg/l]	97.840[%]	
Conc 2	1.009[mg/l]	1.010[mg/l]	4454320	98.244[%]	1.083[mg/l]	98.244[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**1.002[mg/l]**	**1.022[mg/l]**	**4445260**	**98.042[%]**	**1.085[mg/l]**	**98.042[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.873***	***1.734***	***---***	***0.291***	***0.349***	***0.291***	
Conc SD	***0.009[mg/l]***	***0.018[mg/l]***	***12819.8***	***0.286[%]***	***0.004[mg/l]***	***0.286[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.516[mg/l]	10.236[mg/l]	1108160	1.021[mg/l]	1.064[mg/l]	1.098[mg/l]	0.495[mg/l]
Conc 2	0.512[mg/l]	10.140[mg/l]	1108430	1.030[mg/l]	1.062[mg/l]	1.099[mg/l]	0.496[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.514[mg/l]**	**10.188[mg/l]**	**1108300**	**1.025[mg/l]**	**1.063[mg/l]**	**1.098[mg/l]**	**0.496[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.519***	***0.667***	***---***	***0.653***	***0.136***	***0.025***	***0.144***
Conc SD	***0.003[mg/l]***	***0.068[mg/l]***	***190.919***	***0.007[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	10.570[mg/l]	0.502[mg/l]	1.011[mg/l]	1.004[mg/l]	25086.8	1.035[mg/l]	10.177[mg/l]

Conc 2	10.555[mg/l]	0.501[mg/l]	1.007[mg/l]	1.006[mg/l]	23884.9	1.030[mg/l]	10.069[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**10.562[mg/l]**	**0.501[mg/l]**	**1.009[mg/l]**	**1.005[mg/l]**	**24485.9**	**1.033[mg/l]**	**10.123[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.101***	***0.080***	***0.277***	***0.106***	***---***	***0.363***	***0.750***
Conc SD	***0.011[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***849.872***	***0.004[mg/l]***	***0.076[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<7.708[mg/l]	12.032[mg/l]	<4.571[mg/l]	1.019[mg/l]	<0.823[mg/l]	10.064[mg/l]	1.031[mg/l]
Conc 2	<7.574[mg/l]	12.701[mg/l]	<5.957[mg/l]	1.100[mg/l]	<0.920[mg/l]	10.038[mg/l]	1.019[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<7.641[mg/l]**	**12.367[mg/l]**	**<5.264[mg/l]**	**1.060[mg/l]**	**<0.872[mg/l]**	**10.051[mg/l]**	**1.025[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.233***	***3.824***	***18.614***	***5.415***	***7.890***	***0.182***	***0.823***
Conc SD	***0.094[mg/l]***	***0.473[mg/l]***	***0.980[mg/l]***	***0.057[mg/l]***	***0.069[mg/l]***	***0.018[mg/l]***	***0.008[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.999[mg/l]	>191.914[mg/l]	146.241[mg/l]	1.000[mg/l]	1.013[mg/l]	1.006[mg/l]	1.035[mg/l]
Conc 2	0.996[mg/l]	>203.740[mg/l]	153.034[mg/l]	1.001[mg/l]	1.017[mg/l]	0.998[mg/l]	1.040[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.997[mg/l]**	**>197.827[mg/l]**	**149.638[mg/l]**	**1.001[mg/l]**	**1.015[mg/l]**	**1.002[mg/l]**	**1.037[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.257***	***4.227***	***3.210***	***0.072***	***0.241***	***0.604***	***0.357***
Conc SD	***0.003[mg/l]***	***8.362[mg/l]***	***4.803[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.006[mg/l]***	***0.004[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.882[mg/l]	1.001[mg/l]	0.517[mg/l]	0.990[mg/l]	0.996[mg/l]	1.035[mg/l]	4436190
Conc 2	0.881[mg/l]	1.000[mg/l]	0.523[mg/l]	0.992[mg/l]	1.009[mg/l]	1.010[mg/l]	4454320
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.881[mg/l]**	**1.001[mg/l]**	**0.520[mg/l]**	**0.991[mg/l]**	**1.002[mg/l]**	**1.022[mg/l]**	**4445260**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.088***	***0.056***	***0.836***	***0.106***	***0.873***	***1.734***	***---***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.009[mg/l]***	***0.018[mg/l]***	***12819.8***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.840[%]	1.088[mg/l]	>1.092[mg/l]				
Conc 2	98.244[%]	1.083[mg/l]	>1.082[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.042[%]**	**1.085[mg/l]**	**>1.087[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.291***	***0.349***	***0.637***				
Conc SD	***0.286[%]***	***0.004[mg/l]***	***0.007[mg/l]***				

SPECTRO

Printing Date: 5/17/2016 8:51:16 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: pds 600-130758-A-2-E			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 18:39:17	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
pds 600-130758-A-2-E						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.494[mg/l]	10.105[mg/l]	1123390	1.034[mg/l]	1.051[mg/l]	1.049[mg/l]	0.500[mg/l]
Conc 2	0.495[mg/l]	10.264[mg/l]	1132290	1.030[mg/l]	1.050[mg/l]	1.049[mg/l]	0.503[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.494[mg/l]**	**10.184[mg/l]**	**1127840**	**1.032[mg/l]**	**1.051[mg/l]**	**1.049[mg/l]**	**0.502[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.185***	***1.105***	***---***	***0.308***	***0.115***	***0.016***	***0.289***
Conc SD	***0.001[mg/l]***	***0.113[mg/l]***	***6293.25***	***0.003[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	15.670[mg/l]	0.505[mg/l]	1.020[mg/l]	1.014[mg/l]	21720.2	1.045[mg/l]	10.221[mg/l]
Conc 2	15.723[mg/l]	0.507[mg/l]	1.025[mg/l]	1.018[mg/l]	22448.5	1.036[mg/l]	10.221[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**15.697[mg/l]**	**0.506[mg/l]**	**1.022[mg/l]**	**1.016[mg/l]**	**22084.3**	**1.040[mg/l]**	**10.221[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.238***	***0.235***	***0.317***	***0.244***	***---***	***0.606***	***0.005***
Conc SD	***0.037[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***514.986***	***0.006[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	11.773[mg/l]	1.061[mg/l]	10.943[mg/l]	1.020[mg/l]	0.985[mg/l]	38.371[mg/l]	1.006[mg/l]
Conc 2	11.375[mg/l]	1.038[mg/l]	10.961[mg/l]	1.020[mg/l]	0.982[mg/l]	36.932[mg/l]	1.009[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**11.574[mg/l]**	**1.050[mg/l]**	**10.952[mg/l]**	**1.020[mg/l]**	**0.984[mg/l]**	**37.652[mg/l]**	**1.008[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.433***	***1.551***	***0.120***	***0.026***	***0.195***	***2.702***	***0.207***
Conc SD	***0.282[mg/l]***	***0.016[mg/l]***	***0.013[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***1.017[mg/l]***	***0.002[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.030[mg/l]	0.979[mg/l]	1.019[mg/l]	1.945[mg/l]	0.986[mg/l]	0.553[mg/l]	0.977[mg/l]
Conc 2	1.032[mg/l]	0.977[mg/l]	1.027[mg/l]	1.942[mg/l]	0.989[mg/l]	0.554[mg/l]	0.978[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.031[mg/l]**	**0.978[mg/l]**	**1.023[mg/l]**	**1.944[mg/l]**	**0.988[mg/l]**	**0.553[mg/l]**	**0.978[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.115***	***0.140***	***0.561***	***0.116***	***0.195***	***0.128***	***0.071***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.006[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	1.010[mg/l]	1.041[mg/l]	4428930	97.659[%]	1.019[mg/l]	97.659[%]	
Conc 2	0.996[mg/l]	1.047[mg/l]	4416690	97.411[%]	1.016[mg/l]	97.411[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**1.003[mg/l]**	**1.044[mg/l]**	**4422810**	**97.535[%]**	**1.017[mg/l]**	**97.535[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.971***	***0.407***	***---***	***0.180***	***0.232***	***0.180***	
Conc SD	***0.010[mg/l]***	***0.004[mg/l]***	***8654.99***	***0.175[%]***	***0.002[mg/l]***	***0.175[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.494[mg/l]	10.105[mg/l]	1123390	1.034[mg/l]	1.051[mg/l]	1.049[mg/l]	0.500[mg/l]
Conc 2	0.495[mg/l]	10.264[mg/l]	1132290	1.030[mg/l]	1.050[mg/l]	1.049[mg/l]	0.503[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.494[mg/l]**	**10.184[mg/l]**	**1127840**	**1.032[mg/l]**	**1.051[mg/l]**	**1.049[mg/l]**	**0.502[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.185***	***1.105***	***---***	***0.308***	***0.115***	***0.016***	***0.289***
Conc SD	***0.001[mg/l]***	***0.113[mg/l]***	***6293.25***	***0.003[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	15.670[mg/l]	0.505[mg/l]	1.020[mg/l]	1.014[mg/l]	21720.2	1.045[mg/l]	10.221[mg/l]
Conc 2	15.723[mg/l]	0.507[mg/l]	1.025[mg/l]	1.018[mg/l]	22448.5	1.036[mg/l]	10.221[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**15.697[mg/l]**	**0.506[mg/l]**	**1.022[mg/l]**	**1.016[mg/l]**	**22084.3**	**1.040[mg/l]**	**10.221[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.238***	***0.235***	***0.317***	***0.244***	***---***	***0.606***	***0.005***
Conc SD	***0.037[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***514.986***	***0.006[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<7.764[mg/l]	11.773[mg/l]	<4.142[mg/l]	1.061[mg/l]	<0.876[mg/l]	10.943[mg/l]	1.020[mg/l]
Conc 2	<7.763[mg/l]	11.375[mg/l]	<3.296[mg/l]	1.038[mg/l]	<0.847[mg/l]	10.961[mg/l]	1.020[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<7.763[mg/l]**	**11.574[mg/l]**	**<3.719[mg/l]**	**1.050[mg/l]**	**<0.861[mg/l]**	**10.952[mg/l]**	**1.020[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.010***	***2.433***	***16.095***	***1.551***	***2.380***	***0.120***	***0.026***
Conc SD	***0.001[mg/l]***	***0.282[mg/l]***	***0.599[mg/l]***	***0.016[mg/l]***	***0.021[mg/l]***	***0.013[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.985[mg/l]	>39.311[mg/l]	38.371[mg/l]	1.006[mg/l]	1.030[mg/l]	0.979[mg/l]	1.019[mg/l]
Conc 2	0.982[mg/l]	>37.819[mg/l]	36.932[mg/l]	1.009[mg/l]	1.032[mg/l]	0.977[mg/l]	1.027[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.984[mg/l]**	**>38.565[mg/l]**	**37.652[mg/l]**	**1.008[mg/l]**	**1.031[mg/l]**	**0.978[mg/l]**	**1.023[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.195***	***2.736***	***2.702***	***0.207***	***0.115***	***0.140***	***0.561***
Conc SD	***0.002[mg/l]***	***1.055[mg/l]***	***1.017[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.006[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	1.945[mg/l]	0.986[mg/l]	0.553[mg/l]	0.977[mg/l]	1.010[mg/l]	1.041[mg/l]	4428930
Conc 2	1.942[mg/l]	0.989[mg/l]	0.554[mg/l]	0.978[mg/l]	0.996[mg/l]	1.047[mg/l]	4416690
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**1.944[mg/l]**	**0.988[mg/l]**	**0.553[mg/l]**	**0.978[mg/l]**	**1.003[mg/l]**	**1.044[mg/l]**	**4422810**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.116***	***0.195***	***0.128***	***0.071***	***0.971***	***0.407***	***---***

Conc SD	***0.002[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.010[mg/l]***	***0.004[mg/l]***	***8654.99***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.659[%]	1.019[mg/l]	>1.063[mg/l]				
Conc 2	97.411[%]	1.016[mg/l]	>1.062[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.535[%]**	**1.017[mg/l]**	**>1.062[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.180***	***0.232***	***0.065***				
Conc SD	***0.175[%]***	***0.002[mg/l]***	***0.001[mg/l]***				

Sample Name: CCV | Sample Type: Control Sample

Measure Date: 2016-05-16 18:41:16 | Recalculation Date: | State: Check failed | Quality: Failed | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCV						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.248[mg/l]	2.497[mg/l]	1106360	0.482[mg/l]	0.508[mg/l]	0.495[mg/l]	0.485[mg/l]
Conc 2	0.248[mg/l]	2.526[mg/l]	1111310	0.494[mg/l]	0.502[mg/l]	0.492[mg/l]	0.493[mg/l]
Conc MinRange	*90.000*	*90.000*	---	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.248[mg/l]**	**2.512[mg/l]**	**1108840**	**0.488[mg/l]**	**0.505[mg/l]**	**0.493[mg/l]**	**0.489[mg/l]**
Conc MaxRange	*110.000*	*110.000*	---	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***0.170***	***0.821***	***---***	***1.742***	***0.865***	***0.336***	***1.099***
Conc SD	***0.000[mg/l]***	***0.021[mg/l]***	***3500.18***	***0.008[mg/l]***	***0.004[mg/l]***	***0.002[mg/l]***	***0.005[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	12.352[mg/l]	0.494[mg/l]	0.506[mg/l]	0.510[mg/l]	21668.1	0.507[mg/l]	2.567[mg/l]
Conc 2	12.553[mg/l]	0.490[mg/l]	0.508[mg/l]	0.512[mg/l]	22331.2	0.511[mg/l]	2.568[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	---	*90.000*	*90.000*
Conc Mean	**12.453[mg/l]**	**0.492[mg/l]**	**0.507[mg/l]**	**0.511[mg/l]**	**21999.7**	**0.509[mg/l]**	**2.567[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	---	*110.000*	*110.000*
Conc RSD	***1.143***	***0.523***	***0.301***	***0.332***	***---***	***0.553***	***0.024***
Conc SD	***0.142[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***468.883***	***0.003[mg/l]***	***0.001[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	20.561[mg/l]	2.044[mg/l]	4.842[mg/l]	0.500[mg/l]	0.514[mg/l]	20.299[mg/l]	0.500[mg/l]
Conc 2	18.602[mg/l]	1.862[mg/l]	4.845[mg/l]	0.499[mg/l]	0.520[mg/l]	19.344[mg/l]	0.502[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**19.581[mg/l]**	**1.953[mg/l]**	**4.844[mg/l]**	**0.500[mg/l]**	**0.517[mg/l]**	**19.822[mg/l]**	**0.501[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***7.076***	***6.591***	***0.042***	***0.213***	***0.812***	***3.407***	***0.323***
Conc SD	***1.386[mg/l]***	***0.129[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.004[mg/l]***	***0.675[mg/l]***	***0.002[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.511[mg/l]	0.500[mg/l]	0.507[mg/l]	0.796[mg/l]	0.502[mg/l]	0.254[mg/l]	0.488[mg/l]

Conc 2	0.514[mg/l]	0.504[mg/l]	0.517[mg/l]	0.815[mg/l]	0.506[mg/l]	0.255[mg/l]	0.495[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.513[mg/l]**	**0.502[mg/l]**	**0.512[mg/l]**	**<0.806[mg/l]**	**0.504[mg/l]**	**0.255[mg/l]**	**0.491[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***0.486***	***0.671***	***1.379***	***1.668***	***0.594***	***0.292***	***0.954***
Conc SD	***0.002[mg/l]***	***0.003[mg/l]***	***0.007[mg/l]***	***0.013[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.500[mg/l]	0.506[mg/l]	4390900	96.840[%]	0.492[mg/l]	96.840[%]	
Conc 2	0.506[mg/l]	0.513[mg/l]	4358100	96.091[%]	0.489[mg/l]	96.091[%]	
Conc MinRange	*90.000*	*90.000*	---	---	*90.000*	---	
Conc Mean	**0.503[mg/l]**	**0.509[mg/l]**	**4374500**	**96.466[%]**	**0.490[mg/l]**	**96.466[%]**	
Conc MaxRange	*110.000*	*110.000*	---	---	*110.000*	---	
Conc RSD	***0.737***	***0.935***	***---***	***0.549***	***0.435***	***0.549***	
Conc SD	***0.004[mg/l]***	***0.005[mg/l]***	***23193.1***	***0.529[%]***	***0.002[mg/l]***	***0.529[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.248[mg/l]	2.497[mg/l]	1106360	0.482[mg/l]	0.508[mg/l]	0.495[mg/l]	0.485[mg/l]
Conc 2	0.248[mg/l]	2.526[mg/l]	1111310	0.494[mg/l]	0.502[mg/l]	0.492[mg/l]	0.493[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.248[mg/l]**	**2.512[mg/l]**	**1108840**	**0.488[mg/l]**	**0.505[mg/l]**	**0.493[mg/l]**	**0.489[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.170***	***0.821***	***---***	***1.742***	***0.865***	***0.336***	***1.099***
Conc SD	***0.000[mg/l]***	***0.021[mg/l]***	***3500.18***	***0.008[mg/l]***	***0.004[mg/l]***	***0.002[mg/l]***	***0.005[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	12.352[mg/l]	0.494[mg/l]	0.506[mg/l]	0.510[mg/l]	21668.1	<0.503[mg/l]	2.567[mg/l]
Conc 2	12.553[mg/l]	0.490[mg/l]	0.508[mg/l]	0.512[mg/l]	22331.2	<0.505[mg/l]	2.568[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.453[mg/l]**	**0.492[mg/l]**	**0.507[mg/l]**	**0.511[mg/l]**	**21999.7**	**<0.504[mg/l]**	**2.567[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.143***	***0.523***	***0.301***	***0.332***	***---***	***0.186***	***0.024***
Conc SD	***0.142[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***468.883***	***0.001[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.752[mg/l]	19.958[mg/l]	20.561[mg/l]	2.025[mg/l]	2.044[mg/l]	4.842[mg/l]	0.500[mg/l]
Conc 2	<-1.751[mg/l]	19.000[mg/l]	18.602[mg/l]	1.875[mg/l]	1.862[mg/l]	4.845[mg/l]	0.499[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.751[mg/l]**	**19.479[mg/l]**	**19.581[mg/l]**	**1.950[mg/l]**	**1.953[mg/l]**	**4.844[mg/l]**	**0.500[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.042***	***3.478***	***7.076***	***5.442***	***6.591***	***0.042***	***0.213***
Conc SD	***0.001[mg/l]***	***0.677[mg/l]***	***1.386[mg/l]***	***0.106[mg/l]***	***0.129[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.514[mg/l]	20.318[mg/l]	20.299[mg/l]	0.500[mg/l]	0.511[mg/l]	0.500[mg/l]	0.507[mg/l]
Conc 2	0.520[mg/l]	19.515[mg/l]	19.344[mg/l]	0.502[mg/l]	0.514[mg/l]	0.504[mg/l]	0.517[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.517[mg/l]**	**19.916[mg/l]**	**19.822[mg/l]**	**0.501[mg/l]**	**0.513[mg/l]**	**0.502[mg/l]**	**0.512[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***0.812***	***2.850***	***3.407***	***0.323***	***0.486***	***0.671***	***1.379***
Conc SD	***0.004[mg/l]***	***0.568[mg/l]***	***0.675[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.003[mg/l]***	***0.007[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.796[mg/l]	0.502[mg/l]	0.254[mg/l]	0.488[mg/l]	0.500[mg/l]	0.506[mg/l]	4390900
Conc 2	0.815[mg/l]	0.506[mg/l]	0.255[mg/l]	0.495[mg/l]	0.506[mg/l]	0.513[mg/l]	4358100
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.806[mg/l]**	**0.504[mg/l]**	**0.255[mg/l]**	**0.491[mg/l]**	**0.503[mg/l]**	**0.509[mg/l]**	**4374500**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.668***	***0.594***	***0.292***	***0.954***	***0.737***	***0.935***	***---***
Conc SD	***0.013[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***	***0.004[mg/l]***	***0.005[mg/l]***	***23193.1***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.840[%]	0.492[mg/l]	0.507[mg/l]				
Conc 2	96.091[%]	0.489[mg/l]	0.511[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.466[%]**	**0.490[mg/l]**	**0.509[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.549***	***0.435***	***0.553***				
Conc SD	***0.529[%]***	***0.002[mg/l]***	***0.003[mg/l]***				

Sample Name: CCB | Sample Type: Control Sample

Measure Date: 2016-05-16 18:43:19 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	0.013[mg/l]	1068330	<0.001[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.013[mg/l]	1085930	<-0.000[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.000[mg/l]**	**0.013[mg/l]**	**1077130**	**<0.000[mg/l]**	**0.003[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***1095.18***	***0.155***	***---***	***219.127***	***14.418***	***5.360***	***12.022***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***12445.1***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.024[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	20878.0	<-0.005[mg/l]	0.002[mg/l]
Conc 2	0.019[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20178.3	<-0.005[mg/l]	0.002[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.021[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**20528.2**	**<-0.005[mg/l]**	**0.002[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***15.555***	***55.108***	***3601.63***	***229.156***	***---***	***5.393***	***0.006***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***494.763***	***0.000[mg/l]***	***0.000[mg/l]***

SPECTRO

Printing Date: 5/17/2016 8:51:18 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.011[mg/l]	0.001[mg/l]	0.007[mg/l]	0.000[mg/l]	0.002[mg/l]	<0.062[mg/l]	-0.001[mg/l]
Conc 2	0.013[mg/l]	0.001[mg/l]	0.005[mg/l]	0.000[mg/l]	0.001[mg/l]	<0.122[mg/l]	-0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.012[mg/l]**	**0.001[mg/l]**	**0.006[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**<0.092[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***11.080***	***1.874***	***25.790***	***5.147***	***26.749***	***46.214***	***55.098***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.042[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.001[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.107[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc 2	0.002[mg/l]	0.001[mg/l]	-0.002[mg/l]	-0.104[mg/l]	0.002[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.001[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**	**-0.106[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***61.086***	***300.443***	***140.849***	***1.621***	***64.248***	***1.938***	***7.721***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.005[mg/l]	-0.000[mg/l]	4483850	98.855[%]	0.001[mg/l]	98.855[%]	
Conc 2	0.003[mg/l]	0.002[mg/l]	4491950	99.054[%]	0.001[mg/l]	99.054[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.004[mg/l]**	**0.001[mg/l]**	**4487900**	**98.954[%]**	**0.001[mg/l]**	**98.954[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***39.548***	***214.226***	***---***	***0.142***	***1.323***	***0.142***	
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***5727.56***	***0.140[%]***	***0.000[mg/l]***	***0.140[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	0.013[mg/l]	1068330	<0.001[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.013[mg/l]	1085930	<-0.000[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.013[mg/l]**	**1077130**	**<0.000[mg/l]**	**0.003[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1095.18***	***0.155***	***---***	***219.127***	***14.418***	***5.360***	***12.022***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***12445.1***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.024[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	20878.0	<-0.009[mg/l]	0.002[mg/l]
Conc 2	0.019[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20178.3	<-0.009[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.021[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**20528.2**	**<-0.009[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***15.555***	***55.108***	***3601.63***	***229.156***	***---***	***4.745***	***0.006***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***494.763***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.941[mg/l]	0.011[mg/l]	<-19.688[mg/l]	0.001[mg/l]	<-0.419[mg/l]	0.007[mg/l]	0.000[mg/l]
Conc 2	<-4.941[mg/l]	0.013[mg/l]	<-19.688[mg/l]	0.001[mg/l]	<-0.419[mg/l]	0.005[mg/l]	0.000[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.941[mg/l]**	**0.012[mg/l]**	**<-19.688[mg/l]**	**0.001[mg/l]**	**<-0.419[mg/l]**	**0.006[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.004***	***11.080***	***0.003***	***1.874***	***0.006***	***25.790***	***5.147***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.002[mg/l]	<0.062[mg/l]	<-1.296[mg/l]	-0.001[mg/l]	0.001[mg/l]	-0.000[mg/l]	-0.000[mg/l]
Conc 2	0.001[mg/l]	<0.122[mg/l]	<-0.981[mg/l]	-0.000[mg/l]	0.002[mg/l]	0.001[mg/l]	-0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**<0.092[mg/l]**	**<-1.138[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***26.749***	***46.214***	***19.564***	***55.098***	***61.086***	***300.443***	***140.849***
Conc SD	***0.000[mg/l]***	***0.042[mg/l]***	***0.223[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.107[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.005[mg/l]	-0.000[mg/l]	4483850
Conc 2	-0.104[mg/l]	0.002[mg/l]	0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	0.002[mg/l]	4491950
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.106[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.004[mg/l]**	**0.001[mg/l]**	**4487900**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.621***	***64.248***	***1.938***	***7.721***	***39.548***	***214.226***	***---***
Conc SD	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***5727.56***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.855[%]	0.001[mg/l]	<-0.005[mg/l]				
Conc 2	99.054[%]	0.001[mg/l]	<-0.005[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.954[%]**	**0.001[mg/l]**	**<-0.005[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.142***	***1.323***	***5.393***				
Conc SD	***0.140[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: sd 600-130758-A-2-E@5 | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:45:22 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
sd 600-130758-A-2-E@5						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.001[mg/l]	-0.001[mg/l]	1086740	<-0.002[mg/l]	0.006[mg/l]	0.005[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.003[mg/l]	1080920	<-0.001[mg/l]	0.006[mg/l]	0.005[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.002[mg/l]**	**1083830**	**<-0.001[mg/l]**	**0.006[mg/l]**	**0.005[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***48.718***	***46.268***	***---***	***55.734***	***1.078***	***0.932***	***14.984***

Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***4115.36***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	1.118[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	20770.2	<-0.005[mg/l]	<-0.001[mg/l]
Conc 2	1.128[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20562.7	<-0.004[mg/l]	<-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**1.123[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**20666.5**	**<-0.004[mg/l]**	**<-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.664***	***21.129***	***85.752***	***755.588***	***---***	***8.312***	***29.726***
Conc SD	***0.007[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***146.725***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.138[mg/l]	0.000[mg/l]	0.168[mg/l]	0.001[mg/l]	0.001[mg/l]	4.940[mg/l]	0.000[mg/l]
Conc 2	0.140[mg/l]	0.000[mg/l]	0.167[mg/l]	0.001[mg/l]	0.001[mg/l]	5.016[mg/l]	-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.139[mg/l]**	**0.000[mg/l]**	**0.167[mg/l]**	**0.001[mg/l]**	**0.001[mg/l]**	**4.978[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.597***	***27.655***	***0.384***	***1.208***	***5.664***	***1.080***	***169.815***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.054[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.000[mg/l]	0.002[mg/l]	-0.003[mg/l]	0.107[mg/l]	-0.000[mg/l]	0.009[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.001[mg/l]	-0.003[mg/l]	0.105[mg/l]	-0.001[mg/l]	0.009[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.002[mg/l]**	**-0.003[mg/l]**	**0.106[mg/l]**	**-0.001[mg/l]**	**0.009[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***16761.0***	***48.828***	***10.811***	***1.449***	***61.163***	***0.726***	***60.173***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.001[mg/l]	0.005[mg/l]	4430750	97.677[%]	0.002[mg/l]	97.677[%]	
Conc 2	0.002[mg/l]	-0.000[mg/l]	4430850	97.697[%]	0.002[mg/l]	97.697[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**0.002[mg/l]**	**4430800**	**97.687[%]**	**0.002[mg/l]**	**97.687[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***45.370***	***168.777***	***---***	***0.015***	***0.936***	***0.015***	
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***70.711***	***0.014[%]***	***0.000[mg/l]***	***0.014[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.001[mg/l]	-0.001[mg/l]	1086740	<-0.002[mg/l]	0.006[mg/l]	0.005[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	-0.003[mg/l]	1080920	<-0.001[mg/l]	0.006[mg/l]	0.005[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**-0.002[mg/l]**	**1083830**	**<-0.001[mg/l]**	**0.006[mg/l]**	**0.005[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***48.718***	***46.268***	***---***	***55.734***	***1.078***	***0.932***	***14.984***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***4115.36***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	1.118[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	20770.2	<-0.010[mg/l]	<-0.001[mg/l]

Conc 2	1.128[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.000[mg/l]	20562.7	<-0.010[mg/l]	<-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**1.123[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**20666.5**	**<-0.010[mg/l]**	**<-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.664***	***21.129***	***85.752***	***755.588***	***---***	***2.631***	***29.726***
Conc SD	***0.007[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***146.725***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.945[mg/l]	0.138[mg/l]	<-19.432[mg/l]	0.000[mg/l]	<-0.420[mg/l]	0.168[mg/l]	0.001[mg/l]
Conc 2	<-4.944[mg/l]	0.140[mg/l]	<-19.431[mg/l]	0.000[mg/l]	<-0.420[mg/l]	0.167[mg/l]	0.001[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.944[mg/l]**	**0.139[mg/l]**	**<-19.432[mg/l]**	**0.000[mg/l]**	**<-0.420[mg/l]**	**0.167[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.004***	***0.597***	***0.004***	***27.655***	***0.006***	***0.384***	***1.208***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.001[mg/l]	4.940[mg/l]	<4.207[mg/l]	0.000[mg/l]	-0.000[mg/l]	0.002[mg/l]	-0.003[mg/l]
Conc 2	0.001[mg/l]	5.016[mg/l]	<4.308[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	-0.003[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**4.978[mg/l]**	**<4.257[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**-0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***5.664***	***1.080***	***1.687***	***169.815***	***16761.0***	***48.828***	***10.811***
Conc SD	***0.000[mg/l]***	***0.054[mg/l]***	***0.072[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.107[mg/l]	-0.000[mg/l]	0.009[mg/l]	0.000[mg/l]	0.001[mg/l]	0.005[mg/l]	4430750
Conc 2	0.105[mg/l]	-0.001[mg/l]	0.009[mg/l]	0.001[mg/l]	0.002[mg/l]	-0.000[mg/l]	4430850
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.106[mg/l]**	**-0.001[mg/l]**	**0.009[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.002[mg/l]**	**4430800**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.449***	***61.163***	***0.726***	***60.173***	***45.370***	***168.777***	***---***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***70.711***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.677[%]	0.002[mg/l]	<-0.005[mg/l]				
Conc 2	97.697[%]	0.002[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**97.687[%]**	**0.002[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.015***	***0.936***	***8.312***				
Conc SD	***0.014[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

SPECTRO

Printing Date: 5/17/2016 8:51:19 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: ccvl 2196761			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 18:47:22	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
ccvl 2196761						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.010[mg/l]	0.502[mg/l]	1055250	0.020[mg/l]	0.197[mg/l]	0.021[mg/l]	0.010[mg/l]
Conc 2	0.010[mg/l]	0.493[mg/l]	1100980	0.017[mg/l]	0.195[mg/l]	0.021[mg/l]	0.010[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.010[mg/l]**	**0.497[mg/l]**	**1078110**	**0.019[mg/l]**	**0.196[mg/l]**	**0.021[mg/l]**	**0.010[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.892***	***1.313***	***---***	***11.784***	***0.658***	***0.898***	***0.256***
Conc SD	***0.000[mg/l]***	***0.007[mg/l]***	***32336.0***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.988[mg/l]	0.011[mg/l]	0.022[mg/l]	0.021[mg/l]	20940.9	0.016[mg/l]	0.214[mg/l]
Conc 2	1.003[mg/l]	0.011[mg/l]	0.021[mg/l]	0.021[mg/l]	20889.6	0.016[mg/l]	0.210[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.995[mg/l]**	**0.011[mg/l]**	**0.021[mg/l]**	**0.021[mg/l]**	**20915.2**	**0.016[mg/l]**	**0.212[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.094***	***0.175***	***1.523***	***0.255***	***---***	***3.197***	***1.338***
Conc SD	***0.011[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***36.275***	***0.001[mg/l]***	***0.003[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	1.054[mg/l]	0.021[mg/l]	0.985[mg/l]	0.021[mg/l]	0.022[mg/l]	0.992[mg/l]	0.021[mg/l]
Conc 2	1.047[mg/l]	0.021[mg/l]	0.985[mg/l]	0.021[mg/l]	0.022[mg/l]	0.969[mg/l]	0.020[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.050[mg/l]**	**0.021[mg/l]**	**0.985[mg/l]**	**0.021[mg/l]**	**0.022[mg/l]**	**0.980[mg/l]**	**0.021[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.498***	***0.159***	***0.023***	***0.772***	***0.137***	***1.608***	***2.743***
Conc SD	***0.005[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.016[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.021[mg/l]	0.020[mg/l]	0.023[mg/l]	0.076[mg/l]	0.022[mg/l]	0.011[mg/l]	0.021[mg/l]
Conc 2	0.021[mg/l]	0.021[mg/l]	0.021[mg/l]	0.065[mg/l]	0.021[mg/l]	0.011[mg/l]	0.020[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.021[mg/l]**	**0.020[mg/l]**	**0.022[mg/l]**	**0.070[mg/l]**	**0.021[mg/l]**	**0.011[mg/l]**	**0.020[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.659***	***0.887***	***4.383***	***10.244***	***1.556***	***0.959***	***0.785***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.020[mg/l]	0.018[mg/l]	4442370	97.943[%]	0.022[mg/l]	97.943[%]	
Conc 2	0.022[mg/l]	0.016[mg/l]	4501820	99.266[%]	0.021[mg/l]	99.266[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.021[mg/l]**	**0.017[mg/l]**	**4472100**	**98.605[%]**	**0.021[mg/l]**	**98.605[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***7.558***	***9.447***	***---***	***0.949***	***1.225***	***0.949***	
Conc SD	***0.002[mg/l]***	***0.002[mg/l]***	***42037.5***	***0.935[%]***	***0.000[mg/l]***	***0.935[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.010[mg/l]	0.502[mg/l]	1055250	0.020[mg/l]	0.197[mg/l]	0.021[mg/l]	0.010[mg/l]
Conc 2	0.010[mg/l]	0.493[mg/l]	1100980	0.017[mg/l]	0.195[mg/l]	0.021[mg/l]	0.010[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.010[mg/l]**	**0.497[mg/l]**	**1078110**	**0.019[mg/l]**	**0.196[mg/l]**	**0.021[mg/l]**	**0.010[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.892***	***1.313***	***---***	***11.784***	***0.658***	***0.898***	***0.256***
Conc SD	***0.000[mg/l]***	***0.007[mg/l]***	***32336.0***	***0.002[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.988[mg/l]	0.011[mg/l]	0.022[mg/l]	0.021[mg/l]	20940.9	<0.012[mg/l]	0.214[mg/l]
Conc 2	1.003[mg/l]	0.011[mg/l]	0.021[mg/l]	0.021[mg/l]	20889.6	<0.012[mg/l]	0.210[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.995[mg/l]**	**0.011[mg/l]**	**0.021[mg/l]**	**0.021[mg/l]**	**20915.2**	**<0.012[mg/l]**	**0.212[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.094***	***0.175***	***1.523***	***0.255***	***---***	***1.515***	***1.338***
Conc SD	***0.011[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***36.275***	***0.000[mg/l]***	***0.003[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.678[mg/l]	1.054[mg/l]	<-17.575[mg/l]	0.021[mg/l]	<-0.394[mg/l]	0.985[mg/l]	0.021[mg/l]
Conc 2	<-4.683[mg/l]	1.047[mg/l]	<-17.586[mg/l]	0.021[mg/l]	<-0.394[mg/l]	0.985[mg/l]	0.021[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.681[mg/l]**	**1.050[mg/l]**	**<-17.580[mg/l]**	**0.021[mg/l]**	**<-0.394[mg/l]**	**0.985[mg/l]**	**0.021[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.076***	***0.498***	***0.044***	***0.159***	***0.013***	***0.023***	***0.772***
Conc SD	***0.004[mg/l]***	***0.005[mg/l]***	***0.008[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.022[mg/l]	0.992[mg/l]	<-0.466[mg/l]	0.021[mg/l]	0.021[mg/l]	0.020[mg/l]	0.023[mg/l]
Conc 2	0.022[mg/l]	0.969[mg/l]	<-0.248[mg/l]	0.020[mg/l]	0.021[mg/l]	0.021[mg/l]	0.021[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.022[mg/l]**	**0.980[mg/l]**	**<-0.357[mg/l]**	**0.021[mg/l]**	**0.021[mg/l]**	**0.020[mg/l]**	**0.022[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.137***	***1.608***	***43.144***	***2.743***	***0.659***	***0.887***	***4.383***
Conc SD	***0.000[mg/l]***	***0.016[mg/l]***	***0.154[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.076[mg/l]	0.022[mg/l]	0.011[mg/l]	0.021[mg/l]	0.020[mg/l]	0.018[mg/l]	4442370
Conc 2	0.065[mg/l]	0.021[mg/l]	0.011[mg/l]	0.020[mg/l]	0.022[mg/l]	0.016[mg/l]	4501820
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.070[mg/l]**	**0.021[mg/l]**	**0.011[mg/l]**	**0.020[mg/l]**	**0.021[mg/l]**	**0.017[mg/l]**	**4472100**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***10.244***	***1.556***	***0.959***	***0.785***	***7.558***	***9.447***	***---***

Conc SD	***0.007[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***42037.5***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	97.943[%]	0.022[mg/l]	0.016[mg/l]				
Conc 2	99.266[%]	0.021[mg/l]	0.016[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.605[%]**	**0.021[mg/l]**	**0.016[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.949***	***1.225***	***3.197***				
Conc SD	***0.935[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130764-B-7-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:49:21 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130764-B-7-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.003[mg/l]	0.259[mg/l]	1043030	0.006[mg/l]	0.129[mg/l]	0.199[mg/l]	0.000[mg/l]
Conc 2	0.003[mg/l]	0.255[mg/l]	1048220	<-0.001[mg/l]	0.127[mg/l]	0.196[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**0.257[mg/l]**	**1045620**	**0.003[mg/l]**	**0.128[mg/l]**	**0.198[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***6.626***	***1.167***	***---***	***184.775***	***1.131***	***1.075***	***22.708***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***3669.88***	***0.005[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	136.543[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.024[mg/l]	31131.5	0.010[mg/l]	0.484[mg/l]
Conc 2	134.841[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.024[mg/l]	32523.6	0.008[mg/l]	0.478[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**135.692[mg/l]**	**-0.000[mg/l]**	**0.003[mg/l]**	**0.024[mg/l]**	**31827.5**	**0.009[mg/l]**	**0.481[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.887***	***25.771***	***0.127***	***0.101***	***---***	***11.225***	***0.838***
Conc SD	***1.204[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***984.363***	***0.001[mg/l]***	***0.004[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	13.799[mg/l]	0.010[mg/l]	16.145[mg/l]	0.247[mg/l]	0.013[mg/l]	>1069.04[mg/l]	0.005[mg/l]
Conc 2	13.246[mg/l]	0.010[mg/l]	15.901[mg/l]	0.243[mg/l]	0.012[mg/l]	>1025.06[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**13.522[mg/l]**	**0.010[mg/l]**	**16.023[mg/l]**	**0.245[mg/l]**	**0.012[mg/l]**	**>1047.05[mg/l]**	**0.005[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.890***	***3.528***	***1.079***	***1.076***	***1.313***	***2.970***	***6.698***
Conc SD	***0.391[mg/l]***	***0.000[mg/l]***	***0.173[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***31.099[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.005[mg/l]	-0.002[mg/l]	0.004[mg/l]	6.085[mg/l]	0.023[mg/l]	0.879[mg/l]	0.005[mg/l]

Conc 2	0.003[mg/l]	-0.001[mg/l]	0.002[mg/l]	5.955[mg/l]	0.021[mg/l]	0.867[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.004[mg/l]**	**-0.001[mg/l]**	**0.003[mg/l]**	**6.020[mg/l]**	**0.022[mg/l]**	**0.873[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***28.441***	***45.177***	***37.609***	***1.537***	***8.117***	***0.984***	***14.820***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.093[mg/l]***	***0.002[mg/l]***	***0.009[mg/l]***	***0.001[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.004[mg/l]	0.011[mg/l]	3835380	84.588[%]	0.086[mg/l]	84.588[%]	
Conc 2	0.003[mg/l]	0.011[mg/l]	3919710	86.443[%]	0.084[mg/l]	86.443[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.004[mg/l]**	**0.011[mg/l]**	**3877550**	**85.516[%]**	**0.085[mg/l]**	**85.516[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***18.896***	***0.294***	***---***	***1.534***	***1.638***	***1.534***	
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***59630.3***	***1.312[%]***	***0.001[mg/l]***	***1.312[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.003[mg/l]	0.259[mg/l]	1043030	0.006[mg/l]	0.129[mg/l]	0.199[mg/l]	0.000[mg/l]
Conc 2	0.003[mg/l]	0.255[mg/l]	1048220	<-0.001[mg/l]	0.127[mg/l]	0.196[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.003[mg/l]**	**0.257[mg/l]**	**1045620**	**<0.003[mg/l]**	**0.128[mg/l]**	**0.198[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***6.626***	***1.167***	***---***	***184.775***	***1.131***	***1.075***	***22.708***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***3669.88***	***0.005[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	136.543[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.024[mg/l]	31131.5	<-0.006[mg/l]	0.484[mg/l]
Conc 2	134.841[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.024[mg/l]	32523.6	<-0.007[mg/l]	0.478[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**135.692[mg/l]**	**-0.000[mg/l]**	**0.003[mg/l]**	**0.024[mg/l]**	**31827.5**	**<-0.007[mg/l]**	**0.481[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.887***	***25.771***	***0.127***	***0.101***	***---***	***8.013***	***0.838***
Conc SD	***1.204[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***984.363***	***0.001[mg/l]***	***0.004[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.340[mg/l]	13.799[mg/l]	<8.192[mg/l]	0.010[mg/l]	<-0.408[mg/l]	16.145[mg/l]	0.247[mg/l]
Conc 2	<-4.347[mg/l]	13.246[mg/l]	<7.087[mg/l]	0.010[mg/l]	<-0.408[mg/l]	15.901[mg/l]	0.243[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.344[mg/l]**	**13.522[mg/l]**	**<7.639[mg/l]**	**0.010[mg/l]**	**<-0.408[mg/l]**	**16.023[mg/l]**	**0.245[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.116***	***2.890***	***10.228***	***3.528***	***0.120***	***1.079***	***1.076***
Conc SD	***0.005[mg/l]***	***0.391[mg/l]***	***0.781[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.173[mg/l]***	***0.003[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.013[mg/l]	>4179.65[mg/l]	>1069.04[mg/l]	0.005[mg/l]	0.005[mg/l]	-0.002[mg/l]	0.004[mg/l]
Conc 2	0.012[mg/l]	>3876.89[mg/l]	>1025.06[mg/l]	0.004[mg/l]	0.003[mg/l]	-0.001[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.012[mg/l]**	**>4028.27[mg/l]**	**>1047.05[mg/l]**	**0.005[mg/l]**	**0.004[mg/l]**	**-0.001[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***1.313***	***5.315***	***2.970***	***6.698***	***28.441***	***45.177***	***37.609***
Conc SD	***0.000[mg/l]***	***214.084[mg/l]***	***31.099[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	6.085[mg/l]	0.023[mg/l]	0.879[mg/l]	0.005[mg/l]	0.004[mg/l]	0.011[mg/l]	3835380
Conc 2	5.955[mg/l]	0.021[mg/l]	0.867[mg/l]	0.004[mg/l]	0.003[mg/l]	0.011[mg/l]	3919710
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**6.020[mg/l]**	**0.022[mg/l]**	**0.873[mg/l]**	**0.004[mg/l]**	**0.004[mg/l]**	**0.011[mg/l]**	**3877550**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.537***	***8.117***	***0.984***	***14.820***	***18.896***	***0.294***	***---***
Conc SD	***0.093[mg/l]***	***0.002[mg/l]***	***0.009[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***59630.3***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	84.588[%]	0.086[mg/l]	0.010[mg/l]				
Conc 2	86.443[%]	0.084[mg/l]	0.008[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**85.516[%]**	**0.085[mg/l]**	**0.009[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***1.534***	***1.638***	***11.225***				
Conc SD	***1.312[%]***	***0.001[mg/l]***	***0.001[mg/l]***				

