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Groundwater Sampling, NAPL Monitoring/Recovery and Groundwater Treatment Performance Report for the Second Quarter of 2014 (April - June 2014) for the Hempstead Intersection Street Former Manufactured Gas Plant Site

Villages of Hempstead & Garden City
Nassau County, New York

Prepared for:

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URS

January 2015

GROUNDWATER SAMPLING, NAPL MONITORING/RECOVERY, AND GROUNDWATER TREATMENT PERFORMANCE REPORT FOR THE SECOND QUARTER OF 2014 (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

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
URS	URS Corporation
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) 2014.

Quarterly groundwater monitoring and sampling were conducted on June 16-28, 2014. This included measuring the depth to groundwater and NAPL thickness in approximately 47 wells. Groundwater samples were collected from 31 wells and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs).

NAPL monitoring and recovery was conducted on April 17, April 29, June 2, June 16, and June 27, 2014 for a total of five events in the Second Quarter of 2014.

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

- The general direction of groundwater flow in the Second Quarter 2014 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 100 µg/L dissolved-phase plume extended approximately 890 ft south of the site boundary.
- Dense non-aqueous phase liquid (DNAPL) was detected and recovered in one existing well during the Second Quarter. The well (HIMW-021), is located along the west side of Wendell Street, south of the Intersection Street site.
- Approximately 1.85 gallons of NAPL were recovered during the Second Quarter of 2014. A total of 829.4 gallons of NAPL have been recovered from all recovery wells between April 2007 through June 2014.

- Based on a comparison between the Second Quarter 2014 and First Quarter 2014 data, the concentrations of total BTEX and total PAHs in the majority of monitoring wells remained stable. There were eight monitoring wells that had BTEX and PAH contaminant level fluctuations, primarily adjacent to the site boundaries, though one well that had a decrease in levels is at a moderate distance from the southern site boundary (HIMW-13I).

The first of two oxygen delivery systems (System No. 2) started operating in October 2010 and this system continued to promote aerobic conditions in the aquifer near the system during the Second Quarter of 2014. The second of two oxygen delivery systems (System No. 1) started operating in April 2011 and promoted aerobic conditions in the aquifer near the system during the Second Quarter of 2014.

Bimonthly 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 2014, Island Pump & Tank monitored System No. 1 during six events and System No. 2 during six events.

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 2014 at the Hempstead Intersection Street Former MGP site (refer to Figures 1 and 2).

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.

URS Corporation (URS) performed the following activities during the Second Quarter of 2014:

- Measured the depth to groundwater and NAPL thickness in 47 off-site wells (on June 16, 2014), see Tables 1 and 2.
- Recovered NAPL from HIMW-021 on April 17, April 29, June 2, June 16, and June 27, 2014; see Table 3.
- Collected groundwater samples from 31 monitoring wells for laboratory analysis during the scheduled round of quarterly groundwater sampling (June 16-28, 2014), 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 six events and on System No. 2 during six events in the Second Quarter 2014. Monitoring frequency moved from bi-monthly to monthly during the Second Quarter 2014 and is conducted 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 URS during the Second Quarter of 2014 included the measurement of the depth to groundwater and NAPL thickness in 47 monitoring wells, the collection of groundwater samples from 31 monitoring wells, and recovery of NAPL from one monitoring well that contained measurable NAPL.

Monitoring wells and piezometers used for these activities are listed in Table 1. Second Quarter 2014 groundwater elevations and NAPL thickness values are presented in Table 2, NAPL recovery amounts are presented 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 approximately twice monthly during the Second Quarter of 2014. Monitoring frequency moved from bi-monthly to monthly during the Second Quarter 2014. 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 4, April 21, May 5, May 16, May 30, and June 23, 2014 and on System No. 2 on April 3, April 18, May 2, May 15, May 29, and June 20, 2014. 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.

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 2007 and 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 currently limited to one well, HIMW-021, which is located on the south of the site in the sidewalk of the Professional Office Building (POB), outside the ISS area.

During Second Quarter 2014, NAPL levels were monitored in well HIMW-021 during five events: April 17, April 29, June 2, June 16, and June 27, 2014. DNAPL recovery was performed after monitoring on April 17 and April 29, 2014. NAPL levels were minimal (less than 0.5 foot) for the remainder of Second Quarter 2014, therefore recovery was not attempted. During the monitoring and recovery events, the well was gauged with a weighted cotton string to measure the DNAPL thickness. The DNAPL was recovered using a peristaltic pump and dedicated tubing and the recovered water and product was placed in a 55-gallon steel drum for subsequent offsite hazardous waste disposal.

The quantity of recovered DNAPL was estimated based on gallon markings on the side of the bucket used to collect the purged liquids during recovery. Table 3 presents Second Quarter NAPL thicknesses and NAPL recovery amounts from HIMW-021.

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 31 monitoring wells sampled during the Second Quarter June 17 –27, 2014 groundwater sampling event. Analytical results from the quarterly groundwater sampling event and the additional monitoring wells are presented in Table 4.

2.4 Groundwater Oxygenation 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 2014 through the measurement of water levels, headspace gas, and water quality parameters in the groundwater approximately twice per month, see Table 5. Monitoring frequency moved from bi-monthly to monthly during the Second Quarter 2014. 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 six events for System No. 1 on April 4, April 21, May 5, May 16, May 30, and June 23, 2014 and during six events for System No. 2 on April 3, April 18, May 2, May 15, May 29, and June 20, 2014. 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 2014 are shown in Figure 4. The downgradient boundary of the plume, which is defined by total BTEX or PAH concentrations greater than 100 micrograms per liter (μg/L), extends approximately 890 feet south of the site boundary. Based on comparisons to previous quarterly

groundwater monitoring data, the concentrations of total BTEX or PAHs in groundwater sampled during the Second Quarter in the majority of monitoring wells remained stable. Five monitoring wells showed decreases in BTEX or PAH or both (HIMW-005I, HIMW-008S, HIMW-012I, HIMW-013I, and HIMW-024), one monitoring well showed an increase in BTEX levels only (HIMW-025), and one showed an increase in PAH levels only (HIMW-005D).

PAH results for HIMW-014I were not reported by the laboratory because of a lab accident where both of the two 1-liter amber sample bottles broke during sample preparation. There was no additional volume remaining to analyze. See Appendix A, Data Usability Summary Report, Section V, for a complete discussion.

In June 2014, the concentrations of total BTEX or total PAHs in the furthest downgradient well pair (HIMW-015I/D) ranged from "not detected" (deep well, HIMW-015D) to 17 µg/L for BTEX and 38 µg/L for PAHs (intermediate well, HIMW-015I). The concentrations of total BTEX or total PAHs in wells located between the site and the HIMW-015 cluster varied from "not detected" to 1,483 µg/L for BTEX (shallow well, HIMW-027S) and 2,434 µg/L for PAHs (intermediate well, HIMW-005I), see Figure 4 and Table 4.

The following are the wells that showed notable changes for Second Quarter 2014. In numerical order, wells HIMW-005I & 005D, HIMW-008S, HIMW-012I, HIMW-013I, HIMW-024, and HIMW-025 are discussed below:

- For HIMW-005I, total BTEX concentrations decreased slightly from 142 µg/L in the First Quarter to 112 µg/L in the Second Quarter 2014. PAH concentrations decreased to a greater degree from 3,117 µg/L in the First Quarter to 2,434 µg/L in the Second Quarter 2014. These values are within the range of values recorded within the four quarters.

- For HIMW-005D, total BTEX, at 32 µg/L, stayed virtually the same as in the previous two quarters. PAH concentrations increased from 509 µg/L in the First Quarter to 735 µg/L in the Second Quarter 2014. A similar value was last recorded in First Quarter 2013.

- For HIMW-008S, total BTEX concentrations decreased substantially from 2,941 ug/L in the First Quarter to 14 ug/L in the Second Quarter 2014. This is in line with historic values recorded in the past two years. PAH concentrations were essentially the same for both quarters.

- For HIMW-012I, total BTEX concentrations were virtually the same in First Quarter (25 µg/L) and Second Quarter 2014 (18 µg/L), while the PAH values decreased from 131 µg/L in the First Quarter to 93 µg/L in the Second Quarter 2014, putting the well cluster outside of the 100 µg/L contour line on Figure 4.

- For HIMW-013I, total BTEX concentrations decreased from 196 µg/L in the First Quarter to 36 µg/L in the Second Quarter 2014. PAH concentrations decreased from 129 µg/L in the First Quarter to 62 µg/L in the Second Quarter 2014. These BTEX and PAH values are a return to concentrations seen in First and Second Quarter 2013.

- For HIMW-024, total BTEX concentrations decreased from 447 µg/L in the First Quarter to 181 µg/L in the Second Quarter 2014. PAH concentrations also decreased from 699 ug/L in the First Quarter to 42 µg/L in the Second Quarter 2014. The contaminant concentrations in this well over the last four quarters have ranged from non-detect to the high values of the First Quarter 2014.

- For HIMW-025, total BTEX concentrations increased from 532 µg/L in the First Quarter to 1,320 µg/L in the Second Quarter 2014. PAH concentrations increased from 131 µg/L in the First Quarter to 240 µg/L in the Second Quarter 2014. These concentrations have been increasing since Fourth Quarter 2013.

3.2 Potentiometric Heads and NAPL Thickness

Potentiometric heads and NAPL thickness measurements for Second Quarter 2014 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 for Second Quarter 2014. The data for Second Quarter 2014 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 zone. These values are consistent with historical data.

DNAPL was observed in one well during the Second Quarter 2014. The well (HIMW-021) is located along the west side of Wendell Street near the POB, located south of the site (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 Figure 4.

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. An electronic copy of the DUSR is included as Appendix A. 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.

3.4 NAPL Recovery Volumes

In the Second Quarter, 2014, NAPL recovery was performed for well HIMW-021 which is the only remaining product recovery well for the Site. This well is located on the south of the site in the sidewalk of the POB along Wendell Street. The volume of NAPL recovered in the Second Quarter 2014 from this well was approximately 1.85 gallons. Recovery was performed on

April 17 and April 29, 2014. Monitoring events continued during the quarter on June 2, June 16, and June 27. DNAPL levels remained below 0.5 ft during June 2014 and no additional recovery was performed during that month.

A total of approximately 829.4 gallons of NAPL have been recovered from all of the recovery wells for the period of April 2007 through June 2014. Table 3 lists the amount of DNAPL gauged in HIMW-021 and the total amount of product recovered during each event.

3.5 Groundwater Treatment System Performance

Groundwater treatment system performance data for Second Quarter 2014, as collected and reported by Island Pump & Tank, is presented in Table 5.

System No. 1

System No. 1 DO readings reported in the Second Quarter 2014 ranged from a low of 10.63 mg/L at MP-1-8 on June 23, 2014 to a high of 48.89 mg/L at MP-1-7 on April 4, 2014. The overall average DO reading was 28.22 mg/L. DO readings were collected from either the middle or bottom of the water column. There were high dissolved oxygen concentration readings (over 40 mg/L) during the Second Quarter for MP-1-4S and MP-1-7 during the April 4, April 21, and May 5 events and for MP-1-2D on June 23. There were no PID headspace readings above 1 ppm for System No. 1 in the Second Quarter 2014 during the April and May 5 events. On May 16 and May 30, the only PID reading over 1 ppm was recorded at MP-1-2S where the headspace was 1.5 ppm and 1.1, respectively. On June 23, seven of the twelve monitoring points had PID readings over 1 ppm that ranged from 1.3 ppm to 16.2 ppm.

There were several repairs conducted during the routine maintenance events that coincided with the monitoring. On April 7, the maintenance technician investigated a low oxygen level in the oxygen receiver tank and replaced a burned out solenoid valve. Oxygen levels returned to normal after this replacement. On April 22, low pressure at MP-1-19S was investigated and it was determined that there was a leak in the oxygen line between the well head and the system shed. The monitoring point was taken off-line at this time and the leak was not repaired as the monitoring results indicate the system is operating effectively without this well.

On June 23, a low oxygen level was found in the oxygen receiver tank and restored to normal levels by cleaning a dust build up.

Based on the data collected during the Second Quarter of 2014, System No. 1 is performing as expected and creating an aerobic environment in the aquifer.

System No. 2

System No. 2 DO readings reported in the Second Quarter 2014 ranged from 17.70 mg/L at MP-2-5 on April 3, 2014 to 49.88 mg/L at MP-2-3D on May 2, 2014. The average DO reading was 32.11 mg/L. DO readings for this quarter were collected from the bottom of the water column. The wells with consistently high dissolved oxygen concentrations (over 40 mg/L) were MP-2-3S and MP-2-3D. There were no PID headspace readings above 1 ppm for System No. 2 in the Second Quarter 2014 during the April and May 2 events. On May 15, the only PID reading over 1 ppm was recorded at MP-2-5, where the headspace was 2.9 ppm. During the May 29 event, MP-2-1 at 2.3 ppm and MP-2-5, at 1.2 ppm, were the only wells with PID readings over 1 ppm. On June 23, MP-2-1, MP-2-4, and MP-2-5 had PID readings over 1 ppm with 2.0 ppm, 1.2 ppm, and 1.9 ppm, respectively.

There were several repairs conducted during the routine maintenance events that coincided with the monitoring. On May 15, the maintenance technician investigated a low oxygen level and cleaned heavy dirt build up from a solenoid valve. On May 29, oxygen levels in the oxygen receiver tank were on the rise and the technician fixed the condition by checking and maintaining the equipment. On June 20, the technician found the system off when he arrived to perform maintenance. It was determined the dryer unit tubing was leaking air. This unit was replaced in the Third Quarter (August 4, 2014).

Based on the data collected during the Second Quarter of 2014, System No. 2 is performing as expected and creating an aerobic environment in the aquifer.

4.0 SUMMARY

Following is a summary of the Second Quarter 2014 groundwater sampling, NAPL monitoring and recovery data, and groundwater treatment performance presented in this report:

- The general direction of groundwater flow in the Second Quarter 2014 in the shallow, intermediate, and deep water-bearing zones was south at an average gradient of approximately 0.002 ft/ft for shallow, intermediate, and deep water bearing zones.
- The 100 µg/L dissolved-phase plume extended approximately 890 ft south of the site boundary.
- DNAPL was recovered from the one existing well (HIMW-021) monitored during the Second Quarter 2014. The well (HIMW-021) is located immediately south of the site along the west side of Wendell Street near the POB. The well was monitored for product five times and 1.85 gallons of DNAPL was recovered during two events during Second Quarter 2014.
- Approximately 829.4 gallons of NAPL has been recovered from all the recovery wells for the period of April 2007 through June 2014.
- Based on a comparison between the Second Quarter 2014 data and previous quarterly data, the concentrations of total BTEX and total PAHs remained relatively stable. There were several monitoring wells, primarily adjacent to the site boundaries, that showed fluctuating BTEX and PAH values, as compared to previous data.
- The first of two oxygen delivery systems (System No. 2), brought on line in October 2010, is promoting aerobic conditions in the aquifer near the system.
- The second of two oxygen delivery systems (System No. 1), brought on line in April 2011, is promoting aerobic conditions in the aquifer near the system.
- Bimonthly headspace and water quality parameters were collected from the monitoring points for Systems No. 1 and No. 2 by Island Pump & Tank. During the Second Quarter 2014, Island Pump & Tank monitored System No. 1 and No. 2 during six events. Both systems are performing as expected and creating 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 2014 [1], [2]
Hempstead Intersection Street Former MGP Site

Well ID	Second Quarter (June 16 to June 28, 2014)			NAPL Monitoring and DNAPL Recovery Events				
	Water Level	NAPL Thickness	Water Quality	April 17, 2014	April 29, 2014	June 2, 2014	June 16, 2014	June 27, 2014
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	X							
HIMW-010S	X							
HIMW-010I	X							
HIMW-011S	X							
HIMW-011I	X							
HIMW-011D	X							
HIMW-012S	X		X					
HIMW-012I	X		X					
HIMW-012D	X		X					
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	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					

Table 1

Summary of Field Activities: Water Level Measurements, NAPL Thickness Measurements, NAPL Recovery, and Water Quality Sampling

Second Quarter 2014 [1], [2]

Hempstead Intersection Street Former MGP Site

Well ID	Second Quarter (June 16 to June 28, 2014)			NAPL Monitoring and DNAPL Recovery Events				
	Water Level	NAPL Thickness	Water Quality	April 17, 2014	April 29, 2014	June 2, 2014	June 16, 2014	June 27, 2014
PZ-02	X							
PZ-03	X							
OSMW-02	X							
OSMW-03	X							

Notes:

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

2 Blank field indicates that the activity was not performed.

Shaded cell indicates abandoned or destroyed well.

Table 2
Groundwater and NAPL Measurements
Second Quarter 2014
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	6/16/2014	65.00	ND	17.59	ND	34.50	0	0.00	47.41
HIMW-003I	6/16/2014	64.94	ND	17.92	ND	85.15	0	0.00	47.02
HIMW-003D	6/16/2014	65.26	ND	18.67	ND	142.71	0	0.00	46.59
HIMW-004S	6/16/2014	72.74	ND	25.94	ND	41.61	0	0.00	46.80
HIMW-004I	6/16/2014	72.78	ND	26.10	ND	90.51	0	0.00	46.68
HIMW-004D	6/16/2014	72.65	ND	26.81	ND	177.00	0	0.00	45.84
HIMW-005S	6/16/2014	67.19	ND	20.26	ND	38.92	0	0.00	46.93
HIMW-005I	6/16/2014	67.22	ND	20.49	ND	90.65	0	0.00	46.73
HIMW-005D	6/16/2014	67.22	ND	21.21	ND	136.30	0	0.00	46.01
HIMW-008S	6/16/2014	65.04	ND	18.51	ND	36.95	0	0.00	46.53
HIMW-008I	6/16/2014	65.14	ND	18.69	ND	75.01	0	0.00	46.45
HIMW-008D	6/16/2014	64.93	ND	18.51	ND	114.61	0	0.00	46.42
HIMW-009S	6/16/2014	70.03	ND	23.03	ND	39.61	0	0.00	47.00
HIMW-009I	6/16/2014	69.93	ND	23.00	ND	80.44	0	0.00	46.93
HIMW-009D	6/16/2014	69.96	ND	23.12	ND	122.86	0	0.00	46.84
HIMW-010S	6/16/2014	71.60	ND	23.67	ND	39.21	0	0.00	47.93
HIMW-010I	6/16/2014	71.47	ND	23.49	ND	89.72	0	0.00	47.98
HIMW-011S	6/16/2014	71.62	ND	24.07	ND	40.21	0	0.00	47.55
HIMW-011I	6/16/2014	71.43	ND	23.94	ND	93.25	0	0.00	47.49
HIMW-011D	6/16/2014	71.39	ND	24.95	ND	122.30	0	0.00	46.44
HIMW-012S	6/16/2014	61.58	ND	16.21	ND	33.20	0	0.00	45.37
HIMW-012I	6/16/2014	61.59	ND	16.09	ND	74.55	0	0.00	45.50
HIMW-012D	6/16/2014	61.82	ND	18.69	ND	128.16	0	0.00	43.13
HIMW-013S	6/16/2014	72.83	ND	29.31	ND	48.70	0	0.00	43.52
HIMW-013I	6/16/2014	72.60	ND	29.08	ND	81.63	0	0.00	43.52
HIMW-013D	6/16/2014	72.53	ND	29.08	ND	122.03	0	0.00	43.45
HIMW-014I	6/16/2014	71.71	ND	28.15	ND	95.88	0	0.00	43.56
HIMW-014D	6/16/2014	71.59	ND	31.72	ND	151.95	0	0.00	39.87
HIMW-015I	6/16/2014	64.18	ND	23.91	ND	92.69	0	0.00	40.27
HIMW-015D	6/16/2014	63.96	ND	26.50	ND	152.36	0	0.00	37.46
HIMW-020S	6/16/2014	70.43	ND	24.39	ND	36.83	0	0.00	46.04
HIMW-020I	6/16/2014	70.30	ND	24.25	ND	74.89	0	0.00	46.05

Table 2
Groundwater and NAPL Measurements
Second Quarter 2014
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	6/16/2014	NM	ND	18.74	45.1	45.30	0	0.20	NM
HIMW-022	6/16/2014	74.07	ND	29.29	ND	64.40	0	0.00	44.78
HIMW-023	6/16/2014	74.41	ND	29.46	ND	75.48	0	0.00	44.95
HIMW-024	6/16/2014	59.83	ND	14.98	ND	54.93	0	0.00	44.85
HIMW-025	6/16/2014	62.75	ND	16.40	ND	52.25	0	0.00	46.35
HIMW-26I	6/16/2014	NM	ND	22.21	ND	84.85	0	0.00	NM
HIMW-26D	6/16/2014	NM	ND	22.34	ND	137.49	0	0.00	NM
HIMW-27S	6/16/2014	NM	ND	23.26	ND	41.57	0	0.00	NM
HIMW-27I	6/16/2014	NM	ND	22.69	ND	70.31	0	0.00	NM
HIMW-28S	6/16/2014	NM	ND	23.63	ND	41.39	0	0.00	NM
HIMW-28I	6/16/2014	NM	ND	23.30	ND	71.61	0	0.00	NM
PZ-02	6/16/2014	72.96	ND	24.79	ND	35.45	0	0.00	48.17
PZ-03	6/16/2014	64.58	ND	16.73	ND	29.89	0	0.00	47.85
OSMW-02	6/16/2014	71.59	ND	24.27	ND	45.05	0	0.00	47.32
OSMW-03	6/16/2014	71.39	ND	24.06	ND	44.68	0	0.00	47.33

Notes:

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

Shaded cell indicates abandoned or destroyed well.

