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Groundwater Sampling, NAPL Monitoring/Recovery and Groundwater Treatment Performance Report for the Second Quarter of 2016 (April - June 2016) for the Hempstead Intersection Street Former Manufactured Gas Plant Site

Villages of Hempstead & Garden City
Nassau County, New York

Prepared for:

National Grid
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Prepared by:

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AECOM

January 2017

GROUNDWATER SAMPLING, NAPL MONITORING/RECOVERY, AND GROUNDWATER TREATMENT PERFORMANCE REPORT FOR THE SECOND QUARTER OF 2016 (APRIL - JUNE)

HEMPSTEAD INTERSECTION STREET
FORMER MANUFACTURED GAS PLANT SITE
VILLAGES OF HEMPSTEAD AND GARDEN CITY
NASSAU COUNTY, NEW YORK 11550

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ACRONYMS AND ABBREVIATIONS

AECOM	AECOM USA, Inc.
amsl	above mean sea level
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, xylenes
DNAPL	dense non-aqueous phase liquid
DO	dissolved oxygen
DUSR	data usability summary report
ft	foot (feet)
ft/ft	feet per feet
HIMW	Hempstead Intersection (Street) Monitoring Well
ISS	In Situ Solidification
LNAPL	light non-aqueous phase liquid
MGP	manufactured gas plant
µg/L	micrograms per liter
MP	monitoring points
NAPL	non-aqueous phase liquid
NYSDEC	New York State Department of Environmental Conservation
ORP	oxidation-reduction potential
PAHs	polycyclic aromatic hydrocarbons
PID	photo ionization detector
POB	Professional Office Building
QC	quality control
USEPA	United States Environmental Protection Agency

EXECUTIVE SUMMARY

This report provides a summary of field activities, analytical results, and data interpretations associated with groundwater sampling, gauging, and recovery of non-aqueous phase liquid (NAPL), and with the groundwater treatment systems at the Hempstead Intersection Street Former Manufactured Gas Plant (MGP) site during the Second Quarter (April, May, and June) 2016.

Quarterly groundwater monitoring and sampling were conducted on June 13-20, 2016. This included measuring the depth to groundwater and NAPL thickness in 44 wells. Groundwater samples were collected from 29 wells and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs).

NAPL monitoring was conducted on May 9 and June 13, 2016 for a total of two events in the Second Quarter of 2016.

The following results were obtained from the groundwater sampling and NAPL monitoring events:

- The general direction of groundwater flow in the Second Quarter 2016 in the shallow, intermediate, and deep water-bearing zones was south at an average gradient of approximately 0.002 feet per feet (ft/ft) for shallow, intermediate, and deep water bearing zones.
- The extent of the dissolved-phase groundwater plume boundary and the data for the First Quarter 2016 are shown in Figure 4. The downgradient boundary of the plume, which is defined by total BTEX or PAH concentrations greater than 100 µg/L, extends approximately 380 feet south of the site boundary.
- Dense non-aqueous phase liquid (DNAPL) was detected in one existing site-related well during the Second Quarter. The well (HIMW-021), is located along the west side of Wendell Street, south of the Intersection Street site.
- NAPL monitoring was conducted twice during the quarter, and based on the low NAPL thickness observed the NAPL recovery was scheduled for the next quarter to allow NAPL to sufficiently accumulate in the well sump. A total of 841.1 gallons of NAPL have been

recovered to date from all of the Site related recovery wells between April 2007 and December 2015.

The first of two oxygen delivery systems (System No. 2) started operating in October 2010 and continued to promote aerobic conditions in the aquifer near the system during the Second Quarter of 2016. The second of two oxygen delivery systems (System No. 1) started operating in April 2011 and continued to promote aerobic conditions in the aquifer near the system during the Second Quarter of 2016.

Monthly headspace and water quality parameters were collected from the monitoring points for Systems No. 1 and No. 2 by Island Pump & Tank Corporation. During the Second Quarter of 2016, Island Pump & Tank monitored System No. 1 during three events and System No. 2 during three events. Both oxygen systems were down during portions of this quarter due to equipment malfunctions. Repairs on System No. 2 were completed this quarter, but repairs on System No. 1 were not completed until the following quarter.

1.0 INTRODUCTION

This quarterly report summarizes the field activities, analytical results, and data interpretations associated with groundwater sampling, gauging, and recovery of NAPL and the monitoring of the groundwater treatment systems during the Second Quarter of 2016 at the Hempstead Intersection Street Former MGP site (refer to Figures 1, 2, and 3).

Quarterly groundwater monitoring and bimonthly recovery of NAPL was initiated in April 2007. Separate reports are typically provided for the first three quarters of the year and the fourth quarter data typically gets reported as part of the Annual Report. Separate reports have been issued quarterly since 2007 as listed in the References section of this report.

AECOM USA, Inc. (AECOM) performed the following activities during the Second Quarter of 2016:

- Measured the depth to groundwater and NAPL thickness in 44 off-site wells on June 13, 2016, see Tables 1 and 2.
- Monitored NAPL from HIMW-021 on May 9 and June 13, 2016. No product was recovered during the Second Quarter 2016, see Table 3.
- Collected groundwater samples from 29 monitoring wells for laboratory analysis during the scheduled round of quarterly groundwater sampling, see Table 4.

Island Pump & Tank also performed water level measurements, well headspace monitoring with a photoionization detector (PID), and dissolved oxygen (DO) measurements with a DO meter (YSI 55A) on System No. 1 during three events and on System No. 2 during three events in the Second Quarter 2016. Monitoring is conducted monthly to assess the performance of groundwater treatment System No. 1 and System No. 2. This data is presented in Table 5.

2.0 FIELD ACTIVITIES

The field activities performed by AECOM during the Second Quarter of 2016 included the measurement of the depth to groundwater and NAPL thickness in 44 monitoring wells and the collection of groundwater samples from 29 monitoring wells. The sampled wells include the six wells installed in March 2014.

Monitoring wells and piezometers used for these activities are listed in Table 1. Second Quarter 2016 groundwater elevations and NAPL thickness values are presented in Table 2, NAPL recovery are reported in Table 3, and the results of groundwater sampling are presented in Table 4.

Island Pump & Tank performed measurements to monitor the performance of the groundwater treatment Systems No. 1 and No. 2 monthly during the Second Quarter of 2016. Island Pump & Tank collected water level measurements with an electronic oil/water interface probe, well headspace monitoring data with a PID, and DO measurements with a YSI 55A dissolved oxygen meter on System No. 1 on April 27, May 26, and June 28, 2016 and on System No. 2 on April 28, May 26, and June 28, 2016. This data is presented in Table 5.

2.1 Groundwater Depth and NAPL Thickness Measurements

An electronic oil/water interface probe was used to measure the depth to groundwater and check for the presence of light non-aqueous phase liquid (LNAPL). DNAPL thickness was measured using a weighted cotton string that absorbs oil. Depths to groundwater and NAPL thickness measurements are listed in Table 2. NAPL thicknesses and recovery amounts are listed in Table 3.

There were 44 monitoring wells gauged during the Second Quarter June 13, 2016 gauging event. One monitoring well (HIMW-12D) was not successfully gauged because of obstructions inside the well riser and two monitoring wells were not gauged because they were blocked by cars at the time of gauging on June 13, 2016.

2.2 NAPL Recovery

NAPL recovery occurred between 2007 and the Third Quarter of 2011 when the In Situ Solidification (ISS) remediation project began. Approximately 745 gallons of NAPL were recovered between April 2007 and July 2011 when NAPL recovery ended upon the start of ISS treatment. All, but one, of the recovery wells were destroyed to complete the ISS work. NAPL recovery is limited to this one well, HIMW-021, which is located to the south of the site adjacent to the sidewalk of the Professional Office Building (POB), outside the ISS area.

NAPL levels were monitored in well HIMW-021 during two gauging events: May 9 and June 13, 2016. During the event, the well was gauged with a weighted cotton string to measure the DNAPL thickness. NAPL recovery was scheduled for the next quarter to allow NAPL to sufficiently accumulate in the well sump. A total of 841.1 gallons of NAPL have been recovered to date from all of the Site related recovery wells between April 2007 and December 2015.

Table 3 presents Second Quarter 2016 NAPL thickness at HIMW-021 and the total NAPL recovery amounts from the site.

2.3 Groundwater Sampling

Low-flow groundwater sampling methods were used to sample groundwater, which included purging groundwater at a rate of between 100 and 500 milliliters per minute. The water was pumped through a flow-through cell and monitored for pH, conductivity, turbidity, DO, temperature, and oxidation-reduction potential (ORP). Purging was continued until stable conditions were achieved (defined as three consecutive stable readings [i.e. $\pm$ 10 percent] over a 15 minute period). Groundwater samples were collected afterwards and shipped under chain-of-custody procedures to Pace Analytical Laboratory for analysis of BTEX (United States Environmental Protection Agency [USEPA] Method 8260C) and PAHs (USEPA Method 8270D). Purge water was stored in an onsite storage tank for subsequent offsite disposal. The Data Usability Summary Report is presented in Appendix A.

There were 29 monitoring wells sampled during the Second Quarter June 13-20, 2016 groundwater sampling event. Two monitoring wells from the sampling and analysis plan (HIMW-012I and HIMW-012D) were not sampled during this quarterly event because of obstructions inside the wells

risers. Analytical results from the quarterly groundwater sampling event and the additional monitoring wells are presented in Table 4 and Figure 4.

2.4 Groundwater Treatment System Operation

Two oxygen delivery systems were installed to enhance the groundwater oxygen concentrations in the groundwater plume. "System No. 1" is located along Smith Street, a portion of the Long Island Railroad Right of Way, and a portion of Hilton Avenue and began operation in April 2011. "System No. 2" extends from Mirschel Park in the east to Kensington Court in the west and began operation in October 2010. Figure 3 shows the locations of the two systems.

The performance of System No. 1 and System No. 2 was monitored by Island Pump & Tank during the Second Quarter 2016 through the measurement of water levels, headspace gas, and water quality parameters in the groundwater monthly, see Table 5. Island Pump & Tank performed water level measurements with an electronic oil/water interface probe, well headspace monitoring with a PID, and DO measurements with a DO meter (YSI 55A). These measurements were collected during the Second Quarter and were taken during three events for System No. 1 on April 27, May 26, and June 28, 2016 and during three events for System No. 2 on April 28, May 26, and June 28, 2016. The full system data is included in Appendix B.

3.0 RESULTS

3.1 Dissolved-Phase Plume

The extent of the dissolved-phase groundwater plume boundary and the data for Second Quarter 2016 (and the historical concentration ranges) are shown in Figure 4. The downgradient boundary of the plume, which is defined by total BTEX or PAH concentrations greater than 100 µg/L, extends approximately 380 feet south of the site boundary.

3.2 Potentiometric Heads and NAPL Thickness

Potentiometric heads and NAPL thickness measurements for the Second Quarter 2016 are presented in Table 2. Potentiometric surface maps for shallow, intermediate, and deep groundwater zones were developed using this data and are shown in Figures 5, 6, and 7, respectively for the Second Quarter 2016. The data for Second Quarter 2016 indicates that the direction of groundwater flow within the well field was south at an average gradient of approximately 0.002 ft/ft for shallow, intermediate, and deep water bearing zones. These values are consistent with historical data.

DNAPL was observed in one well during the Second Quarter 2016 on May 9 and June 13, 2016 for a total of two events, see Table 3. The well (HIMW-021) is located along the west side of Wendell Street south of the Site and Intersection Street (Figure 8). All wells in the parking lot of the POB were decommissioned in late June 2013 during ISS work. Wells located within the property boundary of the site were previously decommissioned in Fourth Quarter 2011 with the start of the ISS remediation project.

3.3 Groundwater Analytical Results

Groundwater analytical results are summarized in Section 3.1, Table 4, and Appendix A and are illustrated on Figures 4 and 8.

A Data Usability Summary Report (DUSR) was prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B – Guidance for the Development of Data Usability Summary Reports*, May 2010. The review included completeness of all required deliverables; holding times; quality control (QC) results (blanks, instrument

tunes, calibration standards, matrix spike recoveries, duplicate analyses, and laboratory control sample recoveries) to determine if the data are within the protocol-required QC limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers. All sample analyses were found to be compliant with the method and validation criteria and the data is useable as reported, except where noted in the DUSR. An electronic copy of the DUSR is included as Appendix A.

3.4 NAPL Recovery Volumes

HIMW-021 is the one remaining product recovery well associated with the site. It is located south of the site in the sidewalk along the west side of Wendell Street. In the Second Quarter 2016, NAPL levels were monitored in well HIMW-021 during two gauging events: May 9 and June 13, 2016. During these events, the well was gauged with a weighted cotton string to measure the DNAPL thickness. NAPL recovery was scheduled for the next quarter to allow NAPL to sufficiently accumulate in the well sump. A total of 841.1 gallons of NAPL have been recovered to date from all of the Site related recovery wells between April 2007 and December 2015.

A total of approximately 841.1 gallons of NAPL have been recovered from all of the recovery wells for the period of April 2007 through December 2015. Table 3 lists the amount of DNAPL gauged in HIMW-021 during each event and the total amount of product recovered.

3.5 Groundwater Treatment System Performance

Groundwater treatment system performance data for Second Quarter 2016, as collected and reported by Island Pump & Tank, is presented in Table 5.

System No. 1

System No. 1 shut down the first month of the quarter due to an equipment breakdown, and was restored the following quarter after receiving the replacement parts.

System No. 1 DO readings reported in the Second Quarter 2016 ranged from a low of 0.05 mg/L at MP-1-4D on June 28, 2016 to a high of 30.42 mg/L at MP-1-7 on April 27, 2016. DO readings were collected from either the middle or bottom of the water column in each monitoring point. The average DO

reading for System No. 1 collected from the middle of the water column was 7.4 mg/L while the average DO readings collected from the bottom of the water column was 12.6 mg/L.

There was one PID headspace reading above 1 ppm for System No. 1 in the Second Quarter 2016 on June 28 at MP-1-4S (1.2 ppm). All other PID readings were at or below 0.5 ppm during the Second Quarter 2016.

Based on the data collected during the Second Quarter of 2016, decreases in oxygen concentrations became apparent due to the system shutdown, including observation of three monitoring points with dissolved oxygen concentrations of 2 mg/L or below in April 2016.

System No. 2

System No. 2 was down for most of the Second Quarter due to an equipment malfunction in February. Repairs were completed in June and the system restarted.

System No. 2 DO readings reported in the Second Quarter 2016 ranged from 0.25 mg/L at MP-2-2 on April 28, 2016 to 27.12 mg/L at MP-2-3D on April 28, 2016. DO readings for this quarter were collected from the bottom of the water column at the monitoring points. The average DO reading was 7.7 mg/L.

There were PID headspace readings above 1 ppm for System No. 2 in the Second Quarter 2016 on June 28 only at monitoring points MP-2-1, MP-2-3D, MP-2-4, and MP-2-5. The highest PID reading at System No. 2 was 2.2 ppm collected at MP-2-5.

Based on the data collected during the Second Quarter of 2016, decreases in oxygen concentrations became apparent due to the system shutdown, including observation of three monitoring points with dissolved oxygen concentrations of 2 mg/L or below in April 2016. However, upon restart of the system in June, dissolved oxygen concentrations again increased to create an aerobic environment in the aquifer.