Sample Name: 600-130764-B-7-B DU | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:51:18 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130764-B-7-B DU						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.002[mg/l]	0.255[mg/l]	1044250	0.002[mg/l]	0.127[mg/l]	0.192[mg/l]	0.000[mg/l]
Conc 2	0.003[mg/l]	0.253[mg/l]	1008680	<0.002[mg/l]	0.126[mg/l]	0.193[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**0.254[mg/l]**	**1026470**	**<0.002[mg/l]**	**0.126[mg/l]**	**0.193[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***53.537***	***0.685***	***---***	***26.312***	***0.391***	***0.456***	***3.752***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***25151.8***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	130.321[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.024[mg/l]	32450.5	0.008[mg/l]	0.474[mg/l]
Conc 2	132.775[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.024[mg/l]	33105.9	0.008[mg/l]	0.472[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**131.548[mg/l]**	**-0.000[mg/l]**	**0.003[mg/l]**	**0.024[mg/l]**	**32778.2**	**0.008[mg/l]**	**0.473[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.319***	***27.636***	***5.784***	***0.893***	***---***	***0.752***	***0.270***
Conc SD	***1.735[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***463.438***	***0.000[mg/l]***	***0.001[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	13.342[mg/l]	0.010[mg/l]	15.666[mg/l]	0.242[mg/l]	0.013[mg/l]	>1029.89[mg/l]	0.003[mg/l]
Conc 2	13.343[mg/l]	0.010[mg/l]	15.643[mg/l]	0.241[mg/l]	0.012[mg/l]	>1024.77[mg/l]	0.005[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**13.343[mg/l]**	**0.010[mg/l]**	**15.655[mg/l]**	**0.242[mg/l]**	**0.012[mg/l]**	**>1027.33[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.007***	***0.401***	***0.103***	***0.384***	***0.692***	***0.352***	***19.797***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.016[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***3.620[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.000[mg/l]	-0.002[mg/l]	0.005[mg/l]	5.859[mg/l]	0.024[mg/l]	0.849[mg/l]	0.004[mg/l]
Conc 2	-0.001[mg/l]	-0.002[mg/l]	0.002[mg/l]	5.814[mg/l]	0.022[mg/l]	0.855[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.002[mg/l]**	**0.004[mg/l]**	**5.837[mg/l]**	**0.023[mg/l]**	**0.852[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***57.630***	***20.439***	***68.633***	***0.539***	***5.300***	***0.545***	***8.380***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.031[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.002[mg/l]	0.005[mg/l]	3951470	87.157[%]	0.084[mg/l]	87.157[%]	
Conc 2	0.001[mg/l]	0.011[mg/l]	3953500	87.188[%]	0.084[mg/l]	87.188[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.001[mg/l]**	**0.008[mg/l]**	**3952480**	**87.173[%]**	**0.084[mg/l]**	**87.173[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***51.305***	***58.282***	***---***	***0.025***	***0.105***	***0.025***	
Conc SD	***0.001[mg/l]***	***0.005[mg/l]***	***1435.43***	***0.022[%]***	***0.000[mg/l]***	***0.022[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.002[mg/l]	0.255[mg/l]	1044250	0.002[mg/l]	0.127[mg/l]	0.192[mg/l]	0.000[mg/l]
Conc 2	0.003[mg/l]	0.253[mg/l]	1008680	<0.002[mg/l]	0.126[mg/l]	0.193[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**0.254[mg/l]**	**1026470**	**<0.002[mg/l]**	**0.126[mg/l]**	**0.193[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***53.537***	***0.685***	***---***	***26.312***	***0.391***	***0.456***	***3.752***
Conc SD	***0.001[mg/l]***	***0.002[mg/l]***	***25151.8***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	130.321[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.024[mg/l]	32450.5	<-0.007[mg/l]	0.474[mg/l]
Conc 2	132.775[mg/l]	-0.000[mg/l]	0.003[mg/l]	0.024[mg/l]	33105.9	<-0.006[mg/l]	0.472[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**131.548[mg/l]**	**-0.000[mg/l]**	**0.003[mg/l]**	**0.024[mg/l]**	**32778.2**	**<-0.006[mg/l]**	**0.473[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.319***	***27.636***	***5.784***	***0.893***	***---***	***3.803***	***0.270***
Conc SD	***1.735[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***463.438***	***0.000[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.352[mg/l]	13.342[mg/l]	<7.272[mg/l]	0.010[mg/l]	<-0.408[mg/l]	15.666[mg/l]	0.242[mg/l]
Conc 2	<-4.355[mg/l]	13.343[mg/l]	<7.276[mg/l]	0.010[mg/l]	<-0.408[mg/l]	15.643[mg/l]	0.241[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.353[mg/l]**	**13.343[mg/l]**	**<7.274[mg/l]**	**0.010[mg/l]**	**<-0.408[mg/l]**	**15.655[mg/l]**	**0.242[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.041***	***0.007***	***0.037***	***0.401***	***0.007***	***0.103***	***0.384***
Conc SD	***0.002[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.016[mg/l]***	***0.001[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.013[mg/l]	>3914.13[mg/l]	>1029.89[mg/l]	0.003[mg/l]	-0.000[mg/l]	-0.002[mg/l]	0.005[mg/l]
Conc 2	0.012[mg/l]	>3879.28[mg/l]	>1024.77[mg/l]	0.005[mg/l]	-0.001[mg/l]	-0.002[mg/l]	0.002[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.012[mg/l]**	**>3896.70[mg/l]**	**>1027.33[mg/l]**	**0.004[mg/l]**	**-0.001[mg/l]**	**-0.002[mg/l]**	**0.004[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.692***	***0.632***	***0.352***	***19.797***	***57.630***	***20.439***	***68.633***
Conc SD	***0.000[mg/l]***	***24.643[mg/l]***	***3.620[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	5.859[mg/l]	0.024[mg/l]	0.849[mg/l]	0.004[mg/l]	0.002[mg/l]	0.005[mg/l]	3951470
Conc 2	5.814[mg/l]	0.022[mg/l]	0.855[mg/l]	0.004[mg/l]	0.001[mg/l]	0.011[mg/l]	3953500
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**5.837[mg/l]**	**0.023[mg/l]**	**0.852[mg/l]**	**0.004[mg/l]**	**0.001[mg/l]**	**0.008[mg/l]**	**3952480**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.539***	***5.300***	***0.545***	***8.380***	***51.305***	***58.282***	***---***
Conc SD	***0.031[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***	***1435.43***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	87.157[%]	0.084[mg/l]	0.008[mg/l]				
Conc 2	87.188[%]	0.084[mg/l]	0.008[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**87.173[%]**	**0.084[mg/l]**	**0.008[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.025***	***0.105***	***0.752***				
Conc SD	***0.022[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130764-B-7-C MS | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:53:16 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130764-B-7-C MS						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.560[mg/l]	10.901[mg/l]	1063210	1.190[mg/l]	1.203[mg/l]	1.224[mg/l]	0.510[mg/l]
Conc 2	0.564[mg/l]	11.032[mg/l]	1063670	1.186[mg/l]	1.195[mg/l]	1.238[mg/l]	0.512[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.562[mg/l]**	**10.966[mg/l]**	**1063440**	**1.188[mg/l]**	**1.199[mg/l]**	**1.231[mg/l]**	**0.511[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.491***	***0.846***	***---***	***0.250***	***0.502***	***0.807***	***0.289***

Conc SD	***0.003[mg/l]***	***0.093[mg/l]***	***325.269***	***0.003[mg/l]***	***0.006[mg/l]***	***0.010[mg/l]***	***0.001[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	140.377[mg/l]	0.493[mg/l]	1.003[mg/l]	1.027[mg/l]	33045.6	0.987[mg/l]	10.590[mg/l]
Conc 2	140.992[mg/l]	0.501[mg/l]	1.011[mg/l]	1.038[mg/l]	32549.5	0.984[mg/l]	10.635[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**140.684[mg/l]**	**0.497[mg/l]**	**1.007[mg/l]**	**1.032[mg/l]**	**32797.6**	**0.986[mg/l]**	**10.613[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.309***	***1.118***	***0.624***	***0.782***	***---***	***0.221***	***0.304***
Conc SD	***0.435[mg/l]***	***0.006[mg/l]***	***0.006[mg/l]***	***0.008[mg/l]***	***350.796***	***0.002[mg/l]***	***0.032[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	25.588[mg/l]	0.934[mg/l]	>25.160[mg/l]	1.254[mg/l]	1.019[mg/l]	>1009.89[mg/l]	0.985[mg/l]
Conc 2	27.078[mg/l]	0.948[mg/l]	>25.177[mg/l]	1.260[mg/l]	1.028[mg/l]	>1039.16[mg/l]	0.993[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**26.333[mg/l]**	**0.941[mg/l]**	**>25.168[mg/l]**	**1.257[mg/l]**	**1.024[mg/l]**	**>1024.52[mg/l]**	**0.989[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3.999***	***1.074***	***0.048***	***0.305***	***0.584***	***2.020***	***0.563***
Conc SD	***1.053[mg/l]***	***0.010[mg/l]***	***0.012[mg/l]***	***0.004[mg/l]***	***0.006[mg/l]***	***20.697[mg/l]***	***0.006[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.977[mg/l]	1.027[mg/l]	1.378[mg/l]	6.841[mg/l]	1.031[mg/l]	1.362[mg/l]	0.988[mg/l]
Conc 2	0.962[mg/l]	1.032[mg/l]	1.346[mg/l]	6.799[mg/l]	1.027[mg/l]	1.362[mg/l]	0.992[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.969[mg/l]**	**1.030[mg/l]**	**1.362[mg/l]**	**6.820[mg/l]**	**1.029[mg/l]**	**1.362[mg/l]**	**0.990[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.067***	***0.340***	***1.646***	***0.444***	***0.243***	***0.015***	***0.298***
Conc SD	***0.010[mg/l]***	***0.004[mg/l]***	***0.022[mg/l]***	***0.030[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.937[mg/l]	1.042[mg/l]	3956010	87.277[%]	1.151[mg/l]	87.277[%]	
Conc 2	0.947[mg/l]	1.054[mg/l]	3953880	87.217[%]	1.159[mg/l]	87.217[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.942[mg/l]**	**1.048[mg/l]**	**3954940**	**87.247[%]**	**1.155[mg/l]**	**87.247[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.720***	***0.805***	***---***	***0.048***	***0.448***	***0.048***	
Conc SD	***0.007[mg/l]***	***0.008[mg/l]***	***1506.14***	***0.042[%]***	***0.005[mg/l]***	***0.042[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.560[mg/l]	10.901[mg/l]	1063210	1.190[mg/l]	1.203[mg/l]	1.224[mg/l]	0.510[mg/l]
Conc 2	0.564[mg/l]	11.032[mg/l]	1063670	1.186[mg/l]	1.195[mg/l]	1.238[mg/l]	0.512[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.562[mg/l]**	**10.966[mg/l]**	**1063440**	**1.188[mg/l]**	**1.199[mg/l]**	**1.231[mg/l]**	**0.511[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.491***	***0.846***	***---***	***0.250***	***0.502***	***0.807***	***0.289***
Conc SD	***0.003[mg/l]***	***0.093[mg/l]***	***325.269***	***0.003[mg/l]***	***0.006[mg/l]***	***0.010[mg/l]***	***0.001[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	140.377[mg/l]	0.493[mg/l]	1.003[mg/l]	1.027[mg/l]	33045.6	0.987[mg/l]	10.590[mg/l]

Conc 2	140.992[mg/l]	0.501[mg/l]	1.011[mg/l]	1.038[mg/l]	32549.5	0.984[mg/l]	10.635[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**140.684[mg/l]**	**0.497[mg/l]**	**1.007[mg/l]**	**1.032[mg/l]**	**32797.6**	**0.986[mg/l]**	**10.613[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.309***	***1.118***	***0.624***	***0.782***	***---***	***0.221***	***0.304***
Conc SD	***0.435[mg/l]***	***0.006[mg/l]***	***0.006[mg/l]***	***0.008[mg/l]***	***350.796***	***0.002[mg/l]***	***0.032[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<8.223[mg/l]	22.430[mg/l]	25.588[mg/l]	0.934[mg/l]	<0.715[mg/l]	>25.160[mg/l]	1.254[mg/l]
Conc 2	<8.280[mg/l]	23.173[mg/l]	27.078[mg/l]	0.948[mg/l]	<0.733[mg/l]	>25.177[mg/l]	1.260[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<8.251[mg/l]**	**22.802[mg/l]**	**26.333[mg/l]**	**0.941[mg/l]**	**<0.724[mg/l]**	**>25.168[mg/l]**	**1.257[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.491***	***2.304***	***3.999***	***1.074***	***1.727***	***0.048***	***0.305***
Conc SD	***0.041[mg/l]***	***0.525[mg/l]***	***1.053[mg/l]***	***0.010[mg/l]***	***0.013[mg/l]***	***0.012[mg/l]***	***0.004[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	1.019[mg/l]	>3776.55[mg/l]	>1009.89[mg/l]	0.985[mg/l]	0.977[mg/l]	1.027[mg/l]	1.378[mg/l]
Conc 2	1.028[mg/l]	>3973.65[mg/l]	>1039.16[mg/l]	0.993[mg/l]	0.962[mg/l]	1.032[mg/l]	1.346[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.024[mg/l]**	**>3875.10[mg/l]**	**>1024.52[mg/l]**	**0.989[mg/l]**	**0.969[mg/l]**	**1.030[mg/l]**	**1.362[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.584***	***3.597***	***2.020***	***0.563***	***1.067***	***0.340***	***1.646***
Conc SD	***0.006[mg/l]***	***139.371[mg/l]***	***20.697[mg/l]***	***0.006[mg/l]***	***0.010[mg/l]***	***0.004[mg/l]***	***0.022[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	6.841[mg/l]	1.031[mg/l]	1.362[mg/l]	0.988[mg/l]	0.937[mg/l]	1.042[mg/l]	3956010
Conc 2	6.799[mg/l]	1.027[mg/l]	1.362[mg/l]	0.992[mg/l]	0.947[mg/l]	1.054[mg/l]	3953880
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**6.820[mg/l]**	**1.029[mg/l]**	**1.362[mg/l]**	**0.990[mg/l]**	**0.942[mg/l]**	**1.048[mg/l]**	**3954940**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.444***	***0.243***	***0.015***	***0.298***	***0.720***	***0.805***	***---***
Conc SD	***0.030[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.007[mg/l]***	***0.008[mg/l]***	***1506.14***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	87.277[%]	1.151[mg/l]	>1.171[mg/l]				
Conc 2	87.217[%]	1.159[mg/l]	>1.180[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**87.247[%]**	**1.155[mg/l]**	**>1.176[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.048***	***0.448***	***0.511***				
Conc SD	***0.042[%]***	***0.005[mg/l]***	***0.006[mg/l]***				

Sample Name: 600-130764-B-7-D MSD			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 18:55:15	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
600-130764-B-7-D MSD						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.590[mg/l]	11.760[mg/l]	1066240	1.284[mg/l]	1.281[mg/l]	1.332[mg/l]	0.548[mg/l]
Conc 2	0.595[mg/l]	11.735[mg/l]	1075820	1.277[mg/l]	1.265[mg/l]	1.307[mg/l]	0.554[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.593[mg/l]**	**11.748[mg/l]**	**1071030**	**1.280[mg/l]**	**1.273[mg/l]**	**1.319[mg/l]**	**0.551[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.595***	***0.147***	***---***	***0.385***	***0.858***	***1.340***	***0.783***
Conc SD	***0.004[mg/l]***	***0.017[mg/l]***	***6774.08***	***0.005[mg/l]***	***0.011[mg/l]***	***0.018[mg/l]***	***0.004[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	150.002[mg/l]	0.540[mg/l]	1.090[mg/l]	1.117[mg/l]	32033.8	1.066[mg/l]	11.477[mg/l]
Conc 2	152.599[mg/l]	0.526[mg/l]	1.072[mg/l]	1.100[mg/l]	32376.9	1.051[mg/l]	11.200[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**151.300[mg/l]**	**0.533[mg/l]**	**1.081[mg/l]**	**1.108[mg/l]**	**32205.4**	**1.058[mg/l]**	**11.338[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.214***	***1.839***	***1.199***	***1.109***	***---***	***1.015***	***1.726***
Conc SD	***1.836[mg/l]***	***0.010[mg/l]***	***0.013[mg/l]***	***0.012[mg/l]***	***242.608***	***0.011[mg/l]***	***0.196[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	29.163[mg/l]	1.006[mg/l]	>26.901[mg/l]	1.357[mg/l]	1.099[mg/l]	>1085.87[mg/l]	1.071[mg/l]
Conc 2	28.477[mg/l]	0.983[mg/l]	>26.516[mg/l]	1.322[mg/l]	1.077[mg/l]	>1073.70[mg/l]	1.051[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**28.820[mg/l]**	**0.994[mg/l]**	**>26.709[mg/l]**	**1.340[mg/l]**	**1.088[mg/l]**	**>1079.79[mg/l]**	**1.061[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.683***	***1.590***	***1.018***	***1.851***	***1.460***	***0.797***	***1.339***
Conc SD	***0.485[mg/l]***	***0.016[mg/l]***	***0.272[mg/l]***	***0.025[mg/l]***	***0.016[mg/l]***	***8.605[mg/l]***	***0.014[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	1.037[mg/l]	1.100[mg/l]	1.473[mg/l]	7.328[mg/l]	1.098[mg/l]	1.444[mg/l]	1.048[mg/l]
Conc 2	1.032[mg/l]	1.090[mg/l]	1.473[mg/l]	7.213[mg/l]	1.081[mg/l]	1.445[mg/l]	1.056[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.034[mg/l]**	**1.095[mg/l]**	**1.473[mg/l]**	**7.271[mg/l]**	**1.089[mg/l]**	**1.444[mg/l]**	**1.052[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.368***	***0.624***	***0.006***	***1.114***	***1.136***	***0.035***	***0.512***
Conc SD	***0.004[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***	***0.081[mg/l]***	***0.012[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	1.000[mg/l]	1.124[mg/l]	3868490	85.340[%]	1.245[mg/l]	85.340[%]	
Conc 2	1.001[mg/l]	1.132[mg/l]	3864130	85.237[%]	1.224[mg/l]	85.237[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**1.001[mg/l]**	**1.128[mg/l]**	**3866310**	**85.288[%]**	**1.235[mg/l]**	**85.288[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.053***	***0.502***	***---***	***0.085***	***1.180***	***0.085***	
Conc SD	***0.001[mg/l]***	***0.006[mg/l]***	***3082.99***	***0.073[%]***	***0.015[mg/l]***	***0.073[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.590[mg/l]	11.760[mg/l]	1066240	1.284[mg/l]	1.281[mg/l]	1.332[mg/l]	0.548[mg/l]
Conc 2	0.595[mg/l]	11.735[mg/l]	1075820	1.277[mg/l]	1.265[mg/l]	1.307[mg/l]	0.554[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.593[mg/l]**	**11.748[mg/l]**	**1071030**	**1.280[mg/l]**	**1.273[mg/l]**	**1.319[mg/l]**	**0.551[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.595***	***0.147***	***---***	***0.385***	***0.858***	***1.340***	***0.783***
Conc SD	***0.004[mg/l]***	***0.017[mg/l]***	***6774.08***	***0.005[mg/l]***	***0.011[mg/l]***	***0.018[mg/l]***	***0.004[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	150.002[mg/l]	0.540[mg/l]	1.090[mg/l]	1.117[mg/l]	32033.8	1.066[mg/l]	11.477[mg/l]
Conc 2	152.599[mg/l]	0.526[mg/l]	1.072[mg/l]	1.100[mg/l]	32376.9	1.051[mg/l]	11.200[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**151.300[mg/l]**	**0.533[mg/l]**	**1.081[mg/l]**	**1.108[mg/l]**	**32205.4**	**1.058[mg/l]**	**11.338[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.214***	***1.839***	***1.199***	***1.109***	***---***	***1.015***	***1.726***
Conc SD	***1.836[mg/l]***	***0.010[mg/l]***	***0.013[mg/l]***	***0.012[mg/l]***	***242.608***	***0.011[mg/l]***	***0.196[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<9.326[mg/l]	>24.210[mg/l]	29.163[mg/l]	1.006[mg/l]	<0.803[mg/l]	>26.901[mg/l]	1.357[mg/l]
Conc 2	<8.981[mg/l]	23.855[mg/l]	28.477[mg/l]	0.983[mg/l]	<0.776[mg/l]	>26.516[mg/l]	1.322[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<9.153[mg/l]**	**>24.033[mg/l]**	**28.820[mg/l]**	**0.994[mg/l]**	**<0.790[mg/l]**	**>26.709[mg/l]**	**1.340[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.664***	***1.042***	***1.683***	***1.590***	***2.432***	***1.018***	***1.851***
Conc SD	***0.244[mg/l]***	***0.251[mg/l]***	***0.485[mg/l]***	***0.016[mg/l]***	***0.019[mg/l]***	***0.272[mg/l]***	***0.025[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	1.099[mg/l]	>4293.18[mg/l]	>1085.87[mg/l]	1.071[mg/l]	1.037[mg/l]	1.100[mg/l]	1.473[mg/l]
Conc 2	1.077[mg/l]	>4206.58[mg/l]	>1073.70[mg/l]	1.051[mg/l]	1.032[mg/l]	1.090[mg/l]	1.473[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.088[mg/l]**	**>4249.88[mg/l]**	**>1079.79[mg/l]**	**1.061[mg/l]**	**1.034[mg/l]**	**1.095[mg/l]**	**1.473[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.460***	***1.441***	***0.797***	***1.339***	***0.368***	***0.624***	***0.006***
Conc SD	***0.016[mg/l]***	***61.235[mg/l]***	***8.605[mg/l]***	***0.014[mg/l]***	***0.004[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	7.328[mg/l]	1.098[mg/l]	1.444[mg/l]	1.048[mg/l]	1.000[mg/l]	1.124[mg/l]	3868490
Conc 2	7.213[mg/l]	1.081[mg/l]	1.445[mg/l]	1.056[mg/l]	1.001[mg/l]	1.132[mg/l]	3864130
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**7.271[mg/l]**	**1.089[mg/l]**	**1.444[mg/l]**	**1.052[mg/l]**	**1.001[mg/l]**	**1.128[mg/l]**	**3866310**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.114***	***1.136***	***0.035***	***0.512***	***0.053***	***0.502***	***---***

Conc SD	***0.081[mg/l]***	***0.012[mg/l]***	***0.001[mg/l]***	***0.005[mg/l]***	***0.001[mg/l]***	***0.006[mg/l]***	***3082.99***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	85.340[%]	1.245[mg/l]	>1.257[mg/l]				
Conc 2	85.237[%]	1.224[mg/l]	>1.265[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**85.288[%]**	**1.235[mg/l]**	**>1.261[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.085***	***1.180***	***0.448***				
Conc SD	***0.073[%]***	***0.015[mg/l]***	***0.006[mg/l]***				

Sample Name: 600-130764-A-5-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:57:15 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130764-A-5-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.001[mg/l]	9.833[mg/l]	1072500	0.005[mg/l]	0.462[mg/l]	0.601[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	9.931[mg/l]	1088050	0.002[mg/l]	0.464[mg/l]	0.610[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**9.882[mg/l]**	**1080280**	**0.004[mg/l]**	**0.463[mg/l]**	**0.606[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***51.379***	***0.696***	***---***	***54.293***	***0.246***	***1.115***	***30.966***
Conc SD	***0.000[mg/l]***	***0.069[mg/l]***	***10995.5***	***0.002[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	52.323[mg/l]	0.000[mg/l]	0.002[mg/l]	0.037[mg/l]	31909.6	0.034[mg/l]	2.413[mg/l]
Conc 2	52.199[mg/l]	0.000[mg/l]	0.001[mg/l]	0.038[mg/l]	30308.7	0.034[mg/l]	2.444[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**52.261[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.038[mg/l]**	**31109.2**	**0.034[mg/l]**	**2.428[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.168***	***13.648***	***3.362***	***1.320***	***---***	***0.281***	***0.909***
Conc SD	***0.088[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1132.01***	***0.000[mg/l]***	***0.022[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	6.081[mg/l]	0.006[mg/l]	3.796[mg/l]	0.037[mg/l]	0.090[mg/l]	>692.460[mg/l]	0.059[mg/l]
Conc 2	6.425[mg/l]	0.006[mg/l]	3.842[mg/l]	0.038[mg/l]	0.089[mg/l]	>739.038[mg/l]	0.060[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**6.253[mg/l]**	**0.006[mg/l]**	**3.819[mg/l]**	**0.037[mg/l]**	**0.090[mg/l]**	**>715.749[mg/l]**	**0.059[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***3.892***	***2.740***	***0.866***	***1.182***	***0.692***	***4.602***	***0.928***
Conc SD	***0.243[mg/l]***	***0.000[mg/l]***	***0.033[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***32.936[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.003[mg/l]	0.001[mg/l]	0.002[mg/l]	4.873[mg/l]	0.008[mg/l]	0.287[mg/l]	0.020[mg/l]

Conc 2	0.002[mg/l]	0.001[mg/l]	0.004[mg/l]	4.889[mg/l]	0.006[mg/l]	0.288[mg/l]	0.020[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**	**4.881[mg/l]**	**0.007[mg/l]**	**0.288[mg/l]**	**0.020[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***32.695***	***14.634***	***54.637***	***0.230***	***17.632***	***0.125***	***1.210***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.011[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.001[mg/l]	0.010[mg/l]	4255300	93.835[%]	1.783[mg/l]	93.835[%]	
Conc 2	-0.001[mg/l]	0.005[mg/l]	4239640	93.482[%]	1.799[mg/l]	93.482[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.001[mg/l]**	**0.008[mg/l]**	**4247470**	**93.659[%]**	**1.791[mg/l]**	**93.659[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***7.322***	***50.261***	***---***	***0.267***	***0.661***	***0.267***	
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***11073.3***	***0.250[%]***	***0.012[mg/l]***	***0.250[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.001[mg/l]	9.833[mg/l]	1072500	0.005[mg/l]	0.462[mg/l]	0.601[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	9.931[mg/l]	1088050	0.002[mg/l]	0.464[mg/l]	0.610[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**9.882[mg/l]**	**1080280**	**0.004[mg/l]**	**0.463[mg/l]**	**0.606[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***51.379***	***0.696***	***---***	***54.293***	***0.246***	***1.115***	***30.966***
Conc SD	***0.000[mg/l]***	***0.069[mg/l]***	***10995.5***	***0.002[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	52.323[mg/l]	0.000[mg/l]	0.002[mg/l]	0.037[mg/l]	31909.6	<0.022[mg/l]	2.413[mg/l]
Conc 2	52.199[mg/l]	0.000[mg/l]	0.001[mg/l]	0.038[mg/l]	30308.7	<0.022[mg/l]	2.444[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**52.261[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.038[mg/l]**	**31109.2**	**<0.022[mg/l]**	**2.428[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.168***	***13.648***	***3.362***	***1.320***	***---***	***1.081***	***0.909***
Conc SD	***0.088[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***1132.01***	***0.000[mg/l]***	***0.022[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.946[mg/l]	6.081[mg/l]	<-7.409[mg/l]	0.006[mg/l]	<-0.413[mg/l]	3.796[mg/l]	0.037[mg/l]
Conc 2	<-1.907[mg/l]	6.425[mg/l]	<-6.678[mg/l]	0.006[mg/l]	<-0.413[mg/l]	3.842[mg/l]	0.038[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.926[mg/l]**	**6.253[mg/l]**	**<-7.044[mg/l]**	**0.006[mg/l]**	**<-0.413[mg/l]**	**3.819[mg/l]**	**0.037[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.447***	***3.892***	***7.339***	***2.740***	***0.063***	***0.866***	***1.182***
Conc SD	***0.028[mg/l]***	***0.243[mg/l]***	***0.517[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.033[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.090[mg/l]	>1976.91[mg/l]	>692.460[mg/l]	0.059[mg/l]	0.003[mg/l]	0.001[mg/l]	0.002[mg/l]
Conc 2	0.089[mg/l]	>2204.97[mg/l]	>739.038[mg/l]	0.060[mg/l]	0.002[mg/l]	0.001[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.090[mg/l]**	**>2090.94[mg/l]**	**>715.749[mg/l]**	**0.059[mg/l]**	**0.002[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***0.692***	***7.712***	***4.602***	***0.928***	***32.695***	***14.634***	***54.637***
Conc SD	***0.001[mg/l]***	***161.263[mg/l]***	***32.936[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	4.873[mg/l]	0.008[mg/l]	0.287[mg/l]	0.020[mg/l]	-0.001[mg/l]	0.010[mg/l]	4255300
Conc 2	4.889[mg/l]	0.006[mg/l]	0.288[mg/l]	0.020[mg/l]	-0.001[mg/l]	0.005[mg/l]	4239640
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**4.881[mg/l]**	**0.007[mg/l]**	**0.288[mg/l]**	**0.020[mg/l]**	**-0.001[mg/l]**	**0.008[mg/l]**	**4247470**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.230***	***17.632***	***0.125***	***1.210***	***7.322***	***50.261***	***---***
Conc SD	***0.011[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***11073.3***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	93.835[%]	1.783[mg/l]	0.034[mg/l]				
Conc 2	93.482[%]	1.799[mg/l]	0.034[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**93.659[%]**	**1.791[mg/l]**	**0.034[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.267***	***0.661***	***0.281***				
Conc SD	***0.250[%]***	***0.012[mg/l]***	***0.000[mg/l]***				

Sample Name: 600-130764-A-6-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 18:59:14 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
600-130764-A-6-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	16.603[mg/l]	1074450	<0.001[mg/l]	0.685[mg/l]	0.261[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	16.518[mg/l]	1107330	<-0.005[mg/l]	0.680[mg/l]	0.258[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**16.561[mg/l]**	**1090890**	**<-0.002[mg/l]**	**0.683[mg/l]**	**0.260[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***48.620***	***0.365***	***---***	***199.369***	***0.441***	***0.723***	***42.193***
Conc SD	***0.000[mg/l]***	***0.060[mg/l]***	***23249.7***	***0.004[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	49.615[mg/l]	0.000[mg/l]	0.002[mg/l]	0.074[mg/l]	53227.4	0.007[mg/l]	2.516[mg/l]
Conc 2	51.273[mg/l]	0.000[mg/l]	0.002[mg/l]	0.076[mg/l]	51927.5	0.008[mg/l]	2.514[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**50.444[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**0.075[mg/l]**	**52577.4**	**0.008[mg/l]**	**2.515[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***2.325***	***18.899***	***1.909***	***1.683***	***---***	***2.340***	***0.054***
Conc SD	***1.173[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***919.168***	***0.000[mg/l]***	***0.001[mg/l]***

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	7.492[mg/l]	0.004[mg/l]	2.979[mg/l]	0.040[mg/l]	0.031[mg/l]	>3520.54[mg/l]	0.064[mg/l]
Conc 2	7.535[mg/l]	0.004[mg/l]	2.976[mg/l]	0.040[mg/l]	0.031[mg/l]	>3641.79[mg/l]	0.065[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**7.514[mg/l]**	**0.004[mg/l]**	**2.978[mg/l]**	**0.040[mg/l]**	**0.031[mg/l]**	**>3581.16[mg/l]**	**0.064[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.409***	***1.431***	***0.081***	***0.490***	***0.533***	***2.394***	***0.783***
Conc SD	***0.031[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***85.737[mg/l]***	***0.001[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	5.402[mg/l]	0.006[mg/l]	0.268[mg/l]	0.013[mg/l]
Conc 2	-0.002[mg/l]	-0.003[mg/l]	0.004[mg/l]	5.400[mg/l]	0.004[mg/l]	0.270[mg/l]	0.013[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.001[mg/l]**	**-0.000[mg/l]**	**0.002[mg/l]**	**5.401[mg/l]**	**0.005[mg/l]**	**0.269[mg/l]**	**0.013[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***23.374***	***726.418***	***135.720***	***0.021***	***23.660***	***0.474***	***0.530***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	-0.002[mg/l]	0.007[mg/l]	3859580	85.105[%]	>4.389[mg/l]	85.105[%]	
Conc 2	-0.001[mg/l]	0.003[mg/l]	3852370	84.955[%]	>4.339[mg/l]	84.955[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**-0.002[mg/l]**	**0.005[mg/l]**	**3855970**	**85.030[%]**	**>4.364[mg/l]**	**85.030[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***48.047***	***64.630***	***---***	***0.124***	***0.801***	***0.124***	
Conc SD	***0.001[mg/l]***	***0.003[mg/l]***	***5098.24***	***0.106[%]***	***0.035[mg/l]***	***0.106[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	16.603[mg/l]	1074450	<0.001[mg/l]	0.685[mg/l]	0.261[mg/l]	0.000[mg/l]
Conc 2	-0.000[mg/l]	16.518[mg/l]	1107330	<-0.005[mg/l]	0.680[mg/l]	0.258[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.000[mg/l]**	**16.561[mg/l]**	**1090890**	**<-0.002[mg/l]**	**0.683[mg/l]**	**0.260[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***48.620***	***0.365***	***---***	***199.369***	***0.441***	***0.723***	***42.193***
Conc SD	***0.000[mg/l]***	***0.060[mg/l]***	***23249.7***	***0.004[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	49.615[mg/l]	0.000[mg/l]	0.002[mg/l]	0.074[mg/l]	53227.4	<-0.007[mg/l]	2.516[mg/l]
Conc 2	51.273[mg/l]	0.000[mg/l]	0.002[mg/l]	0.076[mg/l]	51927.5	<-0.006[mg/l]	2.514[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**50.444[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**0.075[mg/l]**	**52577.4**	**<-0.006[mg/l]**	**2.515[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***2.325***	***18.899***	***1.909***	***1.683***	***---***	***5.409***	***0.054***
Conc SD	***1.173[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***919.168***	***0.000[mg/l]***	***0.001[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.818[mg/l]	7.492[mg/l]	<-4.524[mg/l]	0.004[mg/l]	<-0.416[mg/l]	2.979[mg/l]	0.040[mg/l]
Conc 2	<-1.820[mg/l]	7.535[mg/l]	<-4.449[mg/l]	0.004[mg/l]	<-0.416[mg/l]	2.976[mg/l]	0.040[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.819[mg/l]**	**7.514[mg/l]**	**<-4.486[mg/l]**	**0.004[mg/l]**	**<-0.416[mg/l]**	**2.978[mg/l]**	**0.040[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.084***	***0.409***	***1.191***	***1.431***	***0.021***	***0.081***	***0.490***
Conc SD	***0.002[mg/l]***	***0.031[mg/l]***	***0.053[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.031[mg/l]	>37644.7[mg/l]	>3520.54[mg/l]	0.064[mg/l]	-0.001[mg/l]	0.002[mg/l]	0.000[mg/l]
Conc 2	0.031[mg/l]	>40183.2[mg/l]	>3641.79[mg/l]	0.065[mg/l]	-0.002[mg/l]	-0.003[mg/l]	0.004[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.031[mg/l]**	**>38914.0[mg/l]**	**>3581.16[mg/l]**	**0.064[mg/l]**	**-0.001[mg/l]**	**-0.000[mg/l]**	**0.002[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.533***	***4.613***	***2.394***	***0.783***	***23.374***	***726.418***	***135.720***
Conc SD	***0.000[mg/l]***	***1794.99[mg/l]***	***85.737[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	5.402[mg/l]	0.006[mg/l]	0.268[mg/l]	0.013[mg/l]	-0.002[mg/l]	0.007[mg/l]	3859580
Conc 2	5.400[mg/l]	0.004[mg/l]	0.270[mg/l]	0.013[mg/l]	-0.001[mg/l]	0.003[mg/l]	3852370
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**5.401[mg/l]**	**0.005[mg/l]**	**0.269[mg/l]**	**0.013[mg/l]**	**-0.002[mg/l]**	**0.005[mg/l]**	**3855970**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.021***	***23.660***	***0.474***	***0.530***	***48.047***	***64.630***	***---***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.003[mg/l]***	***5098.24***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	85.105[%]	>4.389[mg/l]	0.007[mg/l]				
Conc 2	84.955[%]	>4.339[mg/l]	0.008[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**85.030[%]**	**>4.364[mg/l]**	**0.008[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.124***	***0.801***	***2.340***				
Conc SD	***0.106[%]***	***0.035[mg/l]***	***0.000[mg/l]***				

Sample Name: pds 600-130764-B-7-A | Sample Type: Unknown Sample

Measure Date: 2016-05-16 19:01:13 | Recalculation Date: | State: Measured | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
pds 600-130764-B-7-A						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.554[mg/l]	11.205[mg/l]	1077170	1.211[mg/l]	1.232[mg/l]	1.257[mg/l]	0.527[mg/l]
Conc 2	0.557[mg/l]	11.172[mg/l]	1089320	1.224[mg/l]	1.236[mg/l]	1.261[mg/l]	0.529[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.556[mg/l]**	**11.188[mg/l]**	**1083250**	**1.218[mg/l]**	**1.234[mg/l]**	**1.259[mg/l]**	**0.528[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.393***	***0.210***	***---***	***0.743***	***0.250***	***0.216***	***0.158***

Conc SD	***0.002[mg/l]***	***0.023[mg/l]***	***8591.35***	***0.009[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	146.753[mg/l]	0.506[mg/l]	1.037[mg/l]	1.053[mg/l]	32129.3	1.008[mg/l]	10.875[mg/l]
Conc 2	144.634[mg/l]	0.505[mg/l]	1.036[mg/l]	1.052[mg/l]	31943.0	1.011[mg/l]	10.794[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**145.694[mg/l]**	**0.505[mg/l]**	**1.036[mg/l]**	**1.052[mg/l]**	**32036.2**	**1.010[mg/l]**	**10.834[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***1.028***	***0.223***	***0.048***	***0.022***	***---***	***0.216***	***0.533***
Conc SD	***1.498[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***131.734***	***0.002[mg/l]***	***0.058[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	27.232[mg/l]	0.937[mg/l]	>25.672[mg/l]	1.284[mg/l]	1.015[mg/l]	>1040.85[mg/l]	1.004[mg/l]
Conc 2	27.820[mg/l]	0.959[mg/l]	>25.673[mg/l]	1.274[mg/l]	1.014[mg/l]	>1059.29[mg/l]	1.007[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**27.526[mg/l]**	**0.948[mg/l]**	**>25.673[mg/l]**	**1.279[mg/l]**	**1.015[mg/l]**	**>1050.07[mg/l]**	**1.005[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.512***	***1.649***	***0.005***	***0.571***	***0.079***	***1.242***	***0.255***
Conc SD	***0.416[mg/l]***	***0.016[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***	***0.001[mg/l]***	***13.039[mg/l]***	***0.003[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.996[mg/l]	1.037[mg/l]	1.395[mg/l]	6.986[mg/l]	1.031[mg/l]	1.396[mg/l]	0.998[mg/l]
Conc 2	0.998[mg/l]	1.034[mg/l]	1.400[mg/l]	6.987[mg/l]	1.031[mg/l]	1.381[mg/l]	0.999[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.997[mg/l]**	**1.036[mg/l]**	**1.397[mg/l]**	**6.986[mg/l]**	**1.031[mg/l]**	**1.388[mg/l]**	**0.999[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.152***	***0.174***	***0.286***	***0.008***	***0.008***	***0.759***	***0.020***
Conc SD	***0.002[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.011[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.942[mg/l]	1.101[mg/l]	3865220	85.266[%]	1.196[mg/l]	85.266[%]	
Conc 2	0.948[mg/l]	1.088[mg/l]	3875200	85.503[%]	1.194[mg/l]	85.503[%]	
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.945[mg/l]**	**1.095[mg/l]**	**3870210**	**85.384[%]**	**1.195[mg/l]**	**85.384[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***0.479***	***0.818***	***---***	***0.196***	***0.114***	***0.196***	
Conc SD	***0.005[mg/l]***	***0.009[mg/l]***	***7056.93***	***0.167[%]***	***0.001[mg/l]***	***0.167[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.554[mg/l]	11.205[mg/l]	1077170	1.211[mg/l]	1.232[mg/l]	1.257[mg/l]	0.527[mg/l]
Conc 2	0.557[mg/l]	11.172[mg/l]	1089320	1.224[mg/l]	1.236[mg/l]	1.261[mg/l]	0.529[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.556[mg/l]**	**11.188[mg/l]**	**1083250**	**1.218[mg/l]**	**1.234[mg/l]**	**1.259[mg/l]**	**0.528[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.393***	***0.210***	***---***	***0.743***	***0.250***	***0.216***	***0.158***
Conc SD	***0.002[mg/l]***	***0.023[mg/l]***	***8591.35***	***0.009[mg/l]***	***0.003[mg/l]***	***0.003[mg/l]***	***0.001[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	146.753[mg/l]	0.506[mg/l]	1.037[mg/l]	1.053[mg/l]	32129.3	1.008[mg/l]	10.875[mg/l]

Conc 2	144.634[mg/l]	0.505[mg/l]	1.036[mg/l]	1.052[mg/l]	31943.0	1.011[mg/l]	10.794[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**145.694[mg/l]**	**0.505[mg/l]**	**1.036[mg/l]**	**1.052[mg/l]**	**32036.2**	**1.010[mg/l]**	**10.834[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.028***	***0.223***	***0.048***	***0.022***	***---***	***0.216***	***0.533***
Conc SD	***1.498[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***131.734***	***0.002[mg/l]***	***0.058[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<8.579[mg/l]	23.218[mg/l]	27.232[mg/l]	0.937[mg/l]	<0.718[mg/l]	>25.672[mg/l]	1.284[mg/l]
Conc 2	<8.476[mg/l]	23.506[mg/l]	27.820[mg/l]	0.959[mg/l]	<0.745[mg/l]	>25.673[mg/l]	1.274[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<8.527[mg/l]**	**23.362[mg/l]**	**27.526[mg/l]**	**0.948[mg/l]**	**<0.732[mg/l]**	**>25.673[mg/l]**	**1.279[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.855***	***0.873***	***1.512***	***1.649***	***2.623***	***0.005***	***0.571***
Conc SD	***0.073[mg/l]***	***0.204[mg/l]***	***0.416[mg/l]***	***0.016[mg/l]***	***0.019[mg/l]***	***0.001[mg/l]***	***0.007[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	1.015[mg/l]	>3957.27[mg/l]	>1040.85[mg/l]	1.004[mg/l]	0.996[mg/l]	1.037[mg/l]	1.395[mg/l]
Conc 2	1.014[mg/l]	>4092.26[mg/l]	>1059.29[mg/l]	1.007[mg/l]	0.998[mg/l]	1.034[mg/l]	1.400[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**1.015[mg/l]**	**>4024.77[mg/l]**	**>1050.07[mg/l]**	**1.005[mg/l]**	**0.997[mg/l]**	**1.036[mg/l]**	**1.397[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.079***	***2.372***	***1.242***	***0.255***	***0.152***	***0.174***	***0.286***
Conc SD	***0.001[mg/l]***	***95.452[mg/l]***	***13.039[mg/l]***	***0.003[mg/l]***	***0.002[mg/l]***	***0.002[mg/l]***	***0.004[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	6.986[mg/l]	1.031[mg/l]	1.396[mg/l]	0.998[mg/l]	0.942[mg/l]	1.101[mg/l]	3865220
Conc 2	6.987[mg/l]	1.031[mg/l]	1.381[mg/l]	0.999[mg/l]	0.948[mg/l]	1.088[mg/l]	3875200
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**6.986[mg/l]**	**1.031[mg/l]**	**1.388[mg/l]**	**0.999[mg/l]**	**0.945[mg/l]**	**1.095[mg/l]**	**3870210**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.008***	***0.008***	***0.759***	***0.020***	***0.479***	***0.818***	***---***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.011[mg/l]***	***0.000[mg/l]***	***0.005[mg/l]***	***0.009[mg/l]***	***7056.93***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	85.266[%]	1.196[mg/l]	>1.200[mg/l]				
Conc 2	85.503[%]	1.194[mg/l]	>1.205[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**85.384[%]**	**1.195[mg/l]**	**>1.203[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.196***	***0.114***	***0.309***				
Conc SD	***0.167[%]***	***0.001[mg/l]***	***0.004[mg/l]***				