SHEEN	Sheen = assumed thickness of 0.01 ft
NM	not measured
LNAPL	light non-aqueous phase liquid
DNAPL	dense non-aqueous phase liquid
TOR	top of riser
amsl	above mean sea level
ND	NAPL not detected

Table 3
NAPL Recovery
Second Quarter 2014
Hempstead Intersection Street Former MGP Site

Well ID	Well Diameter (inches)	Second Quarter 2014															
		April 17, 2014			April 29, 2014			June 2, 2014			June 16, 2014			June 27, 2014			
		Thickness of LNAPL	Thickness of DNAPL	Volume of NAPL Removed[(1)]	Thickness of LNAPL	Thickness of DNAPL	Volume of NAPL Removed[(1)]	Thickness of LNAPL	Thickness of DNAPL	Volume of NAPL Removed[(1)]	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]	[ft]	[ft]	[gal]	[ft]	[ft]	[gal]	[ft]	[ft]	[gal]	
HIMW-021	6	N/A	1.00	1.00	N/A	0.80	0.85	N/A	0.05	0.00	N/A	0.2	0.00	N/A	0.4	0.00	
		Volume Removed		**1.00**	Volume Removed		**0.85**	Volume Removed		**0.00**	Volume Removed		**0.00**	Volume Removed		**0.00**	
		Total product volume recovered during the Second Quarter 2014:					**1.85**										

Total volume of NAPL recovered in Second Quarter 2014: **1.85** gallons

Total volume of NAPL recovered since April 2007: **829.4** 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 2014 Hempstead Intersection Street Former MGP Site

Well ID	Second Quarter 2014 June 17 - June 27, 2014	
	BTEX [ug/L]	PAH [ug/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	112	2,434
HIMW-005D	32	735
HIMW-008S	14	2
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	18	93
HIMW-012D	ND	ND
HIMW-013S	ND	ND
HIMW-013I	36	62
HIMW-013D	3	16
HIMW-014I	12	NA
HIMW-014D	ND	ND
HIMW-015I	17	38
HIMW-015D	ND	ND
HIMW-020S	ND	ND
HIMW-020I	2	7
HIMW-021		
HIMW-022	ND	ND
HIMW-023	ND	ND
HIMW-024	182	38
HIMW-025	1,320	240
HIMW-026I	ND	ND
HIMW-026D	26	794
HIMW-027S	1,483	1,441
HIMW-027I	ND	ND
HIMW-028S	175	372
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	Poly Aromatic Hydrocarbons
ug/L	micrograms per liter
ND	Not Detected.
NA	Not Analyzed For

Table 5
Groundwater Treatment Performance Monitoring
Second Quarter 2014
Hempstead Intersection Street Former MGP Site

System #1

	April 4, 2014			April 21, 2014			May 5, 2014			May 16, 2014			May 30, 2014			June 23, 2014		
ID	DTW (ft)	PID (ppm)	DO (mg/L)	DTW (ft)	PID (ppm)	DO (mg/L)	DTW (ft)	PID (ppm)	DO (mg/L)	DTW (ft)	PID (ppm)	DO (mg/L)	DTW (ft)	PID (ppm)	DO (mg/L)	DTW (ft)	PID (ppm)	DO (mg/L)
MP-1-1S	27.28	0.0	32.38	26.91	0.0	35.45	26.20	0.0	32.12	25.75	0.0	32.05	25.65	0.1	27.87	25.88	0.0	21.14
MP-1-1D	27.22	0.0	35.11	26.87	0.0	30.12	26.12	0.0	30.98	25.68	0.3	25.27	25.56	0.4	24.91	25.82	0.0	22.43
MP-1-2S	21.75	0.0	26.16	21.42	0.2	26.64	20.67	0.4	28.83	20.26	1.5	33.86	20.13	1.1	28.80	20.39	0.0	32.15
MP-1-2D	21.01	0.0	31.54	20.74	0.2	29.94	20.12	0.3	26.00	19.83	0.0	39.11	19.90	0.0	36.25	20.15	0.0	42.18
MP-1-3S	19.49	0.0	13.88	19.25	0.2	16.87	18.37	0.1	21.12	18.11	0.0	27.33	17.98	0.0	32.47	18.21	1.3	20.95
MP-1-3D	19.69	0.2	30.12	19.41	0.0	19.18	18.62	0.0	19.55	18.25	0.0	19.25	18.12	0.0	26.77	18.42	2.4	17.94
MP-1-4S	22.45	0.2	45.05	22.17	0.0	42.10	21.33	0.0	41.45	21.05	0.0	19.75	20.92	0.0	31.95	21.22	6.3	25.18
MP-1-4D	22.40	0.3	29.94	22.15	0.0	39.18	21.30	0.0	35.88	21.03	0.0	27.91	20.87	0.0	27.47	21.17	3.7	31.16
MP-1-5	27.02	0.0	32.44	25.66	0.0	30.58	25.93	0.0	26.15	25.48	0.4	29.12	25.37	0.3	31.38	25.61	4.1	30.25
MP-1-6	19.20	0.0	13.12	18.95	0.0	12.90	18.07	0.0	13.01	17.80	0.0	19.30	17.60	0.0	22.89	17.91	0.0	13.84
MP-1-7	22.57	0.0	48.89	22.20	0.0	46.02	21.36	0.0	45.11	21.08	0.0	38.55	20.95	0.0	38.72	21.23	16.2	36.18
MP-1-8	23.98	0.0	12.13	23.72	0.0	12.67	22.88	0.0	12.88	22.59	0.0	20.19	22.47	0.0	19.80	22.75	3.2	10.63

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

Table 5
Groundwater Treatment Performance Monitoring
Second Quarter 2014
Hempstead Intersection Street Former MGP Site

System #2

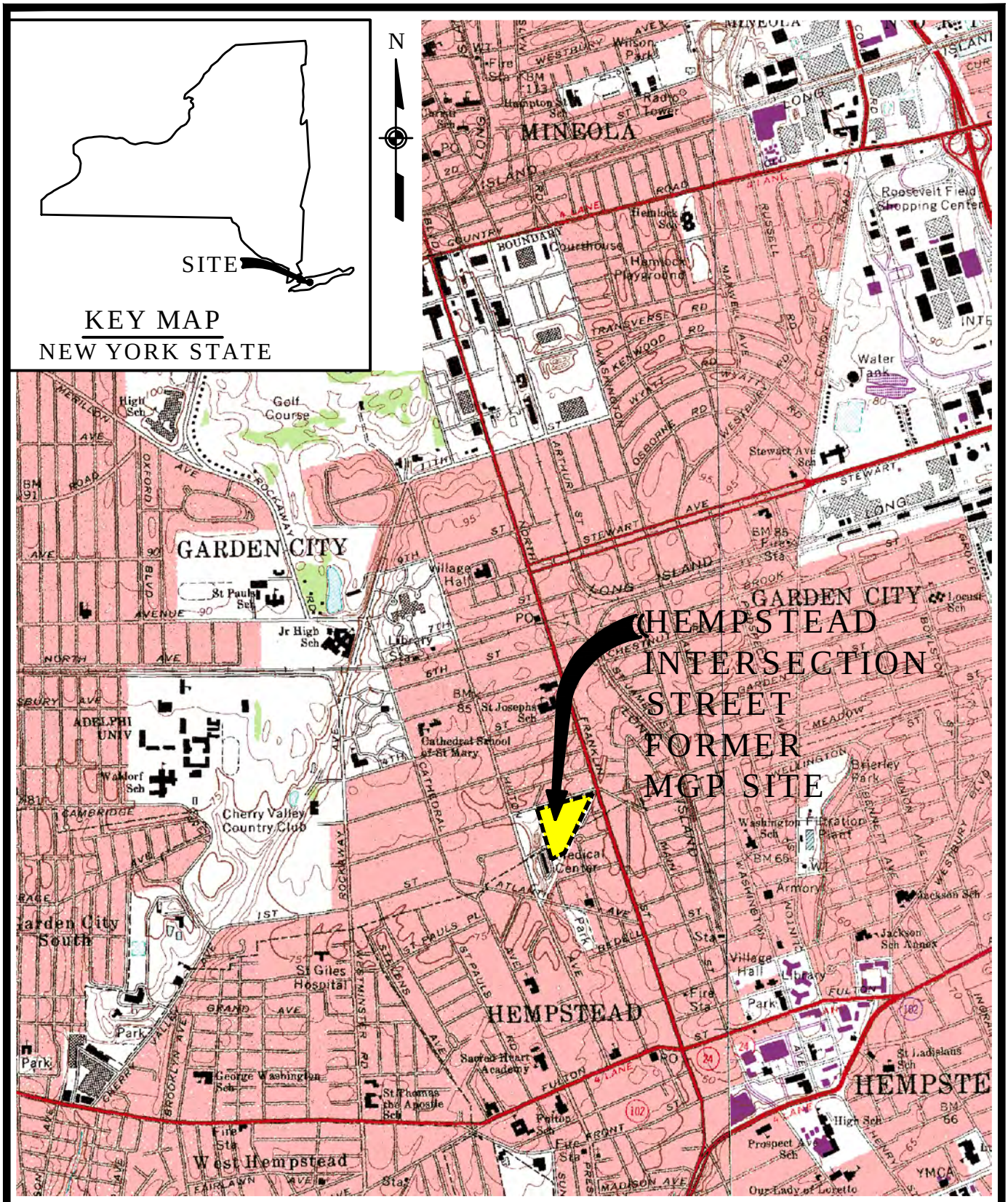
	April 3, 2014			April 18, 2014			May 2, 2014			May 15, 2014			May 29, 2014			June 20, 2014		
ID	DTW (ft)	PID (ppm)	DO (mg/L) Bottom	DTW (ft)	PID (ppm)	DO (mg/L) Bottom	DTW (ft)	PID (ppm)	DO (mg/L) Bottom	DTW (ft)	PID (ppm)	DO (mg/L) Bottom	DTW (ft)	PID (ppm)	DO (mg/L) Bottom	DTW (ft)	PID (ppm)	DO (mg/L) Bottom
MP-2-1	30.19	0.0	24.14	29.87	0.1	33.35	29.34	0.0	30.99	28.63	0.9	25.11	28.53	2.3	27.87	28.75	2.0	28.87
MP-2-2	31.56	0.0	37.98	31.21	0.4	35.48	30.70	0.2	35.45	30.00	0.0	32.13	29.90	0.0	35.41	30.07	0.0	34.14
MP-2-3S	31.37	0.0	38.18	31.08	0.2	48.42	30.46	0.1	48.12	29.91	0.0	30.44	29.79	0.0	44.12	29.96	0.0	45.15
MP-2-3D	31.51	0.0	44.50	31.18	0.0	49.83	30.55	0.0	49.88	29.63	0.0	27.11	29.58	0.0	46.17	30.10	0.0	41.11
MP-2-4	20.05	0.0	21.25	19.79	0.3	21.94	19.08	0.4	18.14	18.61	0.0	23.35	18.50	0.6	23.77	18.68	1.2	21.18
MP-2-5	18.20	0.0	17.70	17.97	0.0	20.44	17.22	0.0	22.58	16.80	2.9	17.88	16.71	1.2	29.95	16.85	1.9	24.00

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

FIGURES



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

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

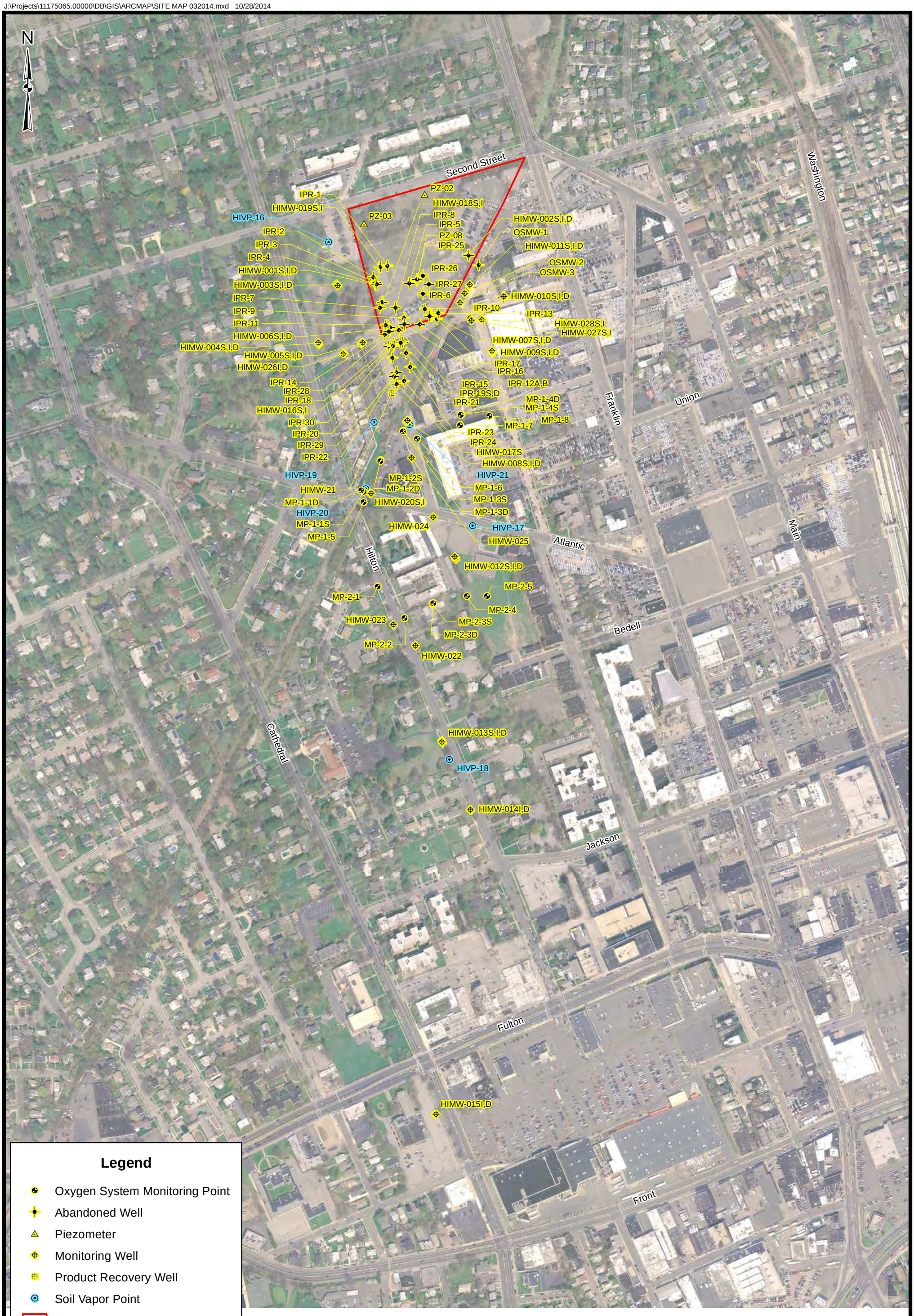
URS Corporation

LOCATION MAP

FIGURE 1

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\GROUNDWATER MONITORING\SECOND QUARTER 2014\FIGURE-1.dwg 6/11/14 - 1 RAL

J:\Projects\11175065.00000\DB\GIS\ARCMAP\SITE MAP 032014.mxd 10/28/2014



URS

NATIONAL GRID HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY
SITE MAP - JUNE 2014

FIGURE 2

J:\Projects\11175065.00000\DB\GIS\ARCMAP\GROUNDWATER TREATMENT LOCATIONS (2nd Qtr 2014).mxd 10/29/2014

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
MP-1-4S,4D
HISB-103
HISB-104
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
HIVP-19
HIVP-17
HIVP-18

HIMW-003S,I,D
HIMW-004S,I,D
HIMW-010S,I,D
HIMW-009S,I,D
HIGP-050
HIGP-048
HISB-100
MP-1-3S
MP-1-2S,D
HIMW-025
HISB-114
HIGP-057
MP-1-1S,D
MP-1-5
HIGP-053
HISB-106
HIMW-024
HIGP-055
HIGP-056
HIMW-012S,I,D
MP-2-1
HISB-107
MP-2-5
MP-2-3S,D
MP-2-4
HIGP-068
HISB-115
MP-2-2
HIMW-023
HIGP-049
HIMW-022
HIGP-061
HISB-109
HISB-108
HIGP-064
HIGP-063
HIGP-067
HIGP-062
HIGP-059
HIGP-065
HIMW-013S,I,D
HIGP-070
HIGP-066
HIMW-014I,D
HIGP-058
HIGP-069
HIGP-072
HIGP-071
HIMW-015I,D

SEE INSET 1
SEE INSET 2

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

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

300 0 300 Feet

URS

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-009S,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	1–474 (2)	ND–3,968 (7)

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 (ND)	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	60	59
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–1,301 (ND)
63–73	18–256 (18)	65–527 (93)
117–127	ND–6 (ND)	ND–2 (ND)

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 (182)	ND–1,020 (38)

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
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 (38)	5–156 (62)
110–120	2–30 (3)	ND–28 (16)

HIMW-026 I,D (1/8/09)

DEPTH	TOT. BTEX	TOT. PAHs
65–85	ND (ND)	ND (ND)
115–135	24–26 (28)	794–1,241 (794)

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	70–439 (112)	1,454–5,337 (2,434)
130–140	ND–359 (32)	ND–2,698 (735)

HIMW-014 I,D

DEPTH	TOT. BTEX	TOT. PAHs
85–95	12–273 (12)	26–288 (NA)
140–150	ND–15 (ND)	ND (ND)

HIMW-027S, I

DEPTH	TOT. BTEX	TOT. PAHs
20–40	765–1,483 (1,483)	1,441–1,699 (1,441)
50–70	ND (ND)	ND (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

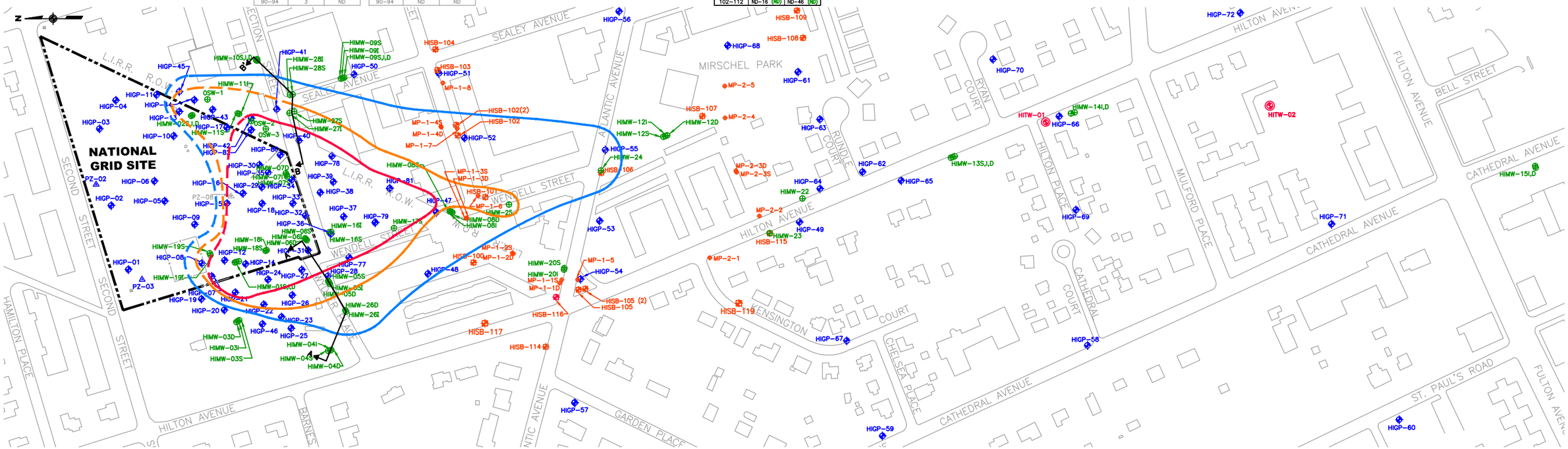
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–8,240 (14)	ND–3,069 (2)
63–73	ND–457 (ND)	ND–251 (ND)
102–112	ND–16 (ND)	ND–46 (ND)

HIMW-015 I,D

DEPTH	TOT. BTEX	TOT. PAHs
80–90	5–111 (17)	ND–273 (34)
141.5–151.5	ND–94 (ND)	ND–1 (ND)

HIMW-028S,I

DEPTH	TOT. BTEX	TOT. PAHs
20–40	145–175 (175)	372–463 (372)
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	5–111 (17)	ND–273 (34) ← CONCENTRATION UNITS ARE ug/L (JUNE 2014 CONCENTRATION)
141.5–151.5	ND–94 (ND)	ND–1 (ND)

* 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.

