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2014 Annual Groundwater Sampling, NAPL Monitoring/ Recovery, and Groundwater Treatment Performance Report 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

May 2015

2014 ANNUAL GROUNDWATER SAMPLING, NAPL MONITORING/RECOVERY, AND GROUNDWATER TREATMENT PERFORMANCE REPORT

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

amsl	above mean sea level
BTEX	benzene, toluene, ethylbenzene, xylenes
DNAPL	dense non-aqueous phase liquid
DO	dissolved oxygen
DTW	depth to water
DUSR	data usability summary report
ft	foot (feet)
ft/ft	feet per feet
HIMW	Hempstead Intersection (Street) monitoring well
IPR	Intersection (Street) Product Recovery well
ISS	In Situ Solidification
LNAPL	light non-aqueous phase liquid
LOCID	Location Identifier
MGP	manufactured gas plant
µg/L	micrograms per liter
mg/L	milligrams per liter
MP	monitoring points
NA	not accessible
NAPL	non-aqueous phase liquid
ND	not detected
NM	not measured
NYSDEC	New York State Department of Environmental Conservation
ORP	oxidation-reduction potential
OSMW	Oswego Monitoring Well
PAHs	polycyclic aromatic hydrocarbons
PID	photo ionization detector
POB	Professional Office Building
ppm	parts per million
PZ	piezometer
QC	quality control

TOR	top of riser
URS	URS Corporation
USEPA	United States Environmental Protection Agency

EXECUTIVE SUMMARY

This annual 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 in 2014.

Groundwater monitoring and sampling was conducted on March 17 – 28, June 16 – 28, September 8 – 18, and December 15 – 30, 2014. This included measuring the depth to groundwater and NAPL thickness in 31 wells. Groundwater samples were collected from 31 wells in the First Quarter, 31 wells in the Second Quarter, 26 wells in the Third Quarter, and 31 wells in the Fourth Quarter and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs).

NAPL monitoring and recovery was conducted during thirteen events in 2014. For the First Quarter, NAPL monitoring and recovery was conducted on January 2, 2014, February 4, 2014, and March 6, 2014 for a total of three events. For the Second Quarter, 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. For the Third Quarter, NAPL monitoring and recovery was conducted on July 25, August 27, and September 8, 2014 for a total of three events. For the Fourth Quarter, NAPL monitoring and recovery was conducted on October 30 and December 15 for a total of two events. NAPL was recovered at the one remaining product recovery well (HIMW-021).

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

- The general direction of groundwater flow in shallow, intermediate, and deep water-bearing zones was south at an average gradient of approximately 0.002 feet per feet (ft/ft).
- The dissolved-phase plume extended up to approximately 990 ft south of the site boundary.
- Based on a comparison between the Fourth Quarter 2014 data and the previous data, the concentrations of total BTEX and total PAHs remained stable in most site

monitoring wells. In monitoring well HIMW-024, the total PAH concentration was slightly above 1,000 micrograms per liter (µg/L), which hasn't occurred at this level since May 2011.

- As noted above, dense non-aqueous phase liquid (DNAPL) was recovered from the one remaining product recovery well (HIMW-021) in 2014. The well is located along the west side of Wendell Street, south of the Intersection Street site.
- As of December 2014, approximately 833 gallons have been recovered since product recovery began in April 2007. Approximately 6.75 gallons were recovered during the First Quarter, 1.85 gallons were recovered during the Second Quarter, 2.2 gallons were recovered during the Third Quarter, and 1.5 gallons of NAPL were recovered during the Fourth Quarter. A total of 12.30 gallons of NAPL were recovered in 2014.

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

Monthly headspace and water quality parameters were collected from the monitoring points for System No. 1 and No. 2 by Island Pump & Tank Corporation. During the First Quarter, System No. 1 and No. 2 were monitored during six events. During the Second Quarter, System No. 1 and No. 2 were monitored during six events. During the Third Quarter, Island Pump & Tank monitored System No. 1 during three events and System No. 2 during two events. During the Fourth Quarter, System No. 1 and No. 2 were monitored during three events.

1.0 INTRODUCTION

This annual report summarizes field activities, analytical results, and data interpretations associated with groundwater sampling, gauging and recovery of NAPL, and the monitoring of groundwater treatment systems performed during the First, Second, Third, and Fourth Quarters 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 performed the following activities in 2014:

- Measured the depth to groundwater and NAPL thickness in all accessible on site and off site monitoring wells (March 17, June 16, September 8 and December 15, 2014). There were 41 monitoring wells gauged on March 17 and 47 monitoring wells gauged during Second through Fourth Quarter 2014, see Tables 1A, 1B, and 2.

- Gauged NAPL in HIMW-021 13 times in 2014 (January 2, February 4, March 6, April 17, April 29, June 2, June 16, June 27, July 25, August 27, September 8, October 30, and December 15). Recovered NAPL from HIMW-021 on eight of the 13 gauging events (January 2, February 4, March 6, April 17, April 29, July 25, August 27, and October 30), after gauging.

- Collected groundwater samples from between 25 to 31 monitoring wells for laboratory analysis. There were 31 wells sampled on March 17 – 28; 31 wells sampled on June 16 – 28; 26 wells sampled on September 8 – 18; and 31 wells sampled on December 15 – 30, 2014).

Island Pump & Tank Corporation 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 oxygen delivery System No. 1 and No. 2. During the First Quarter 2014, System No. 1 and No. 2 were monitored during six events. During the

Second Quarter, System No. 1 and No. 2 were monitored during six events. During the Third Quarter, System No. 1 was monitored during three events and No. 2 was monitored during two events. During the Fourth Quarter, System No. 1 and No. 2 were monitored during three events. This data is presented in Table 5.

2.0 FIELD ACTIVITIES

The field activities performed by URS during the Fourth 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 the one monitoring well (HIMW-21). The sampled wells include six new wells installed in March 2014.

Monitoring wells and piezometers used for these activities are listed in Table 1A. A summary of NAPL gauging and recovery activities is found in Table 1B. Fourth 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 oxygen delivery Systems No. 1 and No. 2 monthly during the Fourth Quarter of 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 DO meter for System No. 1 on October 29, November 24, and December 18, a total of three events; and were taken for System No. 2 on October 28, November 25, and December 19, for a total of three events. 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 decommissioned as part of the ISS work. NAPL recovery is limited to this 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.

NAPL levels were monitored in well HIMW-021 during two gauging and recovery events: October 30 and December 15, 2014. During these events, the well was gauged with a weighted cotton string to measure the DNAPL thickness. The DNAPL was recovered using a peristaltic pump on October 30 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. Recovery was not conducted on December 15 in order to reduce the number of drums generated. HIMW-021 was installed with a ten foot sump in order to collect NAPL between recovery events.

NAPL was gauged during 13 events from January to December 2014. NAPL was recovered during eight of those gauging events. The volume of NAPL recovered from HIMW-021 in 2014 ranged from 0.85 gallons to 2.25 gallons. Approximately 1.5 gallons of NAPL were recovered during the Fourth Quarter, for a total of 12.30 gallons in 2014. Table 3 presents NAPL thicknesses and NAPL recovery amounts from HIMW-021 for 2014.

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 250 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 for analysis of BTEX (United States Environmental

Protection Agency [USEPA] Method 8260C) and PAHs (USEPA Method 8270D). Purge water is 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 Fourth Quarter December 15 – 30, 2014 groundwater sampling event. Results of this groundwater sampling event are presented in Table 4.

2.4 Groundwater Treatment System Operation

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

The performance of System No. 1 and System No. 2 was monitored monthly by Island Pump & Tank during the Fourth Quarter 2014 through the measurement of water levels, headspace gas, and water quality parameters in the groundwater, see Table 5. Island Pump & Tank performed water level measurements with an electronic oil/water interface probe, well headspace monitoring with a PID, and DO measurements with a DO meter (YSI 55A). These measurements were collected during the Fourth Quarter and were taken for System No. 1 on October 29, November 24, and December 18, a total of three events; and were taken for System No. 2 on October 28, November 25, and December 19, for a total of three events. 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 the Fourth 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 µg/L, extends approximately 990 feet south of the site boundary. Based on comparisons with previous quarterly groundwater monitoring data, the concentrations of total BTEX or PAHs in groundwater sampled during the Fourth Quarter in most site monitoring wells remained stable. Seventeen of the thirty-one sampled well concentrations were non-detect for BTEX and PAH. All but one of the wells with detectable levels of BTEX and PAH showed similar values from Third Quarter to Fourth Quarter 2014. One well, HIMW-024, showed a larger increase in BTEX and PAH concentrations as compared to Second and Third Quarter 2014 values.

In December 2014, the concentrations of total BTEX or total PAHs in the farthest downgradient well pair (HIMW-015I/D) ranged from "not detected" (deep well, HIMW-015D) to 17 µg/L for BTEX and 35 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 958 µg/L for BTEX (shallow well, HIMW-027S) and 2,930 µg/L for PAHs (intermediate well, HIMW-005I), see Figure 4 and Table 4.

During Fourth Quarter 2014, HIMW-024 had reported values of total BTEX concentrations of 621 µg/L and total PAH concentrations of 1,024 µg/L, similar to values of 447 µg/L for total BTEX and 699 µg/L for total PAH in First Quarter 2014, but above the non-detect values observed in the Third Quarter for both summary parameters.

3.2 Potentiometric Heads and NAPL Thickness

Potentiometric heads and NAPL thickness measurements for 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 Fourth Quarter 2014. The data for Fourth 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 zones. These values are historically consistent. Potentiometric surface maps for the First Quarter, Second Quarter, and Third Quarter are provided in the previous quarterly reports (URS 2014b, 2015a, 2015b).

DNAPL was observed in one well during 2014 (Table 3). The well (HIMW-021) is located along the west side of Wendell Street south of the Site and Intersection Street (Figure 8). All wells in the parking lot of the POB were decommissioned in late June 2013 during ISS work. Wells located within the property boundary of the site were previously decommissioned in Fourth Quarter 2011 with the start of the ISS remediation project.

3.3 Groundwater Analytical Results

Groundwater analytical results are summarized in Section 3.1, Table 4, and Appendix A and 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 a review of holding times; completeness of all required deliverables; 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 Fourth Quarter 2014, HIMW-021 was the only remaining product recovery well in the vicinity of the site. It is located south of the site in the sidewalk along the west side of

Wendell Street. The volume of NAPL recovered in the Fourth Quarter 2014 from this well was approximately 1.5 gallons. One recovery event occurred on October 30, 2014.

A total of approximately 833 gallons of NAPL have been recovered from all of the recovery wells for the period of April 2007 through December 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 Fourth Quarter 2014, as collected and report by Island Pump & Tank, is presented in Table 5.

System No. 1

System No. 1 DO readings reported in the Fourth Quarter 2014 ranged from a low of 3.99 milligrams per liter (mg/L) at MP-1-8 on December 18, 2014 to a high of 48.11 mg/L at MP-1-7 on November 24, 2014. The overall average DO reading for System No. 1 was 27.03 mg/L. DO readings were collected from either the middle or bottom of the water column. All PID headspace readings were below 1 parts per million (ppm) for System No. 1 in the Fourth Quarter 2014.

During the Fourth Quarter, the system was running and routine maintenance was regularly performed. Injection Point OW-1-19S was not operated during the quarter due to a leaking line. On October 29, a telemetry test was successfully performed and the unit was confirmed to be working properly. During the November and December maintenance events, a total of four flow meters were found to be leaking and were repaired.

Based on the data collected during the Fourth 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 Fourth Quarter 2014 ranged from 4.79 mg/L at MP-2-4 on November 25, 2014 to 43.32 mg/L at MP-2-3S on December 19, 2014. The average DO reading was 20.14 mg/L. DO readings for this quarter were collected from the bottom of the

water column. All PID headspace readings were below 1 ppm for System No. 2 in the Fourth Quarter 2014.

Island Pump & Tank arrived at System No. 2 on October 28 to perform maintenance and found the system off and the main power off at the street connection. The street connection was reinstated and the wiring was fixed in the telemetry unit. The unit passed a check test and the system was left running. On November 8, there was an alarm condition at System No. 2 because of a problem with the air compressor that caused the system to shut down. Through the next month, there at least five other alarm conditions, with the system shut down from one day to several days each time. Island Pump & Tank responded to the alarms, was in communication with the manufacturer, and performed a number of repairs attempting to fix the air compressor. The unit was ultimately fixed on December 4 and was running without alarms when maintenance was performed on December 19.

Based on the data collected during the Fourth 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 Fourth 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 Fourth 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 ug/L dissolved-phase plume contour is approximately 990 ft south of the site boundary.
- DNAPL was detected in the one existing well (HIMW-021) monitored twice during the Fourth Quarter 2014. The well (HIMW-021) was located immediately south of the site along the west side of Wendell Street. A total of 1.5 gallons of NAPL was recovered from this well during one recovery event during Fourth Quarter 2014.
- Approximately 833 gallons of NAPL has been recovered from all the recovery wells for the period of April 2007 through the Fourth Quarter 2014. Approximately 6.75 gallons of NAPL were recovered during the First Quarter, 1.85 gallons were recovered during the Second Quarter, 2.2 gallons were recovered during the Third Quarter, and 1.5 gallons were recovered during the Fourth Quarter. A total of 12.3 gallons of NAPL were recovered in 2014.
- Based on a comparison between the Fourth Quarter 2014 data and the previous data, the concentrations of total BTEX and total PAHs remained stable in most site monitoring wells.
- 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.
- Monthly headspace and water quality parameters were collected from the monitoring points for Systems No. 1 and No. 2 by Island Pump & Tank Corporation. System No. 1 was monitored during six events in the First Quarter 2014, monitored during six

events in the Second Quarter, monitored during three events in the Third Quarter, and monitored during three events in the Fourth Quarter 2014. System No. No. 2 was monitored during six events in the First Quarter, monitored during six events in the Second Quarter, monitored during two events in the Third Quarter, and monitored during three events in the Fourth Quarter. Both systems are performing as expected and creating an aerobic environment in the aquifer.

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URS, 2008a. *2007 Annual Groundwater Sampling and NAPL Monitoring/Recovery Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* February.

URS, 2008b. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the First Quarter of 2008 (January – March 2008) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* June.

URS, 2008c. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the Second Quarter of 2008 (April - June 2008) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* October.

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URS, 2011a. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the First Quarter of 2011 (January - March 2011) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* July.

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URS, 2015a. *Groundwater Sampling and Groundwater Treatment Performance Report for the Second Quarter of 2014 (April – June 2014) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* January.

URS, 2015b. *Groundwater Sampling and Groundwater Treatment Performance Report for the Third Quarter of 2014 (July – September 2014) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* February.