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TABLES

Table 1

Summary of Field Activities: Water Level Measurements, NAPL Thickness Measurements, NAPL Recovery, and Water Quality Sampling
Second Quarter 2016 [(1), (2)]
Hempstead Intersection Street Former MGP Site

Well ID	Second Quarter (June 13, 2016)			NAPL Monitoring and DNAPL Recovery Events	
	Water Level	NAPL Thickness	Water Quality	May 9, 2015	June 13, 2016
HIMW-003S	X		X		
HIMW-003I	X		X		
HIMW-003D	X		X		
HIMW-004S	X				
HIMW-004I	X				
HIMW-004D	X				
HIMW-005S	X		X		
HIMW-005I	X		X		
HIMW-005D	X		X		
HIMW-008S	X		X		
HIMW-008I	X		X		
HIMW-008D	X		X		
HIMW-009S	X				
HIMW-009I	X				
HIMW-009D					
HIMW-010S	X				
HIMW-010I	X				
HIMW-011S	X				
HIMW-011I	X				
HIMW-011D	X				
HIMW-012S	X		X		
HIMW-012I	X				
HIMW-012D					
HIMW-013S	X		X		
HIMW-013I	X		X		
HIMW-013D	X		X		
HIMW-014I	X		X		
HIMW-014D	X		X		
HIMW-015I	X		X		
HIMW-015D	X		X		
HIMW-020S	X		X		
HIMW-020I	X		X		
HIMW-021	X	X		X	X
HIMW-022	X		X		
HIMW-023	X		X		
HIMW-024	X		X		
HIMW-025	X		X		
HIMW-026I	X		X		
HIMW-026D	X		X		
HIMW-027S	X		X		
HIMW-027I	X		X		
HIMW-028S	X		X		
HIMW-028I	X		X		
PZ-02	X				
PZ-03	X				
OSMW-02	X				
OSMW-03					

Notes:

1 Field marked with "X" indicates that the activity was performed.

2 Blank field indicates that the activity was not performed.

Table 2
Groundwater and NAPL Measurements
Second Quarter 2016
Hempstead Intersection Street Former MGP Site

Well ID	Date	Elevation of TOR	Depth to LNAPL	Depth to Water	Depth to DNAPL	Well Depth	Thickness of LNAPL	Thickness of DNAPL	Corrected Potentiometric Head (1)
		[ft bgs]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft amsl]
HIMW-003S	6/13/2016	65.00	ND	20.47	ND	34.42	0	0.00	44.53
HIMW-003I	6/13/2016	64.94	ND	27.72	ND	85.12	0	0.00	37.22
HIMW-003D	6/13/2016	65.26	ND	21.42	ND	142.13	0	0.00	43.84
HIMW-004S	6/13/2016	72.74	ND	28.83	ND	41.63	0	0.00	43.91
HIMW-004I	6/13/2016	72.78	ND	28.95	ND	90.46	0	0.00	43.83
HIMW-004D	6/13/2016	72.65	ND	29.53	ND	177.01	0	0.00	43.12
HIMW-005S	6/13/2016	67.19	ND	23.15	ND	38.95	0	0.00	44.04
HIMW-005I	6/13/2016	67.22	ND	23.32	ND	90.61	0	0.00	43.90
HIMW-005D	6/13/2016	67.22	ND	23.98	ND	136.08	0	0.00	43.24
HIMW-008S	6/13/2016	65.04	ND	21.32	ND	36.91	0	0.00	43.72
HIMW-008I	6/13/2016	65.14	ND	21.49	ND	74.68	0	0.00	43.65
HIMW-008D	6/13/2016	64.93	ND	21.31	ND	114.48	0	0.00	43.62
HIMW-009S	6/13/2016	70.03	ND	25.86	ND	39.68	0	0.00	44.17
HIMW-009I	6/13/2016	69.93	ND	25.79	ND	80.44	0	0.00	44.14
HIMW-009D	6/13/2016	69.96	NM	NM	NM	NM	NM	NM	NM
HIMW-010S	6/13/2016	71.60	ND	26.51	ND	39.23	0	0.00	45.09
HIMW-010I	6/13/2016	71.47	ND	26.32	ND	89.63	0	0.00	45.15
HIMW-011S	6/13/2016	71.62	ND	26.93	ND	40.25	0	0.00	44.69
HIMW-011I	6/13/2016	71.43	ND	26.82	ND	93.24	0	0.00	44.61
HIMW-011D	6/13/2016	71.39	ND	26.78	ND	122.48	0	0.00	44.61
HIMW-012S	6/13/2016	61.58	ND	19.02	ND	33.16	0	0.00	42.56
HIMW-012I	6/13/2016	61.59	ND	18.91	ND	21.98	0	0.00	42.68
HIMW-012D	6/13/2016	61.82	NM	NM	NM	NM	NM	NM	NM
HIMW-013S	6/13/2016	72.83	ND	32.14	ND	48.65	0	0.00	40.69
HIMW-013I	6/13/2016	72.60	ND	31.92	ND	81.47	0	0.00	40.68
HIMW-013D	6/13/2016	72.53	ND	31.91	ND	121.96	0	0.00	40.62
HIMW-014I	6/13/2016	71.71	ND	31.03	ND	95.62	0	0.00	40.68
HIMW-014D	6/13/2016	71.59	ND	33.29	ND	151.75	0	0.00	38.30
HIMW-015I	6/13/2016	64.18	ND	26.23	ND	92.54	0	0.00	37.95
HIMW-015D	6/13/2016	63.96	ND	28.08	ND	152.09	0	0.00	35.88
HIMW-020S	6/13/2016	70.43	ND	27.23	ND	36.78	0	0.00	43.20
HIMW-020I	6/13/2016	70.30	ND	27.09	ND	74.86	0	0.00	43.21

Table 2
Groundwater and NAPL Measurements
Second Quarter 2016
Hempstead Intersection Street Former MGP Site

Well ID	Date	Elevation of TOR	Depth to LNAPL	Depth to Water	Depth to DNAPL	Well Depth	Thickness of LNAPL	Thickness of DNAPL	Corrected Potentiometric Head (1)
		[ft bgs]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft amsl]
HIMW-021	6/13/2016	NM	ND	21.68	41.95	45.30	0	3.35	NM
HIMW-022	6/13/2016	74.07	ND	32.12	ND	64.43	0	0.00	41.95
HIMW-023	6/13/2016	74.41	ND	32.26	ND	75.21	0	0.00	42.15
HIMW-024	6/13/2016	59.83	ND	16.78	ND	54.79	0	0.00	43.05
HIMW-025	6/13/2016	62.75	ND	19.39	ND	52.13	0	0.00	43.36
HIMW-26I	6/13/2016	68.13	ND	25.14	ND	84.87	0	0.00	42.99
HIMW-26D	6/13/2016	68.02	ND	25.41	ND	137.52	0	0.00	42.61
HIMW-27S	6/13/2016	69.49	ND	26.10	ND	41.28	0	0.00	43.39
HIMW-27I	6/13/2016	68.96	ND	25.56	ND	70.22	0	0.00	43.40
HIMW-28S	6/13/2016	69.87	ND	26.48	ND	41.42	0	0.00	43.39
HIMW-28I	6/13/2016	69.56	ND	26.16	ND	71.56	0	0.00	43.40
PZ-02	6/13/2016	72.96	ND	27.68	ND	35.48	0	0.00	45.28
PZ-03	6/13/2016	64.58	ND	19.54	ND	29.45	0	0.00	45.04
OSMW-02	6/13/2016	71.59	ND	27.04	ND	45.12	0	0.00	44.55
OSMW-03	6/13/2016	71.39	NM	NM	NM	NM	0	0.00	NM

Notes:

(1) Potentiometric heads in wells containing LNAPL are corrected using a specific gravity = 0.96

TOR top of riser
LNAPL light non-aqueous phase liquid
DNAPL dense non-aqueous phase liquid
ft bgs feet below ground surface
ft amsl feet above mean sea level
ND NAPL not detected
NM not measured

Table 3
NAPL Recovery
Second Quarter 2016
Hempstead Intersection Street Former MGP Site

Well ID	Well Diameter (inches)	2nd Quarter 2016					
		May 9, 2016			June 13, 2016		
		Thickness of LNAPL	Thickness of DNAPL	Volume of NAPL Removed(1)	Thickness of LNAPL	Thickness of DNAPL	Volume of NAPL Removed(1)
		[ft]	[ft]	[gal]	[ft]	[ft]	[gal]
HIMW-021	6	NM	2.60	0.00	ND	3.35	0.00
		Volume of NAPL Removed:		**0.00**	Volume of NAPL Removed:		**0.00**
		Total NAPL volume recovered during the Second Quarter 2016:					**0.00**

Total volume of NAPL recovered in the Second Quarter 2016: **0.00** gallons

Total volume of NAPL recovered from April 2007 to Second Quarter 2016: **841.1** gallons

Notes:

(1) Volume of product recovered was estimated by using the markings on a five gallon bucket.

LNAPL Light Non-Aqueous Phase Liquid
DNAPL Dense Non-Aqueous Phase Liquid
ND NAPL Not Detected
NM Not Measured

Table 4

Dissolved-Phase Concentrations of Total BTEX and Total PAH Compounds Second Quarter of 2016 Hempstead Intersection Street Former MGP Site

Well ID	Second Quarter 2016 June 14 to 20, 2016	
	BTEX [µg/L]	PAH [µg/L]
HIMW-003S	ND	ND
HIMW-003I	ND	ND
HIMW-003D	ND	ND
HIMW-004S		
HIMW-004I		
HIMW-004D		
HIMW-005S	ND	ND
HIMW-005I	64	960
HIMW-005D	95	1,018
HIMW-008S	12	1
HIMW-008I	ND	ND
HIMW-008D	ND	ND
HIMW-009S		
HIMW-009I		
HIMW-009D		
HIMW-010S		
HIMW-010I		
HIMW-011S		
HIMW-011I		
HIMW-011D		
HIMW-012S	ND	ND
HIMW-012I		
HIMW-012D		
HIMW-013S	ND	ND
HIMW-013I	ND	ND
HIMW-013D	3	18
HIMW-014I	5	30
HIMW-014D	ND	ND
HIMW-015I	2	10
HIMW-015D	ND	ND
HIMW-020S	ND	ND
HIMW-020I	ND	ND
HIMW-021		
HIMW-022	1	ND
HIMW-023	ND	ND
HIMW-024	ND	1
HIMW-025	ND	ND
HIMW-026I	ND	ND
HIMW-026D	24	536
HIMW-027S	1,206	1,752
HIMW-027I	ND	ND
HIMW-028S	213	738
HIMW-028I	ND	ND
PZ-02		
PZ-03		

Notes:

	A blank field is "Not Sampled".
	NAPL is periodically identified in this well.

BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
PAH	Polycyclic Aromatic Hydrocarbons
µg/L	micrograms per liter
ND	Not Detected

Table 5
Groundwater Treatment Performance Monitoring
Second Quarter 2016
Hempstead Intersection Street Former MGP Site

System #1

	April 27, 2016			May 26, 2016			June 28, 2016		
ID	DTW (ft)	PID (ppm)	DO[(1)] (mg/L)	DTW (ft)	PID (ppm)	DO[(1)] (mg/L)	DTW (ft)	PID (ppm)	DO[(1)] (mg/L)
MP-1-1S	28.15	0.0	12.55	28.42	0.2	10.94	28.90	0.0	8.80
MP-1-1D	28.07	0.1	23.12	28.35	0.0	18.40	28.84	0.2	13.39
MP-1-2S	22.67	0.0	11.94	22.92	0.0	9.70	23.42	0.0	8.41
MP-1-2D	22.45	0.0	30.33	22.70	0.0	19.70	23.18	0.0	13.11
MP-1-3S	20.58	0.2	10.96	20.82	0.0	3.59	21.29	0.0	3.25
MP-1-3D	20.63	0.3	15.18	20.86	0.2	5.74	21.38	0.5	4.12
MP-1-4S	23.37	0.0	7.81	23.65	0.0	0.24	24.17	1.2	0.40
MP-1-4D	23.42	0.0	10.13	23.62	0.0	0.06	23.97	0.0	0.05
MP-1-5	27.90	0.0	28.30	28.14	0.0	24.28	28.63	0.0	19.01
MP-1-6	20.17	0.0	3.55	20.34	0.0	1.67	20.90	0.0	1.55
MP-1-7	23.45	0.0	30.42	23.67	0.0	17.71	24.17	0.0	14.00
MP-1-8	24.97	0.0	2.56	25.21	0.0	3.39	25.71	0.0	2.12

System #2

	April 28, 2016			May 26, 2016			June 28, 2016		
ID	DTW (ft)	PID (ppm)	DO[(1)] (mg/L) Bottom	DTW (ft)	PID (ppm)	DO[(1)] (mg/L) Bottom	DTW (ft)	PID (ppm)	DO[(1)] (mg/L) Bottom
MP-2-1	30.00	0.0	11.82	31.25	0.2	10.05	31.71	1.2	20.11
MP-2-2	32.37	0.0	0.25	32.61	0.0	1.73	33.03	0.5	4.77
MP-2-3S	32.22	0.0	2.01	32.45	0.0	1.85	32.92	0.0	5.59
MP-2-3D	32.35	0.2	27.12	32.57	0.0	12.11	32.83	1.3	14.44
MP-2-4	20.95	0.5	5.51	21.17	0.0	4.01	21.63	1.7	7.26
MP-2-5	19.12	0.0	0.56	19.34	0.0	5.02	19.82	2.2	4.79

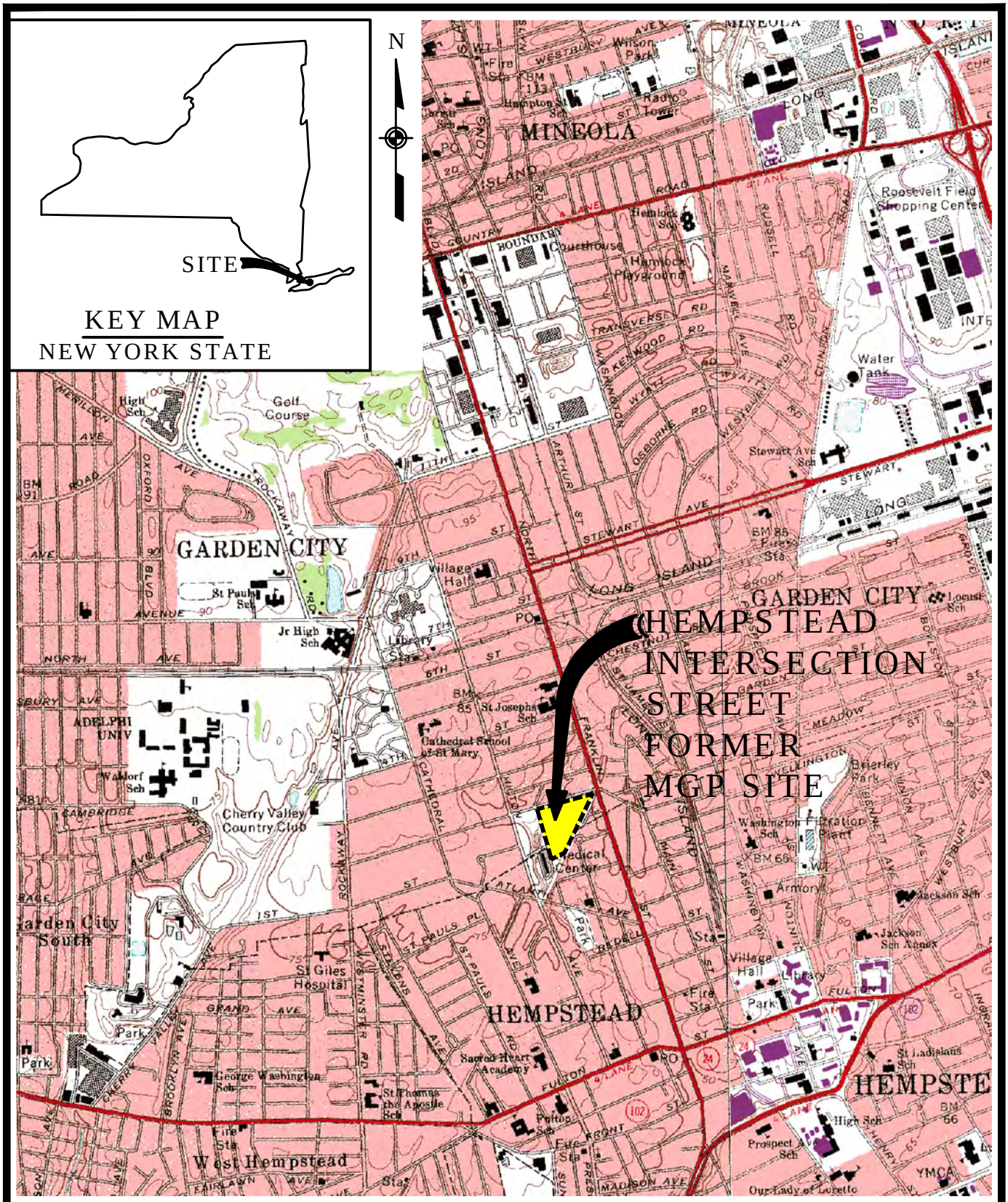
Abbreviations

DTW: Depth to water (feet)
O_2: Oxygen measurement of well headspace (percent oxygen)
PID: Photoionization Detector measurement of well headspace (parts per million)
DO: Dissolved Oxygen concentration (percent or milligrams per liter)
NA: Not Accessible
NM: Not Measured
ppm: parts per million
mg/L: milligrams per liter
ft: feet