SPECTRO

Printing Date: 5/17/2016 8:51:23 AM
Current User: Operator

Method Name: Hou Metals
Method Autor: Operator

Creation Date: 2013-03-26 12:11:57
Last Change: 2016-05-16 14:31:10

Sample Name: sd 600-130764-B-7-A@5			Sample Type: Unknown Sample		
Measure Date: 2016-05-16 19:03:11	Recalculation Date:	State: Measured	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
sd 600-130764-B-7-A@5						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.000[mg/l]	0.044[mg/l]	1073370	0.003[mg/l]	0.028[mg/l]	0.037[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.043[mg/l]	1067740	<-0.000[mg/l]	0.027[mg/l]	0.037[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.043[mg/l]**	**1070550**	**<0.001[mg/l]**	**0.028[mg/l]**	**0.037[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***60.235***	***0.656***	***---***	***164.653***	***1.182***	***0.231***	***15.010***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***3981.01***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	26.304[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.004[mg/l]	24953.8	<-0.003[mg/l]	0.095[mg/l]
Conc 2	26.262[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.003[mg/l]	25987.4	<-0.003[mg/l]	0.095[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*0.000[mg/l]*
Conc Mean	**26.283[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.003[mg/l]**	**25470.6**	**<-0.003[mg/l]**	**0.095[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*500.000[mg/l]*
Conc RSD	***0.112***	***14.398***	***14.952***	***5.643***	***---***	***1.120***	***0.437***
Conc SD	***0.029[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***730.866***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	2.810[mg/l]	0.002[mg/l]	3.254[mg/l]	0.048[mg/l]	0.004[mg/l]	223.764[mg/l]	0.000[mg/l]
Conc 2	2.708[mg/l]	0.002[mg/l]	3.271[mg/l]	0.048[mg/l]	0.004[mg/l]	215.964[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*0.285[mg/l]*	*-10.000[mg/l]*
Conc Mean	**2.759[mg/l]**	**0.002[mg/l]**	**3.262[mg/l]**	**0.048[mg/l]**	**0.004[mg/l]**	**219.864[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*240.000[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.615***	***3.765***	***0.361***	***0.029***	***7.022***	***2.509***	***45.047***
Conc SD	***0.072[mg/l]***	***0.000[mg/l]***	***0.012[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***5.515[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.002[mg/l]	0.002[mg/l]	0.001[mg/l]	0.995[mg/l]	0.004[mg/l]	0.169[mg/l]	0.001[mg/l]
Conc 2	-0.001[mg/l]	0.000[mg/l]	0.000[mg/l]	0.982[mg/l]	0.003[mg/l]	0.169[mg/l]	0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**-0.002[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**0.989[mg/l]**	**0.003[mg/l]**	**0.169[mg/l]**	**0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***55.784***	***101.089***	***105.289***	***0.905***	***15.890***	***0.003***	***3.379***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.009[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.006[mg/l]	0.000[mg/l]	4383070	96.637[%]	0.017[mg/l]	96.637[%]	
Conc 2	0.004[mg/l]	-0.000[mg/l]	4387750	96.757[%]	0.017[mg/l]	96.757[%]	

Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	---	*0.000[mg/l]*	*0.000[%]*	
Conc Mean	**0.005[mg/l]**	**-0.000[mg/l]**	**4385410**	**96.697[%]**	**0.017[mg/l]**	**96.697[%]**	
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	---	*2.400[mg/l]*	*120.000[%]*	
Conc RSD	***28.861***	***207.788***	***---***	***0.088***	***0.425***	***0.088***	
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***3309.26***	***0.085[%]***	***0.000[mg/l]***	***0.085[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.000[mg/l]	0.044[mg/l]	1073370	0.003[mg/l]	0.028[mg/l]	0.037[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.043[mg/l]	1067740	<-0.000[mg/l]	0.027[mg/l]	0.037[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.043[mg/l]**	**1070550**	**<0.001[mg/l]**	**0.028[mg/l]**	**0.037[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***60.235***	***0.656***	***---***	***164.653***	***1.182***	***0.231***	***15.010***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***3981.01***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	26.304[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.004[mg/l]	24953.8	<-0.010[mg/l]	0.095[mg/l]
Conc 2	26.262[mg/l]	-0.000[mg/l]	0.000[mg/l]	0.003[mg/l]	25987.4	<-0.009[mg/l]	0.095[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**26.283[mg/l]**	**-0.000[mg/l]**	**0.000[mg/l]**	**0.003[mg/l]**	**25470.6**	**<-0.009[mg/l]**	**0.095[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***0.112***	***14.398***	***14.952***	***5.643***	***---***	***4.858***	***0.437***
Conc SD	***0.029[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***730.866***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.825[mg/l]	2.810[mg/l]	<-13.987[mg/l]	0.002[mg/l]	<-0.418[mg/l]	3.254[mg/l]	0.048[mg/l]
Conc 2	<-4.826[mg/l]	2.708[mg/l]	<-14.191[mg/l]	0.002[mg/l]	<-0.418[mg/l]	3.271[mg/l]	0.048[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.826[mg/l]**	**2.759[mg/l]**	**<-14.089[mg/l]**	**0.002[mg/l]**	**<-0.418[mg/l]**	**3.262[mg/l]**	**0.048[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.014***	***2.615***	***1.025***	***3.765***	***0.034***	***0.361***	***0.029***
Conc SD	***0.001[mg/l]***	***0.072[mg/l]***	***0.144[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.012[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.004[mg/l]	>341.082[mg/l]	223.764[mg/l]	0.000[mg/l]	-0.002[mg/l]	0.002[mg/l]	0.001[mg/l]
Conc 2	0.004[mg/l]	>324.932[mg/l]	215.964[mg/l]	0.000[mg/l]	-0.001[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.004[mg/l]**	**>333.007[mg/l]**	**219.864[mg/l]**	**0.000[mg/l]**	**-0.002[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***7.022***	***3.429***	***2.509***	***45.047***	***55.784***	***101.089***	***105.289***
Conc SD	***0.000[mg/l]***	***11.420[mg/l]***	***5.515[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.995[mg/l]	0.004[mg/l]	0.169[mg/l]	0.001[mg/l]	0.006[mg/l]	0.000[mg/l]	4383070
Conc 2	0.982[mg/l]	0.003[mg/l]	0.169[mg/l]	0.001[mg/l]	0.004[mg/l]	-0.000[mg/l]	4387750
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.989[mg/l]**	**0.003[mg/l]**	**0.169[mg/l]**	**0.001[mg/l]**	**0.005[mg/l]**	**-0.000[mg/l]**	**4385410**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***0.905***	***15.890***	***0.003***	***3.379***	***28.861***	***207.788***	***---***

Conc SD	***0.009[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***3309.26***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	96.637[%]	0.017[mg/l]	<-0.003[mg/l]				
Conc 2	96.757[%]	0.017[mg/l]	<-0.003[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**96.697[%]**	**0.017[mg/l]**	**<-0.003[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.088***	***0.425***	***1.120***				
Conc SD	***0.085[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Sample Name: CCV | Sample Type: Control Sample

Measure Date: 2016-05-16 19:05:09 | Recalculation Date: | State: Check failed | Quality: Failed | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCV						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.221[mg/l]	2.298[mg/l]	1114100	0.450[mg/l]	0.462[mg/l]	0.453[mg/l]	0.440[mg/l]
Conc 2	0.242[mg/l]	2.425[mg/l]	1109920	0.473[mg/l]	0.487[mg/l]	0.479[mg/l]	0.476[mg/l]
Conc MinRange	*90.000*	*90.000*	---	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.232[mg/l]**	**2.362[mg/l]**	**1112010**	**0.462[mg/l]**	**0.474[mg/l]**	**0.466[mg/l]**	**0.458[mg/l]**
Conc MaxRange	*110.000*	*110.000*	---	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***6.444***	***3.799***	***---***	***3.445***	***3.721***	***3.937***	***5.560***
Conc SD	***0.015[mg/l]***	***0.090[mg/l]***	***2955.71***	***0.016[mg/l]***	***0.018[mg/l]***	***0.018[mg/l]***	***0.025[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	11.172[mg/l]	0.450[mg/l]	0.465[mg/l]	0.467[mg/l]	24505.8	0.450[mg/l]	2.351[mg/l]
Conc 2	12.125[mg/l]	0.475[mg/l]	0.491[mg/l]	0.495[mg/l]	22736.0	0.497[mg/l]	2.486[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	---	*90.000*	*90.000*
Conc Mean	**11.648[mg/l]**	**0.462[mg/l]**	**0.478[mg/l]**	**0.481[mg/l]**	**23620.9**	**0.473[mg/l]**	**2.419[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	---	*110.000*	*110.000*
Conc RSD	***5.786***	***3.849***	***3.847***	***4.104***	***---***	***7.002***	***3.953***
Conc SD	***0.674[mg/l]***	***0.018[mg/l]***	***0.018[mg/l]***	***0.020[mg/l]***	***1251.44***	***0.033[mg/l]***	***0.096[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	17.427[mg/l]	1.726[mg/l]	4.471[mg/l]	0.455[mg/l]	0.474[mg/l]	17.177[mg/l]	0.457[mg/l]
Conc 2	18.912[mg/l]	1.907[mg/l]	4.699[mg/l]	0.483[mg/l]	0.501[mg/l]	19.646[mg/l]	0.484[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**18.169[mg/l]**	**1.816[mg/l]**	**4.585[mg/l]**	**0.469[mg/l]**	**0.487[mg/l]**	**18.411[mg/l]**	**0.471[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***5.782***	***7.078***	***3.511***	***4.200***	***3.913***	***9.483***	***4.180***
Conc SD	***1.051[mg/l]***	***0.129[mg/l]***	***0.161[mg/l]***	***0.020[mg/l]***	***0.019[mg/l]***	***1.746[mg/l]***	***0.020[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.469[mg/l]	0.459[mg/l]	0.465[mg/l]	0.666[mg/l]	0.460[mg/l]	0.228[mg/l]	0.439[mg/l]

Conc 2	0.489[mg/l]	0.481[mg/l]	0.497[mg/l]	0.749[mg/l]	0.486[mg/l]	0.248[mg/l]	0.481[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.479[mg/l]**	**0.470[mg/l]**	**0.481[mg/l]**	**<0.708[mg/l]**	**0.473[mg/l]**	**0.238[mg/l]**	**0.460[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***3.033***	***3.360***	***4.732***	***8.300***	***3.899***	***5.789***	***6.480***
Conc SD	***0.015[mg/l]***	***0.016[mg/l]***	***0.023[mg/l]***	***0.059[mg/l]***	***0.018[mg/l]***	***0.014[mg/l]***	***0.030[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.458[mg/l]	0.456[mg/l]	4807360	105.985[%]	0.451[mg/l]	105.985[%]	
Conc 2	0.489[mg/l]	0.501[mg/l]	4527010	99.817[%]	0.475[mg/l]	99.817[%]	
Conc MinRange	*90.000*	*90.000*	---	---	*90.000*	---	
Conc Mean	**0.473[mg/l]**	**0.479[mg/l]**	**4667180**	**102.901[%]**	**0.463[mg/l]**	**102.901[%]**	
Conc MaxRange	*110.000*	*110.000*	---	---	*110.000*	---	
Conc RSD	***4.682***	***6.588***	***---***	***4.239***	***3.641***	***4.239***	
Conc SD	***0.022[mg/l]***	***0.032[mg/l]***	***198237***	***4.362[%]***	***0.017[mg/l]***	***4.362[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.221[mg/l]	2.298[mg/l]	1114100	0.450[mg/l]	0.462[mg/l]	0.453[mg/l]	0.440[mg/l]
Conc 2	0.242[mg/l]	2.425[mg/l]	1109920	0.473[mg/l]	0.487[mg/l]	0.479[mg/l]	0.476[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.232[mg/l]**	**2.362[mg/l]**	**1112010**	**0.462[mg/l]**	**0.474[mg/l]**	**0.466[mg/l]**	**0.458[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***6.444***	***3.799***	***---***	***3.445***	***3.721***	***3.937***	***5.560***
Conc SD	***0.015[mg/l]***	***0.090[mg/l]***	***2955.71***	***0.016[mg/l]***	***0.018[mg/l]***	***0.018[mg/l]***	***0.025[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	11.172[mg/l]	0.450[mg/l]	0.465[mg/l]	0.467[mg/l]	24505.8	<0.460[mg/l]	2.351[mg/l]
Conc 2	12.125[mg/l]	0.475[mg/l]	0.491[mg/l]	0.495[mg/l]	22736.0	<0.484[mg/l]	2.486[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**11.648[mg/l]**	**0.462[mg/l]**	**0.478[mg/l]**	**0.481[mg/l]**	**23620.9**	**<0.472[mg/l]**	**2.419[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***5.786***	***3.849***	***3.847***	***4.104***	***---***	***3.627***	***3.953***
Conc SD	***0.674[mg/l]***	***0.018[mg/l]***	***0.018[mg/l]***	***0.020[mg/l]***	***1251.44***	***0.017[mg/l]***	***0.096[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-2.020[mg/l]	17.427[mg/l]	<15.441[mg/l]	1.762[mg/l]	1.726[mg/l]	4.471[mg/l]	0.455[mg/l]
Conc 2	<-1.851[mg/l]	19.143[mg/l]	18.912[mg/l]	1.912[mg/l]	1.907[mg/l]	4.699[mg/l]	0.483[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.935[mg/l]**	**18.285[mg/l]**	**<17.177[mg/l]**	**1.837[mg/l]**	**1.816[mg/l]**	**4.585[mg/l]**	**0.469[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***6.165***	***6.638***	***14.293***	***5.780***	***7.078***	***3.511***	***4.200***
Conc SD	***0.119[mg/l]***	***1.214[mg/l]***	***2.455[mg/l]***	***0.106[mg/l]***	***0.129[mg/l]***	***0.161[mg/l]***	***0.020[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.474[mg/l]	17.779[mg/l]	17.177[mg/l]	0.457[mg/l]	0.469[mg/l]	0.459[mg/l]	0.465[mg/l]
Conc 2	0.501[mg/l]	19.827[mg/l]	19.646[mg/l]	0.484[mg/l]	0.489[mg/l]	0.481[mg/l]	0.497[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.487[mg/l]**	**18.803[mg/l]**	**18.411[mg/l]**	**0.471[mg/l]**	**0.479[mg/l]**	**0.470[mg/l]**	**0.481[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*

Conc RSD	***3.913***	***7.702***	***9.483***	***4.180***	***3.033***	***3.360***	***4.732***
Conc SD	***0.019[mg/l]***	***1.448[mg/l]***	***1.746[mg/l]***	***0.020[mg/l]***	***0.015[mg/l]***	***0.016[mg/l]***	***0.023[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.666[mg/l]	0.460[mg/l]	0.228[mg/l]	0.439[mg/l]	0.458[mg/l]	0.456[mg/l]	4807360
Conc 2	0.749[mg/l]	0.486[mg/l]	0.248[mg/l]	0.481[mg/l]	0.489[mg/l]	0.501[mg/l]	4527010
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.708[mg/l]**	**0.473[mg/l]**	**0.238[mg/l]**	**0.460[mg/l]**	**0.473[mg/l]**	**0.479[mg/l]**	**4667180**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***8.300***	***3.899***	***5.789***	***6.480***	***4.682***	***6.588***	***---***
Conc SD	***0.059[mg/l]***	***0.018[mg/l]***	***0.014[mg/l]***	***0.030[mg/l]***	***0.022[mg/l]***	***0.032[mg/l]***	***198237***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	105.985[%]	0.451[mg/l]	0.450[mg/l]				
Conc 2	99.817[%]	0.475[mg/l]	0.497[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**102.901[%]**	**0.463[mg/l]**	**0.473[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***4.239***	***3.641***	***7.002***				
Conc SD	***4.362[%]***	***0.017[mg/l]***	***0.033[mg/l]***				

Sample Name: CCB | Sample Type: Control Sample

Measure Date: 2016-05-16 19:07:07 | Recalculation Date: | State: Checked | Quality: | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	0.012[mg/l]	1070070	<-0.001[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.013[mg/l]	1080860	0.002[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.000[mg/l]**	**0.012[mg/l]**	**1075460**	**<0.001[mg/l]**	**0.003[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***353.477***	***3.772***	***---***	***321.440***	***10.972***	***3.725***	***0.301***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***7629.68***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.020[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21282.2	<-0.005[mg/l]	0.006[mg/l]
Conc 2	0.022[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21380.9	<-0.005[mg/l]	0.006[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.021[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**21331.5**	**<-0.005[mg/l]**	**0.006[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***5.455***	***150.731***	***245.979***	***1493.71***	***---***	***13.121***	***1.990***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***69.791***	***0.001[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.020[mg/l]	0.001[mg/l]	0.008[mg/l]	0.000[mg/l]	0.002[mg/l]	<0.249[mg/l]	-0.000[mg/l]
Conc 2	0.019[mg/l]	0.001[mg/l]	0.008[mg/l]	0.000[mg/l]	0.002[mg/l]	<0.149[mg/l]	-0.001[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.020[mg/l]**	**0.001[mg/l]**	**0.008[mg/l]**	**0.000[mg/l]**	**0.002[mg/l]**	**<0.199[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***2.162***	***4.232***	***1.334***	***3.258***	***1.591***	***35.492***	***141.368***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.071[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.002[mg/l]	0.002[mg/l]	0.001[mg/l]	-0.129[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc 2	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	-0.132[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.001[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**	**-0.130[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***119.803***	***96.518***	***255.543***	***1.865***	***89.133***	***3.964***	***12.853***
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.003[mg/l]	-0.005[mg/l]	4480290	98.793[%]	0.001[mg/l]	98.793[%]	
Conc 2	0.003[mg/l]	0.002[mg/l]	4542250	100.140[%]	0.001[mg/l]	100.140[%]	
Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.003[mg/l]**	**-0.001[mg/l]**	**4511270**	**99.466[%]**	**0.001[mg/l]**	**99.466[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***7.658***	***319.760***	***---***	***0.958***	***0.805***	***0.958***	
Conc SD	***0.000[mg/l]***	***0.004[mg/l]***	***43812.3***	***0.952[%]***	***0.000[mg/l]***	***0.952[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	0.012[mg/l]	1070070	<-0.001[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.013[mg/l]	1080860	0.002[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.012[mg/l]**	**1075460**	**<0.001[mg/l]**	**0.003[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***353.477***	***3.772***	***---***	***321.440***	***10.972***	***3.725***	***0.301***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***7629.68***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.020[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	21282.2	<-0.009[mg/l]	0.006[mg/l]
Conc 2	0.022[mg/l]	-0.000[mg/l]	-0.000[mg/l]	-0.000[mg/l]	21380.9	<-0.009[mg/l]	0.006[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.021[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**-0.000[mg/l]**	**21331.5**	**<-0.009[mg/l]**	**0.006[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***5.455***	***150.731***	***245.979***	***1493.71***	***---***	***3.029***	***1.990***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***69.791***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.937[mg/l]	0.020[mg/l]	<-19.677[mg/l]	0.001[mg/l]	<-0.419[mg/l]	0.008[mg/l]	0.000[mg/l]
Conc 2	<-4.937[mg/l]	0.019[mg/l]	<-19.675[mg/l]	0.001[mg/l]	<-0.419[mg/l]	0.008[mg/l]	0.000[mg/l]

Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.937[mg/l]**	**0.020[mg/l]**	**<-19.676[mg/l]**	**0.001[mg/l]**	**<-0.419[mg/l]**	**0.008[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.002***	***2.162***	***0.004***	***4.232***	***0.001***	***1.334***	***3.258***
Conc SD	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.002[mg/l]	<0.249[mg/l]	<-1.225[mg/l]	-0.000[mg/l]	-0.002[mg/l]	0.002[mg/l]	0.001[mg/l]
Conc 2	0.002[mg/l]	<0.149[mg/l]	<-1.262[mg/l]	-0.001[mg/l]	-0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.002[mg/l]**	**<0.199[mg/l]**	**<-1.243[mg/l]**	**-0.000[mg/l]**	**-0.001[mg/l]**	**0.001[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.591***	***35.492***	***2.086***	***141.368***	***119.803***	***96.518***	***255.543***
Conc SD	***0.000[mg/l]***	***0.071[mg/l]***	***0.026[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.129[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	-0.005[mg/l]	4480290
Conc 2	-0.132[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	0.002[mg/l]	4542250
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.130[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**	**-0.001[mg/l]**	**4511270**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.865***	***89.133***	***3.964***	***12.853***	***7.658***	***319.760***	***---***
Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.004[mg/l]***	***43812.3***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	98.793[%]	0.001[mg/l]	<-0.005[mg/l]				
Conc 2	100.140[%]	0.001[mg/l]	<-0.005[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**99.466[%]**	**0.001[mg/l]**	**<-0.005[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.958***	***0.805***	***13.121***				
Conc SD	***0.952[%]***	***0.000[mg/l]***	***0.001[mg/l]***				

Sample Name: CCV | Sample Type: Control Sample

Measure Date: 2016-05-16 19:09:05 | Recalculation Date: | State: Check failed | Quality: Failed | Total Dilution: 1.000000

Sample Identification

Sample Name						
CCV						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	0.241[mg/l]	2.462[mg/l]	1087360	0.480[mg/l]	0.499[mg/l]	0.476[mg/l]	0.475[mg/l]
Conc 2	0.247[mg/l]	2.492[mg/l]	1095770	0.484[mg/l]	0.510[mg/l]	0.488[mg/l]	0.483[mg/l]
Conc MinRange	*90.000*	*90.000*	*---*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.244[mg/l]**	**2.477[mg/l]**	**1091560**	**0.482[mg/l]**	**0.505[mg/l]**	**0.482[mg/l]**	**0.479[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*---*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***1.704***	***0.851***	***---***	***0.644***	***1.577***	***1.760***	***1.130***

Conc SD	***0.004[mg/l]***	***0.021[mg/l]***	***5946.77***	***0.003[mg/l]***	***0.008[mg/l]***	***0.008[mg/l]***	***0.005[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	12.007[mg/l]	0.474[mg/l]	0.492[mg/l]	0.496[mg/l]	21685.8	0.498[mg/l]	2.484[mg/l]
Conc 2	12.280[mg/l]	0.487[mg/l]	0.501[mg/l]	0.505[mg/l]	22754.8	0.513[mg/l]	2.540[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	---	*90.000*	*90.000*
Conc Mean	**12.143[mg/l]**	**0.480[mg/l]**	**0.497[mg/l]**	**0.501[mg/l]**	**22220.3**	**0.505[mg/l]**	**2.512[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	---	*110.000*	*110.000*
Conc RSD	***1.591***	***1.814***	***1.275***	***1.367***	***---***	***2.052***	***1.579***
Conc SD	***0.193[mg/l]***	***0.009[mg/l]***	***0.006[mg/l]***	***0.007[mg/l]***	***755.897***	***0.010[mg/l]***	***0.040[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	21.216[mg/l]	2.007[mg/l]	4.705[mg/l]	0.482[mg/l]	0.499[mg/l]	20.623[mg/l]	0.486[mg/l]
Conc 2	18.005[mg/l]	1.920[mg/l]	4.782[mg/l]	0.492[mg/l]	0.511[mg/l]	19.585[mg/l]	0.498[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**19.611[mg/l]**	**1.963[mg/l]**	**4.744[mg/l]**	**0.487[mg/l]**	**0.505[mg/l]**	**20.104[mg/l]**	**0.492[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***11.577***	***3.117***	***1.149***	***1.437***	***1.677***	***3.653***	***1.751***
Conc SD	***2.270[mg/l]***	***0.061[mg/l]***	***0.054[mg/l]***	***0.007[mg/l]***	***0.008[mg/l]***	***0.734[mg/l]***	***0.009[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	0.495[mg/l]	0.486[mg/l]	0.496[mg/l]	0.731[mg/l]	0.487[mg/l]	0.250[mg/l]	0.478[mg/l]
Conc 2	0.504[mg/l]	0.498[mg/l]	0.502[mg/l]	0.767[mg/l]	0.496[mg/l]	0.250[mg/l]	0.490[mg/l]
Conc MinRange	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*	*90.000*
Conc Mean	**0.499[mg/l]**	**0.492[mg/l]**	**0.499[mg/l]**	**<0.749[mg/l]**	**0.492[mg/l]**	**0.250[mg/l]**	**0.484[mg/l]**
Conc MaxRange	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*	*110.000*
Conc RSD	***1.258***	***1.785***	***0.859***	***3.431***	***1.286***	***0.028***	***1.754***
Conc SD	***0.006[mg/l]***	***0.009[mg/l]***	***0.004[mg/l]***	***0.026[mg/l]***	***0.006[mg/l]***	***0.000[mg/l]***	***0.008[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.482[mg/l]	0.500[mg/l]	4524700	99.774[%]	0.477[mg/l]	99.774[%]	
Conc 2	0.496[mg/l]	0.509[mg/l]	4436390	97.811[%]	0.483[mg/l]	97.811[%]	
Conc MinRange	*90.000*	*90.000*	---	---	*90.000*	---	
Conc Mean	**0.489[mg/l]**	**0.505[mg/l]**	**4480550**	**98.793[%]**	**0.480[mg/l]**	**98.793[%]**	
Conc MaxRange	*110.000*	*110.000*	---	---	*110.000*	---	
Conc RSD	***2.084***	***1.261***	***---***	***1.405***	***0.926***	***1.405***	
Conc SD	***0.010[mg/l]***	***0.006[mg/l]***	***62444.6***	***1.388[%]***	***0.004[mg/l]***	***1.388[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	0.241[mg/l]	2.462[mg/l]	1087360	0.480[mg/l]	0.499[mg/l]	0.476[mg/l]	0.475[mg/l]
Conc 2	0.247[mg/l]	2.492[mg/l]	1095770	0.484[mg/l]	0.510[mg/l]	0.488[mg/l]	0.483[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.244[mg/l]**	**2.477[mg/l]**	**1091560**	**0.482[mg/l]**	**0.505[mg/l]**	**0.482[mg/l]**	**0.479[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.704***	***0.851***	***---***	***0.644***	***1.577***	***1.760***	***1.130***
Conc SD	***0.004[mg/l]***	***0.021[mg/l]***	***5946.77***	***0.003[mg/l]***	***0.008[mg/l]***	***0.008[mg/l]***	***0.005[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	12.007[mg/l]	0.474[mg/l]	0.492[mg/l]	0.496[mg/l]	21685.8	<0.487[mg/l]	2.484[mg/l]

Conc 2	12.280[mg/l]	0.487[mg/l]	0.501[mg/l]	0.505[mg/l]	22754.8	<0.496[mg/l]	2.540[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**12.143[mg/l]**	**0.480[mg/l]**	**0.497[mg/l]**	**0.501[mg/l]**	**22220.3**	**<0.492[mg/l]**	**2.512[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***1.591***	***1.814***	***1.275***	***1.367***	***---***	***1.209***	***1.579***
Conc SD	***0.193[mg/l]***	***0.009[mg/l]***	***0.006[mg/l]***	***0.007[mg/l]***	***755.897***	***0.006[mg/l]***	***0.040[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-1.855[mg/l]	20.315[mg/l]	21.216[mg/l]	1.994[mg/l]	2.007[mg/l]	4.705[mg/l]	0.482[mg/l]
Conc 2	<-1.785[mg/l]	18.700[mg/l]	18.005[mg/l]	1.922[mg/l]	1.920[mg/l]	4.782[mg/l]	0.492[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-1.820[mg/l]**	**19.508[mg/l]**	**19.611[mg/l]**	**1.958[mg/l]**	**1.963[mg/l]**	**4.744[mg/l]**	**0.487[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***2.694***	***5.856***	***11.577***	***2.585***	***3.117***	***1.149***	***1.437***
Conc SD	***0.049[mg/l]***	***1.142[mg/l]***	***2.270[mg/l]***	***0.051[mg/l]***	***0.061[mg/l]***	***0.054[mg/l]***	***0.007[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.499[mg/l]	20.717[mg/l]	20.623[mg/l]	0.486[mg/l]	0.495[mg/l]	0.486[mg/l]	0.496[mg/l]
Conc 2	0.511[mg/l]	19.806[mg/l]	19.585[mg/l]	0.498[mg/l]	0.504[mg/l]	0.498[mg/l]	0.502[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.505[mg/l]**	**20.262[mg/l]**	**20.104[mg/l]**	**0.492[mg/l]**	**0.499[mg/l]**	**0.492[mg/l]**	**0.499[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***1.677***	***3.179***	***3.653***	***1.751***	***1.258***	***1.785***	***0.859***
Conc SD	***0.008[mg/l]***	***0.644[mg/l]***	***0.734[mg/l]***	***0.009[mg/l]***	***0.006[mg/l]***	***0.009[mg/l]***	***0.004[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	0.731[mg/l]	0.487[mg/l]	0.250[mg/l]	0.478[mg/l]	0.482[mg/l]	0.500[mg/l]	4524700
Conc 2	0.767[mg/l]	0.496[mg/l]	0.250[mg/l]	0.490[mg/l]	0.496[mg/l]	0.509[mg/l]	4436390
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**0.749[mg/l]**	**0.492[mg/l]**	**0.250[mg/l]**	**0.484[mg/l]**	**0.489[mg/l]**	**0.505[mg/l]**	**4480550**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***3.431***	***1.286***	***0.028***	***1.754***	***2.084***	***1.261***	***---***
Conc SD	***0.026[mg/l]***	***0.006[mg/l]***	***0.000[mg/l]***	***0.008[mg/l]***	***0.010[mg/l]***	***0.006[mg/l]***	***62444.6***

	Yb 371.034	Zn 213.856	Cu 324.754				
Conc 1	99.774[%]	0.477[mg/l]	0.498[mg/l]				
Conc 2	97.811[%]	0.483[mg/l]	0.513[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.793[%]**	**0.480[mg/l]**	**0.505[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***1.405***	***0.926***	***2.052***				
Conc SD	***1.388[%]***	***0.004[mg/l]***	***0.010[mg/l]***				

Method Name:	Hou Metals	Creation Date:	2013-03-26 12:11:57
Method Autor:	Operator	Last Change:	2016-05-16 14:31:10

Sample Name: CCB			Sample Type: Control Sample		
Measure Date: 2016-05-16 19:11:04	Recalculation Date:	State: Checked	Quality:	Total Dilution: 1.000000	

Sample Identification

Sample Name						
CCB						

	Ag	Al	Ar 430.010	As	B	Ba	Be
Conc 1	-0.000[mg/l]	0.014[mg/l]	1076260	<0.000[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.011[mg/l]	1076060	<-0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.000[mg/l]**	**0.012[mg/l]**	**1076160**	**<-0.000[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***4289.79***	***16.485***	***---***	***248.135***	***9.592***	***28.747***	***12.973***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***141.421***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca	Cd	Co	Cr	Cs 459.317	Cu	Fe
Conc 1	0.024[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	20115.2	<-0.004[mg/l]	0.005[mg/l]
Conc 2	0.025[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	21186.3	<-0.004[mg/l]	0.005[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.025[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**20650.8**	**<-0.004[mg/l]**	**0.005[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***2.250***	***21.653***	***52.352***	***444.082***	***---***	***0.767***	***3.636***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***757.382***	***0.000[mg/l]***	***0.000[mg/l]***

	K	Li	Mg	Mn	Mo	Na	Ni
Conc 1	0.023[mg/l]	0.001[mg/l]	0.009[mg/l]	0.000[mg/l]	0.002[mg/l]	<0.165[mg/l]	-0.000[mg/l]
Conc 2	0.019[mg/l]	0.001[mg/l]	0.006[mg/l]	0.000[mg/l]	0.001[mg/l]	0.389[mg/l]	-0.000[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**0.021[mg/l]**	**0.001[mg/l]**	**0.007[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**<0.277[mg/l]**	**-0.000[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***13.991***	***9.759***	***30.061***	***5.536***	***22.692***	***56.988***	***11.376***
Conc SD	***0.003[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.158[mg/l]***	***0.000[mg/l]***

	Pb	Sb	Se	Si	Sn	Sr	Ti
Conc 1	-0.001[mg/l]	0.000[mg/l]	-0.001[mg/l]	-0.121[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc 2	-0.000[mg/l]	0.001[mg/l]	-0.001[mg/l]	-0.123[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]
Conc MinRange	---	---	---	---	---	---	---
Conc Mean	**-0.000[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**	**-0.122[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**
Conc MaxRange	---	---	---	---	---	---	---
Conc RSD	***69.210***	***124.212***	***28.007***	***1.516***	***105.454***	***3.871***	***3.990***
Conc SD	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Tl	V	Y 371.030	Y-%	Zn	Yb	
Conc 1	0.003[mg/l]	0.000[mg/l]	4465220	98.443[%]	0.001[mg/l]	98.443[%]	
Conc 2	0.004[mg/l]	0.002[mg/l]	4473130	98.625[%]	0.001[mg/l]	98.625[%]	

Conc MinRange	---	---	---	---	---	---	
Conc Mean	**0.003[mg/l]**	**0.001[mg/l]**	**4469170**	**98.534[%]**	**0.001[mg/l]**	**98.534[%]**	
Conc MaxRange	---	---	---	---	---	---	
Conc RSD	***21.308***	***95.674***	***---***	***0.131***	***3.899***	***0.131***	
Conc SD	***0.001[mg/l]***	***0.001[mg/l]***	***5593.21***	***0.129[%]***	***0.000[mg/l]***	***0.129[%]***	

	Ag 328.068	Al 176.641	Ar 430.010	As 189.042	B 249.773	Ba 233.527	Be 313.107
Conc 1	-0.000[mg/l]	0.014[mg/l]	1076260	<0.000[mg/l]	0.003[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc 2	0.000[mg/l]	0.011[mg/l]	1076060	<-0.001[mg/l]	0.002[mg/l]	0.000[mg/l]	0.000[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.002[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.000[mg/l]**	**0.012[mg/l]**	**1076160**	**<-0.000[mg/l]**	**0.002[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***4289.79***	***16.485***	***---***	***248.135***	***9.592***	***28.747***	***12.973***
Conc SD	***0.000[mg/l]***	***0.002[mg/l]***	***141.421***	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***

	Ca 315.887	Cd 226.502	Co 228.616	Cr 267.716	Cs 459.317	Cu 224.700	Fe 259.941
Conc 1	0.024[mg/l]	0.000[mg/l]	0.000[mg/l]	0.000[mg/l]	20115.2	<-0.009[mg/l]	0.005[mg/l]
Conc 2	0.025[mg/l]	0.000[mg/l]	0.000[mg/l]	-0.000[mg/l]	21186.3	<-0.009[mg/l]	0.005[mg/l]
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---	*0.750[mg/l]*	*0.000[mg/l]*
Conc Mean	**0.025[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**20650.8**	**<-0.009[mg/l]**	**0.005[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---	*2.400[mg/l]*	*24.000[mg/l]*
Conc RSD	***2.250***	***21.653***	***52.352***	***444.082***	***---***	***0.608***	***3.636***
Conc SD	***0.001[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***757.382***	***0.000[mg/l]***	***0.000[mg/l]***

	Fe 259.9_H	K 766.491	K 766.4_H	Li 670.780	Li 670.7_H	Mg 279.079	Mn 257.611
Conc 1	<-4.937[mg/l]	0.023[mg/l]	<-19.671[mg/l]	0.001[mg/l]	<-0.419[mg/l]	0.009[mg/l]	0.000[mg/l]
Conc 2	<-4.938[mg/l]	0.019[mg/l]	<-19.676[mg/l]	0.001[mg/l]	<-0.419[mg/l]	0.006[mg/l]	0.000[mg/l]
Conc MinRange	*25.000[mg/l]*	*-10.000[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*1.600[mg/l]*	*0.002[mg/l]*	*-10.000[mg/l]*
Conc Mean	**<-4.937[mg/l]**	**0.021[mg/l]**	**<-19.673[mg/l]**	**0.001[mg/l]**	**<-0.419[mg/l]**	**0.007[mg/l]**	**0.000[mg/l]**
Conc MaxRange	*500.000[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*2.400[mg/l]*	*1000.00[mg/l]*	*24.000[mg/l]*	*1000.00[mg/l]*
Conc RSD	***0.007***	***13.991***	***0.018***	***9.759***	***0.043***	***30.061***	***5.536***
Conc SD	***0.000[mg/l]***	***0.003[mg/l]***	***0.004[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.002[mg/l]***	***0.000[mg/l]***

	Mo 202.095	Na 330.237	Na 330.2_H	Ni 231.604	Pb 220.353	Sb 206.833	Se 196.090
Conc 1	0.002[mg/l]	<0.165[mg/l]	<-1.011[mg/l]	-0.000[mg/l]	-0.001[mg/l]	0.000[mg/l]	-0.001[mg/l]
Conc 2	0.001[mg/l]	0.389[mg/l]	<-1.135[mg/l]	-0.000[mg/l]	-0.000[mg/l]	0.001[mg/l]	-0.001[mg/l]
Conc MinRange	*-10.000[mg/l]*	*0.285[mg/l]*	*16.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*
Conc Mean	**0.001[mg/l]**	**<0.277[mg/l]**	**<-1.073[mg/l]**	**-0.000[mg/l]**	**-0.000[mg/l]**	**0.001[mg/l]**	**-0.001[mg/l]**
Conc MaxRange	*1000.00[mg/l]*	*24.000[mg/l]*	*240.000[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*
Conc RSD	***22.692***	***56.988***	***8.176***	***11.376***	***69.210***	***124.212***	***28.007***
Conc SD	***0.000[mg/l]***	***0.158[mg/l]***	***0.088[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.000[mg/l]***

	Si 251.612	Sn 189.991	Sr 407.771	Ti 334.941	Tl 190.864	V 292.464	Y 371.030
Conc 1	-0.121[mg/l]	0.001[mg/l]	0.000[mg/l]	0.001[mg/l]	0.003[mg/l]	0.000[mg/l]	4465220
Conc 2	-0.123[mg/l]	0.000[mg/l]	0.000[mg/l]	0.001[mg/l]	0.004[mg/l]	0.002[mg/l]	4473130
Conc MinRange	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	*-10.000[mg/l]*	---
Conc Mean	**-0.122[mg/l]**	**0.000[mg/l]**	**0.000[mg/l]**	**0.001[mg/l]**	**0.003[mg/l]**	**0.001[mg/l]**	**4469170**
Conc MaxRange	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	*1000.00[mg/l]*	---
Conc RSD	***1.516***	***105.454***	***3.871***	***3.990***	***21.308***	***95.674***	***---***

Conc SD	***0.002[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.000[mg/l]***	***0.001[mg/l]***	***0.001[mg/l]***	***5593.21***
	Yb 371.034	**Zn 213.856**	**Cu 324.754**				
Conc 1	98.443[%]	0.001[mg/l]	<-0.004[mg/l]				
Conc 2	98.625[%]	0.001[mg/l]	<-0.004[mg/l]				
Conc MinRange	*0.000[%]*	*0.000[mg/l]*	*0.002[mg/l]*				
Conc Mean	**98.534[%]**	**0.001[mg/l]**	**<-0.004[mg/l]**				
Conc MaxRange	*120.000[%]*	*2.400[mg/l]*	*0.600[mg/l]*				
Conc RSD	***0.131***	***3.899***	***0.767***				
Conc SD	***0.129[%]***	***0.000[mg/l]***	***0.000[mg/l]***				

Metals Worksheet

Batch Number: 600-188600
Method: 245.1
Analyst: Gay, Special C

Date Open: May 16 2016 12:48PM
Batch End:

Lab ID	Client ID	Method Chain	Basis	Final weight/volume of sample	MER0516S1_00010	MER0516S2_00010
S0						
S0.2						
S0.5						
S1.0						
S2.0						
S5.0						
S10.0						
ICV~600-188600/8		7470A		50 mL		1.5 mL
ICB~600-188600/9		7470A		50 mL		1.5 mL
CRA~600-188600/10		7470A		50 mL	0.1 mL	
CCV~600-188600/11		7470A		50 mL		1.5 mL
CCB~600-188600/12		7470A				
MB~600-188546/7-A		7470A				
LCS~600-188546/8-A		7470A				
LB~600-188519/1-D		7470A				
600-130758-A-2-H		7470A	P			
600-130758-A-2-I~MS		7470A	P			
LB~600-188518/1-E		7470A				
600-130676-A-1-I		7470A	P			
600-130676-A-1-J~MS		7470A	P			
600-130678-A-1-E		7470A	P			
600-130677-A-1-E		7470A	P			
CCV~600-188600/23		7470A		50 mL		1.5 mL
CCB~600-188600/24		7470A				
600-130773-A-1-E		7470A	P			

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Metals Worksheet

Batch Number: 600-188600
Method: 245.1
Analyst: Gay, Special C

Date Open: May 16 2016 12:46PM
Batch End:

Lab ID	Client ID	Method Chain	Basis	Final weight/volume of sample	MER0516S1_00010	MER0516S2_00010
600-130680-A-1-E		7470A	P			
600-130753-A-1-H		7470A				
600-130753-A-1-I~DU		7470A				
600-130753-A-1-J~MS		7470A				
600-130679-A-1-E		7470A	P			
600-130749-A-2-D						
600-130749-A-1-C						
600-130774-A-1-E		7470A	P			
600-130758-A-1-D		7470A	P			
CCV~600-188600/35		7470A		50 mL		1.5 mL
CCB~600-188600/36		7470A				
600-130749-A-3-D						
600-130775-A-1-E		7470A	P			
600-130755-A-1-E						
600-130681-A-1-E		7470A	P			
600-130750-B-1-H		7470A	P			
600-130750-B-1-I~MS		7470A	P			
600-130826-D-1-A		7470A	T			
600-130826-D-1-B~DU		7470A	T			
600-130826-D-1-C~MS		7470A	T			
600-130826-D-2-A		7470A	T			
CCV~600-188600/47		7470A		50 mL		1.5 mL
CCB~600-188600/48		7470A				
600-130826-D-3-A		7470A	T			
600-130753-A-1-H~SD~^5		7470A				

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Metals Worksheet

Batch Number: 600-188600
Method: 245.1
Analyst: Gay, Special C

Date Open: May 16 2016 12:48PM
Batch End:

Lab ID	Client ID	Method Chain	Basis	Final weight/volume of sample	MER0516S1_00010	MER0516S2_00010
CCV~600-188600/51		7470A		50 mL		1.5 mL
CCB~600-188600/52		7470A				

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Analysis Begun

Logged In Analyst: Houston_WetChem_Inst
Technique: AA FIMS-MHS
Spectrometer Model: FIMS-100, S/N B050-9550
Autosampler Model: S10

Sample Information File: C:\data-AA\Houston_wetchem_Inst\Sample Information\Today1.sif
Batch ID:
Results Data Set: Fw051616
Results Library: C:\data-AA\Houston_wetchem_Inst\Results\Results.mdb

5-16-16

Sequence No.: 1
Autosampler Location: 2
Sample ID: S0
Date Collected: 5/16/2016 12:48:28 PM
Analyst:
Data Type: Original

Replicate Data: S0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0002	0.0002	0.0002	12:49:32	Yes
2		[0.00]	0.0002	0.0007	0.0002	12:50:12	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	11.92				

Auto-zero performed.

Sequence No.: 2
Autosampler Location: 3
Sample ID: S0.2
Date Collected: 5/16/2016 12:50:13 PM
Analyst:
Data Type: Original

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0037	0.0205	0.0039	12:51:16	Yes
2		[0.2]	0.0037	0.0212	0.0040	12:51:56	Yes
Mean:		[0.2]	0.0037				
SD:		0.0	0.0000				
%RSD:		0.0	0.65				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01858 Intercept: 0.00000

Sequence No.: 3
Autosampler Location: 4
Sample ID: S0.5
Date Collected: 5/16/2016 12:51:57 PM
Analyst:
Data Type: Original

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0087	0.0489	0.0089	12:53:01	Yes
2		[0.5]	0.0087	0.0491	0.0089	12:53:41	Yes
Mean:		[0.5]	0.0087				
SD:		0.0	0.0000				
%RSD:		0.0	0.17				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999495 Slope: 0.01731 Intercept: 0.00010

Sequence No.: 4
Autosampler Location: 5
Sample ID: S1.0
Date Collected: 5/16/2016 12:53:42 PM
Analyst:
Data Type: Original

Replicate Data: S1.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[1.0]	0.0168	0.0952	0.0170	12:54:45	Yes

2	[1.0]	0.0168	0.0949	0.0171	12:55:25	Yes
Mean:	[1.0]	0.0168				
SD:	0.0	0.0000				
%RSD:	0.0	0.17				

Standard number 3 applied. [1.0]
Correlation Coef.: 0.999694 Slope: 0.01671 Intercept: 0.00020

Sequence No.: 5 Autosampler Location: 6
Sample ID: S2.0 Date Collected: 5/16/2016 12:55:27 PM
Analyst: Data Type: Original

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0327	0.1843	0.0329	12:56:31	Yes
2		[2.0]	0.0327	0.1815	0.0329	12:57:11	Yes
Mean:		[2.0]	0.0327				
SD:		0.0	0.0000				
%RSD:		0.0	0.00				

Standard number 4 applied. [2.0]
Correlation Coef.: 0.999810 Slope: 0.01624 Intercept: 0.00036

Sequence No.: 6 Autosampler Location: 7
Sample ID: S5.0 Date Collected: 5/16/2016 12:57:12 PM
Analyst: Data Type: Original

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0834	0.4704	0.0837	12:58:15	Yes
2		[5.0]	0.0833	0.4669	0.0836	12:58:54	Yes
Mean:		[5.0]	0.0834				
SD:		0.0	0.0001				
%RSD:		0.0	0.08				

Standard number 5 applied. [5.0]
Correlation Coef.: 0.999933 Slope: 0.01661 Intercept: 0.00013

Sequence No.: 7 Autosampler Location: 8
Sample ID: S10.0 Date Collected: 5/16/2016 12:59:40 PM
Analyst: Data Type: Original

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1629	0.9268	0.1631	13:00:44	Yes
2		[10.0]	0.1569	0.8400	0.1572	13:01:23	Yes
Mean:		[10.0]	0.1599				
SD:		0.0	0.0042				
%RSD:		0.0	2.62				

Standard number 6 applied. [10.0]
Correlation Coef.: 0.999802 Slope: 0.01603 Intercept: 0.00077

Calibration data for Hg 253.7 Equation: Linear, Calculated Intercept

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
S0	0.0000	0	-0.048	0.00	11.9
S0.2	0.0037	0.2	0.184	0.00	0.7
S0.5	0.0087	0.5	0.494	0.00	0.2
S1.0	0.0168	1.0	1.001	0.00	0.2
S2.0	0.0327	2.0	1.990	0.00	0.0
S5.0	0.0834	5.0	5.154	0.00	0.1
S10.0	0.1599	10.0	9.926	0.00	2.6

Correlation Coef.: 0.999802 Slope: 0.01603 Intercept: 0.00077

Sequence No.: 8 Autosampler Location: 1
Sample ID: ICV Date Collected: 5/16/2016 1:02:09 PM
Analyst: Data Type: Original

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.068	3.068	0.0500	0.2705	0.0502	13:03:13	Yes
2	3.104	3.104	0.0505	0.2752	0.0508	13:03:53	Yes
Mean:	3.086	3.086	0.0502				
SD:	0.025	0.025	0.0004				
%RSD:	0.822	0.822	0.81				

QC value within limits for Hg 253.7 Recovery = 102.87%
All analyte(s) passed QC.