TABLES

Table 1A

Summary of 2014 Field Activities:
Water Level Measurements, NAPL Thickness Measurements, and Water Quality Sampling[(1), (2)]
Hempstead Intersection Street Former MGP Site

Well ID	First Quarter 2014 March 17- 28, 2014			March and April 2014			Second Quarter 2014 June 16-28, 2014			Third Quarter 2014 September 8-18, 2014			Fourth Quarter 2014 December 15-30, 2014		
	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality
HIMW-003S	X	X	X				X		X	X			X		X
HIMW-003I	X	X	X				X		X	X			X		X
HIMW-003D	X	X	X				X		X	X			X		X
HIMW-004S	X	X					X			X			X		
HIMW-004I	X	X					X			X			X		
HIMW-004D	X	X					X			X			X		
HIMW-005S	X	X	X				X		X	X		X	X		X
HIMW-005I	X	X	X				X		X	X		X	X		X
HIMW-005D	X	X	X				X		X	X		X	X		X
HIMW-008S	X	X	X				X		X	X		X	X		X
HIMW-008I	X	X	X				X		X	X		X	X		X
HIMW-008D	X	X	X				X		X	X		X	X		X
HIMW-009S	X	X					X			X			X		
HIMW-009I	X	X					X			X			X		
HIMW-009D	X	X					X			X			X		
HIMW-010S	X	X					X			X			X		
HIMW-010I	X	X					X			X			X		
HIMW-011S	X	X					X			X			X		
HIMW-011I	X	X					X			X			X		
HIMW-011D	X	X					X			X			X		
HIMW-012S	X	X	X				X		X	X		X	X		X
HIMW-012I	X	X	X				X		X	X		X	X		X
HIMW-012D	X	X	X				X		X	X		X	X		X
HIMW-013S	X	X	X				X		X	X			X		X
HIMW-013I	X	X	X				X		X	X		X	X		X
HIMW-013D	X	X	X				X		X	X		X	X		X
HIMW-014I	X	X	X				X		X	X		X	X		X
HIMW-014D	X	X	X				X		X	X			X		X
HIMW-015I	X	X	X				X		X	X		X	X		X
HIMW-015D	X	X	X				X		X	X		X	X		X
HIMW-020S	X	X	X				X		X	X		X	X		X
HIMW-020I	X	X	X				X		X	X		X	X		X
HIMW-21	X	X					X	X		X	X		X	X	
HIMW-22	X	X	X				X		X	X		X	X		X
HIMW-23	X	X	X				X		X	X		X	X		X
HIMW-24	X	X	X				X		X	X		X	X		X
HIMW-25	X	X	X				X		X	X		X	X		X
HIMW-026I				X	X	X	X		X	X		X	X		X
HIMW-026D				X	X	X	X		X	X		X	X		X
HIMW-027S				X	X	X	X		X	X		X	X		X
HIMW-027I				X	X	X	X		X	X		X	X		X
HIMW-028S				X	X	X	X			X		X	X		X
HIMW-028I				X	X	X	X		X	X		X	X		X
PZ-02	X	X					X			X			X		
PZ-03	X	X					X			X			X		
OSMW-02	X	X	X				X			X			X		
OSMW-03	X	X	X				X			X			X		

Notes:

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

(2) Blank field indicates that the activity was not performed.

Table 1B

Summary of 2014 Field Activities:
NAPL Gauging and Product Recovery[(1), (2)]
Hempstead Intersection Street Former MGP Site

Well ID: HIMW-021			
Quarter	Date	Product Gauged	Product Recovered
First Quarter 2014	1/2/2014	x	x
	2/4/2014	x	x
	3/6/2014	x	x
Second Quarter	4/17/14	x	x
	4/29/14	x	x
	6/2/14	x	
	6/16/14	x	
	6/27/14	x	
Third Quarter 2014	7/25/2014	x	x
	8/27/2014	x	x
	9/8/2014	x	
Fourth Quarter 2014	10/30/2014	x	x
	12/15/2014	x	

Notes:

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

2 Blank field indicates that the activity was not performed.

Table 2
Groundwater and NAPL Measurements
Fourth 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	12/15/2014	65.00	ND	18.64	ND	34.41	0	0.00	46.36
HIMW-003I	12/15/2014	64.94	ND	19.09	ND	85.11	0	0.00	45.85
HIMW-003D	12/15/2014	65.26	ND	19.61	ND	142.60	0	0.00	45.65
HIMW-004S	12/15/2014	72.74	ND	27.02	ND	41.64	0	0.00	45.72
HIMW-004I	12/15/2014	72.78	ND	27.18	ND	90.47	0	0.00	45.60
HIMW-004D	12/15/2014	72.65	ND	27.71	ND	177.03	0	0.00	44.94
HIMW-005S	12/15/2014	67.19	ND	21.34	ND	39.98	0	0.00	45.85
HIMW-005I	12/15/2014	67.22	ND	21.57	ND	90.63	0	0.00	45.65
HIMW-005D	12/15/2014	67.22	ND	22.42	ND	136.25	0	0.00	44.80
HIMW-008S	12/15/2014	65.04	ND	19.51	ND	36.86	0	0.00	45.53
HIMW-008I	12/15/2014	65.14	ND	19.77	ND	75.03	0	0.00	45.37
HIMW-008D	12/15/2014	64.93	ND	19.58	ND	114.60	0	0.00	45.35
HIMW-009S	12/15/2014	70.03	ND	24.13	ND	39.67	0	0.00	45.90
HIMW-009I	12/15/2014	69.93	ND	24.09	ND	80.41	0	0.00	45.84
HIMW-009D	12/15/2014	69.96	ND	24.19	ND	123.12	0	0.00	45.77
HIMW-010S	12/15/2014	71.60	ND	24.81	ND	39.18	0	0.00	46.79
HIMW-010I	12/15/2014	71.47	ND	24.62	ND	89.78	0	0.00	46.85
HIMW-011S	12/15/2014	71.62	ND	25.18	ND	40.11	0	0.00	46.44
HIMW-011I	12/15/2014	71.43	ND	25.03	ND	94.48	0	0.00	46.40
HIMW-011D	12/15/2014	71.39	ND	25.03	ND	122.25	0	0.00	46.36
HIMW-012S	12/15/2014	61.58	ND	17.27	ND	33.14	0	0.00	44.31
HIMW-012I	12/15/2014	61.59	ND	17.14	ND	74.45	0	0.00	44.45
HIMW-012D	12/15/2014	61.82	ND	19.31	ND	128.35	0	0.00	42.51
HIMW-013S	12/15/2014	72.83	ND	30.46	ND	48.69	0	0.00	42.37
HIMW-013I	12/15/2014	72.60	ND	30.22	ND	81.70	0	0.00	42.38
HIMW-013D	12/15/2014	72.53	ND	30.23	ND	122.91	0	0.00	42.30
HIMW-014I	12/15/2014	71.71	ND	29.37	ND	95.89	0	0.00	42.34
HIMW-014D	12/15/2014	71.59	ND	31.61	ND	151.95	0	0.00	39.98
HIMW-015I	12/15/2014	64.18	ND	24.74	ND	92.54	0	0.00	39.44
HIMW-015D	12/15/2014	63.96	ND	26.53	ND	152.41	0	0.00	37.43
HIMW-020S	12/15/2014	70.43	ND	25.52	ND	36.82	0	0.00	44.91
HIMW-020I	12/15/2014	70.30	ND	25.38	ND	74.86	0	0.00	44.92

Table 2
Groundwater and NAPL Measurements
Fourth 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	12/15/2014	NM	ND	19.88	43.5	NC	0	1.85	NM
HIMW-022	12/15/2014	74.07	ND	30.40	ND	64.41	0	0.00	43.67
HIMW-023	12/15/2014	74.41	ND	30.57	ND	75.28	0	0.00	43.84
HIMW-024	12/15/2014	59.83	ND	15.02	ND	54.91	0	0.00	44.81
HIMW-025	12/15/2014	62.75	ND	17.49	ND	52.24	0	0.00	45.26
HIMW-26I	12/15/2014	NM	ND	23.31	ND	84.75	0	0.00	NM
HIMW-26D	12/15/2014	NM	ND	23.36	ND	137.48	0	0.00	NM
HIMW-27S	12/15/2014	NM	ND	24.38	ND	41.51	0	0.00	NM
HIMW-27I	12/15/2014	NM	ND	23.81	ND	70.32	0	0.00	NM
HIMW-28S	12/15/2014	NM	ND	24.95	ND	41.33	0	0.00	NM
HIMW-28I	12/15/2014	NM	ND	24.42	ND	71.58	0	0.00	NM
PZ-02	12/15/2014	72.96	ND	25.93	ND	35.46	0	0.00	47.03
PZ-03	12/15/2014	64.58	ND	17.85	ND	29.90	0	0.00	46.73
OSMW-02	12/15/2014	71.59	ND	25.31	ND	45.12	0	0.00	46.28
OSMW-03	12/15/2014	71.39	ND	25.18	ND	44.66	0	0.00	46.21

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 Gauging and Recovery
Summary of 2014
Hempstead Intersection Street Former MGP Site

Well ID: HIMW-021

Quarter	Date	Thickness of LNAPL	Thickness of DNAPL	Volume of NAPL Removed	Total Quarterly Product Volume Recovered
First Quarter	Janurary 2, 2014	ND	1.5	2.25	6.75
	February 4, 2014	ND	1.5	2.25	
	March 6, 2014	ND	1.5	2.25	
Second Quarter	April 17, 2014	ND	1.0	1.0	1.85
	April 29, 2014	ND	0.8	0.85	
	June 2, 2014	ND	0.05	0	
	June 16, 2014	ND	0.2	0	
	June 27, 2014	ND	0.4	0	
Third Quarter	July 25, 2014	ND	0.8	1.2	2.2
	August 27, 2014	ND	0.66	1.0	
	September 8, 2014	ND	0.3	0	
Fourth Quarter	October 30, 2014	ND	1.05	1.5	1.5
	December 15, 2014	ND	1.85	0	

Total Volume of NAPL Recovered in 2014:	**12.30**
Total Volume of NAPL Recovered from April 2007 to Fourth Quarter 2014:	**833.0**

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
Data Collected in 2014
Hempstead Intersection Street Former MGP Site

Well ID	Fourth Quarter 2014 December 15 to December 30, 2014		Third Quarter 2014 September 8 to 18, 2014		Second Quarter 2014 June 16 - June 28, 2014		First Quarter 2014 March 18 - March 28, 2014	
	BTEX [ug/L]	PAH [ug/L]	BTEX [ug/L]	PAH [ug/L]	BTEX [ug/L]	PAH [ug/L]	BTEX [ug/L]	PAH [ug/L]
HIMW-003S	ND	ND			ND	ND	ND	ND
HIMW-003I	ND	ND			ND	ND	ND	ND
HIMW-003D	ND	ND			ND	ND	ND	ND
HIMW-004S								
HIMW-004I								
HIMW-004D								
HIMW-005S	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-005I	72	2,930	77	3,054	112	2,434	142	3,117
HIMW-005D	29	865	36	842	32	735	30	509
HIMW-008S	38	4	19	2	14	2	2,941	7
HIMW-008I	ND	ND	ND	ND	ND	ND	3	ND
HIMW-008D	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-009S								
HIMW-009I								
HIMW-009D								
HIMW-010S								
HIMW-010I								
HIMW-011S								
HIMW-011I								
HIMW-011D								
HIMW-012S	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-012I	6	70	8	88	18	93	25	131
HIMW-012D	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-013S	ND	ND			ND	ND	ND	ND
HIMW-013I	3	11	10	26	36	62	196	129
HIMW-013D	2	24	3	26	3	16	3	17
HIMW-014I	3	38	5	40	12	NA	15	42
HIMW-014D	ND	ND			ND	ND	ND	ND
HIMW-015I	17	35	12	24	17	38	17	34
HIMW-015D	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-020S	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-020I	1	3	3	7	2	7	5	7
HIMW-021								
HIMW-022	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-023	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-024	621	1,024	ND	ND	182	38	447	699
HIMW-025	ND	ND	ND	ND	1,320	240	532	131
HIMW-026I	ND	ND	ND	ND	ND	ND	ND	ND
HIMW-026D	53	1,662	70	1,749	26	794	24	1,241
HIMW-027S	958	1,807	1,179	1,748	1,483	1,441	765	1,699
HIMW-027I	2	17	ND	ND	ND	ND	ND	ND
HIMW-028S	134	515	131	503	175	372	145	463
HIMW-028I	ND	ND	ND	ND	ND	ND	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
Fourth Quarter 2014
Hempstead Intersection Street Former MGP Site

System #1

	October 29, 2014			November 24, 2014			December 18, 2014		
ID	DTW (ft)	PID (ppm)	DO (mg/L)	DTW (ft)	PID (ppm)	DO (mg/L)	DTW (ft)	PID (ppm)	DO (mg/L)
MP-1-1S	27.45	0.0	28.41	27.60	0.0	26.07	26.69	0.0	29.59
MP-1-1D	27.40	0.0	36.31	27.51	0.0	35.21	26.67	0.0	33.21
MP-1-2S	21.97	0.0	19.91	22.08	0.2	19.95	21.25	0.2	24.44
MP-1-2D	21.75	0.0	39.85	21.82	0.0	39.00	21.77	0.3	31.39
MP-1-3S	19.78	0.4	21.95	19.97	0.2	24.11	19.04	0.4	20.59
MP-1-3D	19.85	0.2	23.11	20.05	0.3	33.07	19.15	0.4	17.72
MP-1-4S	22.77	0.9	33.04	22.83	0.8	31.32	21.96	0.7	33.39
MP-1-4D	22.69	0.7	27.48	22.80	0.4	30.44	21.93	0.2	27.36
MP-1-5	27.21	0.0	30.43	27.33	0.0	25.83	26.46	0.0	26.21
MP-1-6	19.41	0.0	13.51	19.55	0.0	18.85	18.63	0.0	14.88
MP-1-7	22.75	0.0	47.11	22.85	0.0	48.11	21.98	0.0	42.27
MP-1-8	24.31	0.0	8.89	24.36	0.0	5.92	23.50	0.0	3.99

System #2

	October 28, 2014			November 25, 2014			December 19, 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
MP-2-1	30.31	0.0	21.75	30.55	0.0	13.87	29.57	0.0	16.67
MP-2-2	31.65	0.1	29.11	31.90	0.0	11.17	30.95	0.0	25.18
MP-2-3S	31.52	0.3	27.13	31.75	0.0	8.55	30.76	0.0	43.32
MP-2-3D	31.67	0.1	35.86	31.87	0.2	21.12	30.93	0.0	36.87
MP-2-4	20.24	0.0	22.45	20.43	0.0	4.79	19.47	0.0	9.49
MP-2-5	18.41	0.0	8.98	18.58	0.0	6.12	17.65	0.0	20.05

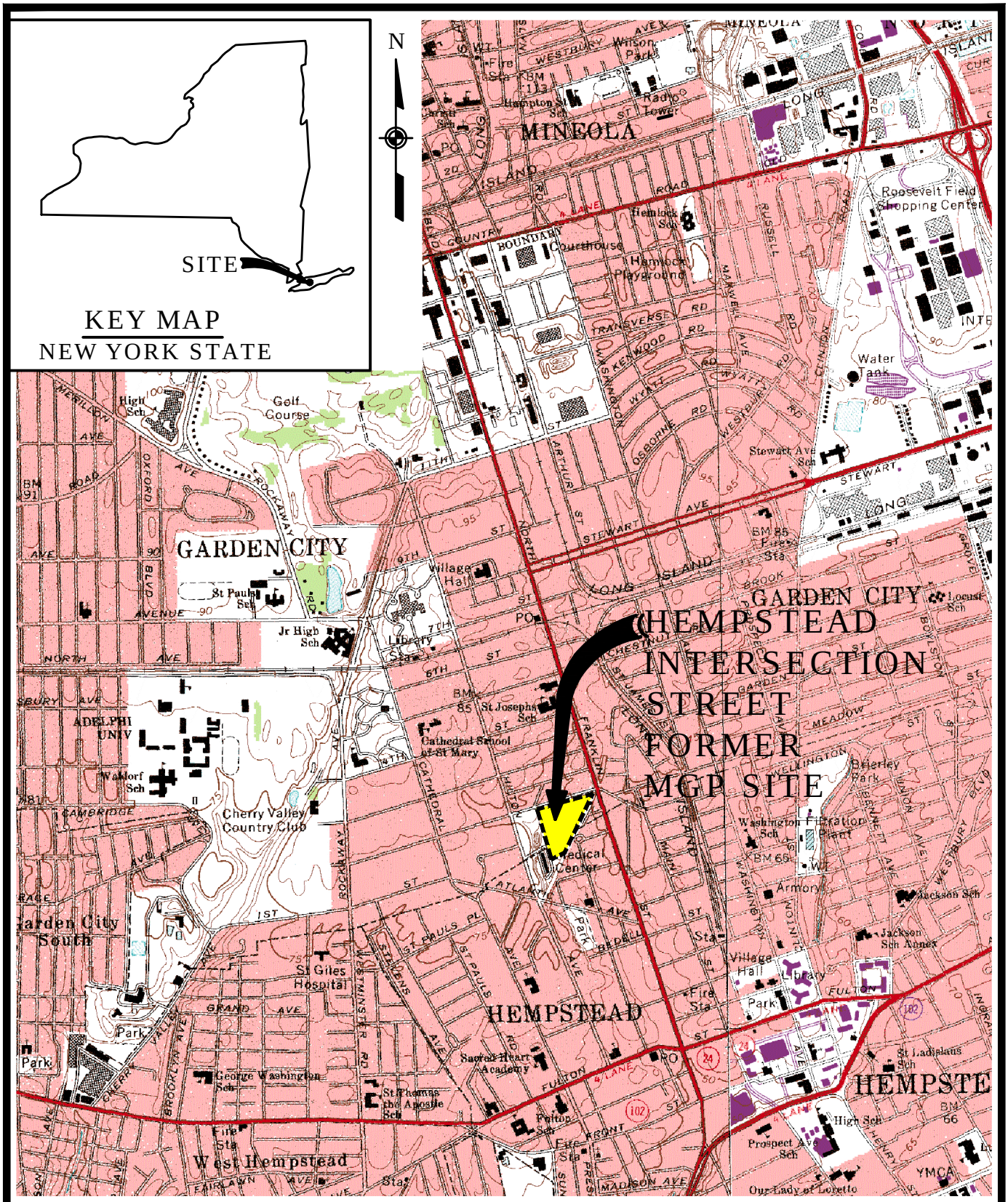
Abbreviations

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

Note

(1) DO Headspace monitor oxygen detection limit is 40.0%; normal oxygen level in air is 20.9%
(2) DO concentrations in System #1 shallow wells are measured in the bottom of the well screen and the deep wells are measured in the middle of the screen