150' 0 150'
SCALE IN FEET

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\GROUNDWATER MONITORING\SECOND QUARTER 2014\FIGURE 4.dwg 11/7/14 - 5 RAL

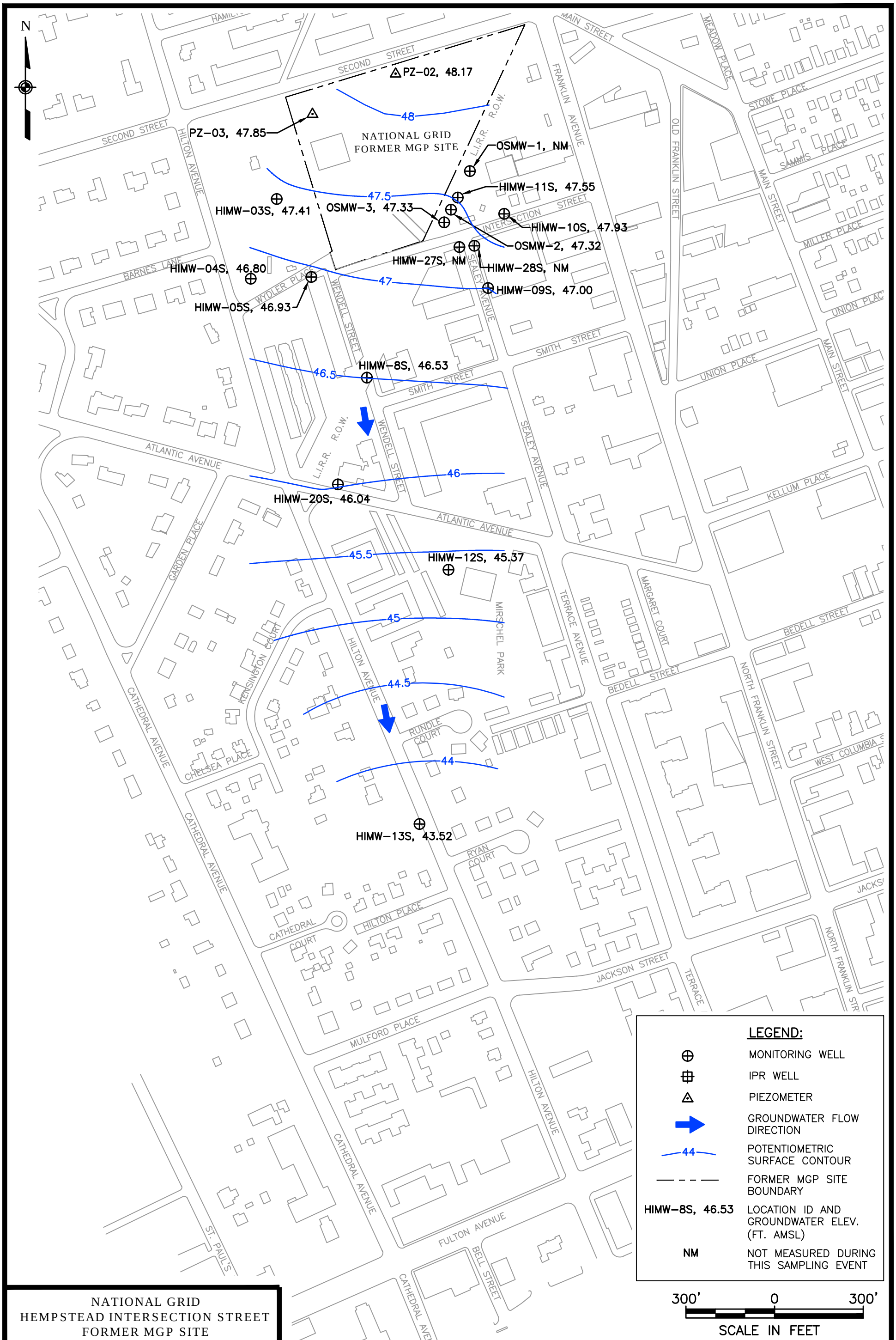
URS Corporation

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

EXTENT OF DISSOLVED-PHASE PLUME AND GROUNDWATER ANALYTICAL RESULTS - JUNE 2014

FIGURE 4

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\JUNE 2014\FIGURE 5.dwg 10/29/14 - 1 RAL



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

URS Corporation

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR SHALLOW GROUNDWATER
JUNE 16, 2014

FIGURE 5

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\JUNE 2014\FIGURE 6.dwg 10/29/14 - 3 RAL

N

NATIONAL GRID
FORMER MGP SITE

HIMW-03I, 47.02
HIMW-11I, 47.49
HIMW-27I, NM
HIMW-10I, 47.98
HIMW-28I, NM
HIMW-05I, 46.73
HIMW-04I, 46.68
HIMW-26I, NM
HIMW-09I, 46.93
HIMW-08I, 46.45
HIMW-25, 46.35
HIMW-20I, 46.05
HIMW-24, 44.85
HIMW-12I, 45.50
HIMW-23, 44.95
HIMW-22, 44.78
HIMW-13I, 43.52
HIMW-14I, 43.56
HIMW-15I, 40.27

47
46
45
45
44
43
42
41

SECOND STREET
HILTON AVENUE
BARNES LANE
WYDLER 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
KELLUM PLACE
KENSINGTON COURT
MIRSCHEL PARK
TERRACE AVENUE
MARGARET COURT
BEDELL STREET
RUNDLE COURT
CHELSEA PLACE
CATHEDRAL AVENUE
NORTH FRANKLIN STREET
WEST COLUMBIA
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, 46.45 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

URS Corporation

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR INTERMEDIATE GROUNDWATER
JUNE 16, 2014

FIGURE 6

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\JUNE 2014\FIGURE 7.dwg 10/29/14 - 2 RAL

N

NATIONAL GRID
FORMER MGP SITE

HIMW-03D, 46.59
HIMW-11D, 46.44
HIMW-05D, 46.01
HIMW-04D, 45.84
HIMW-26D, NM
HIMW-09D, 46.84
HIMW-8D, 46.42
HIMW-12D, 43.13
HIMW-13D, 43.45
HIMW-14D, 39.87
HIMW-15D, 37.46

46
45
44
43
42
41
40
39
38

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

LEGEND:

⊕	MONITORING WELL
→	GROUNDWATER FLOW DIRECTION
43	POTENTIOMETRIC SURFACE CONTOUR
— - - —	FORMER MGP SITE BOUNDARY
HIMW-12D, 43.13	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

URS Corporation

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR DEEP GROUNDWATER
JUNE 16, 2014

FIGURE 7

J:\Projects\11175065.00000\DB\GIS\ARCMAP\0614 BTEXPAH-NAPL.mxd 10/28/2014

Well ID	BTEX [ug/L]	PAH [ug/L]	DNAPL (ft)	LNAPL (ft)
HIMW-003S	ND	ND		
HIMW-003I	ND	ND		
HIMW-003D	ND	ND		
HIMW-004S				
HIMW-004I				
HIMW-004D				
HIMW-005S	ND	ND		
HIMW-005I	112	2,434		
HIMW-005D	32	735		
HIMW-008S	14	2		
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	18	93		
HIMW-012D	ND	ND		
HIMW-013S	ND	ND		
HIMW-013I	36	62		
HIMW-013D	3	16		
HIMW-014I	12	NA		
HIMW-014D	ND	ND		
HIMW-015I	17	38		
HIMW-015D	ND	ND		
HIMW-020S	ND	ND		
HIMW-020I	2	7		
HIMW-021			0.20	
HIMW-022	ND	ND		
HIMW-023	ND	ND		
HIMW-024	182	38		
HIMW-025	1,320	240		
HIMW-026I	ND	ND		
HIMW-026D	26	794		
HIMW-027S	1,483	1,441		
HIMW-027I	ND	ND		
HIMW-028S	175	372		
HIMW-028I	ND	ND		
PZ-02				
PZ-03				
OSMW-02				
OSMW-03				

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
NA - Not Analyzed

400 0 400 Feet

URS

HEMPSTEAD/GARDEN CITY, NY
TOTAL DISSOLVED-PHASE BTEX/PAH CONCENTRATIONS
AND FREE PRODUCT THICKNESS
SECOND QUARTER 2014

FIGURE 8

APPENDIX A

DATA USABILITY SUMMARY REPORT

APPENDIX A
DATA USABILITY SUMMARY REPORT
SECOND QUARTER 2014

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 2014

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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 thirty-one (31) groundwater samples, three (3) field duplicates, three (3) matrix spike/matrix spike duplicate (MS/MSD) pairs, one (1) field blank, and eight (8) trip blanks collected by URS personnel on April 17-29 and June 17-26, 2014. Six (6) of the groundwater samples (i.e., HIMW-26I, -26D, -27S, -27I, -28S, and -28I) were collected in April as part of the oxygen treatment system design evaluation, while the remaining twenty-five (25) of groundwater samples were collected in June as part of the 2014 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,
- Polynuclear aromatic hydrocarbons (PAHs) – USEPA Method SW8270D, and
- Total Iron – USEPA Method SW6010C.

Only the groundwater and field QC samples used to evaluate the effectiveness of the oxygen treatment system design were analyzed for total iron.

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, SOP HW-24, Rev. 2,* August 2008;

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

- *ICP-AES Data Validation, SOPHW-2a, Rev. 15,* December 2012.

The limited data validation included a review of completeness of all required deliverables; holding times; quality control (QC) results (instrument tunes, calibration standards, blanks, interference check standards, matrix spike recoveries, field duplicate analyses, laboratory control sample (LCS) recoveries, serial dilutions, 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). All samples were analyzed within the required holding times, expect for the following instance. Sample HIMW-26I (collected on 04/29/14) was extracted one day outside holding time. As a result, the PAH results for this sample were qualified as estimated 'UJ'. Documentation supporting the qualification of data (i.e., extraction log) is presented in Attachment B.

V. NON-CONFORMANCES

Sample Extraction/Preparation

During the PAH extraction process, a laboratory accident occurred which precluded the preparation of sample HIMW-14I (i.e., both 1-liter amber containers broke). Since there was no more sample volume available for re-extraction, the PAH analysis could not be performed on sample HIMW-14I. Total PAH concentrations for this monitoring well interval have historically been below 100 µg/L, except for two instances [i.e., 4th quarter 2003 (288 µg/L) and 2nd quarter 2013 (103 µg/L)], therefore, resampling of this monitoring well interval is not recommended until the next quarterly sampling event.

Documentation supporting the qualification of data (i.e., case narrative) is presented in Attachment B.

Serial Dilution

For total iron (Fe) analyses, the serial dilution percent difference (%D) for sample HIMW-026D (collected on 06/27/14) was greater than 10%. The total Fe result for this sample was qualified 'J'.

Documentation supporting the qualification of data (i.e., Form 9) is presented in Attachment B.

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' (for BTEX and PAHs) and 'B' (for total Fe) by the laboratory, while results reported from secondary dilution analyses were qualified 'D'. The 'B' qualifiers for total Fe were changed to 'J' during the data review in accordance with the current USEPA data qualifier convention for inorganics.

The initial total xylene result for sample HIMW-27S (collected on 04/18/14) was above the linear range of calibration. However, the laboratory did not qualify the total xylene result 'E'. Since the lab had to reanalyze the sample at a secondary dilution for ethylbenzene, the total xylene result was reported from the secondary dilution and qualified 'D'.

Field duplicates were collected from monitoring well locations HIMW-20S, HIMW-24, and HIMW-28I (collected on 04/17/14), 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 'J' or '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: Peter R Fair **Date:** 9/2/14

Peter R. Fairbanks, Senior Chemist

Reviewed By: **Date:** 9/2/14

George E. Kisluk, Senior 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
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-003D	HIMW-003I	HIMW-003S	HIMW-005D	HIMW-005I
Sample ID			HIMW-03D	HIMW-03I	HIMW-03S	HIMW-005D	HIMW-005I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/20/14	06/20/14	06/23/14	06/26/14	06/26/14
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	5	2
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	27	110
Total BTEX	UG/L	100	ND	ND	ND	32	112
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	96 DJ	340 D
Acenaphthene	UG/L	-	10 U	10 U	10 U	2 J	10 U
Acenaphthylene	UG/L	-	10 U	10 U	10 U	32	160 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	600 D	1,900 D
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	12
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	735	2,434

*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. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_; Checked By_AMK 8/20/14

Detection Limits shown are PQL

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

Location ID			HIMW-003D	HIMW-003I	HIMW-003S	HIMW-005D	HIMW-005I
Sample ID			HIMW-03D	HIMW-03I	HIMW-03S	HIMW-005D	HIMW-005I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/20/14	06/20/14	06/23/14	06/26/14	06/26/14
Parameter	Units	Criteria*					
Metals							
Iron	UG/L	-	NA	NA	NA	10,200	38,500

*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. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_ Checked By_AMK 8/20/14

Detection Limits shown are PQL

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

Location ID			HIMW-005S	HIMW-008D	HIMW-008I	HIMW-008S	HIMW-012D
Sample ID			HIMW-05S	HIMW-008D	HIMW-008I	HIMW-008S	HIMW-012D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/25/14	06/23/14	06/23/14	06/23/14	06/24/14
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	14	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	ND	ND	14	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	2 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	-	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	ND	ND	2	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

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

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis

Made By_PRF 08/18/14_; Checked By_AMK 8/30/14

Detection Limits shown are PQL

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

Location ID			HIMW-005S	HIMW-008D	HIMW-008I	HIMW-008S	HIMW-012D
Sample ID			HIMW-05S	HIMW-008D	HIMW-008I	HIMW-008S	HIMW-012D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/25/14	06/23/14	06/23/14	06/23/14	06/24/14
Parameter	Units	Criteria*					
Metals							
Iron	UG/L	-	NA	NA	NA	NA	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. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_; Checked By_AMK 8/20/14

Detection Limits shown are PQL

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

Location ID			HIMW-012I	HIMW-012S	HIMW-013D	HIMW-013I	HIMW-013S
Sample ID			HIMW-012I	HIMW-012S	HIMW-13D	HIMW-13I	HIMW-13S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/24/14	06/24/14	06/19/14	06/19/14	06/19/14
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	16	1 U	3	34	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	-	2	1 U	1 U	2	1 U
Total BTEX	UG/L	100	18	ND	3	36	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	7 J	10 U
Acenaphthene	UG/L	-	31	10 U	5 J	4 J	10 U
Acenaphthylene	UG/L	-	29	10 U	11	35	10 U
Anthracene	UG/L	-	1 J	10 U	10 U	1 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	10 U	10 U
Fluorene	UG/L	-	20	10 U	10 U	3 J	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	-	12	10 U	10 U	12	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	93	ND	16	62	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

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

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_ Checked By_AMK 8/20/14

Detection Limits shown are PQL

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

Location ID			HIMW-012I	HIMW-012S	HIMW-013D	HIMW-013I	HIMW-013S
Sample ID			HIMW-012I	HIMW-012S	HIMW-13D	HIMW-13I	HIMW-13S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/24/14	06/24/14	06/19/14	06/19/14	06/19/14
Parameter	Units	Criteria*					
Metals							
Iron	UG/L	-	NA	NA	NA	NA	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. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_; Checked By_AMK 8/20/14

Detection Limits shown are PQL

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[LOGDATE] >= #4/17/2014# AND [MATRIX] = 'WG'

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

Location ID			HIMW-014D	HIMW-014I	HIMW-015D	HIMW-015I	HIMW-020I
Sample ID			HIMW-14D	HIMW-14I	HIMW-15D	HIMW-15I	HIMW-20I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/18/14	06/18/14	06/17/14	06/17/14	06/18/14
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	11	1 U	13	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	1 U	4	2
Total BTEX	UG/L	100	ND	12	ND	17	2
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	NA	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	NA	10 U	10	1
Acenaphthylene	UG/L	-	10 U	NA	10 U	24	6 J
Anthracene	UG/L	-	10 U	NA	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	NA	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	NA	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	NA	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	NA	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	NA	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	NA	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	NA	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	NA	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	NA	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	NA	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	NA	10 U	10 U	10 U
Phenanthrene	UG/L	-	10 U	NA	10 U	4 J	10 U
Pyrene	UG/L	-	10 U	NA	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	NA	ND	38	7

*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. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_: Checked By_AMK 8/20/14

Detection Limits shown are PQL

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

Location ID			HIMW-014D	HIMW-014I	HIMW-015D	HIMW-015I	HIMW-020I
Sample ID			HIMW-14D	HIMW-14I	HIMW-15D	HIMW-15I	HIMW-20I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/18/14	06/18/14	06/17/14	06/17/14	06/18/14
Parameter	Units	Criteria*					
Metals							
Iron	UG/L	-	NA	NA	NA	NA	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. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_, Checked By_AMK 8/20/14

Detection Limits shown are PQL

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

Location ID			HIMW-020S	HIMW-020S	HIMW-022	HIMW-023	HIMW-024
Sample ID			DUP061814	HIMW-20S	HIMW-22	HIMW-23	DUP061914
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/18/14	06/18/14	06/18/14	06/17/14	06/19/14
Parameter	Units	Criteria*	Field Duplicate (1-1)				Field Duplicate (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	88
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	2
Toluene	UG/L	-	1 U	1 U	1 U	1 U	5
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	86
Total BTEX	UG/L	100	ND	ND	ND	ND	181
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	3 J
Acenaphthene	UG/L	-	10 U	10 U	10 U	10 U	1 J
Acenaphthylene	UG/L	-	10 U	10 U	10 U	10 U	4 J
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	1 J
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	33
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	ND	42

*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. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_; Checked By_AMK 8/20/14

Detection Limits shown are PQL

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Printed: 8/18/2014 8:50:19 AM
[LOGDATE] >= #4/17/2014# AND [MATRIX] = 'WG'

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

Location ID			HIMW-020S	HIMW-020S	HIMW-022	HIMW-023	HIMW-024
Sample ID			DUP061814	HIMW-20S	HIMW-22	HIMW-23	DUP061914
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/18/14	06/18/14	06/18/14	06/17/14	06/19/14
Parameter	Units	Criteria*	Field Duplicate (1-1)				Field Duplicate (1-1)
Metals							
Iron	UG/L	-	NA	NA	NA	NA	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. J - The reported concentration is an estimated value.

UJ - Not detected The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_; Checked By_AMK 8/20/14

Detection Limits shown are PQL

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

Location ID			HIMW-024	HIMW-025	HIMW-026D	HIMW-026D	HIMW-026I
Sample ID			HIMW-24	HIMW-25	HIMW-26D	HIMW-26D	HIMW-26I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/19/14	06/23/14	04/18/14	06/27/14	04/29/14
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	89	190 D	1 U	1 U	1 U
Ethylbenzene	UG/L	-	2	170	1 U	1 U	1 U
Toluene	UG/L	-	5	150	1 U	1 U	1 U
Xylene (total)	UG/L	-	86	810 D	24	26	1 U
Total BTEX	UG/L	100	182	1,320	24	26	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	2 J	27	220 D	130 DJ	10 UJ
Acenaphthene	UG/L	-	1 J	2 J	7 J	4 J	10 UJ
Acenaphthylene	UG/L	-	3 J	18	120 DJ	63	10 UJ
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 UJ
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 UJ
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 UJ
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 UJ
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 UJ
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 UJ
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 UJ
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 UJ
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 UJ
Fluorene	UG/L	-	10 U	3 J	19	10	10 UJ
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 UJ
Naphthalene	UG/L	-	32	190 D	860 D	580 D	10 UJ
Phenanthrene	UG/L	-	10 U	10 U	15	7 J	10 UJ
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 UJ
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	38	240	1,241	794	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

U - Not detected above the reported quantitation limit J - The reported concentration is an estimated value

UJ - Not detected. The reported quantitation limit is an estimated value D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_, Checked By_AMK _8/20/14

Detection Limits shown are PQL

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

Location ID			HIMW-024	HIMW-025	HIMW-026D	HIMW-026D	HIMW-026I
Sample ID			HIMW-24	HIMW-25	HIMW-26D	HIMW-26D	HIMW-26I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/19/14	06/23/14	04/18/14	06/27/14	04/29/14
Parameter	Units	Criteria*					
Metals							
Iron	UG/L	-	NA	NA	NA	169 J	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. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_; Checked By_AMK 9/30/14

Detection Limits shown are PQL

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

Location ID			HIMW-026I	HIMW-027I	HIMW-027I	HIMW-027S	HIMW-027S
Sample ID			HIMW-26I	HIMW-27I	HIMW-27I	HIMW-27S	HIMW-27S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/25/14	04/17/14	06/27/14	04/18/14	06/27/14
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	22	6
Ethylbenzene	UG/L	-	1 U	1 U	1 U	350 D	670 D
Toluene	UG/L	-	1 U	1 U	1 U	23	47
Xylene (total)	UG/L	-	1 U	1 U	1 U	370 D	760 D
Total BTEX	UG/L	100	ND	ND	ND	765	1,483
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	320 D	300 D
Acenaphthene	UG/L	-	10 U	10 U	10 U	92 DJ	74
Acenaphthylene	UG/L	-	10 U	10 U	10 U	6 J	3 J
Anthracene	UG/L	-	10 U	10 U	10 U	7 J	6 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	1 J	1 J
Fluorene	UG/L	-	10 U	10 U	10 U	38	30
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	1,200 D	990 D
Phenanthrene	UG/L	-	10 U	10 U	10 U	35	35
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	2 J
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	1,699	1,441

*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. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_ Checked By_AMK 8/20/14

Detection Limits shown are PQL

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

Location ID			HIMW-026I	HIMW-027I	HIMW-027I	HIMW-027S	HIMW-027S
Sample ID			HIMW-26I	HIMW-27I	HIMW-27I	HIMW-27S	HIMW-27S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/25/14	04/17/14	06/27/14	04/18/14	06/27/14
Parameter	Units	Criteria*					
Metals							
Iron	UG/L	-	NA	NA	775	NA	85,600

*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. J - The reported concentration is an estimated value.