Note

(1) DO Headspace monitor oxygen detection limit is 40.0%; normal oxygen level in air is 20.9%

FIGURES



NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

SOURCE:
USGS 7.5 MINUTE SERIES
TOPOGRAPHICAL QUANDRANGLES:
FREEPORT, NY (1969)
LYNBROOK, NY (1969)

2000' 0 2000'
SCALE IN FEET

AECOM

LOCATION MAP

FIGURE 1

J:\Projects\1175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\GROUNDWATER MONITORING\SECOND QUARTER 2016\FIGURE-1.dwg 9/12/16 - 1 RAL

J:\Projects\11175065.00000\DB\GIS\ARCMAP\SITE MAP 032014.mxd 9/12/2016

N

Second Street
Washington
Union
Franklin
Main
Atlantic
Bedell
Hilton
Cathedral
Jackson
Fulton
Front

IPR-1
HIMW-019S,I
HIVP-16
IPR-2
IPR-3
IPR-4
HIMW-001S,I,D
HIMW-003S,I,D
IPR-7
IPR-9
IPR-11
HIMW-006S,I,D
HIMW-004S,I,D
HIMW-005S,I,D
HIMW-026I,D
IPR-14
IPR-28
IPR-18
HIMW-016S,I
IPR-30
IPR-20
IPR-29
IPR-22
HIVP-19
HIMW-21
MP-1-1D
HIVP-20
MP-1-1S
MP-1-5
PZ-02
HIMW-018S,I
PZ-03
IPR-8
IPR-5
PZ-08
IPR-25
IPR-26
IPR-27
IPR-6
IPR-10
IPR-13
HIMW-007S,I,D
HIMW-009S,I,D
IPR-17
IPR-16
IPR-15
IPR-12A,B
IPR-19S,D
IPR-21
IPR-23
IPR-24
HIMW-017S
HIMW-008S,I,D
HIVP-21
MP-1-6
MP-1-3S
MP-1-3D
HIVP-17
HIMW-025
MP-1-2S
MP-1-2D
HIMW-020S,I
HIMW-024
HIMW-012S,I,D
MP-2-1
HIMW-023
MP-2-2
HIMW-022
MP-2-5
MP-2-4
MP-2-3S
MP-2-3D
HIMW-013S,I,D
HIVP-18
HIMW-014I,D
HIMW-015I,D
HIMW-002S,I,D
OSMW-1
HIMW-011S,I,D
OSMW-2
OSMW-3
HIMW-010S,I,D
HIMW-028S,I
HIMW-027S,I
MP-1-4D
MP-1-4S
MP-1-8
MP-1-7

Legend

- Oxygen System Monitoring Point
- Abandoned Well
- Piezometer
- Monitoring Well
- Product Recovery Well
- Soil Vapor Point
- Former MGP Site Boundary

SOURCE: ESRI World Imagery

400 0 400 Feet

AECOM

NATIONAL GRID HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY
SITE MAP - JUNE 2016

FIGURE 2

J:\Projects\11175065.00000\DB\GIS\ARCMAP\GROUNDWATER TREATMENT LOCATIONS (2nd Qtr 2016).mxd 9/12/2016

N

INSET 1

HISB-114
MP-1-1S,1D
HISB-116
HIMW-020S,I
HISB-105
MP-1-5
HISB-105-2
HIGP-054
HIGP-053
0
200 Feet

INSET 2

HIGP-047
HISB-103
HISB-104
MP-1-4S,4D
MP-1-8
HIGP-051
HIMW-008S,I,D
HISB-102
HISB-102-2
HIGP-052
MP-1-7
MP-1-3S,3D
MP-1-6
HISB-101
HIMW-025
SEALEY
0
200 Feet

NATIONAL GRID
FORMER MGP SITE

HIVP-16
HIMW-003S,I,D
HIMW-010S,I,D
HIMW-028S,I
HIMW-027S,I
HIMW-009S,I,D
HIGP-050
HIMW-004S,I,D
HIMW-026I,D
HIGP-048
HIGP-047
MP-1-4S,D
HISB-104
HIVP-19
MP-1-8
MP-1-6
MP-1-7
HISB-100
MP-1-3S
HISB-101
MP-1-2S,D
HIMW-025
SEE INSET 1
SEE INSET 2
HISB-114
HIGP-057
MP-1-1S,D
MP-1-5
HIMW-024
HIGP-053
HIGP-055
HISB-106
HIVP-17
HIGP-056
HIMW-012S,I,D
HISB-107
MP-2-1
MP-2-5
MP-2-3S,D
MP-2-4
HIGP-068
HISB-115
MP-2-2
HIMW-023
HIGP-061
HISB-109
HIGP-049
HIMW-022
HIGP-064
HIGP-063
HISB-108
HIGP-067
RUNDLE COURT
HIGP-062
HIGP-059
HIGP-065
HIMW-013S,I,D
HIVP-18
RYAN COURT
HIGP-070
HIGP-066
HIMW-014I,D
HIGP-058
HIGP-069
HIGP-072
HIGP-071
HIMW-015I,D

HAMILTON PLACE
SECOND STREET
FRANKLIN AVENUE
HILTON AVENUE
BARNES LANE
MEDICAL PLACE
WENDELL STREET
L.I.R.R. R.O.W.
OLD FRANKLIN STREET
MAIN STREET
SMITH STREET
UNION PLACE
ATLANTIC AVENUE
SAINT PAULS PLACE
GARDEN PLACE
KENSINGTON COURT
CHELSEA PLACE
CATHEDRAL AVENUE
CATHEDRAL COURT
HILTON PLACE
TERRACE AVENUE
KELLUM PLACE
BEDELL STREET
NORTH FRANKLIN STREET
JACKSON STREET
MULFORD PLACE
FULTON AVENUE
BELL STREET
SEALEY AVENUE

Legend

- Monitoring Well/Piezometer/Recovery Well/ Oxygen System Monitoring Point
- Vapor Monitoring Location
- Abandoned Well
- Temporary Groundwater Sample Location (Taken from RI Report, 2006)
- Temporary Groundwater Sample Location (URS, 2008-2009)
- Former MGP Site Boundary
- Planned Groundwater Treatment System
- Installed Groundwater Treatment System

Estimated Extent of Groundwater Plume:

- ≥ 100 µg/L
- ≥ 1,000 µg/L
- ≥ 5,000 µg/L
- In-Situ Solidification Area
- IRM Excavation Area

SOURCE: ESRI World Imagery

300 0 300 Feet

AECOM

NATIONAL GRID HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NEW YORK
SOIL REMEDIATION AND GROUNDWATER TREATMENT LOCATIONS

FIGURE 3

DGP–209 (11/11/08)		
DEPTH	TOT. BTEX	TOT. PAHs
34–38	1,709	1,066
40–44	4,980	645
50–54	3,859	1,297
70–74	2	3

HIGP–40 (8/7/00)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	4,166	9,815
56–60	4	112

HIGP–49 (10/16/00)		
DEPTH	TOT. BTEX	TOT. PAHs
36–40	ND	ND
60–64	7	63
90–94	ND	16

HIGP–55 (9/7/00)		
DEPTH	TOT. BTEX	TOT. PAHs
23–27	31	244
60–64	69	532
80–84	2	ND

HIGP–61 (11/8/00)		
DEPTH	TOT. BTEX	TOT. PAHs
26–30	ND	ND
60–64	30	39
90–94	2	2

HIGP–66 (12/14/00)		
DEPTH	TOT. BTEX	TOT. PAHs
40–44	ND	1
56–60	8	60
72–76	398	787
90–94	12,970	259

HIGP–71 (11/6/01)		
DEPTH	TOT. BTEX	TOT. PAHs
46–50	ND	ND
54–58	ND	ND
62–66	1	7
72–76	29	84
81–85	126	95

HIMW–09S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
28–38	ND–16	ND–8
70–80	ND–2	ND
113–123	ND–16	ND–10

HIMW–020S,I		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–3 (ND)	ND–5 (ND)
63–73	ND–474 (ND)	ND–3,988 (ND)

HISB–100 (11/19/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
40–44	12,000	1,576
50–54	441	332
60–64	1,470	599
70–74	747	1,809
80–84	22	21

HISB–104 (9/24/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
45–49	ND	ND
55–59	ND	ND

HISB–108 (12/9/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
40–44	ND	ND
50–54	ND	ND
60–64	ND	ND
70–74	12	1
80–84	20	1
90–94	26	2

HISB–117 (4/22/10)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
40–44	ND	ND
50–54	ND	ND
60–64	ND	ND
70–74	ND	2
80–84	2	32
90–94	ND	2
100–104	ND	ND

HIGP–01 (8/7/00)		
DEPTH	TOT. BTEX	TOT. PAHs
25–29	ND	ND
56–60	1	1

HIGP–41 (8/11/00)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	2,241	3,258
58–62	1	17

HIGP–50 (9/8/00)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	8
60–64	ND	ND

HIGP–56 (10/9/00)		
DEPTH	TOT. BTEX	TOT. PAHs
24–28	ND	2
60–64	ND	ND

HIGP–62 (11/8/00)		
DEPTH	TOT. BTEX	TOT. PAHs
37–41	8	4
54–58	771	152
84–89	45	89

HIGP–67 (12/20/00)		
DEPTH	TOT. BTEX	TOT. PAHs
37–41	ND	ND
54–58	ND	ND
72–76	ND	27
90–94	ND	ND

HIGP–72 (11/6/01)		
DEPTH	TOT. BTEX	TOT. PAHs
52–56	ND	ND
62–66	ND	ND
72–76	ND	ND
82–86	ND	ND
92–96	ND	ND

HIMW–010S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
28–38	ND–33	1–150
80.5–90.5	ND–13	ND
112.5–132.5	ND–16	ND

HIMW–022		
DEPTH	TOT. BTEX	TOT. PAHs
54–64	ND–83 (1)	ND–91 (ND)

HISB–101 (11/19/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	122	190
40–44	14,100	4,356
50–54	4,040	3,244
60–64	1,995	2,074
70–74	4	4
80–84	1	2

HISB–105 (12/4/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
40–44	ND	518
50–54	469	ND
60–64	1,043	3,058
70–74	28	ND
80–84	279	576
90–94	48	99

HISB–109 (12/10/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
40–44	ND	ND
50–54	8	ND
60–64	19	ND
70–74	28	ND
80–84	31	2
90–94	ND	ND

HISB–119 (4/14/10)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	2
40–44	ND	1
50–54	ND	2
60–64	ND	ND
70–74	ND	4
80–84	ND	16
90–94	ND	4

HIGP–02 (8/8/00)		
DEPTH	TOT. BTEX	TOT. PAHs
31–35	ND	ND
56–60	ND	ND

HIGP–44 (8/10/00)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	469	244
57–61	3	47

HIGP–51 (8/31/00)		
DEPTH	TOT. BTEX	TOT. PAHs
28–32	ND	ND
58–60	ND	ND

HIGP–57 (9/21/00)		
DEPTH	TOT. BTEX	TOT. PAHs
36–40	ND	ND
64–68	ND	ND

HIGP–63 (12/15/00)		
DEPTH	TOT. BTEX	TOT. PAHs
37–41	2	3
54–58	18	22
72–76	3,979	2,769
90–94	773	63

HIGP–68 (12/20/00)		
DEPTH	TOT. BTEX	TOT. PAHs
37–41	3	5
54–58	163	300
72–76	ND	ND
90–94	ND	ND

HIMW–003S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
23–33	ND–36 (ND)	ND (ND)
80.5–90.5	ND–13 (ND)	ND (ND)
133–143	ND–8.2 (ND)	ND–30 (ND)

HIMW–012S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
22–32	ND–338.8 (ND)	ND–1,391 (ND)
63–73	6–256	65–527
117–127	ND–6	ND–2

HIMW–023		
DEPTH	TOT. BTEX	TOT. PAHs
66–76	ND–43 (ND)	ND–43 (ND)

HIMW–024		
DEPTH	TOT. BTEX	TOT. PAHs
44.6–54.6	ND–900 (ND)	ND–1,024 (1)

HIMW–025		
DEPTH	TOT. BTEX	TOT. PAHs
42–52	ND–1,320 (ND)	ND–573 (ND)

HISB–102 (12/1/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	1,800	2,706
40–44	835	1,119
50–54	225	2,735
60–64	ND	10
70–74	1	4
80–84	76	130

HISB–105(2) (12/18/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	15	19
40–44	14	35
50–54	247	912
60–64	560	2,941
70–74	59	34
80–84	14	69
90–94	24	221
100–104	1	ND

HISB–114 (12/23/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
40–44	ND	ND
50–54	ND	ND
60–64	ND	ND
70–74	ND	ND
80–84	ND	ND
90–94	ND	ND

HITW–01 (9/21/01)		
DEPTH	TOT. BTEX	TOT. PAHs
40–44	2	ND
54–58	3	6
70–74	95	278
82–86	293	274
90–94	45	44
109–113	210	1

HIGP–03 (7/28/00)		
DEPTH	TOT. BTEX	TOT. PAHs
33–37	ND	ND
56–60	ND	ND

HIGP–45 (10/17/00)		
DEPTH	TOT. BTEX	TOT. PAHs
32–38	1,229	1,254
60–64	ND	ND

HIGP–52 (9/11/00)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	1,031	2,629
58–60	ND	ND

HIGP–58 (10/18/00)		
DEPTH	TOT. BTEX	TOT. PAHs
36–40	ND	ND
60–64	ND	ND
90–94	ND	ND

HIGP–64 (12/18/00)		
DEPTH	TOT. BTEX	TOT. PAHs
37–41	27	17
54–58	4,031	1,574
72–76	401	239
90–94	14	48

HIGP–69 (9/24/01)		
DEPTH	TOT. BTEX	TOT. PAHs
54–58	ND	ND
70–74	28	28
82–86	126	76
90–94	12	19
104–108	5	ND

HIMW–004S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
30–40	ND–4	ND–1
80–90	ND–13	ND
167–177	ND–4	ND–1

HIMW–013S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
38–48	ND–11 (ND)	ND (ND)
70–80	ND–313 (ND)	ND–156 (ND)
110–120	2–30 (3)	ND–28 (18)

HIMW–26 I,D		
DEPTH	TOT. BTEX	TOT. PAHs
65–85	ND (ND)	ND (ND)
115–135	24–87 (24)	536–1,749 (536)

HISB–102(2) (1/8/09)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	423	859
40–44	464	274
50–54	349	652
60–64	68	453
70–74	5	5
80–84	ND	1

HISB–106 (12/4/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	418	602
40–44	1,162	383
50–54	1,800	2,513
60–64	815	572
70–74	68	51
80–84	38	30
90–94	124	98

HISB–115 (1/14/09)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	15
40–44	9	14
50–54	288	265
60–64	125	133
70–74	1,411	1,153
80–84	123	99
90–94	56	67

HITW–02 (10/31/01)		
DEPTH	TOT. BTEX	TOT. PAHs
55–60	2	ND
65–70	5	9
75–80	9	40
85–90	29	52
115–120	42	ND
148–153	9	0

HIGP–04 (7/24/00)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
56–60	ND	2

HIGP–47 (8/22/00)		
DEPTH	TOT. BTEX	TOT. PAHs
31–35	6,670	18,715
60–64	500	369

HIGP–53 (9/1/00)		
DEPTH	TOT. BTEX	TOT. PAHs
27–31	76	317
60–64	15	35
90–94	1	ND

HIGP–59 (10/17/00)		
DEPTH	TOT. BTEX	TOT. PAHs
34–38	1	ND
60–64	ND	2
90–94	27	4

HIGP–65 (12/19/00)		
DEPTH	TOT. BTEX	TOT. PAHs
37–41	2	ND
54–58	376	125
72–76	775	190
90–94	36	59

HIGP–70 (9/20/01)		
DEPTH	TOT. BTEX	TOT. PAHs
54–58	ND	0
70–74	21	20
82–86	29	38
92–96	15	18
110–114	3	6
140–144	3	ND

HIMW–005S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
27–37	ND–232 (ND)	ND–765 (ND)
80–90	50–439 (64)	960–5,337 (960)
130–140	ND–359 (95)	ND–2,698 (1,018)

HIMW–014 I,D		
DEPTH	TOT. BTEX	TOT. PAHs
85–95	3–273 (5)	25–288 (30)
140–150	ND–15 (ND)	ND–6 (ND)

HIMW–027S, I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	711–1,483 (1,206)	960–1,807 (1,752)
50–70	ND–2 (ND)	ND–17 (ND)

HISB–103 (12/1/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
40–44	4	6
50–54	84	171
60–64	ND	ND
70–74	ND	ND
80–84	5	9