FIGURES



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

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

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 2/25/2015

N

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

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

Legend

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

SOURCE: ESRI World Imagery

400 0 400 Feet

URS

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

FIGURE 2

J:\Projects\11175065.00000\DB\GIS\ARCMAP\GROUNDWATER TREATMENT LOCATIONS (4th Qtr 2014).mxd 4/29/2015

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

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
ATLANTIC AVENUE
GARDEN PLACE
SAINT PAULS PLACE
KELLUM PLACE
KENSINGTON COURT
TERRACE AVENUE
BEDELL STREET
NORTH FRANKLIN STREET
RUNDLE COURT
CHELSEA PLACE
CATHEDRAL AVENUE
RYAN COURT
HILTON PLACE
CATHEDRAL COURT
JACKSON STREET
MULFORD PLACE
FULTON AVENUE
BELL STREET
SEALEY AVENUE

Legend

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

Estimated Extent of Groundwater Plume:

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

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 (1)	ND–3,968 (3)

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	6–256 (6)	65–527 (70)
117–127	ND–6 (ND)	ND–2 (ND)

HIMW-024

DEPTH	TOT. BTEX	TOT. PAHs
44.6–54.6	ND–900 (621)	ND–1,024 (1,024)

HIMW-023

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

HIMW-025

DEPTH	TOT. BTEX	TOT. PAHs
40–52	ND–1,320 (ND)	ND–573 (ND)

HISB-102 (12/1/08)

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

HISB-105(2) (12/18/08)

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

HISB-114 (12/23/08)

DEPTH	TOT. BTEX	TOT. PAHs
30–34	ND	ND
40–44	ND	ND
50–54	ND	ND
60–64	ND	ND
70–74	ND	ND
80–84	ND	ND
90–94	ND	ND

HITW-01 (9/21/01)

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

HIGP-03 (7/28/00)

DEPTH	TOT. BTEX	TOT. PAHs
33–37	ND	ND
56–60	ND	ND

HIGP-45 (10/17/00)

DEPTH	TOT. BTEX	TOT. PAHs
32–38	1,229	1,254
60–64	ND	ND

HIGP-52 (9/11/00)

DEPTH	TOT. BTEX	TOT. PAHs
30–34	1,031	2,629
58–60	ND	ND

HIGP-58 (10/18/00)

DEPTH	TOT. BTEX	TOT. PAHs
36–40	ND	ND
60–64	ND	ND
90–94	ND	ND

HIGP-64 (12/18/00)

DEPTH	TOT. BTEX	TOT. PAHs
37–41	27	17
54–58	4,031	1,574
72–76	401	239
90–94	14	48

HIGP-69 (9/24/01)

DEPTH	TOT. BTEX	TOT. PAHs
54–58	ND	ND
70–74	28	28
82–86	126	76
90–94	12	19
104–108	5	ND

HIMW-004S,I,D

DEPTH	TOT. BTEX	TOT. PAHs
30–40	ND–4	ND–1
80–90	ND–13	ND
167–177	ND–4	ND–1

HIMW-013S,I,D

DEPTH	TOT. BTEX	TOT. PAHs
38–48	ND–11 (ND)	ND (ND)
70–80	ND–313 (3)	5–156 (11)
110–120	2–30 (2)	ND–28 (24)

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

DEPTH	TOT. BTEX	TOT. PAHs
65–85	ND (ND)	ND (ND)
115–135	24–70 (53)	794–1,749 (1,662)

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 (72)	1,454–5,337 (2,930)
130–140	ND–359 (29)	ND–2,698 (805)

HIMW-014 I,D

DEPTH	TOT. BTEX	TOT. PAHs
85–95	3–273 (3)	26–288 (38)
140–150	ND–15 (ND)	ND (ND)

HIMW-027S,I

DEPTH	TOT. BTEX	TOT. PAHs
20–40	765–1,483 (958)	1,441–1,807 (1,807)
50–70	ND–2 (2)	ND–17 (17)

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

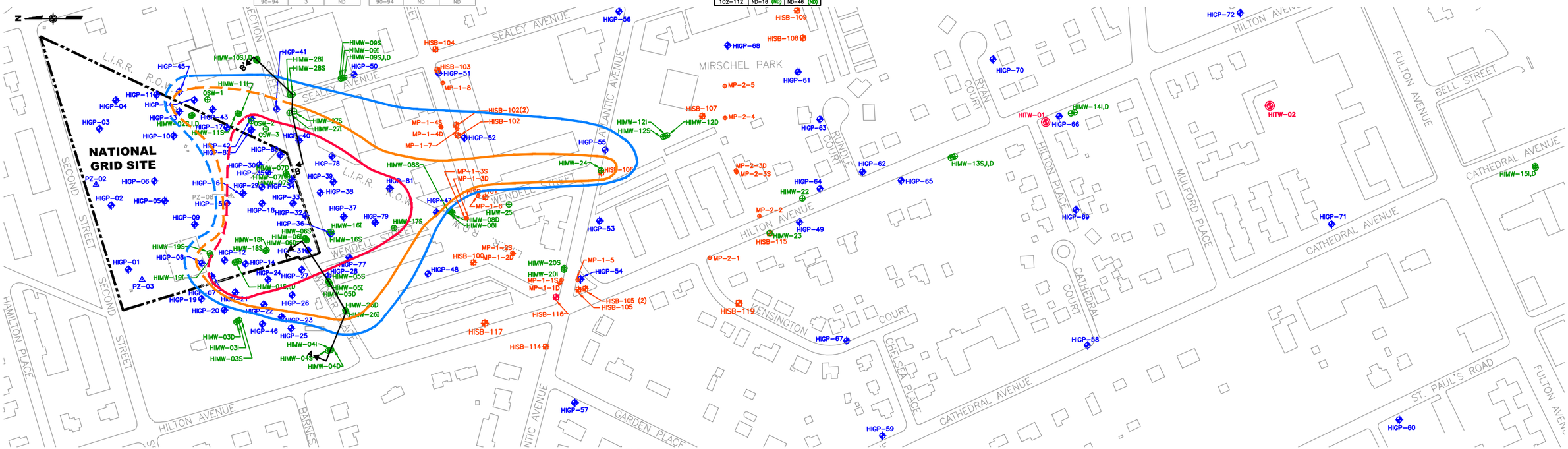
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–8,240 (38)	ND–3,089 (4)
63–73	ND–457 (ND)	ND–251 (ND)
102–112	ND–16 (ND)	ND–46 (ND)

HIMW-015 I,D

DEPTH	TOT. BTEX	TOT. PAHs
80–90	5–111 (17)	ND–273 (35)
141.5–151.5	ND–94 (ND)	ND–1 (ND)

HIMW-028S,I

DEPTH	TOT. BTEX	TOT. PAHs
20–40	131–175 (134)	372–515 (515)
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) → 80–90 | 5–111 (17) | ND–273 (35)

141.5–151.5 | ND–94 (ND) | ND–1 (ND)

← CONCENTRATION UNITS ARE ug/L (DECEMBER 2014 CONCENTRATION)

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

EXISTING HOUSE OR BUILDING

NATIONAL GRID PROPERTY BOUNDARY

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

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

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

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

150' 0 150'

SCALE IN FEET

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\GROUNDWATER MONITORING\FOURTH QUARTER 2014\FIGURE 4.dwg 3/6/15 - 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 - DECEMBER 2014

FIGURE 4

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\DEC 2014\FIGURE 5.dwg 2/13/15 - 1 RAL

N

PZ-02, 47.03

PZ-03, 46.73

NATIONAL GRID
FORMER MGP SITE

HIMW-11S, 46.44

HIMW-03S, 46.36

OSMW-3, 46.21

HIMW-10S, 46.79

OSMW-2, 46.28

HIMW-28S, NM

HIMW-04S, 45.72

HIMW-27S, NM

HIMW-09S, 45.90

HIMW-05S, 45.85

HIMW-8S, 45.53

HIMW-20S, 44.91

HIMW-12S, 44.31

HIMW-13S, 42.37

47

46.5

46

45.5

45

44.5

44

43.5

43

42.5

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

LEGEND:

- MONITORING WELL
- IPR WELL
- PIEZOMETER
- GROUNDWATER FLOW DIRECTION
- 44 — POTENTIOMETRIC SURFACE CONTOUR
- FORMER MGP SITE BOUNDARY
- HIMW-8S, 45.56 — 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 SHALLOW GROUNDWATER
DECEMBER 15, 2014

FIGURE 5

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\DEC 2014\FIGURE 6.dwg 2/13/15 - 3 RAL

N

NATIONAL GRID
FORMER MGP SITE

HIMW-03I, 45.85
HIMW-11I, 46.40
HIMW-27I, NM
HIMW-10I, 46.85
HIMW-28I, NM
HIMW-05I, 45.65
HIMW-04I, 45.60
HIMW-26I, NM
HIMW-09I, 45.84
HIMW-08I, 45.37
HIMW-25, 45.26
HIMW-20I, 44.92
HIMW-24, 44.81
HIMW-12I, 44.45
HIMW-23, 43.84
HIMW-22, 43.67
HIMW-13I, 42.38
HIMW-14I, 42.34
HIMW-15I, 39.44

46
45
44
43
42
41
40

SECOND STREET
HILTON AVENUE
BARNES LANE
WYDLER PLACE
WENDELL STREET
L.I.R.R. R.O.W.
FRANKLIN AVENUE
OLD FRANKLIN STREET
INTERSECTION STREET
SEALEY AVENUE
SMITH STREET
STOWE PLACE
SAMMIS PLACE
MAIN STREET
MILLER PLACE
UNION PLACE
ATLANTIC AVENUE
GARDEN PLACE
KENSINGTON COURT
MIRSCHEL PARK
TERRACE AVENUE
MARGARET COURT
BEDELL STREET
KELLUM PLACE
NORTH FRANKLIN STREET
WEST COLUMBIA
RUNDLE COURT
CHELSEA PLACE
CATHEDRAL AVENUE
RYAN COURT
HILTON PLACE
CATHEDRAL COURT
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, 45.41 LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
- NM NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

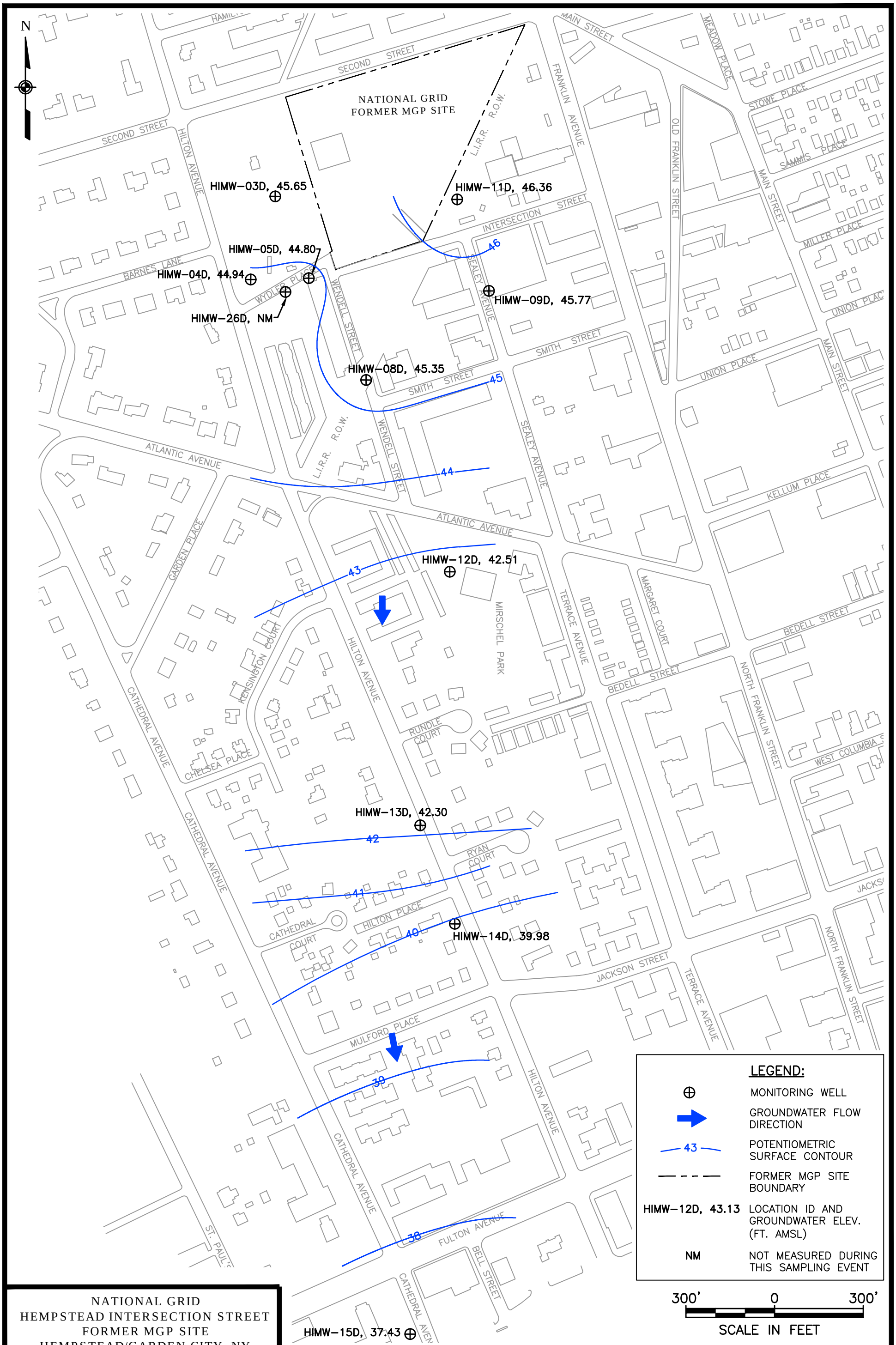
NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

URS Corporation

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR INTERMEDIATE GROUNDWATER
DECEMBER 15, 2014

FIGURE 6

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\DEC 2014\FIGURE 7.dwg 2/13/15 - 2 RAL



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

URS Corporation

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR DEEP GROUNDWATER
DECEMBER 15, 2014