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Made By_PRF 08/18/14_; Checked By_AMK 8/20/14

Detection Limits shown are PQL

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

Location ID			HIMW-028I	HIMW-028I	HIMW-028I	HIMW-028S	HIMW-028S
Sample ID			DUP041714	HIMW-28I	HIMW-28I	HIMW-28S	HIMW-28S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/17/14	04/17/14	06/25/14	04/18/14	06/26/14
Parameter	Units	Criteria*	Field Duplicate (1-1)				
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	36	22
Ethylbenzene	UG/L	-	1 U	1 U	1 U	90	120
Toluene	UG/L	-	1 U	1 U	1 U	1	8
Xylene (total)	UG/L	-	1 U	1 U	1 U	18	25
Total BTEX	UG/L	100	ND	ND	ND	145	175
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	50	33
Acenaphthene	UG/L	-	10 U	10 U	10 U	29	23
Acenaphthylene	UG/L	-	10 U	10 U	10 U	2 J	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	5 J	3 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	1 J	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	1 J	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	3 J	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	22	16
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	320 D	280 D
Phenanthrene	UG/L	-	10 U	10 U	10 U	26	17
Pyrene	UG/L	-	10 U	10 U	10 U	4 J	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	463	372

*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.

(oval) Concentration Exceeds Criteria

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

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_ Checked By_AMK 8/20/14

Detection Limits shown are PQL

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

Location ID			HIMW-028I	HIMW-028I	HIMW-028I	HIMW-028S	HIMW-028S
Sample ID			DUP041714	HIMW-28I	HIMW-28I	HIMW-28S	HIMW-28S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/17/14	04/17/14	06/25/14	04/18/14	06/26/14
Parameter	Units	Criteria*	Field Duplicate (1-1)				
Metals							
Iron	UG/L	-	NA	NA	NA	NA	60,200

*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. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

Made By_PRF 08/18/14_; Checked By_AMK 8/20/14

Detection Limits shown are PQL

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[LOGDATE] >= #4/17/2014# AND [MATRIX] = 'WG'

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

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			TB041814	TB042914	TB061714	TB061914	TB062014
Matrix			Water Quality	Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/18/14	04/18/14	06/17/14	06/18/14	06/20/14
Parameter	Units	Criteria*	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	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	ND	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	NA	NA	NA	NA	NA
Acenaphthene	UG/L	-	NA	NA	NA	NA	NA
Acenaphthylene	UG/L	-	NA	NA	NA	NA	NA
Anthracene	UG/L	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	UG/L	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	UG/L	-	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	UG/L	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	UG/L	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	UG/L	-	NA	NA	NA	NA	NA
Chrysene	UG/L	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	UG/L	-	NA	NA	NA	NA	NA
Fluoranthene	UG/L	-	NA	NA	NA	NA	NA
Fluorene	UG/L	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	UG/L	-	NA	NA	NA	NA	NA
Naphthalene	UG/L	-	NA	NA	NA	NA	NA
Phenanthrene	UG/L	-	NA	NA	NA	NA	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

Made By_PRF 08/18/14_; Checked By_AMK 9/30/14

Detection Limits shown are PQL

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[LOGDATE] >= #4/17/2014# AND [MATRIX] = 'WQ

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

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			TB041814	TB042914	TB061714	TB061914	TB062014
Matrix			Water Quality	Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/18/14	04/18/14	06/17/14	06/18/14	06/20/14
Parameter	Units	Criteria*	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)
Semivolatile Organic Compounds							
Pyrene	UG/L	-	NA	NA	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	NA	NA	NA	NA	NA
Metals							
Iron	UG/L	-	NA	NA	NA	NA	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.

(oval) Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit

NA - The sample was not analyzed for this parameter

Made By_PRF 08/18/14_; Checked By_AMK 9/30/14

Detection Limits shown are PQL

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[LOGDATE] >= #4/17/2014# AND [MATRIX] = 'WQ'

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

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			TB062414	TB062614	FB062714	TB062714
Matrix			Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-
Date Sampled			06/24/14	06/26/14	06/27/14	06/27/14
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

*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.

Made By_PRF 08/18/14_; Checked By_AMK 8/20/14

Detection Limits shown are PQL

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

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			TB062414	TB062614	FB062714	TB062714
Matrix			Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-
Date Sampled			06/24/14	06/26/14	06/27/14	06/27/14
Parameter	**Units**	**Criteria***	Trip Blank (1-1)	Trip Blank (1-1)	Field Blank (1-1)	Trip Blank (1-1)
Semivolatile Organic Compounds						
Pyrene	UG/L	-	NA	NA	10 U	NA
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	NA	NA	ND	NA
Metals						
Iron	UG/L	-	NA	NA	7.1 J	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.

(oval) Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit.

NA - The sample was not analyzed for this parameter.

Made By_PRF 08/18/14_; Checked By_AMK 8/20/14

Detection Limits shown are PQL

ATTACHMENT A

VALIDATED FORM 1'S

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-03S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 514\G26109

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: not dec. Date Analyzed: 06/25/14

GC Column: Rtx-624 ID: .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-03S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-001B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66802.D

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/27/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/14

Injection Volume: 2 (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-03I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406F74-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81806.D

Level: (low/med) LOW Date Received: 06/20/14

% Moisture: not dec. Date Analyzed: 06/22/14

GC Column: Rtx-624 ID: .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-03I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406F74-002B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\R23201.D

Level: (low/med) LOW Date Received: 06/20/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/14

Injection Volume: 2 (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-03D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406F74-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81805.D

Level: (low/med) LOW Date Received: 06/20/14

% Moisture: not dec. Date Analyzed: 06/22/14

GC Column: Rtx-624 ID: .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-03D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406F74-001B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\R23200.D

Level: (low/med) LOW Date Received: 06/20/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/14

Injection Volume: 2 (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-05S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 14\G26290.

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: not dec. Date Analyzed: 07/06/14

GC Column: Rtx-624 ID: .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.

HIMW-05S

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-001B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66825.D

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/14

Injection Volume: 2 (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-005I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 14\G26287.

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: not dec. Date Analyzed: 07/06/14

GC Column: Rtx-624 ID: .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)	110	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-005I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-004B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66828.D

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/14

Injection Volume: 2 (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	1900 ~~860~~	~~E~~ D
91-57-6	2-Methylnaphthalene	340 ~~220~~	~~E~~ D
208-96-8	Acenaphthylene	160 ~~150~~	~~E~~ DJ
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	21	
85-01-8	Phenanthrene	12	
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

8/14/14

1C

EPA SAMPLE NO.

HIMW-005IDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-004BDL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4\N66905.D

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/03/14

Injection Volume: 2 (µL) Dilution Factor: 25.00

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	1900	D
91-57-6	2-Methylnaphthalene	340	D
208-96-8	Acenaphthylene	160	DJ
83-32-9	Acenaphthene	250	U
86-73-7	Fluorene	250	U
85-01-8	Phenanthrene	250	U
120-12-7	Anthracene	250	U
206-44-0	Fluoranthene	250	U
129-00-0	Pyrene	250	U
56-55-3	Benzo(a)anthracene	250	U
218-01-9	Chrysene	250	U
205-99-2	Benzo(b)fluoranthene	250	U
207-08-9	Benzo(k)fluoranthene	250	U
50-32-8	Benzo(a)pyrene	250	U
193-39-5	Indeno(1,2,3-cd)pyrene	250	U
53-70-3	Dibenzo(a,h)anthracene	250	U
191-24-2	Benzo(g,h,i)perylene	250	U

(1) Cannot be separated from Diphenylamine

8/14/14

U.S. EPA - CLP

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HIMW-005I

Lab Name: PACE ANALYTICAL

Lab Code: 10478 Case No. SAS No.: SDG No.: KEY-URS185

Matrix (soil/water): WATER Lab Sample ID: 1406J99-004

Level (low/med): LOW Date Received: 6/26/2014

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	38500			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

Date Reported 7/10/2014

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-005D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 14\G26286.

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: not dec. Date Analyzed: 07/06/14

GC Column: Rtx-624 ID: .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)	27	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-005D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-005B

Sample wt/vol: 500 (g/mL) ml Lab File ID: 4\N66829.D

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/01/14

Injection Volume: 2 (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	600 ~~560~~	~~E~~ D
91-57-6	2-Methylnaphthalene	96 ~~95~~	~~E~~ DJ
208-96-8	Acenaphthylene	32	
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

8/14/14

EPA SAMPLE NO.

HIMW-005DDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-005BDL

Sample wt/vol: 500 (g/mL) ML Lab File ID: 4\N66906.D

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 500 (µL) Date Analyzed: 07/03/14

Injection Volume: 2 (µL) Dilution Factor: 20.00

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	600	D
91-57-6	2-Methylnaphthalene	96	DJ
208-96-8	Acenaphthylene	34	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

8/14/14

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HIMW-005D

Lab Name: PACE ANALYTICAL

Lab Code: 10478 Case No. SAS No.: SDG No.: KEY-URS185

Matrix (soil/water): WATER Lab Sample ID: 1406J99-005

Level (low/med): LOW Date Received: 6/26/2014

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	10200			P

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: YELLOW Clarity After: CLOUDY Artifacts:

Comments:

Date Reported 7/10/2014

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-008S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 514\G26112

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: not dec. Date Analyzed: 06/25/14

GC Column: Rtx-624 ID: .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	14	
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-008S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-004B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66805.D

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/27/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/14

Injection Volume: 2 (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	2	J
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-008I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 514\G26111

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: not dec. Date Analyzed: 06/25/14

GC Column: Rtx-624 ID: .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-008I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-003B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66804.D

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/27/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/14

Injection Volume: 2 (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-008D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 514\G26110

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: not dec. Date Analyzed: 06/25/14

GC Column: Rtx-624 ID: .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-008D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-002B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66803.D

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/27/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/14

Injection Volume: 2 (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-012S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 514\G26114

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: not dec. Date Analyzed: 06/25/14

GC Column: Rtx-624 ID: .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-012S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-006B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66807.D

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/27/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/14

Injection Volume: 2 (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-012I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 514\G26115

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: not dec. Date Analyzed: 06/25/14

GC Column: Rtx-624 ID: .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	16	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	2	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-012I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-007B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66808.D

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/27/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/14

Injection Volume: 2 (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	29	
83-32-9	Acenaphthene	31	
86-73-7	Fluorene	20	
85-01-8	Phenanthrene	12	
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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-012D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 514\G26118

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: not dec. Date Analyzed: 06/25/14

GC Column: Rtx-624 ID: .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-012D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-008B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66811.D

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/27/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/14

Injection Volume: 2 (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-13S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81802.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: not dec. Date Analyzed: 06/22/14

GC Column: Rtx-624 ID: .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-13S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-007B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66777.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/25/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/26/14

Injection Volume: 2 (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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-008A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81785.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: not dec. Date Analyzed: 06/20/14

GC Column: Rtx-624 ID: .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	34	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	2	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-13I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-008B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66780.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/25/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/14

Injection Volume: 2 (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	7	J
208-96-8	Acenaphthylene	35	
83-32-9	Acenaphthene	4	J
86-73-7	Fluorene	3	J
85-01-8	Phenanthrene	12	
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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81786.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: not dec. Date Analyzed: 06/20/14

GC Column: Rtx-624 ID: .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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-009B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66799.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/25/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/14

Injection Volume: 2 (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	11	
83-32-9	Acenaphthene	5	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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81776.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: not dec. Date Analyzed: 06/20/14

GC Column: Rtx-624 ID: .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	11	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	

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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81777.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: not dec. Date Analyzed: 06/20/14

GC Column: Rtx-624 ID: .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.

HIMW-14D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-002B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66772.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/25/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/26/14

Injection Volume: 2 (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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406C73-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81677.D

Level: (low/med) LOW Date Received: 06/17/14

% Moisture: not dec. Date Analyzed: 06/18/14

GC Column: Rtx-624 ID: .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	13	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	4	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-15I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406C73-001B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\R22990.D

Level: (low/med) LOW Date Received: 06/17/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/18/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/20/14

Injection Volume: 2 (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	24	
83-32-9	Acenaphthene	10	
86-73-7	Fluorene	10	U
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-15D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406C73-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81678.D

Level: (low/med) LOW Date Received: 06/17/14

% Moisture: not dec. Date Analyzed: 06/18/14

GC Column: Rtx-624 ID: .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-15D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406C73-002B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\R22991.D

Level: (low/med) LOW Date Received: 06/17/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/18/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/20/14

Injection Volume: 2 (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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81779.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: not dec. Date Analyzed: 06/20/14

GC Column: Rtx-624 ID: .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.

DUP061814 (HMW-205)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81781.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: not dec. Date Analyzed: 06/20/14

GC Column: Rtx-624 ID: .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-20S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-004B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66774.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/25/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/26/14

Injection Volume: 2 (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

1C

EPA SAMPLE NO.

DUP061814 (H1MW-205)

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-006B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66776.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/25/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/26/14

Injection Volume: 2 (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

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-20I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81780.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: not dec. Date Analyzed: 06/20/14

GC Column: Rtx-624 ID: .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)	2	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-20I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-005B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66775.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/25/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/26/14

Injection Volume: 2 (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	6	J
83-32-9	Acenaphthene	1	
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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81778.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: not dec. Date Analyzed: 06/20/14

GC Column: Rtx-624 ID: .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.

HIMW-22

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-003B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66773.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/25/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/26/14

Injection Volume: 2 (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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406C73-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81679.D

Level: (low/med) LOW Date Received: 06/17/14

% Moisture: not dec. Date Analyzed: 06/18/14

GC Column: Rtx-624 ID: .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-23

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406C73-003B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\R22992.D

Level: (low/med) LOW Date Received: 06/17/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/18/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/20/14

Injection Volume: 2 (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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406F74-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81807.D

Level: (low/med) LOW Date Received: 06/20/14

% Moisture: not dec. Date Analyzed: 06/22/14

GC Column: Rtx-624 ID: .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	89	
108-88-3	Toluene	5	
100-41-4	Ethylbenzene	2	
1330-20-7	Xylene (total)	86	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP061914 (HIMW-24)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406F74-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81808.D

Level: (low/med) LOW Date Received: 06/20/14

% Moisture: not dec. Date Analyzed: 06/22/14

GC Column: Rtx-624 ID: .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	88	
108-88-3	Toluene	5	
100-41-4	Ethylbenzene	2	
1330-20-7	Xylene (total)	86	

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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406F74-003B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\R23202.D

Level: (low/med) LOW Date Received: 06/20/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/14

Injection Volume: 2 (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	32	
91-57-6	2-Methylnaphthalene	2	J
208-96-8	Acenaphthylene	3	J
83-32-9	Acenaphthene	1	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

EPA SAMPLE NO.

DUP061914 (HIMW-24)

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406F74-004B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\R23203.D

Level: (low/med) LOW Date Received: 06/20/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/27/14

Injection Volume: 2 (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	33	
91-57-6	2-Methylnaphthalene	3	J
208-96-8	Acenaphthylene	4	J
83-32-9	Acenaphthene	1	J
86-73-7	Fluorene	1	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

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-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 514\G26113

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: not dec. Date Analyzed: 06/25/14

GC Column: Rtx-624 ID: .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	190 ~~200~~	~~E~~ D
108-88-3	Toluene	150	
100-41-4	Ethylbenzene	170	
1330-20-7	Xylene (total)	810 ~~610~~	~~E~~ D

8/14/14

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-25DL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-005ADL

Sample wt/vol: 5 (g/mL) ML Lab File ID: 514\G26119

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: not dec. Date Analyzed: 06/25/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 2.00

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	190	D
108-88-3	Toluene	140	D
100-41-4	Ethylbenzene	170	D
1330-20-7	Xylene (total)	810	D

8/14/14
ne

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-25

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-005B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66806.D

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/27/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 06/30/14

Injection Volume: 2 (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	190 ~~170~~	E D
91-57-6	2-Methylnaphthalene	27	
208-96-8	Acenaphthylene	18	
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	3	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

8/14/14

1C

EPA SAMPLE NO.

HIMW-25DL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-005BDL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4\N66904.D

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/27/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/03/14

Injection Volume: 2 (µL) Dilution Factor: 4.00

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	190	D
91-57-6	2-Methylnaphthalene	30	DJ
208-96-8	Acenaphthylene	20	DJ
83-32-9	Acenaphthene	40	U
86-73-7	Fluorene	40	U
85-01-8	Phenanthrene	40	U
120-12-7	Anthracene	40	U
206-44-0	Fluoranthene	40	U
129-00-0	Pyrene	40	U
56-55-3	Benzo(a)anthracene	40	U
218-01-9	Chrysene	40	U
205-99-2	Benzo(b)fluoranthene	40	U
207-08-9	Benzo(k)fluoranthene	40	U
50-32-8	Benzo(a)pyrene	40	U
193-39-5	Indeno(1,2,3-cd)pyrene	40	U
53-70-3	Dibenzo(a,h)anthracene	40	U
191-24-2	Benzo(g,h,i)perylene	40	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-URS182

Matrix: (soil/water) WATER Lab Sample ID: 1404L97-001A

Sample wt/vol: 5 (g/mL) mL Lab File ID: G24827.D

Level: (low/med) LOW Date Received: 04/30/14

% Moisture: not dec. Date Analyzed: 05/02/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) µg/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-26I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS182

Matrix: (soil/water) WATER Lab Sample ID: 1404L97-001B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R22078.D

Level: (low/med) LOW Date Received: 04/30/14

% Moisture: Decanted: (Y/N) N Date Extracted: 05/07/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 05/09/14

Injection Volume: 2 (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

6/9/14

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-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 14\G26289.

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: not dec. Date Analyzed: 07/06/14

GC Column: Rtx-624 ID: .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-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-002B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66826.D

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/14

Injection Volume: 2 (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-26D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\G24738.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: not dec. Date Analyzed: 04/29/14

GC Column: Rtx-624 ID: .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.