HISB–107 (12/8/08)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
40–44	217	47
50–54	551	258
60–64	29	68
70–74	ND	ND
80–84	ND	ND
90–94	24	8

HISB–116 (6/23/09)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
40–44	ND	ND
50–54	1.3	ND
60–64	100	192
70–74	6	37
80–84	91	330
90–94	100	451
100–104	292	604

OSMW–02		
DEPTH	TOT. BTEX	TOT. PAHs
30–40	2,604	3,517

OSMW–03		
DEPTH	TOT. BTEX	TOT. PAHs
29–39	4,301	2,911

HIGP–28 (8/4/00)		
DEPTH	TOT. BTEX	TOT. PAHs
29–33	17	22
58–62	2,640	5,933

HIGP–48 (8/25/00)		
DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	2
60–64	766	926

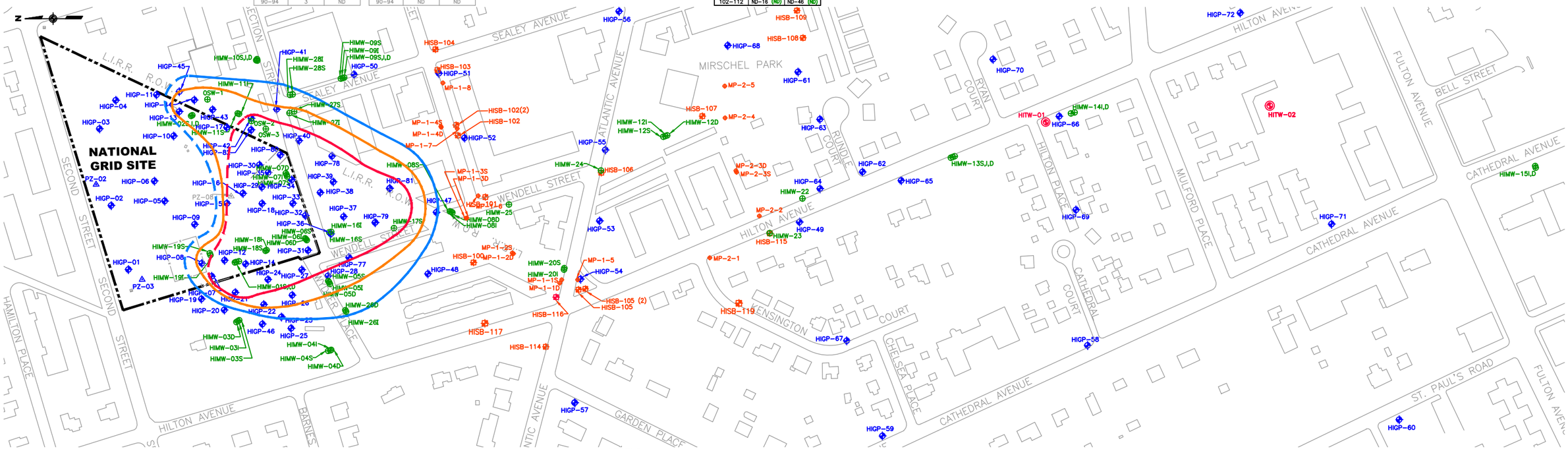
HIGP–54 (9/5/00)		
DEPTH	TOT. BTEX	TOT. PAHs
33–37	ND	1
60–64	373	338
90–94	3	ND

HIGP–60 (10/19/00)		
DEPTH	TOT. BTEX	TOT. PAHs
33–37	ND	ND
60–64	ND	ND
90–94	ND	ND

HIMW–008S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–8,240 (12)	ND–3,069 (1)
63–73	ND–457 (ND)	ND–251 (ND)
102–112	ND–16 (ND)	ND–46 (ND)

HIMW–015 I,D		
DEPTH	TOT. BTEX	TOT. PAHs
80–90	2–111 (2)	ND–273 (10)
141.5–151.5	ND–94 (ND)	ND–1 (ND)

HIMW–028S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	ND–213 (213)	10–738 (738)
50–70	ND (ND)	ND (ND)



HITW–02 TEMPORARY GROUNDWATER MONITORING WELL (TAKEN FROM RI REPORT, 2006)

HIGP–53 TEMPORARY GROUNDWATER SAMPLE LOCATION (TAKEN FROM RI REPORT, 2006)

MP–2–1 OXYGEN SYSTEM MONITORING WELL

HIMW–13 MONITORING WELL

PZ–02 PIEZOMETER

PZ–08 ABANDONED PIEZOMETER

HISB–114 TEMPORARY GROUNDWATER SAMPLE LOCATION (URS, 2008–2009)

NA NOT ANALYZED

ND NOT DETECTED

LEGEND:

LOCATION ID → HIMW–015 I,D

DEPTH (ft bgs)	TOT. BTEX	TOT. PAHs
80–90	2–111 (2)	ND–273 (10)
141.5–151.5	ND–94 (ND)	ND–1 (ND)

← CONCENTRATION UNITS ARE ug/L (JUNE 2016 CONCENTRATION)

* SOME LOCATIONS ON SITE AND ADJACENT TO SITE ARE NOT SHOWN FOR FIGURE CLARITY.

EXISTING HOUSE OR BUILDING

NATIONAL GRID PROPERTY BOUNDARY

ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS EQUAL TO OR GREATER THAN 5,000 ug/L

ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS EQUAL TO OR GREATER THAN 1,000 ug/L

ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS EQUAL TO OR GREATER THAN 100 ug/L

ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS. DASHED LINES REPRESENT CONTAMINATION CONCENTRATIONS THAT ARE LIKELY INFLUENCED BY THIRD PARTY SOURCES.

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\GROUNDWATER MONITORING\SECOND QUARTER 2016\FIGURE 4.dwg 8/22/16 - 5 RAL

AECOM

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

EXTENT OF DISSOLVED-PHASE PLUME AND GROUNDWATER ANALYTICAL RESULTS - JUNE 2016

FIGURE 4

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\JUNE 2016\FIGURE 5.dwg 9/12/16 - 1 RAL

N

NATIONAL GRID
FORMER MGP SITE

PZ-02, 45.28
PZ-03, 45.04
HIMW-03S, 44.53
OSMW-3, NM
HIMW-11S, 44.69
HIMW-10S, 45.09
OSMW-2, 44.55
HIMW-28S, 43.39
HIMW-09S, 44.17
HIMW-27S, 43.39
HIMW-04S, 43.91
HIMW-05S, 44.04
HIMW-8S, 43.72
HIMW-20S, 43.20
HIMW-12S, 42.56
HIMW-13S, 40.69

45.0
44.5
44.0
43.5
43.0
42.5
42.0
41.5
41.0

L.I.R.R. R.O.W.
MAIN STREET
SECOND STREET
FRANKLIN AVENUE
MEADOW PLACE
STOWE PLACE
SAMMIS PLACE
OLD FRANKLIN STREET
MILLER PLACE
UNION PLACE
HILTON AVENUE
BARNES LANE
WYDLER PLACE
WENDELL STREET
INTERSECTION STREET
SEALEY AVENUE
SMITH STREET
ATLANTIC AVENUE
GARDEN PLACE
KENSINGTON COURT
CATHEDRAL AVENUE
CHELSEA PLACE
CATHEDRAL COURT
HILTON PLACE
MULFORD PLACE
KELLUM PLACE
MIRSCHEL PARK
TERRACE AVENUE
MARGARET COURT
BEDELL STREET
RUNDLE COURT
RYAN COURT
NORTH FRANKLIN STREET
WEST COLUMBIA ST
JACKSON STREET
FULTON AVENUE
BELL STREET
ST. PAUL'S

LEGEND:

⊕	MONITORING WELL
⊞	IPR WELL
△	PIEZOMETER
→	GROUNDWATER FLOW DIRECTION
44	POTENTIOMETRIC SURFACE CONTOUR
— - - —	FORMER MGP SITE BOUNDARY
HIMW-8S, 44.10	LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
NM	NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR SHALLOW GROUNDWATER
JUNE 13, 2016

FIGURE 5

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\JUNE 2016\FIGURE 6.dwg 9/12/16 - 3 RAL

N

NATIONAL GRID
FORMER MGP SITE

HIMW-03I, 37.22
HIMW-27I, 43.40
HIMW-11I, 44.61
HIMW-10I, 45.15
HIMW-05I, 43.90
HIMW-28I, 43.40
HIMW-04I, 43.83
HIMW-09I, 44.14
HIMW-26I, 42.99
HIMW-08I, 43.65
HIMW-25, 43.36
HIMW-20I, 43.21
HIMW-24, 43.05
HIMW-12I, 42.68
HIMW-23, 42.15
HIMW-22, 41.95
HIMW-13I, 40.68
HIMW-14I, 40.68
HIMW-15I, 37.95

38 39 40 41 42 43 44 45

SECOND STREET
HILTON AVENUE
BARNES LANE
WYDEN PLACE
WENDELL STREET
L.I.R.R. R.O.W.
FRANKLIN AVENUE
OLD FRANKLIN STREET
STOWE PLACE
SAMMIS PLACE
MAIN STREET
MILLER PLACE
UNION PLACE
INTERSECTION STREET
SEALEY AVENUE
SMITH STREET
ATLANTIC AVENUE
GARDEN PLACE
KENSINGTON COURT
CATHEDRAL AVENUE
CHELSEA PLACE
MIRSCHEL PARK
TERRACE AVENUE
MARGARET COURT
BEDELL STREET
NORTH FRANKLIN STREET
WEST COLUMBIA ST
KELLUM PLACE
RUNDLE COURT
RYAN COURT
CATHEDRAL COURT
HILTON PLACE
JACKSON STREET
MULFORD PLACE
FULTON AVENUE
BELL STREET
ST. PAUL'S

LEGEND:

⊕	MONITORING WELL
⌗	IPR WELL
→	GROUNDWATER FLOW DIRECTION
44	POTENTIOMETRIC SURFACE CONTOUR
— - - —	FORMER MGP SITE BOUNDARY
HIMW-08I, 44.12	LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
NM	NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR INTERMEDIATE GROUNDWATER
JUNE 13, 2016

FIGURE 6

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\JUNE 2016\FIGURE 7.dwg 9/12/16 - 2 RAL

N

NATIONAL GRID
FORMER MGP SITE

L.I.R.R. R.O.W.

HIMW-03D, 43.84
HIMW-05D, 43.24
HIMW-04D, 43.12
HIMW-26D, 42.61
HIMW-11D, 44.61
HIMW-09D, NM
HIMW-08D, 44.62
HIMW-12D, NM
HIMW-13D, 40.62
HIMW-14D, 38.3
HIMW-15D, 35.88

44
43
42
41
40
39
38
37
36

SECOND STREET
HILTON AVENUE
BARNES LANE
WYDLER PLACE
WENDELL STREET
INTERSECTION STREET
FRANKLIN AVENUE
MAIN STREET
MEADOW PLACE
STOWE PLACE
SAMMIS PLACE
OLD FRANKLIN STREET
MILLER PLACE
UNION PLACE
SEALEY AVENUE
SMITH STREET
ATLANTIC AVENUE
GARDEN PLACE
KELLUM PLACE
MARGARET COURT
BEDELL STREET
TERRACE AVENUE
MIRSCHEL PARK
KENSINGTON COURT
CATHEDRAL AVENUE
CHELSEA PLACE
RUNDLE COURT
RYAN COURT
NORTH FRANKLIN STREET
WEST COLUMBIA ST
JACKSON STREET
HILTON PLACE
CATHEDRAL COURT
MULFORD PLACE
FULTON AVENUE
BELL STREET
ST. PAUL'S

LEGEND:

⊕	MONITORING WELL
→	GROUNDWATER FLOW DIRECTION
43	POTENTIOMETRIC SURFACE CONTOUR
- - - -	FORMER MGP SITE BOUNDARY
HIMW-14D, 39.35	LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
NM	NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

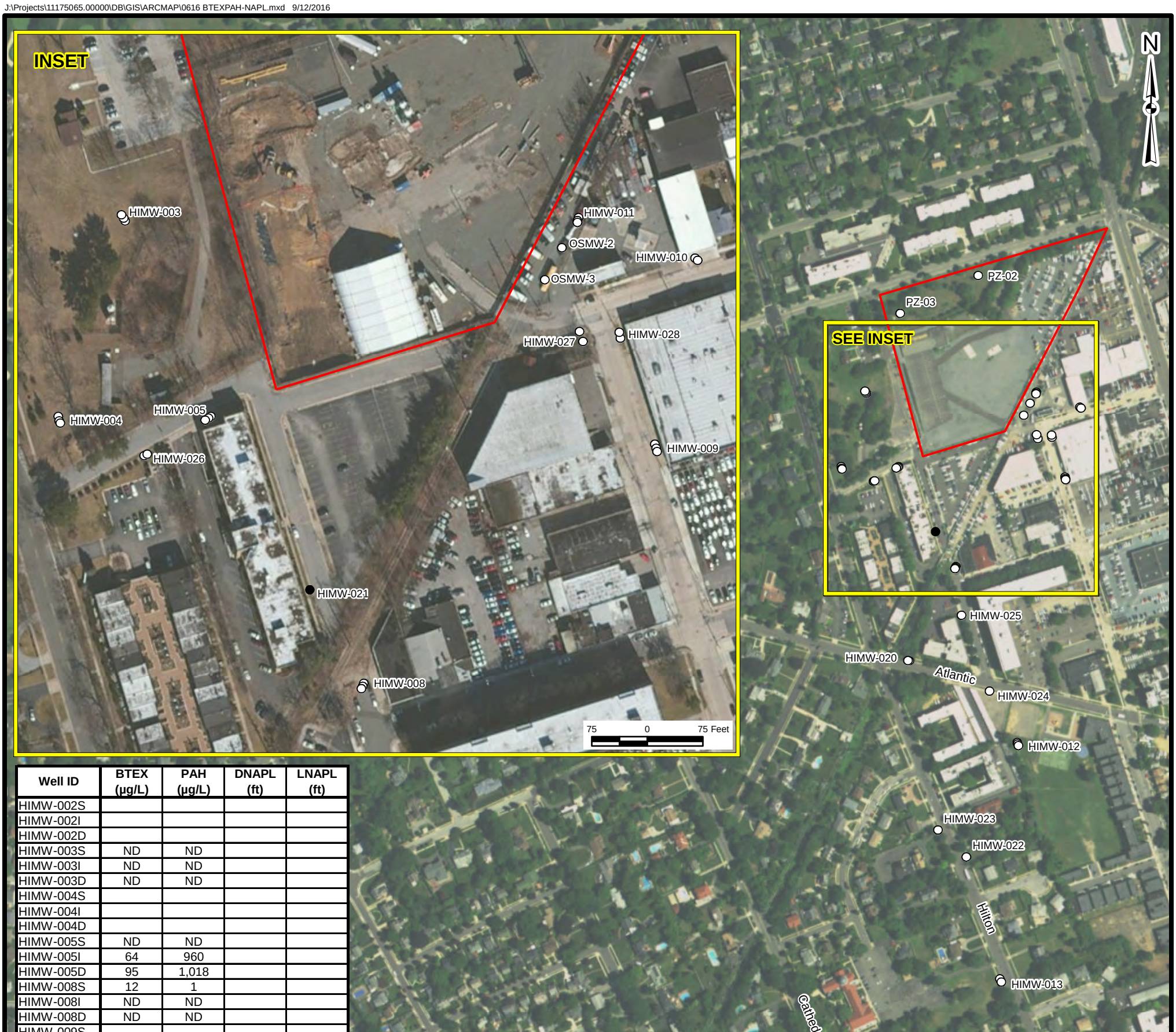
NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR DEEP GROUNDWATER
JUNE 13, 2016