FIGURE 7

J:\Projects\11175065.00000\DB\GIS\ARCMAP\1214 BTEXPAH-NAPL.mxd 2/25/2015

INSET

SEE INSET

N

HIMW-003
HIMW-011
OSMW-2
HIMW-010
OSMW-3
PZ-02
PZ-03
HIMW-027
HIMW-028
HIMW-004
HIMW-005
HIMW-026
HIMW-009
HIMW-021
HIMW-008
HIMW-025
HIMW-020
Atlantic
HIMW-024
HIMW-012
HIMW-023
HIMW-022
Hilton
HIMW-013
Cathedral
HIMW-014
Fulton
HIMW-015

75 0 75 Feet

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	72	2,930		
HIMW-005D	29	865		
HIMW-008S	38	4		
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	6	70		
HIMW-012D	ND	ND		
HIMW-013S	ND	ND		
HIMW-013I	3	11		
HIMW-013D	2	24		
HIMW-014I	3	38		
HIMW-014D	ND	ND		
HIMW-015I	17	35		
HIMW-015D	ND	ND		
HIMW-020S	ND	ND		
HIMW-020I	1	3		
HIMW-021			1.85	
HIMW-022	ND	ND		
HIMW-023	ND	ND		
HIMW-024	621	1,024		
HIMW-025	ND	ND		
HIMW-026I	ND	ND		
HIMW-026D	53	1,662		
HIMW-027S	958	1,807		
HIMW-027I	2	17		
HIMW-028S	134	515		
HIMW-028I	ND	ND		
PZ-02				
PZ-03				
OSMW-02				
OSMW-03				

SOURCE: ESRI World Imagery

Legend

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

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

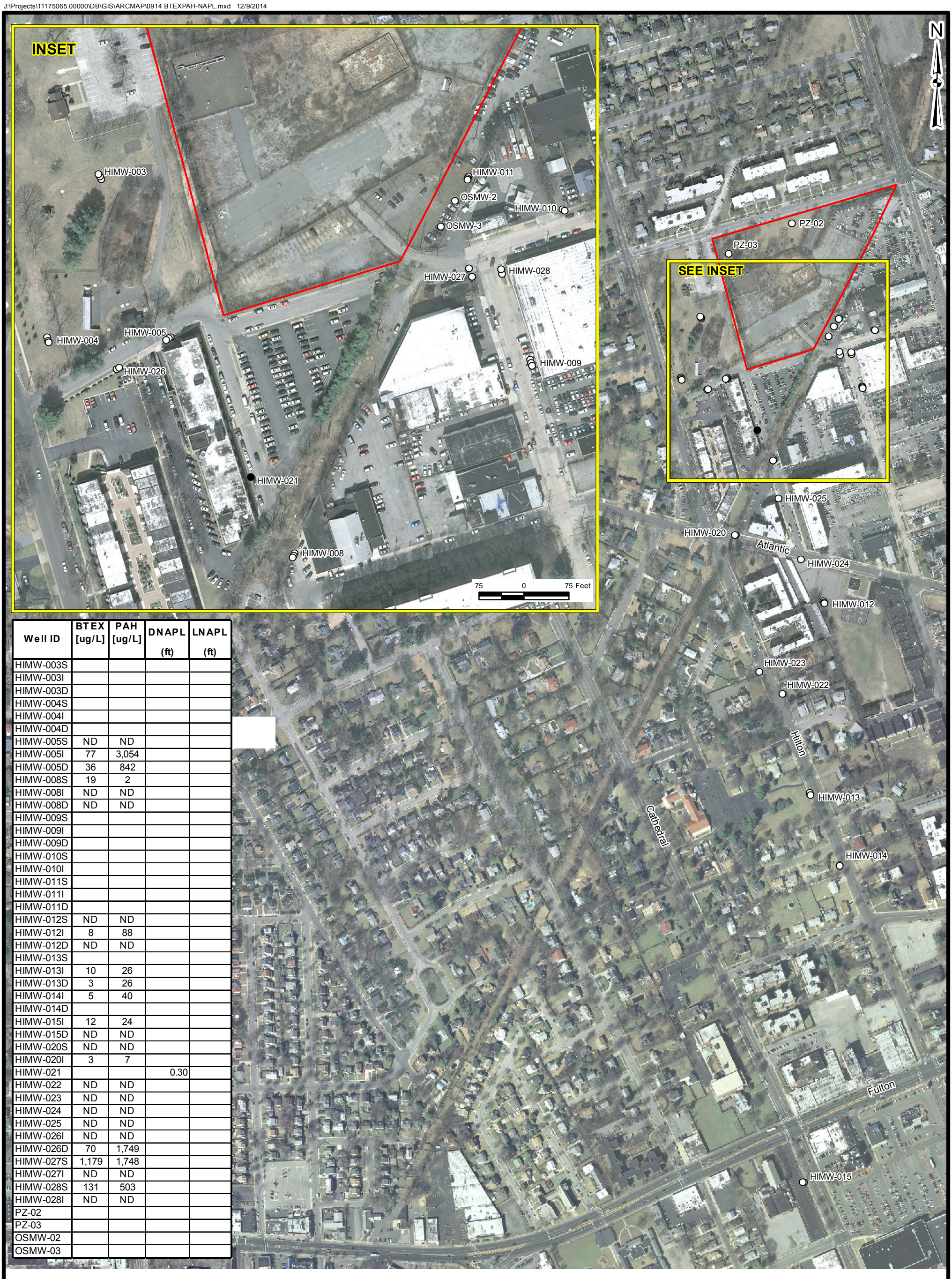
400 0 400 Feet

URS

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

FIGURE 8

J:\Projects\11175065.00000\DB\GIS\ARCMAP\0914 BTEXPAH-NAPL.mxd 12/9/2014



Well ID	BTEX [ug/L]	PAH [ug/L]	DNAPL (ft)	LNAPL (ft)
HIMW-003S				
HIMW-003I				
HIMW-003D				
HIMW-004S				
HIMW-004I				
HIMW-004D				
HIMW-005S	ND	ND		
HIMW-005I	77	3,054		
HIMW-005D	36	842		
HIMW-008S	19	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	8	88		
HIMW-012D	ND	ND		
HIMW-013S				
HIMW-013I	10	26		
HIMW-013D	3	26		
HIMW-014I	5	40		
HIMW-014D				
HIMW-015I	12	24		
HIMW-015D	ND	ND		
HIMW-020S	ND	ND		
HIMW-020I	3	7		
HIMW-021			0.30	
HIMW-022	ND	ND		
HIMW-023	ND	ND		
HIMW-024	ND	ND		
HIMW-025	ND	ND		
HIMW-026I	ND	ND		
HIMW-026D	70	1,749		
HIMW-027S	1,179	1,748		
HIMW-027I	ND	ND		
HIMW-028S	131	503		
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:

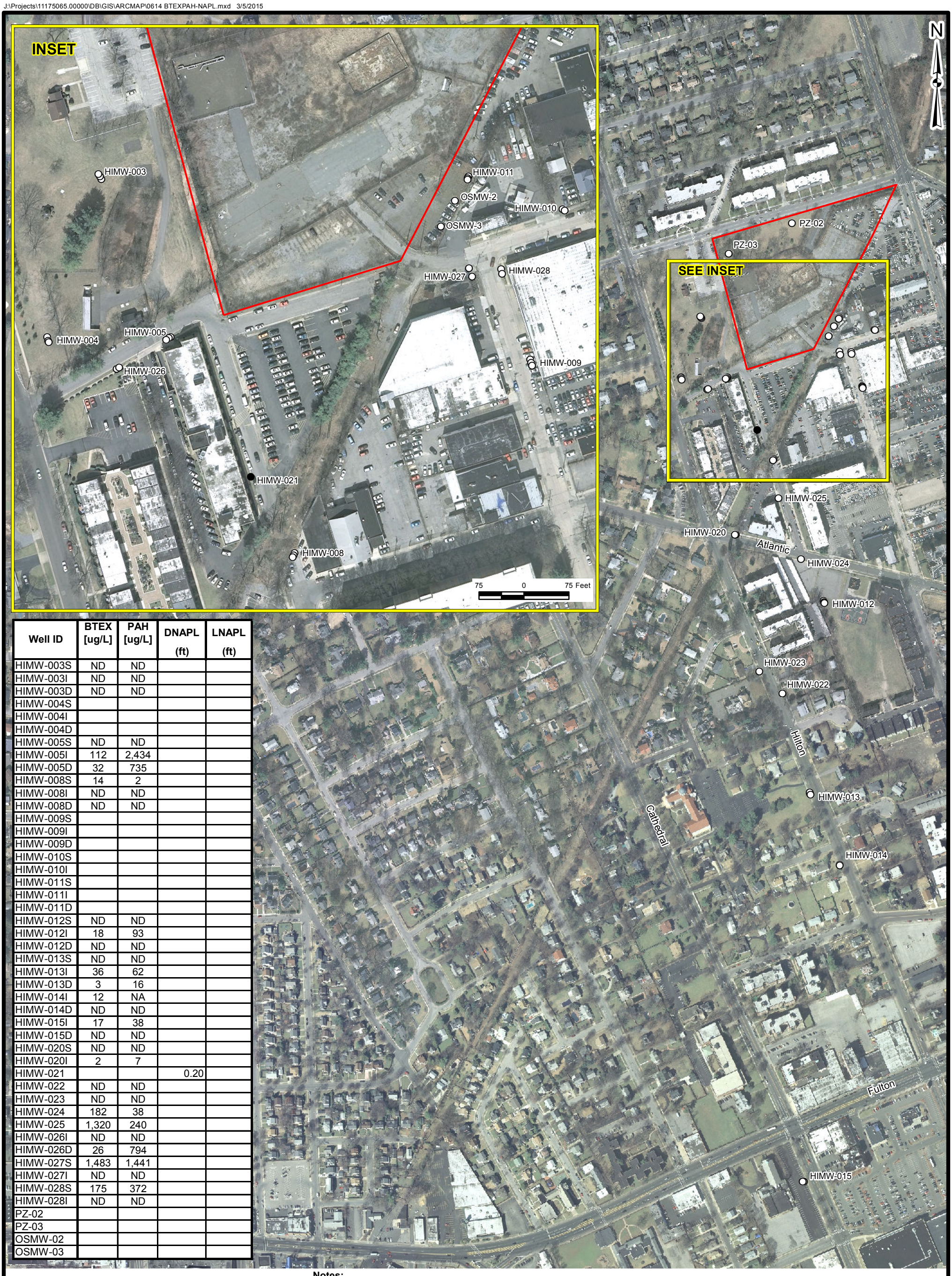
LOCID - Location Identifier
BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes
PAH - Polynuclear Aromatic Hydrocarbons
DNAPL - Dense Non-Aqueous Phase Liquid
LNAPL - Light Non-Aqueous Phase Liquid
µg/L - Micrograms per Liter
ft - Feet of Product Thickness
ND - Non Detect

URS

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

FIGURE 9

J:\Projects\11175065.00000\DB\GIS\ARCMAP\0614 BTEXPAH-NAPL.mxd 3/5/2015



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

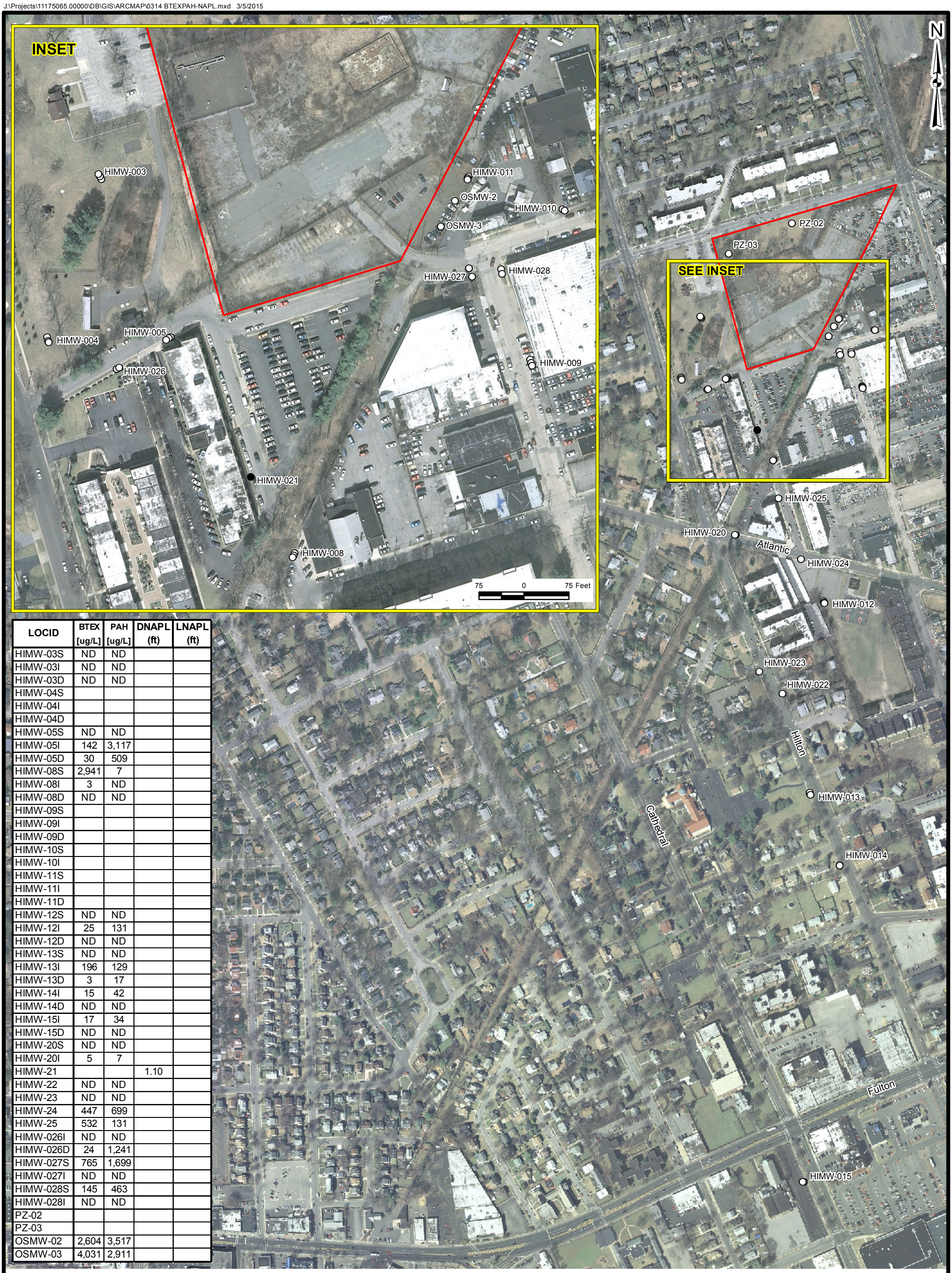
400 0 400 Feet

URS

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

FIGURE 10

J:\Projects\11175065.00000\DB\GIS\ARCMAP\0314 BTEXPAH-NAPL.mxd 3/5/2015



LOCID	BTEX [ug/L]	PAH [ug/L]	DNAPL (ft)	LNAPL (ft)
HIMW-03S	ND	ND		
HIMW-03I	ND	ND		
HIMW-03D	ND	ND		
HIMW-04S				
HIMW-04I				
HIMW-04D				
HIMW-05S	ND	ND		
HIMW-05I	142	3,117		
HIMW-05D	30	509		
HIMW-08S	2,941	7		
HIMW-08I	3	ND		
HIMW-08D	ND	ND		
HIMW-09S				
HIMW-09I				
HIMW-09D				
HIMW-10S				
HIMW-10I				
HIMW-11S				
HIMW-11I				
HIMW-11D				
HIMW-12S	ND	ND		
HIMW-12I	25	131		
HIMW-12D	ND	ND		
HIMW-13S	ND	ND		
HIMW-13I	196	129		
HIMW-13D	3	17		
HIMW-14I	15	42		
HIMW-14D	ND	ND		
HIMW-15I	17	34		
HIMW-15D	ND	ND		
HIMW-20S	ND	ND		
HIMW-20I	5	7		
HIMW-21			1.10	
HIMW-22	ND	ND		
HIMW-23	ND	ND		
HIMW-24	447	699		
HIMW-25	532	131		
HIMW-026I	ND	ND		
HIMW-026D	24	1,241		
HIMW-027S	765	1,699		
HIMW-027I	ND	ND		
HIMW-028S	145	463		
HIMW-028I	ND	ND		
PZ-02				
PZ-03				
OSMW-02	2,604	3,517		
OSMW-03	4,031	2,911		

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

URS

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

FIGURE 11

APPENDIX A

DATA USABILITY SUMMARY REPORT

APPENDIX A
DATA USABILITY SUMMARY REPORT
FOURTH 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

FEBRUARY 2015

TABLE OF CONTENTS

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, two (2) field duplicates, two (2) matrix spike/matrix spike duplicate (MS/MSD) pairs, one (1) field blank, and four (4) trip blanks collected by URS personnel on December 16-30, 2014. Six (6) of the groundwater samples (i.e., HIMW-26I, -26D, -27S, -27I, -28S, and -28I) were collected as part of the oxygen treatment system design evaluation, while the remaining twenty-five (25) of groundwater samples were collected as part of the 2014 4th quarter groundwater monitoring event at the Hempstead Intersection Street Former MGP Site.