HIMW-26D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-001B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R21764.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 04/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/25/14

Injection Volume: 2 (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	~~540~~ 860	~~E~~ D
91-57-6	2-Methylnaphthalene	~~180~~ 220	~~E~~ D
208-96-8	Acenaphthylene	~~97~~ 120	~~E~~ DJ
83-32-9	Acenaphthene	7	J
86-73-7	Fluorene	19	
85-01-8	Phenanthrene	15	
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

6/3/14

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-26DDL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404R33-001BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R21816.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 04/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/28/14

Injection Volume: 2 (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	860	D
91-57-6	2-Methylnaphthalene	220	D
208-96-8	Acenaphthylene	120	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	21	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

6/3/14

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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81922.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: not dec. Date Analyzed: 07/07/14

GC Column: Rtx-624 ID: .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)	26	

1C

SEMIVOLATILE 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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-001B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66831.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/14

Injection Volume: 2 (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	580 ~~520~~	~~E~~ D
91-57-6	2-Methylnaphthalene	130 ~~120~~	~~E~~ DJ
208-96-8	Acenaphthylene	63	
83-32-9	Acenaphthene	4	J
86-73-7	Fluorene	10	
85-01-8	Phenanthrene	7	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

8/14/14

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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-001BDL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4\N66908.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/03/14

Injection Volume: 2 (µL) Dilution Factor: 20.00

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	580	D
91-57-6	2-Methylnaphthalene	130	DJ
208-96-8	Acenaphthylene	68	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

8/12/14

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HIMW-26D

Lab Name: PACE ANALYTICAL

Lab Code: 10478 Case No. SAS No.: SDG No.: KEY-URS184

Matrix (soil/water): WATER Lab Sample ID: 1406K88-001

Level (low/med): LOW Date Received: 6/27/2014

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	169		J	P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

8/14/14

Comments:

Date Reported 7/9/2014

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-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\G24741.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: not dec. Date Analyzed: 04/29/14

GC Column: Rtx-624 ID: .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	22	
108-88-3	Toluene	23	
100-41-4	Ethylbenzene	~~310~~ 350	~~E~~ D
1330-20-7	Xylene (total)	~~350~~ 370	~~E~~ D

6/2/14

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-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-002ADL

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\G24746.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: not dec. Date Analyzed: 04/29/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 2.00

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	19	D
108-88-3	Toluene	20	D
100-41-4	Ethylbenzene	350	D
1330-20-7	Xylene (total)	370	D

6/2/14

1C

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-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-002B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R21767.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 04/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/25/14

Injection Volume: 2 (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	~~770~~ 1200	~~E~~ D
91-57-6	2-Methylnaphthalene	~~290~~ 320	~~E~~ D
208-96-8	Acenaphthylene	6	J
83-32-9	Acenaphthene	~~85~~ 92	~~E~~ DJ
86-73-7	Fluorene	38	
85-01-8	Phenanthrene	35	
120-12-7	Anthracene	7	J
206-44-0	Fluoranthene	1	J
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

6/3/14

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-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-002BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R21804.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 04/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/27/14

Injection Volume: 2 (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	320	D
208-96-8	Acenaphthylene	200	U
83-32-9	Acenaphthene	92	DJ
86-73-7	Fluorene	40	DJ
85-01-8	Phenanthrene	38	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

6/3/14

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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-002A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81923.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: not dec. Date Analyzed: 07/07/14

GC Column: Rtx-624 ID: .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	6	
108-88-3	Toluene	47	
100-41-4	Ethylbenzene	670 ~~630~~	~~E~~ D
1330-20-7	Xylene (total)	760 ~~740~~	~~E~~ D

8/13/14

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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-002ADL

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81927.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: not dec. Date Analyzed: 07/07/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 10.00

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	10	U
108-88-3	Toluene	48	D
100-41-4	Ethylbenzene	670	D
1330-20-7	Xylene (total)	760	D

8/13/14

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-27S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-002B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66832.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/14

Injection Volume: 2 (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	990 ~~760~~	~~E~~ D
91-57-6	2-Methylnaphthalene	300 ~~280~~	~~E~~ D
208-96-8	Acenaphthylene	3	J
83-32-9	Acenaphthene	74	
86-73-7	Fluorene	30	
85-01-8	Phenanthrene	35	
120-12-7	Anthracene	6	J
206-44-0	Fluoranthene	1	J
129-00-0	Pyrene	2	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

8/14/14

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-27SDL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-002BDL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4\N66909.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/03/14

Injection Volume: 2 (µL) Dilution Factor: 25.00

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	990	D
91-57-6	2-Methylnaphthalene	300	D
208-96-8	Acenaphthylene	250	U
83-32-9	Acenaphthene	71	DJ
86-73-7	Fluorene	19	DJ
85-01-8	Phenanthrene	34	DJ
120-12-7	Anthracene	250	U
206-44-0	Fluoranthene	250	U
129-00-0	Pyrene	250	U
56-55-3	Benzo(a)anthracene	250	U
218-01-9	Chrysene	250	U
205-99-2	Benzo(b)fluoranthene	250	U
207-08-9	Benzo(k)fluoranthene	250	U
50-32-8	Benzo(a)pyrene	250	U
193-39-5	Indeno(1,2,3-cd)pyrene	250	U
53-70-3	Dibenzo(a,h)anthracene	250	U
191-24-2	Benzo(g,h,i)perylene	250	U

(1) Cannot be separated from Diphenylamine

8/14/14

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HIMW-27S

Lab Name: PACE ANALYTICAL

Lab Code: 10478 Case No. SAS No.: SDG No.: KEY-URS184

Matrix (soil/water): WATER Lab Sample ID: 1406K88-002

Level (low/med): LOW Date Received: 6/27/2014

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	85600			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

7/14/14

Comments:

Date Reported 7/9/2014

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-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\G24742.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: not dec. Date Analyzed: 04/29/14

GC Column: Rtx-624 ID: .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-27I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-003B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R21768.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 04/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/25/14

Injection Volume: 2 (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-27I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81924.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: not dec. Date Analyzed: 07/07/14

GC Column: Rtx-624 ID: .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-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-003B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66833.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/14

Injection Volume: 2 (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

U.S. EPA - CLP

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HIMW-27I

Lab Name: PACE ANALYTICAL

Lab Code: 10478 Case No. SAS No.: SDG No.: KEY-URS184

Matrix (soil/water): WATER Lab Sample ID: 1406K88-003

Level (low/med): LOW Date Received: 6/27/2014

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	775		E	P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

8/14/14

Comments:

Date Reported 7/9/2014

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-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\G24743.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: not dec. Date Analyzed: 04/29/14

GC Column: Rtx-624 ID: .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	36	
108-88-3	Toluene	1	
100-41-4	Ethylbenzene	90	
1330-20-7	Xylene (total)	18	

1C

EPA SAMPLE NO.

HIMW-28S

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-004B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R21769.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 04/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/25/14

Injection Volume: 2 (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	~~290~~ 320	~~E~~ D
91-57-6	2-Methylnaphthalene	50	
208-96-8	Acenaphthylene	2	J
83-32-9	Acenaphthene	29	
86-73-7	Fluorene	22	
85-01-8	Phenanthrene	26	
120-12-7	Anthracene	5	J
206-44-0	Fluoranthene	3	J
129-00-0	Pyrene	4	J
56-55-3	Benzo(a)anthracene	1	J
218-01-9	Chrysene	1	J
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

6/3/14

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-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-004BDL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R21805.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 04/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/27/14

Injection Volume: 2 (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	320	D
91-57-6	2-Methylnaphthalene	52	DJ
208-96-8	Acenaphthylene	100	U
83-32-9	Acenaphthene	29	DJ
86-73-7	Fluorene	23	DJ
85-01-8	Phenanthrene	26	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

6/3/14
2

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-28S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 14\G26285.

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: not dec. Date Analyzed: 07/06/14

GC Column: Rtx-624 ID: .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	22	
108-88-3	Toluene	8	
100-41-4	Ethylbenzene	120	
1330-20-7	Xylene (total)	25	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-28S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-006B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66830.D

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/14

Injection Volume: 2 (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	280 ~~270~~	~~E~~ D
91-57-6	2-Methylnaphthalene	33	
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	23	
86-73-7	Fluorene	16	
85-01-8	Phenanthrene	17	
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

8/14/14

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-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-006BDL

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 4\N66907.D

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/03/14

Injection Volume: 2 (µL) Dilution Factor: 5.00

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	280	D
91-57-6	2-Methylnaphthalene	36	DJ
208-96-8	Acenaphthylene	50	U
83-32-9	Acenaphthene	25	DJ
86-73-7	Fluorene	18	DJ
85-01-8	Phenanthrene	17	DJ
120-12-7	Anthracene	50	U
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
56-55-3	Benzo(a)anthracene	50	U
218-01-9	Chrysene	50	U
205-99-2	Benzo(b)fluoranthene	50	U
207-08-9	Benzo(k)fluoranthene	50	U
50-32-8	Benzo(a)pyrene	50	U
193-39-5	Indeno(1,2,3-cd)pyrene	50	U
53-70-3	Dibenzo(a,h)anthracene	50	U
191-24-2	Benzo(g,h,i)perylene	50	U

(1) Cannot be separated from Diphenylamine

8/14/14

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HIMW-28S

Lab Name: PACE ANALYTICAL

Lab Code: 10478 Case No. SAS No.: SDG No.: KEY-URS185

Matrix (soil/water): WATER Lab Sample ID: 1406J99-006

Level (low/med): LOW Date Received: 6/26/2014

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	60200			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

Date Reported 7/10/2014

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-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\G24744.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: not dec. Date Analyzed: 04/29/14

GC Column: Rtx-624 ID: .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.

DUP041714 (HIMW-28I)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\G24745.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: not dec. Date Analyzed: 04/29/14

GC Column: Rtx-624 ID: .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-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-005B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R21770.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 04/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/25/14

Injection Volume: 2 (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

1C

EPA SAMPLE NO.

DUP041714 (HIMW-28I)

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-006B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R21771.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 04/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 04/25/14

Injection Volume: 2 (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-28I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 14\G26288.

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: not dec. Date Analyzed: 07/06/14

GC Column: Rtx-624 ID: .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-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-003B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66827.D

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/14

Injection Volume: 2 (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.

TB041814

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS181

Matrix: (soil/water) WATER Lab Sample ID: 1404E33-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\G24737.D

Level: (low/med) LOW Date Received: 04/18/14

% Moisture: not dec. Date Analyzed: 04/29/14

GC Column: Rtx-624 ID: .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

TB042914

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS182

Matrix: (soil/water) WATER Lab Sample ID: 1404L97-002A

Sample wt/vol: 5 (g/mL) mL Lab File ID: G24826.D

Level: (low/med) LOW Date Received: 04/30/14

% Moisture: not dec. Date Analyzed: 05/02/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 1.00

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) µg/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.

TB061714

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406C73-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81680.D

Level: (low/med) LOW Date Received: 06/17/14

% Moisture: not dec. Date Analyzed: 06/18/14

GC Column: Rtx-624 ID: .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.

TB061914

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406E93-010A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81787.D

Level: (low/med) LOW Date Received: 06/19/14

% Moisture: not dec. Date Analyzed: 06/20/14

GC Column: Rtx-624 ID: .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.

TB062014

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406F74-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81809.D

Level: (low/med) LOW Date Received: 06/20/14

% Moisture: not dec. Date Analyzed: 06/22/14

GC Column: Rtx-624 ID: .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.

TB062414

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406H97-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 514\G26108

Level: (low/med) LOW Date Received: 06/24/14

% Moisture: not dec. Date Analyzed: 06/25/14

GC Column: Rtx-624 ID: .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.

FB062714

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-004A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81925.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: not dec. Date Analyzed: 07/07/14

GC Column: Rtx-624 ID: .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.

TB062614

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS185

Matrix: (soil/water) WATER Lab Sample ID: 1406J99-007A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 14\G26284.

Level: (low/med) LOW Date Received: 06/26/14

% Moisture: not dec. Date Analyzed: 07/06/14

GC Column: Rtx-624 ID: .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

FB062714

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-004B

Sample wt/vol: 1000 (g/mL) ml Lab File ID: 4\N66834.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: Decanted: (Y/N) N Date Extracted: 06/30/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 07/01/14

Injection Volume: 2 (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.

TB062714

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS184

Matrix: (soil/water) WATER Lab Sample ID: 1406K88-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A81926.D

Level: (low/med) LOW Date Received: 06/27/14

% Moisture: not dec. Date Analyzed: 07/07/14

GC Column: Rtx-624 ID: .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

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

FB062714

Lab Name: PACE ANALYTICAL

Lab Code: 10478 Case No. SAS No.: SDG No.: KEY-URS184

Matrix (soil/water): WATER Lab Sample ID: 1406K88-004

Level (low/med): LOW Date Received: 6/27/2014

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7439-89-6	Iron	7.1	J	J	P

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

8/14/14

2

Comments:

Date Reported 7/9/2014

ATTACHMENT B

SUPPORT DOCUMENTATION

H 2 M labs

575 Broad Hollow Rd., Melville, NY 11747
(631) 694-3040 Fax: (631) 420-8436
www.h2mlabs.com

01503

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS

H2M SDG NO: Key-URS 181

PROJECT NAME/NUMBER
National Grid Hempstead
11176098.

SAMPLERS: (Signature)/Client
Megan Dacol / URS

DELIVERABLES:

TURNAROUND TIME:
Standard TAT

NOTES:
3.4°C
4.4°C
4.8°C

Project Contact: Peter Fairbanks

Phone Number: 716-856-5626

PIS/Quote #

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	VOC	SVOC	LAB I.D. NO.	REMARKS:
			Sample Container Description		40 ml clear glass, HCl	1 L amber glass		
4/18/14	710	GW	HIMW-26D	4	X	X	140E33-001	
4/18/14	720	GW	HIMW-26D MS/MSD	8	X	X	-001	
4/18/14	937	GW	HIMW-27S	4	X	X	-003	
4/17/14	1120	GW	HIMW-27I	4	X	X	-002	
4/18/14	1125	GW	HIMW-28S	4	X	X	-005	
4/17/14	1408	GW	HIMW-28I	4	X	X	-004	
4/18/14	1200	GW	TB041814	2	X		-007	
4/17/14	1200	GW	DUP041714	4	X	X	-006	

ANALYSIS REQUESTED

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Megan Dacol	4/18/14	14:00		4/18/14	14:00
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	4/18/14	15:45		4/18/14	15:45
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

LABORATORY USE ONLY

Samples were:
1. Shipped ___ or Hand Delivered ___ Airbill # _____

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N

WHITE COPY - ORIGINAL YELLOW COPY - CLIENT PINK COPY - LABORATORY

Pace Long Island

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLE(S) RECEIVED: 4/18/14
SDG #: KEY-URS181

For Sample(s):

HIMW-26D	HIMW-28I
HIMW-27S	DUP041714
HIMW-27I	TB041814
HIMW-28S	

The above water sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260C and reported with the requested deliverables.

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-26D was submitted for matrix spike/matrix spike duplicate (MS/MSD) analysis. The percent recoveries and RPDs were within the Q. C. limits. A lab fortified blank was analyzed on the date of analysis, and recoveries indicate good method efficiency.

Average response factors were employed for all targeted analytes in the initial calibrations.

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: May 12, 2014

****
* *
* *
****

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
SAMPLE(S) RECEIVED: 1/18/14
SDG #: KEY-URS181

For Sample(s):

HIMW-26D	HIMW-28S
HIMW-27S	HIMW-28I
HIMW-27I	DUP041714

The above water sample(s) was/were analyzed for a select list of base/neutral- acid extractables by EPA method 8270D and reported with the requested deliverables.

All Q. C. data and calibrations met the requirements of the method unless discussed below. The following should be noted:

Sample HIMW-26D was analyzed as the matrix spike/matrix spike duplicate (MS/MSD). The Q. C. limits do not apply for naphthalene, 2-methylnaphthalene, and acenaphthene due to the high concentrations in the sample. The concentrations exceeded the calibration range, and the spike amounts were not a multiple of the sample concentrations. All other percent recoveries and RPDs for the MS/MSD were within Q. C. limits. A lab fortified blank was analyzed, and recoveries indicate good method efficiency.

Three samples were re-analyzed 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 for the targeted analytes. In the continuous calibration, the variability (%D) for all analytes was acceptable.

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: May 2, 2014

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* *
* *
****

Ursula Middel
Quality Analyst

H2M labs
575 Broad Hollow Rd., Melville, NY 11747
(631) 694-3040 Fax: (631) 420-8436
www.h2mlabs.com

ILD IX H 0048 1102 1500

01531

EXTERNAL CHAIN OF CUSTODY

(9)

CLIENT: URS Corp

H2M SDG NO: AET-URS182

PROJECT NAME/NUMBER
National Grid Hempstead
11176098, 00017

SAMPLERS: (Signature)/Client
Megan Daniel / Megan Daszek
URS

DELIVERABLES:

TURNAROUND TIME: Standard

NOTES:
mailed
FedEx
2.1 °C

Project Contact: Peter Fairbanks

Phone Number: 716-856-5636

PIS/Quote #

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	Sample Container Description: 40ml glass amberglass 1L	ANALYSIS REQUESTED: BTEX	PAH	LAB I.D. NO.	REMARKS:
4/29/14	1535	GW	H(MW-26I	4	X	X		1404497-001	
4/29/14	1535	W	TB042914	2	X			-002	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Megan Daniel	4/29/14	1630		4/30	1045
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

LABORATORY USE ONLY

Samples were:
1. Shipped ____ or Hand Delivered ____ Airbill # _____

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N

WHITE COPY - ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

KEYURS182 S3

Pace Long Island

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLE(S) RECEIVED: 4/30/14
SDG #: KEY-URS182

For Sample(s):

HIMW-26I
TB042914

The above water sample(s) and blank(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260C and reported with the requested deliverables.

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:

No sample was submitted for matrix spike/matrix spike duplicate (MS/MSD) analysis, but a lab fortified blank was analyzed on the date of analysis, and recoveries indicate good method efficiency.

Average response factors were employed for all targeted analytes in the initial calibrations, and the continuous calibration had acceptable variability for the targeted analytes..

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: May 20, 2014

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* *
* *
****

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
SAMPLE(S) RECEIVED: 4/30/14
SDG #: KEY-URS182

For Sample(s):

HIMW-26I

The above water sample(s) was/were analyzed for a select list of base/neutral- acid extractables (PNAs) by EPA method 8270D and reported with the requested deliverables.

All Q. C. data and calibrations met the requirements of the method unless discussed below. The following should be noted:

The sample was extracted ~~two~~ one days out of prep holding time. 6/9/14

No sample for matrix spike/matrix spike duplicate (MS/MSD) analysis was submitted. A lab fortified blank was analyzed, and recoveries indicate good method efficiency.

In the initial calibrations, average response factors were employed for the targeted analytes. In the continuous calibration, the variability (%D) for all analytes was acceptable.

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: May 20, 2014

****
* *
* *
****

Ursula Middel
Quality Analyst

PACE ANALYTICAL

PREP BATCH REPORT

Prep Start Date: **5/7/2014 3:40:54 P**
Prep End Date: **5/8/2014 6:10:40 P**

Prep Batch ID **44427** Prep Code: **3520_B** Technician: **DianaLosito**

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-44427		Aqueous	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
LFB-44427		Aqueous	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1404L60-008B	DUP-08-Q2	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
Prep hold time was exceeded by 2.976 day(s)													
1404L97-001B	HIMW-26I	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
Prep hold time was exceeded by 1.004 day(s)													
1404M50-001B	OU2MW-20I2	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
Prep hold time was exceeded by 1.928 day(s)													
1404M50-004B	OU2MW-49I2	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
Prep hold time was exceeded by 1.928 day(s)													
1405004-001D	HOUSE BLANK MAY (	Blank	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405188-001B	WASTE TREATMEN	Aqueous	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405289-001B	BBMW-15S	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405289-002B	BBMW-15I	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405289-003B	BBMW-15I2	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405289-003BMS		Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405289-003BMSD		Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405289-004B	BBMW-15D	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405289-005B	FB-050514 Q2	Field Blank	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405289-006B	DUP-09 Q2	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405290-001B	BBMW-02S	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405290-002B	BBMW-02I	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014
1405290-003B	BBMW-02D	Groundwater	2		1000	1	0.001	☐	☐	☐	☐	5/7/2014	5/8/2014

Cleanups:
GPC = Method EPA3640A
Acid = Method EPA3665A
Sulfur= Method EPA3660B
Florisil = Method-EPA3620B

KEY-URS182 B64

H 2 M labs

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02128

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS Corporation

H2M SDG NO: KEY-URS184

PROJECT NAME/NUMBER
National Grid Hempstead
11176098.00004

SAMPLERS: (Signature)/Client
Megan Daoud/URS Corp
Michael Angelo/URS Corp

DELIVERABLES:

TURNAROUND TIME: Standard

NOTES:
BTEX - 8260C
PAH - 8270D

Project Contact: Peter Fairbanks

Phone Number: 716-856-5636

PIS/Quote #

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	Sample Container Description: clear 40-ml, HCl, glass	Sample Container Description: amber 1 Liter, glass	ANALYSIS REQUESTED: BTEX	ANALYSIS REQUESTED: PAH	LAB I.D. NO.	REMARKS:
6/17/14	925	GW	H1MW-15I	4	X	X			140673-001	
6/17/14	1045	GW	H1MW-15D	4	X	X			-002	
6/17/14	1330	GW	H1MW-23	4	X	X			-003	
6/17/14		W	TB061714	2	X				-004	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Michael Angelo	6/17	1418		6/17	1418
	6/17/14	1515		6/17	1515

LABORATORY USE ONLY

Samples were:
1. Shipped ___ or Hand Delivered ___ Airbill # _____

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N

1.8°C

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02129

EXTERNAL CHAIN OF CUSTODY

(JV) p 1 of 2

CLIENT: URS Corporation

H2M SDG NO: KET-URS784

PROJECT NAME/NUMBER
National Grid Hempstead
11176098.00004

SAMPLERS: (Signature)/Client
Megan Daniel/URS Corp.
Michael Angelo/URS corp

DELIVERABLES:

TURNAROUND TIME: Standard

NOTES:
BTEX-8260C
PAH-8270D

Project Contact: Peter Fairbanks
Phone Number: 716-856-5626
PIS/Quote #

1406E93

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	Sample Container Description: Clear Glass 40 ml HCl	Sample Container Description: Amber Glass, 1 Liter	ANALYSIS REQUESTED: BTEX	ANALYSIS REQUESTED: PAH	LAB I.D. NO.	REMARKS:
6/18/14	0927	GW	HIMW-14I	4		X	X		-001	
6/18/14	1057	GW	HIMW-14D	4		X	X		-002	
6/18/14	1215	GW	HIMW-22	4		X	X		-003	
6/18/14	1350	GW	HIMW-20S	4		X	X		-004	
6/18/14	1520	GW	HIMW-20I	4		X	X		-005	
6/18/14	1200	GW	DUP061814	4		X	X		-006	
6/19/14	0845	GW	HIMW-13S	4		X	X		-007	
6/19/14	0850	GW	HIMW-13S MS/MSD	8		X	X			
6/18/14		W	~~TB061814~~ TB061914	2		X			-010	
6/19/14	1015	GW	HIMW-13I	4		X	X		-008	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Michael Angelo	6/19/14	1500		6/19/14	1500
	6/19/14	1540		6/19/14	1540

LABORATORY USE ONLY

Samples were:
1. Shipped ____ or Hand Delivered ____ Airbill # _____

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N

(5.8°C)

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02130

EXTERNAL CHAIN OF CUSTODY

50

p2 of 2

CLIENT: URS Corporation

H2M SDG NO: KEY-URS184

PROJECT NAME/NUMBER
National Grid Hempstead
11176098.00004

SAMPLERS: (Signature)/Client
Megan Daniel / URS Corp
Michael Angelo URS Corp.