FIGURE 7

J:\Projects\11175065.00000\DB\GIS\ARCMAP\0616 BTEXPAH-NAPL.mxd 9/12/2016



Well ID	BTEX (µg/L)	PAH (µg/L)	DNAPL (ft)	LNAPL (ft)
HIMW-002S				
HIMW-002I				
HIMW-002D				
HIMW-003S	ND	ND		
HIMW-003I	ND	ND		
HIMW-003D	ND	ND		
HIMW-004S				
HIMW-004I				
HIMW-004D				
HIMW-005S	ND	ND		
HIMW-005I	64	960		
HIMW-005D	95	1,018		
HIMW-008S	12	1		
HIMW-008I	ND	ND		
HIMW-008D	ND	ND		
HIMW-009S				
HIMW-009I				
HIMW-009D				
HIMW-010S				
HIMW-010I				
HIMW-011S				
HIMW-011I				
HIMW-011D				
HIMW-012S	ND	ND		
HIMW-012I				
HIMW-012D				
HIMW-013S	ND	ND		
HIMW-013I	ND	ND		
HIMW-013D	3	18		
HIMW-014I	5	30		
HIMW-014D	ND	ND		
HIMW-015I	2	10		
HIMW-015D	ND	ND		
HIMW-020S	ND	ND		
HIMW-020I	ND	ND		
HIMW-021			3.35	
HIMW-022	1	ND		
HIMW-023	ND	ND		
HIMW-024	ND	1		
HIMW-025	ND	ND		
HIMW-026I	ND	ND		
HIMW-026D	24	536		
HIMW-027S	1,206	1,752		
HIMW-027I	ND	ND		
HIMW-028S	213	738		
HIMW-028I	ND	ND		
PZ-02				
PZ-03				
OSMW-02				
OSMW-03				

SOURCE: ESRI World Imagery

Legend

- Monitoring Well - Product Detected
- Monitoring Well - Product Not Detected
- Former MGP Site Boundary

Notes:

LOCID - Location Identifier
BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes
PAH - Polynuclear Aromatic Hydrocarbons
DNAPL - Dense Non-Aqueous Phase Liquid
LNAPL - Light Non-Aqueous Phase Liquid
µg/L - Micrograms per Liter
ft - Feet of Product Thickness
ND - Non Detect

400 0 400 Feet

AECOM

HEMPSTEAD/GARDEN CITY, NY
TOTAL DISSOLVED-PHASE BTEX/PAH CONCENTRATIONS
SECOND QUARTER 2016

FIGURE 8

APPENDIX A

DATA USABILITY SUMMARY REPORT

(Provided in Electronic Format Only)

APPENDIX A
DATA USABILITY SUMMARY REPORT
SECOND QUARTER 2016

HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
VILLAGES OF GARDEN CITY AND HEMPSTEAD
LONG ISLAND, NEW YORK

Analyses Performed by:
PACE ANALYTICAL

Prepared For:

NATIONAL GRID
175 EAST OLD COUNTRY RD.
HICKSVILLE, NY 11801

Prepared by:

URS CORPORATION
257 WEST GENESEE STREET, SUITE 400
BUFFALO, NY 14202-2657

AUGUST 2016

TABLE OF CONTENTS

TABLES
(Following Text)

APPENDICES
(Following Tables)

I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B - Guidance for Data Deliverables and Development of Data Usability Summary Reports*, May 2010.

This DUSR discusses the usability of the analytical data for twenty-nine (29) groundwater samples, two (2) field duplicates, two (2) matrix spike/matrix spike duplicate (MS/MSD) pairs, one (1) field blank, and three (3) trip blanks collected by URS personnel on June 14-20, 2016. Six (6) of the groundwater samples (i.e., HIMW-26I, -26D, -27S, -27I, -28S, and -28I) were collected as part of the oxygen treatment system design evaluation, while the remaining twenty-three (23) groundwater samples were collected as part of the 2016 2nd quarter groundwater monitoring event at the Hempstead Intersection Street Former MGP Site.

II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION

The samples were analyzed by Pace Analytical for the following parameters:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) – USEPA Method SW8260C and
- Polynuclear aromatic hydrocarbons (PAHs) – USEPA Method SW8270D.

A limited data validation was performed on the samples in accordance with the guidelines presented in the following USEPA Region II documents:

- *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C, SOP HW-24, Rev. 4,* October 2014 and

- *Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8270D, SOP HW-22, Rev. 4,* August 2008.

The limited data validation included a review of completeness of all required deliverables; holding times; quality control (QC) results (instrument tunes, calibration standards, blanks, matrix spike recoveries, field duplicate analyses, laboratory control sample (LCS) recoveries, and surrogate/internal standard recoveries) to determine if the data are within the protocol-required QC limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers.

The validated analytical results are presented in Tables A-1 and A-2. Copies of the validated laboratory results (i.e., Form 1's) are presented in Attachment A. Copies of the chain-of-custodies, case narratives, and documentation supporting the qualification of data are presented in Attachment B. Only problems affecting data usability are discussed in this report.

III. DATA DELIVERABLE COMPLETENESS

Full deliverable data packages (i.e., NYSDEC ASP Category B or equivalent) were provided by the laboratory, and included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

IV. SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody (COC), except for the following instances.

The collection dates for the trip blanks on the COCs reflect the date they were prepared by the laboratory (i.e., 06/13/16). Instead, the collection dates should reflect the dates when they were transported to the laboratory from the field (i.e., 06/15/16, 06/17/16, and 06/20/16, respectively). The trip blank collection dates were manually revised accordingly. Also, the trip blank field IDs were revised to include the correct collection dates.

The ID for the field blank was incorrectly transcribed by the laboratory from COC (i.e., FB201610620). The field blank ID was manually revised on the laboratory reporting forms during the data review (i.e., FB20160620).

All samples were analyzed/extracted within the required holding times, except for the following instance. The PAH extraction for sample HIMW-05S was inadvertently performed outside holding time by 5 days. As a result, the PAH results for this sample were qualified 'UJ'. Documentation supporting the qualification of data (i.e., extraction log) is presented in Attachment B.

V. NON-CONFORMANCES

Apart for the holding time exceedance referenced above, there were no other non-conformances noted during the data review.

VI. SAMPLE RESULTS AND REPORTING

All sample results were reported in accordance with method requirements and were adjusted for sample size and dilution factors. Results detected below the quantitation limits were qualified 'J' by the laboratory, while results reported from secondary dilution analyses were qualified 'D'.

Field duplicates were collected from monitoring well locations HIMW-05I and HIMW-15I, which exhibited good field and analytical precision.

VII. SUMMARY

All sample analyses were found to be compliant with the method and validation criteria, and the data are usable as reported, except for those results qualified 'UJ' during the data validation, which should be considered conditionally usable. URS does not recommend the re-collection of any samples at this time.

Prepared By: _____ _____ **Date: __08/29/16_____**
Peter R. Fairbanks, Senior Chemist

Reviewed By: _____ _____ **Date: __08/29/16_____**
Ann Marie Kropovitch, Chemist

DEFINITIONS OF USEPA REGION II DATA QUALIFIERS

U – The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R – The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

D – The sample results are reported from a separate secondary dilution analysis.

NJ – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
2ND QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-003D	HIMW-003I	HIMW-003S	HIMW-005D	HIMW-005I
Sample ID			HIMW-3D	HIMW-3I	HIMW-3S	HIMW-5D	DUP-061716
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/17/16	06/17/16	06/17/16	06/16/16	06/17/16
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	2	2
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1
Toluene	UG/L	-	1 U	1 U	1 U	1	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	92	61
Total BTEX	UG/L	100	ND	ND	ND	95	64
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	110 DJ	180 DJ
Acenaphthene	UG/L	-	10 U	10 U	10 U	2 J	9 J
Acenaphthylene	UG/L	-	10 U	10 U	10 U	31	170 DJ
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	1 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	5 J	21
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	10 U	10 U	870 D	930 D
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	10
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	1,018	1,321

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

D - Result reported from a secondary dilution analysis. ND - Not detected.

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit. UJ - Not detected. The reported quantitation limit is an estimated value.

Made By_PRF 08/15/16_; Checked By_AMK 08/29/16_

Detection Limits shown are PQL

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
2ND QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-005I	HIMW-005S	HIMW-008D	HIMW-008I	HIMW-008S
Sample ID			HIMW-5I	HIMW-05S	HIMW-08D	HIMW-8I	HIMW-8S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/17/16	06/16/16	06/16/16	06/20/16	06/20/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	2	1 U	1 U	1 U	12
Ethylbenzene	UG/L	-	1	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	61	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	64	ND	ND	ND	12
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	130 DJ	10 UJ	10 U	10 U	10 U
Acenaphthene	UG/L	-	9 J	10 UJ	10 U	10 U	10 U
Acenaphthylene	UG/L	-	120 DJ	10 UJ	10 U	10 U	10 U
Anthracene	UG/L	-	1 J	10 UJ	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Fluorene	UG/L	-	20	10 UJ	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Naphthalene	UG/L	-	670 D	10 UJ	10 U	10 U	1 J
Phenanthrene	UG/L	-	10	10 UJ	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	960	ND	ND	ND	1

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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D - Result reported from a secondary dilution analysis. ND - Not detected.

J - The reported concentration is an estimated value.

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
2ND QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-012S	HIMW-013D	HIMW-013I	HIMW-013S	HIMW-014D
Sample ID			HIMW-12S	HIMW-13D	HIMW-13I	HIMW-13S	HIMW-14D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/20/16	06/16/16	06/14/16	06/14/16	06/14/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	3	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	3	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	6 J	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	12	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	18	ND	ND	ND

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
2ND QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-014I	HIMW-015D	HIMW-015I	HIMW-015I	HIMW-020I
Sample ID			HIMW-14I	HIMW-15D	DUP-061516	HIMW-15I	HIMW-20I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/14/16	06/15/16	06/15/16	06/15/16	06/15/16
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatile Organic Compounds							
Benzene	UG/L	-	5	1 U	2	2	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	5	ND	2	2	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	11	10 U	2 J	2 J	10 U
Acenaphthylene	UG/L	-	12	10 U	8 J	8 J	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	3 J	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Phenanthrene	UG/L	-	4 J	10 U	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	30	ND	10	10	ND

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
2ND QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-020S	HIMW-022	HIMW-023	HIMW-024	HIMW-025
Sample ID			HIMW-20S	HIMW-22	HIMW-23	HIMW-24	HIMW-25
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/15/16	06/15/16	06/15/16	06/16/16	06/16/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	1	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	10 U	10 U	1 J	10 U
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	1	ND

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
2ND QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-026D	HIMW-026I	HIMW-027I	HIMW-027S	HIMW-028I
Sample ID			HIMW-26D	HIMW-26I	HIMW-27I	HIMW-27S	HIMW-28I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/17/16	06/17/16	06/20/16	06/20/16	06/16/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	7	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	510 D	1 U
Toluene	UG/L	-	1 U	1 U	1 U	19	1 U
Xylene (total)	UG/L	-	24	1 U	1 U	670 D	1 U
Total BTEX	UG/L	100	24	ND	ND	1,206	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	82 DJ	10 U	10 U	390 D	10 U
Acenaphthene	UG/L	-	3 J	10 U	10 U	73	10 U
Acenaphthylene	UG/L	-	47	10 U	10 U	5 J	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	6 J	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	2 J	10 U
Fluorene	UG/L	-	8 J	10 U	10 U	37	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	390 D	10 U	10 U	1,200 D	10 U
Phenanthrene	UG/L	-	6 J	10 U	10 U	36	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	3 J	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	536	ND	ND	1,752	ND

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Made By_PRF 08/15/16_; Checked By_AMK 08/29/16_

Detection Limits shown are PQL

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TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
2ND QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-028S
Sample ID			HIMW-28S
Matrix			Groundwater
Depth Interval (ft)			-
Date Sampled			06/20/16
Parameter	**Units**	**Criteria***	
Volatile Organic Compounds			
Benzene	UG/L	-	4
Ethylbenzene	UG/L	-	180
Toluene	UG/L	-	2
Xylene (total)	UG/L	-	27
Total BTEX	UG/L	100	213
Semivolatile Organic Compounds			
2-Methylnaphthalene	UG/L	-	92 DJ
Acenaphthene	UG/L	-	31
Acenaphthylene	UG/L	-	1 J
Anthracene	UG/L	-	3 J
Benzo(a)anthracene	UG/L	-	10 U
Benzo(a)pyrene	UG/L	-	10 U
Benzo(b)fluoranthene	UG/L	-	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U
Benzo(k)fluoranthene	UG/L	-	10 U
Chrysene	UG/L	-	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U
Fluoranthene	UG/L	-	10 U
Fluorene	UG/L	-	16
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U
Naphthalene	UG/L	-	580 D
Phenanthrene	UG/L	-	15
Pyrene	UG/L	-	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	738

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

D - Result reported from a secondary dilution analysis. ND - Not detected.

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Detection Limits shown are PQL

TABLE A-2
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
2ND QUARTER 2016
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			TB20160615	TB20160617	FB20160620	TB20160620
Matrix			Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-
Date Sampled			06/15/16	06/17/16	06/20/16	06/20/16
Parameter	**Units**	**Criteria***	Trip Blank (1-1)	Trip Blank (1-1)	Field Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds						
Benzene	UG/L	-	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	ND	ND	ND
Semivolatile Organic Compounds						
2-Methylnaphthalene	UG/L	-	NA	NA	10 U	NA
Acenaphthene	UG/L	-	NA	NA	10 U	NA
Acenaphthylene	UG/L	-	NA	NA	10 U	NA
Anthracene	UG/L	-	NA	NA	10 U	NA
Benzo(a)anthracene	UG/L	-	NA	NA	10 U	NA
Benzo(a)pyrene	UG/L	-	NA	NA	10 U	NA
Benzo(b)fluoranthene	UG/L	-	NA	NA	10 U	NA
Benzo(g,h,i)perylene	UG/L	-	NA	NA	10 U	NA
Benzo(k)fluoranthene	UG/L	-	NA	NA	10 U	NA
Chrysene	UG/L	-	NA	NA	10 U	NA
Dibenz(a,h)anthracene	UG/L	-	NA	NA	10 U	NA
Fluoranthene	UG/L	-	NA	NA	10 U	NA
Fluorene	UG/L	-	NA	NA	10 U	NA
Indeno(1,2,3-cd)pyrene	UG/L	-	NA	NA	10 U	NA
Naphthalene	UG/L	-	NA	NA	10 U	NA
Phenanthrene	UG/L	-	NA	NA	10 U	NA
Pyrene	UG/L	-	NA	NA	10 U	NA
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	NA	NA	ND	NA

*Criteria- Goundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit.

NA - The sample was not analyzed for this parameter. ND - Not detected.

Made By_PRF 08/15/16_; Checked By_AMK 08/29/16_

Detection Limits shown are PQL

J:\Projects\11175065.00000\DB\Program\EDMS.md
Printed: 1/10/2017 9:45:36 AM
[LOGDATE] BETWEEN #6/14/2016# AND #6/20/2016# AND [MATRIX] = 'WQ

ATTACHMENT A

VALIDATED FORM 1'S

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-3S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79725.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-3S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606138-008B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7052.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-3I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79727.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-3I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-010B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7054.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-3D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79726.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

EPA SAMPLE NO.

HIMW-3D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-009B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7053.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HDMW-05S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-012A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79729.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-012B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7199.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/28/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/03/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

8/12/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-5I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79722.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	2	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	
1330-20-7	Xylene (total)	61	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-061716 (HIMW-05I)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-011A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79728.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	2	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	
1330-20-7	Xylene (total)	61	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-5I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-005B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7049.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	670 ~~600~~	~~E~~ D
91-57-6	2-Methylnaphthalene	130 ~~140~~	~~E~~ DJ
208-96-8	Acenaphthylene	120 ~~110~~	~~E~~ DJ
83-32-9	Acenaphthene	9	J
86-73-7	Fluorene	20	
85-01-8	Phenanthrene	10	
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

8/12/16

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-5IDL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-0C5BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7058.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	670	D
91-57-6	2-Methylnaphthalene	130	DJ
208-96-8	Acenaphthylene	120	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	200	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

8/12/16

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-061716
(HIMW-05I)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-011B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7148.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	930 ~~660~~	~~E~~ D
91-57-6	2-Methylnaphthalene	180 ~~160~~	~~E~~ DJ
208-96-8	Acenaphthylene	170 ~~140~~	~~E~~ DJ
83-32-9	Acenaphthene	9	J
86-73-7	Fluorene	21	
85-01-8	Phenanthrene	10	
120-12-7	Anthracene	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

6/12/16
2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-061716DL (HIMW-05 I)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-011BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7189.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/16

Injection Volume: 1 (µL) Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	930	D
91-57-6	2-Methylnaphthalene	180	DJ
208-96-8	Acenaphthylene	170	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	27	DJ
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

8/12/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-5D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79719.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	2	
108-88-3	Toluene	1	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	92	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-5D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-002B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7046.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	870 ~~780~~	~~E~~ D
91-57-6	2-Methylnaphthalene	110 ~~130~~	~~E~~ DJ
208-96-8	Acenaphthylene	31	
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	5	J
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

8/12/16 2

1C

EPA SAMPLE NO.

HIMW-5DDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-002BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7057.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	870	D
91-57-6	2-Methylnaphthalene	110	DJ
208-96-8	Acenaphthylene	32	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	200	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

8/12/16

2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-8S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79701.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: not dec. Date Analyzed: 06/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	12	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-8S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-002B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7152.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	1	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-8I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79700.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: not dec. Date Analyzed: 06/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-8I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J7C-001B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7151.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-014A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79731.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-08D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-014B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7150.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-12S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79703.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: not dec. Date Analyzed: 06/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

EC

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-12S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-005B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7157.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79457.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/18/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-007B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: S6935.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/17/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/22/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79458.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/18/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-008B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: R34600.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/20/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/23/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HDMW-13D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-013A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79730.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	3	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-13D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-013B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7149.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	12	
83-32-9	Acenaphthene	6	J
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-14I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79452.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/17/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	5	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-14I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-002B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: S6930.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/17/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/22/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	12	
83-32-9	Acenaphthene	11	
86-73-7	Fluorene	3	J
85-01-8	Phenanthrene	4	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-14D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79451.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/17/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-14D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-001B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: S6929.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/17/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/22/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-15I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79453.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/17/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	2	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-061516 (HIMW-15I)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79455.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/18/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	2	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-15[illegible]

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-003B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: S6931.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/17/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/22/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	8	J
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-061516 (H3MW-15I)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-005B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: S6933.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/17/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/22/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	8	J
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-15D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79459.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/18/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-15D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-009B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: R34601.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/20/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/23/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79456.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/18/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-006B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: S6934.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/17/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/22/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79454.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/18/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-004B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: S6932.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/17/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/22/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-22

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-011A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79460.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/18/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-22

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-011B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: R34605.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/20/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/23/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-23

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79462.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/18/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-23

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-010B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: R34602.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/20/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/23/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-24

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79718.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-24

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606138-001B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7045.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	1	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-25

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79720.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

EPA SAMPLE NO.

HIMW-25

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 160633B-003B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7047.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-26I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79723.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-26I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-006B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7050.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-26D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79724.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	24	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-26D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606138-007B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7051.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	390 ~~430~~	~~E~~ D
91-57-6	2-Methylnaphthalene	82 ~~110~~	~~E~~ DJ
208-96-8	Acenaphthylene	47	
83-32-9	Acenaphthene	3	J
86-73-7	Fluorene	8	J
85-01-8	Phenanthrene	6	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

8/12/16

1C

EPA SAMPLE NO.

HIMW-26DDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 16C6I38-007BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7059.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	390	D
91-57-6	2-Methylnaphthalene	82	DJ
208-96-8	Acenaphthylene	44	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	200	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

6/12/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-27S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79706.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: not dec. Date Analyzed: 06/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (pL) Soil Aliquot Volume _____ (pL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	7	
108-88-3	Toluene	19	
100-41-4	Ethylbenzene	510 ~~480~~	~~E~~ D
1330-20-7	Xylene (total)	670 ~~540~~	~~E~~ D

8/15/16

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-27SDL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-004ADL

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79821.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: not dec. Date Analyzed: 06/28/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 5.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	7	D
108-88-3	Toluene	20	D
100-41-4	Ethylbenzene	510	D
1330-20-7	Xylene (total)	670	D

8/15/16

IC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-27S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-004B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7154.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	1200 ~~870~~	~~E~~ D
91-57-6	2-Methylnaphthalene	390 ~~300~~	~~E~~ D
208-96-8	Acenaphthylene	5	J
83-32-9	Acenaphthene	73	
86-73-7	Fluorene	37	
85-01-8	Phenanthrene	36	
120-12-7	Anthracene	6	J
206-44-0	Fluoranthene	2	J
129-00-0	Pyrene	3	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

8/12/16 2

1C

EPA SAMPLE NO.

HIMW-27SDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-004BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7191.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/16

Injection Volume: 1 (µL) Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	1200	D
91-57-6	2-Methylnaphthalene	390	D
208-96-8	Acenaphthylene	200	U
83-32-9	Acenaphthene	89	DJ
86-73-7	Fluorene	44	DJ
85-01-8	Phenanthrene	46	DJ
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

8/12/16
2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-27I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79704.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: not dec. Date Analyzed: 06/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-27I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-006B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7158.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-28S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79702.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: not dec. Date Analyzed: 06/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	4	
108-88-3	Toluene	2	
100-41-4	Ethylbenzene	180	
1330-20-7	Xylene (total)	27	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-28S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-003B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7153.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	580 ~~450~~	~~E~~ D
91-57-6	2-Methylnaphthalene	92 ~~81~~	~~E~~ DJ
208-96-8	Acenaphthylene	1	J
83-32-9	Acenaphthene	31	
86-73-7	Fluorene	16	
85-01-8	Phenanthrene	15	
120-12-7	Anthracene	3	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

8/12/16

1C

EPA SAMPLE NO.

HIMW-28SDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-003BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7190.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/16

Injection Volume: 1 (µL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	580	D
91-57-6	2-Methylnaphthalene	92	DJ
208-96-8	Acenaphthylene	100	U
83-32-9	Acenaphthene	33	DJ
86-73-7	Fluorene	19	DJ
85-01-8	Phenanthrene	19	DJ
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

8/12/16 2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-28I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79721.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/25/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-28I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 16C6I38-004B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7048.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/21/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB201610620

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79705.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: not dec. Date Analyzed: 06/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FB2016/0620

8/12/16

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-007B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: S7159.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: Decanted: (Y/N) N Date Extracted: 06/22/16

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/16

Injection Volume: 1 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) µg/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK (6/15/16)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS206

Matrix: (soil/water) WATER Lab Sample ID: 1606F83-012A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79461.D

Level: (low/med) LOW Date Received: 06/15/16

% Moisture: not dec. Date Analyzed: 06/18/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB 20160617

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606I38-015A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79717.D

Level: (low/med) LOW Date Received: 06/17/16

% Moisture: not dec. Date Analyzed: 06/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB 20160620

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS207

Matrix: (soil/water) WATER Lab Sample ID: 1606J70-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 6\F79716.D

Level: (low/med) LOW Date Received: 06/20/16

% Moisture: not dec. Date Analyzed: 06/24/16

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

ATTACHMENT B

SUPPORT DOCUMENTATION

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Key - URS206

Page: 1 of 2

2054896

Section A Required Client Information:
Company: AECOM / URS
Address: 125 Broad St
New York NY
Email To: Jon.Sundquist Pete.Fairbanks
Phone: 716 856 5636 Fax:
Requested Due Date/TAT: Stnd

Section B Required Project Information:
Report To: Peter Fairbanks
Copy To:
Purchase Order No.: 60411980
Project Name: National Grid - Hempstead
Project Number:

Section C Invoice Information:
Attention: AECOM / URS
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Jen Aracri
Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER
Site Location STATE: NY

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: BTEX	PAHs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-14D	WT		6/14/16	1155				4	2			2					X	X			
2	HIMW-14I	WT		↓	1330				4	2			2					X	X			
3	HIMW-15I	WT		6/15/16	950				4	2			2					X	X			
4	HIMW-20I	WT		6/15/16	1155				4	2			2					X	X			
5	DUP-061516	WT		6/15/16	1200				4	2			2					X	X			
6	HIMW-20S	WT		6/15/16	1345				4	2			2					X	X			
7																						
8																						
9																						
10						6/15/16	1345															
11																						
12	TB			6/13/16					2				2					X				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
2 Coolers	AECOM	6/15/16	1435		6/17/16	1435	2.3	Y	Y	Y
		6/15/16	1580		6/15/16	15:20	1.2			

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Cary Friedman
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 6/15/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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CHAIN-OF-CUSTODY / Analytical Request Document

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Key- URS206

Page: 1 of 1

2054891

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM CORP	Report To: PETER FAIRBANKS	Attention:
Address: 257 W. GENESEE ST.	Copy To:	Company Name:
BUFFALO, NY 14202	KEVIN CONNORS	Address:
Email To: PETER.FAIRBANKS@AECOM.COM	Purchase Order No.:	Pace Quote Reference:
Phone: 716-856-5636 Fax: —	Project Name: NATIONAL GRID, HEMPSTEAD	Pace Project Manager:
Requested Due Date/TAT: STANDARD	Project Number: 60411920.1117609B.00004	Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test: VOC - SW 8260B	SVOC - SW 8270C	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-13S	WT	G		6/14/16	11:30				4	2			2						X	X		16060F83
2	HIMW-13I	WT	G		6/14/16	14:30				4	2			2						X	X		
3	HIMW-15D	WT	G		6/15/16	9:30				4	2			2						X	X		
4	HIMW-23	WT	G			11:28				4	2			2						X	X		
5	HIMW-23 MS	WT	G			11:32				4	2			2						X	X		
6	HIMW-23 MSD	WT	G			11:31				4	2			2						X	X		
7	HIMW-22	WT	G		↓	13:25				4	2			2						X	X		
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
NATIONAL GRID HEMPSTEAD	JOHN CRESPO	6/15/16	14:40		6/15/16	1440	2.3	Y	Y	Y
		6/15/16	15:20		6/15/16	15:20	1.2			

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: JOHN CRESPO

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 6/15/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Long Island

575 Broad Hollow Road
Melville, NY 11747

tel 631.694.3040
fax 631.420.8436

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 6/15/16
SDG #: KEY-URS206

For Sample(s):

HIMW-14D	HIMW-13S
HIMW-14I	HIMW-13I
HIMW-15I	HIMW-15D
HIMW-20I	HIMW-23
DUP-061516	HIMW-22
HIMW-20s	TRIP BLANK (6/15/16)

8/12/16 2

The above water sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260C .

All Q. C. data and calibrations met the requirements of the method unless discussed below, and no problems were encountered with sample analysis. The following should be noted:

Sample HIMW-23 was submitted for matrix spike/ matrix spike duplicate (MS/MSD) analysis. All percent recovery and RPD limits were met.. Lab fortified blanks were analyzed, and recoveries indicate good method efficiency.

One surrogate standard had a low recovery in method blank MB-56649, which meets acceptance criteria.

In the initial calibrations, average response factors were employed.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: July 12, 2016

****
*
*
****
Ursula Middel
Quality Analyst.

Pace Long Island

575 Broad Hollow Road
Melville, NY 11747

tel 631.694.3040
fax 631.420.8436

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES
SAMPLES RECEIVED: 6/15/16
SDG #: KEY-URS206

For Samples:

HIMW-14D	HIMW-13S
HIMW-14I	HIMW-13I
HIMW-15I	HIMW-15D
HIMW-20I	HIMW-23
DUP-061516	HIMW-22
HIMW-20S	

The above samples were analyzed for the STARS list of base–neutral extractables by EPA method 8270D and reported with the deliverables of NYSDEC ASP Rev. 2005, Category B.

All Q. C. data and calibrations met the requirements of the method. The following should be noted:

Sample HIMW-23 was submitted for matrix spike/matrix spike duplicate (MS/MSD) analysis. All percent recoveries and RPDs were met. Lab fortified blanks (LFB) were analyzed and results indicate good method efficiency.

One surrogate standards had a low recovery in MB-56649.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signaturc.

Date Reported: July 20, 2016

****
* *
* *
****
Joann Slavin
General Manager

KEY-URS207

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Page: 1 of 2

2054895

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM/URS	Report To: Peter Fairbanks	Attention: Jon Sundquist
Address:	Copy To:	Company Name:
Buffalo NY		Address:
Email To: Peter Fairbanks	Purchase Order No.:	Pace Quote Reference:
Phone: 716 856 5636 Fax:	Project Name: National Grid - Hempstead	Pace Project Manager: Jen Arachi
Requested Due Date/TAT: Std	Project Number:	Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

Section D Required Client Information

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX	PAHs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-24	WT	G	6/16/16	935				4	2			2					Y	X	X		16061738
2	HIMW-5D	WT	G	6/16/16	740				4	2			2					Y	X	X		
3	HIMW-25	WT	G	6/16/16	1120				4	2			2					Y	X	X		
4	HIMW-28I	WT	G	6/16/16	1440				4	2			2					Y	X	X		
5	HIMW-5I	WT	G	6/17/16	750				4	2			2					Y	X	X		
6	HIMW-26I	WT	G	6/17/16	1010				4	2			2					Y	X	X		
7	HIMW-26D	WT	G	6/17/16	1009				4	2			2					Y	X	X		
8	HIMW-35	WT	G	6/17/16	1135				4	2			2					Y	X	X		
9	HIMW-30	WT	G	6/17/16	1150				4	2			2					Y	X	X		
10	HIMW-3I	WT	G	6/17/16	1310		6/17/16		4	2			2					Y	X	X		
11	DUP-061716	WT	G	6/17/16	1200				4	2			2					Y	X	X		
12	TB	WT	G	6/17/16	—	6/17/16			2				2					Y	X			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Accom	6/16/16			6/17/16	14:32	1.1 X X X
		6/17/16	15:30	Jaclyn Rivera/Pace	6/17/16	15:30	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cary Friedman

SIGNATURE of SAMPLER: Cary F

DATE Signed (MM/DD/YY): 6/17/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

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KEY-URS207

Page: 2 of 2

2054893

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM CORP.	Report To: PETER FAIRBANKS	Attention:
Address: 257 W. GENESEE ST.	Copy To: KEVIN CONRAD	Company Name:
BUFFALO, NY 14202		Address:
Email To: PETER.FAIRBANKS@AECOM.COM	Purchase Order No.:	Pace Quote Reference:
Phone: 716-856-5636 Fax: —	Project Name: NATIONAL GRID, HEMPSTEAD	Pace Project Manager:
Requested Due Date/TAT: STANDARD	Project Number: 60411920.11176098.00004	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NY

Section D Required Client Information

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VOC-SW 8260B	SVOC-SW 8270C	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-05S	WT	G	6/16/16	8:04				4	2			2					X	X			16060138
2	HIMW-13D	WT	G	↓	10:15				4	2			2					X	X			
3	HIMW-08D	WT	G	↓	13:50				4	2			2					X	X			
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
NATIONAL GRID, HEMPSTEAD	AECOM	6/17/16			6/17/16	14:32	0.8	Y	Y	Y
		6/17/16	15:30		6/17/16	15:30				

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cary Friedman

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 6/17/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-NJ-C-029rev.07, 15-May-2007

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Key-URS207

Page: 1 of 1

2054892

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM / URS	Report To: Peter Fairbanks	Attention: Jon Sundquist
Address: Buffalo NY	Copy To: Jon Sundquist	Company Name: AECOM
Email To: Peter Fairbanks	Purchase Order No.:	Address: Buffalo NY
Phone: 716 856 5636 Fax:	Project Name: National Grid Hempstead	Pace Quote Reference:
Requested Due Date/TAT: Stand	Project Number:	Pace Project Manager:
		Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes — MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX	PAHs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-8I	WT	G	6/20/16	915				4	2			2						X	X		16060570
2	HIMW-8S	WT	C	6/20/16	1045				4	2			2						X	X		
3	HIMW-28S	WT	C	6/20/16	1240				4	2			2						X	X		
4	HIMW-27S	WT	G		10:44				4	2			2						X	X		
5	HIMW-27S MS	WT	G		10:47				4	2			2						X	X		
6	HIMW-27S MSD	WT	G		10:50				4	2			2						X	X		
7	HIMW-12S	WT	G		9:05				4	2			2						X	X		
8	HIMW-27I	WT	G		12:10				4	2			2						X	X		
9	FB 20160620	WT	G		13:20				4	2			2						X	X		
10																						
11																						
12	TB	WT		6/13/16	—				2				2						X			

8/12/16

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
NATIONAL GRID, HEMPSTEAD	Gary Friedman AECOM	6/20/16	1332	PACE	6/20/16	1332
		6/20/16	1420		6/20/16	14:20

SAMPLE CONDITIONS

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
0.7	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Gary Friedman
SIGNATURE of SAMPLER: Gary Friedman
DATE Signed (MM/DD/YY): 6/21/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Long Island

575 Broad Hollow Road
Melville, NY 11747

tel 631.694.3040
fax 631.420.8436

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 6/17/16-6/20/16
SDG #: KEY-URS207

For Sample(s):

HIMW-24	HIMW-3D	HIMW-8S
HIMW-5D	HIMW-3I	HIMW-28S
HIMW-25	DUP-061716	HIMW-27S
HIMW-28I	HIMW-05S	HIMW-12S
HIMW-5I	HIMW-13D	HIMW-27I
HIMW-26I	HIMW-08D	FB20161620
HIMW-26D	TB (6/17/16)	TB (6/20/16)
HIMW-3S	HIMW-8I	

6/12/16

The above water sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260C .

All Q. C. data and calibrations met the requirements of the method unless discussed below, and no problems were encountered with sample analysis. The following should be noted:

Sample HIMW-27S was submitted for matrix spike/ matrix spike duplicate (MS/MSD) analysis. All percent recovery and RPD limits were met. Lab fortified blanks were analyzed, and recoveries indicate good method efficiency.

One sample was reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

In the initial calibrations, average response factors were employed.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: July 26, 2016

****
* *
* *
****
Joann Slavin
General Manager

Pace Long Island

575 Broad Hollow Road
Melville, NY 11747

tel 631.694.3040
fax 631.420.8436

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES
SAMPLES RECEIVED: 6/17/16-6/20/16
SDG #: KEY-URS207

For Samples:

HIMW-24	HIMW-05S
HIMW-5D	HIMW-13D
HIMW-25	HIMW-08D
HIMW-28I	HIMW-8I
HIMW-5I	HIMW-8S
HIMW-26I	HIMW-28S
HIMW-26D	HIMW-27S
HIMW-3S	HIMW-12S
HIMW-3D	HIMW-27I
HIMW-3I	FB20161620
DUP-061716	

8/12/16

The above samples were analyzed for the STARS list of base–neutral extractables by EPA method 8270D and reported with the deliverables of NYSDEC ASP Rev. 2005, Category B.

All Q.C. data and calibrations met the requirements of the method. The following should be noted:

Sample HIMW-27S was submitted for matrix spike/matrix spike duplicate (MS/MSD) analysis. Several analyte recoveries are not useable as the amount spiked was not a multiple of the sample concentration. These are listed on the MS/MSD form 3. Lab fortified blanks (LFB) were analyzed and results indicate good method efficiency.

One surrogate standard had a low recovery in the sample MSD.
Sample HI-MW-05S was inadvertently extracted outside of holding times.

Six samples were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: July 20, 2016

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* *
* *
****
Joann Slavin
General Manager

PACE ANALYTICAL

PREP BATCH REPORT

Prep Start Date: **6/28/2016 10:25:53**
Prep End Date: **6/29/2016 7:55:39 P**

Prep Batch ID: **56797** Prep Code: **3520_B** Technician: **Henry Barrera**

Initial Temp: **°C** Final Temp **°C**

Prep Factor Units: **mL / mL**

Sample ID	ClientSampleID	Matrix	pH1	pH2	SampAmt	Fin Vol	factor	GPC	Acid	Sulfur	Florisil	PrepStart	PrepEnd
MB-56797		Aqueous	2		1000	1	0.001	☐	☐	☐	☐	6/28/2016	6/29/2016
1606I38-012B	HIMW-05S	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	6/28/2016	6/29/2016
Prep Method hold time was exceeded by 5.599 day(s)													
1606N47-001B	EFFLUENT	Waste Water	2		1000	1	0.001	☐	☐	☐	☐	6/28/2016	6/29/2016
Prep Method hold time was exceeded by 0.466 day(s)													
1606Q66-001B	BBMW-23S	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	6/28/2016	6/29/2016
1606Q66-002B	BBMW-23I	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	6/28/2016	6/29/2016
1606Q88-001B	MW4	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	6/28/2016	6/29/2016
1606Q88-002B	MW1	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	6/28/2016	6/29/2016
1606Q88-003B	MW2	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	6/28/2016	6/29/2016
1606Q88-004B	MW3	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	6/28/2016	6/29/2016
LFB-56797		Aqueous	2		1000	1	0.001	☐	☐	☐	☐	6/28/2016	6/29/2016

Type	Chemical / Reagent ID	Chemical / Reagent Name	Container#	Container I	Amount Added	Unit
Chemical	728	methylene chloride 163035	6456	Container-01 of 01	0	mL

Spike ID	Spike Name	Samp Type	Container#	Container ID	Amount Added	Amount Unit
Benzidine_S	Benzidine and 3,3-Dichlorobenzidine	LFB	4441	Container-02 of 04	25	µL
QC4.2_AF	QC spike for BNA 4.2	LFB	4571	Container-01 of 01	500	µL
QC625_CG	BNA QC SPIKE	LFB	4650	Container-01 of 01	500	µL
SS952_AQ	BNA Surrogate	ALL	4600	Container-01 of 01	500	µL

Equipment ID	Description

Cleanups:
GPC = Method EPA3640A
Acid = Method EPA3665A
Sulfur= Method EPA3660B
Florisil = Method-EPA3620B

APPENDIX B

OXYGEN SYSTEM OPERATION & MAINTENANCE MEASUREMENTS

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	4/27/2016
Time:	11:45
Weather:	Sunny
Outdoor Temperature:	~70° F
Inside Trailer Temperature:	~67° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	16,606.0	
Feed Air Pressure *	105	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	95	(psi)
Oxygen Purity	80.6	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	110	(psi)
(readings below are made from control panel)		
Delivery Air	115	(psi)
Element Outlet Temperature	169	(oF)
Running Hours	19,383	(hours)
Loading Hours	12,521	(hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5			OW-1-5S	67.3			OW-1-9D	88.5		
OW-1-2	96.5			OW-1-6S	67.0			OW-1-10D	87.2		
OW-1-3	96.3			OW-1-7S	66.9			OW-1-11D	86.1		
OW-1-4	95.0			OW-1-8S	66.7			OW-1-12D	85.3		
OW-1-5D	93.9			OW-1-9S	66.0			OW-1-13D	84.7		
OW-1-6D	92.4			OW-1-10S	54.6			OW-1-14D	84.1		
OW-1-7D	91.1			OW-1-11S	54.1			OW-1-15D	83.3		
OW-1-8D	89.6			OW-1-12S	53.6			OW-1-16D	82.5		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #1 and Bank #3 were set at 3 minutes.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 4/27/2016

O_2 Injection System #1

Injection Bank 4				Injection Bank 5				Injection Bank 6			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-13S	53.1			OW-1-17D	79.5			OW-1-21S	49.3		
OW-1-14S	52.7			OW-1-18D	78.3			OW-1-22S	49.3		
OW-1-15S	52.2			OW-1-19D	78.9			OW-1-23S	48.8		
OW-1-16SR	51.8			OW-1-20D	79.5			OW-1-24S	48.4		
OW-1-17S	50.7			OW-1-21D	79.5			OW-1-25S	48.8		
OW-1-18S	50.2			OW-1-22D	79.5			OW-1-26SR	48.3		
OW-1-19S	49.7			OW-1-23D	78.7			OW-1-27S	48.3		
OW-1-20S	49.3			OW-1-24D	78.2			OW-1-28S	48.3		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1			OW-1-29S	48.5			OW-1-33D	83.2		
OW-1-26D	78.1			OW-1-30S	48.8			OW-1-34D	84.5		
OW-1-27D	77.9			OW-1-31S	49.3			OW-1-35D	85.0		
OW-1-28D	78.0			OW-1-32S	49.3			OW-1-36D	85.0		
OW-1-29D	78.4			OW-1-33S	49.7			OW-1-37D	84.0		
OW-1-30D	79.0			OW-1-34S	50.1			OW-1-38D	82.0		
OW-1-31D	80.5			OW-1-35S	50.3			OW-1-39D	78.0		
OW-1-32D	81.6			OW-1-36S	50.3			OW-1-40D	76.0		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

Date: 4/27/2016

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5			OW-1-41D	73.6			OW-1-43	67.4		
OW-1-38S	50.6			OW-1-42D	71.0			OW-1-44	66.6		
OW-1-39S	50.7			OW-1-45	65.7			OW-1-51R	60.6		
OW-1-40S	51.1			OW-1-46	64.3			OW-1-52	59.3		
OW-1-41S	51.5			OW-1-47	63.4			OW-1-53	60.0		
OW-1-42S	51.3			OW-1-48	62.5			OW-1-54	60.0		
				OW-1-49	61.5						
				OW-1-50	61.0						

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection time at Bank #11 was set at 6 minutes.

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	28.07		0.1	MP-1-5	27.90	28.30	0	MP-1-1D	23.12
MP-1-1S	28.15	12.55	0	MP-1-6	20.17	3.55	0	MP-1-2D	30.33
MP-1-2D	22.45		0	MP-1-7	23.45	30.42	0	MP-1-3D	15.18
MP-1-2S	22.67	11.94	0	MP-1-8	24.97	2.56	0	MP-1-4D	10.13
MP-1-3D	20.63		0.3						
MP-1-3S	20.58	10.96	0.2						
MP-1-4D	23.42		0						
MP-1-4S	23.37	7.81	0						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 4/27/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) ____ Normal (green) X High (orange) ____
3) Oil added Yes ____ No X
4) Oil changed Yes X No ____
5) Oil filter changed Yes X No ____
6) Air filter Changed Yes X No ____
7) Oil separator changed Yes ____ No X
8) Terminal strips checked Yes X No ____

AS-80 O_2 Generator

1) Profiler changed Yes X No ____
2) Coalescing changed Yes X No ____

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No ____
2) Abnormal conditions observed (e.g. vandalism) ____
3) Other major activities completed ____
4) Supplies needed ____
5) Visitors ____

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

4-21-16 Went to site to perform 6-month maintenance and found system running. However, upon further inspection the compressor control panel was off, the battery backup control box was not working, and the dryer unit was not running. Check all motor controls and main lines feeding power to system and found that one of the 3-phase power legs was not working and that the other legs were supply 220 volts. Immediately shot down all components and shot down the main power disconnect switch. Called PSEG for emergency service. Started routine maintenance on the air compressor and auto drains while waiting for PSEG. When PSEG arrived they inspected the power lines and found lines broken due to overgrown trees along the sidewalk. PSEG called in an emergency line clearance crew and would work through the night to fix the issue.

4-22-16 Returned to site to make sure repairs were completed and to inspect system for damage. Found main lines repair. Turned power back onto system and started inspecting each unit. Found all fuses blown in the air sep unit, found all fuses and lightening arrestors blown in the control panel, and found all overhead light bulbs blown. Installed new fuses and temporary wire jumpers to be able to run controls. Called Matrix for support due to one control fuse not working with main computer.

4-25-16 Continued to trace out problems with equipment from power overload. Found booster pump not functioning with main control panel. Unable to find problem and notified Matrix of need for tech support. Informed that main technician was away until early May and we could call then to arrange a visit. Continued with annual maintenance on air sep unit and booster pump.

4-26-16 Continued annual maintenance on system. Removed and cleaned all auto drains, cleaned oil water separator, installed new filters on all equipment, installed new belts on booster pump and compressor. Wiped down all equipment and cleaned out shed of debris.

4-27-16 Finished monthly maintenance on system by taking readings from all monitoring points. Cut down brush in front of chain link gates and cleaned up garbage coving monitoring points.

4-29-16 Disconnected all flow meters and took apart floats and steel rods. Cleaned all black dust off all parts and cleaned inside glass. Cleaned rods to prevent floats from sticking. Reinstalled and testing all piping for leaks. Sprayed weed killer around fences to prevent growth. Left system off pending meeting with Matrix for computer issues.

OW-1-19S remains off due to leaking line.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-934-323 tied into Pole #4

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	5/26/2016
Time:	11:45
Weather:	Sunny
Outdoor Temperature:	~89° F
Inside Trailer Temperature:	~75° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours _____

Feed Air Pressure * _____ (psi)

Cycle Pressure * _____ (psi)

Oxygen Receiver Pressure * _____ (psi)

Oxygen Purity _____ (percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank * _____ (psi)

(readings below are made from control panel)

Delivery Air _____ (psi)

Element Outlet Temperature _____ (oF)

Running Hours _____ (hours)

Loading Hours _____ (hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5			OW-1-5S	67.3			OW-1-9D	88.5		
OW-1-2	96.5			OW-1-6S	67.0			OW-1-10D	87.2		
OW-1-3	96.3			OW-1-7S	66.9			OW-1-11D	86.1		
OW-1-4	95.0			OW-1-8S	66.7			OW-1-12D	85.3		
OW-1-5D	93.9			OW-1-9S	66.0			OW-1-13D	84.7		
OW-1-6D	92.4			OW-1-10S	54.6			OW-1-14D	84.1		
OW-1-7D	91.1			OW-1-11S	54.1			OW-1-15D	83.3		
OW-1-8D	89.6			OW-1-12S	53.6			OW-1-16D	82.5		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #1 and Bank #3 were set at 3 minutes.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 5/26/2016

O_2 Injection System #1

Injection Bank 4				Injection Bank 5				Injection Bank 6			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-13S	53.1			OW-1-17D	79.5			OW-1-21S	49.3		
OW-1-14S	52.7			OW-1-18D	78.3			OW-1-22S	49.3		
OW-1-15S	52.2			OW-1-19D	78.9			OW-1-23S	48.8		
OW-1-16SR	51.8			OW-1-20D	79.5			OW-1-24S	48.4		
OW-1-17S	50.7			OW-1-21D	79.5			OW-1-25S	48.8		
OW-1-18S	50.2			OW-1-22D	79.5			OW-1-26SR	48.3		
OW-1-19S	49.7			OW-1-23D	78.7			OW-1-27S	48.3		
OW-1-20S	49.3			OW-1-24D	78.2			OW-1-28S	48.3		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1			OW-1-29S	48.5			OW-1-33D	83.2		
OW-1-26D	78.1			OW-1-30S	48.8			OW-1-34D	84.5		
OW-1-27D	77.9			OW-1-31S	49.3			OW-1-35D	85.0		
OW-1-28D	78.0			OW-1-32S	49.3			OW-1-36D	85.0		
OW-1-29D	78.4			OW-1-33S	49.7			OW-1-37D	84.0		
OW-1-30D	79.0			OW-1-34S	50.1			OW-1-38D	82.0		
OW-1-31D	80.5			OW-1-35S	50.3			OW-1-39D	78.0		
OW-1-32D	81.6			OW-1-36S	50.3			OW-1-40D	76.0		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

Date: 5/26/2016

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5			OW-1-41D	73.6			OW-1-43	67.4		
OW-1-38S	50.6			OW-1-42D	71.0			OW-1-44	66.6		
OW-1-39S	50.7			OW-1-45	65.7			OW-1-51R	60.6		
OW-1-40S	51.1			OW-1-46	64.3			OW-1-52	59.3		
OW-1-41S	51.5			OW-1-47	63.4			OW-1-53	60.0		
OW-1-42S	51.3			OW-1-48	62.5			OW-1-54	60.0		
				OW-1-49	61.5						
				OW-1-50	61.0						

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection time at Bank #11 was set at 6 minutes.

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	28.35		0	MP-1-5	28.14	24.28	0	MP-1-1D	18.40
MP-1-1S	28.42	10.94	0.2	MP-1-6	20.34	1.67	0	MP-1-2D	19.70
MP-1-2D	22.70		0	MP-1-7	23.67	17.71	0	MP-1-3D	5.74
MP-1-2S	22.92	9.70	0	MP-1-8	25.21	3.39	0	MP-1-4D	0.06
MP-1-3D	20.86		0.2						
MP-1-3S	20.82	3.59	0						
MP-1-4D	23.62		0						
MP-1-4S	23.65	0.24	0						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 5/26/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes ____ No X
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) ____ Normal (green) ____ High (orange) ____
3) Oil added Yes ____ No X
4) Oil changed Yes ____ No X
5) Oil filter changed Yes ____ No X
6) Air filter Changed Yes ____ No X
7) Oil separator changed Yes ____ No X
8) Terminal strips checked Yes ____ No X

AS-80 O_2 Generator

1) Profiler changed Yes ____ No X
2) Coalescing changed Yes ____ No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No ____
2) Abnormal conditions observed (e.g. vandalism) ____
3) Other major activities completed ____
4) Supplies needed ____
5) Visitors ____

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

5-4-16 Went to job site after speaking with Matrix tech support. Shut down power to main panel and removed all fuses and breakers to check buss rails for any cracks or burned wire. Found two scorched areas and cleaned marks of rails. Reinstalled fuses and breakers and left system off until Matrix could come and inspect system.

5-11-16 Met with Matrix at site to determine issues with the system,. Restarted system and compressor and dryer unit started up and began building pressure. Air separator and booster pump would not start as signal was not coming from the main control panel. Traced back problem to the PLC unit and determined the PLC was burned out along with the memory board. Units will need to be replaced and reprogrammed.

5-26-16 Took monitoring point readings as part of routine O&M visit. Cut down more overgrown brush next to gates ad fencing. Found someone tried cutting through grid lock on dead end gate and fencing next gate is all broken apart.