II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION

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

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

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

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

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

The limited data validation included a review of completeness of all required deliverables; holding times; quality control (QC) results (instrument tunes, calibration standards, blanks, matrix spike recoveries,

field duplicate analyses, laboratory control sample (LCS) recoveries, and surrogate/internal standard recoveries) to determine if the data are within the protocol-required QC limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers.

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

III. DATA DELIVERABLE COMPLETENESS

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

IV. SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody (COC). Note, both 1-liter amber containers for sample HIMW-20S (collected on 12/19/14) froze/broke during storage at the laboratory, thus could not be used for PAH analysis. Additional sample volume for this groundwater sample was collected on 12/29/14 and submitted to the laboratory for PAH analysis.

All samples were analyzed within the required holding times, expect for the following instance. The secondary dilution of sample HIMW-24 for benzene was performed eleven (11) days outside holding time. As a result, the benzene result for this sample was qualified as estimated 'J'. Documentation supporting the qualification of data (i.e., analytical run log) is presented in Attachment B.

V. NON-CONFORMANCES

Except for the holding time issue referenced above, there were no other non-conformances noted during the limited data validation.

VI. SAMPLE RESULTS AND REPORTING

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

For results <10 µg/L, the number of significant figures reported by the laboratory on the Form 1s is inconsistent with the electronic data deliverable (EDD). The laboratory reports results to one significant figure on the Form 1s (e.g., HIMW-13D: benzene 2 µg/L), while they report results to two significant figures on the EDD (e.g., HIMW-13D: benzene 2.3 µg/L). This reporting inconsistency does not impact the usability of the reported data.

Field duplicates were collected from monitoring well locations HIMW-08S and HIMW-14I, 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' during the data validation, which should be considered conditionally usable. URS does not recommend the re-collection of any samples at this time.

Prepared By: _____ **Date:** _____
Peter R. Fairbanks, Senior Chemist

Reviewed By: _____ **Date:** _____
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-05D	HIMW-05I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/29/14	12/29/14	12/29/14	12/17/14	12/17/14
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.2
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	1.0 U	1.0 U	1.0 U	29	71
Total BTEX	UG/L	100	ND	ND	ND	29	72.2
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	73	450 D
Acenaphthene	UG/L	-	10 U	10 U	10 U	2.2 J	12
Acenaphthylene	UG/L	-	10 U	10 U	10 U	35	220 JD
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	2.1 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	4.6 J	29
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	750 D	2,200 D
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	17
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	864.8	2,930.1

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit.

Made By_PRF 02/19/15_; Checked By_GEK 02/20/15_

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-008S
Sample ID			HIMW-05S	HIMW-08D	HIMW-08I	DUP121814	HIMW-08S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/17/14	12/18/14	12/18/14	12/18/14	12/18/14
Parameter	**Units**	**Criteria***				Field Duplicate (1-1)	
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	39	38
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total BTEX	UG/L	100	ND	ND	ND	39	38
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	1.8 J	2.7 J
Anthracene	UG/L	-	10 U	10 U	10 U	1.1 J	1.3 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	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	2.9	4

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit.

Made By_PRF 02/19/15_; Checked By_GEK 02/20/15_

Detection Limits shown are PQL

J:\Projects\11175065.00000\DB\Program\EDMS.md
Printed: 2/23/2015 8:52:29 AM
[LOGDATE] >= #12/16/2014# AND [MATRIX] = 'WG

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

Location ID			HIMW-012D	HIMW-012I	HIMW-012S	HIMW-013D	HIMW-013I
Sample ID			HIMW-12D	HIMW-12I	HIMW-12S	HIMW-13D	HIMW-13I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/30/14	12/30/14	12/30/14	12/17/14	12/16/14
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	6.1	1.0 U	2.3	3.2
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total BTEX	UG/L	100	ND	6.1	ND	2.3	3.2
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	20	10 U	8.5 J	10 U
Acenaphthylene	UG/L	-	10 U	22	10 U	15	5.4 J
Anthracene	UG/L	-	10 U	1.4 J	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	17	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	10 U	10 U	6.0 J
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	70.4	ND	23.5	11.4

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit.

Made By_PRF 02/19/15_; Checked By_GEK 02/20/15_

Detection Limits shown are PQL

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

Location ID			HIMW-013S	HIMW-014D	HIMW-014I	HIMW-014I	HIMW-015D
Sample ID			HIMW-13S	HIMW-14D	DUP121614	HIMW-14I	HIMW-15D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/16/14	12/16/14	12/16/14	12/16/14	12/19/14
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	2.5	2.6	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total BTEX	UG/L	100	ND	ND	2.5	2.6	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	11	10 U
Acenaphthylene	UG/L	-	10 U	10 U	10	11	10 U
Anthracene	UG/L	-	10 U	10 U	1.1 J	5.6 J	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	5.0 J	5.2 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	-	10 U	10 U	5.6 J	5.6 J	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	31.7	38.4	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

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

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit.

Made By_PRF 02/19/15_; Checked By_GEK 02/20/15_

Detection Limits shown are PQL

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

Location ID			HIMW-015I	HIMW-020I	HIMW-020S	HIMW-020S	HIMW-022
Sample ID			HIMW-15I	HIMW-20I	HIMW-20S	HIMW-020S	HIMW-22
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/19/14	12/19/14	12/19/14	12/29/14	12/23/14
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	15	1.0 U	1.0 U	NA	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	NA	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	NA	1.0 U
Xylene (total)	UG/L	-	1.9	1.2	1.0 U	NA	1.0 U
Total BTEX	UG/L	100	16.9	1.2	ND	NA	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	NA	10 U	10 U
Acenaphthene	UG/L	-	9.4 J	10 U	NA	10 U	10 U
Acenaphthylene	UG/L	-	23	3.2 J	NA	10 U	10 U
Anthracene	UG/L	-	10 U	10 U	NA	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	NA	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	NA	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	NA	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	NA	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	NA	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	NA	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	NA	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	NA	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	NA	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	NA	10 U	10 U
Naphthalene	UG/L	-	10 U	10 U	NA	10 U	10 U
Phenanthrene	UG/L	-	2.9 J	10 U	NA	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	NA	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	35.3	3.2	NA	ND	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit.

Made By_PRF 02/19/15_; Checked By_GEK 02/20/15_

Detection Limits shown are PQL

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

Location ID			HIMW-023	HIMW-024	HIMW-025	HIMW-026D	HIMW-026I
Sample ID			HIMW-23	HIMW-24	HIMW-25	HIMW-26D	HIMW-26I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/30/14	12/17/14	12/23/14	12/22/14	12/22/14
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	230 DJ	1.0 U	1.0 U	1.0 U
Ethylbenzene	UG/L	-	1.0 U	46	1.0 U	1.1	1.0 U
Toluene	UG/L	-	1.0 U	45	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	1.0 U	300	1.0 U	52	1.0 U
Total BTEX	UG/L	100	ND	621	ND	53.1	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	29	10 U	280 D	10 U
Acenaphthene	UG/L	-	10 U	2.3 J	10 U	7.6 J	10 U
Acenaphthylene	UG/L	-	10 U	21	10 U	130 JD	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	1.2 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	-	10 U	10 U	10 U	24	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	970 D	10 U	1,200 D	10 U
Phenanthrene	UG/L	-	10 U	1.8 J	10 U	19	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	1,024.1	ND	1,661.8	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

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

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit.

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

Location ID			HIMW-027I	HIMW-027S	HIMW-028I	HIMW-028S
Sample ID			HIMW-27I	HIMW-27S	HIMW-28I	HIMW-28S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-
Date Sampled			12/22/14	12/22/14	12/23/14	12/23/14
Parameter	**Units**	**Criteria***				
Volatile Organic Compounds						
Benzene	UG/L	-	1.0 U	4.8	1.0 U	22
Ethylbenzene	UG/L	-	1.0 U	400 D	1.0 U	80
Toluene	UG/L	-	1.0 U	43	1.0 U	1.8
Xylene (total)	UG/L	-	2.0	510	1.0 U	30
Total BTEX	UG/L	100	2	957.8	ND	133.8
Semivolatile Organic Compounds						
2-Methylnaphthalene	UG/L	-	2.8 J	400 D	10 U	43
Acenaphthene	UG/L	-	1.8 J	93 JD	10 U	30
Acenaphthylene	UG/L	-	3.2 J	3.2 J	10 U	6.0 J
Anthracene	UG/L	-	10 U	11	10 U	5.8 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	3.3 J	10 U	10 U
Fluorene	UG/L	-	2.3 J	41	10 U	27
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	5.5 J	1,200 D	10 U	370 D
Phenanthrene	UG/L	-	1.3 J	52	10 U	33
Pyrene	UG/L	-	10 U	3.9 J	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	16.9	1,807.4	ND	514.8

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit.

Made By_PRF 02/19/15_; Checked By_GEK 02/20/15_

Detection Limits shown are PQL

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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			TB-121714	TB121914	TB-122314	FB-123014	TB-123014
Matrix			Water Quality	Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/17/14	12/19/14	12/22/14	12/30/14	12/30/14
Parameter	**Units**	**Criteria***	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Field Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total BTEX	UG/L	100	ND	ND	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	NA	NA	NA	10 U	NA
Acenaphthene	UG/L	-	NA	NA	NA	10 U	NA
Acenaphthylene	UG/L	-	NA	NA	NA	10 U	NA
Anthracene	UG/L	-	NA	NA	NA	10 U	NA
Benzo(a)anthracene	UG/L	-	NA	NA	NA	10 U	NA
Benzo(a)pyrene	UG/L	-	NA	NA	NA	10 U	NA
Benzo(b)fluoranthene	UG/L	-	NA	NA	NA	10 U	NA
Benzo(g,h,i)perylene	UG/L	-	NA	NA	NA	10 U	NA
Benzo(k)fluoranthene	UG/L	-	NA	NA	NA	10 U	NA
Chrysene	UG/L	-	NA	NA	NA	10 U	NA
Dibenz(a,h)anthracene	UG/L	-	NA	NA	NA	10 U	NA
Fluoranthene	UG/L	-	NA	NA	NA	10 U	NA
Fluorene	UG/L	-	NA	NA	NA	10 U	NA
Indeno(1,2,3-cd)pyrene	UG/L	-	NA	NA	NA	10 U	NA
Naphthalene	UG/L	-	NA	NA	NA	10 U	NA
Phenanthrene	UG/L	-	NA	NA	NA	10 U	NA
Pyrene	UG/L	-	NA	NA	NA	10 U	NA
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	NA	NA	NA	ND	NA

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

U - Not detected above the reported quantitation limit.

Made By_PRF 02/19/15_; Checked By_GEK 02/20/15_

Detection Limits shown are PQL

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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-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-003B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A84128.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: not dec. Date Analyzed: 12/31/14

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) 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-03S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-003A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70759.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: Decanted: (Y/N) N Date Extracted: 01/02/15

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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-03I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-002B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A84127.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: not dec. Date Analyzed: 12/31/14

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) 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-03I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-002A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70758.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: Decanted: (Y/N) N Date Extracted: 01/02/15

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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-03D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-001B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A84126.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: not dec. Date Analyzed: 12/31/14

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) 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

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-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-001A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70757.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: Decanted: (Y/N) N Date Extracted: 01/02/15

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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-05S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-009B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83865.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/20/14

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) 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

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-05S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-009A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70615.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/24/14

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-05I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-008B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83864.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/20/14

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) µg/L	Q
71-43-2	Benzene	1	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	71	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-008A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70614.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/24/14

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	2200 ~~1000~~	~~E~~ D
91-57-6	2-Methylnaphthalene	450 ~~340~~	~~E~~ D
208-96-8	Acenaphthylene	220 ~~190~~	~~E~~ DJ
83-32-9	Acenaphthene	12	
86-73-7	Fluorene	29	
85-01-8	Phenanthrene	17	
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/11/15

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05IDL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-008ADL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26368.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/08/15

Injection Volume: 2 (µL) Dilution Factor: 40.00

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	2200	D
91-57-6	2-Methylnaphthalene	450	D
208-96-8	Acenaphthylene	220	DJ
83-32-9	Acenaphthene	400	U
86-73-7	Fluorene	400	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

(1) Cannot be separated from Diphenylamine

2/11/15

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-007B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83863.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/20/14

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) 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)	29	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-007A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70613.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/24/14

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	750 ~~680~~	~~E~~ D
91-57-6	2-Methylnaphthalene	73	
208-96-8	Acenaphthylene	35	
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

2/11/15
AZ

1C

EPA SAMPLE NO.

HIMW-05DDL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-007ADL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26346.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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	750	D
91-57-6	2-Methylnaphthalene	73	DJ
208-96-8	Acenaphthylene	34	DJ
83-32-9	Acenaphthene	100	U
86-73-7	Fluorene	100	U
85-01-8	Phenanthrene	100	U
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

2/4/15

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-002B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A83935.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: not dec. Date Analyzed: 12/22/14

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	38	
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.