Sequence No.: 9 Autosampler Location: 2
Sample ID: ICB Date Collected: 5/16/2016 1:04:38 PM
Analyst: Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.052	-0.052	-0.0001	0.0005	0.0002	13:05:42	Yes
2	-0.053	-0.053	-0.0001	0.0003	0.0001	13:06:21	Yes
Mean:	-0.053	-0.053	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.665	1.665	18.47				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 10 Autosampler Location: 3
Sample ID: CRA Date Collected: 5/16/2016 1:06:23 PM
Analyst: Data Type: Original

Replicate Data: CRA

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.184	0.184	0.0037	0.0215	0.0039	13:07:26	Yes
2	0.184	0.184	0.0037	0.0214	0.0039	13:08:05	Yes
Mean:	0.184	0.184	0.0037				
SD:	0.000	0.000	0.0000				
%RSD:	0.061	0.061	0.05				

QC value within limits for Hg 253.7 Recovery = 91.97%
All analyte(s) passed QC.

Sequence No.: 11 Autosampler Location: 1
Sample ID: CCV Date Collected: 5/16/2016 1:08:06 PM
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.165	3.165	0.0515	0.2888	0.0517	13:09:10	Yes
2	3.137	3.137	0.0511	0.2856	0.0513	13:09:50	Yes
Mean:	3.151	3.151	0.0513				
SD:	0.019	0.019	0.0003				
%RSD:	0.612	0.612	0.60				

QC value within limits for Hg 253.7 Recovery = 105.04%
All analyte(s) passed QC.

Sequence No.: 12 Autosampler Location: 2
Sample ID: CCB Date Collected: 5/16/2016 1:10:35 PM
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.053	-0.053	-0.0001	0.0001	0.0001	13:11:39	Yes
2	-0.054	-0.054	-0.0001	0.0004	0.0001	13:12:19	Yes
Mean:	-0.054	-0.054	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.350	1.350	12.88				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 13 Autosampler Location: 62
Sample ID: MB 600-188546/7-A Date Collected: 5/16/2016 1:12:20 PM
Analyst: Data Type: Original

Replicate Data: MB 600-188546/7-A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.048	0.0000	0.0011	0.0002	13:13:24	Yes
2	-0.047	-0.047	0.0000	0.0011	0.0002	13:14:04	Yes
Mean:	-0.047	-0.047	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	1.371	1.371	72.82				

Sequence No.: 14 Autosampler Location: 63
Sample ID: LCS 600-188546/8-A Date Collected: 5/16/2016 1:14:05 PM
Analyst: Data Type: Original

Replicate Data: LCS 600-188546/8-A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.187	3.187	0.0519	0.2910	0.0521	13:15:08	Yes
2	3.182	3.182	0.0518	0.2893	0.0520	13:15:48	Yes
Mean:	3.185	3.185	0.0518				
SD:	0.003	0.003	0.0001				
%RSD:	0.102	0.102	0.10				

Sequence No.: 15 Autosampler Location: 64
Sample ID: LB 600-188519/1-D Date Collected: 5/16/2016 1:16:34 PM
Analyst: Data Type: Original

Replicate Data: LB 600-188519/1-D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	0.0000	0.0010	0.0002	13:17:38	Yes
2	-0.053	-0.053	-0.0001	0.0002	0.0001	13:18:18	Yes
Mean:	-0.050	-0.050	-0.0000				
SD:	0.003	0.003	0.0001				
%RSD:	6.645	6.645	148.03				

Sequence No.: 16 Autosampler Location: 65
Sample ID: 600-130758-A-2-H Date Collected: 5/16/2016 1:18:19 PM
Analyst: Data Type: Original

Replicate Data: 600-130758-A-2-H

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.049	-0.049	-0.0000	0.0006	0.0002	13:19:22	Yes
2	-0.053	-0.053	-0.0001	0.0003	0.0001	13:20:02	Yes
Mean:	-0.051	-0.051	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	5.881	5.881	110.85				

Sequence No.: 17 Autosampler Location: 66
Sample ID: 600-130758-A-2-I MS Date Collected: 5/16/2016 1:20:04 PM
Analyst: Data Type: Original

Replicate Data: 600-130758-A-2-I MS

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.220	1.220	0.0203	0.1304	0.0205	13:21:07	Yes
2	1.204	1.204	0.0201	0.1297	0.0203	13:21:47	Yes
Mean:	1.212	1.212	0.0202				
SD:	0.011	0.011	0.0002				
%RSD:	0.917	0.917	0.88				

Sequence No.: 18 Autosampler Location: 67
Sample ID: LB 600-188518/1-E Date Collected: 5/16/2016 1:21:48 PM
Analyst: Data Type: Original

Replicate Data: LB 600-188518/1-E

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.046	0.0000	0.0005	0.0003	13:22:50	Yes
2	-0.042	-0.042	0.0001	0.0011	0.0003	13:23:31	Yes
Mean:	-0.044	-0.044	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	5.942	5.942	66.83				

Sequence No.: 19 Autosampler Location: 68
Sample ID: 600-130676-A-1-I Date Collected: 5/16/2016 1:23:32 PM
Analyst: Data Type: Original

Replicate Data: 600-130676-A-1-I

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0001	0.0009	0.0003	13:24:34	Yes
2	-0.045	-0.045	0.0001	0.0008	0.0003	13:25:15	Yes
Mean:	-0.045	-0.045	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.915	0.915	11.83				

Sequence No.: 20 Autosampler Location: 69
Sample ID: 600-130676-A-1-J MS Date Collected: 5/16/2016 1:25:16 PM
Analyst: Data Type: Original

Replicate Data: 600-130676-A-1-J MS

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.008	3.008	0.0490	0.2721	0.0492	13:26:18	Yes
2	3.007	3.007	0.0490	0.2720	0.0492	13:26:58	Yes
Mean:	3.008	3.008	0.0490				
SD:	0.000	0.000	0.0000				
%RSD:	0.012	0.012	0.01				

Sequence No.: 21 Autosampler Location: 70
Sample ID: 600-130678-A-1-E Date Collected: 5/16/2016 1:27:45 PM
Analyst: Data Type: Original

Replicate Data: 600-130678-A-1-E

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.045	-0.045	0.0000	0.0003	0.0003	13:28:49	Yes
2	-0.047	-0.047	0.0000	0.0005	0.0002	13:29:28	Yes

Mean:	-0.046	-0.046	0.0000
SD:	0.001	0.001	0.0000
%RSD:	2.671	2.671	66.12

Sequence No.: 22 Autosampler Location: 71
Sample ID: 600-130677-A-1-E Date Collected: 5/16/2016 1:29:30 PM
Analyst: Data Type: Original

Replicate Data: 600-130677-A-1-E

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	0.0000	0.0004	0.0002	13:30:33	Yes
2	-0.048	-0.048	0.0000	0.0007	0.0002	13:31:13	Yes
Mean:	-0.048	-0.048	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.299	0.299	118.15				

Sequence No.: 23 Autosampler Location: 1
Sample ID: CCV Date Collected: 5/16/2016 1:31:14 PM
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.114	3.114	0.0507	0.2788	0.0509	13:32:18	Yes
2	3.117	3.117	0.0508	0.2785	0.0510	13:32:58	Yes
Mean:	3.116	3.116	0.0507				
SD:	0.003	0.003	0.0000				
%RSD:	0.085	0.085	0.08				

QC value within limits for Hg 253.7 Recovery = 103.85%
All analyte(s) passed QC.

Sequence No.: 24 Autosampler Location: 2
Sample ID: CCB Date Collected: 5/16/2016 1:33:44 PM
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	-0.0001	0.0005	0.0002	13:34:47	Yes
2	-0.052	-0.052	-0.0001	0.0003	0.0002	13:35:27	Yes
Mean:	-0.052	-0.052	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.837	0.837	11.74				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 25 Autosampler Location: 72
Sample ID: 600-130773-A-1-E Date Collected: 5/16/2016 1:35:28 PM
Analyst: Data Type: Original

Replicate Data: 600-130773-A-1-E

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.043	-0.043	0.0001	0.0010	0.0003	13:36:32	Yes
2	-0.044	-0.044	0.0001	0.0003	0.0003	13:37:12	Yes
Mean:	-0.043	-0.043	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.869	1.869	17.81				

Sequence No.: 26 Autosampler Location: 73
Sample ID: 600-130680-A-1-E Date Collected: 5/16/2016 1:37:13 PM
Analyst: Data Type: Original

Replicate Data: 600-130680-A-1-E

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.042	-0.042	0.0001	0.0010	0.0003	13:38:16	Yes
2	-0.041	-0.041	0.0001	0.0009	0.0003	13:38:56	Yes
Mean:	-0.041	-0.041	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.899	0.899	5.53				

Sequence No.: 27
Sample ID: 600-130753-A-1-H
Analyst:
Autosampler Location: 74
Date Collected: 5/16/2016 1:38:57 PM
Data Type: Original

Replicate Data: 600-130753-A-1-H

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	0.0001	0.0009	0.0003	13:40:02	Yes
2	-0.041	-0.041	0.0001	0.0010	0.0003	13:40:42	Yes
Mean:	-0.041	-0.041	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.110	1.110	6.66				

Sequence No.: 28
Sample ID: 600-130753-A-1-I DU
Analyst:
Autosampler Location: 75
Date Collected: 5/16/2016 1:40:43 PM
Data Type: Original

Replicate Data: 600-130753-A-1-I DU

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.040	-0.040	0.0001	0.0008	0.0003	13:41:46	Yes
2	-0.042	-0.042	0.0001	0.0009	0.0003	13:42:26	Yes
Mean:	-0.041	-0.041	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.452	2.452	14.53				

Sequence No.: 29
Sample ID: 600-130753-A-1-J MS
Analyst:
Autosampler Location: 76
Date Collected: 5/16/2016 1:42:27 PM
Data Type: Original

Replicate Data: 600-130753-A-1-J MS

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.063	3.063	0.0499	0.2798	0.0501	13:43:30	Yes
2	3.060	3.060	0.0498	0.2784	0.0501	13:44:09	Yes
Mean:	3.061	3.061	0.0498				
SD:	0.002	0.002	0.0000				
%RSD:	0.063	0.063	0.06				

Sequence No.: 30
Sample ID: 600-130679-A-1-E
Analyst:
Autosampler Location: 77
Date Collected: 5/16/2016 1:44:56 PM
Data Type: Original

Replicate Data: 600-130679-A-1-E

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0001	0.0007	0.0003	13:46:00	Yes
2	-0.044	-0.044	0.0001	0.0007	0.0003	13:46:40	Yes
Mean:	-0.044	-0.044	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.012	0.012	0.12				

Sequence No.: 31
Sample ID: 600-130749-A-2-D
Analyst:
Autosampler Location: 78
Date Collected: 5/16/2016 1:46:41 PM
Data Type: Original

Replicate Data: 600-130749-A-2-D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0001	0.0003	0.0003	13:47:45	Yes
2	-0.047	-0.047	0.0000	0.0002	0.0002	13:48:24	Yes
Mean:	-0.045	-0.045	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	3.881	3.881	67.20				

Sequence No.: 32
Sample ID: 600-130749-A-1-C
Analyst:
Autosampler Location: 79
Date Collected: 5/16/2016 1:48:25 PM
Data Type: Original

Replicate Data: 600-130749-A-1-C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0001	0.0006	0.0003	13:49:28	Yes
2	-0.045	-0.045	0.0001	0.0007	0.0003	13:50:08	Yes
Mean:	-0.044	-0.044	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.907	0.907	10.98				

Sequence No.: 33
Sample ID: 600-130774-A-1-E
Analyst:
Autosampler Location: 80
Date Collected: 5/16/2016 1:50:09 PM
Data Type: Original

Replicate Data: 600-130774-A-1-E

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.046	0.0000	0.0013	0.0003	13:51:12	Yes
2	-0.047	-0.047	0.0000	0.0012	0.0002	13:51:52	Yes
Mean:	-0.046	-0.046	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	2.475	2.475	68.77				

Sequence No.: 34
Sample ID: 600-130758-A-1-D
Analyst:
Autosampler Location: 81
Date Collected: 5/16/2016 1:51:53 PM
Data Type: Original

Replicate Data: 600-130758-A-1-D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.042	-0.042	0.0001	0.0017	0.0003	13:52:56	Yes
2	-0.044	-0.044	0.0001	0.0012	0.0003	13:53:36	Yes
Mean:	-0.043	-0.043	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.308	3.308	29.29				

Sequence No.: 35
Sample ID: CCV
Analyst:
Autosampler Location: 1
Date Collected: 5/16/2016 1:53:37 PM
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.072	3.072	0.0500	0.2674	0.0503	13:54:41	Yes
2	3.098	3.098	0.0504	0.2830	0.0507	13:55:20	Yes
Mean:	3.085	3.085	0.0502				
SD:	0.019	0.019	0.0003				

%RSD: 0.600 0.600 0.59
QC value within limits for Hg 253.7 Recovery = 102.84%
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 2
Sample ID: CCB Date Collected: 5/16/2016 1:56:07 PM
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.046	0.0000	0.0018	0.0003	13:57:10	Yes
2	-0.049	-0.049	-0.0000	0.0013	0.0002	13:57:49	Yes
Mean:	-0.048	-0.048	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	4.584	4.584	>999.9%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 37 Autosampler Location: 82
Sample ID: 600-130749-A-3-D Date Collected: 5/16/2016 1:57:51 PM
Analyst: Data Type: Original

Replicate Data: 600-130749-A-3-D

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.028	-0.028	0.0003	-0.0013	0.0006	13:58:55	Yes
2	-0.059	-0.059	-0.0002	-0.0056	0.0000	13:59:35	Yes
Mean:	-0.043	-0.043	0.0001				
SD:	0.022	0.022	0.0004				
%RSD:	51.35	51.35	479.77				

Sequence No.: 38 Autosampler Location: 83
Sample ID: 600-130775-A-1-E Date Collected: 5/16/2016 1:59:36 PM
Analyst: Data Type: Original

Replicate Data: 600-130775-A-1-E

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.053	-0.053	-0.0001	-0.0024	0.0001	14:00:39	Yes
2	-0.053	-0.053	-0.0001	-0.0011	0.0002	14:01:18	Yes
Mean:	-0.053	-0.053	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.818	0.818	8.94				

Sequence No.: 39 Autosampler Location: 84
Sample ID: 600-130755-A-1-E Date Collected: 5/16/2016 2:01:19 PM
Analyst: Data Type: Original

Replicate Data: 600-130755-A-1-E

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.046	0.0000	-0.0001	0.0003	14:02:22	Yes
2	-0.047	-0.047	0.0000	0.0002	0.0002	14:03:02	Yes
Mean:	-0.046	-0.046	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	1.880	1.880	54.23				

Sequence No.: 40 Autosampler Location: 85
Sample ID: 600-130681-A-1-E Date Collected: 5/16/2016 2:03:03 PM
Analyst: Data Type: Original

Replicate Data: 600-130681-A-1-E

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.043	-0.043	0.0001	0.0001	0.0003	14:04:06	Yes
2	-0.040	-0.040	0.0001	0.0008	0.0003	14:04:46	Yes
Mean:	-0.042	-0.042	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.770	4.770	31.38				

Sequence No.: 41 Autosampler Location: 86
Sample ID: 600-130750-B-1-H Date Collected: 5/16/2016 2:04:47 PM
Analyst: Data Type: Original

Replicate Data: 600-130750-B-1-H

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.046	0.0000	0.0001	0.0003	14:05:52	Yes
2	-0.044	-0.044	0.0001	0.0006	0.0003	14:06:32	Yes
Mean:	-0.045	-0.045	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.257	4.257	61.14				

Sequence No.: 42 Autosampler Location: 87
Sample ID: 600-130750-B-1-I MS Date Collected: 5/16/2016 2:06:33 PM
Analyst: Data Type: Original

Replicate Data: 600-130750-B-1-I MS

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.022	3.022	0.0492	0.2713	0.0495	14:07:36	Yes
2	3.009	3.009	0.0490	0.2670	0.0492	14:08:16	Yes
Mean:	3.016	3.016	0.0491				
SD:	0.010	0.010	0.0002				
%RSD:	0.323	0.323	0.32				

Sequence No.: 43 Autosampler Location: 88
Sample ID: 600-130826-D-1-A Date Collected: 5/16/2016 2:09:03 PM
Analyst: Data Type: Original

Replicate Data: 600-130826-D-1-A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.034	-0.034	0.0002	0.0021	0.0004	14:10:07	Yes
2	-0.047	-0.047	0.0000	-0.0011	0.0002	14:10:47	Yes
Mean:	-0.041	-0.041	0.0001				
SD:	0.009	0.009	0.0002				
%RSD:	23.34	23.34	129.34				

Sequence No.: 44 Autosampler Location: 89
Sample ID: 600-130826-D-1-B DU Date Collected: 5/16/2016 2:10:48 PM
Analyst: Data Type: Original

Replicate Data: 600-130826-D-1-B DU

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	0.0003	0.0037	0.0005	14:11:51	Yes
2	-0.033	-0.033	0.0002	0.0022	0.0005	14:12:31	Yes
Mean:	-0.032	-0.032	0.0003				
SD:	0.001	0.001	0.0000				
%RSD:	3.473	3.473	6.89				

Sequence No.: 45 Autosampler Location: 90
Sample ID: 600-130826-D-1-C MS Date Collected: 5/16/2016 2:12:32 PM

Analyst: Data Type: Original

Replicate Data: 600-130826-D-1-C MS

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.850	2.850	0.0465	0.2497	0.0467	14:13:35	Yes
2	2.872	2.872	0.0468	0.2494	0.0470	14:14:15	Yes
Mean:	2.861	2.861	0.0466				
SD:	0.016	0.016	0.0003				
%RSD:	0.555	0.555	0.55				

Sequence No.: 46 Autosampler Location: 91
Sample ID: 600-130826-D-2-A Date Collected: 5/16/2016 2:14:17 PM
Analyst: Data Type: Original

Replicate Data: 600-130826-D-2-A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0004	0.0044	0.0006	14:15:20	Yes
2	-0.015	-0.015	0.0005	0.0038	0.0008	14:16:00	Yes
Mean:	-0.019	-0.019	0.0005				
SD:	0.006	0.006	0.0001				
%RSD:	31.95	31.95	21.58				

Sequence No.: 47 Autosampler Location: 1
Sample ID: CCV Date Collected: 5/16/2016 2:16:01 PM
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.029	3.029	0.0493	0.2610	0.0496	14:17:05	Yes
2	3.051	3.051	0.0497	0.2631	0.0499	14:17:45	Yes
Mean:	3.040	3.040	0.0495				
SD:	0.016	0.016	0.0002				
%RSD:	0.512	0.512	0.50				

QC value within limits for Hg 253.7 Recovery = 101.33%
All analyte(s) passed QC.

Sequence No.: 48 Autosampler Location: 2
Sample ID: CCB Date Collected: 5/16/2016 2:18:30 PM
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	0.0001	0.0007	0.0003	14:19:33	Yes
2	-0.031	-0.031	0.0003	0.0020	0.0005	14:20:13	Yes
Mean:	-0.036	-0.036	0.0002				
SD:	0.007	0.007	0.0001				
%RSD:	18.60	18.60	57.18				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 49 Autosampler Location: 92
Sample ID: 600-130826-D-3-A Date Collected: 5/16/2016 2:20:14 PM
Analyst: Data Type: Original

Replicate Data: 600-130826-D-3-A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.040	-0.040	0.0001	0.0011	0.0004	14:21:19	Yes
2	-0.035	-0.035	0.0002	0.0018	0.0004	14:21:58	Yes

Mean:	-0.037	-0.037	0.0002
SD:	0.003	0.003	0.0001
%RSD:	9.220	9.220	31.93

Sequence No.: 50 Autosampler Location: 93
Sample ID: SD 600-130753-A-1-H@5 Date Collected: 5/16/2016 2:22:00 PM
Analyst: Data Type: Original

Replicate Data: SD 600-130753-A-1-H@5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.033	-0.033	0.0002	0.0016	0.0005	14:23:03	Yes
2	-0.034	-0.034	0.0002	0.0019	0.0004	14:23:43	Yes
Mean:	-0.034	-0.034	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.506	1.506	3.58				

Sequence No.: 51 Autosampler Location: 1
Sample ID: CCV Date Collected: 5/16/2016 2:23:44 PM
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.086	3.086	0.0502	0.2727	0.0505	14:24:48	Yes
2	3.114	3.114	0.0507	0.2726	0.0509	14:25:28	Yes
Mean:	3.100	3.100	0.0505				
SD:	0.020	0.020	0.0003				
%RSD:	0.645	0.645	0.64				

QC value within limits for Hg 253.7 Recovery = 103.34%
All analyte(s) passed QC.

Sequence No.: 52 Autosampler Location: 2
Sample ID: CCB Date Collected: 5/16/2016 2:26:13 PM
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0001	0.0001	0.0003	14:27:17	Yes
2	-0.048	-0.048	0.0000	0.0004	0.0002	14:27:57	Yes
Mean:	-0.046	-0.046	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	5.837	5.837	126.03				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188544 Batch Start Date: 05/16/16 06:12 Batch Analyst: Watts, Troy A

Batch Method: 3010A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	METCALA 00024	METCALB 00023	METHNO3 00151	METRHCL 00018
MB 600-188544/1		3010A, 6010B		50 mL	50 mL			2.5 mL	2.5 mL
LCS 600-188544/2		3010A, 6010B		50 mL	50 mL	250 uL	250 uL	2.5 mL	2.5 mL
LB 600-188519/1-A		3010A, 6010B		5 mL	50 mL			2.5 mL	2.5 mL
600-130758-A-2-A	PC-IDW Water	3010A, 6010B	P	5 mL	50 mL			2.5 mL	2.5 mL
600-130758-A-2-A DU	PC-IDW Water	3010A, 6010B	P	5 mL	50 mL			2.5 mL	2.5 mL
600-130758-A-2-B MS	PC-IDW Water	3010A, 6010B	P	5 mL	50 mL	250 uL	250 uL	2.5 mL	2.5 mL
LB 600-188518/1-A		3010A, 6010B		5 mL	50 mL			2.5 mL	2.5 mL
600-130758-A-1-A	PC-IDW Soil	3010A, 6010B	P	5 mL	50 mL			2.5 mL	2.5 mL

Batch Notes	
Lot # of hydrochloric acid	4115100
Lot # of Nitric Acid	0000127621
Hot Block ID	BB 02
Oven, Bath or Block Temperature 2	30
Pipette ID	16061674
Thermometer ID	424
Digestion Tube/Cup ID	1504103

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188546 Batch Start Date: 05/16/16 06:52 Batch Analyst: Gay, Special C

Batch Method: 7470A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MER0516HS 00001	MER0516KM 00002	MER0516PP 00001	MER0516S2 00010
MB 600-188546/7		7470A, 7470A		40 mL	40 mL	3 mL	6 mL	3.2 mL	
LCS 600-188546/8		7470A, 7470A		50 mL	50 mL	3 mL	6 mL	3.2 mL	1.5 mL
LB 600-188519/1-A		7470A, 7470A		40 mL	40 mL	3 mL	6 mL	3.2 mL	
600-130758-A-2-A	PC-IDW Water	7470A, 7470A	P	40 mL	40 mL	3 mL	6 mL	3.2 mL	
600-130758-A-2-B MS	PC-IDW Water	7470A, 7470A	P	40 mL	40 mL	3 mL	6 mL	3.2 mL	1.2 mL
LB 600-188518/1-A		7470A, 7470A		40 mL	40 mL	3 mL	6 mL	3.2 mL	
600-130753-A-1-A DU		7470A, 7470A		40 mL	40 mL	3 mL	6 mL	3.2 mL	
600-130758-A-1-A	PC-IDW Soil	7470A, 7470A	P	40 mL	40 mL	3 mL	6 mL	3.2 mL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MERSUL 00082	METHNO3 00151				
MB 600-188546/7		7470A, 7470A		2 mL	1 mL				
LCS 600-188546/8		7470A, 7470A		2 mL	1 mL				
LB 600-188519/1-A		7470A, 7470A		2 mL	1 mL				
600-130758-A-2-A	PC-IDW Water	7470A, 7470A	P	2 mL	1 mL				
600-130758-A-2-B MS	PC-IDW Water	7470A, 7470A	P	2 mL	1 mL				
LB 600-188518/1-A		7470A, 7470A		2 mL	1 mL				
600-130753-A-1-A DU		7470A, 7470A		2 mL	1 mL				
600-130758-A-1-A	PC-IDW Soil	7470A, 7470A	P	2 mL	1 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188546 Batch Start Date: 05/16/16 06:52 Batch Analyst: Gay, Special C

Batch Method: 7470A Batch End Date:

Batch Notes	
Hood ID	m4
Hot Block ID	hb03
Stannous Chloride ID	2054282
Temperature	91-1=90 Degrees C
Thermometer ID	515
Digestion Tube/Cup ID	1504103

Basis	Basis Description
P	TCLP

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG No.:

Project: Petro-Chemical Systems Turtle Bayou IDW

Client Sample ID	Lab Sample ID
PC-IDW Soil	600-130758-1
PC-IDW Water	600-130758-2

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PC-IDW Soil
Lab Sample ID: 600-130758-1
Lab Name: TestAmerica Houston
Job No.: 600-130758-1
SDG ID.:
Matrix: Solid
Date Sampled: 05/11/2016 10:00
Reporting Basis: WET
Date Received: 05/12/2016 11:16

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Cyanide, Reactive	0.0840	0.246	0.0840	mg/Kg	U		1	9012
	Sulfide, Reactive	13.7	49.1	13.7	mg/Kg	U		1	7.4.4
	pH	10.9	0.0100	0.0100	SU			1	9045C
	Flashpoint	>212	1.00	1.00	Degrees F			1	D92

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PC-IDW Water
Lab Sample ID: 600-130758-2
Lab Name: TestAmerica Houston
Job No.: 600-130758-1
SDG ID.:
Matrix: Water
Date Sampled: 05/11/2016 10:00
Reporting Basis: WET
Date Received: 05/12/2016 11:16

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Cyanide, Reactive	0.0397	0.250	0.0397	mg/L	U		1	9012
	Sulfide, Reactive	1.40	50.0	1.40	mg/L	U		1	7.4.4
	pH	8.04	0.0100	0.0100	SU		H	1	9040B
	Flashpoint	>186	1.00	1.00	Degrees F			1	SW846 Ch. 7

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Analyst: MJB Batch Start Date: 05/13/2016

Reporting Units: SU Analytical Batch No.: 188500

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
25	CCV	07:50	pH	7.040	7.00	101	99-101		WETRPH7CAL_00017
38	CCV	07:50	pH	13.05	13.0	100	99-101		Buffer pH 13_00008

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Analyst: MJB Batch Start Date: 05/13/2016

Reporting Units: SU Analytical Batch No.: 188500

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
50	CCV	07:50	pH	7.050	7.00	101	99-101		WETRPH7CAL_00017
61	CCV	07:50	pH	13.05	13.0	100	99-101		Buffer pH 13_00008

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Analyst: BDG Batch Start Date: 05/18/2016

Reporting Units: Degrees F Analytical Batch No.: 188809

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
15	CCV	11:00	Flashpoint	81.00	81.0	100	96.91-103.09		WETRPXYLEN_00018

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Analyst: DAW Batch Start Date: 05/18/2016

Reporting Units: Degrees F Analytical Batch No.: 188805

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
9	CCV	10:15	Flashpoint	81.60	81.0	101	96.91-103.09		WETRPXYLEN_00018

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 188971	Date: 05/20/2016 11:30	Prep Batch: 188911	Date: 05/19/2016 15:00				
7.4.4	MB 600-188911/1-A	Sulfide, Reactive	1.40	U	mg/L	50.0	1
Batch ID: 189004	Date: 05/20/2016 20:40	Prep Batch: 188911	Date: 05/19/2016 15:00				
9012	MB 600-188911/1-A	Cyanide, Reactive	0.0397	U	mg/L	0.250	1
Batch ID: 188805	Date: 05/18/2016 10:15						
SW846 Ch. 7	MB 600-188805/1	Flashpoint	>186		Degrees F	1.00	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 188971	Date: 05/20/2016 11:30		Prep Batch: 188911		Date: 05/19/2016 15:00						
7.4.4	600-130758-1	Sulfide, Reactive	13.7	U	mg/Kg						
7.4.4	600-130758-1 MS	Sulfide, Reactive	116.5		mg/Kg	963	12	0-200			
Batch ID: 189004	Date: 05/20/2016 20:40		Prep Batch: 188911		Date: 05/19/2016 15:00						
9012	600-130758-1	Cyanide, Reactive	0.0840	U	mg/Kg						
9012	600-130758-1 MS	Cyanide, Reactive	65.83		mg/Kg	968	7	0-200			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 188971	Date: 05/20/2016 11:30		Prep Batch: 188911		Date: 05/19/2016 15:00						
7.4.4	600-130758-2	Sulfide, Reactive	1.40	U	mg/L						
7.4.4	600-130758-2 MS	Sulfide, Reactive	1670		mg/L	992	168	0-200			
Batch ID: 189004	Date: 05/20/2016 20:40		Prep Batch: 188911		Date: 05/19/2016 15:00						
9012	600-130758-2	Cyanide, Reactive	0.0397	U	mg/L						
9012	600-130758-2 MS	Cyanide, Reactive	56.00		mg/L	1000	6	0-200			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 188971 Date: 05/20/2016 11:30			Prep Batch: 188911 Date: 05/19/2016 15:00					
7.4.4	PC-IDW Soil	600-130758-1	Sulfide, Reactive	13.7	mg/Kg			U
7.4.4	PC-IDW Soil	600-130758-1 DU	Sulfide, Reactive	13.4	mg/Kg	NC	20	U
Batch ID: 189004 Date: 05/20/2016 20:40			Prep Batch: 188911 Date: 05/19/2016 15:00					
9012	PC-IDW Soil	600-130758-1	Cyanide, Reactive	0.0840	mg/Kg			U
9012	PC-IDW Soil	600-130758-1 DU	Cyanide, Reactive	0.0818	mg/Kg	NC	20	U
Batch ID: 188500 Date: 05/13/2016 07:50								
9045C	PC-IDW Soil	600-130758-1	pH	10.9	SU			
9045C	PC-IDW Soil	600-130758-1 DU	pH	11.00	SU	0.5	1	
Batch ID: 188809 Date: 05/18/2016 11:00								
D92	PC-IDW Soil	600-130758-1	Flashpoint	>212	Degrees F			
D92	PC-IDW Soil	600-130758-1 DU	Flashpoint	>212	Degrees F	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 188971 Date: 05/20/2016 11:30			Prep Batch: 188911 Date: 05/19/2016 15:00					
7.4.4	PC-IDW Water	600-130758-2	Sulfide, Reactive	1.40	mg/L			U
7.4.4	PC-IDW Water	600-130758-2 DU	Sulfide, Reactive	1.40	mg/L	NC	20	U
Batch ID: 189004 Date: 05/20/2016 20:40			Prep Batch: 188911 Date: 05/19/2016 15:00					
9012	PC-IDW Water	600-130758-2	Cyanide, Reactive	0.0397	mg/L			U
9012	PC-IDW Water	600-130758-2 DU	Cyanide, Reactive	0.0397	mg/L	NC	20	U
Batch ID: 188805 Date: 05/18/2016 10:15								
SW846 Ch. 7		600-130750-A-2	Flashpoint	>186	Degrees F			
SW846 Ch. 7		600-130750-A-2 DU	Flashpoint	>186	Degrees F	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Solid

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 188971	Date: 05/20/2016 11:30		Prep Batch: 188911			Date: 05/19/2016 15:00					
						LCS Source: Sulfide Std._00420					
7.4.4	LCS 600-188911/3-A	Sulfide, Reactive	1750		mg/L	992	176	0-200			
Batch ID: 189004	Date: 05/20/2016 20:40		Prep Batch: 188911			Date: 05/19/2016 15:00					
						LCS Source: WETRCYANID_00052					
9012	LCS 600-188911/22-A ^40	Cyanide, Reactive	257.0		mg/L	1000	26	0-200			
Batch ID: 189004	Date: 05/20/2016 20:40		Prep Batch: 188911			Date: 05/19/2016 15:00					
						LCS Source: WETRCYANID_00052					
9012	LCS 600-188911/2-A ^80	Cyanide, Reactive	412.0		mg/L	1000	41	0-200			
Batch ID: 188500	Date: 05/13/2016 07:50										
						LCS Source: WETRPH7BUF_00031					
9045C	LCS 600-188500/51	pH	7.010		SU	7.00	100	99-101			
Batch ID: 188809	Date: 05/18/2016 11:00										
						LCS Source: WETRPXYLEN_00018					
D92	LCS 600-188809/1	Flashpoint	81.00		Degrees F	81.0	100	96.91-103.09			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 188500	Date: 05/13/2016 07:50										
						LCS Source: WETRPH7BUF_00031					
9040B	LCS 600-188500/26	pH	7.020		SU	7.00	100	99-101			
Batch ID: 188805	Date: 05/18/2016 10:15										
						LCS Source: WETRPXYLEN_00018					
SW846 Ch. 7	LCS 600-188805/2	Flashpoint	81.60		Degrees F	81.0	101	96.91-103.09			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: WC19

Method: 9012 MDL Date: 04/01/2011 13:51

Prep Method: 7.3.3

Analyte	Wavelength/ Mass	RL (ug/Kg)	MDL (ug/Kg)
Cyanide, Reactive		250	85.52

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: WC19

Method: 9012 XMDL Date: 06/15/2008 15:59

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Cyanide, Reactive		10	0.72665

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: WC19

Method: 9012 XMDL Date: 04/01/2011 13:46

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (mg/L)
Cyanide, Reactive		10	1.589

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: WC19

Method: 9012 MDL Date: 04/01/2011 13:46

Prep Method: 7.3.3

Analyte	Wavelength/ Mass	RL (ug/L)	MDL (ug/L)
Cyanide, Reactive		250	39.725

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 7.4.4 MDL Date: 06/13/2008 18:02

Prep Method: 7.3.4

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Sulfide, Reactive		50	13.99

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 7.4.4 XMDL Date: 06/13/2008 18:03

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfide, Reactive		5	1.399

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 7.4.4 MDL Date: 06/13/2008 17:51

Prep Method: 7.3.4

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Sulfide, Reactive		50	1.399

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 7.4.4 XMDL Date: 06/13/2008 17:57

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfide, Reactive		50	1.399

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: B2

Method: 2540B RL Date: 09/05/2005 11:35

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		1	
Percent Solids		1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9040B RL Date: 07/03/2008 13:54

Analyte	Wavelength/ Mass	RL (SU)	
pH		0.01	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 9040B XRL Date: 07/03/2008 13:54

Analyte	Wavelength/ Mass	XRL (SU)	
pH		0.01	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 9045C RL Date: 07/03/2008 14:00

Analyte	Wavelength/ Mass	RL (SU)	
pH		0.01	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: 9045C XRL Date: 07/03/2008 14:02

Analyte	Wavelength/ Mass	XRL (SU)	
pH		0.01	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: D92 RL Date: 11/09/2005 14:49

Analyte	Wavelength/ Mass	RL (Degrees F)	
Flashpoint		1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: D92 XRL Date: 06/09/2008 16:44

Analyte	Wavelength/ Mass	XRL (Degrees F)	
Flashpoint		1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SW846 Ch. 7 RL Date: 11/09/2005 14:49

Analyte	Wavelength/ Mass	RL (Degrees F)	
Flashpoint		1	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job Number: 600-130758-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SW846 Ch. 7 XRL Date: 06/09/2008 16:47

Analyte	Wavelength/ Mass	XRL (Degrees F)	
Flashpoint		1	

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Prep Method: 7.3.3

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 600-188911/1-A	05/19/2016 15:00	188911	10		250
LCS 600-188911/2-A ^80	05/19/2016 15:00	188911	10		250
600-130758-2	05/19/2016 15:00	188911	10		250
600-130758-2 DU	05/19/2016 15:00	188911	10		250
600-130758-2 MS	05/19/2016 15:00	188911	10		250
600-130758-1	05/19/2016 15:00	188911	10.18		250
600-130758-1 DU	05/19/2016 15:00	188911	10.46		250
600-130758-1 MS	05/19/2016 15:00	188911	10.33		250
LCS 600-188911/22-A ^40	05/19/2016 15:00	188911	10		250

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Prep Method: 7.3.4

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 600-188911/1-A	05/19/2016 15:00	188911	10		250
LCS 600-188911/3-A	05/19/2016 15:00	188911	10		250
600-130758-2	05/19/2016 15:00	188911	10		250
600-130758-2 DU	05/19/2016 15:00	188911	10		250
600-130758-2 MS	05/19/2016 15:00	188911	10		250
600-130758-1	05/19/2016 15:00	188911	10.18		250
600-130758-1 DU	05/19/2016 15:00	188911	10.46		250
600-130758-1 MS	05/19/2016 15:00	188911	10.30		250

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: WC19 Analysis Method: 9012

Start Date: 05/20/2016 20:40 End Date: 05/20/2016 20:40

Lab Sample Id	D/F	Type	Time	Analytes																								
				CNReac																								
MB 600-188911/1-A	1	T	20:40	X																								
600-130758-2	1	T	20:40	X																								
600-130758-2 DU	1	T	20:40	X																								
600-130758-2 MS	40	T	20:40	X																								
ZZZZZZ			20:40																									
600-130758-1	1	T	20:40	X																								
600-130758-1 DU	1	T	20:40	X																								
600-130758-1 MS	40	T	20:40	X																								
ZZZZZZ			20:40																									
ZZZZZZ			20:40																									
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ZZZZZZ			20:40																									
ZZZZZZ			20:40																									
ZZZZZZ			20:40																									
LCS 600-188911/22-A ^40	40	T	20:40	X																								
ZZZZZZ			20:40																									
ZZZZZZ			20:40																									
ZZZZZZ			20:40																									
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ZZZZZZ			20:40																									
ZZZZZZ			20:40																									
LCS 600-188911/2-A ^80	80	T	20:40	X																								

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 7.4.4

Start Date: 05/20/2016 11:30 End Date: 05/20/2016 12:03

Lab Sample Id	D/F	Type	Time	Analytes																								
				S2Reac																								
MB 600-188911/1-A	1	T	11:30	X																								
LCS 600-188911/3-A	1	T	11:30	X																								
600-130758-2	1	T	11:30	X																								
600-130758-2 DU	1	T	11:30	X																								
600-130758-2 MS	1	T	11:30	X																								
ZZZZZZ			11:30																									
600-130758-1	1	T	11:30	X																								
600-130758-1 DU	1	T	11:30	X																								
600-130758-1 MS	1	T	11:30	X																								
ZZZZZZ			11:30																									
ZZZZZZ			11:30																									
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ZZZZZZ			12:03																									
ZZZZZZ			12:03																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: B2 Analysis Method: 2540B

Start Date: 05/12/2016 15:21 End Date: 05/12/2016 15:25

Lab Sample Id	D/F	Type	Time	Analytes																									
				% Sol	Moist																								
600-130758-1	1	T	15:21	X	X																								
600-130758-1 DU	1	T	15:21	X	X																								
ZZZZZZ			15:21																										
ZZZZZZ			15:21																										
ZZZZZZ			15:21																										
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ZZZZZZ			15:25																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9045C

Start Date: 05/13/2016 07:50 End Date: 05/13/2016 07:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				pH																								
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
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ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
CCV 600-188500/13			07:50																									
ZZZZZZ			07:50																									
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ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
CCV 600-188500/25	1		07:50	X																								
LCS 600-188500/26	1	T	07:50	X																								
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
600-130758-2	1	T	07:50	X																								
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
CCV 600-188500/38	1		07:50	X																								
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: 9045C

Start Date: 05/13/2016 07:50 End Date: 05/13/2016 07:50

Lab Sample Id	D/F	Type	Time	Analytes																								
				pH																								
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
CCV 600-188500/50	1		07:50	X																								
LCS 600-188500/51	1	T	07:50	X																								
600-130758-1	1	T	07:50	X																								
600-130758-1 DU	1	T	07:50	X																								
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
CCV 600-188500/61	1		07:50	X																								
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
ZZZZZZ			07:50																									
CCV 600-188500/70			07:50																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: D92

Start Date: 05/18/2016 11:00 End Date: 05/18/2016 11:00

Lab Sample Id	D/F	Type	Time	Analytes																									
				FP																									
LCS 600-188809/1	1	T	11:00	X																									
600-130758-1	1	T	11:00	X																									
600-130758-1 DU	1	T	11:00	X																									
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
CCV 600-188809/15	1		11:00	X																									
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										
ZZZZZZ			11:00																										

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SW846 Ch. 7

Start Date: 05/18/2016 10:15 End Date: 05/18/2016 10:15

Lab Sample Id	D/F	Type	Time	Analytes
				FP
MB 600-188805/1	1	T	10:15	X
LCS 600-188805/2	1	T	10:15	X
ZZZZZZ			10:15	
600-130750-A-2 DU	1	T	10:15	X
600-130758-2	1	T	10:15	X
ZZZZZZ			10:15	
ZZZZZZ			10:15	
ZZZZZZ			10:15	
CCV 600-188805/9	1		10:15	X