DELIVERABLES:

TURNAROUND TIME: Standard

NOTES:
BTEX - 8260C
PAH - 8270 D

1466E93

Project Contact: Peter Fairbanks

Phone Number: 716-856-5626

PIS/Quote #

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	Sample Container Description: Clear Glass, 40mL HCl	Sample Container Description: Amber Glass, 1 Liter	ANALYSIS REQUESTED: BTEX	ANALYSIS REQUESTED: PAH	LAB I.D. NO.	REMARKS:
6/19/14	1307	GW	H1MW-13D	4			X	X	009	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Michael Angelo	6/19/14	1500		6/19/14	1500
	6/19/14	1540		6/19/14	1550

LABORATORY USE ONLY

Samples were:
1. Shipped ____ or Hand Delivered ____ Airbill # _____

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N

(5.0°C)

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02131

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS Corporation | **H2M SDG NO:**

PROJECT NAME/NUMBER
National Grid Hempstead
11176098.0004

SAMPLERS: (Signature)/Client
Michael Angelo / URS corp

DELIVERABLES:

TURNAROUND TIME:
Standard

NOTES:
BTEX-8260C
PAH-8270D

Project Contact: Peter Fairbanks
Phone Number: 716-856-5626
PIS/Quote #

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	Sample Container Description: Clear Glass, 40mL HCl	Sample Container Description: Amber Glass, 1 Liter	ANALYSIS REQUESTED: BTEX	ANALYSIS REQUESTED: PAH	LAB I.D. NO.	REMARKS:
6/20/14	1104	GW	HIMW-03D	4	X	X			1406F74-001A+B	
6/20/14	1320	GW	HIMW-03I	4	X	X			2	
6/19/14	1525	GW	HIMW-24	4	X	X			3	
6/19/14	1200	GW	DUP061914	4	X	X			4	
6/20/14	1400	W	TB062014	2	X				5A	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Michael Angelo	6/20/14	1440		6/20/14	14:40
	6/20/14	15:45		6/20/14	1545

LABORATORY USE ONLY

Samples were:
1. Shipped ___ or Hand Delivered ___ Airbill # _____

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N

T = 4.8 °C

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02143

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS Corp

H2M SDG NO: URS185

PROJECT NAME/NUMBER
National Grid Hempstead
11176098.00004

SAMPLERS: (Signature)/Client
Megan Daniel / URS
John Heppe / URS

DELIVERABLES:

TURNAROUND TIME: Standard

NOTES:

Project Contact: Pete Fairbanks

Phone Number: 716-856-5636

PIS/Quote #

Sample Container Description: clear glass, 80ml, HCl; amber glass, 1 L, NP

ANALYSIS REQUESTED

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	BTEX VOC	PAH	LAB I.D. NO.	REMARKS:
6/23/14	840	GW	H1MW-003S	4	X	X	-001	
6/23/14	1115	GW	H1MW-008D	4	X	X	-002	
6/23/14	1215	GW	H1MW-008I	4	X	X	-003	
6/23/14	1335	GW	H1MW-008S	4	X	X	-004	
6/23/14	1450	GW	H1MW-025	4	X	X	-005	
6/24/14	900	GW	H1MW-012S	4	X	X	-006	
6/24/14	1040	GW	H1MW-012I	4	X	X	-007	
6/24/14	1045	GW	H1MW-012I MS/MSD	8	X	X		
6/24/14	1325	GW	H1MW-012D	4	X	X	-008	
6/24/14	1325	W	TB062414	2	X		-009	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Megan Daniel	6/24/14	1430	Steven R. Impedovo	6/24/14	14:30
Relinquished by: (Signature) Steven R. Impedovo	6/24/14	15:10	Received by: (Signature)	Cat 24	1520
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

LABORATORY USE ONLY

Samples were:
1. Shipped ___ or Hand Delivered ___ Airbill # _____

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N

2.4°C +1.8°C

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02132

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS Corp. | **H2M SDG NO:** KEY-URS185

PROJECT NAME/NUMBER: National Grid Hempstead
11176098.00004

SAMPLERS: (Signature)/Client: Megan Daniel-URS

DELIVERABLES:

TURNAROUND TIME: Standard, except where noted

NOTES:
BTEX = standard TAT
Please run the PAH analysis on a one week turnaround time for: HIMW-026I + HIMW-028I
Run PAH + Total Fe at one week TAT for: HIMW-005I, HIMW-005D, HIMW-28S

Project Contact: Refer Fairbanks
Phone Number: 716-856-5622
PIS/Quote #

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	BTEX	PAH	total Iron	LAB I.D. NO.	REMARKS:
6/25/14	0850	GW	HIMW-05S	4	X	X		1406J99-001	PAH + BTEX - standard TAT
6/25/14	1040	GW	HIMW-26I	4	X	X		-002	PAH - 1 week TAT
6/25/14	1225	GW	HIMW-28I	4	X	X		-003	PAH - 1 week TAT
6/26/14	1005	GW	HIMW-005I	5	X	X	X	-004	PAH + Total Fe = 1 week TAT
6/26/14	1150	GW	HIMW-005D	5	X	X	X	-005	PAH + total Fe = 1 week TAT
6/26/14	1350	GW	HIMW-28S	5	X	X	X	-006	PAH + total Fe = 1 week TAT
6/26/14	1350	W	TB062614	2	X			-007	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Megan Daniel	6/26/14	1425		6/26/14	1425
	6/26/14	1530		6-26-14	15:30

LABORATORY USE ONLY
Samples were:
1. Shipped ___ or Hand Delivered ✓ Airbill # _____
COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N

2.7°C

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02133

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS Corp.

H2M SDG NO: KEY-URS 184

PROJECT NAME/NUMBER: National Grid Hempstead
11176098, 00004

SAMPLERS: (Signature)/Client
Megan Daszol / URS
John Cuyler / URS

DELIVERABLES:

TURNAROUND TIME: BTEX-standard // PAH+Total Fe - 1/3 week

NOTES: BTEX standard TAT
PAH + Total Fe one week TAT

Project Contact: Peter Fairbanks
Phone Number: 716-856-5626
PIS/Quote #

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	Sample Container Description: amberglass, HCl	amberglass, 1L	plastic 500ml HNO3								LAB I.D. NO.	REMARKS:
					ANALYSIS REQUESTED: BTEX	PAH	Total Fe									
6/27/14	1003	GW	H1MW-26D	5	X	X	X								1406498-001	
6/27/14	1145	GW	H1MW-27S	5	X	X	X								2	
6/27/14	1258	GW	H1MW-27I	5	X	X	X								3	
6/27/14	0720	GW	FB062714	5	X	X	X								4	
6/27/14	1300	W	TB062714	2	X										5	

HNO_3: 53130 H_2SO_4: 52171
NaOH: B0975869342
ZnAc: 2303C36 NH_4Cl: 47072741
Na_2SO_3: K37648057 (Sulfite)
$Na_2S_2O_3$: 2280C123 (Thiosulfate)
ChlorAC: 402009 HCl: 53010

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Megan Daszol	6/26/14	1322		6/26/14	1322
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	6/26/14	1420		6/26/14	1420
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

LABORATORY USE ONLY

Samples were:
1. Shipped ___ or Hand Delivered ___ Airbill # _____

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N

1.2°C

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SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 6/17/14 6/19/14 6/20/14 & 6/27/14
SDG #: KEYURS184

For Sample(s):

HIMW-15I	HIMW-22	HIMW-13D	TB062014
HIMW-15D	HIMW-20S	TB061914	HIMW-26D
HIMW-23	HIMW-20I	HIMW-03D	HIMW-27S
TB061714	DUP061914	HIMW-03I	HIMW-27I
HIMW-14I	HIMW-13S	HIMW-24	FB062714
HIMW-14D	HIMW-13I	DUP061914	TB062714

The above sample(s) and blank(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260C and reported with requested deliverables.

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-13S was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPD's were met. Lab fortified blanks were analyzed and indicated good method efficiency.

Sample HIMW-27S was reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

1,2-dichloroethane-d4 had a percent ~~dilution~~ difference greater than 20% in the continuing calibration of 6/22/14 and 7/7/14.

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.

8/13/14

Date Reported: July 18, 2014

****
* *
* *
****

Joann M. Slavin
General Manager

Pace Long Island

575 Broad Hollow Road tel 631.694.3040
Melville, NY 11747 fax 631.420.8436

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES
SAMPLE(S) RECEIVED: 6/17/14 – 6/27/14
SDG #: KEY-URS184

For Sample(s):

HIMW-15I	DUP061914	HIMW-24
HIMW-15D	HIMW-13S	DUP061914
HIMW-23	HIMW-13I	HIMW-26D
HIMW-14D	HIMW-13D	HIMW-27S
HIMW-22	HIMW-03D	HIMW-27I
HIMW-20S	HIMW-03I	FB062714
HIMW-20I		

8/13/14

The above water sample(s) was/were analyzed for a select list of polynuclear aromatics (PNAs) by EPA method 8270D and reported with the requested deliverables.

All Q. C. data and calibrations met the requirements of the method unless discussed below. The following should be noted:

The submitted **sample HIMW-14I could not be analyzed,** because both the sample bottle and the spare sample bottle broke during sample preparation.

Sample HIMW-13S was analyzed as the matrix spike/matrix spike duplicate (MS/MSD). All percent recoveries and RPDs were within Q. C. limits. A lab fortified blank was analyzed for each day of extraction, and recoveries indicate good method efficiency. All recoveries met the limits.

The recovery for one surrogate compound was low in FB062714 (acceptable).

Two samples were re-analyzed 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 for the targeted analytes, and in the continuous calibration, the variability (%D) for all targeted analytes was acceptable.

The variability for the surrogate nitrobenzene-d5, however, exceeded 20% in the CCV(s) on 6/26/14, 6/30/14, 7/1/14, and 7/3/14, and recoveries reported for nitrobenzene-d5 for analyses on those days are regarded "estimated" and may be biased high.

Pace Long Island

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Melville, NY 11747

tel 631.694.3040
fax 631.420.8436

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES
SAMPLE(S) RECEIVED: 6/17/14 – 6/27/14
SDG #: KEY-URS184

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 15, 2014

****
* *
* *
****
Ursula Middel
Quality Analyst

Pace Long Island

SDG NARRATIVE FOR METALS ANALYSES
SAMPLE(S) RECEIVED: 6/27/14
SDG #: KEY-URS184

For Sample(s):

HIMW-26D
HIMW-27S
HIMW-27I
FB062714

Sample(s) was/were received by Pace Analytical Services Inc. for total iron analysis.

Samples were prepared and analyzed using EPA method 6010C with a TS ICAP 6000 instrument.

Sample HIMW-26D was utilized for QC analysis and reporting.

The ICP serial dilution analysis did not meet acceptance criteria for iron. Iron data was reported flagged "E" on forms 1 and 9.

No other issues were noted during the analysis of this sample group.

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 10, 2014

****
*
*
****
Vincent Stancampiano

U.S. EPA - CLP

9

ICP SERIAL DILUTIONS

HIMW-26D

Lab Name: PACE ANALYTICAL Contract:

Lab Code: 10478 Case No. SAS No.: SDG No.: KEY-URS184

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Iron	168.70		208.50	B	23.6	E	P

FORM IX - IN ILM04.1

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: 6/24/14 & 6/26/14
SDG #: KEY-URS185

For Sample(s):

HIMW-03S	HIMW-008S	HIMW-012I	HIMW-05S	HIMW-005I	TB062614
HIMW-008D	HIMW-25	HIMW-012D	HIMW-26I	HIMW-005D	
HIMW-008I	HIMW-012S	TB062414	HIMW-28I	HIMW-28S	

The above sample(s) and blank(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260C and reported with the requested deliverables.

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-012I was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPD's were met. Lab fortified blanks were analyzed and indicated good method efficiency.

Sample HIMW-25 was reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

1,2-dichloroethane-d4 had a %D greater than 20% in the continuing calibration of 7/6/14.

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 21, 2014

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Joann M. 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
SAMPLE(S) RECEIVED: 6/24/14 – 6/26/14
SDG #: KEY-URS185

For Sample(s):

HIMW-03S	HIMW-012D
HIMW-008D	HIMW-05S
HIMW-008I	HIMW-26I
HIMW-008S	HIMW-28I
HIMW-25	HIMW-005I
HIMW-012S	HIMW-005D
HIMW-012I	HIMW-28S

The above sample(s) was/were analyzed for a select list of polynuclear aromatics (PNAs) by EPA method 8270D and reported with the requested deliverables.

All Q. C. data and calibrations met the requirements of the method unless discussed below. The following should be noted:

Sample HIMW-012I was analyzed as the matrix spike/matrix spike duplicate (MS/MSD). All percent recoveries and RPDs were within Q. C. limits. A lab fortified blank was analyzed and indicates good method efficiency.

Sample HIMW-25, HIMW-005I, HIMW-005D, and HIMW-28S were reanalyzed at a dilution due to concentration levels of a targeted analytes above the calibration range. Both sets of data are submitted.

The variability for the surrogate standard d5 nitrobenzene exceeded 20% on instrument HP 5973N for the continuing calibration (CCV)'s of 6/30/14, 7/1/14, and 7/3/14. This analyte results may be biased or high on these days of analysis.

Pace Long Island

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SDG NARRATIVE FOR SEMIVOLATILE ANALYSES
SAMPLE(S) RECEIVED: 6/24/14 – 6/26/14
SDG #: KEY-URS185

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 17, 2014

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Joann M. Slavin
General Manager

Pace Long Island

SDG NARRATIVE FOR METALS ANALYSES
SAMPLE(S) RECEIVED: 6/26/14
SDG #: KEY-URS185

For Sample(s):

HIMW-005I
HIMW-005D
HIMW-28S

Sample(s) was/were received by Pace Analytical Services Inc. for total iron analysis.

Samples were prepared and analyzed using EPA method 6010C with a TS ICAP 6000 instrument.

Sample HIMW-005I was utilized for QC analysis and reporting.

Iron spike analysis did not recover within 75-125%.Since the sample value was greater than four times the spike concentration, post spikes and data qualifiers were not required.

No problems were noted during the analysis of this sample group.

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 10, 2014

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Vincent Stancampiano

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:	4/4/2014
Time:	14:45
Weather:	Rain
Outdoor Temperature:	~45° F
Inside Trailer Temperature:	~60° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	8,580.7	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	110	(psi)
Oxygen Purity	79.0	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	100	(psi)
(readings below are made from control panel)		
Delivery Air	115	(psi)
Element Outlet Temperature	169	(oF)
Running Hours	9,832	(hours)
Loading Hours	6,219	(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	30	30	OW-1-5S	67.3	30	17	OW-1-9D	88.5	30	27
OW-1-2	96.5	40	30	OW-1-6S	67.0	30	18	OW-1-10D	87.2	25	27
OW-1-3	96.3	45	32	OW-1-7S	66.9	30	19	OW-1-11D	86.1	30	29
OW-1-4	95.0	40	30	OW-1-8S	66.7	30	18	OW-1-12D	85.3	40	29
OW-1-5D	93.9	30	29	OW-1-9S	66.0	45	18	OW-1-13D	84.7	25	28
OW-1-6D	92.4	35	29	OW-1-10S	54.6	45	13	OW-1-14D	84.1	25	27
OW-1-7D	91.1	40	29	OW-1-11S	54.1	45	13	OW-1-15D	83.3	30	28
OW-1-8D	89.6	30	28	OW-1-12S	53.6	45	13	OW-1-16D	82.5	30	14

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: 4/4/2014

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	30	14	OW-1-17D	79.5	30	15	OW-1-21S	49.3	45	14
OW-1-14S	52.7	30	14	OW-1-18D	78.3	20	24	OW-1-22S	49.3	55	13
OW-1-15S	52.2	45	15	OW-1-19D	78.9	25	22	OW-1-23S	48.8	50	12
OW-1-16SR	51.8	30	24	OW-1-20D	79.5	35	28	OW-1-24S	48.4	35	12
OW-1-17S	50.7	30	22	OW-1-21D	79.5	30	29	OW-1-25S	48.8	30	14
OW-1-18S	50.2	20	12	OW-1-22D	79.5	20	26	OW-1-26SR	48.3	30	14
OW-1-19S	49.7	20	4	OW-1-23D	78.7	30	24	OW-1-27S	48.3	30	15
OW-1-20S	49.3	20	13	OW-1-24D	78.2	30	29	OW-1-28S	48.3	30	15

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	30	27	OW-1-29S	48.5	25	13	OW-1-33D	83.2	30	28
OW-1-26D	78.1	30	27	OW-1-30S	48.8	35	13	OW-1-34D	84.5	30	31
OW-1-27D	77.9	20	28	OW-1-31S	49.3	45	13	OW-1-35D	85.0	30	27
OW-1-28D	78.0	30	29	OW-1-32S	49.3	40	13	OW-1-36D	85.0	30	29
OW-1-29D	78.4	35	25	OW-1-33S	49.7	40	13	OW-1-37D	84.0	35	28
OW-1-30D	79.0	35	36	OW-1-34S	50.1	40	13	OW-1-38D	82.0	35	38
OW-1-31D	80.5	30	26	OW-1-35S	50.3	30	13	OW-1-39D	78.0	30	26
OW-1-32D	81.6	30	28	OW-1-36S	50.3	20	13	OW-1-40D	76.0	30	25

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: 4/4/2014

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	25	16	OW-1-41D	73.6	30	24	OW-1-43	67.4	35	18
OW-1-38S	50.6	15	16	OW-1-42D	71.0	30	22	OW-1-44	66.6	45	19
OW-1-39S	50.7	15	15	OW-1-45	65.7	30	19	OW-1-51R	60.6	45	18
OW-1-40S	51.1	15	14	OW-1-46	64.3	30	18	OW-1-52	59.3	35	16
OW-1-41S	51.5	30	14	OW-1-47	63.4	20	18	OW-1-53	60.0	30	17
OW-1-42S	51.3	20	14	OW-1-48	62.5	20	17	OW-1-54	60.0	30	16
				OW-1-49	61.5	30	18				
				OW-1-50	61.0	20	18				

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	27.22		0	MP-1-5	27.02	32.44	0	MP-1-1D	35.11
MP-1-1S	27.28	32.38	0	MP-1-6	19.20	13.12	0	MP-1-2D	31.54
MP-1-2D	21.01		0	MP-1-7	22.57	48.89	0	MP-1-3D	30.12
MP-1-2S	21.75	26.16	0	MP-1-8	23.98	12.13	0	MP-1-4D	29.94
MP-1-3D	19.69		0.2						
MP-1-3S	19.49	13.88	0						
MP-1-4D	22.40		0.3						
MP-1-4S	22.45	45.05	0.2						

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: 4/4/2014

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) X — Normal (green) — High (orange)
3) Oil added — Yes X — No
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 X — No

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 — Temp fencing is setup near shed with steel stakes being driven in ground to hold in place.
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:

Cleaned up water on floor of shed and repaired hose that below out of separator canister. Added small amount of oil to the compressor. Removed all blank covers from fresh air vents in shed and installed air filters. Noted low oxygen level in system. Soaked up small amount of oil and water from separator unit for disposal. Wiped down all equipment and cleaned up all garbage from around fence areas.