DUP121814 (HIMW-085)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-003B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A83936.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: not dec. Date Analyzed: 12/22/14

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	39	
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-08S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-002A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26324.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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	3	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
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

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP121814 (HIMW-085)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-003A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26325.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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	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~~ 1	~~U~~ 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

2/17/15 AR

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-001B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A83934.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: not dec. Date Analyzed: 12/22/14

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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-001A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26323.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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-08D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-011B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83867.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/20/14

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) 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-08D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-011A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70617.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/24/14

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-12S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-007B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A84132.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: not dec. Date Analyzed: 12/31/14

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) 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-12S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-007A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26357.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: Decanted: (Y/N) N Date Extracted: 01/05/15

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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-12I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-006B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A84131.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: not dec. Date Analyzed: 12/31/14

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) µg/L	Q
71-43-2	Benzene	6	
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-12I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-006A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26356.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: Decanted: (Y/N) N Date Extracted: 01/05/15

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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	22	
83-32-9	Acenaphthene	20	
86-73-7	Fluorene	17	
85-01-8	Phenanthrene	10	
120-12-7	Anthracene	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-12D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-005B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A84130.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: not dec. Date Analyzed: 12/31/14

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) 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-12D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-005A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26355.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: Decanted: (Y/N) N Date Extracted: 01/05/15

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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-13S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-004B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83861.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/20/14

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) 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-13S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-004A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70608.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/24/14

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-13I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-003B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83860.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/20/14

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) µg/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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-003A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70607.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/24/14

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	5	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	6	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

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-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-006B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83930.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/22/14

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) µg/L	Q
71-43-2	Benzene	2	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-006A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70610.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/24/14

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	15	
83-32-9	Acenaphthene	9	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-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-001B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83858.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/20/14

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) µg/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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP121614 (HIMW-14I)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-005B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83862.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/20/14

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) µg/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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-14I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-001A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70605.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/24/14

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	11	
83-32-9	Acenaphthene	11	
86-73-7	Fluorene	5	J
85-01-8	Phenanthrene	6	J
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

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP121614 (HINW-14I)

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-005A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70609.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/24/14

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	
83-32-9	Acenaphthene	10	
86-73-7	Fluorene	5	J
85-01-8	Phenanthrene	6	J
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-14D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-002B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83859.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/20/14

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) 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-14D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-002A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70606.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/24/14

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-15I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-006B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A83938.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: not dec. Date Analyzed: 12/22/14

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	15	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	2	

1C

SEMIVOLATILE 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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-006A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26327.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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	23	
83-32-9	Acenaphthene	9	J
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	3	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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-004B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A83937.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: not dec. Date Analyzed: 12/22/14

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-15D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-004A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26326.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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-20S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-008B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A83940.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: not dec. Date Analyzed: 12/22/14

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-20S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412J63-001A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70756.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: Decanted: (Y/N) N Date Extracted: 01/02/15

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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-20I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-007B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A83939.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: not dec. Date Analyzed: 12/22/14

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	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-007A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26328.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/22/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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	3	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-22

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-008B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A84123.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: not dec. Date Analyzed: 12/31/14

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-22

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-008A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26352.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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-23

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-004B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A84129.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: not dec. Date Analyzed: 12/31/14

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) 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-23

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-004A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70760.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: Decanted: (Y/N) N Date Extracted: 01/02/15

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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-24

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-010B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83866.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/20/14

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) µg/L	Q
71-43-2	Benzene	230 ~~240~~	EDJ
108-88-3	Toluene	45	
100-41-4	Ethylbenzene	46	
1330-20-7	Xylene (total)	300	

2/3/15

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-24DL

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-010BDL

Sample wt/vol: 5 (g/mL) mL Lab File ID: A84299.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 01/12/15

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) µg/L	Q
71-43-2	Benzene	230	D J
108-88-3	Toluene	33	D
100-41-4	Ethylbenzene	32	D
1330-20-7	Xylene (total)	230	D

2/3/15

1C

SEMIVOLATILE 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-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-010A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: N70616.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 12/24/14

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	970 ~~760~~	~~E~~ D
91-57-6	2-Methylnaphthalene	29	
208-96-8	Acenaphthylene	21	
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	2	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

2/11/15

2

1C

EPA SAMPLE NO.

HIMW-24DL

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-010ADL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26348.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/19/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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	970	D
91-57-6	2-Methylnaphthalene	35	DJ
208-96-8	Acenaphthylene	24	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

2/11/15

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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-007B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A84122.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: not dec. Date Analyzed: 12/31/14

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-25

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-007A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26340.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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-26I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-002B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A84116.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: not dec. Date Analyzed: 12/31/14

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-26I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-002A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26333.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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-26D

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-001B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A84115.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: not dec. Date Analyzed: 12/31/14

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	
1330-20-7	Xylene (total)	52	

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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-001A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26332.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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	1200 ~~860~~	~~E~~ D
91-57-6	2-Methylnaphthalene	280 ~~240~~	~~E~~ D
208-96-8	Acenaphthylene	130 ~~120~~	~~E~~ DJ
83-32-9	Acenaphthene	8	J
86-73-7	Fluorene	24	
85-01-8	Phenanthrene	19	
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

2/17/15
AF

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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-001ADL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26349.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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	280	D
208-96-8	Acenaphthylene	130	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

2/17/15

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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-004B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A84114.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: not dec. Date Analyzed: 12/31/14

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	43	
100-41-4	Ethylbenzene	400 ~~440~~	~~E~~ D
1330-20-7	Xylene (total)	510	

2/12/15

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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-004BDL

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A84133.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: not dec. Date Analyzed: 12/31/14

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 5.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	35	D
100-41-4	Ethylbenzene	400	D
1330-20-7	Xylene (total)	430	D

2/12/15

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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-004A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26335.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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	1200 ~~840~~	~~E~~ D
91-57-6	2-Methylnaphthalene	400 ~~260~~	~~E~~ D
208-96-8	Acenaphthylene	3	J
83-32-9	Acenaphthene	93 ~~86~~	~~E~~ DJ
86-73-7	Fluorene	41	
85-01-8	Phenanthrene	52	
120-12-7	Anthracene	11	
206-44-0	Fluoranthene	3	J
129-00-0	Pyrene	4	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

2/17/15

1C

SEMIVOLATILE 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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-004ADL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26350.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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	400	D
208-96-8	Acenaphthylene	200	U
83-32-9	Acenaphthene	93	DJ
86-73-7	Fluorene	45	DJ
85-01-8	Phenanthrene	59	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

2/12/15
2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-27I

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-003B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A84117.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: not dec. Date Analyzed: 12/31/14

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.

HIMW-27I

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-003A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26334.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/06/15

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	5	J
91-57-6	2-Methylnaphthalene	3	J
208-96-8	Acenaphthylene	3	J
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	2	J
85-01-8	Phenanthrene	1	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-28S

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-006B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A84121.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: not dec. Date Analyzed: 12/31/14

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	2	
100-41-4	Ethylbenzene	80	
1330-20-7	Xylene (total)	30	

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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-006A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26339.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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	370 ~~340~~	~~E~~ D
91-57-6	2-Methylnaphthalene	43	
208-96-8	Acenaphthylene	6	J
83-32-9	Acenaphthene	30	
86-73-7	Fluorene	27	
85-01-8	Phenanthrene	33	
120-12-7	Anthracene	6	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

2/17/15

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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-006ADL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26351.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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	370	D
91-57-6	2-Methylnaphthalene	41	DJ
208-96-8	Acenaphthylene	100	U
83-32-9	Acenaphthene	29	DJ
86-73-7	Fluorene	27	DJ
85-01-8	Phenanthrene	33	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

2/17/15

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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-005B

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A84118.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: not dec. Date Analyzed: 12/31/14

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-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-005A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26336.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: Decanted: (Y/N) N Date Extracted: 12/26/14

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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.

TB-121714

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412E17-012A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A83868.D

Level: (low/med) LOW Date Received: 12/18/14

% Moisture: not dec. Date Analyzed: 12/20/14

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) 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.

FB-123014

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-008B

Sample wt/vol: 5 (g/mL) mL Lab File ID: A84125.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: not dec. Date Analyzed: 12/31/14

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) 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

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FB-123014

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-008A

Sample wt/vol: 1000 (g/mL) mL Lab File ID: R26358.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: Decanted: (Y/N) N Date Extracted: 01/05/15

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 01/07/15

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.

TB-123014

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS190

Matrix: (soil/water) WATER Lab Sample ID: 1412J64-009A

Sample wt/vol: 5 (g/mL) mL Lab File ID: A84124.D

Level: (low/med) LOW Date Received: 12/30/14

% Moisture: not dec. Date Analyzed: 12/31/14

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) 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.

TB121914

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412F20-005A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A83933.D

Level: (low/med) LOW Date Received: 12/19/14

% Moisture: not dec. Date Analyzed: 12/22/14

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.

TB-122314

Lab Name: PACE ANALYTICAL Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS191

Matrix: (soil/water) WATER Lab Sample ID: 1412G87-009A

Sample wt/vol: 5 (g/mL) ML Lab File ID: 4\A84113.D

Level: (low/med) LOW Date Received: 12/23/14

% Moisture: not dec. Date Analyzed: 12/31/14

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

ATTACHMENT B

SUPPORT DOCUMENTATION

Pace Long Island

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLE(S) RECEIVED: 12/18/14 & 12/30/14
SDG #: KEY-URS190

For Sample(s):

HIMW-14I	HIMW-05D	HIMW-03D	HIMW-12S
HIMW-14D	HIMW-05I	HIMW-031	FB-123014
HIMW-13I	HIMW-05S	HIMW-03S	TB-123014
HIMW-13S	HIMW-24	HIMW-23	
DUP121614	HIMW-08D	HIMW-12D	
HIMW-13D	TB-121714	HIMW-12I	

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, and no problems were encountered with sample analysis. The following should be noted:

Sample HIMW-13D was submitted for matrix spike/ matrix spike duplicate (MS/MSD) analysis. Five out of eight recoveries were outside of QC limits. All RPD'S were met.. Lab fortified blanks were analyzed, and indicate good method efficiency.

Sample HIMW-24 was re-analyzed at a dilution due to concentrations of targeted analyte(s) above the calibration range. The dilution was performed outside of holding times. Both sets of data are submitted.

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: January 16, 2015

****
* *
* *
****
Joann Slavin
General Manager

Pace Long Island

GC/MS VOLATILE ANALYSIS

	Std. Log Pg.	Prep Date	Sol'n ID	Lot #	
CAL	99/100	12-18/12-23	Restek CAL kit	A0104564 / A0101160 / A0105193	
ICV					
MS					
QC CHECK					
SURR.	6	01-09-15	PHARM IN/SURR	B	Balance ID: NA
I.S.					pH paper lot #: HC421673
BFB					Cl strip lot #: NA

INSTRUMENT: HP5971
SCAN: VOA
COLUMN: RTX-624

ANALYST'S SIGNATURE	DATE	RUN #	LAB SAMPLE ID	CLIENT SAMPLE ID	CONTAINER #	INJ TIME	VOL WT	HEAT. PURG. Y/N	METHOD 1624/1666 8260C	pH	Cl	QDEL	IMPORT	TEST CODE	SDG	COMMENTS
DanaSoato	01-09-15	A84281	1501357-001A		1	1452	5mL	Y	PRM1223	12	NA	✓	✓	1624/1666-W		@1:50
		82	1501358-001A			1516						✓	✓			@1:50
		83	1501359-001A			1540						✓	✓			@1:50
		84	1501361-001A			1604						✓	✓			@1:50
		85	1501378-001A			1630						✓	✓			@1:50
		86	1501380-001A			1654						✓	✓			@1:50
		87	1501382-001A			1720						✓	✓			@1:50
		88	1501353-001A	DUP		1744						✓	✓			@1:50
		89	1501358-001A	MS		1809						✓	✓			@1:50
		90	1501486-001A			1833						✓	✓			@1:50
		91	1501487-001A			1859						✓	✓			@1:50
		92	1501378-001A			1924						✓	✓			@1:100
DanaSoato	01-12-15	A84293	BFB 50ng			0951	5mL	N	R7W1221	//	//	/	/			BFB FAILED
		94	BFB 50ng			1015				//	//		✓			
		95	VSTD050			1040				NA	NA	✓	✓			
		96	VBLK011215			1107						✓	✓			
		97	LFB011215			1127						✓	✓			
		98	1501441-001B		1	1202				12	NA	✓	✓	8260W.TCL		
		99	1412E17-010B	HMW-24	2	1257						✓	✓		KEY-URS190	@1:2 OUT OF HOLD

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: 12/18/14 & 12/30/14
SDG #: KEY-URS190

For Sample(s):

HIMW-14I	HIMW-05D	HIMW-03D	HIMW-12S
HIMW-14D	HIMW-05I	HIMW-03I	FB-123014
HIMW-13I	HIMW-05S	HIMW-03S	
HIMW-13S	HIMW-24	HIMW-23	
DUP121614	HIMW-08D	HIMW-12D	
HIMW-13D	HIMW-03D	HIMW-12I	

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, and no problems were encountered with sample analysis. The following should be noted:

Sample HIMW-13D was submitted for matrix spike/ matrix spike duplicate (MS/MSD) analysis. All recoveries and RPDs met Q. C. limits. Lab fortified blanks were analyzed, and indicate good method efficiency.

Samples HIMW-05D, HIMW-05I, and HIMW-24 were re-analyzed at a dilution due to concentration level(s) of targeted analyte(s) above the calibration range. Both sets of data are submitted.

The recovery for the surrogate 2 fluorobiphenyl was above the Q.C. limit in the method blank.

Method blank 47682 had a low internal standard area count for d12 perylene. No positive targeted analytes were present in the blank.

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: January 20, 2014

****
* *
* *
****

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: 12/19/14 12/23/14 & 12/30/14
SDG #: KEY-URS191

For Sample(s):

HIMW-08I	HIMW-20I	HIMW-27S	~~HIMW-20S~~
HIMW-08S	HIMW-20S	HIMW-28I	
DUP121814	HIMW-26D	HIMW-28S	
HIMW-15D	HIMW-26I	HIMW-25	
HIMW-15I	HIMW-27I	HIMW-22	

2/11/15 AC

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, and no problems were encountered with sample analysis. The following should be noted:

Sample HIMW-28I was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPD's were met. The solution used for spiking the MS/MSD only contained pyrene and acenopthlene. Lab fortified blanks were analyzed and indicate good method efficiency.

Samples HIMW-26D, HIMW-27S, and HIMW-28S were reanlyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

The surrogate standard 4-terphenyl-d14 had a low recovery in sample DUP121814.

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: January 20, 2014

****
* *
* *
****

Joann M. Slavin
General Manager

Pace Long Island

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLE(S) RECEIVED: 12/19/14 & 12/23/14
SDG #: KEY-URS191

For Sample(s):

HIMW-08I	HIMW-20S	HIMW-28S
HIMW-08S	HIMW-26D	HIMW-25
DUP121814	HIMW-26I	HIMW-22
TB121914	HIMW-27I	TB122314
HIMW-15I	HIMW-27S	HIMW-15D
HIMW-20I	HIMW-28I	

2/11/15 AF

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, and no problems were encountered with sample analysis. The following should be noted:

Sample HIMW-28I was submitted for matrix spike/ matrix spike duplicate (MS/MSD) analysis. All recoveries and RPDs met Q. C. limits except for a high RPD for total xylenes and ethyl benzene. Lab fortified blanks were analyzed, and recoveries indicate good method efficiency.

Sample HIMW-27S was re-analyzed at a dilution due to concentrations of targeted analyte(s) above the calibration range. Both sets of data are submitted.