Prep Types:
T = Total/NA

335.4# 188189002
335.1# 188984
9012 # 189084

Author: Houston_Wetchem_Inst

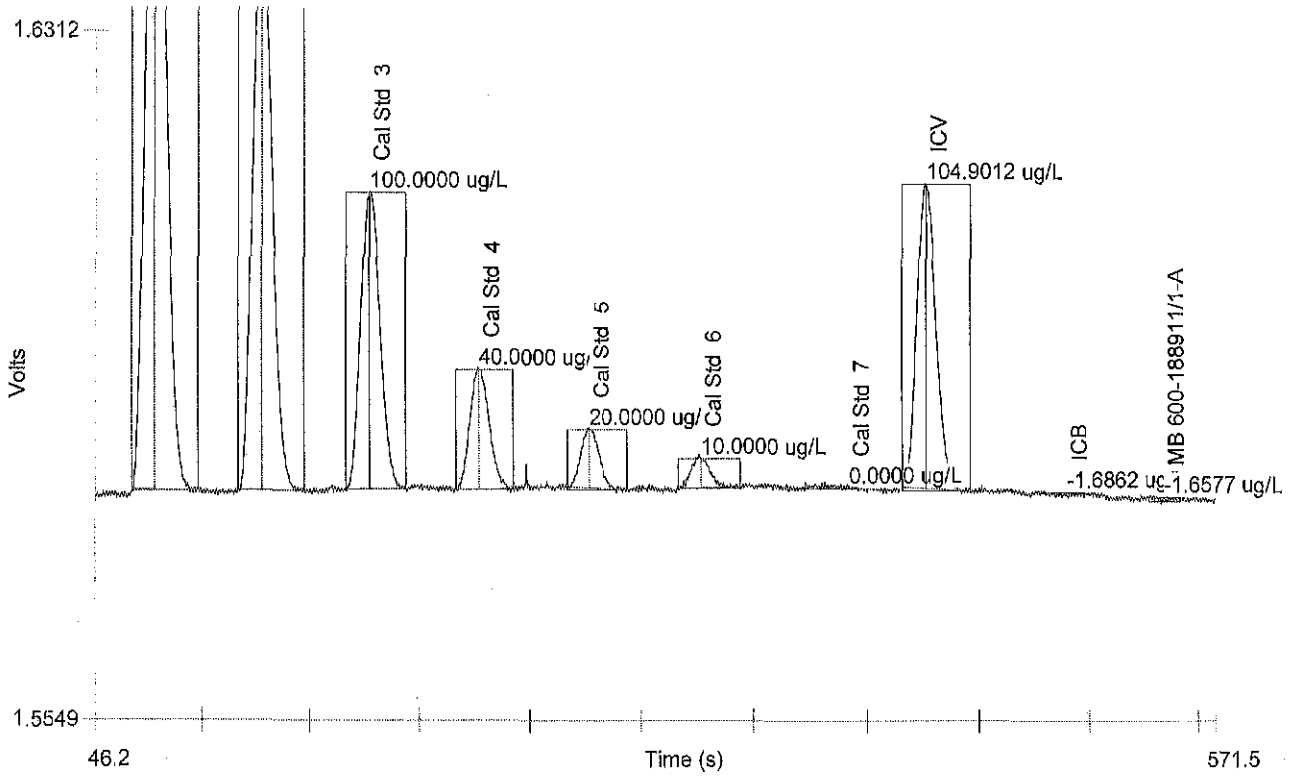
Date : 5/20/2016

Original Run Filename: OM_5-20-2016_07-33-28PM.OMN created 5/20/2016 7:33:28 PM
Original Run Author's Signature: [Houston_Wetchem_Inst]
Current Run Filename: OM_5-20-2016_07-33-28PM.OMN last modified 5/20/2016 8:20:03 PM
Current Run Author's Signature: [Houston_Wetchem_Inst]
Description: Cyanide

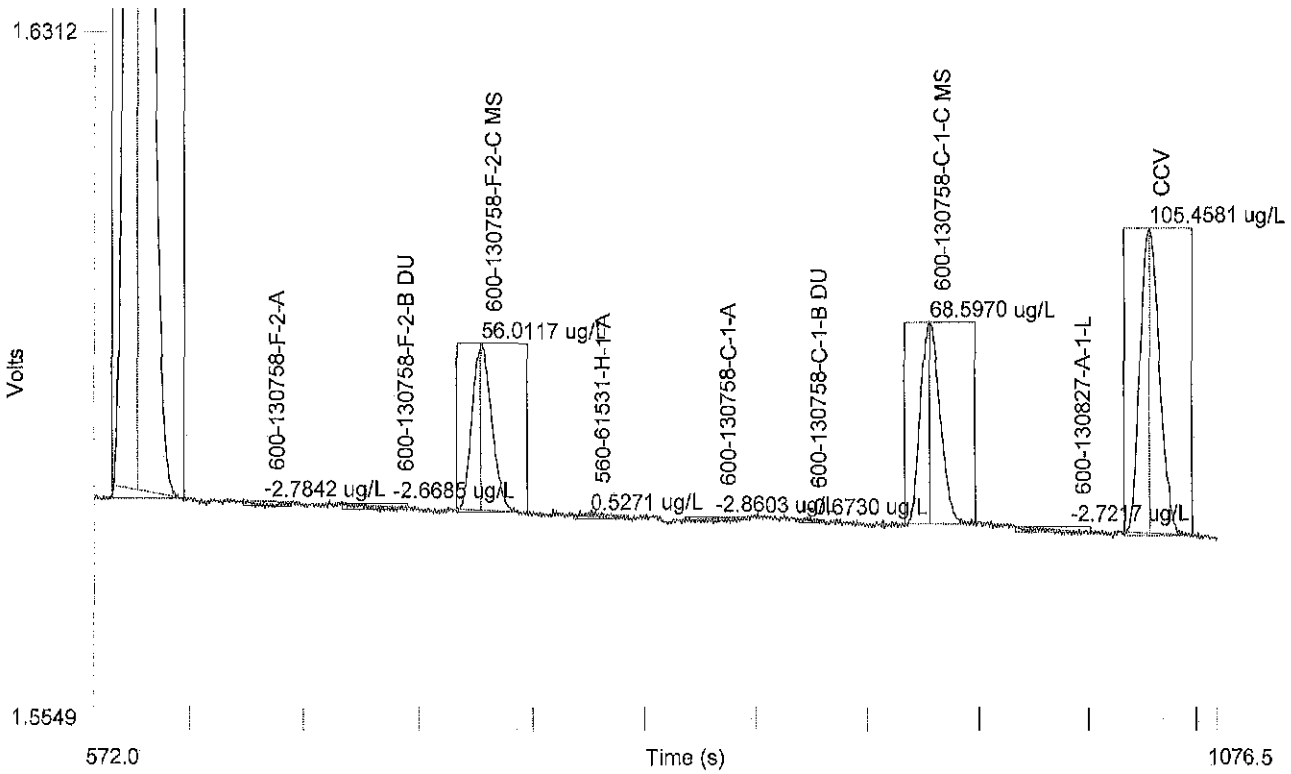
Sample	Rep.	Cup No.	Channel 1 Cyanide (ug/L)
Cal Std 1	1	S1	300.0000
Cal Std 2	1	S2	200.0000
Cal Std 3	1	S3	100.0000
Cal Std 4	1	S4	40.0000
Cal Std 5	1	S5	20.0000
Cal Std 6	1	S6	10.0000
Cal Std 7	1	S7	0.0000
ICV	1	1	104.9012
		Calibration:	Table/Fig. 1
ICB	1	2	-1.6862
MB 600-188911/1-A	1	3	-1.6577
LCS 600-188911/2-A	1	4	732.8635
600-130758-F-2-A	1	5	-2.7842
600-130758-F-2-B DU	1	6	-2.6685
600-130758-F-2-C MS	1	7	56.0117
560-61531-H-1-A	1	8	0.5271
600-130758-C-1-A	1	9	-2.8603
600-130758-C-1-B DU	1	10	-0.6730
600-130758-C-1-C MS	1	11	68.5970
600-130827-A-1-L	1	12	-2.7217
CCV	1	13	105.4581
CCB	1	14	-0.9365
600-130846-B-1-B	1	15	-0.6453
600-130847-B-1-B	1	16	-1.5757
600-130848-B-1-B	1	17	-1.7402
600-130859-D-1-A	1	18	-2.4464
600-130878-B-1-A	1	19	-2.2694
600-130880-B-1-A	1	20	-0.6096
600-130881-B-1-A	1	21	-1.1020
MB 600-188911/21-A	1	22	-1.9715
LCS 600-188911/22-A	1	23	257.6329
600-130882-B-1-A	1	24	-2.0562
ccv	1	13	103.8211
ccb	1	14	-1.9091
600-130882-B-1-B DU	1	27	0.4630
600-130882-B-1-C MS	1	28	119.4653
600-130883-B-1-A	1	29	-0.1647
600-130884-B-1-A	1	30	-0.6236
600-130960-A-1-C	1	31	-2.0170
600-130961-A-1-A	1	32	-0.7801
600-130962-A-1-A	1	33	-3.5577
mb	1	34	-3.3391
lcs	1	35	100.6426
600-130726-A-1	1	36	18.5505
600-130726-A-1ms	1	37	127.0967
600-130726-A-1msd	1	38	128.6798
600-130726-A-1cl	1	39	51.1562
LCS 600-188911/2-A	1	4	206.0524
ccv	1	13	105.3581
ccb	1	14	-2.2182
Sample49	1	42	2281.8958

Rev 5/23/16

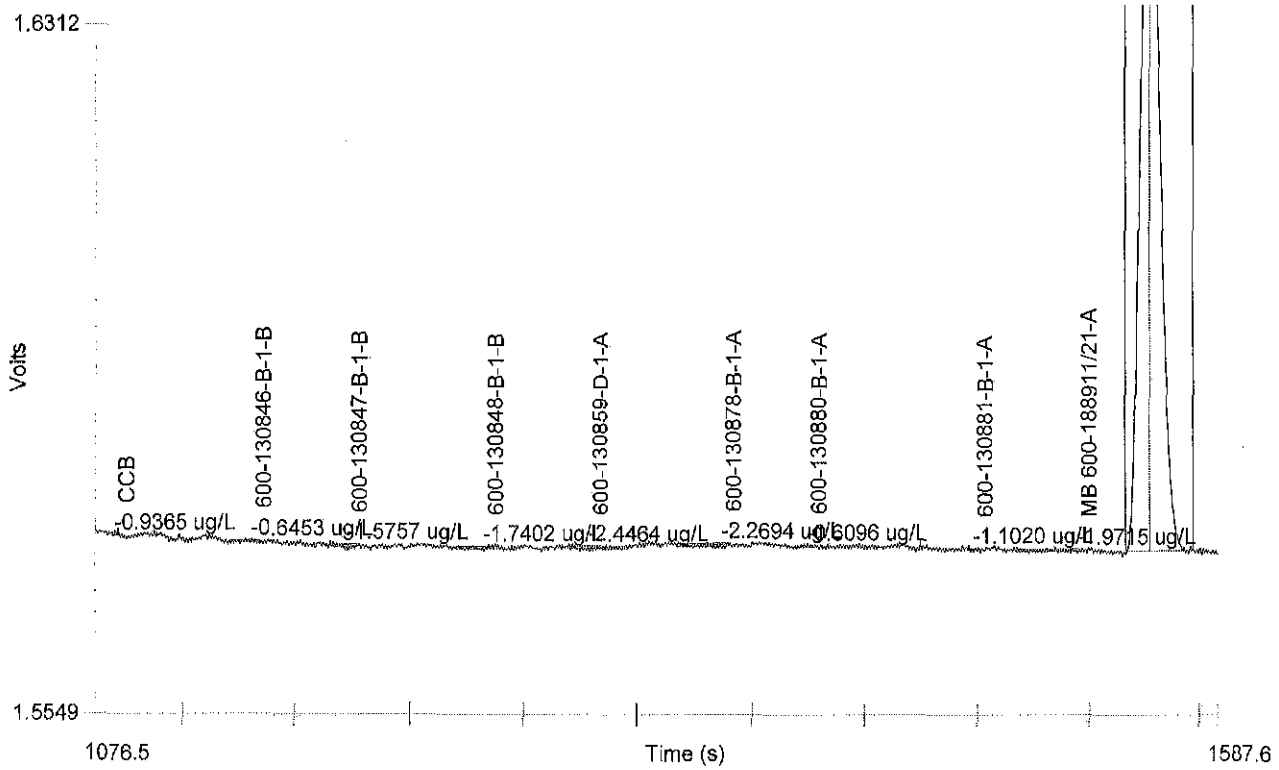
Channel 1 (Cyanide) : Set 1 of 5



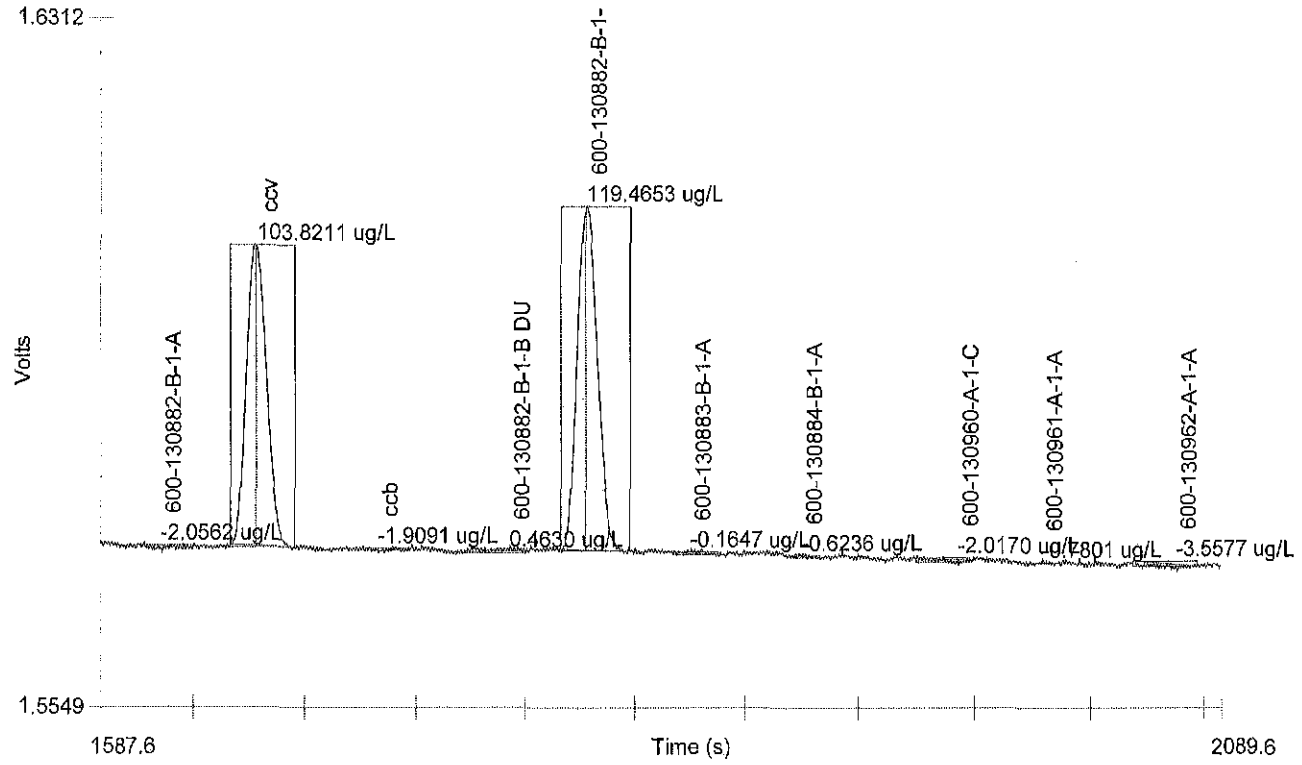
Channel 1 (Cyanide) : Set 2 of 5



Channel 1 (Cyanide) : Set 3 of 5



Channel 1 (Cyanide) : Set 4 of 5



Channel 1 (Cyanide) : Set 5 of 5

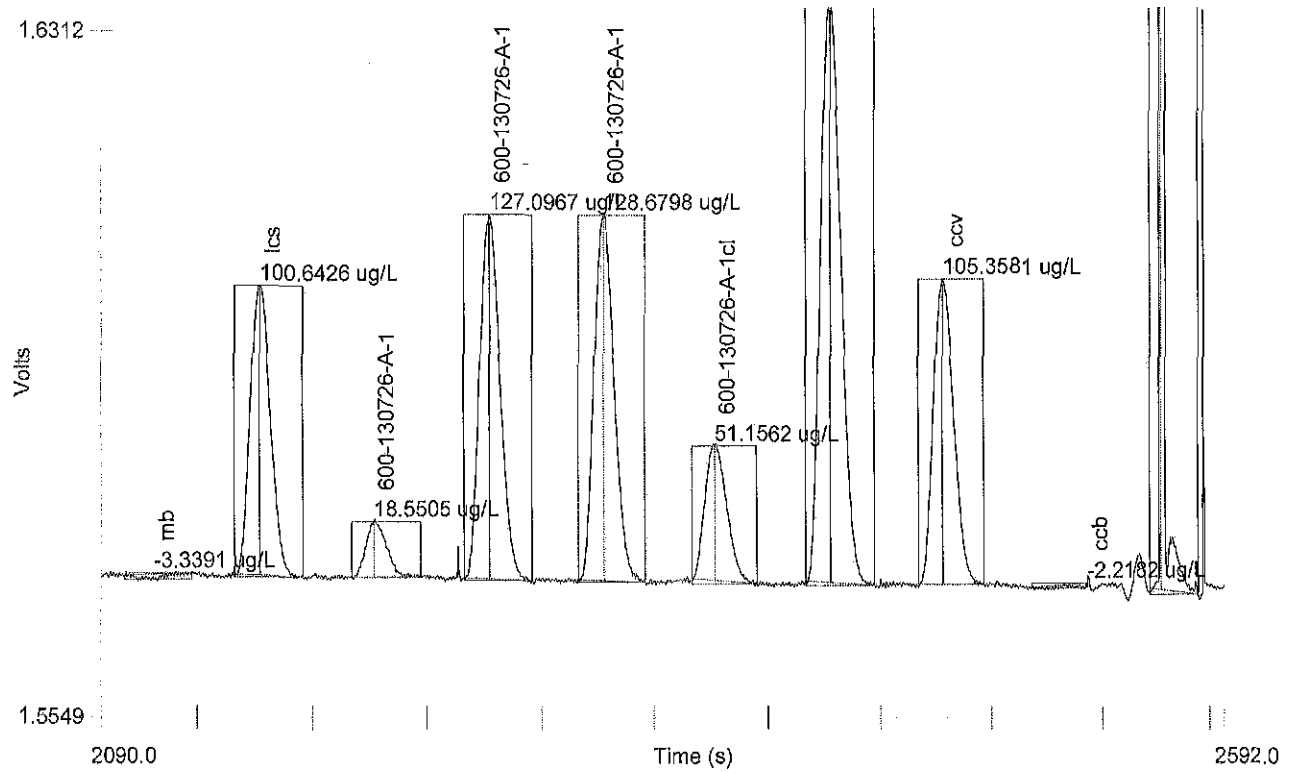
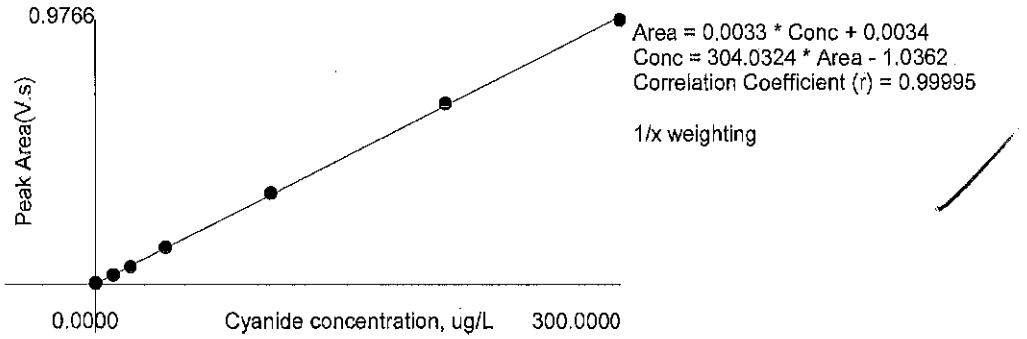


Table 1: Cyanide

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	300.0000	1	0.9766	0.0929	1.3	5/20/2016	7:37:58 PM
2	200.0000	1	0.6693	0.0639	-1.3	5/20/2016	7:38:48 PM
3	100.0000	1	0.3391	0.0328	-2.1	5/20/2016	7:39:39 PM
4	40.0000	1	0.1376	0.0132	-2.0	5/20/2016	7:40:30 PM
5	20.0000	1	0.0658	0.0065	4.9	5/20/2016	7:41:21 PM
6	10.0000	1	0.0349	0.0032	3.8	5/20/2016	7:42:14 PM
7	0.0000	1	0.0052	6.8903e-5		5/20/2016	7:43:07 PM

Figure 1: Cyanide



TestAmerica Houston

SULFIDE - Titrimetric & Reactive logbook

Method: SM4500-S^2 E or SW9034 **(circle one)**

Analyst: KS Batch# 188971 Date: 5/20/16 Time: 1130

Starch Sol ID: 1954336 6N HCL ID: 2188612 Sulfide Std ID: 219277

Sample ID	(C) Sample Volume (mL)	(A) 0.025 N* Iodine (mL) ID: 2164620	(B) 0.025 N* Sodium Thiosulfate (mL) ID: 205058	Sulfide [(A-B)/C]*400 (mg/L)	Comments (Reactives X25)
MB	100	10	10	Ø	
LCS	100	20	7.5	70.0	
600 130750F2	100	10	10	Ø	
DUF2	100	10	10	Ø	
MSF2	100	20	3.3	66.8	
600 6153 1 H1	100	10	10	Ø	
600 130758C1	100	10	10	Ø	
DUC1	100	10	10	Ø	
MSC1	100	20	19.8	4.8	
600 130827A1	100	10	10	Ø	
130846B1	100	10	10	Ø	
130847B1	100	10	10	Ø	
130848B1	100	10	10	Ø	
130859D1	100	10	10	Ø	
130878B1	100	10	10	Ø	
130880B1	100	10	10	Ø	
130981B1	100	10	10	Ø	
MB	100	10	10	Ø	
LCS	100	20	1.5	74.0	
600 130982B1	100	10	10	Ø	
DUB1	100	10	10	Ø	
MSB1	100	20	19.5	2.0	
600 130983B1	100	10	10	Ø	
130984B1	100	10	10	Ø	
130961MA1	100	10	10	Ø	
130961A1	100	10	10	Ø	

*For Normality other then indicated [((A*Iodine N) -- (B*Thiosulfate N))/C]*16000

Reviewed By: _____ **Date:** 5/20/16

TestAmerica HOUSTON

pH / Corrosivity

EPA 150.1, SW-846 9040B & 9045C, SM 4500-H + B

Date/Time: 5/13/16 0750 Analyst: MB Slope: 97.7 Balance ID: B-2

Buffer ID: 4.00; 1997250 7.00; 2055043 10.00; 2056333 LCS/ICV/CCV ID: 2071626

1.00; 2162749, 13.00; 2174821 Batch #: 188500

Sample ID	Initial Reading (std. units)	Temp. (°C)	Comments
Calibrate 4.00	4.01	21.9	
Calibrate 7.00	7.01	22.1	
Calibrate 10.00	10.01	22.1	
LCS/ICV	7.04	21.7	TV= 7.00 std. units
600-130600 A1	9.25	21.7	SOIL
Duplicate -600 A1	9.23	21.6	
-600 A2	8.91	21.5	
-634 A1	7.80	21.8	
A2	7.81	21.8	
A3	7.63	21.8	
A4	7.85	22.0	
A5	7.71	21.8	
A6	7.89	22.0	
A7	7.91	21.9	
A8	7.85	21.9	
CCV	7.05	21.6	TV= 7.00 std. units
130634 A9	8.42	21.8	SOIL
Duplicate A9	8.44	21.8	
A10	7.88	21.7	
A11	8.04	21.8	
A12	8.20	21.9	
A13	7.81	22.1	
A14	7.84	22.1	
657 B1	8.03	21.2	
657 B2	8.82	21.2	
674 A1	8.77	22.1	
675 A1	8.55	22.0	
CCV	7.04	21.4	TV= 7.00 std. Units
Sample ID	Initial		

NOTE: For meter calibration, buffer readings should be within 0.05 pH units of the buffer solution value. For analysis, initial and duplicate sample readings should be within 0.1 pH units.

Reviewed By: DAW **Date:** 5/13/16

control 17
pH 5/13/16
MB

TestAmerica HOUSTON

pH / Corrosivity

EPA 150.1, SW-846 9040B & 9045C, SM 4500-H + B

Date/Time: _____ Analyst: _____ Stds: 5/13/16 Balance ID: _____

Buffer ID: 4.00; 7.00; 10.00; MB LCS/ICV/CCV ID: _____

1.00; _____, 13.00; _____ ~~Batch #:~~ _____

	Reading (std. units)	Temp. (°C)	Comments
~~Calibrate 4.00~~			
Calibrate 7.00	5/13/16 MB		
~~Calibrate 10.00~~			
LCS/ICV	7.02	21.9	TV= 7.00 std. units
600- 130776 A2	7.55	21.2	WATER
Duplicate 776 A2	7.54	21.2	
776 A1	8.02	21.2	
758 A2	8.04	21.3	
805 B1	9.85	21.4	
740 B1	7.68	20.8	
676 A1	7.99	22.1	SOIL
677 A1	11.18	22.3	
678 A1	11.12	22.2	
679 A1	9.72	22.1	
680 A1	8.86	22.8	
CCV	13.05	21.8	TV= 13.00 std. units
600 - 130681 A1	9.33	22.9	SOIL
Duplicate 681 A1	9.28	22.9	
735 A1	8.18	23.0	
A2	8.10	23.0	
A3	8.66	22.8	
A4	8.41	22.7	
A5	10.55	22.7	
A6	9.99	22.6	
750 A1	6.62	23.0	
753 A1	5.45	23.1	
755 A1	8.14	22.9	
CCV	7.05	21.5	TV= 7.00 std. Units

NOTE: For meter calibration, buffer readings should be within 0.05 pH units of the buffer solution value. For analysis, initial and duplicate sample readings should be within 0.1 pH units.

Reviewed By: DAW Date: 5/13/16

cont'd pg 8

TestAmerica HOUSTON

pH / Corrosivity

EPA 150.1, SW-846 9040B & 9045C, SM 4500-H + B

Date/Time: _____ Analyst: _____ Slope: _____ Balance ID: _____

Buffer ID: 4.00; 7.00; 5/13/16 10.00; _____ LCS/ICV/CCV ID: _____

1.00; _____; 13.00; _____ MB Batch #: _____

Sample ID	Initial Reading (std. units)	Temp. (°C)	Comments
Calibrate 4.00	cont'd	cont'd	
Calibrate 7.00			
Calibrate 10.00			
LCS/ICV	7.01	21.7	TV= 7.00 std. units
600 - 130758 A1	10.94	22.2	SOIL
Duplicate 758 A1	11.00	22.3	
773 A1	8.96	24.0	
774 A1	8.87	22.6	
775 A1	8.82	22.4	
799 A1	8.89	22.4	
800 A1	7.00	23.6	
802 A1	6.97	22.3	
803 A1	6.58	23.2	
CCV	13.05	22.1	TV= 13.00 std. units
600 - 130826 C1	8.29	21.7	WATER
Duplicate C1	8.26	21.7	
C2	8.36	22.0	
C3	8.49	22.4	
C4	9.24	21.5	
C5	8.03	21.7	
833 B1	7.55	21.1	
840 A1	7.40	21.1	
	5/13/16		
		MB	
CCV	7.04	22.1	TV= 7.00 std. Units
Sample ID	Initial		

NOTE: For meter calibration, buffer readings should be within 0.05 pH units of the buffer solution value. For analysis, initial and duplicate sample readings should be within 0.1 pH units.

Reviewed By: DAW Date: 5/13/16

TESTAMERICA HOUSTON

Flashpoint / Ignitability by Closed or Open Cup

Date/Time: 5/18/16 11:00 Analyst: BDG Barometric Reading (mm Hg): AUTO

Thermometer ID: Acu-T602 Batch #: 1888009

Last Barometer Cal. Date(Monthly) AUTO

LCS True Value: 81 LCS ID: 215590L

(closed cup) (open cup)

INSTR

Bottle ID	Sample ID	Observed Thermometer Temp. (°F)	Corrected Temp. (°F)	Barometric Adjusted Temp. (°F) (Koehler Only)	Comment (Note Procedure Used)
	LCS	81° F	81°F		
	600-130758-C-1	>212	>212		
	↓ C-1 DUP	>212	>212		
	600-130827-A-1	>212	>212		
	600-130878-B-1	>212	>212		
	600-130880-B-1	>212	>212		
	600-130881-B-1	>212	>212		
	600-130882-B-1	>212	>212		
	600-130883-B-1	>212	>212		
	600-130884-B-1	>212	>212		
	600-130961-A-1	>212	>212		
	600-130962-A-1	>212	>212		
	600-131039-A-1	>212	>212		
	↓ A-1 DUP	>212	>212		
	CCV	81°	81°		

BDG 5/18/16

BDG 5/18/16

Flashpoint Barometric Pressure Correction Formula:

Corrected Flashpoint = F + 0.06 (760-P)

Where: F = Observed Flashpoint Temperature (°F)

P = Ambient Barometric Pressure (mm Hg)

Reviewed By: JC Date: 5/18/16

TESTAMERICA HOUSTON

Flashpoint / Ignitability by Closed or Open Cup

Date/Time: 5/18/16 1015 Analyst: DMW Barometric Reading (mm Hg): 760
Thermometer ID: 596 Batch #: 188805
Last Barometer Cal. Date(Monthly) 4/28/16
LCS True Value: 81 LCS ID: 2155904 (closed cup) (open cup)

Bottle ID	Sample ID	Observed Thermometer Temp. (°F)	Corrected Temp. (°F)	Barometric Adjusted Temp. (°F) (Koehler Only)	Comment (Note Procedure Used)
	MB	>186	>186	>186	
	LCS	80	81.6	81.6	
2200364	130750-B2	>186	>186	>186	1010
↓	130750-B2 Dup	>186	>186	>186	↓
2200961	130758-A2	>186	>186	>186	
2202064	130844-A1	>186	>186	>186	
2202066	130845-A1	>186	>186	>186	
2202073	130848-B1	>186	>186	>186	
	CCV	80	81.6	81.6	

DMW 5/18/16

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188911 Batch Start Date: 05/19/16 15:00 Batch Analyst: Daniel, Kevin R

Batch Method: 7.3.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WETRCYANID 00052			
MB 600-188911/1		7.3.4, 9012		10 g	250 mL				
LCS 600-188911/2		7.3.4, 9012		10 g	250 mL	10 mL			
600-130758-F-2	PC-IDW Water	7.3.4, 9012	T	10 g	250 mL				
600-130758-F-2 DU	PC-IDW Water	7.3.4, 9012	T	10 g	250 mL				
600-130758-F-2 MS	PC-IDW Water	7.3.4, 9012	T	10 g	250 mL	10 mL			
600-130758-C-1	PC-IDW Soil	7.3.4, 9012	T	10.18 g	250 mL				
600-130758-C-1 DU	PC-IDW Soil	7.3.4, 9012	T	10.46 g	250 mL				
600-130758-C-1 MS	PC-IDW Soil	7.3.4, 9012	T	10.33 g	250 mL	10 mL			
LCS 600-188911/22		7.3.4, 9012		10 g	250 mL	10 mL			

Batch Notes	
Batch Comment	wc62

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 189004 Batch Start Date: 05/20/16 20:40 Batch Analyst: Sineva, Ekaterina A

Batch Method: 9012 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 600-188911/1-A		9012		5 mL	5 mL				
600-130758-F-2-A	PC-IDW Water	9012	T	5 mL	5 mL				
600-130758-F-2-B DU	PC-IDW Water	9012	T	5 mL	5 mL				
600-130758-F-2-C MS ^40	PC-IDW Water	9012	T	5 mL	5 mL				
600-130758-C-1-A	PC-IDW Soil	9012	T	5 mL	5 mL				
600-130758-C-1-B DU	PC-IDW Soil	9012	T	5 mL	5 mL				
600-130758-C-1-C MS ^40	PC-IDW Soil	9012	T	5 mL	5 mL				
LCS 600-188911/22-A ^40		9012		5 mL	5 mL				
LCS 600-188911/2-A ^80		9012		5 mL	5 mL				

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188911 Batch Start Date: 05/19/16 15:00 Batch Analyst: Daniel, Kevin R

Batch Method: 7.3.4 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Sulfide Std. 00420			
MB 600-188911/1		7.3.4, 7.4.4		10 g	250 mL				
LCS 600-188911/3		7.3.4, 7.4.4		10 g	250 mL	10 mL			
600-130758-F-2	PC-IDW Water	7.3.4, 7.4.4	T	10 g	250 mL				
600-130758-F-2 DU	PC-IDW Water	7.3.4, 7.4.4	T	10 g	250 mL				
600-130758-F-2 MS	PC-IDW Water	7.3.4, 7.4.4	T	10 g	250 mL	10 mL			
600-130758-C-1	PC-IDW Soil	7.3.4, 7.4.4	T	10.18 g	250 mL				
600-130758-C-1 DU	PC-IDW Soil	7.3.4, 7.4.4	T	10.46 g	250 mL				
600-130758-C-1 MS	PC-IDW Soil	7.3.4, 7.4.4	T	10.30 g	250 mL	10 mL			

Batch Notes	
Batch Comment	wc62

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188435 Batch Start Date: 05/12/16 15:21 Batch Analyst: Daniel, Kevin R

Batch Method: 2540B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
600-130758-A-1	PC-IDW Soil	2540B	T	1.09 g	8.49 g	7.01 g			
600-130758-A-1 DU	PC-IDW Soil	2540B	T	1.10 g	7.59 g	6.32 g			

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188500 Batch Start Date: 05/13/16 07:50 Batch Analyst: Boza, Michael J

Batch Method: 9040B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SampleTemp	pHRead1	CalcMsg	Buffer pH 13 00008	WETRPH7BUF 00031
CCV 600-188500/25		9040B		50 mL	21.4 Celsius	7.04 SU	pH = Read 1		
LCS 600-188500/26		9040B		50 mL	21.9 Celsius	7.02 SU	pH = Read 1		50 mL
600-130758-A-2	PC-IDW Water	9040B	T	50 mL	21.3 Celsius	8.04 SU	pH = Read 1		
CCV 600-188500/38		9040B		50 mL	21.8 Celsius	13.05 SU	pH = Read 1	50 mL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	WETRPH7CAL 00017					
CCV 600-188500/25		9040B		50 mL					
LCS 600-188500/26		9040B							
600-130758-A-2	PC-IDW Water	9040B	T						
CCV 600-188500/38		9040B							

Batch Notes	
Electronic Slope	97.7

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188500 Batch Start Date: 05/13/16 07:50 Batch Analyst: Boza, Michael J

Batch Method: 9045C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SampleTemp	pHRead1	CalcMsg	Buffer pH 13 00008	WETRPH7BUF 00031
CCV 600-188500/50		9045C		50 mL	21.5 Celsius	7.05 SU	pH = Read 1		
LCS 600-188500/51		9045C		50 mL	21.7 Celsius	7.01 SU	pH = Read 1		50 mL
600-130758-A-1	PC-IDW Soil	9045C	T	20 mL	22.2 Celsius	10.94 SU	pH = Read 1		
600-130758-A-1 DU	PC-IDW Soil	9045C	T	20 mL	22.3 Celsius	11.00 SU	pH = Read 1		
CCV 600-188500/61		9045C		50 mL	22.1 Celsius	13.05 SU	pH = Read 1	50 mL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	WETRPH7CAL 00017					
CCV 600-188500/50		9045C		50 mL					
LCS 600-188500/51		9045C							
600-130758-A-1	PC-IDW Soil	9045C	T						
600-130758-A-1 DU	PC-IDW Soil	9045C	T						
CCV 600-188500/61		9045C							

Batch Notes	
Electronic Slope	97.7

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188809 Batch Start Date: 05/18/16 11:00 Batch Analyst: Grimm, Brandon D

Batch Method: D92 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WETRPXYLEN 00018				
LCS 600-188809/1		D92		50 mL	50 mL				
600-130758-C-1	PC-IDW Soil	D92	T	50 mL					
600-130758-C-1 DU	PC-IDW Soil	D92	T	50 mL					
CCV 600-188809/15		D92		50 mL	50 mL				

Batch Notes	
Barometric Pressure - Corrected	auto
Thermometer ID	aco t602

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Houston Job No.: 600-130758-1

SDG No.:

Batch Number: 188805 Batch Start Date: 05/18/16 10:15 Batch Analyst: Watson, Don A

Batch Method: SW846 Ch. 7 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	WETRPXYLEN 00018					
LCS 600-188805/2		SW846 Ch. 7		60 mL					
CCV 600-188805/9		SW846 Ch. 7		60 mL					

Batch Notes	
Barometric Pressure - Corrected	760
Thermometer ID	576

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Water

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Mark Kelly	Lab PM: Upton, Cathy L	Carrier Tracking No(s):	COC No: 600-45110-13871.1
Client Contact: Ms. April Ballweg	Phone: 972-315-3922	E-Mail: cathy.upton@testamericainc.com		Page: Page 1 of 1
Company: EA Engineering, Science, and Technology				Job #:
Address: 405 S. Highway 121 bypass Building C Suite 100	Due Date Requested:			
City: Lewisville	TAT Requested (days):			
State, Zip: TX, 75067				
Phone: 972-315-3922(Tel) 972-315-8930(Fax)	PO #: Purchase Order Requested			
Email: aballweg@eaest.com	WO #: Task Order 0134-RARA-0681			
Project Name: Petro-Chemical Systems Turtle Bayou IDW	Project #: 60007529			
Site: Petro-Chem	SSOW#:			

Analysis Requested

Dallas . Ft Worth
560501

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TCLP - 6010B, 7470A, 8260B, 8270C	9012_ReactiveCN, 9034, 9040B, 1010	TX_1005 - Local Method	8260B - BTEX Only	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	A	A	X	
P-C IDW	5-11-16	1000	G	Water	N	N	X	X	X	X		
			G	Water	N	N	X	X	X	X		

600-130758 Chain of Custody

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Mark Kelly	5-11-16/1700		[signature]	5/11/16	TA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

...merica Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Soil

Client Information	Sampler: Mark Kelly	Lab PM: Upton, Cathy L	Carrier Tracking No(s):	COC No: 600-45110-13871.1
Client Contact: Ms. April Ballweg	Phone: 972-315-3922	E-Mail: cathy.upton@testamericainc.com		Page: Page 1 of 1
Company: EA Engineering, Science, and Technology				Job #:
Address: 405 S. Highway 121 bypass Building C Suite 100	Due Date Requested:			
City: Lewisville	TAT Requested (days):			
State, Zip: TX, 75067				
Phone: 972-315-3922(Tel) 972-315-8930(Fax)	PO #: Purchase Order Requested			
Email: aballweg@eaest.com	WO #: Task Order 0134-RARA-0681			
Project Name: Petro-Chemical Systems Turtle Bayou IDW	Project #: 60007529			
Site: Petro-Chem	SSOW#:			

Analysis Requested

Dallas . Ft Worth
560501

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TCLP - 6010B, 7470A, 8260B, 8270C	9012_ReactiveCN, 9034, 9045C, D92, Moisture	TX_1005_5035A - Local Method (2 5G plugs into tared vials)	8260B_5035A -BTEX Only (one 5G plug into tared vials with stir bar)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	N	N	X	
P-C IDW	5-11-16	1000	G	Solid	N	N	X	X	X	X		SOIL SAMPLES MUST BE FROZEN
			G	Solid	N	N	X	X	X	X		WITHIN 48HRS OF SAMPLING
												SEE ATTACHED SAMPLING GUIDE
												FOR TX1005 AND VOA SOILS

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	5-11-16 / 1700		[signature]	5/11/16	TD

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Houston

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist

Loc: 600
130758

Date/Time Received: 16 MAY 11 16:59

JOB NUMBER:

CLIENT: EA

UNPACKED BY:

CARRIER/DRIVER:

Custody Seal Present: ☐ YES ☑ NO Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
Grn/Blu	Y / N	Y / N	5.2	606	+0.1	5.3
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

JCH 5/11/16

CF = correction factor

Samples received on ice? ☐ YES ☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: ☐ NO ☐ YES

Base samples are>pH 12: ☐ YES ☐ NO Acid preserved are<pH 2: ☐ YES ☐ NO

pH paper Lot #_____

VOA headspace acceptable (5-6mm): ☐ YES ☐ NO ☐ NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		

COMMENTS:

JCH 5/11/16

HS-SA-WI-013 Rev. 3; 07/01/2014

Login Sample Receipt Checklist

Client: EA Engineering, Science, and Technology

Job Number: 600-130758-1

Login Number: 130758
List Number: 1
Creator: Hilton, Jeremy C

List Source: TestAmerica Houston

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

TestAmerica Job ID: 600-170889-1
Client Project/Site: Petro-Chemical Site IDW Soil and Water

For:
EA Engineering, Science, and Technology
405 S. Highway 121 bypass
Building C
Suite 100
Lewisville, Texas 75067

Attn: Ms. April Ballweg

Authorized for release by:
8/30/2018 5:58:26 PM

Cathy Upton, Project Manager I
(713)690-4444
cathy.upton@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 600-170889-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative
600-170889-1

Comments
No additional comments.

Receipt
The samples were received on 8/16/2018 11:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

GC/MS VOA
Method(s) 8260B: The following samples were diluted due to the nature of the sample matrix: IDW-Water (600-170889-1) and IDW-Soil-8/15/18 (600-170889-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270C: Internal standard (ISTD) response for Perylene-d12 for the following sample was outside acceptance criteria: (LB 600-245324/1-E). This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method(s) 8270C: The continuing calibration verification (CCV) associated with batch 600-245769 recovered above the upper control limit for Nitrobenzene and 2-Methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8270C: The laboratory control sample and the laboratory control sample duplicate (LCS/LCSD) for preparation batch 600-245561 and analytical batch 600-245682 recovered outside control limits for the following analyte: Pyridine. Pyridine has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Method(s) 8270C: Internal standard (ISTD) response for 1,4-Dichlorobenzene-d4 was below acceptance criteria for the following sample: (LB 600-245536/1-E). The sample(s) was non detect for associated analytes; therefore the data has been reported.

Method(s) 8270C: Surrogate recovery for the following sample was outside the upper control limit: (LB 600-245536/1-E). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Site IDW Soil and Water

TestAmerica Job ID: 600-170889-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C	Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
6010B	Inductively Coupled Plasma - Atomic Emission Spectrometry	SW846	TAL HOU
7470A	Mercury in Liquid Waste (Manual Cold Vapor Technique)	SW846	TAL HOU
1010	Pensky-Martens Closed-Cup Method for Determining Ignitability	SW846	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
7.4.4	Reactive Sulfide	EPA	TAL HOU
9012	Cyanide, Reactive	SW846	TAL HOU
9012	Reactive Cyanide analysis using method 9012	SW846	TAL HOU
9034	Reactive Sulfide	SW846	TAL HOU
9040B	pH	SW846	TAL HOU
9045C	Corrosivity	SW846	TAL HOU
D92	Flashpoint	ASTM	TAL HOU
1311	Toxicity Characteristic Leachate Procedure	SW846	TAL HOU
1311	Toxicity Characteristic Leaching Procedure	SW846	TAL HOU
1311	Toxicity Characteristic Leaching Procedure (ZHE)	SW846	TAL HOU
3010A	Acid Digestion of Aqueous Samples and Extracts for Total Metals/Leachates	SW846	TAL HOU
3510C LVI	Liquid-Liquid Extraction (Separatory Funnel) LVI	SW846	TAL HOU
5030B	Purge and Trap	SW846	TAL HOU
5030B	Purge and Trap on Leachates	SW846	TAL HOU
7.3.3	Cyanide, Reactive	SW846	TAL HOU
7.3.3	Cyanide, Reactive (SW7.3.3)	SW846	TAL HOU
7.3.4	Sulfide, Reactive (SW7.3.4)	SW846	TAL HOU
7470A	Mercury in Liquid Waste (Manual Cold Vapor Technique)/Preparation/Leachate	SW846	TAL HOU
Frozen Preserve	Freezing Samples	None	TAL HOU
TX_1005_S_Prep	Extraction - Texas Total petroleum Hyrdocarbons	TCEQ	TAL HOU
TX_1005_W_Prep	Extraction - Texas Total petroleum Hyrdocarbons	TCEQ	TAL HOU

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
None = None
SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TCEQ = Texas Commission of Environmental Quality

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Site IDW Soil and Water

TestAmerica Job ID: 600-170889-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-170889-1	IDW-Water	Water	08/15/18 19:30	08/16/18 11:40
600-170889-2	IDW-Soil-8/15/18	Solid	08/15/18 19:13	08/16/18 11:40

Client Sample ID: IDW-Water

Date Collected: 08/15/18 19:30
Date Received: 08/16/18 11:40

Lab Sample ID: 600-170889-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**0.00975**	**J**	0.0100	0.00227	mg/L			08/23/18 21:37	1
Chlorobromomethane	0.000810	U	0.00500	0.000810	mg/L			08/23/18 21:37	1
Bromoform	0.000770	U	0.00500	0.000770	mg/L			08/23/18 21:37	1
Bromomethane	0.00215	U	0.0100	0.00215	mg/L			08/23/18 21:37	1
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			08/23/18 21:37	1
Carbon disulfide	0.00170	U	0.0100	0.00170	mg/L			08/23/18 21:37	1
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			08/23/18 21:37	1
Dibromochloromethane	0.000920	U	0.00500	0.000920	mg/L			08/23/18 21:37	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			08/23/18 21:37	1
Chloroethane	0.00173	U	0.0100	0.00173	mg/L			08/23/18 21:37	1
Chloroform	0.000820	U	0.0100	0.000820	mg/L			08/23/18 21:37	1
Chloromethane	0.000850	U	0.0100	0.000850	mg/L			08/23/18 21:37	1
1,1-Dichloroethane	0.000500	U	0.00500	0.000500	mg/L			08/23/18 21:37	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			08/23/18 21:37	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			08/23/18 21:37	1
cis-1,2-Dichloroethene	0.000560	U	0.00500	0.000560	mg/L			08/23/18 21:37	1
trans-1,2-Dichloroethene	0.000880	U	0.00500	0.000880	mg/L			08/23/18 21:37	1
1,2-Dichloropropane	0.00141	U	0.00500	0.00141	mg/L			08/23/18 21:37	1
cis-1,3-Dichloropropene	0.000970	U	0.00500	0.000970	mg/L			08/23/18 21:37	1
trans-1,3-Dichloropropene	0.000590	U	0.00500	0.000590	mg/L			08/23/18 21:37	1
Ethylbenzene	**0.00218**	**J**	0.00500	0.00129	mg/L			08/23/18 21:37	1
2-Hexanone	0.00142	U	0.0100	0.00142	mg/L			08/23/18 21:37	1
Methylene Chloride	0.00143	U	0.0100	0.00143	mg/L			08/23/18 21:37	1
4-Methyl-2-pentanone (MIBK)	0.00111	U	0.0100	0.00111	mg/L			08/23/18 21:37	1
Styrene	0.000560	U	0.00500	0.000560	mg/L			08/23/18 21:37	1
1,1,2,2-Tetrachloroethane	0.000800	U	0.00500	0.000800	mg/L			08/23/18 21:37	1
Tetrachloroethene	0.00124	U	0.00500	0.00124	mg/L			08/23/18 21:37	1
Toluene	0.000550	U	0.00500	0.000550	mg/L			08/23/18 21:37	1
1,1,1-Trichloroethane	0.000980	U	0.00500	0.000980	mg/L			08/23/18 21:37	1
1,1,2-Trichloroethane	0.000530	U	0.00500	0.000530	mg/L			08/23/18 21:37	1
Trichloroethene	0.00158	U	0.00500	0.00158	mg/L			08/23/18 21:37	1
Vinyl acetate	0.000600	U	0.0100	0.000600	mg/L			08/23/18 21:37	1
Vinyl chloride	0.000850	U	0.00500	0.000850	mg/L			08/23/18 21:37	1
o-Xylene	**0.00187**	**J**	0.00500	0.000930	mg/L			08/23/18 21:37	1
m-Xylene & p-Xylene	**0.00478**	**J**	0.00500	0.00126	mg/L			08/23/18 21:37	1
Xylenes, Total	**0.00665**		0.00500	0.00198	mg/L			08/23/18 21:37	1
Bromodichloromethane	0.000760	U	0.00500	0.000760	mg/L			08/23/18 21:37	1
1,2-Dichloroethene, Total	0.000840	U	0.0100	0.000840	mg/L			08/23/18 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*83*		*70 - 130*		*08/23/18 21:37*	*1*
Dibromofluoromethane	*69*		*62 - 130*		*08/23/18 21:37*	*1*
4-Bromofluorobenzene	*104*		*67 - 139*		*08/23/18 21:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*64*		*50 - 134*		*08/23/18 21:37*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.239**		0.0250	0.00280	mg/L			08/27/18 12:08	5

Client Sample ID: IDW-Water

Date Collected: 08/15/18 19:30
Date Received: 08/16/18 11:40

Lab Sample ID: 600-170889-1

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*113*		*70 - 130*		*08/27/18 12:08*	*5*
Dibromofluoromethane	*112*		*62 - 130*		*08/27/18 12:08*	*5*
4-Bromofluorobenzene	*99*		*67 - 139*		*08/27/18 12:08*	*5*
1,2-Dichloroethane-d4 (Surr)	*107*		*50 - 134*		*08/27/18 12:08*	*5*

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.164**		0.100	0.0112	mg/L			08/22/18 17:56	20
Carbon tetrachloride	0.0184	U	0.100	0.0184	mg/L			08/22/18 17:56	20
Chlorobenzene	0.0164	U	0.100	0.0164	mg/L			08/22/18 17:56	20
Chloroform	0.0164	U	0.200	0.0164	mg/L			08/22/18 17:56	20
1,2-Dichloroethane	0.0202	U	0.100	0.0202	mg/L			08/22/18 17:56	20
1,1-Dichloroethene	0.0152	U	0.100	0.0152	mg/L			08/22/18 17:56	20
2-Butanone (MEK)	0.0314	U	0.200	0.0314	mg/L			08/22/18 17:56	20
Tetrachloroethene	0.0248	U	0.100	0.0248	mg/L			08/22/18 17:56	20
Trichloroethene	0.0316	U	0.100	0.0316	mg/L			08/22/18 17:56	20
Vinyl chloride	0.0170	U	0.100	0.0170	mg/L			08/22/18 17:56	20
1,4-Dichlorobenzene	0.0182	U	0.100	0.0182	mg/L			08/22/18 17:56	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*67 - 139*		*08/22/18 17:56*	*20*
Dibromofluoromethane	*108*		*62 - 130*		*08/22/18 17:56*	*20*
Toluene-d8 (Surr)	*101*		*70 - 130*		*08/22/18 17:56*	*20*
1,2-Dichloroethane-d4 (Surr)	*110*		*50 - 134*		*08/22/18 17:56*	*20*

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00970	U	0.0500	0.00970	mg/L		08/21/18 15:25	08/23/18 15:06	1
2,4-Dinitrotoluene	0.0106	U	0.0500	0.0106	mg/L		08/21/18 15:25	08/23/18 15:06	1
2,4,5-Trichlorophenol	0.0210	U	0.0500	0.0210	mg/L		08/21/18 15:25	08/23/18 15:06	1
2,4,6-Trichlorophenol	0.0166	U	0.0500	0.0166	mg/L		08/21/18 15:25	08/23/18 15:06	1
2-Methylphenol	0.00710	U	0.0500	0.00710	mg/L		08/21/18 15:25	08/23/18 15:06	1
3 & 4 Methylphenol	0.00675	U	0.100	0.00675	mg/L		08/21/18 15:25	08/23/18 15:06	1
Hexachlorobenzene	0.0164	U	0.0500	0.0164	mg/L		08/21/18 15:25	08/23/18 15:06	1
Hexachlorobutadiene	0.0129	U	0.0500	0.0129	mg/L		08/21/18 15:25	08/23/18 15:06	1
Hexachloroethane	0.0165	U	0.0500	0.0165	mg/L		08/21/18 15:25	08/23/18 15:06	1
Nitrobenzene	0.0130	U	0.0500	0.0130	mg/L		08/21/18 15:25	08/23/18 15:06	1
Pentachlorophenol	0.0158	U	0.250	0.0158	mg/L		08/21/18 15:25	08/23/18 15:06	1
Pyridine	0.0108	U *	0.0500	0.0108	mg/L		08/21/18 15:25	08/23/18 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*91*		*24 - 150*	*08/21/18 15:25*	*08/23/18 15:06*	*1*
2-Fluorophenol	*87*		*10 - 130*	*08/21/18 15:25*	*08/23/18 15:06*	*1*
2-Fluorobiphenyl	*108*		*38 - 133*	*08/21/18 15:25*	*08/23/18 15:06*	*1*
2,4,6-Tribromophenol	*91*		*19 - 150*	*08/21/18 15:25*	*08/23/18 15:06*	*1*
Terphenyl-d14	*95*		*35 - 150*	*08/21/18 15:25*	*08/23/18 15:06*	*1*
Phenol-d5 (Surr)	*98*		*10 - 130*	*08/21/18 15:25*	*08/23/18 15:06*	*1*

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.724	U	1.74	0.724	mg/L		08/17/18 09:53	08/17/18 15:24	1

Client Sample ID: IDW-Water

Lab Sample ID: 600-170889-1

Date Collected: 08/15/18 19:30

Matrix: Water

Date Received: 08/16/18 11:40

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C28	0.837	U	1.74	0.837	mg/L		08/17/18 09:53	08/17/18 15:24	1
>C28-C35	0.837	U	1.74	0.837	mg/L		08/17/18 09:53	08/17/18 15:24	1
C6-C35	0.724	U	1.74	0.724	mg/L		08/17/18 09:53	08/17/18 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*70 - 130*	*08/17/18 09:53*	*08/17/18 15:24*	*1*

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0285	U	0.100	0.0285	mg/L		08/21/18 13:02	08/22/18 14:57	1
Barium	**0.493**		0.200	0.00530	mg/L		08/21/18 13:02	08/22/18 14:57	1
Cadmium	0.00280	U	0.0500	0.00280	mg/L		08/21/18 13:02	08/22/18 14:57	1
Chromium	0.0159	U	0.100	0.0159	mg/L		08/21/18 13:02	08/22/18 14:57	1
Lead	0.0219	U	0.100	0.0219	mg/L		08/21/18 13:02	08/22/18 14:57	1
Selenium	0.0287	U	0.400	0.0287	mg/L		08/21/18 13:02	08/22/18 14:57	1
Silver	0.0129	U	0.100	0.0129	mg/L		08/21/18 13:02	08/22/18 14:57	1

Method: 7470A - Mercury in Liquid Waste (Manual Cold Vapor Technique) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000103	U	0.000250	0.000103	mg/L		08/21/18 11:35	08/21/18 15:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>160**		1.00	1.00	Degrees F			08/29/18 06:30	1
Cyanide, Reactive	0.0394	U	0.248	0.0394	mg/L		08/20/18 12:25	08/21/18 01:58	1
Sulfide, Reactive	1.39	U	49.6	1.39	mg/L		08/20/18 12:25	08/21/18 02:45	1
pH	**8.0**	**HF**	0.01	0.01	SU			08/29/18 14:19	1

Client Sample ID: IDW-Soil-8/15/18

Lab Sample ID: 600-170889-2

Date Collected: 08/15/18 19:13

Matrix: Solid

Date Received: 08/16/18 11:40

Percent Solids: 93.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.000799	U	0.00540	0.000799	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
1,1,2,2-Tetrachloroethane	0.000939	U	0.00540	0.000939	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
1,1,2-Trichloroethane	0.000788	U	0.0432	0.000788	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
1,1-Dichloroethane	0.000939	U	0.00540	0.000939	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
1,1-Dichloroethene	0.00132	U	0.00540	0.00132	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
1,2-Dichloroethane	0.000971	U	0.00540	0.000971	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
1,2-Dichloroethene, Total	0.00205	U	0.0108	0.00205	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
1,2-Dichloropropane	0.000766	U	0.00540	0.000766	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
2-Butanone (MEK)	0.00205	U	0.0108	0.00205	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
2-Hexanone	0.00109	U	0.0108	0.00109	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
4-Methyl-2-pentanone (MIBK)	0.00159	U	0.0108	0.00159	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Acetone	0.00179	U	0.0108	0.00179	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Benzene	0.000680	U	0.00540	0.000680	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Bromodichloromethane	0.000712	U	0.00540	0.000712	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Bromoform	0.00148	U	0.00540	0.00148	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Bromomethane	0.000896	U	0.0108	0.000896	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Carbon disulfide	0.000594	U	0.0108	0.000594	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1

Client Sample ID: IDW-Soil-8/15/18
Date Collected: 08/15/18 19:13
Date Received: 08/16/18 11:40

Lab Sample ID: 600-170889-2
Matrix: Solid
Percent Solids: 93.0

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	0.00122	U	0.00540	0.00122	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Chlorobenzene	0.00104	U	0.00540	0.00104	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Chlorobromomethane	0.00192	U	0.00540	0.00192	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Chloroethane	0.00151	U	0.0108	0.00151	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Chloroform	0.000712	U	0.0108	0.000712	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Chloromethane	0.00179	U	0.0108	0.00179	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
cis-1,2-Dichloroethene	0.000896	U	0.00540	0.000896	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
cis-1,3-Dichloropropene	0.000583	U	0.00540	0.000583	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Dibromochloromethane	0.00101	U	0.00540	0.00101	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Ethylbenzene	0.00110	U	0.00540	0.00110	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Methylene Chloride	0.00236	U	0.0108	0.00236	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
m-Xylene & p-Xylene	0.00164	U	0.00540	0.00164	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
o-Xylene	0.00122	U	0.00540	0.00122	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Styrene	0.000766	U	0.00540	0.000766	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Tetrachloroethene	0.000766	U	0.00540	0.000766	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Toluene	0.00149	U	0.00540	0.00149	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
trans-1,2-Dichloroethene	0.00123	U	0.00540	0.00123	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
trans-1,3-Dichloropropene	0.000626	U	0.00540	0.000626	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Trichloroethene	0.00151	U	0.00540	0.00151	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Vinyl acetate	0.00100	U	0.0108	0.00100	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Vinyl chloride	0.000971	U	0.0108	0.000971	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1
Xylenes, Total	0.00122	U	0.00540	0.00122	mg/Kg	☼	08/16/18 12:26	08/16/18 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*66*		*61 - 130*	*08/16/18 12:26*	*08/16/18 16:32*	*1*
4-Bromofluorobenzene	*95*		*57 - 140*	*08/16/18 12:26*	*08/16/18 16:32*	*1*
Dibromofluoromethane	*91*		*68 - 140*	*08/16/18 12:26*	*08/16/18 16:32*	*1*
Toluene-d8 (Surr)	*69*		*50 - 130*	*08/16/18 12:26*	*08/16/18 16:32*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0112	U	0.100	0.0112	mg/L			08/22/18 17:32	20
Carbon tetrachloride	0.0184	U	0.100	0.0184	mg/L			08/22/18 17:32	20
Chlorobenzene	0.0164	U	0.100	0.0164	mg/L			08/22/18 17:32	20
Chloroform	0.0164	U	0.200	0.0164	mg/L			08/22/18 17:32	20
1,2-Dichloroethane	0.0202	U	0.100	0.0202	mg/L			08/22/18 17:32	20
1,1-Dichloroethene	0.0152	U	0.100	0.0152	mg/L			08/22/18 17:32	20
2-Butanone (MEK)	0.0314	U	0.200	0.0314	mg/L			08/22/18 17:32	20
Tetrachloroethene	0.0248	U	0.100	0.0248	mg/L			08/22/18 17:32	20
Trichloroethene	0.0316	U	0.100	0.0316	mg/L			08/22/18 17:32	20
Vinyl chloride	0.0170	U	0.100	0.0170	mg/L			08/22/18 17:32	20
1,4-Dichlorobenzene	0.0182	U	0.100	0.0182	mg/L			08/22/18 17:32	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*67 - 139*		*08/22/18 17:32*	*20*
Dibromofluoromethane	*110*		*62 - 130*		*08/22/18 17:32*	*20*
Toluene-d8 (Surr)	*103*		*70 - 130*		*08/22/18 17:32*	*20*
1,2-Dichloroethane-d4 (Surr)	*111*		*50 - 134*		*08/22/18 17:32*	*20*

Client Sample ID: IDW-Soil-8/15/18
Date Collected: 08/15/18 19:13
Date Received: 08/16/18 11:40

Lab Sample ID: 600-170889-2
Matrix: Solid
Percent Solids: 93.0

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00970	U	0.0500	0.00970	mg/L		08/21/18 15:25	08/23/18 15:33	1
2,4-Dinitrotoluene	0.0106	U	0.0500	0.0106	mg/L		08/21/18 15:25	08/23/18 15:33	1
2,4,5-Trichlorophenol	0.0210	U	0.0500	0.0210	mg/L		08/21/18 15:25	08/23/18 15:33	1
2,4,6-Trichlorophenol	0.0166	U	0.0500	0.0166	mg/L		08/21/18 15:25	08/23/18 15:33	1
2-Methylphenol	0.00710	U	0.0500	0.00710	mg/L		08/21/18 15:25	08/23/18 15:33	1
3 & 4 Methylphenol	0.00675	U	0.100	0.00675	mg/L		08/21/18 15:25	08/23/18 15:33	1
Hexachlorobenzene	0.0164	U	0.0500	0.0164	mg/L		08/21/18 15:25	08/23/18 15:33	1
Hexachlorobutadiene	0.0129	U	0.0500	0.0129	mg/L		08/21/18 15:25	08/23/18 15:33	1
Hexachloroethane	0.0165	U	0.0500	0.0165	mg/L		08/21/18 15:25	08/23/18 15:33	1
Nitrobenzene	0.0130	U	0.0500	0.0130	mg/L		08/21/18 15:25	08/23/18 15:33	1
Pentachlorophenol	0.0158	U	0.250	0.0158	mg/L		08/21/18 15:25	08/23/18 15:33	1
Pyridine	0.0108	U *	0.0500	0.0108	mg/L		08/21/18 15:25	08/23/18 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*82*		*24 - 150*	*08/21/18 15:25*	*08/23/18 15:33*	*1*
2-Fluorophenol	*88*		*10 - 130*	*08/21/18 15:25*	*08/23/18 15:33*	*1*
2-Fluorobiphenyl	*96*		*38 - 133*	*08/21/18 15:25*	*08/23/18 15:33*	*1*
2,4,6-Tribromophenol	*104*		*19 - 150*	*08/21/18 15:25*	*08/23/18 15:33*	*1*
Terphenyl-d14	*95*		*35 - 150*	*08/21/18 15:25*	*08/23/18 15:33*	*1*
Phenol-d5 (Surr)	*100*		*10 - 130*	*08/21/18 15:25*	*08/23/18 15:33*	*1*

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.08	U	10.7	4.08	mg/Kg	☼	08/20/18 14:52	08/20/18 21:25	1
>C12-C28	4.36	U	10.7	4.36	mg/Kg	☼	08/20/18 14:52	08/20/18 21:25	1
>C28-C35	4.36	U	10.7	4.36	mg/Kg	☼	08/20/18 14:52	08/20/18 21:25	1
C6-C35	4.08	U	10.7	4.08	mg/Kg	☼	08/20/18 14:52	08/20/18 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*106*		*70 - 130*	*08/20/18 14:52*	*08/20/18 21:25*	*1*

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0219	U	0.100	0.0219	mg/L		08/21/18 13:02	08/22/18 15:17	1
Chromium	0.0159	U	0.100	0.0159	mg/L		08/21/18 13:02	08/22/18 15:17	1
Cadmium	**0.00361**	**J**	0.0500	0.00280	mg/L		08/21/18 13:02	08/22/18 15:17	1
Barium	**1.78**		0.200	0.00530	mg/L		08/21/18 13:02	08/22/18 15:17	1
Arsenic	0.0285	U	0.100	0.0285	mg/L		08/21/18 13:02	08/22/18 15:17	1
Silver	0.0129	U	0.100	0.0129	mg/L		08/21/18 13:02	08/22/18 15:17	1
Selenium	**0.0324**	**J**	0.400	0.0287	mg/L		08/21/18 13:02	08/22/18 15:17	1

Method: 7470A - Mercury in Liquid Waste (Manual Cold Vapor Technique) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000103	U	0.000250	0.000103	mg/L		08/21/18 11:28	08/21/18 14:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**7.0**		1.0	1.0	%			08/17/18 09:21	1
Percent Solids	**93.0**		1.0	1.0	%			08/17/18 09:21	1
Sulfide, Reactive	13.6	U	48.6	13.6	mg/Kg		08/22/18 10:00	08/23/18 07:55	1
Cyanide, Reactive	0.0831	U	0.243	0.0831	mg/Kg		08/22/18 10:00	08/22/18 23:29	1

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Site IDW Soil and Water

TestAmerica Job ID: 600-170889-1

Client Sample ID: IDW-Soil-8/15/18
Date Collected: 08/15/18 19:13
Date Received: 08/16/18 11:40

Lab Sample ID: 600-170889-2
Matrix: Solid
Percent Solids: 93.0

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.8	H	0.01	0.01	SU			08/29/18 14:19	1
Flashpoint	>160		1.00	1.00	Degrees F			08/29/18 05:30	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
*	ISTD response or retention time outside acceptable limits
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Site IDW Soil and Water

TestAmerica Job ID: 600-170889-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(61-130)	(57-140)	(68-140)	(50-130)
600-170889-2	IDW-Soil-8/15/18	66	95	91	69
LCS 600-245261/3	Lab Control Sample	69	114	95	71
LCSD 600-245261/4	Lab Control Sample Dup	66	113	93	71
MB 600-245261/6	Method Blank	65	116	93	70

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DBFM	BFB	DCA	TOL
Lab Sample ID	Client Sample ID	(62-130)	(67-139)	(50-134)	(70-130)
LCS 600-245575/4	Lab Control Sample	107	93	107	104
LCS 600-245664/4	Lab Control Sample	111	94	107	104
LCSD 600-245575/5	Lab Control Sample Dup	106	94	107	101
LCSD 600-245664/5	Lab Control Sample Dup	108	93	104	104
MB 600-245575/7	Method Blank	106	91	109	101
MB 600-245664/7	Method Blank	109	89	108	103

Surrogate Legend

DBFM = Dibromofluoromethane
BFB = 4-Bromofluorobenzene
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	TOL	DCA
Lab Sample ID	Client Sample ID	(67-139)	(62-130)	(70-130)	(50-134)
600-170889-2	IDW-Soil-8/15/18	94	110	103	111
600-170889-2 MS	IDW-Soil-8/15/18	95	108	102	106
LB 600-245599/1-A	Method Blank	89	109	103	108

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)

Surrogate Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Site IDW Soil and Water

TestAmerica Job ID: 600-170889-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DBFM	BFB	DCA
Lab Sample ID	Client Sample ID	(70-130)	(62-130)	(67-139)	(50-134)
600-170889-1	IDW-Water	83	69	104	64
600-170889-1 - DL	IDW-Water	113	112	99	107
LCS 600-245785/5	Lab Control Sample	76	77	72	78
LCS 600-245954/4	Lab Control Sample	82	87	77	86
LCSD 600-245785/6	Lab Control Sample Dup	75	78	72	77
LCSD 600-245954/9	Lab Control Sample Dup	73	85	73	85
MB 600-245785/9	Method Blank	121	99	129	91
MB 600-245954/8	Method Blank	126	118	105	114

Surrogate Legend

TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane
BFB = 4-Bromofluorobenzene
DCA = 1,2-Dichloroethane-d4 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		BFB	DBFM	TOL	DCA
Lab Sample ID	Client Sample ID	(67-139)	(62-130)	(70-130)	(50-134)
600-170889-1	IDW-Water	91	108	101	110
600-170889-1 MS	IDW-Water	96	111	104	109

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	2FP	FBP	TBP	TPHL	PHL
Lab Sample ID	Client Sample ID	(24-150)	(10-130)	(38-133)	(19-150)	(35-150)	(10-130)
LCS 600-245561/2-B	Lab Control Sample	109	120	116	122	111	96
LCSD 600-245561/3-B	Lab Control Sample Dup	103	109	113	115	106	88
MB 600-245561/1-B	Method Blank	101	98	109	104	91	94

Surrogate Legend

NBZ = Nitrobenzene-d5
2FP = 2-Fluorophenol
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPHL = Terphenyl-d14
PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Site IDW Soil and Water

TestAmerica Job ID: 600-170889-1

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	2FP	FBP	TBP	TPHL	PHL
Lab Sample ID	Client Sample ID	(24-150)	(10-130)	(38-133)	(19-150)	(35-150)	(10-130)
600-170889-2	IDW-Soil-8/15/18	82	88	96	104	95	100
LB 600-245536/1-E	Method Blank	89	127 *	117	116	97	142 X *

Surrogate Legend

NBZ = Nitrobenzene-d5
2FP = 2-Fluorophenol
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPHL = Terphenyl-d14
PHL = Phenol-d5 (Surr)

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Matrix: Water **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	2FP	FBP	TBP	TPHL	PHL
Lab Sample ID	Client Sample ID	(24-150)	(10-130)	(38-133)	(19-150)	(35-150)	(10-130)
600-170889-1	IDW-Water	91	87	108	91	95	98
LB 600-245535/1-D	Method Blank	91	107	124	103	94	99

Surrogate Legend

NBZ = Nitrobenzene-d5
2FP = 2-Fluorophenol
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPHL = Terphenyl-d14
PHL = Phenol-d5 (Surr)

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		OTPH
Lab Sample ID	Client Sample ID	(70-130)
600-170889-2	IDW-Soil-8/15/18	106
LCS 600-245455/2-A	Lab Control Sample	107
LCSD 600-245455/3-A	Lab Control Sample Dup	108
MB 600-245455/1-A	Method Blank	104

Surrogate Legend

OTPH = o-Terphenyl

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		OTPH
Lab Sample ID	Client Sample ID	(70-130)
600-170889-1	IDW-Water	96
LCS 600-245346/2-A	Lab Control Sample	92

Surrogate Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Site IDW Soil and Water

TestAmerica Job ID: 600-170889-1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	OTPH (70-130)							
LCSD 600-245346/3-A	Lab Control Sample Dup	92							
MB 600-245346/1-A	Method Blank	92							

Surrogate Legend

OTPH = o-Terphenyl

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-245261/6
Matrix: Solid
Analysis Batch: 245261

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	0.00190	U	0.0100	0.00190	mg/Kg			08/16/18 13:45	1
1,1-Dichloroethane	0.000870	U	0.00500	0.000870	mg/Kg			08/16/18 13:45	1
1,2-Dichloroethane	0.000900	U	0.00500	0.000900	mg/Kg			08/16/18 13:45	1
1,1-Dichloroethene	0.00122	U	0.00500	0.00122	mg/Kg			08/16/18 13:45	1
Acetone	0.00166	U	0.0100	0.00166	mg/Kg			08/16/18 13:45	1
Benzene	0.000630	U	0.00500	0.000630	mg/Kg			08/16/18 13:45	1
1,2-Dichloropropane	0.000710	U	0.00500	0.000710	mg/Kg			08/16/18 13:45	1
Bromoform	0.00137	U	0.00500	0.00137	mg/Kg			08/16/18 13:45	1
Bromomethane	0.000830	U	0.0100	0.000830	mg/Kg			08/16/18 13:45	1
Carbon disulfide	0.000550	U	0.0100	0.000550	mg/Kg			08/16/18 13:45	1
Carbon tetrachloride	0.00113	U	0.00500	0.00113	mg/Kg			08/16/18 13:45	1
2-Hexanone	0.00101	U	0.0100	0.00101	mg/Kg			08/16/18 13:45	1
Chlorobenzene	0.000960	U	0.00500	0.000960	mg/Kg			08/16/18 13:45	1
4-Methyl-2-pentanone (MIBK)	0.00147	U	0.0100	0.00147	mg/Kg			08/16/18 13:45	1
Chlorobromomethane	0.00178	U	0.00500	0.00178	mg/Kg			08/16/18 13:45	1
Chloroethane	0.00140	U	0.0100	0.00140	mg/Kg			08/16/18 13:45	1
1,1,2,2-Tetrachloroethane	0.000870	U	0.00500	0.000870	mg/Kg			08/16/18 13:45	1
Chloroform	0.000660	U	0.0100	0.000660	mg/Kg			08/16/18 13:45	1
Chloromethane	0.00166	U	0.0100	0.00166	mg/Kg			08/16/18 13:45	1
cis-1,2-Dichloroethene	0.000830	U	0.00500	0.000830	mg/Kg			08/16/18 13:45	1
1,1,1-Trichloroethane	0.000740	U	0.00500	0.000740	mg/Kg			08/16/18 13:45	1
cis-1,3-Dichloropropene	0.000540	U	0.00500	0.000540	mg/Kg			08/16/18 13:45	1
1,1,2-Trichloroethane	0.000730	U	0.0400	0.000730	mg/Kg			08/16/18 13:45	1
Dibromochloromethane	0.000940	U	0.00500	0.000940	mg/Kg			08/16/18 13:45	1
Ethylbenzene	0.00102	U	0.00500	0.00102	mg/Kg			08/16/18 13:45	1
Methylene Chloride	0.00219	U	0.0100	0.00219	mg/Kg			08/16/18 13:45	1
m-Xylene & p-Xylene	0.00152	U	0.00500	0.00152	mg/Kg			08/16/18 13:45	1
o-Xylene	0.00113	U	0.00500	0.00113	mg/Kg			08/16/18 13:45	1
Styrene	0.000710	U	0.00500	0.000710	mg/Kg			08/16/18 13:45	1
Tetrachloroethene	0.000710	U	0.00500	0.000710	mg/Kg			08/16/18 13:45	1
Toluene	0.00138	U	0.00500	0.00138	mg/Kg			08/16/18 13:45	1
Bromodichloromethane	0.000660	U	0.00500	0.000660	mg/Kg			08/16/18 13:45	1
trans-1,2-Dichloroethene	0.00114	U	0.00500	0.00114	mg/Kg			08/16/18 13:45	1
1,2-Dichloroethene, Total	0.00190	U	0.0100	0.00190	mg/Kg			08/16/18 13:45	1
trans-1,3-Dichloropropene	0.000580	U	0.00500	0.000580	mg/Kg			08/16/18 13:45	1
Trichloroethene	0.00140	U	0.00500	0.00140	mg/Kg			08/16/18 13:45	1
Vinyl acetate	0.000930	U	0.0100	0.000930	mg/Kg			08/16/18 13:45	1
Vinyl chloride	0.000900	U	0.0100	0.000900	mg/Kg			08/16/18 13:45	1
Xylenes, Total	0.00113	U	0.00500	0.00113	mg/Kg			08/16/18 13:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*93*		*68 - 140*		*08/16/18 13:45*	*1*
4-Bromofluorobenzene	*116*		*57 - 140*		*08/16/18 13:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*65*		*61 - 130*		*08/16/18 13:45*	*1*
Toluene-d8 (Surr)	*70*		*50 - 130*		*08/16/18 13:45*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-245261/3
Matrix: Solid
Analysis Batch: 245261

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Butanone (MEK)	0.100	0.1220		mg/Kg		122	33 - 150
1,1-Dichloroethane	0.0500	0.04534		mg/Kg		91	63 - 140
1,2-Dichloroethane	0.0500	0.05029		mg/Kg		101	58 - 137
1,1-Dichloroethene	0.0500	0.04825		mg/Kg		97	62 - 142
Acetone	0.100	0.1306		mg/Kg		131	13 - 150
Benzene	0.0500	0.04560		mg/Kg		91	70 - 131
1,2-Dichloropropane	0.0500	0.04456		mg/Kg		89	70 - 130
Bromoform	0.0500	0.05244		mg/Kg		105	43 - 150
Bromomethane	0.0500	0.05019		mg/Kg		100	37 - 147
Carbon disulfide	0.0500	0.04455		mg/Kg		89	51 - 141
Carbon tetrachloride	0.0500	0.04837		mg/Kg		97	58 - 130
2-Hexanone	0.100	0.1019		mg/Kg		102	35 - 150
Chlorobenzene	0.0500	0.04726		mg/Kg		95	63 - 131
4-Methyl-2-pentanone (MIBK)	0.100	0.1001		mg/Kg		100	21 - 150
Chlorobromomethane	0.0500	0.05064		mg/Kg		101	70 - 132
Chloroethane	0.0500	0.05053		mg/Kg		101	40 - 150
1,1,2,2-Tetrachloroethane	0.0500	0.06641		mg/Kg		133	61 - 138
Chloroform	0.0500	0.04766		mg/Kg		95	69 - 130
Chloromethane	0.0500	0.04258		mg/Kg		85	44 - 141
cis-1,2-Dichloroethene	0.0500	0.04506		mg/Kg		90	70 - 130
1,1,1-Trichloroethane	0.0500	0.04785		mg/Kg		96	59 - 130
cis-1,3-Dichloropropene	0.0500	0.04768		mg/Kg		95	65 - 130
1,1,2-Trichloroethane	0.0500	0.04870		mg/Kg		97	67 - 134
Dibromochloromethane	0.0500	0.05033		mg/Kg		101	65 - 134
Ethylbenzene	0.0500	0.04764		mg/Kg		95	66 - 130
Methylene Chloride	0.0500	0.05092		mg/Kg		102	61 - 150
m-Xylene & p-Xylene	0.0500	0.04705		mg/Kg		94	64 - 130
o-Xylene	0.0500	0.04803		mg/Kg		96	62 - 130
Styrene	0.0500	0.04670		mg/Kg		93	65 - 133
Tetrachloroethene	0.0500	0.04939		mg/Kg		99	43 - 143
Toluene	0.0500	0.04676		mg/Kg		94	67 - 130
Bromodichloromethane	0.0500	0.04872		mg/Kg		97	67 - 138
trans-1,2-Dichloroethene	0.0500	0.04528		mg/Kg		91	69 - 130
1,2-Dichloroethene, Total	0.100	0.09034		mg/Kg		90	70 - 130
trans-1,3-Dichloropropene	0.0500	0.04823		mg/Kg		96	70 - 130
Trichloroethene	0.0500	0.04598		mg/Kg		92	63 - 135
Vinyl acetate	0.100	0.09942		mg/Kg		99	40 - 150
Vinyl chloride	0.0500	0.05076		mg/Kg		102	40 - 148
Xylenes, Total	0.100	0.09508		mg/Kg		95	63 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*95*		*68 - 140*
4-Bromofluorobenzene	*114*		*57 - 140*
1,2-Dichloroethane-d4 (Surr)	*69*		*61 - 130*
Toluene-d8 (Surr)	*71*		*50 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-245261/4
Matrix: Solid
Analysis Batch: 245261

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	0.100	0.1178		mg/Kg		118	33 - 150	4	30
1,1-Dichloroethane	0.0500	0.04541		mg/Kg		91	63 - 140	0	30
1,2-Dichloroethane	0.0500	0.04989		mg/Kg		100	58 - 137	1	30
1,1-Dichloroethene	0.0500	0.04713		mg/Kg		94	62 - 142	2	30
Acetone	0.100	0.1143		mg/Kg		114	13 - 150	13	30
Benzene	0.0500	0.04507		mg/Kg		90	70 - 131	1	30
1,2-Dichloropropane	0.0500	0.04554		mg/Kg		91	70 - 130	2	30
Bromoform	0.0500	0.05115		mg/Kg		102	43 - 150	2	30
Bromomethane	0.0500	0.05384		mg/Kg		108	37 - 147	7	30
Carbon disulfide	0.0500	0.04567		mg/Kg		91	51 - 141	2	30
Carbon tetrachloride	0.0500	0.04877		mg/Kg		98	58 - 130	1	30
2-Hexanone	0.100	0.1011		mg/Kg		101	35 - 150	1	30
Chlorobenzene	0.0500	0.04751		mg/Kg		95	63 - 131	1	30
4-Methyl-2-pentanone (MIBK)	0.100	0.09704		mg/Kg		97	21 - 150	3	30
Chlorobromomethane	0.0500	0.04759		mg/Kg		95	70 - 132	6	30
Chloroethane	0.0500	0.05393		mg/Kg		108	40 - 150	7	30
1,1,2,2-Tetrachloroethane	0.0500	0.06262		mg/Kg		125	61 - 138	6	30
Chloroform	0.0500	0.04671		mg/Kg		93	69 - 130	2	30
Chloromethane	0.0500	0.04512		mg/Kg		90	44 - 141	6	30
cis-1,2-Dichloroethene	0.0500	0.04570		mg/Kg		91	70 - 130	1	30
1,1,1-Trichloroethane	0.0500	0.04770		mg/Kg		95	59 - 130	0	30
cis-1,3-Dichloropropene	0.0500	0.04768		mg/Kg		95	65 - 130	0	30
1,1,2-Trichloroethane	0.0500	0.05011		mg/Kg		100	67 - 134	3	30
Dibromochloromethane	0.0500	0.05018		mg/Kg		100	65 - 134	0	30
Ethylbenzene	0.0500	0.04772		mg/Kg		95	66 - 130	0	30
Methylene Chloride	0.0500	0.04890		mg/Kg		98	61 - 150	4	30
m-Xylene & p-Xylene	0.0500	0.04797		mg/Kg		96	64 - 130	2	30
o-Xylene	0.0500	0.04829		mg/Kg		97	62 - 130	1	30
Styrene	0.0500	0.04768		mg/Kg		95	65 - 133	2	30
Tetrachloroethene	0.0500	0.05013		mg/Kg		100	43 - 143	1	30
Toluene	0.0500	0.04721		mg/Kg		94	67 - 130	1	30
Bromodichloromethane	0.0500	0.04788		mg/Kg		96	67 - 138	2	30
trans-1,2-Dichloroethene	0.0500	0.04495		mg/Kg		90	69 - 130	1	30
1,2-Dichloroethene, Total	0.100	0.09065		mg/Kg		91	70 - 130	0	30
trans-1,3-Dichloropropene	0.0500	0.04898		mg/Kg		98	70 - 130	2	30
Trichloroethene	0.0500	0.04638		mg/Kg		93	63 - 135	1	30
Vinyl acetate	0.100	0.09699		mg/Kg		97	40 - 150	2	30
Vinyl chloride	0.0500	0.05427		mg/Kg		109	40 - 148	7	30
Xylenes, Total	0.100	0.09626		mg/Kg		96	63 - 130	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane	*93*		*68 - 140*
4-Bromofluorobenzene	*113*		*57 - 140*
1,2-Dichloroethane-d4 (Surr)	*66*		*61 - 130*
Toluene-d8 (Surr)	*71*		*50 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-245575/7
Matrix: Solid
Analysis Batch: 245575

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.000910	U	0.00500	0.000910	mg/L			08/21/18 15:59	1
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			08/21/18 15:59	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			08/21/18 15:59	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			08/21/18 15:59	1
Benzene	0.000560	U	0.00500	0.000560	mg/L			08/21/18 15:59	1
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			08/21/18 15:59	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			08/21/18 15:59	1
Chloroform	0.000820	U	0.0100	0.000820	mg/L			08/21/18 15:59	1
Tetrachloroethene	0.00124	U	0.00500	0.00124	mg/L			08/21/18 15:59	1
Trichloroethene	0.00158	U	0.00500	0.00158	mg/L			08/21/18 15:59	1
Vinyl chloride	0.000850	U	0.00500	0.000850	mg/L			08/21/18 15:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*106*		*62 - 130*		*08/21/18 15:59*	*1*
4-Bromofluorobenzene	*91*		*67 - 139*		*08/21/18 15:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*109*		*50 - 134*		*08/21/18 15:59*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*08/21/18 15:59*	*1*

Lab Sample ID: LCS 600-245575/4
Matrix: Solid
Analysis Batch: 245575

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0500	0.04525		mg/L		91	70 - 130
2-Butanone (MEK)	0.100	0.1082		mg/L		108	34 - 140
1,2-Dichloroethane	0.0500	0.05210		mg/L		104	62 - 144
1,1-Dichloroethene	0.0500	0.04841		mg/L		97	67 - 134
Benzene	0.0500	0.04927		mg/L		99	70 - 131
Carbon tetrachloride	0.0500	0.05167		mg/L		103	68 - 140
Chlorobenzene	0.0500	0.04708		mg/L		94	70 - 130
Chloroform	0.0500	0.05007		mg/L		100	70 - 131
Tetrachloroethene	0.0500	0.04741		mg/L		95	57 - 130
Trichloroethene	0.0500	0.05070		mg/L		101	70 - 130
Vinyl chloride	0.0500	0.05565		mg/L		111	55 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*107*		*62 - 130*
4-Bromofluorobenzene	*93*		*67 - 139*
1,2-Dichloroethane-d4 (Surr)	*107*		*50 - 134*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 600-245575/5
Matrix: Solid
Analysis Batch: 245575

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	0.0500	0.04472		mg/L		89	70 - 130	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-245575/5
Matrix: Solid
Analysis Batch: 245575

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	0.100	0.1046		mg/L		105	34 - 140	3	20
1,2-Dichloroethane	0.0500	0.05190		mg/L		104	62 - 144	0	20
1,1-Dichloroethene	0.0500	0.04488		mg/L		90	67 - 134	8	20
Benzene	0.0500	0.04784		mg/L		96	70 - 131	3	20
Carbon tetrachloride	0.0500	0.04792		mg/L		96	68 - 140	8	20
Chlorobenzene	0.0500	0.04587		mg/L		92	70 - 130	3	20
Chloroform	0.0500	0.04924		mg/L		98	70 - 131	2	20
Tetrachloroethene	0.0500	0.04362		mg/L		87	57 - 130	8	20
Trichloroethene	0.0500	0.04790		mg/L		96	70 - 130	6	20
Vinyl chloride	0.0500	0.06350		mg/L		127	55 - 150	13	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane	*106*		*62 - 130*
4-Bromofluorobenzene	*94*		*67 - 139*
1,2-Dichloroethane-d4 (Surr)	*107*		*50 - 134*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 600-245664/7
Matrix: Solid
Analysis Batch: 245664

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.000910	U	0.00500	0.000910	mg/L			08/22/18 13:56	1
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			08/22/18 13:56	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			08/22/18 13:56	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			08/22/18 13:56	1
Benzene	0.000560	U	0.00500	0.000560	mg/L			08/22/18 13:56	1
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			08/22/18 13:56	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			08/22/18 13:56	1
Chloroform	0.000820	U	0.0100	0.000820	mg/L			08/22/18 13:56	1
Tetrachloroethene	0.00124	U	0.00500	0.00124	mg/L			08/22/18 13:56	1
Trichloroethene	0.00158	U	0.00500	0.00158	mg/L			08/22/18 13:56	1
Vinyl chloride	0.000850	U	0.00500	0.000850	mg/L			08/22/18 13:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*109*		*62 - 130*		*08/22/18 13:56*	*1*
4-Bromofluorobenzene	*89*		*67 - 139*		*08/22/18 13:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*50 - 134*		*08/22/18 13:56*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*08/22/18 13:56*	*1*

Lab Sample ID: LCS 600-245664/4
Matrix: Solid
Analysis Batch: 245664

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0500	0.04772		mg/L		95	70 - 130
2-Butanone (MEK)	0.100	0.09273		mg/L		93	34 - 140
1,2-Dichloroethane	0.0500	0.05296		mg/L		106	62 - 144

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-245664/4
Matrix: Solid
Analysis Batch: 245664

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			0.0500	0.05272		mg/L		105	67 - 134		
Benzene			0.0500	0.05216		mg/L		104	70 - 131		
Carbon tetrachloride			0.0500	0.05563		mg/L		111	68 - 140		
Chlorobenzene			0.0500	0.05019		mg/L		100	70 - 130		
Chloroform			0.0500	0.05300		mg/L		106	70 - 131		
Tetrachloroethene			0.0500	0.05042		mg/L		101	57 - 130		
Trichloroethene			0.0500	0.05511		mg/L		110	70 - 130		
Vinyl chloride			0.0500	0.05293		mg/L		106	55 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*111*		*62 - 130*
4-Bromofluorobenzene	*94*		*67 - 139*
1,2-Dichloroethane-d4 (Surr)	*107*		*50 - 134*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 600-245664/5
Matrix: Solid
Analysis Batch: 245664

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene			0.0500	0.04471		mg/L		89	70 - 130	7	20
2-Butanone (MEK)			0.100	0.08140		mg/L		81	34 - 140	13	20
1,2-Dichloroethane			0.0500	0.05051		mg/L		101	62 - 144	5	20
1,1-Dichloroethene			0.0500	0.04743		mg/L		95	67 - 134	11	20
Benzene			0.0500	0.04868		mg/L		97	70 - 131	7	20
Carbon tetrachloride			0.0500	0.04833		mg/L		97	68 - 140	14	20
Chlorobenzene			0.0500	0.04777		mg/L		96	70 - 130	5	20
Chloroform			0.0500	0.04939		mg/L		99	70 - 131	7	20
Tetrachloroethene			0.0500	0.04558		mg/L		91	57 - 130	10	20
Trichloroethene			0.0500	0.04985		mg/L		100	70 - 130	10	20
Vinyl chloride			0.0500	0.05536		mg/L		111	55 - 150	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane	*108*		*62 - 130*
4-Bromofluorobenzene	*93*		*67 - 139*
1,2-Dichloroethane-d4 (Surr)	*104*		*50 - 134*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: MB 600-245785/9
Matrix: Water
Analysis Batch: 245785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			08/23/18 14:33	1
1,1-Dichloroethane	0.000500	U	0.00500	0.000500	mg/L			08/23/18 14:33	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			08/23/18 14:33	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			08/23/18 14:33	1
Acetone	0.00227	U	0.0100	0.00227	mg/L			08/23/18 14:33	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-245785/9
Matrix: Water
Analysis Batch: 245785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000560	U	0.00500	0.000560	mg/L			08/23/18 14:33	1
1,2-Dichloropropane	0.00141	U	0.00500	0.00141	mg/L			08/23/18 14:33	1
Bromoform	0.000770	U	0.00500	0.000770	mg/L			08/23/18 14:33	1
Bromomethane	0.00215	U	0.0100	0.00215	mg/L			08/23/18 14:33	1
Carbon disulfide	0.00170	U	0.0100	0.00170	mg/L			08/23/18 14:33	1
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			08/23/18 14:33	1
2-Hexanone	0.00142	U	0.0100	0.00142	mg/L			08/23/18 14:33	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			08/23/18 14:33	1
4-Methyl-2-pentanone (MIBK)	0.00111	U	0.0100	0.00111	mg/L			08/23/18 14:33	1
Chlorobromomethane	0.000810	U	0.00500	0.000810	mg/L			08/23/18 14:33	1
Chloroethane	0.00173	U	0.0100	0.00173	mg/L			08/23/18 14:33	1
1,1,2,2-Tetrachloroethane	0.000800	U	0.00500	0.000800	mg/L			08/23/18 14:33	1
Chloroform	0.000820	U	0.0100	0.000820	mg/L			08/23/18 14:33	1
Chloromethane	0.000850	U	0.0100	0.000850	mg/L			08/23/18 14:33	1
cis-1,2-Dichloroethene	0.000560	U	0.00500	0.000560	mg/L			08/23/18 14:33	1
1,1,1-Trichloroethane	0.000980	U	0.00500	0.000980	mg/L			08/23/18 14:33	1
cis-1,3-Dichloropropene	0.000970	U	0.00500	0.000970	mg/L			08/23/18 14:33	1
1,1,2-Trichloroethane	0.000530	U	0.00500	0.000530	mg/L			08/23/18 14:33	1
Dibromochloromethane	0.000920	U	0.00500	0.000920	mg/L			08/23/18 14:33	1
Ethylbenzene	0.00129	U	0.00500	0.00129	mg/L			08/23/18 14:33	1
Methylene Chloride	0.00143	U	0.0100	0.00143	mg/L			08/23/18 14:33	1
m-Xylene & p-Xylene	0.00126	U	0.00500	0.00126	mg/L			08/23/18 14:33	1
o-Xylene	0.000930	U	0.00500	0.000930	mg/L			08/23/18 14:33	1
Styrene	0.000560	U	0.00500	0.000560	mg/L			08/23/18 14:33	1
Tetrachloroethene	0.00124	U	0.00500	0.00124	mg/L			08/23/18 14:33	1
Toluene	0.000550	U	0.00500	0.000550	mg/L			08/23/18 14:33	1
Bromodichloromethane	0.000760	U	0.00500	0.000760	mg/L			08/23/18 14:33	1
trans-1,2-Dichloroethene	0.000880	U	0.00500	0.000880	mg/L			08/23/18 14:33	1
1,2-Dichloroethene, Total	0.000840	U	0.0100	0.000840	mg/L			08/23/18 14:33	1
trans-1,3-Dichloropropene	0.000590	U	0.00500	0.000590	mg/L			08/23/18 14:33	1
Trichloroethene	0.00158	U	0.00500	0.00158	mg/L			08/23/18 14:33	1
Vinyl acetate	0.000600	U	0.0100	0.000600	mg/L			08/23/18 14:33	1
Vinyl chloride	0.000850	U	0.00500	0.000850	mg/L			08/23/18 14:33	1
Xylenes, Total	0.00198	U	0.00500	0.00198	mg/L			08/23/18 14:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*99*		*62 - 130*		*08/23/18 14:33*	*1*
4-Bromofluorobenzene	*129*		*67 - 139*		*08/23/18 14:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*50 - 134*		*08/23/18 14:33*	*1*
Toluene-d8 (Surr)	*121*		*70 - 130*		*08/23/18 14:33*	*1*

Lab Sample ID: LCS 600-245785/5
Matrix: Water
Analysis Batch: 245785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Butanone (MEK)	0.100	0.08327		mg/L		83	34 - 140
1,1-Dichloroethane	0.0500	0.03802		mg/L		76	70 - 137

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-245785/5
Matrix: Water
Analysis Batch: 245785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	0.0500	0.04120		mg/L		82	62 - 144
1,1-Dichloroethene	0.0500	0.04372		mg/L		87	67 - 134
Acetone	0.100	0.08037		mg/L		80	21 - 148
Benzene	0.0500	0.03955		mg/L		79	70 - 131
1,2-Dichloropropane	0.0500	0.03942		mg/L		79	70 - 133
Bromoform	0.0500	0.04533		mg/L		91	67 - 134
Bromomethane	0.0500	0.04522		mg/L		90	45 - 150
Carbon disulfide	0.0500	0.04279		mg/L		86	60 - 146
Carbon tetrachloride	0.0500	0.04085		mg/L		82	68 - 140
2-Hexanone	0.100	0.09111		mg/L		91	46 - 139
Chlorobenzene	0.0500	0.04080		mg/L		82	70 - 130
4-Methyl-2-pentanone (MIBK)	0.100	0.08864		mg/L		89	39 - 150
Chlorobromomethane	0.0500	0.04406		mg/L		88	70 - 130
Chloroethane	0.0500	0.04271		mg/L		85	65 - 138
1,1,2,2-Tetrachloroethane	0.0500	0.03944		mg/L		79	62 - 130
Chloroform	0.0500	0.03971		mg/L		79	70 - 131
Chloromethane	0.0500	0.04062		mg/L		81	15 - 150
cis-1,2-Dichloroethene	0.0500	0.04191		mg/L		84	70 - 130
1,1,1-Trichloroethane	0.0500	0.04171		mg/L		83	67 - 139
cis-1,3-Dichloropropene	0.0500	0.04197		mg/L		84	66 - 130
1,1,2-Trichloroethane	0.0500	0.04476		mg/L		90	70 - 130
Dibromochloromethane	0.0500	0.04335		mg/L		87	70 - 130
Ethylbenzene	0.0500	0.04209		mg/L		84	70 - 130
Methylene Chloride	0.0500	0.05074		mg/L		101	67 - 130
m-Xylene & p-Xylene	0.0500	0.04099		mg/L		82	70 - 130
o-Xylene	0.0500	0.03924		mg/L		78	69 - 130
Styrene	0.0500	0.04331		mg/L		87	70 - 130
Tetrachloroethene	0.0500	0.04294		mg/L		86	57 - 130
Toluene	0.0500	0.04085		mg/L		82	70 - 130
Bromodichloromethane	0.0500	0.04237		mg/L		85	70 - 130
trans-1,2-Dichloroethene	0.0500	0.04053		mg/L		81	70 - 130
1,2-Dichloroethene, Total	0.100	0.08244		mg/L		82	70 - 130
trans-1,3-Dichloropropene	0.0500	0.04384		mg/L		88	70 - 138
Trichloroethene	0.0500	0.04389		mg/L		88	70 - 130
Vinyl acetate	0.100	0.09335		mg/L		93	22 - 150
Vinyl chloride	0.0500	0.04153		mg/L		83	55 - 150
Xylenes, Total	0.100	0.08023		mg/L		80	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*77*		*62 - 130*
4-Bromofluorobenzene	*72*		*67 - 139*
1,2-Dichloroethane-d4 (Surr)	*78*		*50 - 134*
Toluene-d8 (Surr)	*76*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-245785/6
Matrix: Water
Analysis Batch: 245785

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	0.100	0.08941		mg/L		89	34 - 140	7	20
1,1-Dichloroethane	0.0500	0.03821		mg/L		76	70 - 137	1	20
1,2-Dichloroethane	0.0500	0.04185		mg/L		84	62 - 144	2	20
1,1-Dichloroethene	0.0500	0.04387		mg/L		88	67 - 134	0	20
Acetone	0.100	0.08676		mg/L		87	21 - 148	8	20
Benzene	0.0500	0.03864		mg/L		77	70 - 131	2	20
1,2-Dichloropropane	0.0500	0.03892		mg/L		78	70 - 133	1	20
Bromoform	0.0500	0.04842		mg/L		97	67 - 134	7	20
Bromomethane	0.0500	0.04454		mg/L		89	45 - 150	2	20
Carbon disulfide	0.0500	0.04155		mg/L		83	60 - 146	3	20
Carbon tetrachloride	0.0500	0.03920		mg/L		78	68 - 140	4	20
2-Hexanone	0.100	0.09650		mg/L		97	46 - 139	6	20
Chlorobenzene	0.0500	0.04118		mg/L		82	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)	0.100	0.09252		mg/L		93	39 - 150	4	20
Chlorobromomethane	0.0500	0.04408		mg/L		88	70 - 130	0	20
Chloroethane	0.0500	0.04167		mg/L		83	65 - 138	2	20
1,1,2,2-Tetrachloroethane	0.0500	0.04141		mg/L		83	62 - 130	5	20
Chloroform	0.0500	0.03831		mg/L		77	70 - 131	4	20
Chloromethane	0.0500	0.03921		mg/L		78	15 - 150	4	20
cis-1,2-Dichloroethene	0.0500	0.04096		mg/L		82	70 - 130	2	20
1,1,1-Trichloroethane	0.0500	0.03953		mg/L		79	67 - 139	5	20
cis-1,3-Dichloropropene	0.0500	0.04172		mg/L		83	66 - 130	1	20
1,1,2-Trichloroethane	0.0500	0.04528		mg/L		91	70 - 130	1	20
Dibromochloromethane	0.0500	0.04508		mg/L		90	70 - 130	4	20
Ethylbenzene	0.0500	0.03996		mg/L		80	70 - 130	5	20
Methylene Chloride	0.0500	0.04982		mg/L		100	67 - 130	2	20
m-Xylene & p-Xylene	0.0500	0.04017		mg/L		80	70 - 130	2	20
o-Xylene	0.0500	0.03862		mg/L		77	69 - 130	2	20
Styrene	0.0500	0.04255		mg/L		85	70 - 130	2	20
Tetrachloroethene	0.0500	0.04316		mg/L		86	57 - 130	1	20
Toluene	0.0500	0.04016		mg/L		80	70 - 130	2	20
Bromodichloromethane	0.0500	0.04196		mg/L		84	70 - 130	1	20
trans-1,2-Dichloroethene	0.0500	0.03880		mg/L		78	70 - 130	4	20
1,2-Dichloroethene, Total	0.100	0.07976		mg/L		80	70 - 130	3	20
trans-1,3-Dichloropropene	0.0500	0.04426		mg/L		89	70 - 138	1	20
Trichloroethene	0.0500	0.04129		mg/L		83	70 - 130	6	20
Vinyl acetate	0.100	0.09459		mg/L		95	22 - 150	1	20
Vinyl chloride	0.0500	0.03868		mg/L		77	55 - 150	7	20
Xylenes, Total	0.100	0.07879		mg/L		79	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane	*78*		*62 - 130*
4-Bromofluorobenzene	*72*		*67 - 139*
1,2-Dichloroethane-d4 (Surr)	*77*		*50 - 134*
Toluene-d8 (Surr)	*75*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-245954/8
Matrix: Water
Analysis Batch: 245954

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			08/27/18 10:53	1
1,1-Dichloroethane	0.000500	U	0.00500	0.000500	mg/L			08/27/18 10:53	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			08/27/18 10:53	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			08/27/18 10:53	1
Acetone	0.00227	U	0.0100	0.00227	mg/L			08/27/18 10:53	1
Benzene	0.000560	U	0.00500	0.000560	mg/L			08/27/18 10:53	1
1,2-Dichloropropane	0.00141	U	0.00500	0.00141	mg/L			08/27/18 10:53	1
Bromoform	0.000770	U	0.00500	0.000770	mg/L			08/27/18 10:53	1
Bromomethane	0.00215	U	0.0100	0.00215	mg/L			08/27/18 10:53	1
Carbon disulfide	0.00170	U	0.0100	0.00170	mg/L			08/27/18 10:53	1
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			08/27/18 10:53	1
2-Hexanone	0.00142	U	0.0100	0.00142	mg/L			08/27/18 10:53	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			08/27/18 10:53	1
4-Methyl-2-pentanone (MIBK)	0.00111	U	0.0100	0.00111	mg/L			08/27/18 10:53	1
Chlorobromomethane	0.000810	U	0.00500	0.000810	mg/L			08/27/18 10:53	1
Chloroethane	0.00173	U	0.0100	0.00173	mg/L			08/27/18 10:53	1
1,1,2,2-Tetrachloroethane	0.000800	U	0.00500	0.000800	mg/L			08/27/18 10:53	1
Chloroform	0.000820	U	0.0100	0.000820	mg/L			08/27/18 10:53	1
Chloromethane	0.000850	U	0.0100	0.000850	mg/L			08/27/18 10:53	1
cis-1,2-Dichloroethene	0.000560	U	0.00500	0.000560	mg/L			08/27/18 10:53	1
1,1,1-Trichloroethane	0.000980	U	0.00500	0.000980	mg/L			08/27/18 10:53	1
cis-1,3-Dichloropropene	0.000970	U	0.00500	0.000970	mg/L			08/27/18 10:53	1
1,1,2-Trichloroethane	0.000530	U	0.00500	0.000530	mg/L			08/27/18 10:53	1
Dibromochloromethane	0.000920	U	0.00500	0.000920	mg/L			08/27/18 10:53	1
Ethylbenzene	0.00129	U	0.00500	0.00129	mg/L			08/27/18 10:53	1
Methylene Chloride	0.00143	U	0.0100	0.00143	mg/L			08/27/18 10:53	1
m-Xylene & p-Xylene	0.00126	U	0.00500	0.00126	mg/L			08/27/18 10:53	1
o-Xylene	0.000930	U	0.00500	0.000930	mg/L			08/27/18 10:53	1
Styrene	0.000560	U	0.00500	0.000560	mg/L			08/27/18 10:53	1
Tetrachloroethene	0.00124	U	0.00500	0.00124	mg/L			08/27/18 10:53	1
Toluene	0.000550	U	0.00500	0.000550	mg/L			08/27/18 10:53	1
Bromodichloromethane	0.000760	U	0.00500	0.000760	mg/L			08/27/18 10:53	1
trans-1,2-Dichloroethene	0.000880	U	0.00500	0.000880	mg/L			08/27/18 10:53	1
1,2-Dichloroethene, Total	0.000840	U	0.0100	0.000840	mg/L			08/27/18 10:53	1
trans-1,3-Dichloropropene	0.000590	U	0.00500	0.000590	mg/L			08/27/18 10:53	1
Trichloroethene	0.00158	U	0.00500	0.00158	mg/L			08/27/18 10:53	1
Vinyl acetate	0.000600	U	0.0100	0.000600	mg/L			08/27/18 10:53	1
Vinyl chloride	0.000850	U	0.00500	0.000850	mg/L			08/27/18 10:53	1
Xylenes, Total	0.00198	U	0.00500	0.00198	mg/L			08/27/18 10:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*118*		*62 - 130*		*08/27/18 10:53*	*1*
4-Bromofluorobenzene	*105*		*67 - 139*		*08/27/18 10:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*50 - 134*		*08/27/18 10:53*	*1*
Toluene-d8 (Surr)	*126*		*70 - 130*		*08/27/18 10:53*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-245954/4
Matrix: Water
Analysis Batch: 245954

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Butanone (MEK)	0.100	0.08743		mg/L		87	34 - 140
1,1-Dichloroethane	0.0500	0.04228		mg/L		85	70 - 137
1,2-Dichloroethane	0.0500	0.04660		mg/L		93	62 - 144
1,1-Dichloroethene	0.0500	0.04077		mg/L		82	67 - 134
Acetone	0.100	0.08394		mg/L		84	21 - 148
Benzene	0.0500	0.04255		mg/L		85	70 - 131
1,2-Dichloropropane	0.0500	0.04424		mg/L		88	70 - 133
Bromoform	0.0500	0.04796		mg/L		96	67 - 134
Bromomethane	0.0500	0.05169		mg/L		103	45 - 150
Carbon disulfide	0.0500	0.03445		mg/L		69	60 - 146
Carbon tetrachloride	0.0500	0.04220		mg/L		84	68 - 140
2-Hexanone	0.100	0.1001		mg/L		100	46 - 139
Chlorobenzene	0.0500	0.04612		mg/L		92	70 - 130
4-Methyl-2-pentanone (MIBK)	0.100	0.09582		mg/L		96	39 - 150
Chlorobromomethane	0.0500	0.04851		mg/L		97	70 - 130
Chloroethane	0.0500	0.04633		mg/L		93	65 - 138
1,1,2,2-Tetrachloroethane	0.0500	0.04179		mg/L		84	62 - 130
Chloroform	0.0500	0.04374		mg/L		87	70 - 131
Chloromethane	0.0500	0.04582		mg/L		92	15 - 150
cis-1,2-Dichloroethene	0.0500	0.04622		mg/L		92	70 - 130
1,1,1-Trichloroethane	0.0500	0.04242		mg/L		85	67 - 139
cis-1,3-Dichloropropene	0.0500	0.04644		mg/L		93	66 - 130
1,1,2-Trichloroethane	0.0500	0.04981		mg/L		100	70 - 130
Dibromochloromethane	0.0500	0.04931		mg/L		99	70 - 130
Ethylbenzene	0.0500	0.04381		mg/L		88	70 - 130
Methylene Chloride	0.0500	0.05415		mg/L		108	67 - 130
m-Xylene & p-Xylene	0.0500	0.04464		mg/L		89	70 - 130
o-Xylene	0.0500	0.04452		mg/L		89	69 - 130
Styrene	0.0500	0.04826		mg/L		97	70 - 130
Tetrachloroethene	0.0500	0.04635		mg/L		93	57 - 130
Toluene	0.0500	0.04453		mg/L		89	70 - 130
Bromodichloromethane	0.0500	0.04765		mg/L		95	70 - 130
trans-1,2-Dichloroethene	0.0500	0.04144		mg/L		83	70 - 130
1,2-Dichloroethene, Total	0.100	0.08766		mg/L		88	70 - 130
trans-1,3-Dichloropropene	0.0500	0.04902		mg/L		98	70 - 138
Trichloroethene	0.0500	0.04921		mg/L		98	70 - 130
Vinyl acetate	0.100	0.09778		mg/L		98	22 - 150
Vinyl chloride	0.0500	0.04364		mg/L		87	55 - 150
Xylenes, Total	0.100	0.08916		mg/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*87*		*62 - 130*
4-Bromofluorobenzene	*77*		*67 - 139*
1,2-Dichloroethane-d4 (Surr)	*86*		*50 - 134*
Toluene-d8 (Surr)	*82*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-245954/9
Matrix: Water
Analysis Batch: 245954

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	0.100	0.08733		mg/L		87	34 - 140	0	20
1,1-Dichloroethane	0.0500	0.03892		mg/L		78	70 - 137	8	20
1,2-Dichloroethane	0.0500	0.04570		mg/L		91	62 - 144	2	20
1,1-Dichloroethene	0.0500	0.03604		mg/L		72	67 - 134	12	20
Acetone	0.100	0.08423		mg/L		84	21 - 148	0	20
Benzene	0.0500	0.03929		mg/L		79	70 - 131	8	20
1,2-Dichloropropane	0.0500	0.04132		mg/L		83	70 - 133	7	20
Bromoform	0.0500	0.04934		mg/L		99	67 - 134	3	20
Bromomethane	0.0500	0.04529		mg/L		91	45 - 150	13	20
Carbon disulfide	0.0500	0.03007		mg/L		60	60 - 146	14	20
Carbon tetrachloride	0.0500	0.03869		mg/L		77	68 - 140	9	20
2-Hexanone	0.100	0.09386		mg/L		94	46 - 139	6	20
Chlorobenzene	0.0500	0.04250		mg/L		85	70 - 130	8	20
4-Methyl-2-pentanone (MIBK)	0.100	0.09420		mg/L		94	39 - 150	2	20
Chlorobromomethane	0.0500	0.04736		mg/L		95	70 - 130	2	20
Chloroethane	0.0500	0.04229		mg/L		85	65 - 138	9	20
1,1,2,2-Tetrachloroethane	0.0500	0.04269		mg/L		85	62 - 130	2	20
Chloroform	0.0500	0.04081		mg/L		82	70 - 131	7	20
Chloromethane	0.0500	0.03998		mg/L		80	15 - 150	14	20
cis-1,2-Dichloroethene	0.0500	0.04240		mg/L		85	70 - 130	9	20
1,1,1-Trichloroethane	0.0500	0.03942		mg/L		79	67 - 139	7	20
cis-1,3-Dichloropropene	0.0500	0.04433		mg/L		89	66 - 130	5	20
1,1,2-Trichloroethane	0.0500	0.04740		mg/L		95	70 - 130	5	20
Dibromochloromethane	0.0500	0.04765		mg/L		95	70 - 130	3	20
Ethylbenzene	0.0500	0.04046		mg/L		81	70 - 130	8	20
Methylene Chloride	0.0500	0.05141		mg/L		103	67 - 130	5	20
m-Xylene & p-Xylene	0.0500	0.03963		mg/L		79	70 - 130	12	20
o-Xylene	0.0500	0.03993		mg/L		80	69 - 130	11	20
Styrene	0.0500	0.04350		mg/L		87	70 - 130	10	20
Tetrachloroethene	0.0500	0.04062		mg/L		81	57 - 130	13	20
Toluene	0.0500	0.04029		mg/L		81	70 - 130	10	20
Bromodichloromethane	0.0500	0.04495		mg/L		90	70 - 130	6	20
trans-1,2-Dichloroethene	0.0500	0.03681		mg/L		74	70 - 130	12	20
1,2-Dichloroethene, Total	0.100	0.07921		mg/L		79	70 - 130	10	20
trans-1,3-Dichloropropene	0.0500	0.04563		mg/L		91	70 - 138	7	20
Trichloroethene	0.0500	0.04255		mg/L		85	70 - 130	15	20
Vinyl acetate	0.100	0.09829		mg/L		98	22 - 150	1	20
Vinyl chloride	0.0500	0.03801		mg/L		76	55 - 150	14	20
Xylenes, Total	0.100	0.07956		mg/L		80	70 - 130	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane	*85*		*62 - 130*
4-Bromofluorobenzene	*73*		*67 - 139*
1,2-Dichloroethane-d4 (Surr)	*85*		*50 - 134*
Toluene-d8 (Surr)	*73*		*70 - 130*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 600-245599/1-A
Matrix: Solid
Analysis Batch: 245575

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.000910	U	0.00500	0.000910	mg/L			08/21/18 21:12	1
2-Butanone (MEK)	0.00157	U	0.0100	0.00157	mg/L			08/21/18 21:12	1
1,2-Dichloroethane	0.00101	U	0.00500	0.00101	mg/L			08/21/18 21:12	1
1,1-Dichloroethene	0.000760	U	0.00500	0.000760	mg/L			08/21/18 21:12	1
Benzene	0.000560	U	0.00500	0.000560	mg/L			08/21/18 21:12	1
Carbon tetrachloride	0.000920	U	0.00500	0.000920	mg/L			08/21/18 21:12	1
Chlorobenzene	0.000820	U	0.00500	0.000820	mg/L			08/21/18 21:12	1
Chloroform	0.000820	U	0.0100	0.000820	mg/L			08/21/18 21:12	1
Tetrachloroethene	0.00124	U	0.00500	0.00124	mg/L			08/21/18 21:12	1
Trichloroethene	0.00158	U	0.00500	0.00158	mg/L			08/21/18 21:12	1
Vinyl chloride	0.000850	U	0.00500	0.000850	mg/L			08/21/18 21:12	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*109*		*62 - 130*		*08/21/18 21:12*	*1*
4-Bromofluorobenzene	*89*		*67 - 139*		*08/21/18 21:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*50 - 134*		*08/21/18 21:12*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*08/21/18 21:12*	*1*

Lab Sample ID: 600-170889-1 MS
Matrix: Water
Analysis Batch: 245664

Client Sample ID: IDW-Water
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0182	U	1.00	0.9036		mg/L		90	70 - 130
2-Butanone (MEK)	0.0314	U	2.00	2.078		mg/L		104	34 - 140
1,2-Dichloroethane	0.0202	U	1.00	1.090		mg/L		109	62 - 144
1,1-Dichloroethene	0.0152	U	1.00	0.8387		mg/L		84	67 - 134
Benzene	0.164		1.00	1.175		mg/L		101	70 - 131
Carbon tetrachloride	0.0184	U	1.00	0.8906		mg/L		89	68 - 140
Chlorobenzene	0.0164	U	1.00	0.9578		mg/L		96	70 - 130
Chloroform	0.0164	U	1.00	1.033		mg/L		103	70 - 131
Tetrachloroethene	0.0248	U	1.00	0.8244		mg/L		82	57 - 130
Trichloroethene	0.0316	U	1.00	0.9822		mg/L		98	70 - 130
Vinyl chloride	0.0170	U	1.00	1.003		mg/L		100	55 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane	*111*		*62 - 130*
4-Bromofluorobenzene	*96*		*67 - 139*
1,2-Dichloroethane-d4 (Surr)	*109*		*50 - 134*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: 600-170889-2 MS
Matrix: Solid
Analysis Batch: 245664

Client Sample ID: IDW-Soil-8/15/18
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0182	U	1.00	0.8451		mg/L		85	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-170889-2 MS
Matrix: Solid
Analysis Batch: 245664

Client Sample ID: IDW-Soil-8/15/18
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Butanone (MEK)	0.0314	U	2.00	1.960		mg/L		98	34 - 140
1,2-Dichloroethane	0.0202	U	1.00	0.9984		mg/L		100	62 - 144
1,1-Dichloroethene	0.0152	U	1.00	0.7996		mg/L		80	67 - 134
Benzene	0.0112	U	1.00	0.9424		mg/L		94	70 - 131
Carbon tetrachloride	0.0184	U	1.00	0.8548		mg/L		85	68 - 140
Chlorobenzene	0.0164	U	1.00	0.8923		mg/L		89	70 - 130
Chloroform	0.0164	U	1.00	0.9634		mg/L		96	70 - 131
Tetrachloroethene	0.0248	U	1.00	0.7946		mg/L		79	57 - 130
Trichloroethene	0.0316	U	1.00	0.9221		mg/L		92	70 - 130
Vinyl chloride	0.0170	U	1.00	0.9870		mg/L		99	55 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane	*108*		*62 - 130*
4-Bromofluorobenzene	*95*		*67 - 139*
1,2-Dichloroethane-d4 (Surr)	*106*		*50 - 134*
Toluene-d8 (Surr)	*102*		*70 - 130*

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Lab Sample ID: MB 600-245561/1-B
Matrix: Solid
Analysis Batch: 245682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245561

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00194	U	0.0100	0.00194	mg/L		08/21/18 11:45	08/22/18 16:47	1
2,4-Dinitrotoluene	0.00211	U	0.0100	0.00211	mg/L		08/21/18 11:45	08/22/18 16:47	1
2,4,5-Trichlorophenol	0.00420	U	0.0100	0.00420	mg/L		08/21/18 11:45	08/22/18 16:47	1
2,4,6-Trichlorophenol	0.00332	U	0.0100	0.00332	mg/L		08/21/18 11:45	08/22/18 16:47	1
2-Methylphenol	0.00142	U	0.0100	0.00142	mg/L		08/21/18 11:45	08/22/18 16:47	1
3 & 4 Methylphenol	0.00135	U	0.0200	0.00135	mg/L		08/21/18 11:45	08/22/18 16:47	1
Hexachlorobenzene	0.00328	U	0.0100	0.00328	mg/L		08/21/18 11:45	08/22/18 16:47	1
Hexachlorobutadiene	0.00257	U	0.0100	0.00257	mg/L		08/21/18 11:45	08/22/18 16:47	1
Hexachloroethane	0.00329	U	0.0100	0.00329	mg/L		08/21/18 11:45	08/22/18 16:47	1
Nitrobenzene	0.00259	U	0.0100	0.00259	mg/L		08/21/18 11:45	08/22/18 16:47	1
Pentachlorophenol	0.00315	U	0.0500	0.00315	mg/L		08/21/18 11:45	08/22/18 16:47	1
Pyridine	0.00216	U	0.0100	0.00216	mg/L		08/21/18 11:45	08/22/18 16:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*101*		*24 - 150*	*08/21/18 11:45*	*08/22/18 16:47*	*1*
2-Fluorophenol	*98*		*10 - 130*	*08/21/18 11:45*	*08/22/18 16:47*	*1*
2-Fluorobiphenyl	*109*		*38 - 133*	*08/21/18 11:45*	*08/22/18 16:47*	*1*
2,4,6-Tribromophenol	*104*		*19 - 150*	*08/21/18 11:45*	*08/22/18 16:47*	*1*
Terphenyl-d14	*91*		*35 - 150*	*08/21/18 11:45*	*08/22/18 16:47*	*1*
Phenol-d5 (Surr)	*94*		*10 - 130*	*08/21/18 11:45*	*08/22/18 16:47*	*1*

Method: 8270C - Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (Continued)

Lab Sample ID: LCS 600-245561/2-B
Matrix: Solid
Analysis Batch: 245682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245561

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dichlorobenzene			0.0400	0.02956		mg/L		74	41 - 130		
2,4-Dinitrotoluene			0.0400	0.03160		mg/L		79	48 - 130		
2,4,5-Trichlorophenol			0.0400	0.03397		mg/L		85	39 - 130		
2,4,6-Trichlorophenol			0.0400	0.02971		mg/L		74	36 - 130		
2-Methylphenol			0.0400	0.04458		mg/L		111	37 - 130		
3 & 4 Methylphenol			0.0400	0.03337		mg/L		83	39 - 130		
Hexachlorobenzene			0.0400	0.03490		mg/L		87	45 - 130		
Hexachlorobutadiene			0.0400	0.03303		mg/L		83	35 - 130		
Hexachloroethane			0.0400	0.03001		mg/L		75	37 - 130		
Nitrobenzene			0.0400	0.03127		mg/L		78	44 - 130		
Pentachlorophenol			0.0800	0.04895	J	mg/L		61	34 - 130		
Pyridine			0.0800	0.00216	U *	mg/L		0.9	10 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*109*		*24 - 150*
2-Fluorophenol	*120*		*10 - 130*
2-Fluorobiphenyl	*116*		*38 - 133*
2,4,6-Tribromophenol	*122*		*19 - 150*
Terphenyl-d14	*111*		*35 - 150*
Phenol-d5 (Surr)	*96*		*10 - 130*

Lab Sample ID: LCSD 600-245561/3-B
Matrix: Solid
Analysis Batch: 245682

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245561

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene			0.0400	0.02853		mg/L		71	41 - 130	4	20
2,4-Dinitrotoluene			0.0400	0.03122		mg/L		78	48 - 130	1	20
2,4,5-Trichlorophenol			0.0400	0.03240		mg/L		81	39 - 130	5	20
2,4,6-Trichlorophenol			0.0400	0.02784		mg/L		70	36 - 130	6	20
2-Methylphenol			0.0400	0.03986		mg/L		100	37 - 130	11	20
3 & 4 Methylphenol			0.0400	0.03166		mg/L		79	39 - 130	5	20
Hexachlorobenzene			0.0400	0.03412		mg/L		85	45 - 130	2	20
Hexachlorobutadiene			0.0400	0.03166		mg/L		79	35 - 130	4	20
Hexachloroethane			0.0400	0.02851		mg/L		71	37 - 130	5	20
Nitrobenzene			0.0400	0.02966		mg/L		74	44 - 130	5	20
Pentachlorophenol			0.0800	0.04869	J	mg/L		61	34 - 130	1	20
Pyridine			0.0800	0.00216	U *	mg/L		0	10 - 130	200	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*103*		*24 - 150*
2-Fluorophenol	*109*		*10 - 130*
2-Fluorobiphenyl	*113*		*38 - 133*
2,4,6-Tribromophenol	*115*		*19 - 150*
Terphenyl-d14	*106*		*35 - 150*
Phenol-d5 (Surr)	*88*		*10 - 130*

Lab Sample ID: LB 600-245535/1-D
Matrix: Water
Analysis Batch: 245769

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 245561

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00970	U	0.0500	0.00970	mg/L		08/21/18 15:25	08/23/18 14:14	1
2,4-Dinitrotoluene	0.0106	U	0.0500	0.0106	mg/L		08/21/18 15:25	08/23/18 14:14	1
2,4,5-Trichlorophenol	0.0210	U	0.0500	0.0210	mg/L		08/21/18 15:25	08/23/18 14:14	1
2,4,6-Trichlorophenol	0.0166	U	0.0500	0.0166	mg/L		08/21/18 15:25	08/23/18 14:14	1
2-Methylphenol	0.00710	U	0.0500	0.00710	mg/L		08/21/18 15:25	08/23/18 14:14	1
3 & 4 Methylphenol	0.00675	U	0.100	0.00675	mg/L		08/21/18 15:25	08/23/18 14:14	1
Hexachlorobenzene	0.0164	U	0.0500	0.0164	mg/L		08/21/18 15:25	08/23/18 14:14	1
Hexachlorobutadiene	0.0129	U	0.0500	0.0129	mg/L		08/21/18 15:25	08/23/18 14:14	1
Hexachloroethane	0.0165	U	0.0500	0.0165	mg/L		08/21/18 15:25	08/23/18 14:14	1
Nitrobenzene	0.0130	U	0.0500	0.0130	mg/L		08/21/18 15:25	08/23/18 14:14	1
Pentachlorophenol	0.0158	U	0.250	0.0158	mg/L		08/21/18 15:25	08/23/18 14:14	1
Pyridine	0.0108	U *	0.0500	0.0108	mg/L		08/21/18 15:25	08/23/18 14:14	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*91*		*24 - 150*	*08/21/18 15:25*	*08/23/18 14:14*	*1*
2-Fluorophenol	*107*		*10 - 130*	*08/21/18 15:25*	*08/23/18 14:14*	*1*
2-Fluorobiphenyl	*124*		*38 - 133*	*08/21/18 15:25*	*08/23/18 14:14*	*1*
2,4,6-Tribromophenol	*103*		*19 - 150*	*08/21/18 15:25*	*08/23/18 14:14*	*1*
Terphenyl-d14	*94*		*35 - 150*	*08/21/18 15:25*	*08/23/18 14:14*	*1*
Phenol-d5 (Surr)	*99*		*10 - 130*	*08/21/18 15:25*	*08/23/18 14:14*	*1*

Lab Sample ID: LB 600-245536/1-E
Matrix: Solid
Analysis Batch: 245682

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 245561

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.00970	U *	0.0500	0.00970	mg/L		08/21/18 15:25	08/22/18 22:05	1
2,4-Dinitrotoluene	0.0106	U	0.0500	0.0106	mg/L		08/21/18 15:25	08/22/18 22:05	1
2,4,5-Trichlorophenol	0.0210	U	0.0500	0.0210	mg/L		08/21/18 15:25	08/22/18 22:05	1
2,4,6-Trichlorophenol	0.0166	U	0.0500	0.0166	mg/L		08/21/18 15:25	08/22/18 22:05	1
2-Methylphenol	0.00710	U *	0.0500	0.00710	mg/L		08/21/18 15:25	08/22/18 22:05	1
3 & 4 Methylphenol	0.00675	U *	0.100	0.00675	mg/L		08/21/18 15:25	08/22/18 22:05	1
Hexachlorobenzene	0.0164	U	0.0500	0.0164	mg/L		08/21/18 15:25	08/22/18 22:05	1
Hexachlorobutadiene	0.0129	U	0.0500	0.0129	mg/L		08/21/18 15:25	08/22/18 22:05	1
Hexachloroethane	0.0165	U *	0.0500	0.0165	mg/L		08/21/18 15:25	08/22/18 22:05	1
Nitrobenzene	0.0130	U	0.0500	0.0130	mg/L		08/21/18 15:25	08/22/18 22:05	1
Pentachlorophenol	0.0158	U	0.250	0.0158	mg/L		08/21/18 15:25	08/22/18 22:05	1
Pyridine	0.0108	U *	0.0500	0.0108	mg/L		08/21/18 15:25	08/22/18 22:05	1

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*89*		*24 - 150*	*08/21/18 15:25*	*08/22/18 22:05*	*1*
2-Fluorophenol	*127*	*	*10 - 130*	*08/21/18 15:25*	*08/22/18 22:05*	*1*
2-Fluorobiphenyl	*117*		*38 - 133*	*08/21/18 15:25*	*08/22/18 22:05*	*1*
2,4,6-Tribromophenol	*116*		*19 - 150*	*08/21/18 15:25*	*08/22/18 22:05*	*1*
Terphenyl-d14	*97*		*35 - 150*	*08/21/18 15:25*	*08/22/18 22:05*	*1*
Phenol-d5 (Surr)	*142*	*X *	*10 - 130*	*08/21/18 15:25*	*08/22/18 22:05*	*1*

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-245346/1-A
Matrix: Water
Analysis Batch: 245362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245346

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.830	U	2.00	0.830	mg/L		08/17/18 09:53	08/17/18 12:55	1
>C12-C28	0.960	U	2.00	0.960	mg/L		08/17/18 09:53	08/17/18 12:55	1
>C28-C35	0.960	U	2.00	0.960	mg/L		08/17/18 09:53	08/17/18 12:55	1
C6-C35	0.830	U	2.00	0.830	mg/L		08/17/18 09:53	08/17/18 12:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*70 - 130*	*08/17/18 09:53*	*08/17/18 12:55*	*1*

Lab Sample ID: LCS 600-245346/2-A
Matrix: Water
Analysis Batch: 245362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245346

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	33.3	28.36		mg/L		85	75 - 125
>C12-C28	33.3	33.13		mg/L		99	75 - 125
C6-C35	66.7	61.49		mg/L		92	75 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: LCSD 600-245346/3-A
Matrix: Water
Analysis Batch: 245362

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245346

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	33.3	26.92		mg/L		81	75 - 125	5	20
>C12-C28	33.3	33.10		mg/L		99	75 - 125	0	20
C6-C35	66.7	60.02		mg/L		90	75 - 125	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: MB 600-245455/1-A
Matrix: Solid
Analysis Batch: 245456

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245455

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.80	U	10.0	3.80	mg/Kg		08/20/18 11:59	08/20/18 13:12	1
>C12-C28	4.06	U	10.0	4.06	mg/Kg		08/20/18 11:59	08/20/18 13:12	1
>C28-C35	4.06	U	10.0	4.06	mg/Kg		08/20/18 11:59	08/20/18 13:12	1
C6-C35	3.80	U	10.0	3.80	mg/Kg		08/20/18 11:59	08/20/18 13:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*104*		*70 - 130*	*08/20/18 11:59*	*08/20/18 13:12*	*1*

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: LCS 600-245455/2-A
Matrix: Solid
Analysis Batch: 245456

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245455

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C12			250	234.0		mg/Kg		94	75 - 125		
>C12-C28			250	221.3		mg/Kg		89	75 - 125		
C6-C35			500	455.3		mg/Kg		91	75 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*107*		*70 - 130*

Lab Sample ID: LCSD 600-245455/3-A
Matrix: Solid
Analysis Batch: 245456

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 245455

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12			250	234.2		mg/Kg		94	75 - 125	0	20
>C12-C28			250	216.7		mg/Kg		87	75 - 125	2	20
C6-C35			500	450.9		mg/Kg		90	75 - 125	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*108*		*70 - 130*

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry

Lab Sample ID: MB 600-245578/1-A
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245578

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.000280	U	0.00500	0.000280	mg/L		08/21/18 13:02	08/22/18 14:50	1
Barium	0.000530	U	0.0200	0.000530	mg/L		08/21/18 13:02	08/22/18 14:50	1
Chromium	0.00159	U	0.0100	0.00159	mg/L		08/21/18 13:02	08/22/18 14:50	1
Arsenic	0.00285	U	0.0100	0.00285	mg/L		08/21/18 13:02	08/22/18 14:50	1
Lead	0.00219	U	0.0100	0.00219	mg/L		08/21/18 13:02	08/22/18 14:50	1
Selenium	0.00287	U	0.0400	0.00287	mg/L		08/21/18 13:02	08/22/18 14:50	1
Silver	0.00129	U	0.0100	0.00129	mg/L		08/21/18 13:02	08/22/18 14:50	1

Lab Sample ID: LCS 600-245578/2-A
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245578

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cadmium			0.500	0.5041		mg/L		101	80 - 120		
Barium			1.00	1.009		mg/L		101	80 - 120		
Chromium			1.00	1.010		mg/L		101	80 - 120		
Arsenic			1.00	1.002		mg/L		100	80 - 120		
Lead			1.00	1.013		mg/L		101	80 - 120		
Selenium			1.00	1.006		mg/L		101	80 - 120		
Silver			0.500	0.5079		mg/L		102	80 - 120		

Method: 6010B - Inductively Coupled Plasma - Atomic Emission Spectrometry (Continued)

Lab Sample ID: LB 600-245535/1-C
Matrix: Water
Analysis Batch: 245732

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 245578

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00280	U	0.0500	0.00280	mg/L		08/21/18 13:02	08/22/18 14:53	1
Barium	0.00530	U	0.200	0.00530	mg/L		08/21/18 13:02	08/22/18 14:53	1
Chromium	0.0159	U	0.100	0.0159	mg/L		08/21/18 13:02	08/22/18 14:53	1
Arsenic	0.0285	U	0.100	0.0285	mg/L		08/21/18 13:02	08/22/18 14:53	1
Lead	0.0219	U	0.100	0.0219	mg/L		08/21/18 13:02	08/22/18 14:53	1
Selenium	0.0287	U	0.400	0.0287	mg/L		08/21/18 13:02	08/22/18 14:53	1
Silver	0.0129	U	0.100	0.0129	mg/L		08/21/18 13:02	08/22/18 14:53	1

Lab Sample ID: LB 600-245536/1-C
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 245578

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00280	U	0.0500	0.00280	mg/L		08/21/18 13:02	08/22/18 14:59	1
Barium	0.00530	U	0.200	0.00530	mg/L		08/21/18 13:02	08/22/18 14:59	1
Chromium	0.0159	U	0.100	0.0159	mg/L		08/21/18 13:02	08/22/18 14:59	1
Arsenic	0.0285	U	0.100	0.0285	mg/L		08/21/18 13:02	08/22/18 14:59	1
Lead	0.0219	U	0.100	0.0219	mg/L		08/21/18 13:02	08/22/18 14:59	1
Selenium	0.0287	U	0.400	0.0287	mg/L		08/21/18 13:02	08/22/18 14:59	1
Silver	0.0129	U	0.100	0.0129	mg/L		08/21/18 13:02	08/22/18 14:59	1

Lab Sample ID: 600-170889-2 MS
Matrix: Solid
Analysis Batch: 245732

Client Sample ID: IDW-Soil-8/15/18
Prep Type: TCLP
Prep Batch: 245578

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.00361	J	5.00	4.860		mg/L		97	75 - 125
Barium	1.78		10.0	11.47		mg/L		97	75 - 125
Chromium	0.0159	U	10.0	9.890		mg/L		99	75 - 125
Arsenic	0.0285	U	10.0	10.04		mg/L		100	75 - 125
Lead	0.0219	U	10.0	9.802		mg/L		98	75 - 125
Selenium	0.0324	J	10.0	10.11		mg/L		101	75 - 125
Silver	0.0129	U	5.00	5.066		mg/L		101	75 - 125

Method: 7470A - Mercury in Liquid Waste (Manual Cold Vapor Technique)

Lab Sample ID: MB 600-245556/7-A
Matrix: Solid
Analysis Batch: 245604

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245556

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000103	U	0.000250	0.000103	mg/L		08/21/18 11:28	08/21/18 14:33	1

Lab Sample ID: LCS 600-245556/8-A
Matrix: Solid
Analysis Batch: 245604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245556

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00375	0.003620		mg/L		97	70 - 130

Lab Sample ID: LB 600-245535/1-B
Matrix: Water
Analysis Batch: 245604

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 245556

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000103	U	0.000250	0.000103	mg/L		08/21/18 11:28	08/21/18 15:12	1

Lab Sample ID: LB 600-245536/1-B
Matrix: Solid
Analysis Batch: 245604

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 245556

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000103	U	0.000250	0.000103	mg/L		08/21/18 11:28	08/21/18 14:36	1

Lab Sample ID: 600-170889-2 MS
Matrix: Solid
Analysis Batch: 245604

Client Sample ID: IDW-Soil-8/15/18
Prep Type: TCLP
Prep Batch: 245556

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000103	U	0.00375	0.003294		mg/L		88	75 - 125

Method: 1010 - Pensky-Martens Closed-Cup Method for Determining Ignitability

Lab Sample ID: MB 600-246177/1
Matrix: Water
Analysis Batch: 246177

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>160		1.00	1.00	Degrees F			08/29/18 06:30	1

Lab Sample ID: LCS 600-246177/2
Matrix: Water
Analysis Batch: 246177

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Flashpoint	81.0	82.90		Degrees F		102	97 - 103

Method: 7.4.4 - Reactive Sulfide

Lab Sample ID: MB 600-245713/1-A
Matrix: Solid
Analysis Batch: 245803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245713

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	13.8	U	49.3	13.8	mg/Kg		08/22/18 10:00	08/23/18 07:55	1

Lab Sample ID: LCS 600-245713/3-A
Matrix: Solid
Analysis Batch: 245803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Reactive	1000	1700		mg/Kg		170	0 - 200

Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 600-245713/1-A
Matrix: Solid
Analysis Batch: 245800

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245713

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	0.0843	U	0.246	0.0843	mg/Kg		08/22/18 10:00	08/22/18 23:19	1

Lab Sample ID: LCS 600-245713/2-A
Matrix: Solid
Analysis Batch: 245800

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Reactive	1000	55.24		mg/Kg		6	0 - 200

Method: 9012 - Reactive Cyanide analysis using method 9012

Lab Sample ID: MB 600-245465/1-A
Matrix: Water
Analysis Batch: 245515

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245465

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	0.0386	U	0.243	0.0386	mg/L		08/20/18 12:25	08/21/18 01:51	1

Lab Sample ID: LCS 600-245465/2-A
Matrix: Water
Analysis Batch: 245515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Reactive	1000	28.72		mg/L		3	0 - 200

Lab Sample ID: 600-170889-1 MS
Matrix: Water
Analysis Batch: 245515

Client Sample ID: IDW-Water
Prep Type: Total/NA
Prep Batch: 245465

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Reactive	0.0394	U	998	62.84		mg/L		6	0 - 200

Lab Sample ID: 600-170889-1 DU
Matrix: Water
Analysis Batch: 245515

Client Sample ID: IDW-Water
Prep Type: Total/NA
Prep Batch: 245465

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Reactive	0.0394	U	0.0396	U	mg/L		NC	20

Method: 9034 - Reactive Sulfide

Lab Sample ID: MB 600-245465/1-A
Matrix: Water
Analysis Batch: 245513

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 245465

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	1.36	U	48.6	1.36	mg/L		08/20/18 12:25	08/21/18 02:45	1

Method: 9034 - Reactive Sulfide (Continued)

Lab Sample ID: LCS 600-245465/3-A
Matrix: Water
Analysis Batch: 245513

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 245465

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Reactive			1000	430.0		mg/L		43	0 - 200		

Lab Sample ID: 600-170889-1 MS
Matrix: Water
Analysis Batch: 245513

Client Sample ID: IDW-Water
Prep Type: Total/NA
Prep Batch: 245465

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Reactive	1.39	U	993	973.2		mg/L		98	0 - 200		

Lab Sample ID: 600-170889-1 DU
Matrix: Water
Analysis Batch: 245513

Client Sample ID: IDW-Water
Prep Type: Total/NA
Prep Batch: 245465

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide, Reactive	1.39	U		1.39	U	mg/L				NC	20

Method: 9045C - Corrosivity

Lab Sample ID: LCS 600-246214/1
Matrix: Solid
Analysis Batch: 246214

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.0		SU		100	99 - 101		

Lab Sample ID: 600-170889-2 DU
Matrix: Solid
Analysis Batch: 246214

Client Sample ID: IDW-Soil-8/15/18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	8.8	H		8.8		SU				0.2	1

Method: D92 - Flashpoint

Lab Sample ID: MB 600-246186/1
Matrix: Solid
Analysis Batch: 246186

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	>160		1.00	1.00	Degrees F			08/29/18 05:30	1

Lab Sample ID: LCS 600-246186/2
Matrix: Solid
Analysis Batch: 246186

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Flashpoint			81.0	80.00		Degrees F		99	88 - 112		

GC/MS VOA

Analysis Batch: 245261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	Total/NA	Solid	8260B	245275
MB 600-245261/6	Method Blank	Total/NA	Solid	8260B	
LCS 600-245261/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-245261/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 245275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	Total/NA	Solid	5030B	

Analysis Batch: 245575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 600-245599/1-A	Method Blank	TCLP	Solid	8260B	245599
MB 600-245575/7	Method Blank	Total/NA	Solid	8260B	
LCS 600-245575/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-245575/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

Leach Batch: 245599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	TCLP	Water	1311	
600-170889-2	IDW-Soil-8/15/18	TCLP	Solid	1311	
LB 600-245599/1-A	Method Blank	TCLP	Solid	1311	
600-170889-1 MS	IDW-Water	TCLP	Water	1311	
600-170889-2 MS	IDW-Soil-8/15/18	TCLP	Solid	1311	

Analysis Batch: 245664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	TCLP	Water	8260B	245599
600-170889-2	IDW-Soil-8/15/18	TCLP	Solid	8260B	245599
MB 600-245664/7	Method Blank	Total/NA	Solid	8260B	
LCS 600-245664/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 600-245664/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
600-170889-1 MS	IDW-Water	TCLP	Water	8260B	245599
600-170889-2 MS	IDW-Soil-8/15/18	TCLP	Solid	8260B	245599

Analysis Batch: 245785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	Total/NA	Water	8260B	
MB 600-245785/9	Method Blank	Total/NA	Water	8260B	
LCS 600-245785/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-245785/6	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 245954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1 - DL	IDW-Water	Total/NA	Water	8260B	
MB 600-245954/8	Method Blank	Total/NA	Water	8260B	
LCS 600-245954/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 600-245954/9	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Leach Batch: 245535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	TCLP	Water	1311	
LB 600-245535/1-D	Method Blank	TCLP	Water	1311	

Leach Batch: 245536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	TCLP	Solid	1311	
LB 600-245536/1-E	Method Blank	TCLP	Solid	1311	

Prep Batch: 245561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	TCLP	Water	3510C LVI	245535
600-170889-2	IDW-Soil-8/15/18	TCLP	Solid	3510C LVI	245536
LB 600-245535/1-D	Method Blank	TCLP	Water	3510C LVI	245535
LB 600-245536/1-E	Method Blank	TCLP	Solid	3510C LVI	245536
MB 600-245561/1-B	Method Blank	Total/NA	Solid	3510C LVI	
LCS 600-245561/2-B	Lab Control Sample	Total/NA	Solid	3510C LVI	
LCSD 600-245561/3-B	Lab Control Sample Dup	Total/NA	Solid	3510C LVI	

Analysis Batch: 245682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 600-245536/1-E	Method Blank	TCLP	Solid	8270C	245561
MB 600-245561/1-B	Method Blank	Total/NA	Solid	8270C	245561
LCS 600-245561/2-B	Lab Control Sample	Total/NA	Solid	8270C	245561
LCSD 600-245561/3-B	Lab Control Sample Dup	Total/NA	Solid	8270C	245561

Analysis Batch: 245769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	TCLP	Water	8270C	245561
600-170889-2	IDW-Soil-8/15/18	TCLP	Solid	8270C	245561
LB 600-245535/1-D	Method Blank	TCLP	Water	8270C	245561

GC Semi VOA

Prep Batch: 245346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	Total/NA	Water	TX_1005_W_Prep	
MB 600-245346/1-A	Method Blank	Total/NA	Water	TX_1005_W_Prep	
LCS 600-245346/2-A	Lab Control Sample	Total/NA	Water	TX_1005_W_Prep	
LCSD 600-245346/3-A	Lab Control Sample Dup	Total/NA	Water	TX_1005_W_Prep	

Analysis Batch: 245362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	Total/NA	Water	TX 1005	245346
MB 600-245346/1-A	Method Blank	Total/NA	Water	TX 1005	245346
LCS 600-245346/2-A	Lab Control Sample	Total/NA	Water	TX 1005	245346
LCSD 600-245346/3-A	Lab Control Sample Dup	Total/NA	Water	TX 1005	245346

GC Semi VOA (Continued)

Pre Prep Batch: 245453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	Total/NA	Solid	Frozen Preserve	

Prep Batch: 245455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	Total/NA	Solid	TX_1005_S_Prep	245453
MB 600-245455/1-A	Method Blank	Total/NA	Solid	TX_1005_S_Prep	
LCS 600-245455/2-A	Lab Control Sample	Total/NA	Solid	TX_1005_S_Prep	
LCSD 600-245455/3-A	Lab Control Sample Dup	Total/NA	Solid	TX_1005_S_Prep	

Analysis Batch: 245456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	Total/NA	Solid	TX 1005	245455
MB 600-245455/1-A	Method Blank	Total/NA	Solid	TX 1005	245455
LCS 600-245455/2-A	Lab Control Sample	Total/NA	Solid	TX 1005	245455
LCSD 600-245455/3-A	Lab Control Sample Dup	Total/NA	Solid	TX 1005	245455

Metals

Leach Batch: 245535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	TCLP	Water	1311	
LB 600-245535/1-B	Method Blank	TCLP	Water	1311	
LB 600-245535/1-C	Method Blank	TCLP	Water	1311	

Leach Batch: 245536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	TCLP	Solid	1311	
LB 600-245536/1-B	Method Blank	TCLP	Solid	1311	
LB 600-245536/1-C	Method Blank	TCLP	Solid	1311	
600-170889-2 MS	IDW-Soil-8/15/18	TCLP	Solid	1311	

Prep Batch: 245556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	TCLP	Water	7470A	245535
600-170889-2	IDW-Soil-8/15/18	TCLP	Solid	7470A	245536
LB 600-245535/1-B	Method Blank	TCLP	Water	7470A	245535
LB 600-245536/1-B	Method Blank	TCLP	Solid	7470A	245536
MB 600-245556/7-A	Method Blank	Total/NA	Solid	7470A	
LCS 600-245556/8-A	Lab Control Sample	Total/NA	Solid	7470A	
600-170889-2 MS	IDW-Soil-8/15/18	TCLP	Solid	7470A	245536

Prep Batch: 245578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	TCLP	Water	3010A	245535
600-170889-2	IDW-Soil-8/15/18	TCLP	Solid	3010A	245536
LB 600-245535/1-C	Method Blank	TCLP	Water	3010A	245535
LB 600-245536/1-C	Method Blank	TCLP	Solid	3010A	245536

Metals (Continued)

Prep Batch: 245578 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-245578/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 600-245578/2-A	Lab Control Sample	Total/NA	Solid	3010A	
600-170889-2 MS	IDW-Soil-8/15/18	TCLP	Solid	3010A	245536

Analysis Batch: 245604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	TCLP	Water	7470A	245556
600-170889-2	IDW-Soil-8/15/18	TCLP	Solid	7470A	245556
LB 600-245535/1-B	Method Blank	TCLP	Water	7470A	245556
LB 600-245536/1-B	Method Blank	TCLP	Solid	7470A	245556
MB 600-245556/7-A	Method Blank	Total/NA	Solid	7470A	245556
LCS 600-245556/8-A	Lab Control Sample	Total/NA	Solid	7470A	245556
600-170889-2 MS	IDW-Soil-8/15/18	TCLP	Solid	7470A	245556

Analysis Batch: 245732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	TCLP	Water	6010B	245578
600-170889-2	IDW-Soil-8/15/18	TCLP	Solid	6010B	245578
LB 600-245535/1-C	Method Blank	TCLP	Water	6010B	245578
LB 600-245536/1-C	Method Blank	TCLP	Solid	6010B	245578
MB 600-245578/1-A	Method Blank	Total/NA	Solid	6010B	245578
LCS 600-245578/2-A	Lab Control Sample	Total/NA	Solid	6010B	245578
600-170889-2 MS	IDW-Soil-8/15/18	TCLP	Solid	6010B	245578

General Chemistry

Analysis Batch: 245343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	Total/NA	Solid	2540B	

Prep Batch: 245465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	Total/NA	Water	7.3.4	
MB 600-245465/1-A	Method Blank	Total/NA	Water	7.3.4	
LCS 600-245465/2-A	Lab Control Sample	Total/NA	Water	7.3.4	
LCS 600-245465/3-A	Lab Control Sample	Total/NA	Water	7.3.4	
600-170889-1 MS	IDW-Water	Total/NA	Water	7.3.4	
600-170889-1 MS	IDW-Water	Total/NA	Water	7.3.4	
600-170889-1 DU	IDW-Water	Total/NA	Water	7.3.4	

Analysis Batch: 245513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	Total/NA	Water	9034	245465
MB 600-245465/1-A	Method Blank	Total/NA	Water	9034	245465
LCS 600-245465/3-A	Lab Control Sample	Total/NA	Water	9034	245465
600-170889-1 MS	IDW-Water	Total/NA	Water	9034	245465
600-170889-1 DU	IDW-Water	Total/NA	Water	9034	245465

General Chemistry (Continued)

Analysis Batch: 245515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	Total/NA	Water	9012	245465
MB 600-245465/1-A	Method Blank	Total/NA	Water	9012	245465
LCS 600-245465/2-A	Lab Control Sample	Total/NA	Water	9012	245465
600-170889-1 MS	IDW-Water	Total/NA	Water	9012	245465
600-170889-1 DU	IDW-Water	Total/NA	Water	9012	245465

Prep Batch: 245713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	Total/NA	Solid	7.3.4	
MB 600-245713/1-A	Method Blank	Total/NA	Solid	7.3.4	
LCS 600-245713/2-A	Lab Control Sample	Total/NA	Solid	7.3.4	
LCS 600-245713/3-A	Lab Control Sample	Total/NA	Solid	7.3.4	

Analysis Batch: 245800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	Total/NA	Solid	9012	245713
MB 600-245713/1-A	Method Blank	Total/NA	Solid	9012	245713
LCS 600-245713/2-A	Lab Control Sample	Total/NA	Solid	9012	245713

Analysis Batch: 245803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	Total/NA	Solid	7.4.4	245713
MB 600-245713/1-A	Method Blank	Total/NA	Solid	7.4.4	245713
LCS 600-245713/3-A	Lab Control Sample	Total/NA	Solid	7.4.4	245713

Analysis Batch: 246177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	Total/NA	Water	1010	
MB 600-246177/1	Method Blank	Total/NA	Water	1010	
LCS 600-246177/2	Lab Control Sample	Total/NA	Water	1010	

Analysis Batch: 246186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-2	IDW-Soil-8/15/18	Total/NA	Solid	D92	
MB 600-246186/1	Method Blank	Total/NA	Solid	D92	
LCS 600-246186/2	Lab Control Sample	Total/NA	Solid	D92	

Analysis Batch: 246214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-170889-1	IDW-Water	Total/NA	Water	9040B	
600-170889-2	IDW-Soil-8/15/18	Total/NA	Solid	9045C	
LCS 600-246214/1	Lab Control Sample	Total/NA	Solid	9045C	
600-170889-2 DU	IDW-Soil-8/15/18	Total/NA	Solid	9045C	

Lab Chronicle

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Site IDW Soil and Water

TestAmerica Job ID: 600-170889-1

Client Sample ID: IDW-Water

Date Collected: 08/15/18 19:30
Date Received: 08/16/18 11:40

Lab Sample ID: 600-170889-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			1.0 g	1.0 mL	245599	08/20/18 17:00	TWR	TAL HOU
TCLP	Analysis	8260B		20	5 mL	5 mL	245664	08/22/18 17:56	KLV	TAL HOU
Total/NA	Analysis	8260B		1	5 mL	5 mL	245785	08/23/18 21:37	DT1	TAL HOU
Total/NA	Analysis	8260B	DL	5	5 mL	5 mL	245954	08/27/18 12:08	DT1	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	245535	08/20/18 17:00	TWR	TAL HOU
TCLP	Prep	3510C LVI			50 mL	1.00 mL	245561	08/21/18 15:25	MRA	TAL HOU
TCLP	Analysis	8270C		1			245769	08/23/18 15:06	PXS	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			34.4 mL	3.00 mL	245346	08/17/18 09:53	RJV	TAL HOU
Total/NA	Analysis	TX 1005		1			245362	08/17/18 15:24	PXS	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	245535	08/20/18 17:00	TWR	TAL HOU
TCLP	Prep	3010A			5.0 mL	50.0 mL	245578	08/21/18 13:02	SEJ	TAL HOU
TCLP	Analysis	6010B		1			245732	08/22/18 14:57	DCL	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	245535	08/20/18 17:00	TWR	TAL HOU
TCLP	Prep	7470A			40 mL	50 mL	245556	08/21/18 11:35	KP1	TAL HOU
TCLP	Analysis	7470A		1			245604	08/21/18 15:35	KP1	TAL HOU
Total/NA	Analysis	1010		1			246177	08/29/18 06:30	KLR	TAL HOU
Total/NA	Prep	7.3.4			10.08 g	250 mL	245465	08/20/18 12:25	DTN	TAL HOU
Total/NA	Analysis	9012		1			245515	08/21/18 01:58	KRD	TAL HOU
Total/NA	Prep	7.3.4			10.08 g	250 mL	245465	08/20/18 12:25	DTN	TAL HOU
Total/NA	Analysis	9034		1			245513	08/21/18 02:45	KRD	TAL HOU
Total/NA	Analysis	9040B		1			246214	08/29/18 14:19	DTN	TAL HOU

Client Sample ID: IDW-Soil-8/15/18

Date Collected: 08/15/18 19:13
Date Received: 08/16/18 11:40

Lab Sample ID: 600-170889-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			25.0 g	500 mL	245599	08/20/18 17:00	TWR	TAL HOU
TCLP	Analysis	8260B		20	5 mL	5 mL	245664	08/22/18 17:32	KLV	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	245536	08/20/18 17:00	TWR	TAL HOU
TCLP	Prep	3510C LVI			50 mL	1.00 mL	245561	08/21/18 15:25	MRA	TAL HOU
TCLP	Analysis	8270C		1			245769	08/23/18 15:33	PXS	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	245536	08/20/18 17:00	TWR	TAL HOU
TCLP	Prep	3010A			5.0 mL	50.0 mL	245578	08/21/18 13:02	SEJ	TAL HOU
TCLP	Analysis	6010B		1			245732	08/22/18 15:17	DCL	TAL HOU
TCLP	Leach	1311			1.0 g	1.0 mL	245536	08/20/18 17:00	TWR	TAL HOU
TCLP	Prep	7470A			40 mL	50 mL	245556	08/21/18 11:28	KP1	TAL HOU
TCLP	Analysis	7470A		1			245604	08/21/18 14:58	KP1	TAL HOU
Total/NA	Analysis	2540B		1			245343	08/17/18 09:21	DTN	TAL HOU
Total/NA	Prep	7.3.4			10.29 g	250 mL	245713	08/22/18 10:00	DTN	TAL HOU
Total/NA	Analysis	7.4.4		1			245803	08/23/18 07:55	KRD	TAL HOU
Total/NA	Prep	7.3.4			10.29 g	250 mL	245713	08/22/18 10:00	DTN	TAL HOU
Total/NA	Analysis	9012		1			245800	08/22/18 23:29	KRD	TAL HOU

Lab Chronicle

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Site IDW Soil and Water

TestAmerica Job ID: 600-170889-1

Client Sample ID: IDW-Soil-8/15/18

Date Collected: 08/15/18 19:13
Date Received: 08/16/18 11:40

Lab Sample ID: 600-170889-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9045C		1			246214	08/29/18 14:19	DTN	TAL HOU
Total/NA	Analysis	D92		1			246186	08/29/18 05:30	KLR	TAL HOU

Client Sample ID: IDW-Soil-8/15/18

Date Collected: 08/15/18 19:13
Date Received: 08/16/18 11:40

Lab Sample ID: 600-170889-2

Matrix: Solid
Percent Solids: 93.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.98 g	5 mL	245275	08/16/18 12:26	DT1	TAL HOU
Total/NA	Analysis	8260B		1	5 g	5 g	245261	08/16/18 16:32	DT1	TAL HOU
Total/NA	Pre Prep	Frozen Preserve					245453	08/16/18 13:50	RJV	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			10.00 g	10.00 mL	245455	08/20/18 14:52	RJV	TAL HOU
Total/NA	Analysis	TX 1005		1			245456	08/20/18 21:25	RJV	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: EA Engineering, Science, and Technology
Project/Site: Petro-Chemical Site IDW Soil and Water

TestAmerica Job ID: 600-170889-1

Laboratory: TestAmerica Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Texas	NELAP	6	T104704223-17-22	10-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
2540B		Solid	Percent Moisture
2540B		Solid	Percent Solids
8260B		Water	1,2-Dichloroethene, Total
8260B	5030B	Solid	1,2-Dichloroethene, Total
8270C	3510C LVI	Water	3 & 4 Methylphenol
9012	7.3.4	Solid	Cyanide, Reactive
9012	7.3.4	Water	Cyanide, Reactive
9034	7.3.4	Water	Sulfide, Reactive
D92		Solid	Flashpoint

TestAmerica Houston Dallas . Ft Worth
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

560501

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: M Kelly	Lab PM: Upton, Cathy L	Carrier Tracking No(s): Hand Delivered	COC No: 600-62516-17583.1
Client Contact: Ms. April Ballweg	Phone: 972-315-3922	E-Mail: cathy.upton@testamericainc.com		Page: Page 1 of 1
Company: EA Engineering, Science, and Technology				Job #:
Address: 405 S. Highway 121 bypass Building C Suite 100	Due Date Requested: 8/30/18			
City: Lewisville	TAT Requested (days): 10 Day			
State, Zip: TX, 75067				
Phone: ~~505-715-4332(Tel)~~ 972-459-5019	PO #: ~~14342114 B 5~~ 14342134.B.6			
Email: aballweg@eaest.com	WO #: 14920			
Project Name: Petro-Chemical Site	Project #: ~~60010024~~ 15259			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wasteloil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1010, 9012_ReactiveCN, 9034, 9040B - RCI	6010B, 7470A - TCLP RCRA 8 Metals	8260B - TCLP VOC	8270C - TCLP SVOC	TX_1005 - TPH	8260B - VOC	Moisture	Total Number of containers	Spe
			Preservation Code:				N	N	N	N	A/N	A/N	N		
IDW-Water	8/15/18	1930	G	Water	No	No	X	X	X	X	X	X			
IDW-Soil-8/15/18	8/15/18	1913	C	Solid	No	No	X	X	X	X	X	X	X		

600-170889 Chain of Custody

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8-16-18/1000	EA	April Ballweg	8/16/18/1000	EA
April Ballweg	8/16/18/1140	EA	[signature]	8.16.18 1140	TAH

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 08/04/2016

TestAmerica Houston

Loc: 600
170889

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Receipt Checklist

'18 AUG 16 11:40

Date/Time Received: _____

JOB NUMBER: _____ CLIENT: EA Eng.

UNPACKED BY: PD CARRIER/DRIVER: Client

Custody Seal Present: ☐ YES ☒ NO Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Them CF	Corrected Temp (°C)
MBW	Y / (N)	Y / (N)	1.6	077	+0.4	2.0
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N		PD 8/16/18		
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒ YES ☐ NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒ NO ☐ YES

Base samples are>pH 12: ☐ YES ☐ NO Acid preserved are<pH 2: ☐ YES ☐ NO

pH paper Lot #_____

VOA headspace acceptable (5-6mm): ☐ YES ☒ NO ☐ NA

	YES	NO
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X

COMMENTS: All VOA have too much headspace.

PD 8/16/18

Login Sample Receipt Checklist

Client: EA Engineering, Science, and Technology

Job Number: 600-170889-1

Login Number: 170889
List Number: 1
Creator: Daley, Phoenix 1

List Source: TestAmerica Houston

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	Refer to Job Narrative for details.
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

ATTACHMENT 6

INVESTIGATION-DERIVED WASTE DISPOSAL DOCUMENTATION

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SPECIAL WASTE PROFILE

Requested Disposal Facility: Ft. Bend Regional Landfill

Waste Profile #
Sales Rep #.

Saveable fill in form. Restricted printing until all required (yellow) fields are completed.

I. Generator Information

Generator Name: U.S. Environmental Protection Agency, Region 6 (USEPA)			
Generator Site Address: Petro-Chemical Systems Inc., (Turtle Bayou), County Road 126			
City: Liberty	County: Liberty	State: TX	Zip: 77575
State ID/Reg No: NA	State Approval/Waste Code: NA (if applicable)		NAICS # :
Generator Mailing Address (if different): 1445 Ross Avenue			
City: Dallas	County: Dallas	State: TX	Zip: 75202
Generator Contact Name: Raji Josiam		Email: josiam.raji@Epa.gov	
Phone Number: (214) 665-8529	Ext:	Fax Number: (214) 665-6660	

IIa. Transporter Information

Transporter Name: LIghthouse Environmental Services		Contact Name: Bobby Howell	
Transporter Address: 4904 Fuqua Street			
City: Houston	County: Harris	State: TX	Zip: 77048
Phone Number: (713) 987-04[illegible]	Fax Number: (713) 987-0410	State Transportation Number: TXD037227121	

IIb. Billing Information

Bill To: Lighthouse Environmental Services		Contact Name: Bobby Howell	
Billing Address: 4904 Fuqua Street		Email: bhowell@lighthouseenv.com	
City: Houston	State: TX	Zip: 77048	Phone: (713) 987-0400

III. Waste Stream Information

Name of Waste: Ground water from remedial investigation
Process Generating Waste: Purged ground water from development of monitoring wells.
Physical State: ☐ SOLID ☐ SEMI-SOLID ☐ POWDER ☑ LIQUID
Method of Shipment: ☐ BULK ☑ DRUM ☐ BAGGED ☐ OTHER:
Estimated Annual Volume: 5 Other
Frequency: ☑ ONE TIME ☐ ANNUAL
Disposal Consideration: ☐ LANDFILL ☑ SOLIDIFICATION

IV. Representative Sample Certification

☐ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?	☑ YES or ☐ NO
Sample Date: 5/11/2016	Type of Sample: ☑ COMPOSITE SAMPLE ☐ GRAB SAMPLE
Sample ID Numbers: PC-IDW	
Samplers Name: Mark Kelly on behalf of USEPA	Samplers Signature: Mark Kelly

SPECIAL WASTE PROFILE (continued)

Waste Profile #

V. Physical Characteristics of Waste

Characteristic Components	% by Weight (range)
1. Water	95.000
2. soil	5.000
3.	
4.	
5.	

Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point
gray	None	☑ Yes or ☐ No	5.00	8.04	>186 °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile

Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and it epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes or ☑ No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes or ☑ No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes or ☑ No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes or ☑ No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this waste a reactive or heat generating waste?	☐ Yes or ☑ No
Does the waste contain sulfur or sulfur by-products?	☐ Yes or ☑ No
Is this waste generated at a Federal Superfund Clean Up Site?	☑ Yes or ☐ No
Is this waste from a TSD facility, TSD-like facility or waste consolidator?	☐ Yes or ☑ No

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither I nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by WCA Waste.

Rajalakshmi H. Sriram — Authorized Representative Name/Title

USEPA - Region 6 — Company Name

6-21-16 — Date

VII. Waste Approval Decision

☐ Approved ☐ Rejected Expiration: _____

Conditions:

Name, Title | Signature | Date

SPECIAL WASTE PROFILE

Requested Disposal Facility: Ft. Bend Regional Landfill

Waste Profile #
Sales Rep #.

Saveable fill in form. Restricted printing until all required (yellow) fields are completed.

I. Generator Information

Generator Name: U.S. Environmental Protection Agency, Region 6 (EPA)			
Generator Site Address: Petro-Chemical Systems Inc., (Turtle Bayou), County Road 126			
City: Liberty	County: Liberty	State: TX	Zip: 77575
State ID/Reg No: NA	State Approval/Waste Code: NA (if applicable)		NAICS # :
Generator Mailing Address (if different): 1445 Ross Avenue			
City: Dallas	County: Dallas	State: TX	Zip: 75202
Generator Contact Name: Raji Josiam		Email: josiam.raji@Epa.gov	
Phone Number: (214) 665-8529	Ext:	Fax Number: (214) 665-6660	

IIa. Transporter Information

Transporter Name: Lighthouse Environmental Services		Contact Name: Bobby Howell	
Transporter Address: 4904 Fuqua Street			
City: Houston	County: Harris	State: Texas	Zip: 77048
Phone Number:	Fax Number:	State Transportation Number: TXD037227121	

IIb. Billing Information

Bill To: Lighthouse Environmental Services		Contact Name: Bobby Howell	
Billing Address: 4904 Fuqua Street		Email: bhowell@lighthouseenv.com	
City: Houston	State: TX	Zip: 77048	Phone: (713) 987-0400

III. Waste Stream Information

Name of Waste: Soil from remedial action investigation
Process Generating Waste: Monitoring well installation drill cuttings/soil.
Physical State: ☑ SOLID ☐ SEMI-SOLID ☐ POWDER ☐ LIQUID
Method of Shipment: ☐ BULK ☑ DRUM ☐ BAGGED ☐ OTHER:
Estimated Annual Volume: 11 Other
Frequency: ☑ ONE TIME ☐ ANNUAL
Disposal Consideration: ☑ LANDFILL ☐ SOLIDIFICATION

IV. Representative Sample Certification

☐ NO SAMPLE TAKEN

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules?	☑ YES or ☐ NO
Sample Date: 5/11/2016	Type of Sample: ☑ COMPOSITE SAMPLE ☐ GRAB SAMPLE
Sample ID Numbers: PC-IDW	
Samplers Name: Mark Kelly on behalf of USEPA	Samplers Signature: Mark Kelly

SPECIAL WASTE PROFILE (continued)

Waste Profile #

V. Physical Characteristics of Waste

Characteristic Components	% by Weight (range)
1. Soil	100.000
2.	
3.	
4.	
5.	

Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point
Brown / Black	none	☑ Yes or ☐ No	100.00	10.9	>212 °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile

Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and it epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?	☐ Yes or ☑ No
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?	☐ Yes or ☑ No
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?	☐ Yes or ☑ No
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31?	☐ Yes or ☑ No
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?	☐ Yes or ☑ No
Is this waste a reactive or heat generating waste?	☐ Yes or ☑ No
Does the waste contain sulfur or sulfur by-products?	☐ Yes or ☑ No
Is this waste generated at a Federal Superfund Clean Up Site?	☑ Yes or ☐ No
Is this waste from a TSD facility, TSD-like facility or waste consolidator?	☐ Yes or ☑ No

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither I nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by WCA Waste.

Authorized Representative Name/Title

US EPA Region 6
Company Name

6-21-16
Date

VII. Waste Approval Decision

☐ Approved ☐ Rejected Expiration: _____

Conditions:

Name, Title | Signature | Date

17740
11240

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N/A
2. Page 1 of: 1
3. Emergency Response Phone: 214-665-8529
4. Manifest Tracking Number: 013337059 JJK

5. Generator's Name and Mailing Address: US Environmental Protection Agency, Region 6, 1445 Ross Ave., Dallas, TX 75202
Generator's Phone: 214-665-8529 Raji Josiam

Generator's Site Address (if different than mailing address): Petro-Chemical Systems, Inc. (Turtle Bayou), County Road 126, Liberty, TX 77575

6. Transporter 1 Company Name: Lighthouse Environmental Services — U.S. EPA ID Number: TXD037227121

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Fort Bend Regional Landfill, 14115 Davis Estate Rd., Needville, TX 77461 — U.S. EPA ID Number:
Facility's Phone: 979-793-4430

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non DOT/~~[illegible]~~ RCRA Regulated Material Soil 0349-16-0110	11	DM	11	DM	N/A
	2. Non DOT/NON RCRA Regulated Purge Water 0349-16-0109	JTB ☒	DM	JTB ☒	DM	N/A
	3.					
	4.					

14. Special Handling Instructions and Additional Information

*Line Item 2 (Purge Water) requires solidification.

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: X John T Bonner / EA Eng — Signature: X John T Bonner on behalf of USEPA — Month 07 Day 19 Year 16

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: X Eugene Fleming — Signature: X Eugene Fl — Month 7 Day 19 Year 16
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

FORT BEND REGIONAL LANDFILL
PERMIT No. 2270
JUL 19 [illegible]
14115 DAVIS ESTATES RD.
NEEDVILLE, TX 77461

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: C Bole — Signature: C Bole — Month 7 Day 19 Year 16

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Waste profile name: U.S. Environmental Protection Agency - Petro-Chemical Systems, Inc. (Turtle Bayou) Site: One drum IDW purge water
ID: 02d8ffcf-3347-450f-9839-4b6409f927e1

WASTE CONNECTIONS INC.

Status: APPROVED
Approval #: SB-18-755
Expires On: 12/18/18

GENERATOR

Name: U.S. Environmental Protection Agency - Petro-Chemical Systems, Inc. (Turtle Bayou) Site
Address: 300 CR 126 City: Liberty State: TX Postal Code: 77575
County:
Contact: April Ballweg Email:
Phone: (972) 459-5019 Fax:

MATERIAL ORIGIN

Address: 300 CR 126 City: Liberty State: TX Postal Code: 77575
County: Liberty
EPA ID: N/A State ID: N/A

DESTINATION WASTE FACILITY

Name: SeaBreeze Landfill
Address: 10310 FM 523 City: Angleton State: TX Postal Code: 77515
County:
Contact: Email:
Phone: Fax:

BILLING

Name: CG ENVIRONMENTAL, LLC
Address: 5255 Teague Road City: Fort Worth State: TX Postal Code: 76140
County:
Contact: Email:
Phone: Fax:

TRANSPORTER

Transporter Name: CG ENVIRONMENTAL, LLC
Contact: Email:
Phone: Fax:

MATERIAL

Is this an Industrial Waste Stream? ○ Yes ● No
Common Name: IDW Purge Water
Generation Process: Generated from well drilling and soil sampling at an EPA Superfund Site (EPA contract EP-W-06-004, Task Order 0134-RARA-0681). The site was previously an unauthorized disposal facility. This waste is a non-industrial, non-hazardous, Class 2 waste.
Preferred Disposal Methods:
Source of Contamination: IDW Purge Water

MATERIAL COMPOSITION

Constituent IDW Purge Water 100% TO 100%

State Waste Codes: NHNI1192
Color: BROWN
Physical state at 70° F: ○ Solid ● Liquid ○ Sludge ○ Dust ○ Other
Free Liquid Range 100 % TO 100 % pH 6 TO 9
Strong Odor No Describe Odor
Reactivity No
Flash Point ○ < 140°F ○ 140°-199°F ○ > 200°F ● N/A

REGULATORY

EPA Hazardous Waste? ○ Yes ● No

If **No**, Attached Non-Hazardous Determination Document(s) *(Check all that apply)*

☐ Process Knowledge Process Details
☐ SDS
☐ Certified Analytical Sample

Is the data derived from testing a representative sample in accordance with 40 CFR 261 and/or other applicable laws? ● Yes ○ No

If **Yes**, Type of Analytical Sample ○ Composite ● Grab Sample ID # IDW-Water

☐ Exempt Waste

Applicable Exempt Waste Item

○ UST Corrective Action - 40 CFR 261.4 (b)(10) ○ PCB Bulk Product Waste - 40 CFR 761.62 ○ Oil & Gas E&P Waste - 40 CFR 261.4 (b)(5) ○ RCRA-Empty Containers - 40 CFR 261.7 ○ Other

If **Other**, Provided reference _____

State Hazardous Waste? ○ Yes ● No

Is this material non-hazardous due to treatment, delisting, or exclusion? ○ Yes ● No

From an industry regulated under Benzene NESHAP? ○ Yes ● No

Facility remediation subject to 40 CFR 63 GGGGG? ○ Yes ● No

CERCLA or State-Mandated clean-up? ● Yes ○ No

If **Yes**, Please submit the Record of Decision or other documentation to assist others in the evaluation for proper disposal.

Regulated, Licensed or NORM Radioactive Waste? ○ Yes ● No

Contains PCBs? ○ Yes ● No

Regulated and/or Untreated Medical/Infectious Waste? ○ Yes ● No

Contains Asbestos? ○ Yes ● No

Subject to RCRA Subpart CC controls? ○ Yes ● No

SHIPPING & DOT

Event Frequency ● One Time ○ On-Going

Estimated Annual Qty 1 drum

Unit of Measure ○ Tons ○ Yards ● Drums ○ Gallons ○ Other _____

Shipping Frequency

● Once ○ Daily ○ Weekly ○ Monthly ○ Other _____

Qty Per Shipment 1 drum

Container Type Metal, open-top drum

Container Size 55-gallons

USDOT Shipping Name NON-HAZARDOUS/NON-DOT REGULATED WASTE (IDW PURGE WATER; CLASS 2)

PROFILE CERTIFICATION

I hereby certify that (1) all information submitted on this form and on supplemental materials is complete and accurate to the best of my knowledge and ability to determine; (2) the information provided herein, including any supplemental information, such as laboratory analytical, MSDS, etc., accurately describes the waste stream to be delivered to the facility and that all known or suspected hazards have been disclosed. I understand that, once the waste stream is approved by Destination Facility based on this information, any deviation in the source, composition, constituents or characteristics of the waste stream from the information described herein, may render the waste stream unacceptable for disposal, at the sole discretion of Destination Facility. I further understand that any deviation from the information contained herein will require immediate notification to the Destination Facility and cessation of disposal.

Abby Holovach (see signed profile by generator in attachments)

Certified on 9/18/18 by Abby Holovach as a Authorized Agent of CG ENVIRONMENTAL, LLC

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Waste profile name: U.S. Environmental Protection Agency - Petro-Chemical Systems, Inc. (Turtle Bayou) Site: Five drums IDW soil cuttings

ID: 4679f488-e550-40f6-b43e-9b0541125b2f

WASTE CONNECTIONS INC.

Status: APPROVED
Approval #: SB-18-754
Expires On: 12/18/18

GENERATOR

Name: U.S. Environmental Protection Agency - Petro-Chemical Systems, Inc. (Turtle Bayou) Site

Address: 300 CR 126 City: Liberty State: TX Postal Code: 77575
County:

Contact: April Ballweg Email:

Phone: (972) 459-5019 Fax:

MATERIAL ORIGIN

Address: 300 CR 126 City: Liberty State: TX Postal Code: 77575
County: Liberty

EPA ID: N/A State ID: N/A

DESTINATION WASTE FACILITY

Name: SeaBreeze Landfill

Address: 10310 FM 523 City: Angleton State: TX Postal Code: 77515
County:

Contact: Email:

Phone: Fax:

BILLING

Name: CG ENVIRONMENTAL, LLC

Address: 5255 Teague Road City: Fort Worth State: TX Postal Code: 76140
County:

Contact: Email:

Phone: Fax:

TRANSPORTER

Transporter Name: CG ENVIRONMENTAL, LLC

Contact: Email:

Phone: Fax:

MATERIAL

Is this an Industrial Waste Stream? ○ Yes ● No

Common Name: IDW Soil Cuttings

Generation Process: Generated from well drilling and soil sampling at an EPA Superfund Site (EPA contract EP-W-06-004, Task Order 0134-RARA-0681). The site was previously an unauthorized disposal facility. This waste is a non-industrial, non-hazardous, Class 2 waste.

Preferred Disposal Methods:

Source of Contamination: IDW Soil Cuttings

MATERIAL COMPOSITION

Constituent IDW Soil Cuttings 100% TO 100%

State Waste Codes: NHNI3192

Color: BROWN

Physical state at 70° F: ● Solid ○ Liquid ○ Sludge ○ Dust ○ Other

pH 6 TO 9

Strong Odor No Describe Odor

Reactivity No

Flash Point ○ < 140°F ○ 140°-199°F ○ > 200°F ● N/A

REGULATORY

EPA Hazardous Waste? ○ Yes ● No

If **No**, Attached Non-Hazardous Determination Document(s) *(Check all that apply)*

☐ Process Knowledge Process Details

☐ SDS

■ Certified Analytical Sample

Is the data derived from testing a representative sample in accordance with 40 CFR 261 and/or other applicable laws? ● Yes ○ No

If **Yes**, Type of Analytical Sample ● Composite ○ Grab Sample ID # IDW-Soil-8/15/18

☐ Exempt Waste

Applicable Exempt Waste Item

◯ UST Corrective Action - 40 CFR 261.4 (b)(10) ◯ PCB Bulk Product Waste - 40 CFR 761.62 ◯ Oil & Gas E&P Waste - 40 CFR 261.4 (b)(5) ◯ RCRA-Empty Containers - 40 CFR 261.7 ◯ Other

If **Other**, Provided reference _____

State Hazardous Waste? ◯ Yes ● No

Is this material non-hazardous due to treatment, delisting, or exclusion? ◯ Yes ● No

From an industry regulated under Benzene NESHAP? ◯ Yes ● No

Facility remediation subject to 40 CFR 63 GGGGG? ◯ Yes ● No

CERCLA or State-Mandated clean-up? ● Yes ◯ No

If **Yes**, Please submit the Record of Decision or other documentation to assist others in the evaluation for proper disposal.

Regulated, Licensed or NORM Radioactive Waste? ◯ Yes ● No

Contains PCBs? ◯ Yes ● No

Regulated and/or Untreated Medical/Infectious Waste? ◯ Yes ● No

Contains Asbestos? ◯ Yes ● No

Subject to RCRA Subpart CC controls? ◯ Yes ● No

SHIPPING & DOT

Event Frequency ● One Time ◯ On-Going

Estimated Annual Qty 5 DRUMS

Unit of Measure ◯ Tons ◯ Yards ● Drums ◯ Gallons ◯ Other _____

Shipping Frequency

● Once ◯ Daily ◯ Weekly ◯ Monthly ◯ Other _____

Qty Per Shipment 5 drums

Container Type Metal, open-top drums

Container Size 55-gallons

USDOT Shipping Name NON-HAZARDOUS/NON-DOT REGULATED WASTE (IDW SOIL CUTTINGS; CLASS 2)

PROFILE CERTIFICATION

I hereby certify that (1) all information submitted on this form and on supplemental materials is complete and accurate to the best of my knowledge and ability to determine; (2) the information provided herein, including any supplemental information, such as laboratory analytical, MSDS, etc., accurately describes the waste stream to be delivered to the facility and that all known or suspected hazards have been disclosed. I understand that, once the waste stream is approved by Destination Facility based on this information, any deviation in the source, composition, constituents or characteristics of the waste stream from the information described herein, may render the waste stream unacceptable for disposal, at the sole discretion of Destination Facility. I further understand that any deviation from the information contained herein will require immediate notification to the Destination Facility and cessation of disposal.

Abby Holovach (see signed profile by generator in attachments)

Certified on 9/18/18 by Abby Holovach as a Authorized Agent of CG ENVIRONMENTAL, LLC

© Environmental Data Systems LLC 2018

XORA: 182225

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
TXD980873350	1	855-483-8181	018967147 JJK

GENERATOR

5. Generator's Name and Mailing Address

U.S. Environmental Protection Agency -- Petro-Chemical Systems, Inc. (Turtle Bayou)

5255 TEAGUE ROAD 855-483-8181

FORT WORTH TX 76140

Generator's Site Address (if different than mailing address)

200 CR 126

LIBERTY TX 77575

Generator's Phone:

6. Transporter 1 Company Name: CO ENVIRONMENTAL — 855-483-8181 — U.S. EPA ID Number: TXR000080051

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: SEABREEZE ENVIRONMENTAL LANDFILL — U.S. EPA ID Number: TXR000084521

(979) 864-4442 10310 FM 523

ANGLETON TX 77515

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON-HAZARDOUS/NON-DOT REGULATED WASTE (IDW PURGE WATER CLASS 2; NON-INDUSTRIAL)	1	DM	55	GAL	
	2. NON-HAZARDOUS/NON-DOT REGULATED WASTE (IDW SOIL CUTTINGS; CLASS 2; NON-INDUSTRIAL)	5	DM	275	GAL	
	3.					
	4.					

14. Special Handling Instructions and Additional Information

1) Profile EXP 2) Profile EXP

SB-16 ... 12/1 ... T-1X-754 ... 12/18/2018

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month — Day — Year

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jose Ponce — Signature — Month: 9 — Day: 19 — Year: 18

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year