April 7, 2014 - Investigated low oxygen level and found a burned out solenoid valve on the feeder side of the unit. Replaced value with new unit and restarted system. Oxygen level was restoring to normal levels after installing new valve.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 97 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:	4/21/2014
Time:	12:40
Weather:	Sunny
Outdoor Temperature:	~50° F
Inside Trailer Temperature:	~60° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	8,752.0	
Feed Air Pressure *	110	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	105	(psi)
Oxygen Purity	99.1	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	110	(psi)
(readings below are made from control panel)		
Delivery Air	114	(psi)
Element Outlet Temperature	102	(oF)
Running Hours	10,024	(hours)
Loading Hours	6,335	(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	30	29	OW-1-5S	67.3	25	17	OW-1-9D	88.5	25	26
OW-1-2	96.5	40	29	OW-1-6S	67.0	35	18	OW-1-10D	87.2	35	27
OW-1-3	96.3	30	32	OW-1-7S	66.9	30	18	OW-1-11D	86.1	35	28
OW-1-4	95.0	30	30	OW-1-8S	66.7	30	18	OW-1-12D	85.3	30	29
OW-1-5D	93.9	35	29	OW-1-9S	66.0	30	18	OW-1-13D	84.7	40	28
OW-1-6D	92.4	30	29	OW-1-10S	54.6	30	13	OW-1-14D	84.1	30	27
OW-1-7D	91.1	30	28	OW-1-11S	54.1	35	13	OW-1-15D	83.3	30	28
OW-1-8D	89.6	30	28	OW-1-12S	53.6	30	13	OW-1-16D	82.5	30	14

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: 4/21/2014

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	30	14	OW-1-17D	79.5	30	15	OW-1-21S	49.3	30	14
OW-1-14S	52.7	30	15	OW-1-18D	78.3	30	25	OW-1-22S	49.3	30	14
OW-1-15S	52.2	30	15	OW-1-19D	78.9	35	23	OW-1-23S	48.8	30	12
OW-1-16SR	51.8	35	24	OW-1-20D	79.5	35	28	OW-1-24S	48.4	30	13
OW-1-17S	50.7	35	22	OW-1-21D	79.5	35	29	OW-1-25S	48.8	30	14
OW-1-18S	50.2	35	13	OW-1-22D	79.5	45	26	OW-1-26SR	48.3	35	14
OW-1-19S	49.7	30	4	OW-1-23D	78.7	30	24	OW-1-27S	48.3	35	15
OW-1-20S	49.3	30	13	OW-1-24D	78.2	30	29	OW-1-28S	48.3	40	15

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	30	25	OW-1-29S	48.5	30	13	OW-1-33D	83.2	30	27
OW-1-26D	78.1	30	26	OW-1-30S	48.8	30	13	OW-1-34D	84.5	30	30
OW-1-27D	77.9	30	28	OW-1-31S	49.3	40	13	OW-1-35D	85.0	30	27
OW-1-28D	78.0	30	29	OW-1-32S	49.3	50	13	OW-1-36D	85.0	30	27
OW-1-29D	78.4	30	25	OW-1-33S	49.7	50	13	OW-1-37D	84.0	35	28
OW-1-30D	79.0	30	36	OW-1-34S	50.1	45	13	OW-1-38D	82.0	30	38
OW-1-31D	80.5	30	26	OW-1-35S	50.3	30	13	OW-1-39D	78.0	30	26
OW-1-32D	81.6	30	28	OW-1-36S	50.3	35	13	OW-1-40D	76.0	35	26

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: 4/21/2014

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	25	16	OW-1-41D	73.6	30	23	OW-1-43	67.4	30	18
OW-1-38S	50.6	35	15	OW-1-42D	71.0	30	22	OW-1-44	66.6	30	20
OW-1-39S	50.7	30	15	OW-1-45	65.7	30	20	OW-1-51R	60.6	30	19
OW-1-40S	51.1	30	14	OW-1-46	64.3	20	18	OW-1-52	59.3	30	16
OW-1-41S	51.5	30	13	OW-1-47	63.4	25	18	OW-1-53	60.0	30	17
OW-1-42S	51.3	30	14	OW-1-48	62.5	30	17	OW-1-54	60.0	30	16
				OW-1-49	61.5	35	18				
				OW-1-50	61.0	30	18				

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	26.87		0	MP-1-5	25.66	30.58	0	MP-1-1D	30.12
MP-1-1S	26.91	35.45	0	MP-1-6	18.95	12.90	0	MP-1-2D	29.94
MP-1-2D	20.74		0.2	MP-1-7	22.20	46.02	0	MP-1-3D	19.18
MP-1-2S	21.42	26.64	0.2	MP-1-8	23.72	12.67	0	MP-1-4D	39.18
MP-1-3D	19.41		0						
MP-1-3S	19.25	16.87	0.2						
MP-1-4D	22.15		0						
MP-1-4S	22.17	42.10	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: 4/21/2014

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 changed Yes No X
8) Terminal strips checked Yes X No

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:

Replaced belt on booster pump that was falling apart. Soaked up small amount of oil and water from separator unit for disposal. Wiped down all equipment and cleaned up all garbage from around fence areas.

April 22, 2014 - Investigated low pressure issue at OW-1-19S. Found well heads with metal detector and investigated all fittings and found no leaks. Checked all connections under shed and found no leaks. Leak appears to be somewhere in the piping run from the shed to the well head. This area appears to be in the location of the new fencing and retaining walls that were recently installed. In order to pinpoint the leak and make the necessary repairs we will need to do a helium test prior to excavating.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 97 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:	5/5/2014
Time:	11:40
Weather:	Sunny
Outdoor Temperature:	~67° F
Inside Trailer Temperature:	~65° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	8,903.7	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	110	(psi)
Oxygen Purity	98.2	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	114	(psi)
Element Outlet Temperature	178	(oF)
Running Hours	10,188	(hours)
Loading Hours	6,440	(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	30	28	OW-1-5S	67.3	30	18	OW-1-9D	88.5	30	27
OW-1-2	96.5	30	29	OW-1-6S	67.0	40	18	OW-1-10D	87.2	25	27
OW-1-3	96.3	30	32	OW-1-7S	66.9	40	17	OW-1-11D	86.1	35	28
OW-1-4	95.0	25	30	OW-1-8S	66.7	50	18	OW-1-12D	85.3	40	28
OW-1-5D	93.9	30	28	OW-1-9S	66.0	40	18	OW-1-13D	84.7	35	28
OW-1-6D	92.4	35	28	OW-1-10S	54.6	30	14	OW-1-14D	84.1	30	26
OW-1-7D	91.1	35	28	OW-1-11S	54.1	25	13	OW-1-15D	83.3	30	27
OW-1-8D	89.6	35	28	OW-1-12S	53.6	30	13	OW-1-16D	82.5	30	14

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: 5/5/2014

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	30	14	OW-1-17D	79.5	30	16	OW-1-21S	49.3	25	14
OW-1-14S	52.7	30	15	OW-1-18D	78.3	35	24	OW-1-22S	49.3	35	15
OW-1-15S	52.2	30	16	OW-1-19D	78.9	35	23	OW-1-23S	48.8	35	13
OW-1-16SR	51.8	25	23	OW-1-20D	79.5	35	28	OW-1-24S	48.4	30	13
OW-1-17S	50.7	35	22	OW-1-21D	79.5	40	29	OW-1-25S	48.8	30	14
OW-1-18S	50.2	30	14	OW-1-22D	79.5	40	26	OW-1-26SR	48.3	30	14
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	24	OW-1-27S	48.3	40	15
OW-1-20S	49.3	25	13	OW-1-24D	78.2	30	28	OW-1-28S	48.3	30	15

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	30	25	OW-1-29S	48.5	30	13	OW-1-33D	83.2	25	26
OW-1-26D	78.1	40	26	OW-1-30S	48.8	30	13	OW-1-34D	84.5	25	29
OW-1-27D	77.9	30	27	OW-1-31S	49.3	30	13	OW-1-35D	85.0	30	27
OW-1-28D	78.0	30	27	OW-1-32S	49.3	30	13	OW-1-36D	85.0	30	27
OW-1-29D	78.4	30	25	OW-1-33S	49.7	25	13	OW-1-37D	84.0	25	28
OW-1-30D	79.0	30	36	OW-1-34S	50.1	30	13	OW-1-38D	82.0	30	37
OW-1-31D	80.5	30	26	OW-1-35S	50.3	30	13	OW-1-39D	78.0	30	26
OW-1-32D	81.6	30	28	OW-1-36S	50.3	25	13	OW-1-40D	76.0	30	26

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: 5/5/2014

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	30	15	OW-1-41D	73.6	25	21	OW-1-43	67.4	30	18
OW-1-38S	50.6	35	15	OW-1-42D	71.0	20	22	OW-1-44	66.6	40	19
OW-1-39S	50.7	35	14	OW-1-45	65.7	20	20	OW-1-51R	60.6	30	19
OW-1-40S	51.1	30	14	OW-1-46	64.3	30	18	OW-1-52	59.3	30	16
OW-1-41S	51.5	30	13	OW-1-47	63.4	30	17	OW-1-53	60.0	40	17
OW-1-42S	51.3	30	14	OW-1-48	62.5	30	17	OW-1-54	60.0	30	17
				OW-1-49	61.5	35	18				
				OW-1-50	61.0	45	17				

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	26.12		0	MP-1-5	25.93	26.15	0	MP-1-1D	30.98
MP-1-1S	26.20	32.12	0	MP-1-6	18.07	13.01	0	MP-1-2D	26.00
MP-1-2D	20.12		0.3	MP-1-7	21.36	45.11	0	MP-1-3D	19.55
MP-1-2S	20.67	28.83	0.4	MP-1-8	22.88	12.88	0	MP-1-4D	35.88
MP-1-3D	18.62		0						
MP-1-3S	18.37	21.12	0.1						
MP-1-4D	21.30		0						
MP-1-4S	21.33	41.45	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: 5/5/2014

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 changed — Yes — No X
8) Terminal strips checked — Yes X — No

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:

Greased fitting on booster pump. Adjusted temperature in shed as it was running hot. Soaked up small amount of oil and water from separator unit for disposal. Wiped down all equipment and cleaned up all garbage from around fence areas.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 99 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:	5/16/2014
Time:	12:44
Weather:	Rain
Outdoor Temperature:	~65° F
Inside Trailer Temperature:	~80° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	9,015.2	
Feed Air Pressure *	85	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	100	(psi)
Oxygen Purity	93.5	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	102	(psi)
Element Outlet Temperature	169	(oF)
Running Hours	10,309	(hours)
Loading Hours	6,517	(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	30	29	OW-1-5S	67.3	35	19	OW-1-9D	88.5	35	28
OW-1-2	96.5	20	29	OW-1-6S	67.0	45	18	OW-1-10D	87.2	45	28
OW-1-3	96.3	25	32	OW-1-7S	66.9	25	18	OW-1-11D	86.1	40	27
OW-1-4	95.0	20	30	OW-1-8S	66.7	20	18	OW-1-12D	85.3	30	28
OW-1-5D	93.9	20	29	OW-1-9S	66.0	30	17	OW-1-13D	84.7	20	28
OW-1-6D	92.4	35	28	OW-1-10S	54.6	30	14	OW-1-14D	84.1	30	25
OW-1-7D	91.1	30	28	OW-1-11S	54.1	30	14	OW-1-15D	83.3	30	27
OW-1-8D	89.6	20	28	OW-1-12S	53.6	40	13	OW-1-16D	82.5	30	14

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: 5/16/2014

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	25	14	OW-1-17D	79.5	30	16	OW-1-21S	49.3	45	14
OW-1-14S	52.7	35	15	OW-1-18D	78.3	30	25	OW-1-22S	49.3	40	15
OW-1-15S	52.2	25	17	OW-1-19D	78.9	30	22	OW-1-23S	48.8	30	14
OW-1-16SR	51.8	30	22	OW-1-20D	79.5	30	27	OW-1-24S	48.4	20	15
OW-1-17S	50.7	30	22	OW-1-21D	79.5	40	29	OW-1-25S	48.8	30	14
OW-1-18S	50.2	30	14	OW-1-22D	79.5	30	26	OW-1-26SR	48.3	30	14
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	25	OW-1-27S	48.3	30	15
OW-1-20S	49.3	30	13	OW-1-24D	78.2	30	28	OW-1-28S	48.3	25	15

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	30	25	OW-1-29S	48.5	30	13	OW-1-33D	83.2	30	26
OW-1-26D	78.1	30	26	OW-1-30S	48.8	20	13	OW-1-34D	84.5	30	30
OW-1-27D	77.9	30	28	OW-1-31S	49.3	30	13	OW-1-35D	85.0	30	28
OW-1-28D	78.0	30	27	OW-1-32S	49.3	50	13	OW-1-36D	85.0	30	27
OW-1-29D	78.4	30	26	OW-1-33S	49.7	50	13	OW-1-37D	84.0	30	27
OW-1-30D	79.0	30	36	OW-1-34S	50.1	55	13	OW-1-38D	82.0	35	36
OW-1-31D	80.5	30	26	OW-1-35S	50.3	30	13	OW-1-39D	78.0	35	27
OW-1-32D	81.6	40	28	OW-1-36S	50.3	20	13	OW-1-40D	76.0	35	26

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: 5/16/2014

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	30	15	OW-1-41D	73.6	40	21	OW-1-43	67.4	30	18
OW-1-38S	50.6	20	16	OW-1-42D	71.0	45	22	OW-1-44	66.6	30	19
OW-1-39S	50.7	30	15	OW-1-45	65.7	40	20	OW-1-51R	60.6	30	19
OW-1-40S	51.1	30	14	OW-1-46	64.3	25	18	OW-1-52	59.3	30	15
OW-1-41S	51.5	35	13	OW-1-47	63.4	30	17	OW-1-53	60.0	30	16
OW-1-42S	51.3	35	13	OW-1-48	62.5	30	17	OW-1-54	60.0	30	17
				OW-1-49	61.5	30	19				
				OW-1-50	61.0	30	17				

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	25.68		0.3	MP-1-5	25.48	29.12	0.4	MP-1-1D	25.27
MP-1-1S	25.75	32.05	0	MP-1-6	17.80	19.30	0	MP-1-2D	39.11
MP-1-2D	19.83		0	MP-1-7	21.08	38.55	0	MP-1-3D	19.25
MP-1-2S	20.26	33.86	1.5	MP-1-8	22.59	20.19	0	MP-1-4D	27.91
MP-1-3D	18.25		0						
MP-1-3S	18.11	27.33	0						
MP-1-4D	21.03		0						
MP-1-4S	21.05	19.75	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: 5/16/2014

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) X Normal (green) High (orange)
3) Oil added Yes X No
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 X No

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:

Adjusted temperature in shed as it was running hot. Added small amount of oil to compressor. Found and repair leak at base off fresh air holding tank. Soaked up small amount of oil and water from separator unit for disposal. Wire brushed and painted all at grade manhole covers black. Wiped down all equipment and cleaned up all garbage from around fence areas.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 97 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:	5/30/2014
Time:	13:00
Weather:	Sunny
Outdoor Temperature:	~80° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	9,164.2	
Feed Air Pressure *	115	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	100	(psi)
Oxygen Purity	92.9	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	115	(psi)
(readings below are made from control panel)		
Delivery Air	114	(psi)
Element Outlet Temperature	160	(oF)
Running Hours	10,473	(hours)
Loading Hours	6,622	(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	30	30	OW-1-5S	67.3	30	18	OW-1-9D	88.5	20	28
OW-1-2	96.5	35	31	OW-1-6S	67.0	30	18	OW-1-10D	87.2	15	27
OW-1-3	96.3	45	31	OW-1-7S	66.9	30	18	OW-1-11D	86.1	15	30
OW-1-4	95.0	30	30	OW-1-8S	66.7	30	18	OW-1-12D	85.3	20	30
OW-1-5D	93.9	30	29	OW-1-9S	66.0	35	19	OW-1-13D	84.7	30	29
OW-1-6D	92.4	35	29	OW-1-10S	54.6	35	13	OW-1-14D	84.1	35	29
OW-1-7D	91.1	30	28	OW-1-11S	54.1	35	15	OW-1-15D	83.3	30	29
OW-1-8D	89.6	20	29	OW-1-12S	53.6	30	16	OW-1-16D	82.5	30	15

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: 5/30/2014

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	30	13	OW-1-17D	79.5	30	13	OW-1-21S	49.3	30	12
OW-1-14S	52.7	40	15	OW-1-18D	78.3	30	26	OW-1-22S	49.3	40	12
OW-1-15S	52.2	30	13	OW-1-19D	78.9	30	27	OW-1-23S	48.8	30	13
OW-1-16SR	51.8	50	25	OW-1-20D	79.5	30	28	OW-1-24S	48.4	30	13
OW-1-17S	50.7	40	24	OW-1-21D	79.5	30	27	OW-1-25S	48.8	35	13
OW-1-18S	50.2	30	13	OW-1-22D	79.5	30	27	OW-1-26SR	48.3	35	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	40	27	OW-1-27S	48.3	30	13
OW-1-20S	49.3	30	13	OW-1-24D	78.2	30	27	OW-1-28S	48.3	30	14

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	25	27	OW-1-29S	48.5	30	13	OW-1-33D	83.2	30	28
OW-1-26D	78.1	35	27	OW-1-30S	48.8	30	13	OW-1-34D	84.5	30	29
OW-1-27D	77.9	30	28	OW-1-31S	49.3	30	13	OW-1-35D	85.0	20	29
OW-1-28D	78.0	30	28	OW-1-32S	49.3	30	13	OW-1-36D	85.0	20	29
OW-1-29D	78.4	30	27	OW-1-33S	49.7	30	13	OW-1-37D	84.0	30	29
OW-1-30D	79.0	30	36	OW-1-34S	50.1	30	13	OW-1-38D	82.0	20	30
OW-1-31D	80.5	30	24	OW-1-35S	50.3	30	13	OW-1-39D	78.0	30	27
OW-1-32D	81.6	30	28	OW-1-36S	50.3	30	13	OW-1-40D	76.0	30	27

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: 5/30/2014

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	30	12	OW-1-41D	73.6	25	23	OW-1-43	67.4	30	20
OW-1-38S	50.6	25	13	OW-1-42D	71.0	45	21	OW-1-44	66.6	30	19
OW-1-39S	50.7	35	13	OW-1-45	65.7	55	19	OW-1-51R	60.6	35	18
OW-1-40S	51.1	30	13	OW-1-46	64.3	40	18	OW-1-52	59.3	30	17
OW-1-41S	51.5	35	13	OW-1-47	63.4	35	18	OW-1-53	60.0	30	17
OW-1-42S	51.3	30	13	OW-1-48	62.5	30	18	OW-1-54	60.0	35	17
				OW-1-49	61.5	30	17				
				OW-1-50	61.0	30	17				

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	25.56		0.4	MP-1-5	25.37	31.38	0.3	MP-1-1D	24.91
MP-1-1S	25.65	27.87	0.1	MP-1-6	17.60	22.89	0	MP-1-2D	36.25
MP-1-2D	19.90		0	MP-1-7	20.95	38.72	0	MP-1-3D	26.77
MP-1-2S	20.13	28.80	1.1	MP-1-8	22.47	19.80	0	MP-1-4D	27.47
MP-1-3D	18.12		0						
MP-1-3S	17.98	32.47	0						
MP-1-4D	20.87		0						
MP-1-4S	20.92	31.95	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: 5/30/2014

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) X Normal (green) High (orange)
3) Oil added Yes X No
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 X No

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:

Added small amount of oil to compressor and tightened belts. Repaired leak in valve stem on well in injection bank #4. Greased bearings and shaft on booster pump. Soaked up small amount of oil and water from separator unit for disposal. Wiped down all equipment and cleaned up all garbage from around fence areas.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 97 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:	6/23/2014
Time:	12:30
Weather:	Sunny
Outdoor Temperature:	~80° F
Inside Trailer Temperature:	~75° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	9,442.7	
Feed Air Pressure *	95	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	105	(psi)
Oxygen Purity	81.7	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	100	(psi)
(readings below are made from control panel)		
Delivery Air	110	(psi)
Element Outlet Temperature	176	(oF)
Running Hours	10,783	(hours)
Loading Hours	6,818	(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	10	29	OW-1-5S	67.3	20	18	OW-1-9D	88.5	30	27
OW-1-2	96.5	20	29	OW-1-6S	67.0	20	17	OW-1-10D	87.2	30	27
OW-1-3	96.3	30	31	OW-1-7S	66.9	30	17	OW-1-11D	86.1	30	27
OW-1-4	95.0	30	30	OW-1-8S	66.7	30	17	OW-1-12D	85.3	30	28
OW-1-5D	93.9	20	28	OW-1-9S	66.0	40	18	OW-1-13D	84.7	40	27
OW-1-6D	92.4	30	27	OW-1-10S	54.6	30	14	OW-1-14D	84.1	30	26
OW-1-7D	91.1	25	28	OW-1-11S	54.1	30	13	OW-1-15D	83.3	30	27
OW-1-8D	89.6	35	27	OW-1-12S	53.6	30	13	OW-1-16D	82.5	30	14

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: 6/23/2014

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	25	15	OW-1-17D	79.5	30	16	OW-1-21S	49.3	30	15
OW-1-14S	52.7	35	15	OW-1-18D	78.3	25	25	OW-1-22S	49.3	30	15
OW-1-15S	52.2	45	16	OW-1-19D	78.9	35	23	OW-1-23S	48.8	30	13
OW-1-16SR	51.8	45	23	OW-1-20D	79.5	40	28	OW-1-24S	48.4	45	13
OW-1-17S	50.7	30	22	OW-1-21D	79.5	40	28	OW-1-25S	48.8	45	14
OW-1-18S	50.2	20	14	OW-1-22D	79.5	30	26	OW-1-26SR	48.3	35	14
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	24	OW-1-27S	48.3	50	15
OW-1-20S	49.3	30	14	OW-1-24D	78.2	30	28	OW-1-28S	48.3	40	15

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	30	25	OW-1-29S	48.5	30	14	OW-1-33D	83.2	20	26
OW-1-26D	78.1	30	26	OW-1-30S	48.8	30	13	OW-1-34D	84.5	10	29
OW-1-27D	77.9	30	27	OW-1-31S	49.3	30	14	OW-1-35D	85.0	10	27
OW-1-28D	78.0	40	28	OW-1-32S	49.3	30	13	OW-1-36D	85.0	15	27
OW-1-29D	78.4	40	26	OW-1-33S	49.7	35	13	OW-1-37D	84.0	35	28
OW-1-30D	79.0	40	36	OW-1-34S	50.1	35	13	OW-1-38D	82.0	30	36
OW-1-31D	80.5	30	25	OW-1-35S	50.3	45	13	OW-1-39D	78.0	30	26
OW-1-32D	81.6	45	28	OW-1-36S	50.3	40	13	OW-1-40D	76.0	30	26

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: 6/23/2014

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	30	15	OW-1-41D	73.6	35	21	OW-1-43	67.4	30	18
OW-1-38S	50.6	30	15	OW-1-42D	71.0	55	21	OW-1-44	66.6	30	19
OW-1-39S	50.7	40	15	OW-1-45	65.7	50	20	OW-1-51R	60.6	35	19
OW-1-40S	51.1	30	14	OW-1-46	64.3	30	18	OW-1-52	59.3	35	16
OW-1-41S	51.5	30	13	OW-1-47	63.4	30	18	OW-1-53	60.0	30	17
OW-1-42S	51.3	30	14	OW-1-48	62.5	20	17	OW-1-54	60.0	30	18
				OW-1-49	61.5	30	18				
				OW-1-50	61.0	30	18				

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	25.82		0	MP-1-5	25.61	30.25	4.1	MP-1-1D	22.43
MP-1-1S	25.88	21.14	0	MP-1-6	17.91	13.84	0	MP-1-2D	42.18
MP-1-2D	20.15		0	MP-1-7	21.23	36.18	16.2	MP-1-3D	17.94
MP-1-2S	20.39	32.15	0	MP-1-8	22.75	10.63	3.2	MP-1-4D	31.16
MP-1-3D	18.42		2.4						
MP-1-3S	18.21	20.95	1.3						
MP-1-4D	21.17		3.7						
MP-1-4S	21.22	25.18	6.3						

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: 6/23/2014

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) X Normal (green) High (orange)
3) Oil added Yes X No
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 X No

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:

Added small amount of oil to compressor. Cleaned all fresh air vent filters. Adjusted flow rate to air separator unit. Found low oxygen level and cleaned valves of dust buildup. Soaked up small amount of oil and water from separator unit for disposal. Wiped down all equipment and cleaned up all garbage from around fence areas. Cut down heavy weed growth around fence areas.