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: January 16, 2015

****
* *
* *
****
Joann Slavin
General Manager

H 2 M labs

575 Broad Hollow Rd., Melville, NY 11747
(631) 694-3040 Fax: (631) 420-8436
www.h2mlabs.com

04610

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS Corporation | **H2M SDG NO:** REY-URS190

PROJECT NAME/NUMBER: National Grid Hempstead
11176098.00004

SAMPLERS: (Signature)/Client: Mira Abdelaziz, John Crespo

DELIVERABLES:

TURNAROUND TIME: Standard

NOTES:

Project Contact: Peter Fairbank

Phone Number: 716-856-5636

PIS/Quote #

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	Sample Container Description: 40mL clear/HCl	Sample Container Description: 1L-amber	ANALYSIS REQUESTED: BTEX	ANALYSIS REQUESTED: BAH	LAB I.D. NO.	REMARKS:
12-16-14	1100	GW	HIMW-14I	4		X	X		1412E17-001	
12-16-14	0935	GW	HIMW-14D	4		X	X		2	
12-16-14	1400	GW	HIMW-13I	4		X	X		3	
12-16-14	1250	GW	HIMW-13S	4		X	X		4	
12-16-14	—	GW	DUP 121614	4		X	X		5	
12-17-14	0915	GW	HIMW-13D	4		X	X		6	
12-17-14	0920	GW	HIMW-13D (MS/MSD)	8		X	X		7&8	
12-17-14	1140	GW	HIMW-05D	4		X	X		9	
12-17-14	1255	GW	HIMW-05I	4		X	X		10	
12-17-14	1350	GW	HIMW-05S	4		X	X		11	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
John Crespo	12/18/14	10:55	George A. Cappellano	12/18/14	10:55
George A. Cappellano	12/18/14	14:20		12/18/14	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

24, 3.6

WHITE COPY - ORIGINAL | YELLOW COPY - CLIENT | PINK COPY - LABORATORY

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www.h2mlabs.com

02134

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS Corporation

H2M SDG NO: KEY-URS120

PROJECT NAME/NUMBER
National GRid Hempstead
11176098.00004

SAMPLERS: (Signature)/Client
Mira Abdulla
JOHN CRESPO

DELIVERABLES:

TURNAROUND TIME: Standard

NOTES:

Project Contact: Peter Fairbank

Phone Number: 716-856-5636

PIS/Quote #

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	Sample Container Description: 40ml Vials, 2x1L Amber Jars	ANALYSIS REQUESTED: BTEX	ANALYSIS REQUESTED: PAH	LAB I.D. NO.	REMARKS:
12-17-14	—	W	TB121714	2	X	X		1412E77-01301	
12-18-14	0830	GW	HIMW-24	4	X	X		10	
12-18-14	1040	GW	HIMW-08D	4	X	X		11+2	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	12/18/14	10:55		12/18/14	10:55
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	12/18/14	14:20		12/18/14	14:20
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, 3.6

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YELLOW COPY - CLIENT

PINK COPY - LABORATORY

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02135

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS Corp. **H2M SDG NO:** 1024-URS191

PROJECT NAME/NUMBER
National Grid Hempstead
11176098.00004

SAMPLERS: (Signature)/Client
Mira Abdelaziz
John Crespo/John Crespo

DELIVERABLES:

TURNAROUND TIME: Standard

NOTES:

Project Contact: Peter Fairbank

Phone Number: 716-856-5636

PIS/Quote #

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	Sample Container Description: 40mL clear/HCl	Sample Container Description: 1L amber	ANALYSIS REQUESTED: BTEX	ANALYSIS REQUESTED: PAH	LAB I.D. NO.	REMARKS:
12/18/14	1200	GW	HIMW-08I	4		X	X		1412F20	
12/18/14	1310	GW	HIMW-08S	4		X	X			
12/18/14	—	GW	DUP121814	4		X	X			
12/19/14	0810	GW	HIMW-15D	4		X	X			
12/19/14	—	W	TB121914	2		X				
12/19/14	0945	GW	HIMW-15I	4		X	X			
12/19/14	1200	GW	HIMW-20I	4		X	X			
12/19/14	1325	GW	HIMW-20S	4		X	X			

SAMPLE FROZE IN REFRIGERATOR FOR SVOA RE SAMPLE WAS REQUESTED ON 12/23/14 JA

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
John Crespo	12/19/14	13:37	Joe Sweeney	12/19/14	13:37
Jeff Sweeney	12/19/14	1430		12/19/14	1430
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

5.1°C

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www.h2mlabs.com

02136

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS Corporation **H2M SDG NO:** KEY-URS191

PROJECT NAME/NUMBER: National Grid Hempstead
11176098.00004

SAMPLERS: (Signature)/Client: Mira Abdelaziz
John Crespo

DELIVERABLES:

TURNAROUND TIME: Standard

NOTES:

Project Contact: Peter Fairbank

Phone Number: 716-856-5636

PIS/Quote #

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	Sample Container Description: 40ml Glass Vials	Sample Container Description: 1L amber	ANALYSIS REQUESTED: BTEX	ANALYSIS REQUESTED: PAH	LAB I.D. NO.	REMARKS:
12-22-14	0855	GW	HIMW-26D	4			X	X	1412G07-001	
12-22-14	1005	GW	HIMW-26I	4			X	X	002	
12-22-14	1150	GW	HIMW-27I	4			X	X	003	
12-22-14	1305	GW	HIMW-27S	4			X	X	004	
12-23-14	0825	GW	HIMW-28I	4			X	X	005	
12-23-14	0830	GW	HIMW-28IMS/MSD	8			X	X	↓	
12/23/14	0940	GW	HIMW-28S	4			X	X	006	
12/23/14	1120	GW	HIMW-25	4			X	X	007	
12/23/14	1235	GW	HIMW-22	4			X	X	008	
12/23/14	—	W	TB 122314	2			X		009	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
John Crespo	12/23/14	14:17	George A. Coppolina	12/23/14	14:17
	Date:	Time:		Date:	Time:
				12-23-14	1500
	Date:	Time:		Date:	Time:
	Date:	Time:		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

5.1°C
5.2°C

WHITE COPY - ORIGINAL YELLOW COPY - CLIENT PINK COPY - LABORATORY

H2M labs

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www.h2mlabs.com

02137

EXTERNAL CHAIN OF CUSTODY

CLIENT: VRS Corp.

H2M SDG NO: KEY-URS 190/191

PROJECT NAME/NUMBER
National Grid Hempstead, NY
111760 98.00004

SAMPLERS: (Signature)/Client
John Crespo Cary Friedman
Megan Dascoli

DELIVERABLES:

TURNAROUND TIME: Standard

NOTES:

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 HCl glass	Sample Container Description: 1 L amber glass	ANALYSIS REQUESTED: BTEX	ANALYSIS REQUESTED: PAH	LAB I.D. NO.	REMARKS:
12/29/14	845	GW	H1MW-20S	2		X		X	1412J63-001	KEY-URS 191
12/29/14	1035	GW	H1MW-03D	4	X	X	X	X	1412J64-002 MS/MSD	KEY-URS 190
12/29/14	1315	GW	H1MW-03I	4	X	X	X	X	-002	
12/29/14	1425	GW	H1MW-03S	4	X	X	X	X	-003	
12/30/14	830	GW	H1MW-23	4	X	X	X	X	-004	
12/30/14	1020	GW	H1MW-12D	4	X	X	X	X	-005	
12/30/14	1120	GW	H1MW-12I	4	X	X	X	X	-006	
12/30/14	1220	GW	H1MW-12S	4	X	X	X	X	-007	
12/30/14	1310	W	FB-123014	4	X	X	X	X	-008	
12/30/14		W	TB123014	2	X		X		-009	

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Megan Dascoli	12/30/14	13:30	George A. Cappadona	12/30/14	13:30
George A. Cappadona	12/30/14	14:05	[illegible]	12-30-14	1405
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)

1.8°C, 4.0°C

WHITE COPY - ORIGINAL YELLOW COPY - CLIENT PINK COPY - LABORATORY

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:	10/29/2014
Time:	13:45
Weather:	Sunny
Outdoor Temperature:	~69° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	10,855.0	
Feed Air Pressure *	110	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	100	(psi)
Oxygen Purity	95.8	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	110	(psi)
(readings below are made from control panel)		
Delivery Air	111	(psi)
Element Outlet Temperature	167	(oF)
Running Hours	12,363	(hours)
Loading Hours	7,816	(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	31	OW-1-5S	67.3	25	18	OW-1-9D	88.5	30	28
OW-1-2	96.5	20	24	OW-1-6S	67.0	45	19	OW-1-10D	87.2	40	27
OW-1-3	96.3	25	30	OW-1-7S	66.9	30	18	OW-1-11D	86.1	50	27
OW-1-4	95.0	30	28	OW-1-8S	66.7	20	19	OW-1-12D	85.3	50	28
OW-1-5D	93.9	35	29	OW-1-9S	66.0	20	19	OW-1-13D	84.7	45	29
OW-1-6D	92.4	30	29	OW-1-10S	54.6	30	14	OW-1-14D	84.1	50	28
OW-1-7D	91.1	30	27	OW-1-11S	54.1	30	16	OW-1-15D	83.3	60	30
OW-1-8D	89.6	30	26	OW-1-12S	53.6	30	13	OW-1-16D	82.5	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 #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: 10/29/2014

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	14	OW-1-21S	49.3	30	11
OW-1-14S	52.7	20	14	OW-1-18D	78.3	30	26	OW-1-22S	49.3	30	12
OW-1-15S	52.2	30	15	OW-1-19D	78.9	30	27	OW-1-23S	48.8	30	11
OW-1-16SR	51.8	30	24	OW-1-20D	79.5	30	28	OW-1-24S	48.4	40	11
OW-1-17S	50.7	25	12	OW-1-21D	79.5	40	26	OW-1-25S	48.8	40	12
OW-1-18S	50.2	30	12	OW-1-22D	79.5	30	25	OW-1-26SR	48.3	45	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	25	23	OW-1-27S	48.3	30	13
OW-1-20S	49.3	20	13	OW-1-24D	78.2	25	25	OW-1-28S	48.3	30	13

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	35	26
OW-1-26D	78.1	35	26	OW-1-30S	48.8	30	14	OW-1-34D	84.5	45	11
OW-1-27D	77.9	40	28	OW-1-31S	49.3	30	13	OW-1-35D	85.0	30	24
OW-1-28D	78.0	30	29	OW-1-32S	49.3	30	12	OW-1-36D	85.0	30	27
OW-1-29D	78.4	30	26	OW-1-33S	49.7	30	13	OW-1-37D	84.0	40	27
OW-1-30D	79.0	30	27	OW-1-34S	50.1	30	13	OW-1-38D	82.0	35	28
OW-1-31D	80.5	20	19	OW-1-35S	50.3	30	13	OW-1-39D	78.0	35	28
OW-1-32D	81.6	30	27	OW-1-36S	50.3	30	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: 10/29/2014

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	35	15	OW-1-41D	73.6	30	21	OW-1-43	67.4	10	20
OW-1-38S	50.6	50	16	OW-1-42D	71.0	35	22	OW-1-44	66.6	15	21
OW-1-39S	50.7	30	16	OW-1-45	65.7	30	22	OW-1-51R	60.6	15	21
OW-1-40S	51.1	40	15	OW-1-46	64.3	20	19	OW-1-52	59.3	35	18
OW-1-41S	51.5	30	13	OW-1-47	63.4	15	17	OW-1-53	60.0	20	17
OW-1-42S	51.3	30	13	OW-1-48	62.5	15	17	OW-1-54	60.0	10	17
				OW-1-49	61.5	25	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	27.40		0	MP-1-5	27.21	30.43	0	MP-1-1D	36.31
MP-1-1S	27.45	28.41	0	MP-1-6	19.41	13.51	0	MP-1-2D	39.85
MP-1-2D	21.75		0	MP-1-7	22.75	47.11	0	MP-1-3D	23.11
MP-1-2S	21.97	19.91	0	MP-1-8	24.31	8.89	0	MP-1-4D	27.48
MP-1-3D	19.85		0.2						
MP-1-3S	19.78	21.95	0.4						
MP-1-4D	22.69		0.7						
MP-1-4S	22.77	33.04	0.9						

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: 10/29/2014

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) 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 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 running with good oxygen purity. Soaked up small amount of oil and water from separator unit for disposal. Performed a telemetry system alarm test by triggering a compressor alarm and contacting the office to confirm receipt. Alarm was received in the office confirming that the telemetry unit is working properly. Replaced the monitoring well cover bolts at MP-1-2S and MP-1-2D. Wiped down all equipment and cleaned up all garbage from around fence areas.

Injection point OW-1-19S remains off due to leaking line.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-934-323 tied into Pole #4

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	11/24/2014
Time:	13:30
Weather:	Light Rain
Outdoor Temperature:	~58° F
Inside Trailer Temperature:	~60° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	11,143.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	95	(psi)
Oxygen Purity	90.8	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	111	(psi)
Element Outlet Temperature	171	(oF)
Running Hours	12,819	(hours)
Loading Hours	8,072	(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	25	19	OW-1-9D	88.5	25	28
OW-1-2	96.5	20	24	OW-1-6S	67.0	35	18	OW-1-10D	87.2	20	27
OW-1-3	96.3	35	30	OW-1-7S	66.9	30	17	OW-1-11D	86.1	20	27
OW-1-4	95.0	30	29	OW-1-8S	66.7	30	19	OW-1-12D	85.3	30	27
OW-1-5D	93.9	30	29	OW-1-9S	66.0	30	19	OW-1-13D	84.7	25	30
OW-1-6D	92.4	30	29	OW-1-10S	54.6	35	15	OW-1-14D	84.1	20	28
OW-1-7D	91.1	30	26	OW-1-11S	54.1	45	15	OW-1-15D	83.3	20	29
OW-1-8D	89.6	30	26	OW-1-12S	53.6	40	14	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: 11/24/2014

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	45	14	OW-1-17D	79.5	15	15	OW-1-21S	49.3	30	10
OW-1-14S	52.7	55	14	OW-1-18D	78.3	30	26	OW-1-22S	49.3	30	11
OW-1-15S	52.2	55	15	OW-1-19D	78.9	25	26	OW-1-23S	48.8	40	12
OW-1-16SR	51.8	40	23	OW-1-20D	79.5	30	28	OW-1-24S	48.4	50	12
OW-1-17S	50.7	30	13	OW-1-21D	79.5	30	25	OW-1-25S	48.8	45	13
OW-1-18S	50.2	30	12	OW-1-22D	79.5	30	25	OW-1-26SR	48.3	30	14
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	25	23	OW-1-27S	48.3	30	13
OW-1-20S	49.3	30	14	OW-1-24D	78.2	30	25	OW-1-28S	48.3	35	13

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	20	13	OW-1-33D	83.2	30	25
OW-1-26D	78.1	30	27	OW-1-30S	48.8	25	14	OW-1-34D	84.5	30	10
OW-1-27D	77.9	30	28	OW-1-31S	49.3	35	14	OW-1-35D	85.0	30	24
OW-1-28D	78.0	40	30	OW-1-32S	49.3	30	12	OW-1-36D	85.0	25	27
OW-1-29D	78.4	30	25	OW-1-33S	49.7	35	13	OW-1-37D	84.0	25	28
OW-1-30D	79.0	45	27	OW-1-34S	50.1	30	13	OW-1-38D	82.0	30	28
OW-1-31D	80.5	40	20	OW-1-35S	50.3	30	12	OW-1-39D	78.0	30	27
OW-1-32D	81.6	30	25	OW-1-36S	50.3	30	12	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: 11/24/2014

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	30	21	OW-1-43	67.4	30	20
OW-1-38S	50.6	30	16	OW-1-42D	71.0	30	23	OW-1-44	66.6	30	21
OW-1-39S	50.7	30	16	OW-1-45	65.7	30	22	OW-1-51R	60.6	25	20
OW-1-40S	51.1	40	16	OW-1-46	64.3	35	20	OW-1-52	59.3	30	17
OW-1-41S	51.5	20	13	OW-1-47	63.4	35	17	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	16
				OW-1-49	61.5	35	18				
				OW-1-50	61.0	40	19				

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	27.51		0	MP-1-5	27.33	25.83	0	MP-1-1D	35.21
MP-1-1S	27.60	26.07	0	MP-1-6	19.55	18.85	0	MP-1-2D	39.00
MP-1-2D	21.82		0	MP-1-7	22.85	48.11	0	MP-1-3D	33.07
MP-1-2S	22.08	19.95	0.2	MP-1-8	24.36	5.92	0	MP-1-4D	30.44
MP-1-3D	20.05		0.3						
MP-1-3S	19.97	24.11	0.2						
MP-1-4D	22.80		0.4						
MP-1-4S	22.83	31.32	0.8						

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: 11/24/2014

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 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 running. Soaked up small amount of oil and water from separator unit for disposal. Found three (3) flow meters leaking on manifold. Took apart handles and replaced O-rings which repaired the leaks. Adjusted flow from auto drains as pressure was too high causing tubes to spray inside shed. Wiped down all equipment and cleaned up all garbage and leaves from around fence areas.

Injection point OW-1-19S remains off due to leaking line.

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:	12/18/2014
Time:	13:30
Weather:	Sunny
Outdoor Temperature:	~38° F
Inside Trailer Temperature:	~60° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	11,406.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	100	(psi)
Oxygen Purity	93.7	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	113	(psi)
Element Outlet Temperature	169	(oF)
Running Hours	13,115	(hours)
Loading Hours	8,296	(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	18	OW-1-9D	88.5	30	26
OW-1-2	96.5	30	24	OW-1-6S	67.0	20	18	OW-1-10D	87.2	30	27
OW-1-3	96.3	30	29	OW-1-7S	66.9	20	17	OW-1-11D	86.1	30	26
OW-1-4	95.0	25	29	OW-1-8S	66.7	20	18	OW-1-12D	85.3	30	26
OW-1-5D	93.9	30	28	OW-1-9S	66.0	30	18	OW-1-13D	84.7	30	30
OW-1-6D	92.4	35	28	OW-1-10S	54.6	30	15	OW-1-14D	84.1	30	29
OW-1-7D	91.1	35	26	OW-1-11S	54.1	30	15	OW-1-15D	83.3	30	28
OW-1-8D	89.6	30	25	OW-1-12S	53.6	30	15	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: 12/18/2014

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	35	15	OW-1-17D	79.5	45	16	OW-1-21S	49.3	30	10
OW-1-14S	52.7	45	14	OW-1-18D	78.3	30	25	OW-1-22S	49.3	35	12
OW-1-15S	52.2	40	15	OW-1-19D	78.9	30	27	OW-1-23S	48.8	45	12
OW-1-16SR	51.8	30	22	OW-1-20D	79.5	30	27	OW-1-24S	48.4	40	13
OW-1-17S	50.7	40	13	OW-1-21D	79.5	30	25	OW-1-25S	48.8	45	13
OW-1-18S	50.2	45	12	OW-1-22D	79.5	30	24	OW-1-26SR	48.3	40	14
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	35	25	OW-1-27S	48.3	30	13
OW-1-20S	49.3	50	14	OW-1-24D	78.2	30	24	OW-1-28S	48.3	30	12

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	25	OW-1-29S	48.5	45	13	OW-1-33D	83.2	30	24
OW-1-26D	78.1	30	26	OW-1-30S	48.8	50	13	OW-1-34D	84.5	30	11
OW-1-27D	77.9	30	27	OW-1-31S	49.3	50	14	OW-1-35D	85.0	30	24
OW-1-28D	78.0	30	29	OW-1-32S	49.3	30	13	OW-1-36D	85.0	30	26
OW-1-29D	78.4	35	25	OW-1-33S	49.7	20	13	OW-1-37D	84.0	35	28
OW-1-30D	79.0	30	27	OW-1-34S	50.1	15	12	OW-1-38D	82.0	30	27
OW-1-31D	80.5	20	20	OW-1-35S	50.3	15	12	OW-1-39D	78.0	35	27
OW-1-32D	81.6	40	24	OW-1-36S	50.3	20	12	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: 12/18/2014

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	14	OW-1-41D	73.6	20	20	OW-1-43	67.4	20	20
OW-1-38S	50.6	30	15	OW-1-42D	71.0	30	22	OW-1-44	66.6	20	20
OW-1-39S	50.7	30	16	OW-1-45	65.7	35	22	OW-1-51R	60.6	25	20
OW-1-40S	51.1	30	16	OW-1-46	64.3	30	20	OW-1-52	59.3	30	17
OW-1-41S	51.5	30	13	OW-1-47	63.4	30	18	OW-1-53	60.0	30	16
OW-1-42S	51.3	30	12	OW-1-48	62.5	35	18	OW-1-54	60.0	30	16
				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	26.67		0	MP-1-5	26.46	26.21	0	MP-1-1D	33.21
MP-1-1S	26.69	29.59	0	MP-1-6	18.63	14.88	0	MP-1-2D	31.39
MP-1-2D	21.77		0.3	MP-1-7	21.98	42.27	0	MP-1-3D	17.72
MP-1-2S	21.25	24.44	0.2	MP-1-8	23.50	3.99	0	MP-1-4D	27.36
MP-1-3D	19.15		0.4						
MP-1-3S	19.04	20.59	0.4						
MP-1-4D	21.93		0.2						
MP-1-4S	21.96	33.39	0.7						

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: 12/18/2014

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 changed Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Prefilter changed Yes No X
2) Coalescing changed Yes No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism)
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

Found system running. Soaked up small amount of oil and water from separator unit for disposal. Found air leak in flow meter #14. Took apart handles and replaced O-rings which repaired the leaks. Wiped down all equipment and cleaned up all garbage and leaves from around fence areas.

Injection point OW-1-19S remains off due to leaking line.

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:	10/28/2014
Time:	13:15
Weather:	Sunny
Outdoor Temperature:	~73° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	23,574	
Feed Air Pressure *	85	(psi)
Cycle Pressure *	60	(psi)
Oxygen Receiver Pressure *	95	(psi)
Oxygen Purity	84.7	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	100	(psi)
(readings below are made from control panel)		
Delivery Air	105	(psi)
Element Outlet Temperature	172	(^{o}F)
Running Hours	24,009	(hours)
Loading Hours	23,281	(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	31	OW-2-9S	75'	35	21	OW-2-10D	97.2'	25	31
OW-2-3	94.3'	40	23	OW-2-10S	75'	25	28	OW-2-11D	100.8'	30	31
OW-2-4	94.7'	30	31	OW-2-11S	76.5'	20	23	OW-2-12	94'	30	24
OW-2-5	95.3'	35	28	OW-2-13S	75'	20	21	OW-2-13D	97'	40	31
OW-2-6	95.7'	30	32	OW-2-15S	75'	15	19	OW-2-14	96.4'	40	30
OW-2-7	96'	30	30	OW-2-16S	75.5'	15	20	OW-2-15D	94.6'	30	32
OW-2-8	96.3'	20	29	OW-2-18S	74.5'	20	19	OW-2-16D	94.1'	30	30
OW-2-9D	96.7'	25	29	OW-2-20S	79'	30	24	OW-2-17	95'	35	30

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 10/28/2014

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	31	OW-2-22S	76'	45	21	OW-2-26D	95'	30	36
OW-2-19	96.1'	30	31	OW-2-24S	77.8'	30	24	OW-2-27	93.5'	30	30
OW-2-20D	96.6'	30	30	OW-2-26S	74'	35	26	OW-2-28D	92.1'	30	28
OW-2-21	96.6'	20	28	OW-2-28S	76'	35	18	OW-2-29	92.2'	30	29
OW-2-22D	96.3'	30	28	OW-2-30S	67.8'	35	19	OW-2-30D	88'	35	31
OW-2-23	97.2'	40	31	OW-2-34	71'	30	20	OW-2-31	86'	35	30
OW-2-24D	97'	50	30	OW-2-35	69.2'	20	22	OW-2-32	84'	40	34
OW-2-25	96'	50	31	OW-2-36	64.8'	30	21	OW-2-33	82'	40	31

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection banks D & E are turned off.

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	30	20	OW-2-45	61.1'	30	20	MP-2-1	30.31	21.75	0
OW-2-38	62.1'	30	20	OW-2-46	61'	30	22	MP-2-2	31.65	29.11	0.1
OW-2-39	60'	20	20	OW-2-47	60.5'	30	21	MP-2-3S	31.52	27.13	0.3
OW-2-40	61.7'	30	20					MP-2-3D	31.67	35.86	0.1
OW-2-41	61.7'	30	20					MP-2-4	20.24	22.45	0
OW-2-42	61.6'	35	20					MP-2-5	18.41	8.98	0
OW-2-43	61.4'	40	19								
OW-2-44R	60.6'	30	19								

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: 10/28/2014

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 with the main power at the street be shut down. Found alarm in telemetry unit for power failure but alarm did not send. Investigated telemetry unit and found a broken and loose wire in system. Repaired and retightened all wire and tested telemetry unit but sending a compressor fault alarm and checking with office for receipt of alarm. Alarm condition was received by office verifying that repairs were successful. Wiped down all equipment and cleaned up debris around shed. Left system running.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-929-544 tied into Pole #3

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	11/25/2014
Time:	13:15
Weather:	Rain
Outdoor Temperature:	~48° F
Inside Trailer Temperature:	~60° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	23,649	
Feed Air Pressure *	95	(psi)
Cycle Pressure *	60	(psi)
Oxygen Receiver Pressure *	85	(psi)
Oxygen Purity	87.5	(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	169	(^{o}F)
Running Hours	24,088	(hours)
Loading Hours	23,356	(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'	30	20	OW-2-10D	97.2'	25	31
OW-2-3	94.3'	30	22	OW-2-10S	75'	40	28	OW-2-11D	100.8'	30	30
OW-2-4	94.7'	40	31	OW-2-11S	76.5'	40	23	OW-2-12	94'	35	25
OW-2-5	95.3'	40	28	OW-2-13S	75'	30	20	OW-2-13D	97'	40	31
OW-2-6	95.7'	45	31	OW-2-15S	75'	30	19	OW-2-14	96.4'	40	30
OW-2-7	96'	50	27	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	30	32
OW-2-8	96.3'	40	29	OW-2-18S	74.5'	20	20	OW-2-16D	94.1'	30	30
OW-2-9D	96.7'	30	30	OW-2-20S	79'	25	25	OW-2-17	95'	30	30

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 11/25/2014

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	31	OW-2-22S	76'	20	21	OW-2-26D	95'	30	37
OW-2-19	96.1'	30	30	OW-2-24S	77.8'	10	24	OW-2-27	93.5'	30	30
OW-2-20D	96.6'	35	30	OW-2-26S	74'	10	25	OW-2-28D	92.1'	30	28
OW-2-21	96.6'	30	28	OW-2-28S	76'	15	19	OW-2-29	92.2'	30	29
OW-2-22D	96.3'	30	27	OW-2-30S	67.8'	25	19	OW-2-30D	88'	30	30
OW-2-23	97.2'	30	30	OW-2-34	71'	35	20	OW-2-31	86'	30	30
OW-2-24D	97'	35	29	OW-2-35	69.2'	30	22	OW-2-32	84'	30	34
OW-2-25	96'	30	31	OW-2-36	64.8'	30	22	OW-2-33	82'	30	31

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	21	OW-2-45	61.1'	30	20	MP-2-1	30.55	13.87	0
OW-2-38	62.1'	25	20	OW-2-46	61'	25	22	MP-2-2	31.90	11.17	0
OW-2-39	60'	35	19	OW-2-47	60.5'	35	21	MP-2-3S	31.75	8.55	0
OW-2-40	61.7'	30	19					MP-2-3D	31.87	21.12	0.2
OW-2-41	61.7'	30	20					MP-2-4	20.43	4.79	0
OW-2-42	61.6'	30	20					MP-2-5	18.58	6.12	0
OW-2-43	61.4'	30	18								
OW-2-44R	60.6'	30	19								

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: 11/25/2014

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 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 No X

AS-80 O_2 Generator

1) Prefilter changed Yes No X
2) Coalescing changed Yes No X

GENERAL SYSTEM NOTES

Trailer

1) Performed general housekeeping (i.e. sweep, collect trash inside and out, etc.)
   Yes X No
2) Abnormal conditions observed (e.g. vandalism)
3) Other major activities completed
4) Supplies needed
5) Visitors

Record routine activities such as any alarm/shutdowns, sampling, maintenance, material transported off-site, oil/filter/gasket and/or any other abnormal operating conditions:

11-8-14 - Responded to alarm condition at site. Found air compressor off due to power failure. Restarted compressor and built up pressure in oxygen storage tanks. Checked all amps and pressure switched and all were operating properly. Left system running.

11-9-14 - Responded to alarm condition at site. Found air compressor off due to same code (power failure) as the day before. Restarted compressor and built up pressure in the oxygen storage tanks. Check all components and tried to trigger the same alarm condition but was unable to trigger system alarm. Left system running. Alarm condition at site triggered around midnight.

11-25-14 - Found system off with air compressor alarm due to same code as earlier in the month. Restarted system and tried to trigger alarm condition. Added small amount of oil to the compressor. Wiped down all equipment and cleaned up debris around shed. Left system running. Spoke with Matrix at end of day about conditions observed and they suggested taking apart and cleaning the backflow valve on the compressor during the next site visit.

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 f

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	12/19/2014
Time:	12:45
Weather:	Clear
Outdoor Temperature:	~39° F
Inside Trailer Temperature:	~60° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	23,905	
Feed Air Pressure *	95	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	100	(psi)
Oxygen Purity	94.5	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	95	(psi)
(readings below are made from control panel)		
Delivery Air	105	(psi)
Element Outlet Temperature	172	(^{o}F)
Running Hours	24,358	(hours)
Loading Hours	23,597	(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	29	OW-2-9S	75'	30	19	OW-2-10D	97.2'	45	31
OW-2-3	94.3'	40	21	OW-2-10S	75'	30	25	OW-2-11D	100.8'	40	29
OW-2-4	94.7'	40	30	OW-2-11S	76.5'	40	22	OW-2-12	94'	35	24
OW-2-5	95.3'	30	28	OW-2-13S	75'	30	20	OW-2-13D	97'	30	30
OW-2-6	95.7'	15	31	OW-2-15S	75'	30	20	OW-2-14	96.4'	30	30
OW-2-7	96'	15	27	OW-2-16S	75.5'	40	20	OW-2-15D	94.6'	40	31
OW-2-8	96.3'	20	27	OW-2-18S	74.5'	50	19	OW-2-16D	94.1'	40	31
OW-2-9D	96.7'	30	29	OW-2-20S	79'	55	21	OW-2-17	95'	45	30

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 12/19/2014

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	30	OW-2-22S	76'	35	20	OW-2-26D	95'	35	35
OW-2-19	96.1'	40	30	OW-2-24S	77.8'	30	22	OW-2-27	93.5'	30	30
OW-2-20D	96.6'	30	29	OW-2-26S	74'	30	25	OW-2-28D	92.1'	35	29
OW-2-21	96.6'	30	28	OW-2-28S	76'	30	19	OW-2-29	92.2'	35	29
OW-2-22D	96.3'	15	26	OW-2-30S	67.8'	30	18	OW-2-30D	88'	40	30
OW-2-23	97.2'	20	29	OW-2-34	71'	30	19	OW-2-31	86'	30	29
OW-2-24D	97'	25	29	OW-2-35	69.2'	20	20	OW-2-32	84'	30	33
OW-2-25	96'	20	30	OW-2-36	64.8'	30	21	OW-2-33	82'	30	30

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection banks D & E are turned off.

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	15	21	OW-2-45	61.1'	30	20	MP-2-1	29.57	16.67	0
OW-2-38	62.1'	20	20	OW-2-46	61'	30	21	MP-2-2	30.95	25.18	0
OW-2-39	60'	25	19	OW-2-47	60.5'	30	21	MP-2-3S	30.76	43.32	0
OW-2-40	61.7'	35	18					MP-2-3D	30.93	36.87	0
OW-2-41	61.7'	30	18					MP-2-4	19.47	9.49	0
OW-2-42	61.6'	30	19					MP-2-5	17.65	20.05	0
OW-2-43	61.4'	30	19								
OW-2-44R	60.6'	30	19								

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: 12/19/2014

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 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 No X

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:

12-1-14 - Took apart back section of compressor to expose minimum pressure check valve. Removed valve and took apart and cleaned silt build up from valve. Reinstalled valve and restart system. Left system running. Alarm condition triggered several hours after O&M was performed at the site.

12-4-14 - Responded to alarm condition at site. Found air compressor off due to same code (power failure) as the day before. Restarted compressor and built up pressure in the oxygen storage tanks. As per D&D Electric Motors jumped out the 1st pressure valve in the unit and run the unit overnight. Left system running. No alarm condition was triggered during the overnight test solving the problem.

11-25-14 - Found system running. Soaked up small amount of oil and water from separator unit. Repaired broken float in water bowl #1. Added small amount of oil to compressor. Repaired leaking rings on two (2) flow meters. Wiped down all equipment and cleaned up debris around shed. Left system running.

DO Meter was calibrated to 100% oxygen saturation. PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

Electric Meter # 96-929-544 tied into Pole #3

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York