OW-1-19S remains off due to leaking line.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-934-323 tied into Pole #4

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	6/28/2016
Time:	13:15
Weather:	Cloudy
Outdoor Temperature:	~75° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours _____

Feed Air Pressure * _____ (psi)

Cycle Pressure * _____ (psi)

Oxygen Receiver Pressure * _____ (psi)

Oxygen Purity _____ (percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank * _____ (psi)

(readings below are made from control panel)

Delivery Air _____ (psi)

Element Outlet Temperature _____ (oF)

Running Hours _____ (hours)

Loading Hours _____ (hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5			OW-1-5S	67.3			OW-1-9D	88.5		
OW-1-2	96.5			OW-1-6S	67.0			OW-1-10D	87.2		
OW-1-3	96.3			OW-1-7S	66.9			OW-1-11D	86.1		
OW-1-4	95.0			OW-1-8S	66.7			OW-1-12D	85.3		
OW-1-5D	93.9			OW-1-9S	66.0			OW-1-13D	84.7		
OW-1-6D	92.4			OW-1-10S	54.6			OW-1-14D	84.1		
OW-1-7D	91.1			OW-1-11S	54.1			OW-1-15D	83.3		
OW-1-8D	89.6			OW-1-12S	53.6			OW-1-16D	82.5		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #1 and Bank #3 were set at 3 minutes.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/28/2016

O_2 Injection System #1

Injection Bank 4				Injection Bank 5				Injection Bank 6			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-13S	53.1			OW-1-17D	79.5			OW-1-21S	49.3		
OW-1-14S	52.7			OW-1-18D	78.3			OW-1-22S	49.3		
OW-1-15S	52.2			OW-1-19D	78.9			OW-1-23S	48.8		
OW-1-16SR	51.8			OW-1-20D	79.5			OW-1-24S	48.4		
OW-1-17S	50.7			OW-1-21D	79.5			OW-1-25S	48.8		
OW-1-18S	50.2			OW-1-22D	79.5			OW-1-26SR	48.3		
OW-1-19S	49.7			OW-1-23D	78.7			OW-1-27S	48.3		
OW-1-20S	49.3			OW-1-24D	78.2			OW-1-28S	48.3		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1			OW-1-29S	48.5			OW-1-33D	83.2		
OW-1-26D	78.1			OW-1-30S	48.8			OW-1-34D	84.5		
OW-1-27D	77.9			OW-1-31S	49.3			OW-1-35D	85.0		
OW-1-28D	78.0			OW-1-32S	49.3			OW-1-36D	85.0		
OW-1-29D	78.4			OW-1-33S	49.7			OW-1-37D	84.0		
OW-1-30D	79.0			OW-1-34S	50.1			OW-1-38D	82.0		
OW-1-31D	80.5			OW-1-35S	50.3			OW-1-39D	78.0		
OW-1-32D	81.6			OW-1-36S	50.3			OW-1-40D	76.0		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

Date: 6/28/2016

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5			OW-1-41D	73.6			OW-1-43	67.4		
OW-1-38S	50.6			OW-1-42D	71.0			OW-1-44	66.6		
OW-1-39S	50.7			OW-1-45	65.7			OW-1-51R	60.6		
OW-1-40S	51.1			OW-1-46	64.3			OW-1-52	59.3		
OW-1-41S	51.5			OW-1-47	63.4			OW-1-53	60.0		
OW-1-42S	51.3			OW-1-48	62.5			OW-1-54	60.0		
				OW-1-49	61.5						
				OW-1-50	61.0						

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection time at Bank #11 was set at 6 minutes.

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	28.84		0.2	MP-1-5	28.63	19.01	0	MP-1-1D	13.39
MP-1-1S	28.90	8.80	0	MP-1-6	20.90	1.55	0	MP-1-2D	13.11
MP-1-2D	23.18		0	MP-1-7	24.17	14.00	0	MP-1-3D	4.12
MP-1-2S	23.42	8.41	0	MP-1-8	25.71	2.12	0	MP-1-4D	0.05
MP-1-3D	21.38		0.5						
MP-1-3S	21.29	3.25	0						
MP-1-4D	23.97		0						
MP-1-4S	24.17	0.40	1.2						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/28/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes ____ No X
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) ____ Normal (green) ____ High (orange) ____
3) Oil added Yes ____ No X
4) Oil changed Yes ____ No X
5) Oil filter changed Yes ____ No X
6) Air filter Changed Yes ____ No X
7) Oil separator changed Yes ____ No X
8) Terminal strips checked Yes ____ No X

AS-80 O_2 Generator

1) Profiler changed Yes ____ No X
2) Coalescing changed Yes ____ No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No ____
2) Abnormal conditions observed (e.g. vandalism) ____
3) Other major activities completed ____
4) Supplies needed ____
5) Visitors ____

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

6-28-16 Took monitoring point readings as part of routine O&M visit. Cut down more overgrown brush next to gates ad fencing. Cleaned up water on floor of shed due to leaking roof.

OW-1-19S remains off due to leaking line.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-934-323 tied into Pole #4

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	4/28/2016
Time:	13:40
Weather:	Clear
Outdoor Temperature:	~72° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O2 Generator (AirSep)			Compressor (Kaesar Rotary Screw)		
Hours	32,601		Compressor Tank *		(psi)
Feed Air Pressure *		(psi)	(readings below are made from control panel)		
			Delivery Air		(psi)
Cycle Pressure *		(psi)	Element Outlet Temperature		(^{o}F)
Oxygen Receiver Pressure *		(psi)	Running Hours	33,199	(hours)
			Loading Hours	32,059	(hours)
Oxygen Purity		(percent)			
* maximum reading during loading cycle			* maximum reading during loading cycle		

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'			OW-2-9S	75'			OW-2-10D	97.2'		
OW-2-3	94.3'			OW-2-10S	75'			OW-2-11D	100.8'		
OW-2-4	94.7'			OW-2-11S	76.5'			OW-2-12	94'		
OW-2-5	95.3'			OW-2-13S	75'			OW-2-13D	97'		
OW-2-6	95.7'			OW-2-15S	75'			OW-2-14	96.4'		
OW-2-7	96'			OW-2-16S	75.5'			OW-2-15D	94.6'		
OW-2-8	96.3'			OW-2-18S	74.5'			OW-2-16D	94.1'		
OW-2-9D	96.7'			OW-2-20S	79'			OW-2-17	95'		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 4/28/2016

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'			OW-2-22S	76'			OW-2-26D	95'		
OW-2-19	96.1'			OW-2-24S	77.8'			OW-2-27	93.5'		
OW-2-20D	96.6'			OW-2-26S	74'			OW-2-28D	92.1'		
OW-2-21	96.6'			OW-2-28S	76'			OW-2-29	92.2'		
OW-2-22D	96.3'			OW-2-30S	67.8'			OW-2-30D	88'		
OW-2-23	97.2'			OW-2-34	71'			OW-2-31	86'		
OW-2-24D	97'			OW-2-35	69.2'			OW-2-32	84'		
OW-2-25	96'			OW-2-36	64.8'			OW-2-33	82'		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection banks D & E are turned off.

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'			OW-2-45	61.1'			MP-2-1	30.00	11.82	0
OW-2-38	62.1'			OW-2-46	61'			MP-2-2	32.37	0.25	0
OW-2-39	60'			OW-2-47	60.5'			MP-2-3S	32.22	2.01	0
OW-2-40	61.7'							MP-2-3D	32.35	27.12	0.2
OW-2-41	61.7'							MP-2-4	20.95	5.51	0.5
OW-2-42	61.6'							MP-2-5	19.12	0.56	0
OW-2-43	61.4'										
OW-2-44R	60.6'										

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 4/28/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) Normal (green) X High (orange)
3) Oil added Yes No
4) Oil changed Yes X No
5) Oil filter changed Yes X No
6) Air filter Changed Yes X No
7) Oil separator cleaned Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Prefilter changed Yes No
2) Coalescing changed Yes No

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism)
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

2-18-16 SYSTEM OFF - Collected monitoring point data for monthly visit.

4-8-16 - Met with D&D Electric Motors & Compressors to troubleshoot compressor issues. Turned on system and found fan blade on motor worn out causing motor to be out of balance. In addition, found motor contactors not always holding voltage when compressor starts, causing motor to overload and shut down. D&D submitting quote for repairs.

4-28-16 - Conducted 6-month maintenance on all system components. Changed belts, cooling oil, and all filters. Removed auto drain on dryer and cleaned out silt buildup. Cleaned oil water separator and removed all water from air tank and bowl filters. Repaired check valve on booster pump. Wiped down all equipment and left system off pending repairs.

4-29-16 Disconnected all flow meters and took apart floats and steel rods. Cleaned all black dust off all parts and cleaned inside glass. Cleaned rods to prevent floats from sticking. Reinstalled and testing all piping for leaks. Sprayed weed killer around fences to prevent growth. Left system off pending meeting with Matrix for computer issues.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-929-544 tied into Pole #3

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	5/26/2016
Time:	14:00
Weather:	Clear
Outdoor Temperature:	~89° F
Inside Trailer Temperature:	~75° F
Performed By:	Mike Ryan

O2 Generator (AirSep)			Compressor (Kaesar Rotary Screw)		
Hours			Compressor Tank *		(psi)
Feed Air Pressure *		(psi)	(readings below are made from control panel)		
			Delivery Air		(psi)
Cycle Pressure *		(psi)	Element Outlet Temperature		(^{o}F)
Oxygen Receiver Pressure *		(psi)	Running Hours		(hours)
			Loading Hours		(hours)
Oxygen Purity		(percent)			
* maximum reading during loading cycle			* maximum reading during loading cycle		

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'			OW-2-9S	75'			OW-2-10D	97.2'		
OW-2-3	94.3'			OW-2-10S	75'			OW-2-11D	100.8'		
OW-2-4	94.7'			OW-2-11S	76.5'			OW-2-12	94'		
OW-2-5	95.3'			OW-2-13S	75'			OW-2-13D	97'		
OW-2-6	95.7'			OW-2-15S	75'			OW-2-14	96.4'		
OW-2-7	96'			OW-2-16S	75.5'			OW-2-15D	94.6'		
OW-2-8	96.3'			OW-2-18S	74.5'			OW-2-16D	94.1'		
OW-2-9D	96.7'			OW-2-20S	79'			OW-2-17	95'		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 5/26/2016

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'			OW-2-22S	76'			OW-2-26D	95'		
OW-2-19	96.1'			OW-2-24S	77.8'			OW-2-27	93.5'		
OW-2-20D	96.6'			OW-2-26S	74'			OW-2-28D	92.1'		
OW-2-21	96.6'			OW-2-28S	76'			OW-2-29	92.2'		
OW-2-22D	96.3'			OW-2-30S	67.8'			OW-2-30D	88'		
OW-2-23	97.2'			OW-2-34	71'			OW-2-31	86'		
OW-2-24D	97'			OW-2-35	69.2'			OW-2-32	84'		
OW-2-25	96'			OW-2-36	64.8'			OW-2-33	82'		

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection banks D & E are turned off.

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'			OW-2-45	61.1'			MP-2-1	31.25	10.05	0.2
OW-2-38	62.1'			OW-2-46	61'			MP-2-2	32.61	1.73	0
OW-2-39	60'			OW-2-47	60.5'			MP-2-3S	32.45	1.85	0
OW-2-40	61.7'							MP-2-3D	32.57	12.11	0
OW-2-41	61.7'							MP-2-4	21.17	4.01	0
OW-2-42	61.6'							MP-2-5	19.34	5.02	0
OW-2-43	61.4'										
OW-2-44R	60.6'										

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 5/26/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes ____ No ____
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) ____ Normal (green) ____ High (orange) ____
3) Oil added Yes ____ No X
4) Oil changed Yes ____ No X
5) Oil filter changed Yes ____ No X
6) Air filter Changed Yes ____ No X
7) Oil separator cleaned Yes ____ No X
8) Terminal strips checked Yes ____ No X

AS-80 O_2 Generator

1) Prefilter changed Yes ____ No X
2) Coalescing changed Yes ____ No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No ____
2) Abnormal conditions observed (e.g. vandalism) ____
3) Other major activities completed ____
4) Supplies needed ____
5) Visitors ____

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

5-26-16 SYSTEM OFF - Collected monitoring point data for monthly visit. Cut down over grown brush along fence.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-929-544 tied into Pole #3

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	6/28/2016
Time:	10:40
Weather:	Cloudy
Outdoor Temperature:	~69° F
Inside Trailer Temperature:	~67° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	32,683	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	95	(psi)
Oxygen Purity	79.8	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	95	(psi)
(readings below are made from control panel)		
Delivery Air	112	(psi)
Element Outlet Temperature	172	(^{o}F)
	33319	
Running Hours	32,142	(hours)
Loading Hours		(hours)

* maximum reading during loading cycle

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'	25	30	OW-2-9S	75'	30	19	OW-2-10D	97.2'	30	28
OW-2-3	94.3'	35	31	OW-2-10S	75'	30	30	OW-2-11D	100.8'	30	32
OW-2-4	94.7'	30	30	OW-2-11S	76.5'	30	24	OW-2-12	94'	40	20
OW-2-5	95.3'	30	30	OW-2-13S	75'	30	21	OW-2-13D	97'	30	35
OW-2-6	95.7'	40	31	OW-2-15S	75'	30	19	OW-2-14	96.4'	30	29
OW-2-7	96'	30	30	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	35	28
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	30	19	OW-2-16D	94.1'	30	28
OW-2-9D	96.7'	30	31	OW-2-20S	79'	30	21	OW-2-17	95'	30	29

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/28/2016

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'	30	28	OW-2-22S	76'	30	20	OW-2-26D	95'	30	29
OW-2-19	96.1'	30	29	OW-2-24S	77.8'	30	25	OW-2-27	93.5'	40	29
OW-2-20D	96.6'	30	30	OW-2-26S	74'	35	21	OW-2-28D	92.1'	40	29
OW-2-21	96.6'	30	28	OW-2-28S	76'	30	22	OW-2-29	92.2'	45	29
OW-2-22D	96.3'	35	27	OW-2-30S	67.8'	35	17	OW-2-30D	88'	30	27
OW-2-23	97.2'	45	30	OW-2-34	71'	30	20	OW-2-31	86'	30	27
OW-2-24D	97'	40	28	OW-2-35	69.2'	30	21	OW-2-32	84'	30	30
OW-2-25	96'	50	27	OW-2-36	64.8'	30	21	OW-2-33	82'	30	30

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection banks D & E are turned off.

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	30	20	OW-2-45	61.1'	30	20	MP-2-1	31.71	20.11	1.2
OW-2-38	62.1'	35	22	OW-2-46	61'	35	21	MP-2-2	33.03	4.77	0.5
OW-2-39	60'	30	20	OW-2-47	60.5'	35	20	MP-2-3S	32.92	5.59	0
OW-2-40	61.7'	30	20					MP-2-3D	32.83	14.44	1.3
OW-2-41	61.7'	30	21					MP-2-4	21.63	7.26	1.7
OW-2-42	61.6'	30	18					MP-2-5	19.82	4.79	2.2
OW-2-43	61.4'	30	22								
OW-2-44R	60.6'	30	21								

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/28/2016

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) Normal (green) X High (orange)
3) Oil added Yes No X
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator cleaned Yes No X
8) Terminal strips checked Yes No X

AS-80 O_2 Generator

1) Prefilter changed Yes X No
2) Coalescing changed Yes X No

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism)
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

6-22-16 Met with D&D Electric Motors and Compressors to make repairs to compressor. D&D installed three (3) new contactors and replaced sections of cone insulation at end of motor. Restarted system and all tested out ok. Left system running to build up pressure. Adjusted pressure relief valve on air tank. Replaced leaking section of Teflon hose. Cut back over grown tree limbs and vines coming through fence. Left system running.

At approximately 10:18 PM the system went into alarm for a compressor fault.

6-23-16 Mike went to site and cleared alarms. Tried to restart compressor and found no response in key controls. Check all fuses and found to be good. Checked main power feeds and found a power leg out. Notified PSEG-LI. PSEG-LI found main lines on pole down the street burned up and melted cable. Repairs were made and power was restored to system. However, PSEG-LI was only able to provide power with a high leg of 220 volts feeding the system. Checked breaker panel and made sure all 110 breakers were not on the high leg. Checked rotation of each motor, restarted system, and left running.

6-28-16 Found system running upon arrival. Checked system and took readings.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-929-544 tied into Pole #3

Action Items: