



---

EA Engineering, Science, & Technology, Inc., PBC  
320 Gold Avenue SW, Suite 1300  
Albuquerque, New Mexico 87102  
Phone: (505) 224-9013

November 6, 2019

Mr. Corey Jarrett  
New Mexico Environment Department  
Petroleum Storage Tank Bureau  
121 Tijeras Avenue NE, Suite 1000  
Albuquerque, New Mexico 87102

Dear Mr. Jarrett:

EA Engineering, Science, and Technology, Inc., PBC (EA) is pleased to submit the Annual Groundwater Monitoring Report for Atex 213 State Lead Site, located at 3501 Isleta Boulevard in Albuquerque, New Mexico. The enclosed report summarizes groundwater monitoring activities conducted at the site on October 10, 2019. All work was performed under EA's State Lead Contract #18-667-3200-0016 and in accordance with applicable requirements of New Mexico Administrative Code, Title 20, Chapter 5, Part 119 and EA standard operating procedures.

EA plans to invoice a reduced amount of \$5,868.40 (including NMGRT of 7.785%) for Deliverable ID 4077-1. Monitoring wells MW-3, W-35, and W-36 could not be located and were therefore not sampled.

Please feel free to contact me at (505) 369-3149 if you have any questions regarding the information provided in this report.

Sincerely,

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

A handwritten signature in blue ink, appearing to read "Michael D. McVey, P.G." followed by a question mark.

Michael D. McVey, P.G.  
Senior Hydrogeologist

Enclosure  
Cc: File



**ANNUAL GROUNDWATER  
MONITORING REPORT  
ATEX 213  
3501 ISLETA BOULEVARD  
ALBUQUERQUE, NEW MEXICO**

FACILITY #: 31815  
REKEASE ID #: 28  
WPID #: 4077

Prepared for:

New Mexico Environment Department  
Petroleum Storage Tank Bureau  
121 Tijeras Avenue NE, Suite 1000  
Albuquerque, New Mexico 87102

Prepared by:

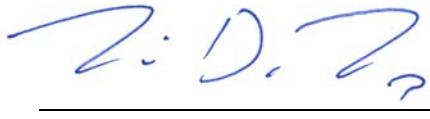
EA Engineering, Science,  
and Technology, Inc., PBC  
320 Gold Avenue SW, Suite 1210  
Albuquerque, New Mexico 87102

November 2019

## **STATEMENT OF FAMILIARITY**

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete.

Signature:



Name: Michael D. McVey, P.G.  
Affiliation: EA Engineering, Science, and Technology, Inc., PBC  
Title: Senior Hydrogeologist  
Date: November 6, 2019

## I. INTRODUCTION

EA Engineering, Science and Technology, Inc., PBC (EA) has completed the annual groundwater monitoring event at Atex 213 (the site), located at 3501 Isleta Boulevard in Albuquerque, New Mexico. Groundwater monitoring activities were conducted in accordance with EA's *Work Plan for Annual Groundwater Monitoring, ATEX 213, Albuquerque, New Mexico*, approved by the New Mexico Environment Department (NMED) Petroleum Storage Tank Bureau (PSTB) on August 14, 2019 under work plan identification (WPID) number 4077. All work was completed in accordance with applicable requirements of New Mexico Administrative Code, Title 20, Chapter 5, Part 119 and EA standard operating procedures. This is the only deliverable under the approved work plan.

The site is located at the intersection of Del Sur Drive and Isleta Boulevard in the South Valley area of Albuquerque, New Mexico (Figure 1). The main parcel of the site is currently a vacant lot. Fast food restaurants are located to the north and east of the site, and a PNM electrical substation is located to the south. Residences are located to the west of the site. A Middle Rio Grande Conservancy District (MRGCD) irrigation ditch is located south of the PNM substation, and south of the irrigation ditch is another fast food restaurant. Del Sur Drive borders the site on the north and Isleta Boulevard borders the site on the east.

On October 10, 2019, EA measured fluid levels and collected groundwater samples from ten (10) monitoring wells, including MW-1R, MW-2, MW-4R, MW-6RR, MW-38, BB-2, NMW-1, NMW-4R, RNMW-2, and RNMW-3. Monitoring wells W-35, W-36, and MW-3 could not be located and were therefore not gauged or sampled. W-35 and W-36 appear to have been destroyed during installation of new landscaping at the McDonalds. Broken remnants of the concrete pad and well vault for MW-3 were observed in former location of the well, but the well casing could not be found and is assumed to have been destroyed.

Groundwater samples were analyzed for volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary-butyl ether (MTBE), 1,2 dibromoethane (EDB), 1,2 dichloroethane (EDC), and total naphthalenes by U.S. Environmental Protection Agency (EPA) Method 8260B.

This report summarizes the results of the annual groundwater monitoring event conducted at the site.

## **II. ACTIVITIES PERFORMED DURING THIS MONITORING PERIOD**

This section provides a brief description of the activities performed during this monitoring period.

### **A. Brief Description of Remediation System and Date Installed**

Billings & Associates (BAI) installed a pump and treat remediation system at the site in 1988. The system consisted of four recovery wells located along the southern property boundary, an air stripper, and eight injection wells southwest of the site. The system was ineffective and suffered from biofouling problems. It was subsequently shut down in late 1989. All remediation equipment has been removed from the site.

The corrective action activities that have been conducted at the site to date are summarized below:

- Souder, Miller & Associates (SMA) sampled the site in December 2006.
- EA completed semi-annual groundwater monitoring at the site from February 2012 through October 2013.
- EA performed additional monitoring well installation, well plugging and abandonment, and groundwater sampling in April and May 2014.
- In November 2014 during groundwater monitoring, it was noted that wells MW-1R, NMW-1, and RNMW-2 were damaged, and well MW-6R could not be located.
- In December 2014, damaged wells MW-1R, NMW-1, and RNMW-2 were repaired and MW-6R was replaced with a new monitoring well (MW-6RR).
- EA performed annual groundwater monitoring and a private and public well search in January 2017.
- Currently, EA is conducting groundwater monitoring at the site.

### **B. Description of Activities Performed to Keep System Operating Properly**

Active remediation is not currently being conducted at the site. The remediation system that was operated at the site was shut down in late 1989. All remediation equipment has been removed from the site.

## C. Monitoring Activities Performed

### *Fluid Level Gauging*

On October 10, 2019, fluid levels were gauged in 10 monitoring wells (MW-1R, MW-2, MW-4R, MW-6RR, MW-38, BB-2, NMW-1, NMW-4R, RNMW-2, and RNMW-3) with an electronic water level meter to the nearest 0.01 foot. Non-aqueous phase liquid (NAPL) was not present in any of the wells. Table 1 provides a summary of the current and historical groundwater gauging data collected from the monitoring network. A potentiometric surface map was prepared based on the gauging data and is included as Figure 2.

### *Groundwater Sampling Activities*

Monitoring wells were purged and sampled with new, disposable polyethylene bailers on October 10, 2019. All equipment was decontaminated between wells with an Alconox™ solution to ensure sample quality. Purge water was ground discharged to an impervious surface. Sampling was accomplished by carefully pouring groundwater from the bailer into the laboratory-provided sample containers.

Field parameters were measured with a Hanna HI 98194 multi-parameter meter during purging and prior to sampling. Specific conductance, pH, and temperature were monitored and recorded on well sampling field forms provided in Appendix A and are summarized in Table 2. The meter was calibrated and/or checked against a standard in accordance with manufacturer's specifications prior to use.

Sample containers, preservatives, analytical methods, and holding times are specified in Table 3. Samples for VOC analysis were collected such that no headspace existed in the sample vial. All samples were preserved in accordance with method requirements, then immediately cooled to less than 6°C with ice and delivered under chain-of-custody to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. The analytical laboratory report is provided in Appendix B.

### *Groundwater Analytical Results*

Dissolved-phase hydrocarbon concentrations were above applicable New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standards in 3 of the 10 sampled wells, including NMW-1, RNMW-2, and BB-2. Wells NMW-1 ad RNMW-2 contained benzene at concentrations of 84 micrograms per liter ( $\mu\text{g}/\text{L}$ ) and 120  $\mu\text{g}/\text{L}$ , respectively, above the 5  $\mu\text{g}/\text{L}$  standard. Wells RNMW-2 and BB-2 contained total naphthalene concentrations above the 30  $\mu\text{g}/\text{L}$  standard at 80.2  $\mu\text{g}/\text{L}$  and 232  $\mu\text{g}/\text{L}$ , respectively. RNMW-2 also contained MTBE above the 100  $\mu\text{g}/\text{L}$  standard at 110  $\mu\text{g}/\text{L}$ . None of the other sampled wells contained dissolved-phase hydrocarbon concentrations above either the laboratory method detection limits or applicable NMWQCC standards. Groundwater analytical laboratory results are summarized in Table 4.

**D. System Performance and Effectiveness**

Active remediation is not currently being conducted at the site. The remediation system that was operated at the site was shut down in late 1989. All remediation equipment has been removed from the site.

**E. Statement Verifying Containment of Release**

The actionable dissolved-phase benzene and MTBE plumes remain defined on-site. The actionable dissolved-phase total naphthalenes plume has migrated off-site to the south but remains defined by downgradient well NMW-4R. The extent of the total naphthalenes plume, however, has not been defined cross-gradient to the southwest and remains undefined to the north. During the last monitoring event in December 2017, upgradient wells W-35 and W-36 both contained total naphthalene concentrations above the standard. Both wells have been destroyed by recent landscaping at the McDonalds.

### **III. SUMMARY AND CONCLUSIONS**

This section summarizes the results, contains a brief discussion of site trends, and provides recommendations for future site activities.

#### **A. Discussion of Trends or Changes Noted in Analytical Results or Site Conditions**

Groundwater levels beneath the site rose an average of 0.45 foot in site wells since the last monitoring event in December 2017. Increases ranged from 0.42 foot in MW-1R to 0.51 foot in BB-2 and NMW-4R (Table 1). Hydrographs for select site wells are included in Appendix C. The overall direction of groundwater flow is to the south-southeast at an average gradient of approximately 0.0008 foot per foot (ft/ft), decreasing from 0.0015 ft/ft during the last monitoring event.

The following trends or changes were noted since the last monitoring event in December 2017:

BB-2: The total naphthalenes concentration increased two orders of magnitude from 4.2 µg/L to 232 µg/L and this is the first time that the total naphthalenes concentration has exceeded the NMWQCC standard in samples collected from the well. Historical concentrations have ranged from non-detect to a high of 17 µg/L.

NMW-1: The benzene concentration increased from 79 µg/L to 84 µg/L, but remains at the lower end of historical concentrations which have ranged from a high of 1,100 µg/L to low of 52 µg/L. Benzene has exceeded the standard during every monitoring event dating back to April 2004 when the well was first sampled after having contained NAPL. The total naphthalenes concentration decreased slightly and remains below the standard for the second consecutive monitoring event.

RNMW-2: The benzene concentration increased two orders of magnitude from <1.0 µg/L to 120 µg/L after having been below the standard for two consecutive monitoring events. The total naphthalenes concentration increased an order of magnitude from <4.0 µg/L to 80.2 µg/L. This is only the second time since July 2005 that the total naphthalenes concentration has exceeded the standard in samples collected from the well. MTBE increased an order of magnitude from 18 µg/L to 110 µg/L and once again exceeds the standard. The last exceedance was in March 2013.

MW-1R, MW-2, MW-4R, MW-6RR, MW-38, RNMW-3, and NMW-4R: Well MW-1R was not sampled during the last monitoring event due to root obstruction. During this monitoring event, the roots were removed from the interior of the well casing to allow for gauging and sampling. Concentrations of contaminants of concern (COCs) in all of these wells remained either below laboratory method detection limits or NMWQCC standards.

The distribution of dissolved-phase hydrocarbons for the October 10, 2019 monitoring event is shown on Figure 3. Contaminant concentration trends for select COCs and wells are included in Appendix D.

## **B. Ongoing Assessment of Remediation System**

The remediation system installed by BAI was ineffective due to biofouling problems and was shut down permanently in late 1989. All remediation equipment has been removed from the site.

## **C. Recommendations**

Based on the results of annual groundwater monitoring, EA recommends the following:

- Continued annual groundwater monitoring,
- Collect tap samples from the two domestic wells located near the site,
- Reinstall monitor wells W-35 and W-36 to monitor upgradient trends in total naphthalene concentrations, which have consistently exceeded standards in both wells, and
- Install two additional monitor wells to the west and southwest of the site to delineate the extent of the actionable dissolved-phase total naphthalenes plume.

## **TABLES**

**TABLE 1. SUMMARY OF FLUID GAUGING DATA  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation <sup>2</sup>	Depth to Water <sup>3</sup>	Groundwater Elevation <sup>2</sup>
MW-1	29-Apr-14	4929.78	Well plugged and abandoned	
	1-Oct-13		Dry	NM
	25-Mar-13		Dry	NM
	22-Aug-12		Dry	NM
	21-Feb-12		Dry	NM
	26-Dec-06		Dry	NM
	25-Sep-06		Dry	NM
	17-May-06		Dry	NM
	31-Jan-06		Dry	NM
	3-Nov-05		Dry	NM
	28-Jul-05		Dry	NM
	22-Apr-04		9.25	4920.53
MW-1R	10-Oct-19	4932.08	8.45	4923.63
	20-Dec-17		8.87	4923.21
	17-Jan-17		8.98	4923.10
	19-May-15		8.86	4923.22
	17-Nov-14	***	9.19	-
	2-May-14	4932.03	9.06	4922.97
MW-2	10-Oct-19	4934.72	11.17	4923.55
	20-Dec-17		11.61	4923.11
	17-Jan-17		11.73	4922.99
	19-May-15		11.59	4923.13
	17-Nov-14		11.96	4922.76
	2-May-14		11.74	4922.98
	1-Oct-13		11.64	4923.08
	25-Mar-13		11.96	4922.76
	22-Aug-12		11.68	4923.04
	21-Feb-12		12.13	4922.59
	26-Dec-06		11.94	4922.78
	25-Sep-06		11.82	4922.90
	17-May-06		11.72	4923.00
	31-Jan-06		12.27	4922.45
	3-Nov-05		11.45	4923.27
	28-Jul-05		11.39	4923.33
	22-Apr-04		11.43	4923.29

**TABLE 1. SUMMARY OF FLUID GAUGING DATA  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation <sup>2</sup>	Depth to Water <sup>3</sup>	Groundwater Elevation <sup>2</sup>
MW-3	10-Oct-19	4932.98	Could not locate well	
	20-Dec-17		9.87	4923.11
	17-Jan-17		9.98	4923.00
	19-May-15		9.82	4923.16
	17-Nov-14		10.19	4922.79
	2-May-14		10.00	4922.98
	1-Oct-13		9.80	4923.18
	25-Mar-13		10.25	4922.73
	22-Aug-12		9.92	4923.06
	21-Feb-12		10.42	4922.56
	26-Dec-06		10.27	4922.71
	25-Sep-06		10.05	4922.93
	17-May-06		10.02	4922.96
	31-Jan-06		10.57	4922.41
	3-Nov-05		9.78	4923.20
MW-4	28-Jul-05	4932.55	9.65	4923.33
	22-Apr-04		9.71	4923.27
MW-4	29-Apr-14	4932.55	Well plugged and abandoned	
	1-Oct-13		Well destroyed	
	25-Mar-13		12.64	4919.91
	22-Aug-12		12.32	4920.23
	21-Feb-12		12.81	4919.74
	26-Dec-06		12.64	4919.91
	25-Sep-06		12.42	4920.13
	17-May-06		12.35	4920.20
	31-Jan-06		12.94	4919.61
	3-Nov-05		12.19	4920.36
	28-Jul-05		12.03	4920.52
	22-Apr-04		12.07	4920.48
MW-4R	10-Oct-19	4933.42	9.94	4923.48
	20-Dec-17		10.39	4923.03
	17-Jan-17		10.57	4922.85
	19-May-15		10.36	4923.06
	17-Nov-14		10.74	4922.68
	2-May-14		10.56	4922.86

**TABLE 1. SUMMARY OF FLUID GAUGING DATA**  
**ATEX 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation <sup>2</sup>	Depth to Water <sup>3</sup>	Groundwater Elevation <sup>2</sup>
MW-5	1-May-14	4931.85	Well plugged and abandoned	
	1-Oct-13		Dry	NM
	25-Mar-13		Dry	NM
	22-Aug-12		Dry	NM
	21-Feb-12		Dry	NM
	26-Dec-06		11.54	4920.31
	25-Sep-06		11.15	4920.70
	17-May-06		11.12	4920.73
	31-Jan-06		11.83	4920.02
	3-Nov-05		11.00	4920.85
	28-Jul-05		10.78	4921.07
	22-Apr-04		11.44	4920.41
MW-6	29-Apr-14	4931.51	Well plugged and abandoned	
	1-Oct-13		13.18	4918.33
	25-Mar-13		13.14	4918.37
	22-Aug-12		13.00	4918.51
	21-Feb-12		11.58	4919.93
	26-Dec-06		11.89	4919.62
	25-Sep-06		11.37	4920.14
	17-May-06		11.31	4920.20
	31-Jan-06		11.92	4919.59
	3-Nov-05		11.22	4920.29
	28-Jul-05		11.03	4920.48
	22-Apr-04		11.04	4920.47
MW-6R	17-Nov-14	4934.26	Well destroyed	
	2-May-14		11.36	4922.90
MW-6RR	10-Oct-19	4933.90	10.34	4923.56
	20-Dec-17		10.78	4923.12
	17-Jan-17		10.90	4923.00
	19-May-15		10.73	4923.17
	22-Dec-14		‡	11.20
MW-10	26-Dec-06	4930.98	Plugged	
	25-Sep-06			
	17-May-06			
	31-Jan-06			
	3-Nov-05			
	28-Jul-05			
	22-Apr-04			

**TABLE 1. SUMMARY OF FLUID GAUGING DATA**  
**ATEX 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation <sup>2</sup>	Depth to Water <sup>3</sup>	Groundwater Elevation <sup>2</sup>
MW-29	1-May-14	4930.19	Well plugged and abandoned	
	1-Oct-13		9.81	4920.38
	25-Mar-13		10.11	4920.08
	22-Aug-12		9.87	4920.32
	21-Feb-12		10.32	4919.87
	26-Dec-06		11.14	4919.05
	25-Sep-06		10.01	4920.18
	17-May-06		9.89	4920.30
	31-Jan-06		10.45	4919.74
	3-Nov-05		9.66	4920.53
	28-Jul-05		9.56	4920.63
	22-Apr-04		9.60	4920.59
MW-38	10-Oct-19	4931.87	8.36	4923.51
	20-Dec-17		8.83	4923.04
	17-Jan-17		8.96	4922.91
	19-May-15		8.78	4923.09
	17-Nov-14		9.18	4922.69
	2-May-14		8.96	4922.91
	1-Oct-13	4929.10	8.85	4923.02
	25-Mar-13		9.15	4922.72
	22-Aug-12		8.88	4922.99
	21-Feb-12		9.38	4922.49
	26-Dec-06		9.19	4922.68
	25-Sep-06		8.97	4922.90
	17-May-06		8.90	4922.97
	31-Jan-06		9.49	4922.38
	3-Nov-05		8.70	4923.17
	28-Jul-05		8.56	4923.31
	22-Apr-04		8.62	4923.25

**TABLE 1. SUMMARY OF FLUID GAUGING DATA**  
**ATEX 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation <sup>2</sup>	Depth to Water <sup>3</sup>	Groundwater Elevation <sup>2</sup>
BB-2	10-Oct-19	4934.64	11.18	4923.46
	20-Dec-17		11.69	4922.95
	17-Jan-17		11.82	4922.82
	19-May-15		11.56	4923.08
	17-Nov-14		12.06	4922.58
	2-May-14		11.81	4922.83
	1-Oct-13		11.70	4922.94
	25-Mar-13		12.05	4922.59
	22-Aug-12		11.69	4922.95
	21-Feb-12		12.24	4922.40
	26-Dec-06		12.04	4922.60
	25-Sep-06		11.72	4922.92
	17-May-06		11.66	4922.98
	31-Jan-06		12.36	4922.28
NMW-1	3-Nov-05	4932.63	11.56	4923.08
	28-Jul-05		11.34	4923.30
	22-Apr-04		10.88	4923.76
	10-Oct-19		8.96	4923.67
	20-Dec-17		9.39	4923.24
	17-Jan-17		9.57	4923.06
	19-May-15		9.38	4923.25
	17-Nov-14		***	NA
	2-May-14		9.55	4923.07
	1-Oct-13	4929.81	9.41	4920.40
	25-Mar-13		9.75	4920.06
	22-Aug-12		9.48	4920.33
	21-Feb-12		9.93	4919.88
	26-Dec-06		9.75	4920.06
	25-Sep-06		9.62	4920.19
	17-May-06		9.53	4920.28
	31-Jan-06		10.70	4919.11
	3-Nov-05		9.31	4920.50
	28-Jul-05		9.22	4920.59
	22-Apr-04		9.24	4920.57
NMW-2*	28-Jul-05	4930.38	Destroyed	NM
	22-Apr-04		10.03	4920.35
NMW-3*	28-Jul-05	4930.56	Destroyed	NM
	22-Apr-04		10.28	4920.28

**TABLE 1. SUMMARY OF FLUID GAUGING DATA**  
**ATEX 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation <sup>2</sup>	Depth to Water <sup>3</sup>	Groundwater Elevation <sup>2</sup>
NMW-4	30-Apr-14	4929.02	Well plugged and abandoned	
	1-Oct-13		9.59	4919.43
	25-Mar-13		9.90	4919.12
	22-Aug-12		9.59	4919.43
	21-Feb-12		10.12	4918.90
	26-Dec-06		10.94	4918.08
	25-Sep-06		9.59	4919.43
	17-May-06		NM	NM
	31-Jan-06		NM	NM
	3-Nov-05		NM	NM
	28-Jul-05		NM	NM
	22-Apr-04		10.33	4918.69
NMW-4R	10-Oct-19	4932.53	9.24	4923.29
	20-Dec-17		9.75	4922.78
	17-Jan-17		9.88	4922.65
	19-May-15		9.68	4922.85
	17-Nov-14		10.12	4922.41
	2-May-14		9.91	4922.62
W-34	1-May-14	4928.70	Well plugged and abandoned	
	1-Oct-13		Well paved over	
	25-Mar-13		8.61	4920.09
	22-Aug-12		8.33	4920.37
	21-Feb-12		8.77	4919.93
	26-Dec-06		8.61	4920.09
	25-Sep-06		8.51	4920.19
	17-May-06		8.40	4920.30
	31-Jan-06		8.92	4919.78
	3-Nov-05		8.11	4920.59
	28-Jul-05		8.09	4920.61
	22-Apr-04		7.92	4920.78

**TABLE 1. SUMMARY OF FLUID GAUGING DATA**  
**ATEX 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation <sup>2</sup>	Depth to Water <sup>3</sup>	Groundwater Elevation <sup>2</sup>
W-35	10-Oct-19	4931.50	Could not locate well	
	20-Dec-17		8.47	4923.03
	17-Jan-17		8.56	4922.94
	19-May-15		8.44	4923.06
	17-Nov-14		8.78	4922.72
	2-May-14		8.65	4922.85
	1-Oct-13	4928.93	Well paved over	
	25-Mar-13		8.85	4922.65
	22-Aug-12		8.55	4922.95
	21-Feb-12		8.99	4922.51
	26-Dec-06		8.83	4922.67
	25-Sep-06		8.74	4922.76
	17-May-06		8.64	4922.86
	31-Jan-06		9.14	4922.36
	3-Nov-05		8.31	4923.19
	28-Jul-05		8.29	4923.21
	22-Apr-04		8.14	4923.36
W-36	10-Oct-19	4932.00	Could not locate well	
	20-Dec-17		8.63	4923.37
	17-Jan-17		8.76	4923.24
	19-May-15		8.62	4923.38
	17-Nov-14		8.97	4923.03
	2-May-14		8.80	4923.20
	1-Oct-13	4929.11	Well paved over	
	25-Mar-13		9.01	4922.99
	22-Aug-12		8.72	4923.28
	21-Feb-12		9.15	4922.85
	26-Dec-06		8.97	4923.03
	25-Sep-06		8.92	4923.08
	17-May-06		8.79	4923.21
	31-Jan-06		9.30	4922.70
	3-Nov-05		8.50	4923.50
	28-Jul-05		8.48	4923.52
	22-Apr-04		8.31	4923.69

**TABLE 1. SUMMARY OF FLUID GAUGING DATA**  
**ATEX 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation <sup>2</sup>	Depth to Water <sup>3</sup>	Groundwater Elevation <sup>2</sup>
W-37	1-May-14	4930.10	Well plugged and abandoned	
	1-Oct-13		Well paved over	
	25-Mar-13		9.97	4920.13
	22-Aug-12		9.67	4920.43
	21-Feb-12		10.09	4920.01
	26-Dec-06		8.78	4921.32
	25-Sep-06		9.90	4920.20
	17-May-06		9.74	4920.36
	31-Jan-06		10.22	4919.88
	3-Nov-05		9.49	4920.61
	28-Jul-05		9.43	4920.67
	22-Apr-04		9.26	4920.84
RNMW-2**	10-Oct-19	4933.45	9.88	4923.57
	20-Dec-17		10.31	4923.14
	17-Jan-17		10.44	4923.01
	19-May-15		10.27	4923.18
	17-Nov-14		10.87	NA
	2-May-14	4933.74	10.70	4923.04
	1-Oct-13	4930.88	10.57	4920.31
	25-Mar-13		10.90	4919.98
	22-Aug-12		10.61	4920.27
	21-Feb-12		11.09	4919.79
	26-Dec-06		10.92	4919.96
	25-Sep-06		10.72	4920.16
	17-May-06		10.64	4920.24
	31-Jan-06		11.23	4919.65
	3-Nov-05		10.44	4920.44
	28-Jul-05		10.33	4920.55

**TABLE 1. SUMMARY OF FLUID GAUGING DATA**  
**ATEX 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation <sup>2</sup>	Depth to Water <sup>3</sup>	Groundwater Elevation <sup>2</sup>	
RNMW-3**	10-Oct-19	4933.22	9.65	4923.57	
	20-Dec-17		10.09	4923.13	
	17-Jan-17		10.22	4923.00	
	19-May-15		10.06	4923.16	
	17-Nov-14		10.45	4922.77	
	2-May-14		10.23	4922.99	
	1-Oct-13		10.12	4923.10	
	25-Mar-13		10.45	4922.77	
	22-Aug-12		10.17	4923.05	
	21-Feb-12		10.65	4922.57	
	26-Dec-06		10.49	4922.73	
	25-Sep-06		10.27	4922.95	
	17-May-06		10.20	4923.02	
	31-Jan-06		10.80	4922.42	
	3-Nov-05		9.99	4923.23	
	28-Jul-05		9.89	4923.33	
<b>NOTES:</b>					
The top of casing elevation for wells MW-2 and MW-3 were adjusted by -0.17 and -0.89, respectively from the survey point top of well steel plate on pipe.					
<sup>1</sup> Horizontal control to NM State Plane Coordinates Central NAD83 Grid Coordinates (in feet)					
<sup>2</sup> Vertical Control to NAVD88 Datum in feet above mean sea level					
<sup>3</sup> Measured in feet below the top of casing at survey point on north side of well					
*= Well Destroyed during source area excavation.					
**= Replacement well installed 4/27/05.					
***=Surface completion/casing damaged at time of measurement					
#=Waiting for survey data					
NM = not measured.					

**TABLE 2. SUMMARY OF GROUNDWATER FIELD PARAMETERS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	pH	SpC (µS/cm)	Temp (°C)	DO (mg/L)
MW-1	Apr-14	Well plugged and abandoned			
	1-Oct-13	Well dry			
	25-Mar-13	Well dry			
	22-Aug-12	Well dry			
	21-Feb-12	Well dry			
MW-1R	10-Oct-19	7.42	1,041	23.4	NM
	20-Dec-17	Not enough water to sample			
	17-Jan-17	Well bailed dry			
	19-May-15	Well bailed dry			
	17-Nov-14	7.56	913	21.8	1.18
	1-May-14	7.8	803	19.4	1.55
MW-2	10-Oct-19	7.19	959.5	24.1	NM
	20-Dec-17	6.82	1,225	22.6	1.14
	17-Jan-17	7.11	1,060	20.6	2.02
	19-May-15	7.21	816	19.1	1.86
	17-Nov-14	7.1	1,009	22.9	1.70
	1-May-14	7.63	981	18.8	1.40
	1-Oct-13	6.31	1,023	25.5	NM
	25-Mar-13	6.29	1,111	18.4	1.04
	22-Aug-12	8.17	950	24.5	1.31
	21-Feb-12	NM	761	19.7	1.35
MW-3	10-Oct-19	Could not locate well			
	20-Dec-17	7.21	934	21.8	0.48
	17-Jan-17	7.37	907	20.6	1.55
	19-May-15	7.52	994	19.8	3.33
	17-Nov-14	7.45	941	20.9	1.35
	1-May-14	7.70	1,043	19.1	1.77
	10-Oct-13	7.23	942	22.6	1.15
	25-Mar-13	6.64	1,021	17.6	0.97
	23-Aug-12	8.48	963	20.9	1.07
	21-Feb-12	NM	898	18.4	1.15
MW-4	Apr-14	Well plugged and abandoned			
	1-Oct-13	Well destroyed			
	25-Mar-13	6.42	946	18.0	1.20
	23-Aug-12	8.11	980	24.9	1.38
	22-Feb-12	6.09	981	13.8	1.21
MW-4R	10-Oct-19	7.48	778.6	22.6	NM
	20-Dec-17	7.35	771	22.5	1.04
	17-Jan-17	7.35	864	20.3	1.73
	19-May-15	7.60	664	19.8	1.32
	17-Nov-14	7.50	649	21.6	0.85
	1-May-14	7.69	922	20.0	2.18

**TABLE 2. SUMMARY OF GROUNDWATER FIELD PARAMETERS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	pH	SpC (µS/cm)	Temp (°C)	DO (mg/L)		
MW-5	Apr-14	Well plugged and abandoned					
	1-Oct-13	Well dry					
	25-Mar-13	Well dry					
	22-Aug-12	Well dry					
	21-Feb-12	Well dry					
MW-6	Apr-14	Well plugged and abandoned					
	29-Apr-14	Well dry					
	1-Oct-13 <sup>1</sup>	NM	NM	NM	NM		
	25-Mar-13	NM	NM	NM	NM		
	22-Aug-12	NM	NM	NM	NM		
	22-Feb-12	6.37	6,310	15.6	NM		
MW-6R	17-Nov-14	Well destroyed					
	1-May-14	7.93	880	20.0	2.19		
MW-6RR	10-Oct-19	7.51	783	23.3	NM		
	20-Dec-17	7.39	770	22.0	1.00		
	17-Jan-17	7.37	780	21.0	1.63		
	19-May-15	7.54	734	19.7	1.10		
	22-Dec-14	7.18	815	21.1	10.4		
MW-29	May-14	Well plugged and abandoned					
	1-Oct-13	6.29	1,024	24.9	NM		
	25-Mar-13	6.35	1,231	16.2	1.34		
	23-Aug-12	7.18	1,179	26.3	0.99		
	21-Feb-12	NM	884	16.7	1.82		
MW-38	10-Oct-19	7.13	896.6	23.4	NM		
	20-Dec-17	6.87	975	18.9	1.60		
	17-Jan-17	6.96	950	19.1	1.48		
	19-May-15	7.06	488	19.3	2.82		
	17-Nov-14	7.2	880	21.7	1.76		
	1-May-14	7.59	984	19.0	1.53		
	1-Oct-13	6.13	1,003	25.4	NM		
	25-Mar-13	6.41	1,034	17.4	0.77		
	23-Aug-12	7.79	1,090	25.1	2.1		
	21-Feb-12	NM	859	17.8	1.08		
BB-2	10-Oct-19	7.28	864	22.4	NM		
	20-Dec-17	7.26	824	20.5	1.11		
	17-Jan-17	7.47	838	18.7	2.40		
	19-May-15	7.44	882	18.1	2.39		
	17-Nov-14	7.37	862	19.8	1.92		
	1-May-14	7.77	945	17.7	1.74		
	1-Oct-13	6.27	952	23.2	NM		
	25-Mar-13	6.43	1,009	17.1	1.47		
	23-Aug-12	7.61	1,002	26.9	1.19		
	21-Feb-12	NM	798	17.5	2.32		

**TABLE 2. SUMMARY OF GROUNDWATER FIELD PARAMETERS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	pH	SpC ( $\mu\text{S}/\text{cm}$ )	Temp (°C)	DO (mg/L)
NMW-1	10-Oct-19	7.03	888.9	25.5	NM
	20-Dec-17	6.85	1,097	22.6	0.28
	17-Jan-17	7.03	948	20.1	1.42
	19-May-15	6.92	1,015	19.9	1.22
	17-Nov-14	7.09	986	23.1	1.06
	2-May-14	7.29	1,174	19.0	1.31
	1-Oct-13	6.30	1,091	26.0	NM
	26-Mar-13	6.31	1,124	17.1	0.63
	23-Aug-12	8.43	1,066	24.1	1.11
	21-Feb-12	NM	904	18.2	1.18
RNMW-2	10-Oct-19	7.13	1,015	24.5	NM
	20-Dec-17	7.04	1,232	22.0	1.30
	17-Jan-17	7.26	933	20.4	1.78
	19-May-15	7.35	847	19.7	1.33
	17-Nov-14	7.32	871	22.2	0.56
	2-May-14	7.47	1,053	19.2	1.30
	1-Oct-13	6.49	1,051	24.5	NM
	26-Mar-13	6.43	1,048	18.6	0.74
	22-Aug-12	7.84	1,176	23.1	1.28
	21-Feb-12	NM	852	19.3	1.14
RNMW-3	10-Oct-19	7.32	1,038	24.9	NM
	20-Dec-17	7.23	1,117	21.2	0.40
	17-Jan-17	7.25	628	20.8	2.01
	19-May-15	7.36	889	20.3	1.31
	17-Nov-14	7.32	1,007	22.5	1.48
	2-May-14	7.53	1,009	19.7	1.54
	1-Oct-13	6.37	1,065	25.0	NM
	26-Mar-13	6.71	1,002	18.5	0.70
	23-Aug-12	8.28	1,128	25.2	1.21
	21-Feb-12	NM	976	19.1	1.52
NMW-4	Apr-14		Well plugged and abandoned		
	1-Oct-13	NM	NM	NM	NM
	25-Mar-13	NM	NM	NM	NM
	23-Aug-12	NM	NM	NM	NM
	21-Feb-12	NM	NM	NM	NM
NMW-4R	10-Oct-19	6.82	528.6	22.6	NM
	20-Dec-17	7.28	433	21.4	0.37
	17-Jan-17	7.42	567	19.3	1.75
	19-May-15	7.44	784	19.2	2.12
	17-Nov-14	7.36	513	20.9	1.31
	1-May-14		Developed at 4 gallons per minute; ~180 gallons removed		

**TABLE 2. SUMMARY OF GROUNDWATER FIELD PARAMETERS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	pH	SpC ( $\mu\text{S}/\text{cm}$ )	Temp (°C)	DO (mg/L)
W-34	May-14		Well plugged and abandoned		
	1-Oct-13		Well paved over		
	25-Mar-13	6.55	1,129	17.3	0.77
	22-Aug-12	7.59	822	23.4	1.02
	21-Feb-12	NM	820	18.5	1.07
W-35	10-Oct-19		Could not locate well		
	20-Dec-17	7.25	960	22.1	0.92
	17-Jan-17	7.31	818	19.6	1.69
	19-May-15	7.37	889	21.0	1.78
	17-Nov-14	7.28	1065	22.6	2.48
	2-May-14	7.44	1148	19.5	0.91
	1-Oct-13		Well paved over - uncovered May 2014		
	25-Mar-13	6.63	1,238	16.7	0.84
	22-Aug-12	7.73	1,091	25.0	0.96
	21-Feb-12	NM	852	17.7	0.97
W-36	10-Oct-19		Could not locate well		
	20-Dec-17	7.20	990	21.8	0.55
	17-Jan-17	7.19	862	19.6	1.82
	19-May-15	7.22	677	19.6	1.63
	17-Nov-14	7.24	847	22.1	1.66
	2-May-14	7.39	878	18.8	3.03
	1-Oct-13		Well paved over - uncovered May 2014		
	25-Mar-13	6.24	1,143	17.5	0.75
	22-Aug-12	8.14	976	24.6	1.06
	21-Feb-12	NM	863	18.0	1.25
W-37	May-14		Well plugged and abandoned		
	1-Oct-13		Well paved over		
	25-Mar-13	6.86	1,085	19.1	1.04
	22-Aug-12	6.82	1,012	24.3	1.15
	21-Feb-12	NM	819	19.9	1.21
NOTES:					
¹ Unable to obtain parameters due to extremely poor recharge.					
SpC = Specific conductance in microsiemens per centimeter ( $\mu\text{S}/\text{cm}$ )					
Temp = Temperature in degrees Celsius (°C)					
DO = Dissolved oxygen in milligrams per liter (mg/L)					
NM = Not Measured					

**TABLE 3. SAMPLE ANALYTICAL AND QUALITY CONTROL REQUIREMENTS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Target Analytes	Matrix	Analytical Method	Sample Container	Preservative	Holding Time
VOCs	Water	EPA 8260B	3 x 40-mL glass vials	Mercuric Chloride; Cool to < 6°C	14 days

NOTES:  
VOCs = Volatile Organic Compounds with naphthalenes  
EPA = U.S. Environmental Protection Agency  
mL = Milliliters  
°C = Degrees Celcius

**TABLE 4. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Naphthalenes
MW-1	29-Apr-14	Well plugged and abandoned					
	1-Oct-13	Well dry					
	22-Aug-12	Well dry					
	21-Feb-12	Well dry					
	26-Dec-06	Well dry					
	25-Sep-06	Well dry					
	17-May-06	Well dry					
	31-Jan-06	Well dry					
	3-Nov-05	Well dry					
	28-Jul-05	Well dry					
	22-Apr-04	<1.0	<1.0	4.8	<1.0	<1.0	4.3
	Jan-98	ND	110	320	370	<b>2,200</b>	NA
MW-1R	10-Oct-19	<1.0	<1.0	1.5	<1.5	<1.0	13
	20-Dec-17	Well dry					
	17-Jan-17	<2.0	<2.0	<2.0	<3.0	<2.0	<8.0
	19-May-15	<1.0	<1.0	21	<1.5	<1.0	13
	17-Nov-14	<1.0	1.6	50	4.6	<1.0	<b>59.9</b>
	1-May-14	<10	<10	440	260	<10	<b>534</b>
MW-2	10-Oct-19	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	20-Dec-17	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	17-Jan-17	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	19-May-15	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	17-Nov-14	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	1-May-14	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	1-Oct-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	22-Aug-12	<1.0	<1.0	<1.0	<1.5	3.0	<4.0
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	Well not sampled					
	25-Sep-06	<1.0	<1.0	<1.0	<3.0	2.5	<10.0
	17-May-06	<1.0	<1.0	<1.0	<3.0	1.9	<10.0
	31-Jan-06	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	3-Nov-05	Well not sampled					
	28-Jul-05	<1.0	<1.0	<1.0	<1.0	3.6	<10.0
	22-Apr-04	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	Jan-98	1.9	ND	0.7	0.7	10	NA

**TABLE 4. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Naphthalenes
MW-3	20-Dec-17	2.4	1.4	17	7.1	<1.0	<b>190</b>
	17-Jan-17	1.7	1.6	16	7.2	<1.0	<b>166</b>
	19-May-15	2.3	1.4	12	8.4	<1.0	<b>127</b>
	17-Nov-14	3.5	<2.0	17	8.6	<2.0	<b>119</b>
	1-May-14	<1.0	<1.0	3.6	2.4	<1.0	24.6
	26-Mar-13	3.7	1.8	18	22	<1.0	<b>108</b>
	23-Aug-12	<b>6.4</b>	<5.0	19	28	<5.0	<b>60</b>
	21-Feb-12	<b>7.4</b>	<5.0	37	55	<5.0	<b>142</b>
	26-Dec-06	<b>160</b>	58	220	460	<b>530</b>	<b>610</b>
	25-Sep-06	<b>62</b>	11	37	100	<b>230</b>	<b>180</b>
	17-May-06	<b>46</b>	6.5	29	55	<b>230</b>	<b>142</b>
	31-Jan-06	<b>60</b>	<20	83	110	<b>500</b>	<b>170</b>
	3-Nov-05	<b>180</b>	9.7	58	47	<b>920</b>	<b>438</b>
	28-Jul-05	<b>52</b>	<10	14	<10	<b>410</b>	<b>90</b>
	22-Apr-04	<b>100</b>	<10	25	11	<b>320</b>	<b>98</b>
	Jan-98	<b>2,400</b>	110	320	370	<b>2,200</b>	NA
MW-4	29-Apr-14	Well plugged and abandoned					
	1-Oct-13	Well destroyed					
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	62	<4.0
	23-Aug-12	<1.0	<1.0	<1.0	<1.5	46	<4.0
	22-Feb-12	<1.0	<1.0	<1.0	<1.5	18	<4.0
	26-Dec-06	<b>93</b>	<10	<10	<30	<b>790</b>	<100
	25-Sep-06	<1.0	<1.0	<1.0	<3.0	<b>580</b>	<10.0
	17-May-06	<1.0	<1.0	<1.0	<3.0	<b>180</b>	<10.0
	31-Jan-06	<1.0	<1.0	<1.0	<1.0	<b>220</b>	<10.0
	3-Nov-05	<5.0	<5.0	<5.0	<5.0	<b>500</b>	<50
	28-Jul-05	<1.0	<1.0	<1.0	<1.0	<b>720</b>	<10.0
	22-Apr-04	<b>590</b>	<10	<10	<10	<b>1400</b>	<100
	10-Oct-19	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
MW-4R	20-Dec-17	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	17-Jan-17	<1.0	<1.0	<1.0	<1.5	7.0	<4.0
	19-May-15	<1.0	<1.0	<1.0	<1.5	3.5	<4.0
	17-Nov-14	<1.0	<1.0	<1.0	<1.5	8.0	<4.0
	1-May-14	<b>29</b>	<1.0	3.8	<1.5	55	<b>64.6</b>

**TABLE 4. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Naphthalenes
MW-5	1-May-14	Well plugged and abandoned					
	1-Oct-13	Well dry					
	25-Mar-13	Well dry					
	22-Aug-12	Well dry					
	21-Feb-12	Well dry					
	26-Dec-06	<1.0	<1.0	<1.0	<3.0	25	<10.0
	25-Sep-06	<1.0	<1.0	<1.0	<3.0	<1.5	<10.0
	17-May-06	<1.0	<1.0	<1.0	<3.0	<1.5	<10.0
	31-Jan-06	<1.0	<1.0	<1.0	<1.0	<b>190</b>	<10.0
	3-Nov-05	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
MW-6	29-Jul-05	<1.0	<1.0	<1.0	<1.0	<2.0	<10.0
	22-Apr-04	<1.0	<1.0	<1.0	<1.0	<b>280</b>	<10.0
	Jun-94	<0.5	<0.5	<0.5	<0.5	<2.5	NA
	29-Apr-14	Well plugged and abandoned					
	1-Oct-13	Well dry					
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	1.1	<4.0
	22-Aug-12	<1.0	<1.0	<1.0	<1.5	1.8	<4.0
	22-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	<b>33</b>	<10	16	<30	<b>720</b>	<b>395</b>
	25-Sep-06	<b>84</b>	<5.0	32	15	<b>1,200</b>	<b>630</b>
MW-6R	17-May-06	<b>20</b>	<10	11	<30	<b>490</b>	<b>160</b>
	31-Jan-06	<b>24</b>	<10	20	13	<b>730</b>	<b>253</b>
	3-Nov-05	<b>46</b>	<5.0	28	16	<b>570</b>	<b>380</b>
	29-Jul-05	<b>45</b>	<20	<20	<20	<b>800</b>	<b>210</b>
	23-Apr-04	<b>50</b>	<10	14	15	<b>830</b>	<b>140</b>
MW-6RR	17-Nov-14	Well destroyed					
	1-May-14	1.6	<1.0	6.6	<1.5	6.2	<b>55.5</b>
MW-6RR	10-Oct-19	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	20-Dec-17	3.4	<1.0	<1.0	<1.5	1.5	7.2
	17-Jan-17	<1.0	<1.0	<1.0	<1.5	<1.0	4.3
	19-May-15	<1.0	<1.0	24	3.2	4.6	<b>38.8</b>
	22-Dec-14	<5.0	<5.0	130	27	13	<b>262</b>

**TABLE 4. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Naphthalenes
MW-29	1-May-14				Well plugged and abandoned		
	1-Oct-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	23-Aug-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06				Well not sampled		
	25-Sep-06	<1.0	<1.0	<1.0	<1.0	7.5	<10.0
	17-May-06				Well not sampled		
	31-Jan-06				Well not sampled		
	3-Nov-05				Well not sampled		
	29-Jul-05	<1.0	<1.0	<1.0	<1.0	6.8	<10.0
	22-Apr-04	<1.0	<1.0	<1.0	<1.0	14	<10.0
	1-Jun-94	<0.5	<0.5	<0.5	<0.5	<2.5	NA
MW-38	10-Oct-19	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	20-Dec-17	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	17-Jan-17	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	19-May-15	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	17-Nov-14	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	1-May-14	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	1-Oct-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	23-Aug-12	1.5	<1.0	<1.0	<1.5	1.2	15
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	<b>13</b>	<1.0	2.5	<3.0	<1.5	12
	25-Sep-06	1.5	<1.0	<1.0	<3.0	<1.5	3.1
	17-May-06	1.4	<1.0	<1.0	<3.0	<1.5	<10.0
	31-Jan-06	2.5	<1.0	<1.0	<1.0	<1.0	2.5
	3-Nov-05	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	29-Jul-05	1.4	<1.0	<1.0	<1.0	<1.0	<10.0
	22-Apr-04	1.7	<1.0	<1.0	<1.0	<1.0	<10.0
	Jan-98	<b>46</b>	1.2	8.1	7.6	9	NA

**TABLE 4. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
**VOLATILE ORGANIC COMPOUNDS**  
**ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Naphthalenes
BB-2	10-Oct-19	<1.0	<1.0	3.8	<1.5	17	<b>232</b>
	20-Dec-17	<1.0	<1.0	<1.0	<1.5	20	4.2
	17-Jan-17	<1.0	<1.0	<1.0	<1.5	41	3.9
	19-May-15	<1.0	<1.0	<1.0	<1.5	27	3.9
	17-Nov-14	<1.0	<1.0	<1.0	<1.5	26	<4.0
	1-May-14	<1.0	<1.0	<1.0	<1.5	17	<4.0
	1-Oct-13	<1.0	<1.0	<1.0	<1.5	53	<4.0
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<b>150</b>	<4.0
	23-Aug-12	<1.0	<1.0	1.3	<1.5	94	17.0
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<b>290</b>	<4.0
	26-Dec-06	Well not sampled					
	25-Sep-06	<1.0	<1.0	1.1	<1.0	<1.5	15.5
	17-May-06	Well not sampled					
	31-Jan-06	Well not sampled					
	3-Nov-05	Well not sampled					
	29-Jul-05	<1.0	<1.0	4.6	<1.0	<2.0	7.6
	22-Apr-04	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	Jan-98	<b>5.8</b>	ND	50	21	<b>1,200</b>	NA
NMW-1	10-Oct-19	<b>84</b>	1.0	3.6	13	12	21.7
	20-Dec-17	<b>79</b>	1.0	3.0	4.7	11	23.3
	17-Jan-17	<b>220</b>	<5.0	47	32	16	<b>59</b>
	19-May-15	<b>430</b>	11	100	140	62	<b>140</b>
	17-Nov-14	<b>52</b>	<5.0	5.3	19	9.3	<20
	2-May-14	<b>190</b>	1.6	5.9	6.3	35	25.4
	1-Oct-13	<b>290</b>	8.4	3.1	39	44	<b>52.1</b>
	26-Mar-13	<b>510</b>	17	22	71	<b>130</b>	<b>126</b>
	23-Aug-12	<b>490</b>	<10	23	70	94	<b>48</b>
	21-Feb-12	<b>390</b>	<10	33	38	<b>110</b>	<b>92</b>
	26-Dec-06	<b>950</b>	55	44	<b>900</b>	<b>750</b>	<b>760</b>
	25-Sep-06	<b>410</b>	<10	<10	86	<b>420</b>	<b>140</b>
	17-May-06	<b>340</b>	95	<20	<b>1,700</b>	<b>320</b>	<b>840</b>
	31-Jan-06	<b>810</b>	56	<50	<b>1,100</b>	<b>570</b>	<b>220</b>
	3-Nov-05	<b>710</b>	170	<50	<b>640</b>	<b>480</b>	<b>190</b>
	28-Jul-05	<b>1,100</b>	390	<50	<b>3,600</b>	<b>840</b>	<b>920</b>
	22-Apr-04	<b>990</b>	200	28	<b>1,100</b>	<b>580</b>	<b>272</b>
	Jan-98	Well not sampled due to presence of NAPL					

**TABLE 4. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Naphthalenes
NMW-2/RNMW-2	10-Oct-19	<b>120</b>	1.9	3.4	2.8	<b>110</b>	<b>80.2</b>
	20-Dec-17	<1.0	<1.0	<1.0	<1.5	18	<4.0
	17-Jan-17	<1.0	<1.0	<1.0	<1.5	23	<4.0
	19-May-15	<b>12</b>	<1.0	<1.0	<1.5	50	2.3
	17-Nov-14	<1.0	<1.0	<1.0	<1.5	62	<4.0
	2-May-14	<b>12</b>	<1.0	<1.0	<1.5	72	<4.0
	1-Oct-13	<1.0	<1.0	<1.0	<1.5	61	<4.0
	26-Mar-13	<b>99</b>	1.2	1.7	2.2	<b>220</b>	7.4
	22-Aug-12	<b>54</b>	<1.0	<1.0	<1.5	<b>290</b>	9.6
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	83	<4.0
	26-Dec-06	<b>47</b>	<10	<10	<30	<b>1,000</b>	20
	25-Sep-06	<b>20</b>	<10	16	<30	<b>1,300</b>	<100
	17-May-06	<b>310</b>	<1.0	31	19	<b>550</b>	14
	31-Jan-06	<b>11</b>	<1.0	45	4.1	<b>560</b>	3.0
	3-Nov-05	<b>74</b>	1.1	160	52	<b>590</b>	27.4
	28-Jul-05	<b>320</b>	11	<b>710</b>	120	<b>1300</b>	<b>39</b>
	23-Apr-04	Well not sampled due to presence of NAPL					
NMW-3/RNMW-3	10-Oct-19	1.5	<1.0	<1.0	<1.5	30	9.6
	20-Dec-17	2.0	<1.0	<1.0	<1.5	61	10
	17-Jan-17	1.3	<1.0	<1.0	<1.5	64	10
	19-May-15	<1.0	<1.0	<1.0	<1.5	46	<4.0
	17-Nov-14	1.1	<1.0	<1.0	<1.5	63	<4.0
	2-May-14	<1.0	<1.0	<1.0	<1.5	31	<4.0
	1-Oct-13	1.2	<1.0	<1.0	<1.5	83	4.0
	26-Mar-13	4.6	<1.0	<1.0	<1.5	86	5.4
	23-Aug-12	1.2	<1.0	<1.0	<1.5	<b>170</b>	5.5
	21-Feb-12	1.8	<1.0	<1.0	<1.5	<b>120</b>	4.9
	26-Dec-06	<b>6.4</b>	<5.0	<5.0	<15	<b>580</b>	<50
	25-Sep-06	<b>220</b>	<5	64.0	<15	<b>1,400</b>	<b>110</b>
	17-May-06	<b>16</b>	<1.0	7.9	<3.0	<b>370</b>	<10.0
	31-Jan-06	<b>11</b>	<1.0	16	6.4	<b>550</b>	3.3
	3-Nov-05	<b>130</b>	7.7	89	170	<b>1,400</b>	<b>32.4</b>
	28-Jul-05	<b>150</b>	23	270	130	<b>1,200</b>	<b>32.3</b>
	23-Apr-04	Well not sampled due to presence of NAPL					
	Jan-98	Well not sampled due to presence of NAPL					

**TABLE 4. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Naphthalenes
NMW-4	30-Apr-14	Well plugged and abandoned					
	1-Oct-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	23-Aug-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	22-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	<1.0	<1.0	<1.0	<3.0	<1.5	<10.0
	25-Sep-06	<1.0	<1.0	<1.0	<3.0	<1.5	<10.0
	17-May-06	<1.0	<1.0	<1.0	<3.0	9.7	<10.0
	31-Jan-06	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	3-Nov-05	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	29-Jul-05	<1.0	<1.0	<1.0	<1.0	<2.0	<10.0
	23-Apr-04	<1.0	<1.0	<1.0	<1.0	2.7	<10.0
	Jun-94	<0.5	<0.5	<0.5	<0.5	<2.5	NA
NMW-4R	10-Oct-19	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	20-Dec-17	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	17-Jan-17	<1.0	<1.0	<1.0	<1.5	2.0	<4.0
	19-May-15	<1.0	<1.0	<1.0	<1.5	18	<4.0
	17-Nov-14	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	1-May-14	8.0	2.6	<1.0	<1.5	11	<4.0
W-34	1-May-14	Well plugged and abandoned					
	1-Oct-13	Well paved over					
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	22-Aug-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	Well not sampled					
	25-Sep-06	<1.0	<1.0	<1.0	<3.0	<1.5	<10.0
	17-May-06	Well not sampled					
	31-Jan-06	Well not sampled					
	3-Nov-05	Well not sampled					
	28-Jul-05	<1.0	<1.0	3.7	1.3	<1.0	<10.0
	6-May-04	<1.0	<1.0	6.7	3.4	<1.0	<10.0
	Jan-98	1.2	ND	7.6	7.2	<2.5	NA

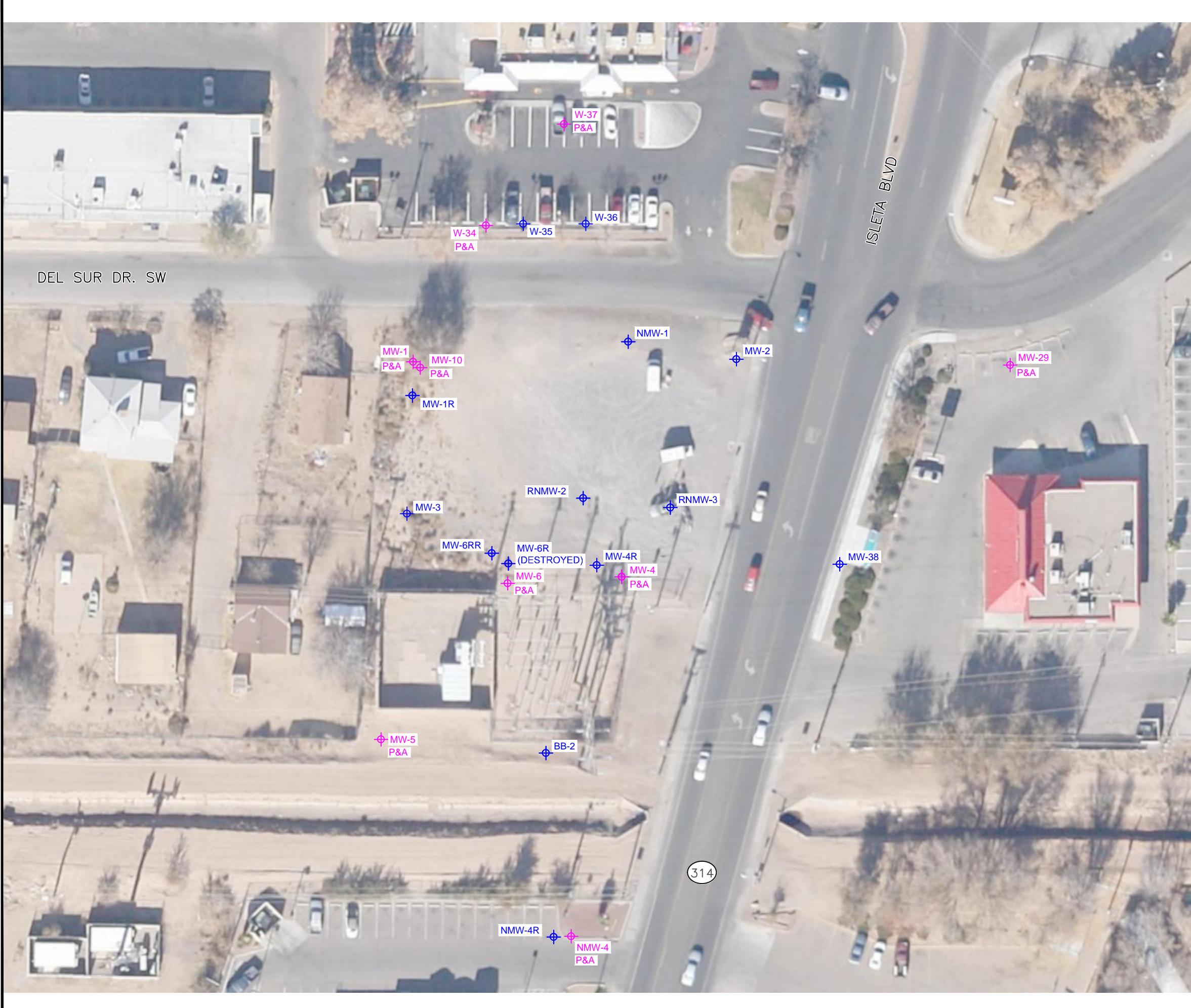
**TABLE 4. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Naphthalenes
W-35	10-Oct-19				Could not locate well		
	20-Dec-17	<2.0	<2.0	5.2	<3.0	<2.0	<b>127.9</b>
	17-Jan-17	<1.0	<1.0	16	<1.5	<1.0	<b>525</b>
	19-May-15	<1.0	<1.0	3.6	<1.5	<1.0	<b>45</b>
	17-Nov-14	<1.0	<1.0	15	<1.5	<1.0	<b>98.9</b>
	2-May-14	<1.0	<1.0	7.5	<1.5	<1.0	<b>124</b>
	1-Oct-13				Well paved over <sup>1</sup>		
	25-Mar-13	<1.0	<1.0	32	<1.5	<1.0	<b>399</b>
	22-Aug-12	<1.0	<1.0	6.9	<1.5	<1.0	<b>55.3</b>
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06				Well not sampled		
	25-Sep-06	<1.0	<1.0	12	<3.0	<1.5	<b>188</b>
	17-May-06				Well not sampled		
	31-Jan-06				Well not sampled		
	3-Nov-05				Well not sampled		
W-36	28-Jul-05	<5.0	<5.0	250	42	<5.0	<b>400</b>
	6-May-04	<1.0	<1.0	110	96	<1.0	<b>164</b>
	Jan-98	ND	190	<b>1700</b>	<b>5,600</b>	ND	NA
	10-Oct-19				Could not locate well		
	20-Dec-17	<1.0	<1.0	4.1	<1.5	<1.0	<b>70.1</b>
	17-Jan-17	<1.0	<1.0	1.1	<1.5	<1.0	18
	19-May-15	<1.0	<1.0	2.6	<1.5	<1.0	<b>31</b>
	17-Nov-14	<1.0	<1.0	3.8	<1.5	<1.0	17
	2-May-14	<1.0	<1.0	2.4	<1.5	<1.0	12
	1-Oct-13				Well paved over <sup>1</sup>		
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	22-Aug-12	<1.0	<1.0	2.3	<1.5	<1.0	11
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	<1.0	<1.0	15	4.5	<1.5	<b>55.3</b>
	25-Sep-06	<1.0	<1.0	23	3.0	<1.5	<b>81.7</b>
	17-May-06	<1.0	<1.0	3.0	<3.0	<1.5	4.1
	31-Jan-06	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	3-Nov-05	<1.0	<1.0	2.9	3.6	<1.0	3.3
	28-Jul-05	<1.0	<1.0	55	77	<1.0	<b>76.5</b>
	6-May-04	<10	<10	190	390	<10	<b>230</b>
	Jan-98	ND	4.4	39	56	12	NA

**TABLE 4. SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
VOLATILE ORGANIC COMPOUNDS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

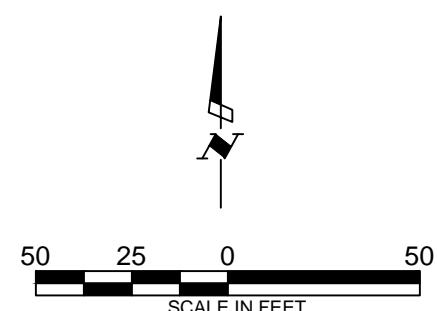
Well Number	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	Total Naphthalenes
W-37	1-May-14				Well plugged and abandoned		
	1-Oct-13				Well paved over		
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	22-Aug-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06				Well not sampled		
	25-Sep-06	<1.0	<1.0	12	<3.0	<1.5	<10.0
	17-May-06				Well not sampled		
	31-Jan-06				Well not sampled		
	3-Nov-05				Well not sampled		
	28-Jul-05	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	6-May-04	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
Jun-94		<0.5	<0.5	<0.5	<0.5	<2.5	NA
<b>NMWQCC Standards</b>		<b>5</b>	<b>1,000</b>	<b>700</b>	<b>620</b>	<b>100</b>	<b>30</b>
NOTES:							
<b>BOLD</b> indicates concentration above the New Mexico Water Quality Control Commission (NMWQCC) standard.							
All concentrations reported in micrograms per liter ( $\mu\text{g/L}$ ).							
<sup>1</sup> In May 2014, well was uncovered and a new vault cover, well seal, and "j-plug" were installed.							
All data reported prior to 2012 from <i>Groundwater Monitoring Report, Atex #213 UST Release Site, Albuquerque, New Mexico</i> (Souder Miller Associates, 2007).							
NA = Not analyzed							
ND = Not detected							
MTBE = Methyl tertiary-butyl ether							

## **FIGURES**



## LEGEND:

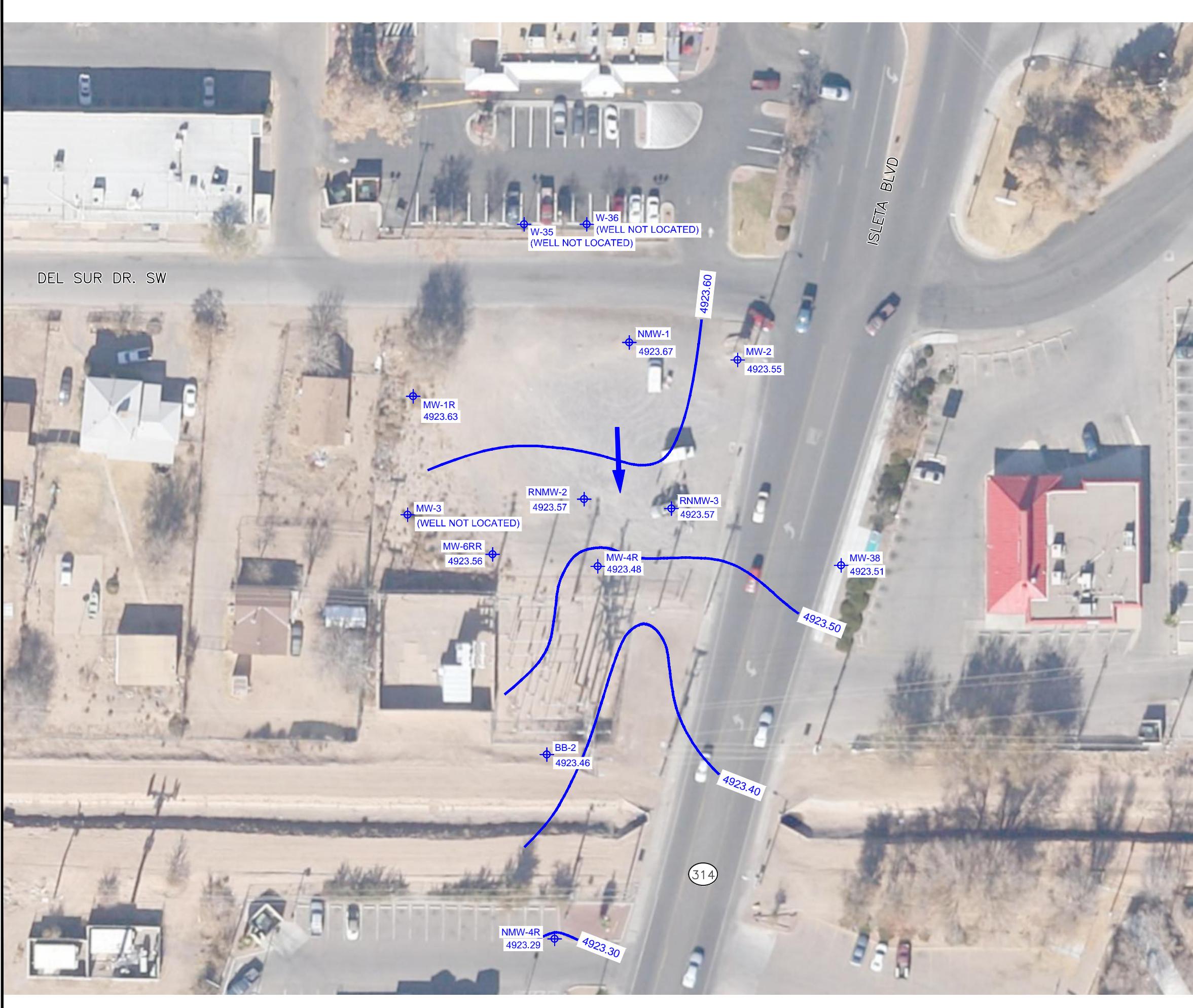
- |          |                                       |
|----------|---------------------------------------|
| MW-2     | MONITORING WELL                       |
| MW-6 P&A | MONITORING WELL PLUGGED AND ABANDONED |



ATEX 213  
ALBUQUERQUE, NEW MEXICO

**FIGURE 1**  
**SITE MAP**

PROJECT #: 6289826 | PROJECT PHASE: 01 | PROJECT MANAGER: LA

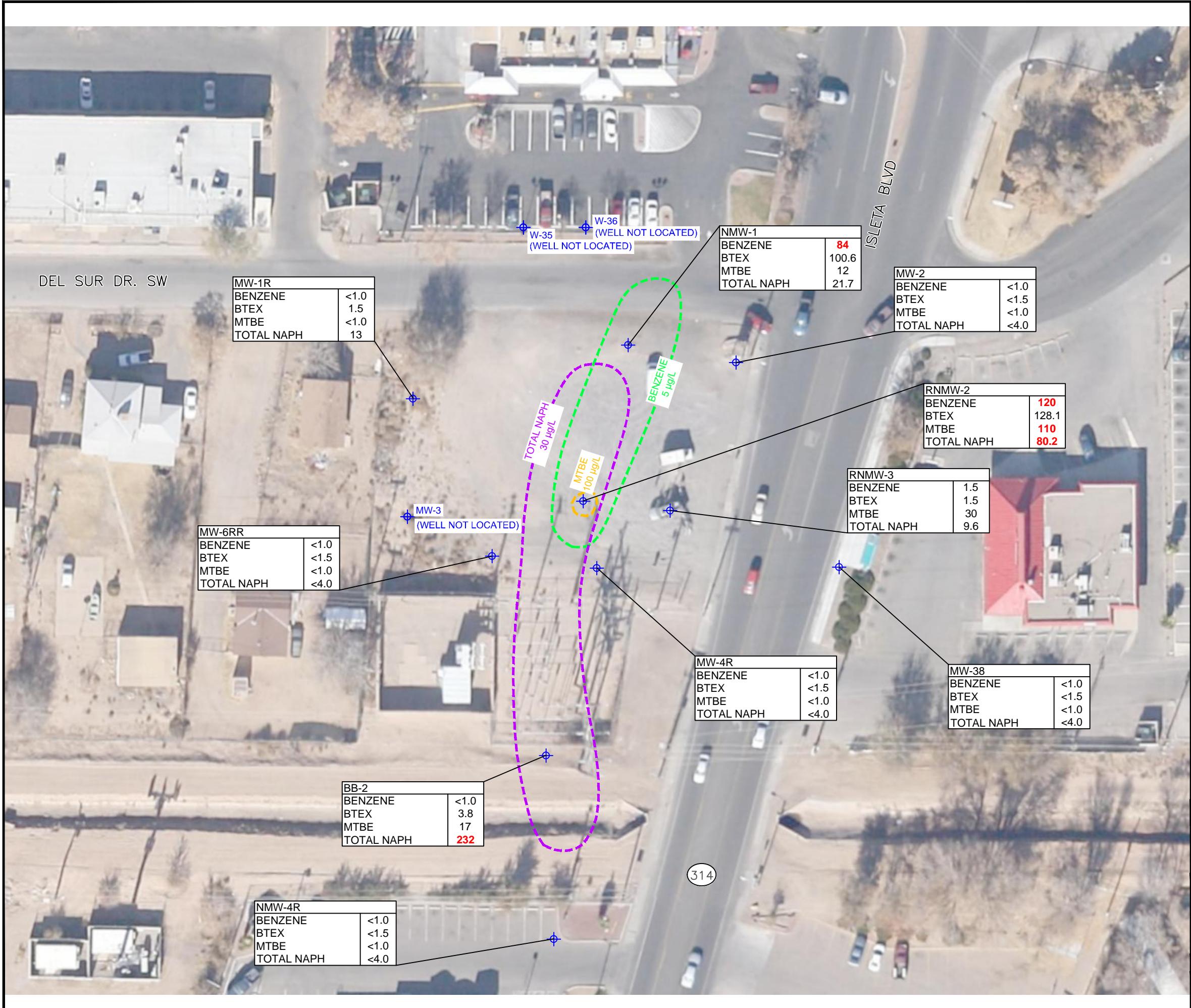


ATEX 213  
ALBUQUERQUE, NEW MEXICO

**FIGURE 2**  
**POTENIOMETRIC SURFACE MAP**  
**OCTOBER 2019**

PROJECT #: 6289826 PROJECT PHASE: 01 PROJECT MANAGER: LA

320 Gold Avenue, SW Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013



## LEGEND:

	MONITORING WELL
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLEMES
MTBE	METHYL TERTIARY-BUTYL ETHER
TOTAL NAPH	TOTAL NAPHTHALENES
	ESTIMATED EXTENT OF BENZENE (5 $\mu\text{g}/\text{L}$ )
	ESTIMATED EXTENT OF TOTAL NAPHTHALENES (30 $\mu\text{g}/\text{L}$ )
	ESTIMATED EXTENT OF MTBE (100 $\mu\text{g}/\text{L}$ )

## NOTES:

- ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER LITER ( $\mu\text{g}/\text{L}$ ).
- RED INDICATES CONCENTRATIONS THAT EXCEED NEW MEXICO WATER QUALITY CONTROL COMMISSION (NMWQCC) STANDARDS.



50 25 0 50  
SCALE IN FEET

ATEX 213  
ALBUQUERQUE, NEW MEXICO

**FIGURE 3**  
**DISTRIBUTION OF DISSOLVED-PHASE HYDROCARBONS**  
**OCTOBER 2019**

PROJECT #: 6289826 PROJECT PHASE: 01 PROJECT MANAGER: LA

320 Gold Avenue, SW Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013



EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC

**APPENDIX A  
WELL SAMPLING FIELD FORMS**



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	MW-3		Date gauged	10-10-18
Site	Atex 235 <sup>NP</sup> 213		Time gauged	
Depth to PSH	_____ Feet	Well diameter	_____ Inches	After Bailing NAPL
Depth to water	_____ Feet	Height of fluid column	_____ Feet	Depth to PSH _____ Feet
Total depth	_____ Feet	Volume in well	_____ Gallons	Depth to water _____ Feet
NAPL thickness	_____ Feet			NAPL thickness _____ Feet
(3 well volumes = _____ gallons)				
Recovered _____ Gallons				

## GROUNDWATER SAMPLING DATA

Time/date purged \_\_\_\_\_ Purge Method \_\_\_\_\_

Actual purge volume \_\_\_\_\_ gal. Field measurements stabilized within  $\pm$  10%?

Field measurements stabilized within  $\pm 10\%$ ?

Time/date sampled Purged/sampled by N Peterson

Purged/sampled by N Peterson

Sample method

## Requested analyses

Comments/observations Could not locate

Could not locate

## Well Casing Volumes

Well Casing Volumes  
2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>N-35</u>		Date gauged	<u>10-10-18</u>
Site	<u>Atex 213</u>		Time gauged	
Depth to PSH	_____ Feet	Well diameter	_____ Inches	After Bailing NAPL
Depth to water	_____ Feet	Height of fluid column	_____ Feet	Depth to PSH _____ Feet
Total depth	_____ Feet	Volume in well	_____ Gallons	Depth to water _____ Feet
NAPL thickness	_____ Feet	NAPL thickness _____ Feet		
(3 well volumes = _____ gallons)				
NAPL Recovered _____ Gallons				

## GROUNDWATER SAMPLING DATA

## Time/date purged                      Purge Method

Actual purge volume \_\_\_\_\_ gal. Field measurements stabilized within  $\pm$  10%?

Field measurements stabilized within  $\pm 10\%$ ?

Time/date sampled Purged/sampled by N Peterson

Purged/sampled by N Peterson

Sample method

## Requested analyses

Comments/observations: Could not locate

Comments/Observations

---

Digitized by srujanika@gmail.com

---

1

### Well Casing Volumes

2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>W-36</u>		Date gauged	<u>10-10-18</u>
Site	<u>Atex 213</u>		Time gauged	
Depth to PSH	_____ Feet	Well diameter	_____ Inches	After Bailing NAPL
Depth to water	_____ Feet	Height of fluid column	_____ Feet	Depth to PSH _____ Feet
Total depth	_____ Feet	Volume in well	_____ Gallons	Depth to water _____ Feet
NAPL thickness	_____ Feet	(3 well volumes = _____ gallons)		
		NAPL Recovered	_____ Gallons	NAPL thickness _____ Feet

## GROUNDWATER SAMPLING DATA

Time/date purged                          Purge Method

Actual purge volume \_\_\_\_\_ gal. Field measurements stabilized within  $\pm$  10%?

Field measurements stabilized within  $\pm 10\%$ ?

Time/date sampled                          Purged/sampled by                          N Peterson

Purged/sampled by N Peterson

Sample method

## Requested analyses

Comments/observations Could not locate

Could not locate

## Well Casing Volumes

Well Casing Volumes  
2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>BB-2</u>	Date gauged	<u>10-10-19</u>
Site	<u>Alex 213</u>	Time gauged	<u>1000</u>
Depth to PSH	<u>—</u> Feet	Well diameter	<u>3 1/4" NP 2</u> Inches
Depth to water	<u>11.18</u> Feet	Height of fluid column	<u>0.58 NP</u> Feet <u>3.41</u>
Total depth	<u>14.59</u> Feet	Volume in well	<u>0.58</u> Gallons
NAPL thickness	<u>—</u> Feet		
		(3 well volumes =	<u>1.74</u> gallons)
		After Bailing NAPL	
Depth to PSH		Feet	
Depth to water		Feet	
NAPL thickness		Feet	
NAPL Recovered		Gallons	

## GROUNDWATER SAMPLING DATA

Actual purge volume 1.75 gal. Field measurements stabilized within  $\pm 10\%$ ? Yes

Time/date sampled 10/4 / 10-10-19 Purged/sampled by N Peterson

## New boiler & twine.

Requested analyses 8240

Comments/observations This well head is in a pipe sticking out of the ground.

## Well Casing Volumes

2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>NMW-1</u>		Date gauged	<u>10-10-19</u>
Site	<u>Atex 213</u>		Time gauged	<u>1350</u>
Depth to PSH	<u>—</u> Feet	Well diameter	<u>2</u> Inches	After Bailing NAPL
Depth to water	<u>8.96</u> Feet	Height of fluid column	<u>6.24</u> Feet	Depth to PSH _____ Feet
Total depth	<u>15.20</u> Feet	Volume in well	<u>3.18</u> NF <u>1.04</u> Gallons	Depth to water _____ Feet
NAPL thickness	<u>—</u> Feet	(3 well volumes = <u>3.18</u> gallons)		
				NAPL thickness _____ Feet
				NAPL Recovered _____ Gallons

## GROUNDWATER SAMPLING DATA

Time/date purged 1356 / 10-10-19 Purge Method Hand bail

Actual purge volume 3.25 gal. Field measurements stabilized within  $\pm 10\%$ ? Yes

Field measurements stabilized within  $\pm 10\%$ ? **Yes**

Yes

Time/date sampled 1405 / 10-10-19 Purged/sampled by N peterson

Purged/sampled by N. Peterson

N Peterson

Sample method New bailer & twine

New bailer & twine

Requested analyses 8260

8260

Comments/observations Missing one 9/16" bolt

Missing one 9/16" bolt

### Well Casing Volumes

2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>NMW-4R</u>		Date gauged	<u>10-10-19</u>
Site	<u>Atex 213</u>		Time gauged	<u>0751</u>
Depth to PSH	<u>—</u> Feet	Well diameter	<u>2</u> Inches	After Bailing NAPL
Depth to water	<u>9.24</u> Feet	Height of fluid column	<u>10.68</u> Feet	Depth to PSH <u>      </u> Feet
Total depth	<u>19.92</u> Feet	Volume in well	<u>1.82</u> Gallons	Depth to water <u>      </u> Feet
NAPL thickness	<u>      </u> Feet	(3 well volumes = <u>5.45</u> gallons)		
		NAPL Recovered	<u>      </u> Gallons	NAPL thickness <u>      </u> Feet

## GROUNDWATER SAMPLING DATA

Actual purge volume 5.50 gal. Field measurements stabilized within  $\pm 10\%$ ? Yes

Time/date sampled 0815 / 10-10-19 Purged/sampled by N Peterson

Sample method New bailer & twine

Requested analyses 8260

Comments/observations \_\_\_\_\_

## Well Casing Volumes

2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>RN MIN-2</u>	Date gauged	<u>10-10-19</u>		
Site	<u>Alex 213</u>	Time gauged	<u>1108</u>		
Depth to PSH	<u>—</u> Feet	Well diameter	<u>2</u> Inches		
Depth to water	<u>9.88</u> Feet	Height of fluid column	<u>5.59</u> Feet		
Total depth	<u>15.47</u> Feet	Volume in well	<u>0.95</u> Gallons		
NAPL thickness	<u>—</u> Feet	(3 well volumes = <u>2.85</u> gallons)			
After Bailing NAPL					
Depth to PSH	<u>          </u> Feet				
Depth to water	<u>          </u> Feet				
NAPL thickness	<u>          </u> Feet				
NAPL Recovered	<u>          </u> Gallons				

## GROUNDWATER SAMPLING DATA

Actual purge volume 3.0 gal. Field measurements stabilized within  $\pm 10\%$ ? Yes

Field measurements stabilized within  $\pm 10\%$ ?

Yes

Time/date sampled 11/28/10-10-19 Purged/sampled by N. Peterson

Purged/sampled by

N Peterson

Sample method New bailer & twine

New bailer & twine

Requested analyses 8240

8260

Comments/observations Strong odor from first bailer of pump water

Strong odor from first bailer of purge water

## Well Casing Volumes

2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>RNMIN-3</u>		Date gauged	<u>10-10-19</u>
Site	<u>Alex 213</u>		Time gauged	<u>1257</u>
Depth to PSH	<u>—</u> Feet	Well diameter	<u>2</u> Inches	After Bailing NAPL
Depth to water	<u>9.65</u> Feet	Height of fluid column	<u>6.4</u> Feet	Depth to PSH _____ Feet
Total depth	<u>16.05</u> Feet	Volume in well	<u>1.09</u> Gallons	Depth to water _____ Feet
NAPL thickness	<u>—</u> Feet			NAPL thickness _____ Feet
				NAPL Recovered _____ Gallons
		(3 well volumes =	<u>3.26</u> gallons)	

## GROUNDWATER SAMPLING DATA

Actual purge volume 3.50 gal. Field measurements stabilized within  $\pm 10\%$ ? Yes

Time/date sampled 13:13 / 10-10-19 Purged/sampled by N Peterson

New bailer & twine.

Requested analyses 8260

Comments/observations \_\_\_\_\_

## Well Casing Volumes

Well Casting Volumes  
2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>MW-2</u>	Date gauged	<u>10-10-19</u>
Site	<u>Atex 213</u>	Time gauged	<u>1030</u>
Depth to PSH	<u>—</u> Feet	Well diameter	<u>2</u> Inches
Depth to water	<u>11.17</u> Feet	Height of fluid column	<u>6.67</u> Feet
Total depth	<u>17.84</u> Feet	Volume in well	<u>1.13</u> Gallons
NAPL thickness	<u>—</u> Feet	(3 well volumes = <u>3.40</u> gallons)	
After Bailing NAPL			
Depth to PSH	<u>—</u> Feet	Depth to water	<u>—</u> Feet
NAPL thickness	<u>—</u> Feet	NAPL Recovered	<u>—</u> Gallons

## GROUNDWATER SAMPLING DATA

Time/date purged 1042 / 10-10-19 Purge Method Hand bail

Actual purge volume 3.50 gal. Field measurements stabilized within  $\pm 10\%$ ? Yes

Time/date sampled 1053 /10-10-19 Purged/sampled by N Peterson

Sample method New bailer & twine

Requested analyses 8260

**Missing J-plug.** Well head is in pipe sticking out of

the ground.

Page 10 of 10

## Well Casing Volumes

2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>MW-4R</u>		Date gauged	<u>10-10-19</u>
Site	<u>Atex 213</u>		Time gauged	<u>0920</u>
Depth to PSH	<u>—</u> Feet	Well diameter	<u>2</u> Inches	After Bailing NAPL
Depth to water	<u>9.94</u> Feet	Height of fluid column	<u>11.14</u> Feet	Depth to PSH _____ Feet
Total depth	<u>21.07</u> Feet	Volume in well	<u>1.90</u> Gallons	Depth to water _____ Feet
NAPL thickness	<u>—</u> Feet			NAPL thickness _____ Feet
				NAPL Recovered _____ Gallons
(3 well volumes = <u>5.69</u> gallons)				

## GROUNDWATER SAMPLING DATA

Actual purge volume 5.75 gal. Field measurements stabilized within  $\pm 10\%$ ? Yes

Time/date sampled 0942 / 10-10-19 Purged/sampled by N Peterson

Sample method New bailer & twine

Requested analyses 8/21/0

Comments/observations \_\_\_\_\_

### Well Casing Volumes

2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>MW-6RR*</u>		Date gauged	<u>10-10-19</u>
Site	<u>Atex 213</u>		Time gauged	<u>1152</u>
Depth to PSH	<u>—</u> Feet	Well diameter	<u>2</u> Inches	After Bailing NAPL
Depth to water	<u>10.34</u> Feet	Height of fluid column	<u>9.68</u> Feet	Depth to PSH _____ Feet
Total depth	<u>20.02</u> Feet	Volume in well	<u>1.65</u> Gallons	Depth to water _____ Feet
NAPL thickness	<u>—</u> Feet	(3 well volumes = <u>4.94</u> gallons)		
		NAPL Recovered	_____	Gallons

## GROUNDWATER SAMPLING DATA

Actual purge volume 5.0 gal. Field measurements stabilized within  $\pm 10\%$ ? Yes

Time/date sampled 1212 / 10-10-19 Purged/sampled by N Peterson

## New Darter & twine

Requested analyses 8260

Comments/observations Well is labeled MN-00K on the concrete pad.

## Well Casing Volumes

2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>MW-38</u>	Date gauged	<u>10-10-19</u>
Site	<u>Atex 213</u>	Time gauged	<u>0836</u>
Depth to PSH	<u>—</u> Feet	Well diameter	<u>2</u> Inches
Depth to water	<u>8.36</u> Feet	Height of fluid column	<u>3.8</u> Feet
Total depth	<u>12.16</u> Feet	Volume in well	<u>0.65</u> Gallons
NAPL thickness	<u>—</u> Feet		
(3 well volumes = <u>1.94</u> gallons)			
After Bailing NAPL			
Depth to PSH	<u>—</u> Feet	Depth to water	<u>—</u> Feet
NAPL thickness	<u>—</u> Feet	NAPL Recovered	<u>—</u> Gallons

## GROUNDWATER SAMPLING DATA

Time/date purged 0842/10-10-19 Purge Method Hand bail

Actual purge volume 2.00 gal. Field measurements stabilized within  $\pm 10\%$ ? Yes

Field measurements stabilized within  $\pm 10\%$ ? Yes

Time/date sampled 0852 / 10-10-19 Purged/sampled by N Peterson

## Sample method

### New bailer & twine

Requested analyses 8260

Comments/observations Well doesn't have a i-pika but does have a white

Comments/observations Well doesn't have a j-plug but does have a white No bolts on well vent lid. but NO bolt receptacles.

## Well Casing Volumes

2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**EA Engineering, Science, and Technology, Inc., PBC**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## MONITORING WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>MW-1R</u>	Date gauged
Site	<u>Alex 213</u>	Time gauged
Depth to PSH	<u>  </u> Feet	Well diameter <u>2</u> Inches
Depth to water	<u>8.45</u> Feet	Height of fluid column <u>6.33</u> Feet
Total depth	<u>14.78</u> Feet	Volume in well <u>1.08</u> Gallons
NAPL thickness	<u>  </u> Feet	(3 well volumes = <u>3.23</u> gallons)

10-10-19

144

After Bailing NAPL

Depth to PSH \_\_\_\_\_ Feet

Depth to water \_\_\_\_\_ Feet

NAPL thickness \_\_\_\_\_ Feet

NAPL  
Recovered \_\_\_\_\_ Gallons

## GROUNDWATER SAMPLING DATA

Time/date purged 1524/10-10-19 Purge Method

Actual purge volume 3.25 gal.

Field measurements stabilized within  $\pm 10\%$ ?

Yes

#### Time/date sampled

1533 / 10-10-19

Purged/sampled by

N Peterson

### Sample method

New bailer & twine

#### Requested analyses

8260

#### Comments/observations

Work plan says well depth is 19' but that well is obstructed w/ roots. Roots were found at ~9' depth

#### Well Casing Volumes

2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft

50 gal/ft successfully removed. Roots  
Were stained black. Roots at ~14' dep'  
Were again found removed.  
but unable to be  
Proceeded w/ TD = 14.78'

Alex 213 - October 10, 2019

Nicole Peterson

0700 Leaving office in Dodge. Starting mileage is 160,076

0734 Arrived at site, well NMW-4R

0745 Performed bump test on ultrameter.

pH 4.0 solution read 4.14 ✓

cond. 3900  $\mu\text{S}$  solution read 3964  $\mu\text{S}$  ✓

1555 Done Sampling, leaving site

**APPENDIX B  
ANALYTICAL LABORATORY REPORT**



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

October 16, 2019

Mike McVey

EA Engineering, Science and Technology  
320 Gold Ave SW Suite 1210  
Albuquerque, NM 87102  
TEL: (505) 224-9013  
FAX

RE: Atex 213

OrderNo.: 1910675

Dear Mike McVey:

Hall Environmental Analysis Laboratory received 11 sample(s) on 10/11/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1910675**

Date Reported: **10/16/2019**

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-001

**Matrix:** AQUEOUS

**Client Sample ID:** BB-2

**Collection Date:** 10/10/2019 10:14:00 AM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Toluene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Ethylbenzene	3.8	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Methyl tert-butyl ether (MTBE)	17	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Naphthalene	96	2.0	µg/L	1		10/15/2019 4:36:58 AM	
1-Methylnaphthalene	75	4.0	µg/L	1		10/15/2019 4:36:58 AM	
2-Methylnaphthalene	61	4.0	µg/L	1		10/15/2019 4:36:58 AM	
Acetone	ND	10	µg/L	1		10/15/2019 4:36:58 AM	
Bromobenzene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Bromodichloromethane	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Bromoform	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Bromomethane	ND	3.0	µg/L	1		10/15/2019 4:36:58 AM	
2-Butanone	ND	10	µg/L	1		10/15/2019 4:36:58 AM	
Carbon disulfide	ND	10	µg/L	1		10/15/2019 4:36:58 AM	
Carbon Tetrachloride	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Chlorobenzene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Chloroethane	ND	2.0	µg/L	1		10/15/2019 4:36:58 AM	
Chloroform	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Chloromethane	ND	3.0	µg/L	1		10/15/2019 4:36:58 AM	
2-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
4-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
cis-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1		10/15/2019 4:36:58 AM	
Dibromochloromethane	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Dibromomethane	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
Dichlorodifluoromethane	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,1-Dichloroethane	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,1-Dichloroethene	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,2-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
1,3-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 4:36:58 AM	
2,2-Dichloropropane	ND	2.0	µg/L	1		10/15/2019 4:36:58 AM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1910675**

Date Reported: **10/16/2019**

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-001

**Matrix:** AQUEOUS

**Client Sample ID:** BB-2

**Collection Date:** 10/10/2019 10:14:00 AM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
Hexachlorobutadiene	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
2-Hexanone	ND	10	µg/L	1	10/15/2019 4:36:58 AM		
Isopropylbenzene	52	1.0	µg/L	1	10/15/2019 4:36:58 AM		
4-Isopropyltoluene	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
4-Methyl-2-pentanone	ND	10	µg/L	1	10/15/2019 4:36:58 AM		
Methylene Chloride	ND	3.0	µg/L	1	10/15/2019 4:36:58 AM		
n-Butylbenzene	21	3.0	µg/L	1	10/15/2019 4:36:58 AM		
n-Propylbenzene	160	10	µg/L	10	10/15/2019 5:31:39 PM		
sec-Butylbenzene	17	1.0	µg/L	1	10/15/2019 4:36:58 AM		
Styrene	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
tert-Butylbenzene	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1	10/15/2019 4:36:58 AM		
Tetrachloroethene (PCE)	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
trans-1,2-DCE	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
trans-1,3-Dichloropropene	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
1,1,1-Trichloroethane	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
1,1,2-Trichloroethane	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
Trichloroethene (TCE)	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
Trichlorofluoromethane	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
1,2,3-Trichloropropane	ND	2.0	µg/L	1	10/15/2019 4:36:58 AM		
Vinyl chloride	ND	1.0	µg/L	1	10/15/2019 4:36:58 AM		
Xylenes, Total	ND	1.5	µg/L	1	10/15/2019 4:36:58 AM		
Surr: 1,2-Dichloroethane-d4	91.2	70-130	%Rec	1	10/15/2019 4:36:58 AM		
Surr: 4-Bromofluorobenzene	98.7	70-130	%Rec	1	10/15/2019 4:36:58 AM		
Surr: Dibromofluoromethane	93.8	70-130	%Rec	1	10/15/2019 4:36:58 AM		
Surr: Toluene-d8	104	70-130	%Rec	1	10/15/2019 4:36:58 AM		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-002

**Matrix:** AQUEOUS

**Client Sample ID:** NMW-1

**Collection Date:** 10/10/2019 2:05:00 PM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	84	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Toluene	1.0	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Ethylbenzene	3.6	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Methyl tert-butyl ether (MTBE)	12	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,2,4-Trimethylbenzene	6.1	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,3,5-Trimethylbenzene	2.2	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Naphthalene	15	2.0		µg/L	1	10/15/2019 5:06:36 AM	
1-Methylnaphthalene	6.7	4.0		µg/L	1	10/15/2019 5:06:36 AM	
2-Methylnaphthalene	ND	4.0		µg/L	1	10/15/2019 5:06:36 AM	
Acetone	ND	10		µg/L	1	10/15/2019 5:06:36 AM	
Bromobenzene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Bromodichloromethane	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Bromoform	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Bromomethane	ND	3.0		µg/L	1	10/15/2019 5:06:36 AM	
2-Butanone	ND	10		µg/L	1	10/15/2019 5:06:36 AM	
Carbon disulfide	ND	10		µg/L	1	10/15/2019 5:06:36 AM	
Carbon Tetrachloride	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Chlorobenzene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Chloroethane	ND	2.0		µg/L	1	10/15/2019 5:06:36 AM	
Chloroform	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Chloromethane	ND	3.0		µg/L	1	10/15/2019 5:06:36 AM	
2-Chlorotoluene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
4-Chlorotoluene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
cis-1,2-DCE	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/15/2019 5:06:36 AM	
Dibromochloromethane	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Dibromomethane	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,1-Dichloroethane	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,1-Dichloroethene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,2-Dichloropropane	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,3-Dichloropropane	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
2,2-Dichloropropane	ND	2.0		µg/L	1	10/15/2019 5:06:36 AM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1910675**

Date Reported: **10/16/2019**

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-002

**Matrix:** AQUEOUS

**Client Sample ID:** NMW-1

**Collection Date:** 10/10/2019 2:05:00 PM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Hexachlorobutadiene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
2-Hexanone	ND	10		µg/L	1	10/15/2019 5:06:36 AM	
Isopropylbenzene	7.1	1.0		µg/L	1	10/15/2019 5:06:36 AM	
4-Isopropyltoluene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
4-Methyl-2-pentanone	ND	10		µg/L	1	10/15/2019 5:06:36 AM	
Methylene Chloride	ND	3.0		µg/L	1	10/15/2019 5:06:36 AM	
n-Butylbenzene	ND	3.0		µg/L	1	10/15/2019 5:06:36 AM	
n-Propylbenzene	18	1.0		µg/L	1	10/15/2019 5:06:36 AM	
sec-Butylbenzene	2.4	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Styrene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
tert-Butylbenzene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/15/2019 5:06:36 AM	
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
trans-1,2-DCE	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Trichlorofluoromethane	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/15/2019 5:06:36 AM	
Vinyl chloride	ND	1.0		µg/L	1	10/15/2019 5:06:36 AM	
Xylenes, Total	13	1.5		µg/L	1	10/15/2019 5:06:36 AM	
Surr: 1,2-Dichloroethane-d4	101	70-130	%Rec		1	10/15/2019 5:06:36 AM	
Surr: 4-Bromofluorobenzene	108	70-130	%Rec		1	10/15/2019 5:06:36 AM	
Surr: Dibromofluoromethane	99.0	70-130	%Rec		1	10/15/2019 5:06:36 AM	
Surr: Toluene-d8	106	70-130	%Rec		1	10/15/2019 5:06:36 AM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology  
**Project:** Atex 213  
**Lab ID:** 1910675-003

**Matrix:** AQUEOUS

**Client Sample ID:** NMW-4R  
**Collection Date:** 10/10/2019 8:15:00 AM  
**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Toluene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Ethylbenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Naphthalene	ND	2.0	µg/L	1		10/15/2019 5:35:24 AM	
1-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 5:35:24 AM	
2-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 5:35:24 AM	
Acetone	ND	10	µg/L	1		10/15/2019 5:35:24 AM	
Bromobenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Bromodichloromethane	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Bromoform	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Bromomethane	ND	3.0	µg/L	1		10/15/2019 5:35:24 AM	
2-Butanone	ND	10	µg/L	1		10/15/2019 5:35:24 AM	
Carbon disulfide	ND	10	µg/L	1		10/15/2019 5:35:24 AM	
Carbon Tetrachloride	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Chlorobenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Chloroethane	ND	2.0	µg/L	1		10/15/2019 5:35:24 AM	
Chloroform	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Chloromethane	ND	3.0	µg/L	1		10/15/2019 5:35:24 AM	
2-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
4-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
cis-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1		10/15/2019 5:35:24 AM	
Dibromochloromethane	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Dibromomethane	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Dichlorodifluoromethane	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,1-Dichloroethane	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,1-Dichloroethene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,2-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,3-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
2,2-Dichloropropane	ND	2.0	µg/L	1		10/15/2019 5:35:24 AM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-003

**Matrix:** AQUEOUS

**Client Sample ID:** NMW-4R

**Collection Date:** 10/10/2019 8:15:00 AM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Hexachlorobutadiene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
2-Hexanone	ND	10	µg/L	1		10/15/2019 5:35:24 AM	
Isopropylbenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
4-Isopropyltoluene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
4-Methyl-2-pentanone	ND	10	µg/L	1		10/15/2019 5:35:24 AM	
Methylene Chloride	ND	3.0	µg/L	1		10/15/2019 5:35:24 AM	
n-Butylbenzene	ND	3.0	µg/L	1		10/15/2019 5:35:24 AM	
n-Propylbenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
sec-Butylbenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Styrene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
tert-Butylbenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1		10/15/2019 5:35:24 AM	
Tetrachloroethene (PCE)	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
trans-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
trans-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,1,1-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,1,2-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Trichloroethene (TCE)	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Trichlorofluoromethane	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
1,2,3-Trichloropropane	ND	2.0	µg/L	1		10/15/2019 5:35:24 AM	
Vinyl chloride	ND	1.0	µg/L	1		10/15/2019 5:35:24 AM	
Xylenes, Total	ND	1.5	µg/L	1		10/15/2019 5:35:24 AM	
Surr: 1,2-Dichloroethane-d4	104	70-130	%Rec	1		10/15/2019 5:35:24 AM	
Surr: 4-Bromofluorobenzene	88.0	70-130	%Rec	1		10/15/2019 5:35:24 AM	
Surr: Dibromofluoromethane	104	70-130	%Rec	1		10/15/2019 5:35:24 AM	
Surr: Toluene-d8	104	70-130	%Rec	1		10/15/2019 5:35:24 AM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-004

**Matrix:** AQUEOUS

**Client Sample ID:** RNMW-2

**Collection Date:** 10/10/2019 11:28:00 AM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	120	10	µg/L	10		10/15/2019 6:00:49 PM	
Toluene	1.9	1.0	µg/L	1		10/15/2019 6:04:37 AM	
Ethylbenzene	3.4	1.0	µg/L	1		10/15/2019 6:04:37 AM	
Methyl tert-butyl ether (MTBE)	110	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
Naphthalene	65	2.0	µg/L	1		10/15/2019 6:04:37 AM	
1-Methylnaphthalene	8.7	4.0	µg/L	1		10/15/2019 6:04:37 AM	
2-Methylnaphthalene	6.5	4.0	µg/L	1		10/15/2019 6:04:37 AM	
Acetone	ND	10	µg/L	1		10/15/2019 6:04:37 AM	
Bromobenzene	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
Bromodichloromethane	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
Bromoform	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
Bromomethane	ND	3.0	µg/L	1		10/15/2019 6:04:37 AM	
2-Butanone	ND	10	µg/L	1		10/15/2019 6:04:37 AM	
Carbon disulfide	ND	10	µg/L	1		10/15/2019 6:04:37 AM	
Carbon Tetrachloride	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
Chlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
Chloroethane	ND	2.0	µg/L	1		10/15/2019 6:04:37 AM	
Chloroform	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
Chloromethane	ND	3.0	µg/L	1		10/15/2019 6:04:37 AM	
2-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
4-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
cis-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1		10/15/2019 6:04:37 AM	
Dibromochloromethane	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
Dibromomethane	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
Dichlorodifluoromethane	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,1-Dichloroethane	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,1-Dichloroethene	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,2-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
1,3-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 6:04:37 AM	
2,2-Dichloropropane	ND	2.0	µg/L	1		10/15/2019 6:04:37 AM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-004

**Matrix:** AQUEOUS

**Client Sample ID:** RNMW-2

**Collection Date:** 10/10/2019 11:28:00 AM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
Hexachlorobutadiene	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
2-Hexanone	ND	10	µg/L	1	10/15/2019 6:04:37 AM		
Isopropylbenzene	23	1.0	µg/L	1	10/15/2019 6:04:37 AM		
4-Isopropyltoluene	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
4-Methyl-2-pentanone	ND	10	µg/L	1	10/15/2019 6:04:37 AM		
Methylene Chloride	ND	3.0	µg/L	1	10/15/2019 6:04:37 AM		
n-Butylbenzene	4.0	3.0	µg/L	1	10/15/2019 6:04:37 AM		
n-Propylbenzene	52	1.0	µg/L	1	10/15/2019 6:04:37 AM		
sec-Butylbenzene	3.6	1.0	µg/L	1	10/15/2019 6:04:37 AM		
Styrene	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
tert-Butylbenzene	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1	10/15/2019 6:04:37 AM		
Tetrachloroethene (PCE)	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
trans-1,2-DCE	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
trans-1,3-Dichloropropene	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
1,1,1-Trichloroethane	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
1,1,2-Trichloroethane	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
Trichloroethene (TCE)	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
Trichlorofluoromethane	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
1,2,3-Trichloropropane	ND	2.0	µg/L	1	10/15/2019 6:04:37 AM		
Vinyl chloride	ND	1.0	µg/L	1	10/15/2019 6:04:37 AM		
Xylenes, Total	2.8	1.5	µg/L	1	10/15/2019 6:04:37 AM		
Surr: 1,2-Dichloroethane-d4	89.3	70-130	%Rec	1	10/15/2019 6:04:37 AM		
Surr: 4-Bromofluorobenzene	94.1	70-130	%Rec	1	10/15/2019 6:04:37 AM		
Surr: Dibromofluoromethane	90.9	70-130	%Rec	1	10/15/2019 6:04:37 AM		
Surr: Toluene-d8	107	70-130	%Rec	1	10/15/2019 6:04:37 AM		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-005

**Matrix:** AQUEOUS

**Client Sample ID:** RNMW-3

**Collection Date:** 10/10/2019 1:13:00 PM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	1.5	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Toluene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Ethylbenzene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Methyl tert-butyl ether (MTBE)	30	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Naphthalene	9.6	2.0	µg/L	1		10/15/2019 6:29:42 PM	
1-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 6:29:42 PM	
2-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 6:29:42 PM	
Acetone	ND	10	µg/L	1		10/15/2019 6:29:42 PM	
Bromobenzene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Bromodichloromethane	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Bromoform	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Bromomethane	ND	3.0	µg/L	1		10/15/2019 6:29:42 PM	
2-Butanone	ND	10	µg/L	1		10/15/2019 6:29:42 PM	
Carbon disulfide	ND	10	µg/L	1		10/15/2019 6:29:42 PM	
Carbon Tetrachloride	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Chlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Chloroethane	ND	2.0	µg/L	1		10/15/2019 6:29:42 PM	
Chloroform	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Chloromethane	ND	3.0	µg/L	1		10/15/2019 6:29:42 PM	
2-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
4-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
cis-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1		10/15/2019 6:29:42 PM	
Dibromochloromethane	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Dibromomethane	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
Dichlorodifluoromethane	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,1-Dichloroethane	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,1-Dichloroethene	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,2-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
1,3-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 6:29:42 PM	
2,2-Dichloropropane	ND	2.0	µg/L	1		10/15/2019 6:29:42 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology  
**Project:** Atex 213  
**Lab ID:** 1910675-005

**Matrix:** AQUEOUS

**Client Sample ID:** RNMW-3

**Collection Date:** 10/10/2019 1:13:00 PM  
**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
Hexachlorobutadiene	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
2-Hexanone	ND	10	µg/L	1	10/15/2019 6:29:42 PM		
Isopropylbenzene	7.2	1.0	µg/L	1	10/15/2019 6:29:42 PM		
4-Isopropyltoluene	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
4-Methyl-2-pentanone	ND	10	µg/L	1	10/15/2019 6:29:42 PM		
Methylene Chloride	ND	3.0	µg/L	1	10/15/2019 6:29:42 PM		
n-Butylbenzene	ND	3.0	µg/L	1	10/15/2019 6:29:42 PM		
n-Propylbenzene	14	1.0	µg/L	1	10/15/2019 6:29:42 PM		
sec-Butylbenzene	1.9	1.0	µg/L	1	10/15/2019 6:29:42 PM		
Styrene	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
tert-Butylbenzene	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1	10/15/2019 6:29:42 PM		
Tetrachloroethene (PCE)	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
trans-1,2-DCE	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
trans-1,3-Dichloropropene	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
1,1,1-Trichloroethane	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
1,1,2-Trichloroethane	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
Trichloroethene (TCE)	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
Trichlorofluoromethane	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
1,2,3-Trichloropropane	ND	2.0	µg/L	1	10/15/2019 6:29:42 PM		
Vinyl chloride	ND	1.0	µg/L	1	10/15/2019 6:29:42 PM		
Xylenes, Total	ND	1.5	µg/L	1	10/15/2019 6:29:42 PM		
Surr: 1,2-Dichloroethane-d4	94.2	70-130	%Rec	1	10/15/2019 6:29:42 PM		
Surr: 4-Bromofluorobenzene	88.5	70-130	%Rec	1	10/15/2019 6:29:42 PM		
Surr: Dibromofluoromethane	94.1	70-130	%Rec	1	10/15/2019 6:29:42 PM		
Surr: Toluene-d8	104	70-130	%Rec	1	10/15/2019 6:29:42 PM		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1910675**

Date Reported: **10/16/2019**

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-006

**Matrix:** AQUEOUS

**Client Sample ID:** MW-2

**Collection Date:** 10/10/2019 10:53:00 AM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Toluene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Ethylbenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Naphthalene	ND	2.0	µg/L	1		10/15/2019 6:59:09 PM	
1-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 6:59:09 PM	
2-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 6:59:09 PM	
Acetone	ND	10	µg/L	1		10/15/2019 6:59:09 PM	
Bromobenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Bromodichloromethane	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Bromoform	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Bromomethane	ND	3.0	µg/L	1		10/15/2019 6:59:09 PM	
2-Butanone	ND	10	µg/L	1		10/15/2019 6:59:09 PM	
Carbon disulfide	ND	10	µg/L	1		10/15/2019 6:59:09 PM	
Carbon Tetrachloride	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Chlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Chloroethane	ND	2.0	µg/L	1		10/15/2019 6:59:09 PM	
Chloroform	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Chloromethane	ND	3.0	µg/L	1		10/15/2019 6:59:09 PM	
2-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
4-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
cis-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1		10/15/2019 6:59:09 PM	
Dibromochloromethane	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Dibromomethane	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Dichlorodifluoromethane	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,1-Dichloroethane	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,1-Dichloroethene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,2-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,3-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
2,2-Dichloropropane	ND	2.0	µg/L	1		10/15/2019 6:59:09 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology  
**Project:** Atex 213  
**Lab ID:** 1910675-006

**Matrix:** AQUEOUS

**Client Sample ID:** MW-2

**Collection Date:** 10/10/2019 10:53:00 AM  
**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Hexachlorobutadiene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
2-Hexanone	ND	10	µg/L	1		10/15/2019 6:59:09 PM	
Isopropylbenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
4-Isopropyltoluene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
4-Methyl-2-pentanone	ND	10	µg/L	1		10/15/2019 6:59:09 PM	
Methylene Chloride	ND	3.0	µg/L	1		10/15/2019 6:59:09 PM	
n-Butylbenzene	ND	3.0	µg/L	1		10/15/2019 6:59:09 PM	
n-Propylbenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
sec-Butylbenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Styrene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
tert-Butylbenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1		10/15/2019 6:59:09 PM	
Tetrachloroethene (PCE)	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
trans-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
trans-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,1,1-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,1,2-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Trichloroethene (TCE)	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Trichlorofluoromethane	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
1,2,3-Trichloropropane	ND	2.0	µg/L	1		10/15/2019 6:59:09 PM	
Vinyl chloride	ND	1.0	µg/L	1		10/15/2019 6:59:09 PM	
Xylenes, Total	ND	1.5	µg/L	1		10/15/2019 6:59:09 PM	
Surr: 1,2-Dichloroethane-d4	104	70-130	%Rec	1		10/15/2019 6:59:09 PM	
Surr: 4-Bromofluorobenzene	84.6	70-130	%Rec	1		10/15/2019 6:59:09 PM	
Surr: Dibromofluoromethane	106	70-130	%Rec	1		10/15/2019 6:59:09 PM	
Surr: Toluene-d8	103	70-130	%Rec	1		10/15/2019 6:59:09 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology  
**Project:** Atex 213  
**Lab ID:** 1910675-007

**Matrix:** AQUEOUS

**Client Sample ID:** MW-4R

**Collection Date:** 10/10/2019 9:42:00 AM  
**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Toluene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Ethylbenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Naphthalene	ND	2.0	µg/L	1		10/15/2019 7:27:59 PM	
1-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 7:27:59 PM	
2-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 7:27:59 PM	
Acetone	ND	10	µg/L	1		10/15/2019 7:27:59 PM	
Bromobenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Bromodichloromethane	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Bromoform	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Bromomethane	ND	3.0	µg/L	1		10/15/2019 7:27:59 PM	
2-Butanone	ND	10	µg/L	1		10/15/2019 7:27:59 PM	
Carbon disulfide	ND	10	µg/L	1		10/15/2019 7:27:59 PM	
Carbon Tetrachloride	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Chlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Chloroethane	ND	2.0	µg/L	1		10/15/2019 7:27:59 PM	
Chloroform	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Chloromethane	ND	3.0	µg/L	1		10/15/2019 7:27:59 PM	
2-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
4-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
cis-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1		10/15/2019 7:27:59 PM	
Dibromochloromethane	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Dibromomethane	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Dichlorodifluoromethane	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,1-Dichloroethane	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,1-Dichloroethene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,2-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,3-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
2,2-Dichloropropane	ND	2.0	µg/L	1		10/15/2019 7:27:59 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology  
**Project:** Atex 213  
**Lab ID:** 1910675-007

**Matrix:** AQUEOUS

**Client Sample ID:** MW-4R

**Collection Date:** 10/10/2019 9:42:00 AM  
**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Hexachlorobutadiene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
2-Hexanone	ND	10	µg/L	1		10/15/2019 7:27:59 PM	
Isopropylbenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
4-Isopropyltoluene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
4-Methyl-2-pentanone	ND	10	µg/L	1		10/15/2019 7:27:59 PM	
Methylene Chloride	ND	3.0	µg/L	1		10/15/2019 7:27:59 PM	
n-Butylbenzene	ND	3.0	µg/L	1		10/15/2019 7:27:59 PM	
n-Propylbenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
sec-Butylbenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Styrene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
tert-Butylbenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1		10/15/2019 7:27:59 PM	
Tetrachloroethene (PCE)	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
trans-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
trans-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,1,1-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,1,2-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Trichloroethene (TCE)	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Trichlorofluoromethane	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
1,2,3-Trichloropropane	ND	2.0	µg/L	1		10/15/2019 7:27:59 PM	
Vinyl chloride	ND	1.0	µg/L	1		10/15/2019 7:27:59 PM	
Xylenes, Total	ND	1.5	µg/L	1		10/15/2019 7:27:59 PM	
Surr: 1,2-Dichloroethane-d4	97.7	70-130	%Rec	1		10/15/2019 7:27:59 PM	
Surr: 4-Bromofluorobenzene	86.7	70-130	%Rec	1		10/15/2019 7:27:59 PM	
Surr: Dibromofluoromethane	99.1	70-130	%Rec	1		10/15/2019 7:27:59 PM	
Surr: Toluene-d8	104	70-130	%Rec	1		10/15/2019 7:27:59 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-008

**Matrix:** AQUEOUS

**Client Sample ID:** MW-6RR\*

**Collection Date:** 10/10/2019 12:12:00 PM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Toluene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Ethylbenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Naphthalene	ND	2.0	µg/L	1		10/15/2019 7:56:45 PM	
1-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 7:56:45 PM	
2-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 7:56:45 PM	
Acetone	ND	10	µg/L	1		10/15/2019 7:56:45 PM	
Bromobenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Bromodichloromethane	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Bromoform	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Bromomethane	ND	3.0	µg/L	1		10/15/2019 7:56:45 PM	
2-Butanone	ND	10	µg/L	1		10/15/2019 7:56:45 PM	
Carbon disulfide	ND	10	µg/L	1		10/15/2019 7:56:45 PM	
Carbon Tetrachloride	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Chlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Chloroethane	ND	2.0	µg/L	1		10/15/2019 7:56:45 PM	
Chloroform	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Chloromethane	ND	3.0	µg/L	1		10/15/2019 7:56:45 PM	
2-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
4-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
cis-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1		10/15/2019 7:56:45 PM	
Dibromochloromethane	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Dibromomethane	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Dichlorodifluoromethane	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,1-Dichloroethane	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,1-Dichloroethene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,2-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,3-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
2,2-Dichloropropane	ND	2.0	µg/L	1		10/15/2019 7:56:45 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-008

**Matrix:** AQUEOUS

**Client Sample ID:** MW-6RR\*

**Collection Date:** 10/10/2019 12:12:00 PM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Hexachlorobutadiene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
2-Hexanone	ND	10	µg/L	1		10/15/2019 7:56:45 PM	
Isopropylbenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
4-Isopropyltoluene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
4-Methyl-2-pentanone	ND	10	µg/L	1		10/15/2019 7:56:45 PM	
Methylene Chloride	ND	3.0	µg/L	1		10/15/2019 7:56:45 PM	
n-Butylbenzene	ND	3.0	µg/L	1		10/15/2019 7:56:45 PM	
n-Propylbenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
sec-Butylbenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Styrene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
tert-Butylbenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1		10/15/2019 7:56:45 PM	
Tetrachloroethene (PCE)	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
trans-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
trans-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,1,1-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,1,2-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Trichloroethene (TCE)	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Trichlorofluoromethane	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
1,2,3-Trichloropropane	ND	2.0	µg/L	1		10/15/2019 7:56:45 PM	
Vinyl chloride	ND	1.0	µg/L	1		10/15/2019 7:56:45 PM	
Xylenes, Total	ND	1.5	µg/L	1		10/15/2019 7:56:45 PM	
Surr: 1,2-Dichloroethane-d4	103	70-130	%Rec	1		10/15/2019 7:56:45 PM	
Surr: 4-Bromofluorobenzene	86.5	70-130	%Rec	1		10/15/2019 7:56:45 PM	
Surr: Dibromofluoromethane	101	70-130	%Rec	1		10/15/2019 7:56:45 PM	
Surr: Toluene-d8	103	70-130	%Rec	1		10/15/2019 7:56:45 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-009

**Matrix:** AQUEOUS

**Client Sample ID:** MW-38

**Collection Date:** 10/10/2019 8:52:00 AM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Toluene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Ethylbenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Naphthalene	ND	2.0	µg/L	1		10/15/2019 8:26:10 PM	
1-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 8:26:10 PM	
2-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 8:26:10 PM	
Acetone	ND	10	µg/L	1		10/15/2019 8:26:10 PM	
Bromobenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Bromodichloromethane	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Bromoform	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Bromomethane	ND	3.0	µg/L	1		10/15/2019 8:26:10 PM	
2-Butanone	ND	10	µg/L	1		10/15/2019 8:26:10 PM	
Carbon disulfide	ND	10	µg/L	1		10/15/2019 8:26:10 PM	
Carbon Tetrachloride	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Chlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Chloroethane	ND	2.0	µg/L	1		10/15/2019 8:26:10 PM	
Chloroform	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Chloromethane	ND	3.0	µg/L	1		10/15/2019 8:26:10 PM	
2-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
4-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
cis-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1		10/15/2019 8:26:10 PM	
Dibromochloromethane	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Dibromomethane	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Dichlorodifluoromethane	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,1-Dichloroethane	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,1-Dichloroethene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,2-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,3-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
2,2-Dichloropropane	ND	2.0	µg/L	1		10/15/2019 8:26:10 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology  
**Project:** Atex 213  
**Lab ID:** 1910675-009

**Matrix:** AQUEOUS

**Client Sample ID:** MW-38

**Collection Date:** 10/10/2019 8:52:00 AM  
**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Hexachlorobutadiene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
2-Hexanone	ND	10	µg/L	1		10/15/2019 8:26:10 PM	
Isopropylbenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
4-Isopropyltoluene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
4-Methyl-2-pentanone	ND	10	µg/L	1		10/15/2019 8:26:10 PM	
Methylene Chloride	ND	3.0	µg/L	1		10/15/2019 8:26:10 PM	
n-Butylbenzene	ND	3.0	µg/L	1		10/15/2019 8:26:10 PM	
n-Propylbenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
sec-Butylbenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Styrene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
tert-Butylbenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1		10/15/2019 8:26:10 PM	
Tetrachloroethene (PCE)	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
trans-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
trans-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,1,1-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,1,2-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Trichloroethene (TCE)	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Trichlorofluoromethane	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
1,2,3-Trichloropropane	ND	2.0	µg/L	1		10/15/2019 8:26:10 PM	
Vinyl chloride	ND	1.0	µg/L	1		10/15/2019 8:26:10 PM	
Xylenes, Total	ND	1.5	µg/L	1		10/15/2019 8:26:10 PM	
Surr: 1,2-Dichloroethane-d4	106	70-130	%Rec	1		10/15/2019 8:26:10 PM	
Surr: 4-Bromofluorobenzene	87.8	70-130	%Rec	1		10/15/2019 8:26:10 PM	
Surr: Dibromofluoromethane	105	70-130	%Rec	1		10/15/2019 8:26:10 PM	
Surr: Toluene-d8	101	70-130	%Rec	1		10/15/2019 8:26:10 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-010

**Matrix:** AQUEOUS

**Client Sample ID:** MW-1R

**Collection Date:** 10/10/2019 3:33:00 PM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Toluene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Ethylbenzene	1.5	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Naphthalene	13	2.0	µg/L	1		10/15/2019 8:54:56 PM	
1-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 8:54:56 PM	
2-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 8:54:56 PM	
Acetone	ND	10	µg/L	1		10/15/2019 8:54:56 PM	
Bromobenzene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Bromodichloromethane	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Bromoform	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Bromomethane	ND	3.0	µg/L	1		10/15/2019 8:54:56 PM	
2-Butanone	ND	10	µg/L	1		10/15/2019 8:54:56 PM	
Carbon disulfide	ND	10	µg/L	1		10/15/2019 8:54:56 PM	
Carbon Tetrachloride	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Chlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Chloroethane	ND	2.0	µg/L	1		10/15/2019 8:54:56 PM	
Chloroform	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Chloromethane	ND	3.0	µg/L	1		10/15/2019 8:54:56 PM	
2-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
4-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
cis-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1		10/15/2019 8:54:56 PM	
Dibromochloromethane	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Dibromomethane	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Dichlorodifluoromethane	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,1-Dichloroethane	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,1-Dichloroethene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,2-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,3-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
2,2-Dichloropropane	ND	2.0	µg/L	1		10/15/2019 8:54:56 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology

**Project:** Atex 213

**Lab ID:** 1910675-010

**Matrix:** AQUEOUS

**Client Sample ID:** MW-1R

**Collection Date:** 10/10/2019 3:33:00 PM

**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Hexachlorobutadiene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
2-Hexanone	ND	10	µg/L	1		10/15/2019 8:54:56 PM	
Isopropylbenzene	7.0	1.0	µg/L	1		10/15/2019 8:54:56 PM	
4-Isopropyltoluene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
4-Methyl-2-pentanone	ND	10	µg/L	1		10/15/2019 8:54:56 PM	
Methylene Chloride	ND	3.0	µg/L	1		10/15/2019 8:54:56 PM	
n-Butylbenzene	ND	3.0	µg/L	1		10/15/2019 8:54:56 PM	
n-Propylbenzene	19	1.0	µg/L	1		10/15/2019 8:54:56 PM	
sec-Butylbenzene	1.9	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Styrene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
tert-Butylbenzene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,1,2,2-Tetrachloroethane	ND	2.0	µg/L	1		10/15/2019 8:54:56 PM	
Tetrachloroethene (PCE)	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
trans-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
trans-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,2,3-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,1,1-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,1,2-Trichloroethane	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Trichloroethene (TCE)	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Trichlorofluoromethane	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
1,2,3-Trichloropropane	ND	2.0	µg/L	1		10/15/2019 8:54:56 PM	
Vinyl chloride	ND	1.0	µg/L	1		10/15/2019 8:54:56 PM	
Xylenes, Total	ND	1.5	µg/L	1		10/15/2019 8:54:56 PM	
Surr: 1,2-Dichloroethane-d4	95.9	70-130	%Rec	1		10/15/2019 8:54:56 PM	
Surr: 4-Bromofluorobenzene	91.2	70-130	%Rec	1		10/15/2019 8:54:56 PM	
Surr: Dibromofluoromethane	95.4	70-130	%Rec	1		10/15/2019 8:54:56 PM	
Surr: Toluene-d8	101	70-130	%Rec	1		10/15/2019 8:54:56 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology  
**Project:** Atex 213  
**Lab ID:** 1910675-011

**Matrix:** AQUEOUS

**Client Sample ID:** Trip Blank  
**Collection Date:**  
**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Toluene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Ethylbenzene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Naphthalene	ND	2.0	µg/L	1		10/15/2019 9:24:05 PM	
1-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 9:24:05 PM	
2-Methylnaphthalene	ND	4.0	µg/L	1		10/15/2019 9:24:05 PM	
Acetone	ND	10	µg/L	1		10/15/2019 9:24:05 PM	
Bromobenzene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Bromodichloromethane	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Bromoform	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Bromomethane	ND	3.0	µg/L	1		10/15/2019 9:24:05 PM	
2-Butanone	ND	10	µg/L	1		10/15/2019 9:24:05 PM	
Carbon disulfide	ND	10	µg/L	1		10/15/2019 9:24:05 PM	
Carbon Tetrachloride	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Chlorobenzene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Chloroethane	ND	2.0	µg/L	1		10/15/2019 9:24:05 PM	
Chloroform	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Chloromethane	ND	3.0	µg/L	1		10/15/2019 9:24:05 PM	
2-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
4-Chlorotoluene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
cis-1,2-DCE	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1		10/15/2019 9:24:05 PM	
Dibromochloromethane	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Dibromomethane	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
Dichlorodifluoromethane	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,1-Dichloroethane	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,1-Dichloroethene	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,2-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
1,3-Dichloropropane	ND	1.0	µg/L	1		10/15/2019 9:24:05 PM	
2,2-Dichloropropane	ND	2.0	µg/L	1		10/15/2019 9:24:05 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1910675

Date Reported: 10/16/2019

**CLIENT:** EA Engineering, Science and Technology  
**Project:** Atex 213  
**Lab ID:** 1910675-011

**Matrix:** AQUEOUS

**Client Sample ID:** Trip Blank  
**Collection Date:**  
**Received Date:** 10/11/2019 8:13:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Analyst: DJF
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
Hexachlorobutadiene	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
2-Hexanone	ND	10		µg/L	1	10/15/2019 9:24:05 PM	
Isopropylbenzene	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
4-Isopropyltoluene	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
4-Methyl-2-pentanone	ND	10		µg/L	1	10/15/2019 9:24:05 PM	
Methylene Chloride	ND	3.0		µg/L	1	10/15/2019 9:24:05 PM	
n-Butylbenzene	ND	3.0		µg/L	1	10/15/2019 9:24:05 PM	
n-Propylbenzene	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
sec-Butylbenzene	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
Styrene	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
tert-Butylbenzene	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/15/2019 9:24:05 PM	
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
trans-1,2-DCE	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
Trichlorofluoromethane	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/15/2019 9:24:05 PM	
Vinyl chloride	ND	1.0		µg/L	1	10/15/2019 9:24:05 PM	
Xylenes, Total	ND	1.5		µg/L	1	10/15/2019 9:24:05 PM	
Surr: 1,2-Dichloroethane-d4	106	70-130	%Rec		1	10/15/2019 9:24:05 PM	
Surr: 4-Bromofluorobenzene	87.6	70-130	%Rec		1	10/15/2019 9:24:05 PM	
Surr: Dibromofluoromethane	107	70-130	%Rec		1	10/15/2019 9:24:05 PM	
Surr: Toluene-d8	101	70-130	%Rec		1	10/15/2019 9:24:05 PM	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910675

16-Oct-19

**Client:** EA Engineering, Science and Technology  
**Project:** Atex 213

Sample ID: rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: W63641	RunNo: 63641								
Prep Date:	Analysis Date: 10/14/2019	SeqNo: 2175847 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910675

16-Oct-19

Client: EA Engineering, Science and Technology

Project: Atex 213

Sample ID: <b>rb</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>PBW</b>	Batch ID: <b>W63641</b>	RunNo: <b>63641</b>								
Prep Date:	Analysis Date: <b>10/14/2019</b>	SeqNo: <b>2175847</b> Units: <b>µg/L</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.5	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130			
Surr: Dibromofluoromethane	9.4		10.00		93.5	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>W63641</b>	RunNo: <b>63641</b>								
Prep Date:	Analysis Date: <b>10/14/2019</b>	SeqNo: <b>2175848</b> Units: <b>µg/L</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.4	70	130			
Toluene	19	1.0	20.00	0	94.7	70	130			
Chlorobenzene	19	1.0	20.00	0	94.5	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910675

16-Oct-19

Client: EA Engineering, Science and Technology

Project: Atex 213

Sample ID: 100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW		Batch ID: W63641		RunNo: 63641						
Prep Date:		Analysis Date: 10/14/2019		SeqNo: 2175848		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	15	1.0	20.00	0	75.9	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	81.6	70	130			
Surr: 1,2-Dichloroethane-d4	8.6		10.00		86.3	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.7	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.0	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID: RB		SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW		Batch ID: R63710		RunNo: 63710						
Prep Date:		Analysis Date: 10/15/2019		SeqNo: 2177199		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910675

16-Oct-19

**Client:** EA Engineering, Science and Technology  
**Project:** Atex 213

Sample ID: RB	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R63710	RunNo: 63710								
Prep Date:	Analysis Date: 10/15/2019	SeqNo: 2177199 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11	10.00			105	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910675

16-Oct-19

Client: EA Engineering, Science and Technology

Project: Atex 213

Sample ID: <b>RB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R63710</b>	RunNo: <b>63710</b>								
Prep Date:	Analysis Date: <b>10/15/2019</b>	SeqNo: <b>2177199</b> Units: <b>µg/L</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	8.9		10.00		89.2	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R63710</b>	RunNo: <b>63710</b>								
Prep Date:	Analysis Date: <b>10/15/2019</b>	SeqNo: <b>2177200</b> Units: <b>µg/L</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	19	1.0	20.00	0	93.0	70	130			
Chlorobenzene	18	1.0	20.00	0	89.0	70	130			
1,1-Dichloroethene	16	1.0	20.00	0	79.4	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	82.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.1	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		90.0	70	130			
Surr: Dibromofluoromethane	9.4		10.00		93.8	70	130			
Surr: Toluene-d8	9.9		10.00		99.0	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: EA Engineering Aib

Work Order Number: 1910675

RcptNo: 1

Received By: Anne Thorne 10/11/2019 8:13:00 AM

*Anne Thorne*

Completed By: Anne Thorne 10/11/2019 9:32:35 AM

*Anne Thorne*

Reviewed By: *Don Kofos L* 10/11/2019  
*Don*

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
2. How was the sample delivered? Client

### Log In

3. Was an attempt made to cool the samples? Yes  No  NA   
4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
5. Sample(s) in proper container(s)? Yes  No   
6. Sufficient sample volume for indicated test(s)? Yes  No   
7. Are samples (except VOA and ONG) properly preserved? Yes  No   
8. Was preservative added to bottles? Yes  No  NA   
9. VOA vials have zero headspace? Yes  No  No VOA Vials   
10. Were any sample containers received broken? Yes  No   
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No   
12. Are matrices correctly identified on Chain of Custody? Yes  No   
13. Is it clear what analyses were requested? Yes  No   
14. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes  No

# of preserved bottles checked for pH:  
<2 or >12 unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: DAD 10/11/19

### Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	Date
By Whom:	Via: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	
Client Instructions:	

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good				

# Chain-of-Custody Record

Client: EA Engineering

Standard     Rush

Mailing Address: 320 Gold Ave. SW

ABQ

Phone #: 505-369-3149

email or Fax#: *Mmcvey@east.com*

QA/QC Package:

Standard     Level 4 (Full Validation)

Accreditation:

Az Compliance     Other

EDD (Type)

Project Manager:

*Michael McVey*

Sampler: *Nicole Peterson*

On Ice:  Yes     No

# of Coolers: *1*

Cooler Temp (including CF): *14°H2=16° (°C)*

Date Time Matrix Sample Name

Container Type and # Preservative Type

HEAL No *170615*

3 VOA *HgCl2* 201

3 VOA *HgCl2* 202

3 VOA *HgCl2* 203

3 VOA *HgCl2* 204

3 VOA *HgCl2* 205

3 VOA *HgCl2* 206

3 VOA *HgCl2* 207

3 VOA *HgCl2* 208

3 VOA *HgCl2* 209

3 VOA *HgCl2* 210

*\*Trip Blank*

Date: *10-11-19* Time: *0813* Received by: *Michael Peterson* Via: *J* Date: *10/11/19* Time: *0813* Remarks:

Date: *10-11-19* Time: *0813* Received by: *Michael Peterson* Via: *J* Date: *10/11/19* Time: *0813*

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

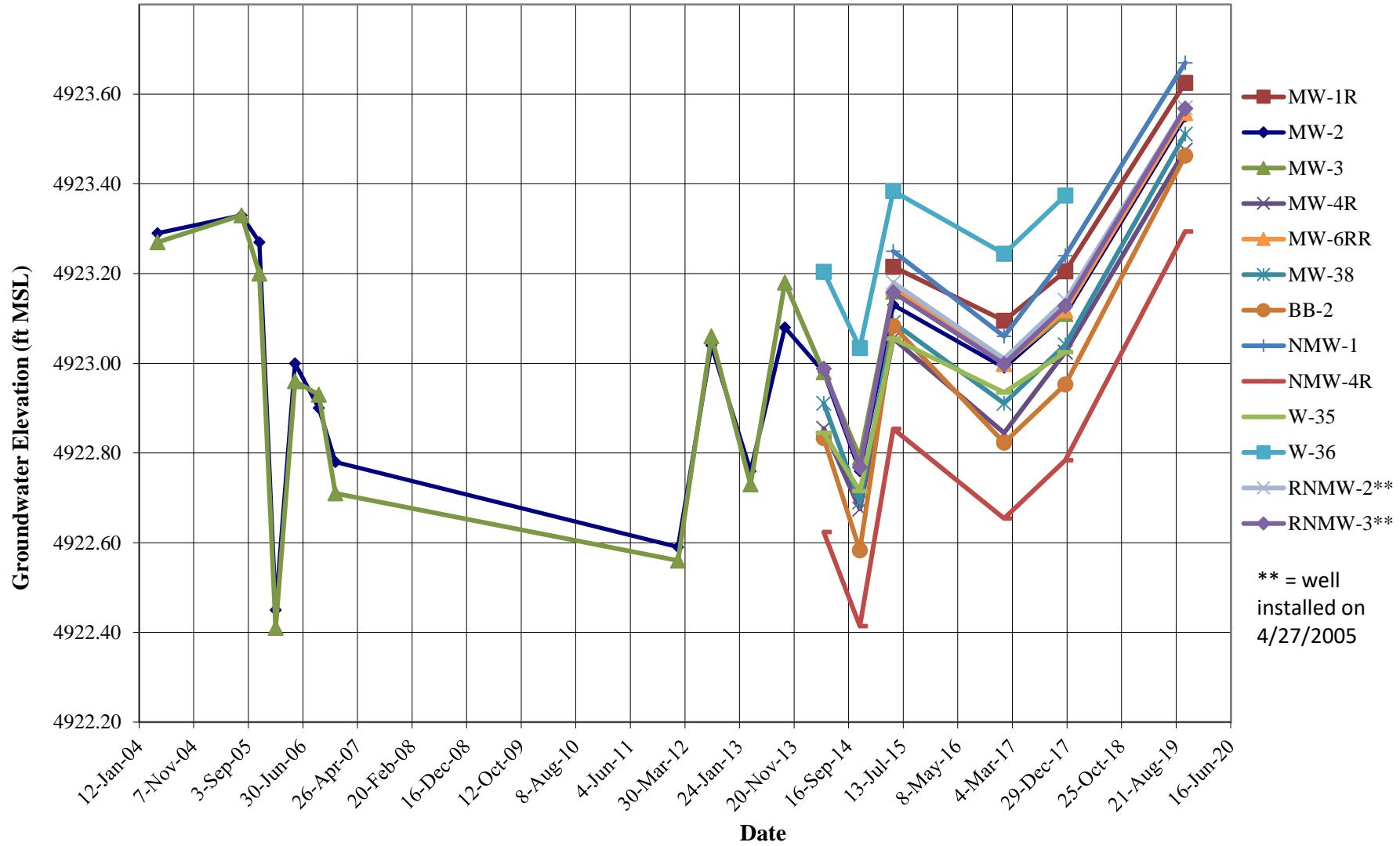
[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975    Fax 505-345-4107

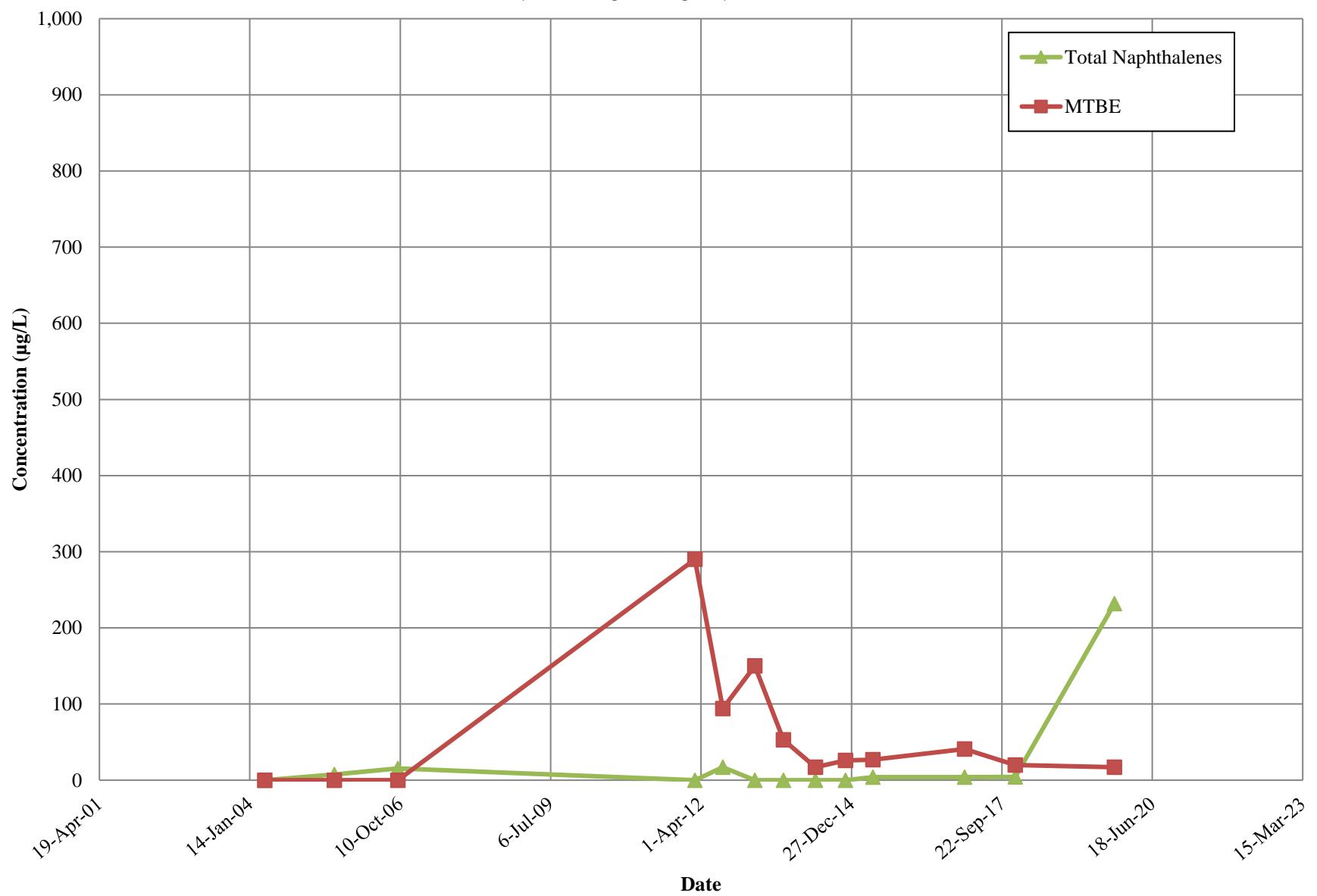
**APPENDIX C  
HYDROGRAPHS**

**HYDROGRAPH FOR SITE MONITORING WELLS**  
**ATEX 213, ALBUQUERQUE, NEW MEXICO**

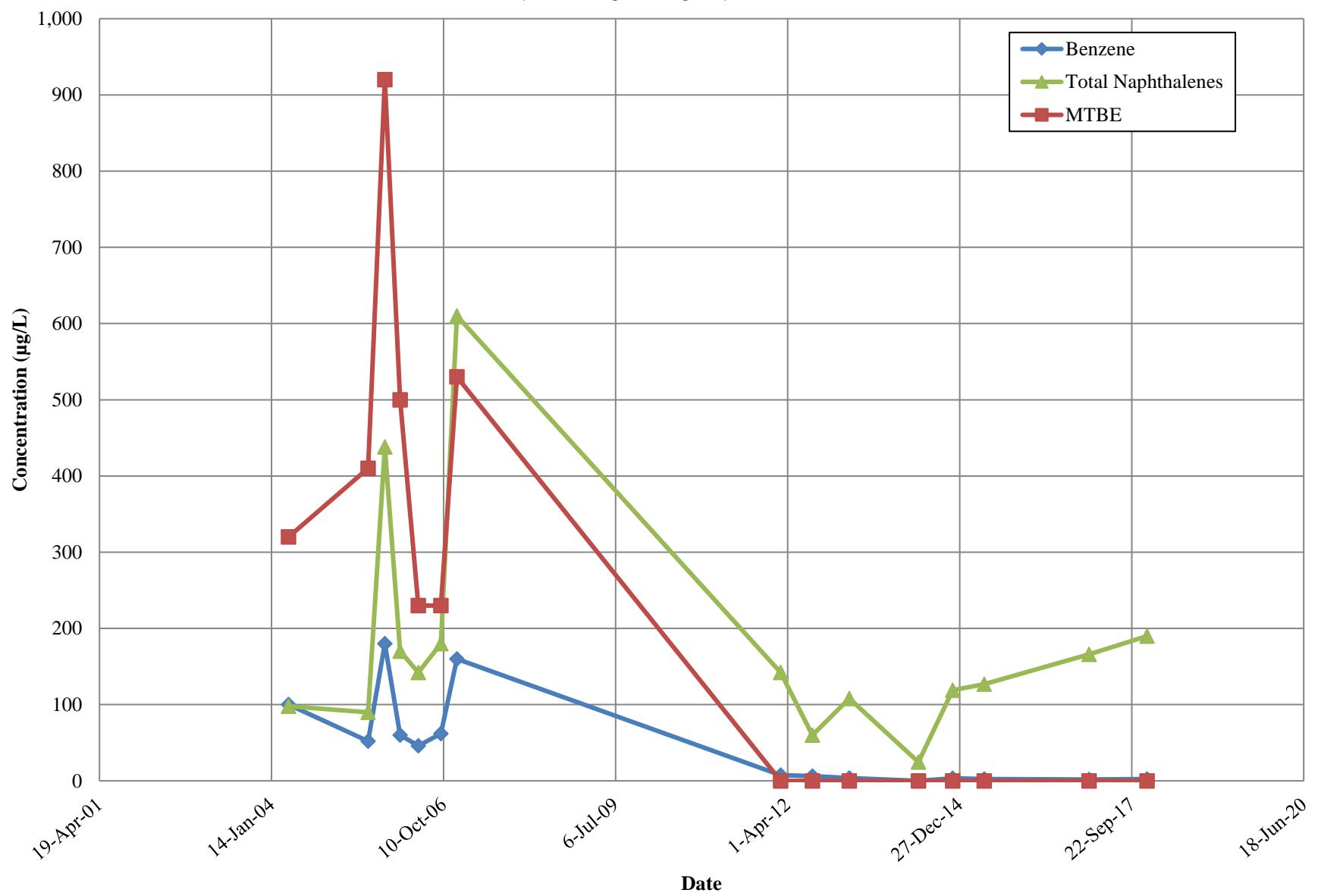


**APPENDIX D**  
**CONTAMINANT CONCENTRATION TRENDS**

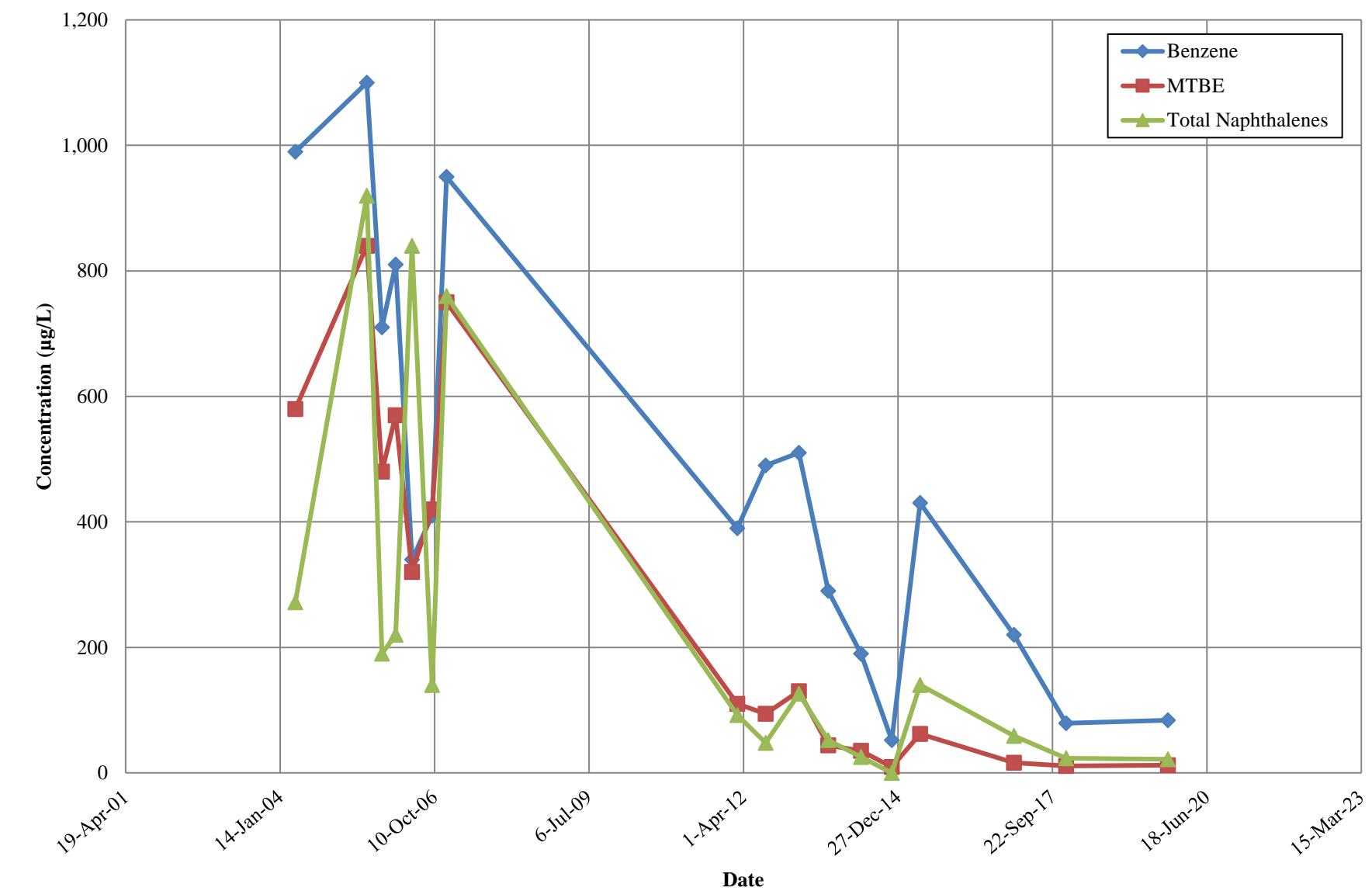
**CONCENTRATION TRENDS IN BB-2  
ATEX 213, ALBUQUERQUE, NEW MEXICO**



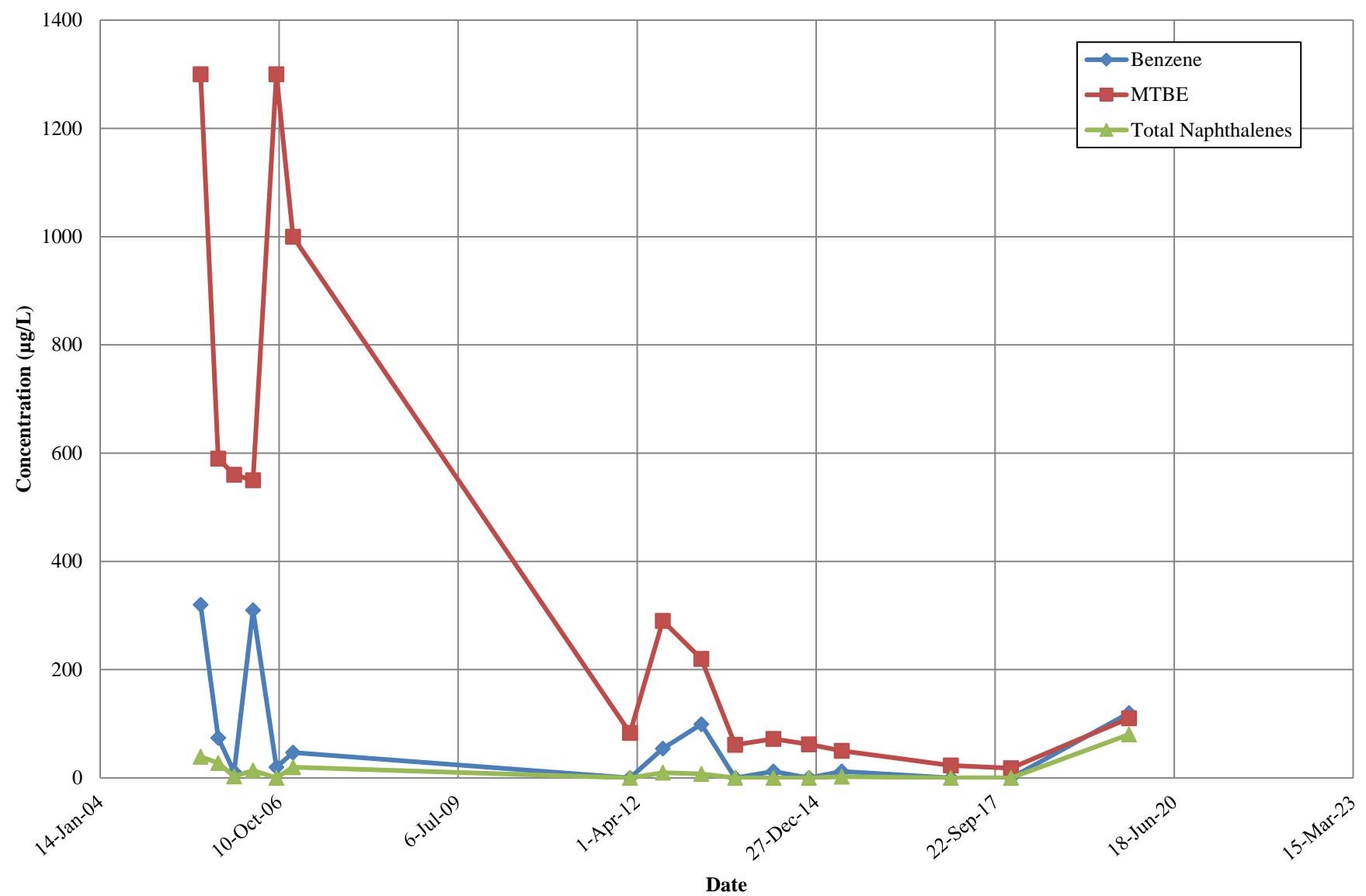
**CONCENTRATION TRENDS IN MW-3  
ATEX 213, ALBUQUERQUE, NEW MEXICO**



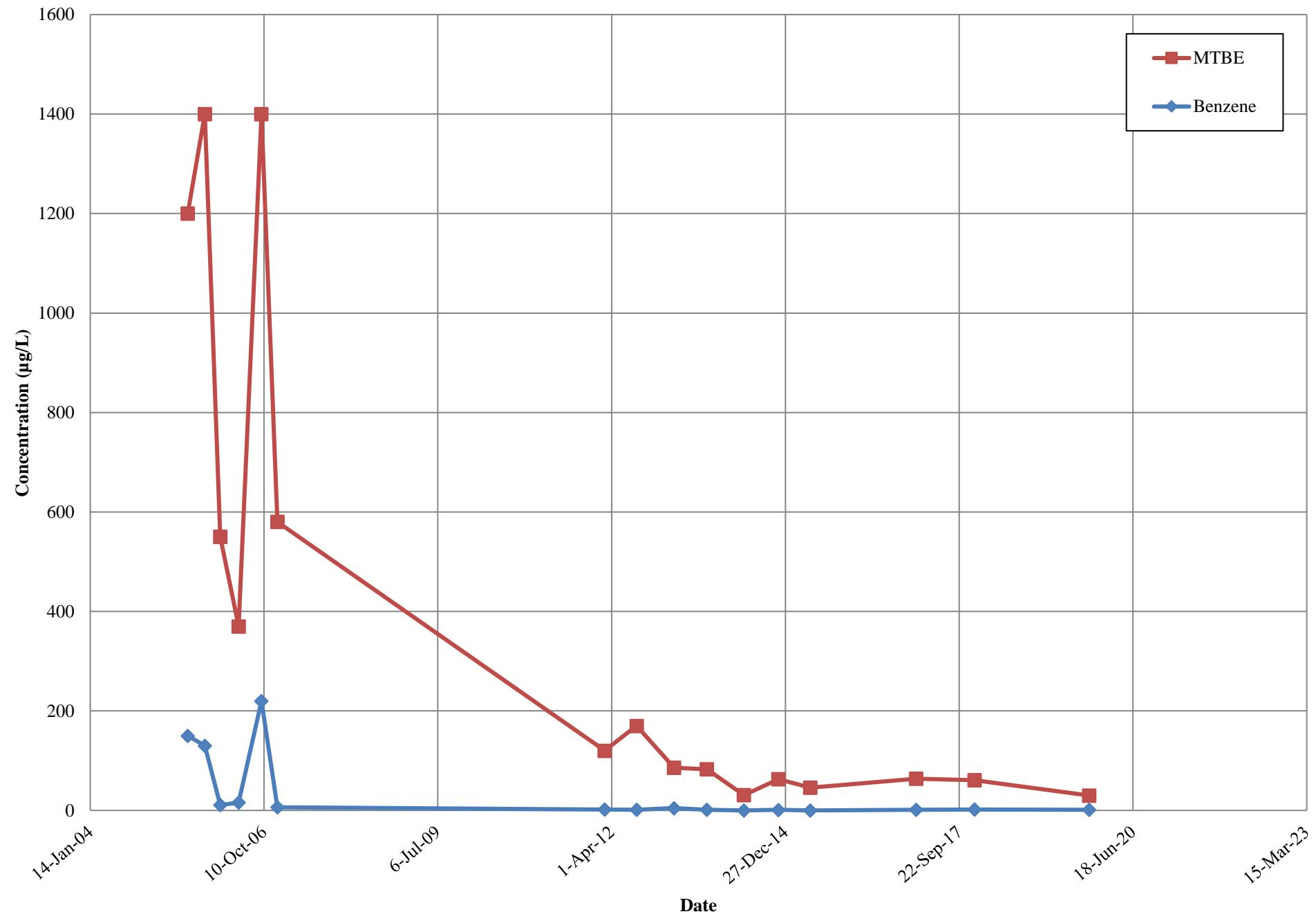
**CONCENTRATION TRENDS IN NMW-1  
ATEX 213, ALBUQUERQUE, NEW MEXICO**



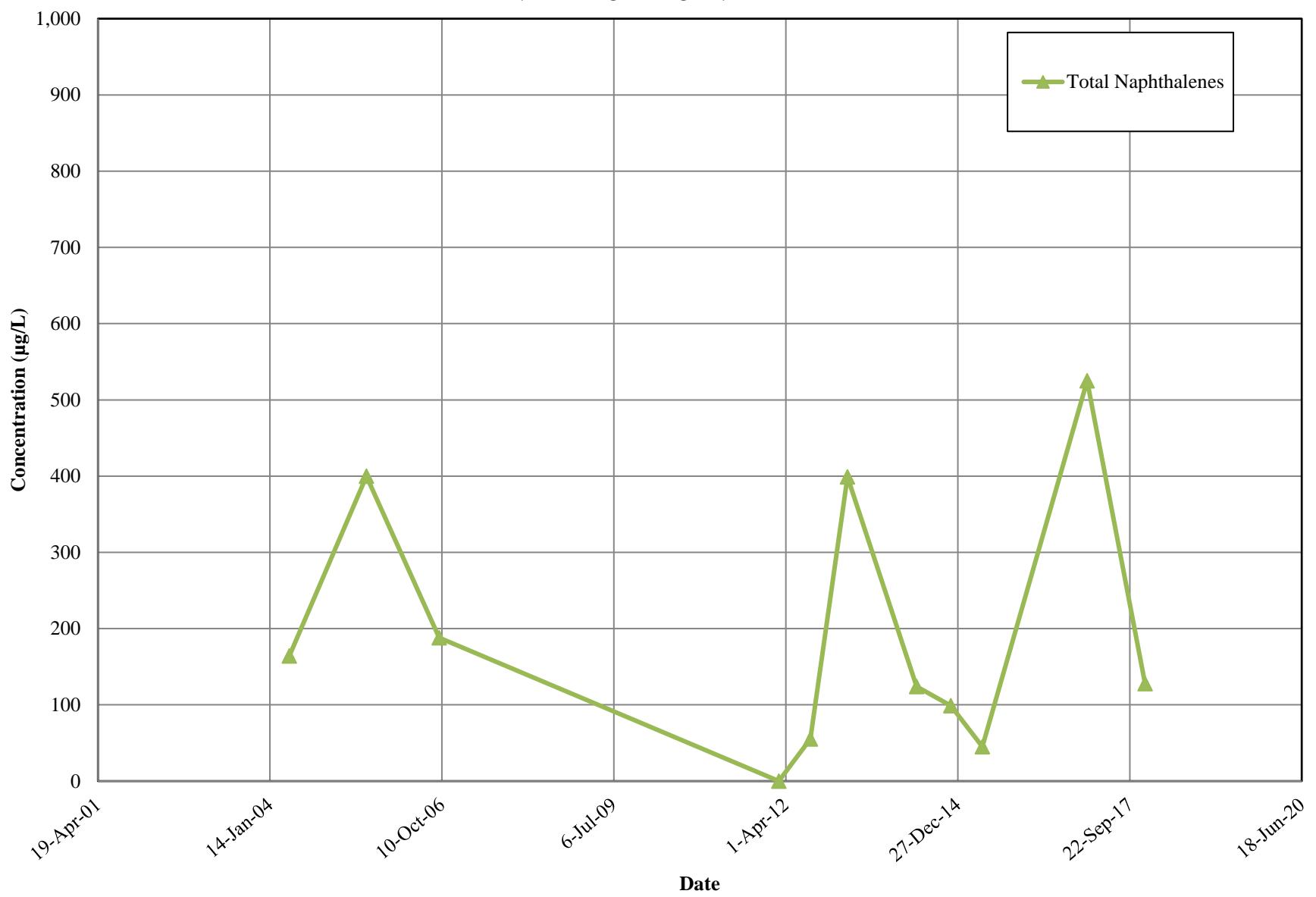
**CONCENTRATION TRENDS IN RNMW-2  
ATEX 213, ALBUQUERQUE, NEW MEXICO**



**CONCENTRATION TRENDS IN RNMW-3**  
**ATEX 213, ALBUQUERQUE, NEW MEXICO**



**CONCENTRATION TRENDS IN W-35  
ATEX 213, ALBUQUERQUE, NEW MEXICO**



**CONCENTRATION TRENDS IN W-36  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