Injection point OW-1-19S remains off due to leaking line that needs further investigation.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 97 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:	4/3/2014
Time:	11:55
Weather:	Sunny
Outdoor Temperature:	~58° F
Inside Trailer Temperature:	~65° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	22,144	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	60	(psi)
Oxygen Receiver Pressure *	90	(psi)
Oxygen Purity	95.9	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	110	(psi)
Element Outlet Temperature	176	(^{o}F)
Running Hours	22,513	(hours)
Loading Hours	21,906	(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'	30	30	OW-2-9S	75'	25	21	OW-2-10D	97.2'	30	26
OW-2-3	94.3'	30	29	OW-2-10S	75'	20	19	OW-2-11D	100.8'	30	32
OW-2-4	94.7'	30	30	OW-2-11S	76.5'	20	19	OW-2-12	94'	30	19
OW-2-5	95.3'	35	30	OW-2-13S	75'	20	18	OW-2-13D	97'	30	33
OW-2-6	95.7'	35	29	OW-2-15S	75'	30	19	OW-2-14	96.4'	30	28
OW-2-7	96'	30	29	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	30	28
OW-2-8	96.3'	30	29	OW-2-18S	74.5'	30	19	OW-2-16D	94.1'	30	27
OW-2-9D	96.7'	30	29	OW-2-20S	79'	30	22	OW-2-17	95'	30	28

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: 4/3/2014

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'	40	29	OW-2-22S	76'	30	19	OW-2-26D	95'	30	30
OW-2-19	96.1'	45	31	OW-2-24S	77.8'	25	19	OW-2-27	93.5'	25	30
OW-2-20D	96.6'	40	30	OW-2-26S	74'	30	19	OW-2-28D	92.1'	30	28
OW-2-21	96.6'	35	27	OW-2-28S	76'	35	21	OW-2-29	92.2'	25	27
OW-2-22D	96.3'	30	26	OW-2-30S	67.8'	30	28	OW-2-30D	88'	30	24
OW-2-23	97.2'	30	30	OW-2-34	71'	30	19	OW-2-31	86'	30	28
OW-2-24D	97'	30	29	OW-2-35	69.2'	30	21	OW-2-32	84'	30	35
OW-2-25	96'	35	29	OW-2-36	64.8'	30	20	OW-2-33	82'	30	36

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	19	OW-2-45	61.1'	30	19	MP-2-1	30.19	24.14	0
OW-2-38	62.1'	35	20	OW-2-46	61'	30	18	MP-2-2	31.56	37.98	0
OW-2-39	60'	35	19	OW-2-47	60.5'	30	18	MP-2-3S	31.37	38.18	0
OW-2-40	61.7'	35	21					MP-2-3D	31.51	44.50	0
OW-2-41	61.7'	30	20					MP-2-4	20.05	21.25	0
OW-2-42	61.6'	30	19					MP-2-5	18.20	17.70	0
OW-2-43	61.4'	30	20								
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: 4/3/2014

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) X Normal (green) High (orange)
3) Oil added Yes X No
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 X No

AS-80 O_3 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:

Added small amount of oil to the compressor. Adjusted belt tension on booster pump. Soaked up small amount of oil and water from separator unit for disposal. Wiped down all equipment and cleaned up all garbage from around fence areas.

The threads on the bolt holes of all of the monitoring point manholes can no longer be serviced and need to be replaced.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 97 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:	4/18/2014
Time:	14:45
Weather:	Rain
Outdoor Temperature:	~47° F
Inside Trailer Temperature:	~60° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	22,266	
Feed Air Pressure *	70	(psi)
Cycle Pressure *	60	(psi)
Oxygen Receiver Pressure *	115	(psi)
Oxygen Purity	97.9	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	120	(psi)
(readings below are made from control panel)		
Delivery Air	115	(psi)
Element Outlet Temperature	149	(^{o}F)
Running Hours	22,649	(hours)
Loading Hours	22,029	(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'	40	29	OW-2-9S	75'	30	21	OW-2-10D	97.2'	30	26
OW-2-3	94.3'	45	30	OW-2-10S	75'	30	19	OW-2-11D	100.8'	20	32
OW-2-4	94.7'	30	30	OW-2-11S	76.5'	30	19	OW-2-12	94'	25	19
OW-2-5	95.3'	30	30	OW-2-13S	75'	30	18	OW-2-13D	97'	20	34
OW-2-6	95.7'	30	28	OW-2-15S	75'	35	19	OW-2-14	96.4'	20	28
OW-2-7	96'	35	29	OW-2-16S	75.5'	35	19	OW-2-15D	94.6'	30	28
OW-2-8	96.3'	35	29	OW-2-18S	74.5'	30	18	OW-2-16D	94.1'	30	27
OW-2-9D	96.7'	45	30	OW-2-20S	79'	40	21	OW-2-17	95'	30	28

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: 4/18/2014

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'	20	19	OW-2-26D	95'	30	30
OW-2-19	96.1'	40	29	OW-2-24S	77.8'	15	28	OW-2-27	93.5'	40	30
OW-2-20D	96.6'	45	30	OW-2-26S	74'	20	19	OW-2-28D	92.1'	50	27
OW-2-21	96.6'	60	26	OW-2-28S	76'	25	20	OW-2-29	92.2'	35	27
OW-2-22D	96.3'	60	26	OW-2-30S	67.8'	35	26	OW-2-30D	88'	30	25
OW-2-23	97.2'	35	30	OW-2-34	71'	30	18	OW-2-31	86'	30	28
OW-2-24D	97'	30	29	OW-2-35	69.2'	30	21	OW-2-32	84'	30	35
OW-2-25	96'	30	29	OW-2-36	64.8'	30	20	OW-2-33	82'	30	36

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'	25	19	OW-2-45	61.1'	30	19	MP-2-1	29.87	33.35	0.1
OW-2-38	62.1'	25	20	OW-2-46	61'	30	18	MP-2-2	31.21	35.48	0.4
OW-2-39	60'	35	19	OW-2-47	60.5'	30	18	MP-2-3S	31.08	48.42	0.2
OW-2-40	61.7'	30	21					MP-2-3D	31.18	49.83	0
OW-2-41	61.7'	30	20					MP-2-4	19.79	21.94	0.3
OW-2-42	61.6'	30	20					MP-2-5	17.97	20.44	0
OW-2-43	61.4'	30	20								
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: 4/18/2014

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 X No

AS-80 O_3 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:

Adjust pressure rate of all auto drain valves. Adjusted belt tension on compressor. Cleaned all fresh air filters and changes one light bulb in shed. Soaked up small amount of oil and water from separator unit for disposal. Wiped down all equipment and cleaned up all garbage from around fence areas.

The threads on the bolt holes of all of the monitoring point manholes can no longer be serviced and need to be replaced.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 97 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:	5/2/2014
Time:	12:40
Weather:	Sunny
Outdoor Temperature:	~72° F
Inside Trailer Temperature:	~60° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	22,395	
Feed Air Pressure *	70	(psi)
Cycle Pressure *	60	(psi)
Oxygen Receiver Pressure *	105	(psi)
Oxygen Purity	97.8	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	95	(psi)
(readings below are made from control panel)		
Delivery Air	97	(psi)
Element Outlet Temperature	172	(^{o}F)
Running Hours	22,786	(hours)
Loading Hours	22,156	(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'	30	28	OW-2-9S	75'	30	20	OW-2-10D	97.2'	25	26
OW-2-3	94.3'	35	29	OW-2-10S	75'	30	19	OW-2-11D	100.8'	25	33
OW-2-4	94.7'	35	30	OW-2-11S	76.5'	35	19	OW-2-12	94'	30	19
OW-2-5	95.3'	30	29	OW-2-13S	75'	45	17	OW-2-13D	97'	35	33
OW-2-6	95.7'	30	28	OW-2-15S	75'	40	18	OW-2-14	96.4'	30	27
OW-2-7	96'	30	28	OW-2-16S	75.5'	40	18	OW-2-15D	94.6'	30	28
OW-2-8	96.3'	30	28	OW-2-18S	74.5'	25	18	OW-2-16D	94.1'	25	27
OW-2-9D	96.7'	30	30	OW-2-20S	79'	30	21	OW-2-17	95'	25	28

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: 5/2/2014

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'	25	19	OW-2-26D	95'	40	30
OW-2-19	96.1'	40	29	OW-2-24S	77.8'	25	27	OW-2-27	93.5'	40	30
OW-2-20D	96.6'	30	29	OW-2-26S	74'	30	19	OW-2-28D	92.1'	40	27
OW-2-21	96.6'	30	26	OW-2-28S	76'	30	19	OW-2-29	92.2'	30	26
OW-2-22D	96.3'	30	25	OW-2-30S	67.8'	35	25	OW-2-30D	88'	30	24
OW-2-23	97.2'	50	30	OW-2-34	71'	35	17	OW-2-31	86'	30	27
OW-2-24D	97'	45	29	OW-2-35	69.2'	30	19	OW-2-32	84'	30	35
OW-2-25	96'	40	29	OW-2-36	64.8'	25	20	OW-2-33	82'	30	36

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	19	OW-2-45	61.1'	30	19	MP-2-1	29.34	30.99	0
OW-2-38	62.1'	30	20	OW-2-46	61'	35	20	MP-2-2	30.70	35.45	0.2
OW-2-39	60'	35	19	OW-2-47	60.5'	30	19	MP-2-3S	30.46	48.12	0.1
OW-2-40	61.7'	35	20					MP-2-3D	30.55	49.88	0
OW-2-41	61.7'	45	20					MP-2-4	19.08	18.14	0.4
OW-2-42	61.6'	40	21					MP-2-5	17.22	22.58	0
OW-2-43	61.4'	50	20								
OW-2-44R	60.6'	50	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: 5/2/2014

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) X Normal (green) High (orange)
3) Oil added Yes X No
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 X No

AS-80 O_3 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:

Added small amount of oil to the compressor. Repainted all well covers that are at grade black. Soaked up small amount of oil and water from separator unit for disposal. Rescecured exhaust vents to compressor that had worked loose due to normal vibrations. Wiped down all equipment and cleaned up all garbage from around fence areas.

The threads on the bolt holes of all of the monitoring point manholes can no longer be serviced and need to be replaced.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 99 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:	5/15/2014
Time:	12:40
Weather:	Rain
Outdoor Temperature:	~60° F
Inside Trailer Temperature:	~65° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	22,549	
Feed Air Pressure *	70	(psi)
Cycle Pressure *	60	(psi)
Oxygen Receiver Pressure *	105	(psi)
Oxygen Purity	78.5	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	90	(psi)
(readings below are made from control panel)		
Delivery Air	98	(psi)
Element Outlet Temperature	169	(^{o}F)
Running Hours	22,946	(hours)
Loading Hours	22,310	(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'	35	28	OW-2-9S	75'	30	20	OW-2-10D	97.2'	35	25
OW-2-3	94.3'	40	28	OW-2-10S	75'	30	19	OW-2-11D	100.8'	25	32
OW-2-4	94.7'	30	30	OW-2-11S	76.5'	40	19	OW-2-12	94'	35	19
OW-2-5	95.3'	30	30	OW-2-13S	75'	40	18	OW-2-13D	97'	30	33
OW-2-6	95.7'	40	28	OW-2-15S	75'	45	17	OW-2-14	96.4'	30	27
OW-2-7	96'	30	28	OW-2-16S	75.5'	40	18	OW-2-15D	94.6'	30	27
OW-2-8	96.3'	35	29	OW-2-18S	74.5'	30	18	OW-2-16D	94.1'	40	27
OW-2-9D	96.7'	40	30	OW-2-20S	79'	30	20	OW-2-17	95'	30	28

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: 5/15/2014

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'	25	19	OW-2-26D	95'	30	29
OW-2-19	96.1'	40	28	OW-2-24S	77.8'	20	26	OW-2-27	93.5'	30	30
OW-2-20D	96.6'	30	29	OW-2-26S	74'	20	18	OW-2-28D	92.1'	30	27
OW-2-21	96.6'	45	27	OW-2-28S	76'	30	19	OW-2-29	92.2'	30	27
OW-2-22D	96.3'	45	25	OW-2-30S	67.8'	30	25	OW-2-30D	88'	30	25
OW-2-23	97.2'	30	30	OW-2-34	71'	30	17	OW-2-31	86'	30	26
OW-2-24D	97'	30	29	OW-2-35	69.2'	30	19	OW-2-32	84'	30	35
OW-2-25	96'	30	28	OW-2-36	64.8'	40	20	OW-2-33	82'	30	36

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	19	OW-2-45	61.1'	35	19	MP-2-1	28.63	25.11	0.9
OW-2-38	62.1'	35	20	OW-2-46	61'	30	21	MP-2-2	30.00	32.13	0
OW-2-39	60'	35	19	OW-2-47	60.5'	30	19	MP-2-3S	29.91	30.44	0
OW-2-40	61.7'	30	19					MP-2-3D	29.63	27.11	0
OW-2-41	61.7'	30	20					MP-2-4	18.61	23.35	0
OW-2-42	61.6'	30	20					MP-2-5	16.80	17.88	2.9
OW-2-43	61.4'	30	20								
OW-2-44R	60.6'	20	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: 5/15/2014

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) X Normal (green) High (orange)
3) Oil added Yes X No
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 X No

AS-80 O_3 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:

Added small amount of oil to the compressor. Found oxygen level low. Took part solenoid valves and cleaned heavy dirt build up. Replaced water bowl auto float. Soaked up small amount of oil and water from separator unit for disposal. Wiped down all equipment and cleaned up all garbage from around fence areas.

The threads on the bolt holes of all of the monitoring point manholes can no longer be serviced and need to be replaced.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 97 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:	5/29/2014
Time:	12:30
Weather:	Sunny
Outdoor Temperature:	~78° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	22,683	
Feed Air Pressure *	110	(psi)
Cycle Pressure *	60	(psi)
Oxygen Receiver Pressure *	120	(psi)
Oxygen Purity	90.1	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	115	(psi)
(readings below are made from control panel)		
Delivery Air	109	(psi)
Element Outlet Temperature	160	(^{o}F)
Running Hours	23,089	(hours)
Loading Hours	22,446	(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'	30	33	OW-2-9S	75'	30	20	OW-2-10D	97.2'	30	28
OW-2-3	94.3'	25	287	OW-2-10S	75'	30	20	OW-2-11D	100.8'	25	31
OW-2-4	94.7'	30	30	OW-2-11S	76.5'	30	21	OW-2-12	94'	35	19
OW-2-5	95.3'	30	30	OW-2-13S	75'	30	19	OW-2-13D	97'	30	28
OW-2-6	95.7'	30	29	OW-2-15S	75'	30	18	OW-2-14	96.4'	30	28
OW-2-7	96'	35	29	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	30	30
OW-2-8	96.3'	35	30	OW-2-18S	74.5'	30	19	OW-2-16D	94.1'	30	28
OW-2-9D	96.7'	30	30	OW-2-20S	79'	30	22	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: 5/29/2014

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'	25	33	OW-2-22S	76'	30	20	OW-2-26D	95'	35	32
OW-2-19	96.1'	25	30	OW-2-24S	77.8'	30	28	OW-2-27	93.5'	30	29
OW-2-20D	96.6'	30	30	OW-2-26S	74'	35	19	OW-2-28D	92.1'	30	29
OW-2-21	96.6'	35	29	OW-2-28S	76'	30	21	OW-2-29	92.2'	35	28
OW-2-22D	96.3'	30	28	OW-2-30S	67.8'	30	23	OW-2-30D	88'	30	27
OW-2-23	97.2'	30	30	OW-2-34	71'	35	20	OW-2-31	86'	30	27
OW-2-24D	97'	30	30	OW-2-35	69.2'	40	21	OW-2-32	84'	30	34
OW-2-25	96'	30	28	OW-2-36	64.8'	30	19	OW-2-33	82'	40	36

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	21	MP-2-1	28.53	27.87	2.3
OW-2-38	62.1'	20	20	OW-2-46	61'	30	20	MP-2-2	29.90	35.41	0
OW-2-39	60'	30	18	OW-2-47	60.5'	30	20	MP-2-3S	29.79	44.12	0
OW-2-40	61.7'	30	20					MP-2-3D	29.58	46.17	0
OW-2-41	61.7'	40	20					MP-2-4	18.50	23.77	0.6
OW-2-42	61.6'	30	20					MP-2-5	16.71	29.95	1.2
OW-2-43	61.4'	30	20								
OW-2-44R	60.6'	35	20								

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: 5/29/2014

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) X Normal (green) High (orange)
3) Oil added Yes X No
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 X No

AS-80 O_3 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:

Found oxygen level on the rise and checked all equipment to make sure water is not getting into air separator unit. Added small amount of oil to the compressor. Repaired leaking valve stem on flow meter at injection points 15S. Soaked up small amount of oil and water from separator unit for disposal. Wiped down all equipment and cleaned up all garbage from around fence areas. Cut down vines that were stating to overgrow fence.

The threads on the bolt holes of all of the monitoring point manholes can no longer be serviced and need to be replaced.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 97 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:	6/20/2014
Time:	11:15
Weather:	Sunny
Outdoor Temperature:	~75° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O_2 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: 6/20/2014

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	28.75	28.87	2.0
OW-2-38	62.1'			OW-2-46	61'			MP-2-2	30.07	34.14	0
OW-2-39	60'			OW-2-47	60.5'			MP-2-3S	29.96	45.15	0
OW-2-40	61.7'							MP-2-3D	30.10	41.11	0
OW-2-41	61.7'							MP-2-4	18.68	21.18	1.2
OW-2-42	61.6'							MP-2-5	16.85	24.00	1.9
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: 6/20/2014

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 X No

AS-80 O_3 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:

Found system off upon arrival. Tried to restart system but system would not hold pressure and shut down. Investigated each unit to determine problem and found dryer unit had been frozen and the tubing inside the unit was leaking air and will not hold pressure. Found auto drain valve in dryer not working. Tried to repair leaks but after a discussion with tech support unit is not repairable and needs to be replaced. Soaked up small amount of oil and water from separator unit for disposal. Wiped down all equipment and cleaned up all garbage from around fence areas. Cut down heavy vine and brush growth around fencing.

The threads on the bolt holes of all of the monitoring point manholes can no longer be serviced and need to be replaced.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 97 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: