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Groundwater Sampling, NAPL Monitoring/Recovery and Groundwater Treatment Performance Report for the Second Quarter of 2017 (April - June) for the Hempstead Intersection Street Former Manufactured Gas Plant Site

Villages of Hempstead & Garden City
Nassau County, New York

Prepared for:

National Grid
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AECOM

December 2017

GROUNDWATER SAMPLING, NAPL MONITORING/RECOVERY, AND GROUNDWATER TREATMENT PERFORMANCE REPORT FOR THE SECOND QUARTER OF 2017 (APRIL - JUNE)

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

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ACRONYMS AND ABBREVIATIONS

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

EXECUTIVE SUMMARY

This report provides a summary of field activities, analytical results, and data interpretations associated with groundwater sampling, gauging, and recovery of non-aqueous phase liquid (NAPL), and with the groundwater treatment systems at the Hempstead Intersection Street Former Manufactured Gas Plant (MGP) site during the Second Quarter (April, May, and June) 2017.

Quarterly groundwater monitoring and sampling were conducted on June 19-29, 2017. This included measuring the depth to groundwater and NAPL thickness in 46 wells. Groundwater samples were collected from 29 wells and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs).

NAPL monitoring and recovery was conducted on April 11 and June 30, 2017 and monitoring only on June 19, 2017 for a total of three events in the Second Quarter of 2017.

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

- The general direction of groundwater flow in the Second Quarter 2017 in the shallow, intermediate, and deep water-bearing zones was south at an average gradient of approximately 0.002 feet per feet (ft/ft) for shallow, intermediate, and deep water bearing zones.
- The extent of the dissolved-phase groundwater plume boundary and the data for the Second Quarter 2017 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 905 feet south of the site boundary.
- Dense non-aqueous phase liquid (DNAPL) was detected in one existing site-related well during the Second Quarter. The well (HIMW-021), is located along the west side of Wendell Street, south of the Intersection Street site.
- NAPL monitoring and NAPL recovery was conducted three times during the quarter. There were 3.95 gallons of DNAPL removed during the Second Quarter 2017 from two events. A

total of 854.5 gallons of NAPL have been recovered to date from all of the Site related recovery wells between April 2007 and June 2017.

The first of two oxygen delivery systems (System No. 2) started operating in October 2010 and continued to promote aerobic conditions in the aquifer near the system during the Second Quarter of 2017. The second of two oxygen delivery systems (System No. 1) started operating in April 2011 and continued to promote aerobic conditions in the aquifer near the system during the Second Quarter of 2017.

Monthly headspace and water quality parameters were collected from the monitoring points for Systems No. 1 and No. 2 by Island Pump & Tank Corporation. During the Second Quarter of 2017, Island Pump & Tank monitored System No. 1 during three events and System No. 2 during three events.

1.0 INTRODUCTION

This quarterly report summarizes the field activities, analytical results, and data interpretations associated with groundwater sampling, gauging, and recovery of NAPL and the monitoring of the groundwater treatment systems during the Second Quarter of 2017 at the Hempstead Intersection Street Former MGP site (refer to Figures 1, 2, and 3).

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

AECOM USA, Inc. (AECOM) performed the following activities during the Second Quarter of 2017:

- Measured the depth to groundwater and NAPL thickness in 46 off-site wells on June 19, 2017 (see Tables 1 and 2).
- Monitored NAPL at HIMW-021 on April 11, June 19, and June 30, 2017. There were 3.95 gallons of product recovered during two events, April 11 and June 30, during the Second Quarter 2017 (see Table 3).
- Collected groundwater samples from 29 monitoring wells for laboratory analysis during the scheduled round of quarterly groundwater sampling (see Table 4).

Island Pump & Tank also performed water level measurements, well headspace monitoring with a photoionization detector (PID), and dissolved oxygen (DO) measurements with a DO meter (YSI 55A) on System No. 1 during three events and on System No. 2 during three events in the Second Quarter 2017. Monitoring is conducted monthly to assess the performance of groundwater treatment System No. 1 and System No. 2. This data is presented in Table 5.

2.0 FIELD ACTIVITIES

The field activities performed by AECOM during the Second Quarter of 2017 included the measurement of the depth to groundwater and NAPL thickness in 46 monitoring wells and the collection of groundwater samples from 29 monitoring wells.

Monitoring wells and piezometers used for these activities are listed in Table 1. Second Quarter 2017 groundwater elevations and NAPL thickness values are presented in Table 2, NAPL recovery are reported in Table 3, and the results of groundwater sampling are presented in Table 4.

Island Pump & Tank performed measurements to monitor the performance of the groundwater treatment Systems No. 1 and No. 2 monthly during the Second Quarter of 2017. Island Pump & Tank collected water level measurements with an electronic oil/water interface probe, well headspace monitoring data with a photoionization detector (PID), and dissolved oxygen (DO) measurements with a YSI 55A dissolved oxygen meter on System No. 1 on April 25, May 31, and June 30, 2017 and on System No. 2 on April 26, May 30, and June 30, 2017. This data is presented in Table 5.

2.1 Groundwater Depth and NAPL Thickness Measurements

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

There were 46 monitoring wells gauged during the Second Quarter, June 19, 2017 gauging event. HIMW-12I was not gauged for DNAPL thickness or total well depth and HIMW-12D was not gauged for any of the gauging parameters due to blockages inside the wells.

2.2 NAPL Recovery

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

NAPL levels were monitored in well HIMW-021 during three gauging events: April 11, June 19, and June 30, 2017. During each event, the well was gauged with a weighted cotton string to measure the DNAPL thickness. NAPL recovery was conducted on April 11 and June 30. A total of 3.95 gallons were recovered in two events during the Second Quarter 2017. A total of 854.5 gallons of NAPL have been recovered from all of the Site related recovery wells between April 2007 and June 2017.

Table 3 presents Second Quarter 2017 NAPL thickness and recovery amounts at HIMW-021 per event and the total NAPL recovery amounts from the Site.

2.3 Groundwater Sampling

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

There were 29 monitoring wells sampled during the Second Quarter June 20-29, 2017 groundwater sampling event. Two monitoring wells from the sampling and analysis plan (HIMW-012I and HIMW-012D) were not sampled during this quarterly event because of obstructions inside the well

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

2.4 Groundwater Treatment System Operation

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

The performance of System No. 1 and System No. 2 was monitored by Island Pump & Tank during the Second Quarter 2017 through the measurement of water levels, headspace gas, and water quality parameters in the groundwater monthly, see Table 5. Island Pump & Tank performed water level measurements with an electronic oil/water interface probe, well headspace monitoring with a PID, and DO measurements with a DO meter (YSI 55A). These measurements were collected during the Second Quarter and were taken during three events for System No. 1 on April 25, May 31, and June 30, 2017 and during three events for System No. 2 on April 26, May 30, and June 30, 2017. The full system data is included in Appendix B.

3.0 RESULTS

3.1 Dissolved-Phase Plume

The extent of the dissolved-phase groundwater plume boundary and the data for Second Quarter 2017 (and the historical concentration ranges) are shown in Figure 4. The downgradient boundary of the plume, which is defined by total BTEX or PAH concentrations greater than 100 µg/L, extends approximately 905 feet south of the site boundary.

3.2 Potentiometric Heads and NAPL Thickness

Potentiometric heads and NAPL thickness measurements for the Second Quarter 2017 are presented in Table 2. Potentiometric surface maps for shallow, intermediate, and deep groundwater zones were developed using this data and are shown in Figures 5, 6, and 7, respectively for the Second Quarter 2017. The data for Second Quarter 2017 indicates that the direction of groundwater flow within the well field was south at an average gradient of approximately 0.002 ft/ft for shallow, intermediate, and deep water bearing zones. These values are consistent with historical data.

DNAPL was observed in one well during the Second Quarter 2017 on April 11, June 19, and June 30, 2017 for a total of three events, see Table 3. The well (HIMW-021) is located along the west side of Wendell Street south of the Site and Intersection Street (Figure 8). All wells in the parking lot of the POB were decommissioned in late June 2013 during ISS work. Wells located within the property boundary of the site were previously decommissioned in Fourth Quarter 2011 with the start of the ISS remediation project.

3.3 Groundwater Analytical Results

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

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

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

3.4 NAPL Recovery Volumes

HIMW-021 is the one remaining product recovery well associated with the site. It is located south of the site in the sidewalk along the west side of Wendell Street. In the Second Quarter 2017, NAPL levels were monitored in well HIMW-021 during three gauging events: April 11, June 19, and June 30, 2017. During these events, the well was gauged with a weighted cotton string to measure the DNAPL thickness. A total of 3.95 gallons of NAPL was recovered from this well during two events: April 11 and June 30, 2017. A total of 854.5 gallons of NAPL have been recovered to date from all of the Site related recovery wells between April 2007 and June 2017. Table 3 lists the amount of DNAPL gauged in HIMW-021 during each event and the total amount of product recovered.

3.5 Groundwater Treatment System Performance

Groundwater treatment system performance data for Second Quarter 2017, as collected and reported by Island Pump & Tank, is presented in Table 5.

System No. 1

System No. 1 DO readings reported in the Second Quarter 2017 ranged from a low of 4.81 mg/L at MP-1-8 on May 31, 2017 to a high of 28.65 mg/L at MP-1-7 on April 25, 2017. The overall average DO reading for System No. 1 in the Second Quarter was 14.55 mg/L.

There were two PID headspace readings above 1 ppm for System No. 1 in the Second Quarter 2017. The readings were collected on May 31, 2017. There was a PID reading of 2.4 ppm at MP-1-1D and a reading of 18.0 ppm at MP-1-5. All other PID readings were below 1 ppm.

During the Second Quarter, the system was running in April and May and routine maintenance was regularly performed. The system was not operating in June due to mechanical issues. In April and May, System No. 1 performed as expected to create an aerobic environment in the aquifer.

System No. 2

System No. 2 DO readings reported in the Second Quarter 2017 ranged from a low of 14.02 mg/L at MP-2-1 on May 30, 2017 to a high of 30.25 mg/L at MP-2-3D on May 30, 2017. The overall average DO reading for System No. 2 in the Second Quarter was 23.57 mg/L.

There was one PID headspace reading above 1 ppm for System No. 2 in the Second Quarter 2017. This was a reading 1.3 ppm at MP-2-4 on June 30, 2017. All other PID headspace readings were below 1 ppm.

During the Second Quarter 2017, the system was running and routine maintenance was regularly performed. Based on the data collected during the Second Quarter of 2017, System No. 2 performed as expected to create an aerobic environment in the aquifer.

REFERENCES

URS, 2007. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the Second and Third Quarters of 2007 (April 2007 and July-August 2007) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* November.

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.

URS, 2009a. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the Third Quarter of 2008 (July - September 2008) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* January.

URS, 2009b. *2008 Annual Groundwater Sampling and NAPL Monitoring/Recovery Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* March.

URS, 2009c. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the First Quarter of 2009 (January - March 2009) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* June.

URS, 2009d. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the Second Quarter of 2009 (April - June 2009) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* September.

URS, 2009e. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the Third Quarter of 2009 (July - September 2009) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* November.

URS, 2010a. *2009 Annual Groundwater Sampling and NAPL Monitoring/Recovery Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* February.

URS, 2010b. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the First Quarter of 2010 (January - March 2010) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* April.

URS, 2010c. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the Second Quarter of 2010 (April - June 2010) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* September.

URS, 2010d. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the Third Quarter of 2010 (July - September 2010) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* December.

URS, 2010e. *2010 Annual Groundwater Sampling and NAPL Monitoring/Recovery Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* December.

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.

URS, 2011b. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the Second Quarter of 2011 (April - June 2011) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* September.

URS, 2011c. *Groundwater Sampling and NAPL Monitoring/Recovery Report for the Third Quarter of 2011 (July- September 2011) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* December.

URS, 2012a. *2011 Annual Groundwater Sampling and NAPL Monitoring/Recovery Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* May.

URS, 2012b. *Groundwater Sampling and Groundwater Treatment Performance Report for the First Quarter of 2012 (January – March 2012) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* October.

URS, 2012c. *Groundwater Sampling and Groundwater Treatment Performance Report for the Second Quarter of 2012 (April - June 2012) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* December.

URS, 2013a. *2012 Annual Groundwater Sampling, NAPL Monitoring, and Groundwater Treatment Performance Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site*. May.

URS, 2013b. *Groundwater Sampling and Groundwater Treatment Performance Report for the First Quarter of 2013 (January – March 2013) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* September.

URS, 2013c. *Groundwater Sampling and Groundwater Treatment Performance Report for the Second Quarter of 2013 (April – June 2013) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.*

URS, 2014a. *2013 Annual Groundwater Sampling, NAPL Monitoring/Recovery, and Groundwater Treatment Performance Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site*. June.

URS, 2014b. *Groundwater Sampling and Groundwater Treatment Performance Report for the First Quarter of 2014 (January – March 2014) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* January.

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.

URS, 2015c. *2014 Annual Groundwater Sampling, NAPL Monitoring/Recovery, and Groundwater Treatment Performance Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site*. May.

URS, 2015d. *Groundwater Sampling and Groundwater Treatment Performance Report for the First Quarter of 2015 (January – March 2015) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* October.

URS, 2016a. *Groundwater Sampling and Groundwater Treatment Performance Report for the Second Quarter of 2015 (April – June 2015) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* April.

URS, 2016b. *Groundwater Sampling and Groundwater Treatment Performance Report for the Third Quarter of 2015 (July – September 2015) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* May.

URS, 2016c. *2015 Annual Groundwater Sampling, NAPL Monitoring/Recovery, and Groundwater Treatment Performance Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site*. August.

AECOM, 2017a. *Groundwater Sampling and Groundwater Treatment Performance Report for the First Quarter of 2016 (January – March 2016) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* January.

AECOM, 2017b. *Groundwater Sampling and Groundwater Treatment Performance Report for the Second Quarter of 2016 (April – June 2016) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* January.

AECOM, 2017c. *2016 Annual Groundwater Sampling, NAPL Monitoring/Recovery, and Groundwater Treatment Performance Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* April.

AECOM, 2017d. *Groundwater Sampling and Groundwater Treatment Performance Report for the First Quarter of 2017 (January – March 2017) for the Hempstead Intersection Street Former Manufactured Gas Plant Site.* September.

TABLES

Table 1

Summary of Field Activities: Water Level Measurements, NAPL Thickness Measurements, NAPL Recovery, and Water Quality Sampling
Second Quarter 2017 [(1), (2)]
Hempstead Intersection Street Former MGP Site

Well ID	Second Quarter (June 19 to 29, 2017)			NAPL Monitoring and DNAPL Recovery Events	
	Water Level	NAPL Thickness	Water Quality	April 11, 2017	June 30, 2017
HIMW-003S	X	X	X		
HIMW-003I	X	X	X		
HIMW-003D	X	X	X		
HIMW-004S	X	X			
HIMW-004I	X	X			
HIMW-004D	X	X			
HIMW-005S	X	X	X		
HIMW-005I	X	X	X		
HIMW-005D	X	X	X		
HIMW-008S	X	X	X		
HIMW-008I	X	X	X		
HIMW-008D	X	X	X		
HIMW-009S	X	X			
HIMW-009I	X	X			
HIMW-009D	X	X			
HIMW-010S	X	X			
HIMW-010I	X	X			
HIMW-011S	X	X			
HIMW-011I	X	X			
HIMW-011D	X	X			
HIMW-012S	X	X	X		
HIMW-012I	X				
HIMW-012D					
HIMW-013S	X	X	X		
HIMW-013I	X	X	X		
HIMW-013D	X	X	X		
HIMW-014I	X	X	X		
HIMW-014D	X	X	X		
HIMW-015I	X	X	X		
HIMW-015D	X	X	X		
HIMW-020S	X	X	X		
HIMW-020I	X	X	X		
HIMW-021	X	X		X	X
HIMW-022	X	X	X		
HIMW-023	X	X	X		
HIMW-024	X	X	X		
HIMW-025	X	X	X		
HIMW-026I	X	X	X		
HIMW-026D	X	X	X		
HIMW-027S	X	X	X		
HIMW-027I	X	X	X		
HIMW-028S	X	X	X		
HIMW-028I	X	X	X		

Table 1

Summary of Field Activities: Water Level Measurements, NAPL Thickness Measurements, NAPL Recovery, and Water Quality Sampling
Second Quarter 2017 [(1), (2)]
Hempstead Intersection Street Former MGP Site

Well ID	Second Quarter (June 19 to 29, 2017)			NAPL Monitoring and DNAPL Recovery Events	
	Water Level	NAPL Thickness	Water Quality	April 11, 2017	June 30, 2017
PZ-02	X	X			
PZ-03	X	X			
OSMW-02	X	X			
OSMW-03	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 2
Groundwater and NAPL Measurements
Second Quarter 2017
Hempstead Intersection Street Former MGP Site

Well ID	Date	Elevation of TOR	Depth to LNAPL	Depth to Water	Depth to DNAPL	Well Depth	Thickness of LNAPL	Thickness of DNAPL	Corrected Potentiometric Head (1)
		[ft bgs]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft amsl]
HIMW-003S	6/19/2017	65.00	ND	20.49	ND	34.32	0	0.00	44.51
HIMW-003I	6/19/2017	64.94	ND	21.12	ND	84.97	0	0.00	43.82
HIMW-003D	6/19/2017	65.26	ND	21.86	ND	142.18	0	0.00	43.40
HIMW-004S	6/19/2017	72.74	ND	29.09	ND	41.63	0	0.00	43.65
HIMW-004I	6/19/2017	72.78	ND	29.33	ND	90.46	0	0.00	43.45
HIMW-004D	6/19/2017	72.65	ND	30.05	ND	177.01	0	0.00	42.60
HIMW-005S	6/19/2017	67.19	ND	23.36	ND	38.93	0	0.00	43.83
HIMW-005I	6/19/2017	67.22	ND	23.71	ND	90.48	0	0.00	43.51
HIMW-005D	6/19/2017	67.22	ND	24.59	ND	135.94	0	0.00	42.63
HIMW-008S	6/19/2017	65.04	ND	21.78	ND	36.88	0	0.00	43.26
HIMW-008I	6/19/2017	65.14	ND	21.99	ND	74.78	0	0.00	43.15
HIMW-008D	6/19/2017	64.93	ND	21.79	ND	114.53	0	0.00	43.14
HIMW-009S	6/19/2017	70.03	ND	26.41	ND	39.84	0	0.00	43.62
HIMW-009I	6/19/2017	69.93	ND	26.37	ND	80.44	0	0.00	43.56
HIMW-009D	6/19/2017	69.96	ND	26.43	ND	122.97	0	0.00	43.53
HIMW-010S	6/19/2017	71.60	ND	27.07	ND	39.48	0	0.00	44.53
HIMW-010I	6/19/2017	71.47	ND	26.90	ND	89.73	0	0.00	44.57
HIMW-011S	6/19/2017	71.62	ND	27.45	ND	40.25	0	0.00	44.17
HIMW-011I	6/19/2017	71.43	ND	27.29	ND	93.19	0	0.00	44.14
HIMW-011D	6/19/2017	71.39	ND	27.31	ND	122.28	0	0.00	44.08
HIMW-012S	6/19/2017	61.58	ND	19.54	ND	33.11	0	0.00	42.04
HIMW-012I	6/19/2017	61.59	ND	19.42	ND	NM	0	NM	42.17
HIMW-012D	6/19/2017	61.82	NM	NM	NM	NM	NM	NM	NM
HIMW-013S	6/19/2017	72.83	ND	32.84	ND	48.58	0	0.00	39.99
HIMW-013I	6/19/2017	72.60	ND	32.43	ND	81.42	0	0.00	40.17
HIMW-013D	6/19/2017	72.53	ND	32.42	ND	122.04	0	0.00	40.11
HIMW-014I	6/19/2017	71.71	ND	31.52	ND	96.25	0	0.00	40.19
HIMW-014D	6/19/2017	71.59	ND	33.87	ND	151.85	0	0.00	37.72
HIMW-015I	6/19/2017	64.18	ND	26.78	ND	92.37	0	0.00	37.40
HIMW-015D	6/19/2017	63.96	ND	28.66	ND	152.08	0	0.00	35.30
HIMW-020S	6/19/2017	70.43	ND	27.70	ND	36.72	0	0.00	42.73
HIMW-020I	6/19/2017	70.30	ND	27.56	ND	74.65	0	0.00	42.74

Table 2
Groundwater and NAPL Measurements
Second Quarter 2017
Hempstead Intersection Street Former MGP Site

Well ID	Date	Elevation of TOR	Depth to LNAPL	Depth to Water	Depth to DNAPL	Well Depth	Thickness of LNAPL	Thickness of DNAPL	Corrected Potentiometric Head (1)
		[ft bgs]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft amsl]
HIMW-021	6/19/2017	NM	ND	22.08	43.50	45.30	0	1.80	NM
HIMW-022	6/19/2017	74.07	ND	32.61	ND	64.42	0	0.00	41.46
HIMW-023	6/19/2017	74.41	ND	32.78	ND	75.18	0	0.00	41.63
HIMW-024	6/19/2017	59.83	ND	17.31	ND	54.82	0	0.00	42.52
HIMW-025	6/19/2017	62.75	ND	19.71	ND	52.08	0	0.00	43.04
HIMW-26I	6/19/2017	68.13	ND	25.38	ND	84.83	0	0.00	42.75
HIMW-26D	6/19/2017	68.02	ND	25.52	ND	137.61	0	0.00	42.50
HIMW-27S	6/19/2017	69.49	ND	26.62	ND	41.21	0	0.00	42.87
HIMW-27I	6/19/2017	68.96	ND	26.06	ND	70.07	0	0.00	42.90
HIMW-28S	6/19/2017	69.87	ND	27.01	ND	41.38	0	0.00	42.86
HIMW-28I	6/19/2017	69.56	ND	26.82	ND	71.51	0	0.00	42.74
PZ-02	6/19/2017	72.96	ND	28.22	ND	35.47	0	0.00	44.74
PZ-03	6/19/2017	64.58	ND	20.05	ND	29.88	0	0.00	44.53
OSMW-02	6/19/2017	71.59	ND	27.84	ND	45.12	0	0.00	43.75
OSMW-03	6/19/2017	71.39	ND	27.39	ND	44.68	0	0.00	44.00

Notes:

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

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

Table 3
NAPL Recovery
Second Quarter 2017
Hempstead Intersection Street Former MGP Site

Well ID	Well Diameter (inches)	2nd Quarter 2017								
		April 11, 2017			June 19, 2017			June 30, 2017		
		Thickness of LNAPL	Thickness of DNAPL	Volume of NAPL Removed(1)	Thickness of LNAPL	Thickness of DNAPL	Volume of NAPL Removed(1)	Thickness of LNAPL	Thickness of DNAPL	Volume of NAPL Removed(1)
		[ft]	[ft]	[gal]	[ft]	[ft]	[gal]	[ft]	[ft]	[gal]
HIMW-021	6	ND	1.9	1.25	ND	1.8	0.00	ND	1.8	2.70
		Volume of NAPL Removed:		**1.25**	Volume of NAPL Removed:		**0.00**	Volume of NAPL Removed:		**2.70**
		Total NAPL volume recovered during the Second Quarter 2017:								**3.95**

Total volume of NAPL recovered in the Second Quarter 2017:

3.95 gallons

Total volume of NAPL recovered from April 2007 through Second Quarter 2017:

854.5 gallons

Notes:

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

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

Table 4

Dissolved-Phase Concentrations of
Total BTEX and Total PAH Compounds
Second Quarter of 2017
Hempstead Intersection Street Former MGP Site

Well ID	Second Quarter 2017 June 20 to 29, 2017	
	BTEX [µg/L]	PAH [µg/L]
HIMW-003S	ND	ND
HIMW-003I	ND	ND
HIMW-003D	ND	ND
HIMW-004S		
HIMW-004I		
HIMW-004D		
HIMW-005S	ND	ND
HIMW-005I	57	1,551
HIMW-005D	43	1,374
HIMW-008S	ND	3
HIMW-008I	ND	ND
HIMW-008D	ND	ND
HIMW-009S		
HIMW-009I		
HIMW-009D		
HIMW-010S		
HIMW-010I		
HIMW-011S		
HIMW-011I		
HIMW-011D		
HIMW-012S	ND	ND
HIMW-012I		
HIMW-012D		
HIMW-013S	ND	ND
HIMW-013I	ND	ND
HIMW-013D	2	17
HIMW-014I	3	19
HIMW-014D	ND	ND
HIMW-015I	3	5
HIMW-015D	ND	ND
HIMW-020S	ND	ND
HIMW-020I	ND	ND
HIMW-021		
HIMW-022	ND	ND
HIMW-023	ND	ND
HIMW-024	1	205
HIMW-025	ND	ND
HIMW-026I	ND	ND
HIMW-026D	39	879
HIMW-027S	1,322	1,677
HIMW-027I	ND	ND
HIMW-028S	90	379
HIMW-028I	ND	ND
PZ-02		
PZ-03		

Notes:

A blank field is "Not Sampled".

NAPL is periodically identified in this well.

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

Table 5
Groundwater Treatment Performance Monitoring
Second Quarter 2017
Hempstead Intersection Street Former MGP Site

System #1

	April 25, 2017			May 31, 2017			June 30, 2017		
ID	DTW (ft)	PID (ppm)	DO[(1)] (mg/L)	DTW (ft)	PID (ppm)	DO[(1)] (mg/L)	DTW (ft)	PID (ppm)	DO[(1)] (mg/L)
MP-1-1S	29.32	0.1	24.04	29.05	0.1	12.70	28.92	0.0	6.57
MP-1-1D	29.25	0.3	21.83	29.00	2.4	13.11	28.85	0.2	8.13
MP-1-2S	23.85	0.0	27.77	23.60	0.4	12.55	23.45	0.0	6.55
MP-1-2D	23.63	0.0	25.11	23.40	0.9	23.60	23.23	0.0	5.98
MP-1-3S	21.78	0.0	21.45	21.47	0.0	14.51	21.35	0.5	7.67
MP-1-3D	21.82	0.0	24.69	21.53	0.0	15.10	21.41	0.3	7.00
MP-1-4S	24.63	0.0	24.63	24.31	0.0	11.55	21.21	0.0	8.55
MP-1-4D	24.61	0.2	24.01	24.25	0.0	10.12	24.17	0.0	7.12
MP-1-5	29.03	0.0	16.57	28.80	18.0	14.72	28.66	0.0	8.14
MP-1-6	21.41	0.0	15.19	21.10	0.0	14.00	20.99	0.0	6.27
MP-1-7	24.65	0.0	28.65	23.32	0.0	19.10	24.22	0.0	13.00
MP-1-8	26.17	0.0	5.05	25.85	0.0	4.81	25.76	0.0	14.01

System #2

	April 26, 2017			May 30, 2017			June 30, 2017		
ID	DTW (ft)	PID (ppm)	DO[(1)] (mg/L) Bottom	DTW (ft)	PID (ppm)	DO[(1)] (mg/L) Bottom	DTW (ft)	PID (ppm)	DO[(1)] (mg/L) Bottom
MP-2-1	32.17	0.0	28.00	38.85	0.0	14.02	37.70	0.7	22.54
MP-2-2	33.50	0.0	27.25	33.20	0.0	21.49	33.05	0.0	23.41
MP-2-3S	33.41	0.0	25.14	33.05	0.0	27.42	32.92	0.0	26.84
MP-2-3D	33.52	0.0	26.84	33.20	0.0	30.25	33.10	0.0	27.12
MP-2-4	22.10	0.0	21.26	21.75	0.0	19.45	19.81	1.3	18.47
MP-2-5	20.29	0.0	23.63	19.90	0.0	15.60	21.64	0.0	25.55

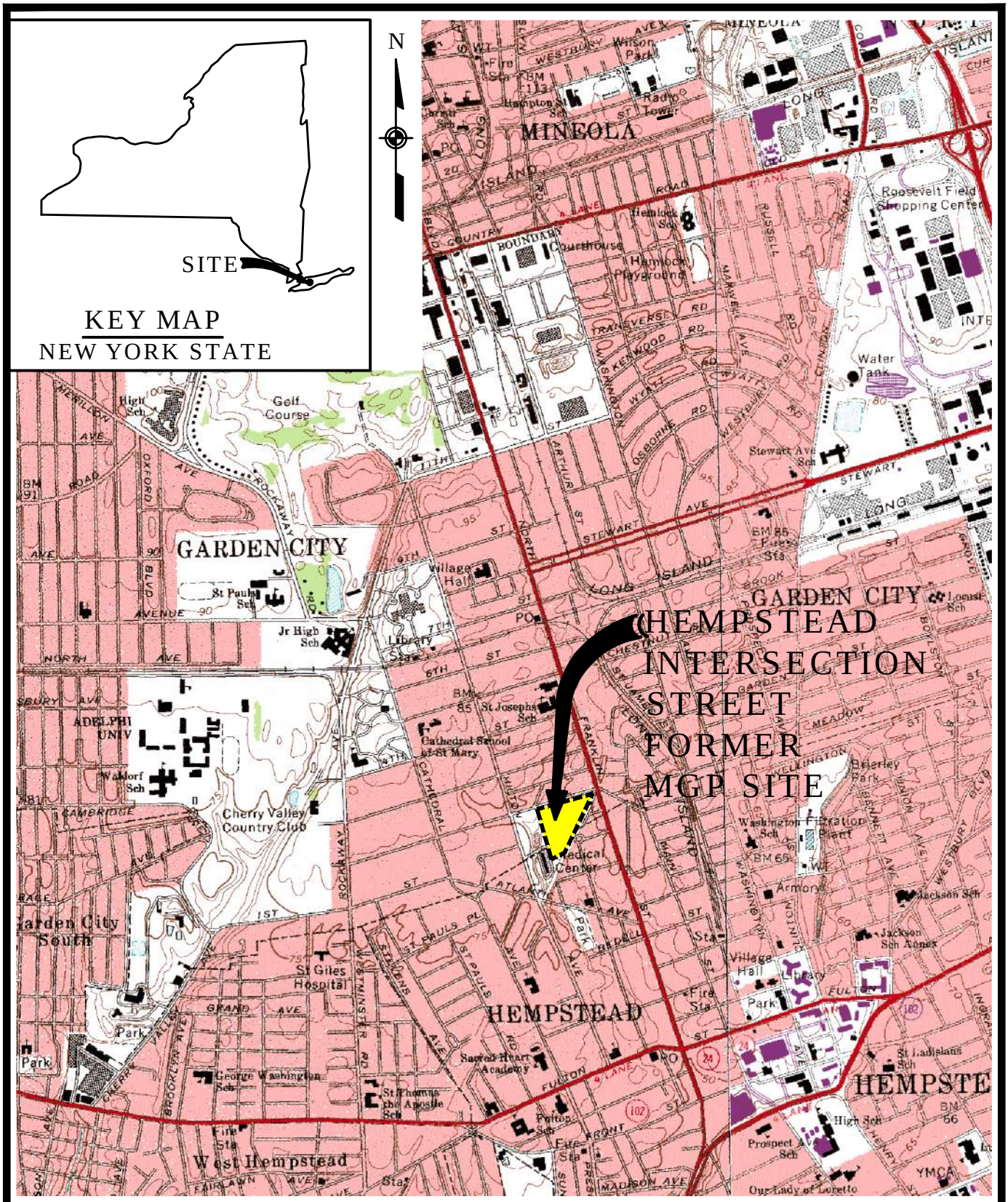
Abbreviations

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

Note

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

FIGURES



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

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

2000' 0 2000'
SCALE IN FEET

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 9/19/2017

AECOM

NATIONAL GRID HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY
SITE MAP - JUNE 2017

FIGURE 2

J:\Projects\11175065.00000\DB\GIS\ARCMAP\GROUNDWATER TREATMENT LOCATIONS (1st Qtr 2017).mxd 11/14/2017

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
0
200 Feet

NATIONAL GRID
FORMER MGP SITE

PZ-02
PZ-03
HIVP-16
HIMW-003S,I,D
HIMW-010S,I,D
HIMW-028S,I
HIMW-027S,I
HIMW-005S,I,D
HIMW-004S,I,D
HIMW-026I,D
HIMW-009S,I,D
HIGP-050
HIMW-021
HIGP-048
HIVP-19
SEE INSET 1
HISB-100
MP-1-3S
MP-1-2S,D
HISB-114
HIGP-057
MP-1-1S,D
MP-1-5
HIGP-053
HIGP-047
MP-1-4S,D
HISB-104
MP-1-8
MP-1-6
MP-1-7
HISB-101
HIMW-025
SEE INSET 2
HIMW-024
HIGP-055
HISB-106
HIVP-17
HIGP-056
HIMW-012S,I,D
HISB-107
MP-2-1
MP-2-5
MP-2-3S,D
MP-2-4
HIGP-068
HISB-115
MP-2-2
HIMW-023
HIGP-049
HIMW-022
HIGP-061
HISB-109
HISB-108
HIGP-064
HIGP-063
HIGP-067
HIGP-062
HIGP-059
HIGP-065
HIMW-013S,I,D
HIVP-18
HIGP-070
HIGP-066
HIMW-014I,D
HIGP-058
HIGP-069
HIGP-072
HIGP-071
HIMW-015I,D

HAMILTON PLACE
SECOND STREET
FRANKLIN AVENUE
L.I.R.R. R.O.W.
OLD FRANKLIN STREET
MAIN STREET
BARNES LANE
MEDICAL PLACE
WENDELL STREET
HILTON AVENUE
SMITH STREET
UNION PLACE
ATLANTIC AVENUE
GARDEN PLACE
SEALEY AVENUE
KELLUM PLACE
SAINT PAULS 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

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
- Groundwater Treatment System

Estimated Extent of Groundwater Plume:

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

Source: ESRI World Imagery

300 0 300 Feet

AECOM

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

FIGURE 3

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

HIMW–011S,I		
DEPTH	TOT. BTEX	TOT. PAHs
28–38	603–13,920	2,813–13,076
80–90	ND–49	ND–3

HIMW–014I,D		
DEPTH	TOT. BTEX	TOT. PAHs
85–95	3–273 (3)	19–288 (19)
140–150	ND–15 (ND)	ND–6 (ND)

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

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

HIMW–028S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	ND–213 (90)	10–738 (379)
50–70	ND (ND)	ND (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–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–012S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
22–32	ND–338.8 (ND)	ND–1,391 (ND)
63–73	6–256	65–527
117–127	ND–6	ND–2

HIMW–015I,D		
DEPTH	TOT. BTEX	TOT. PAHs
80–90	1–111 (3)	ND–273 (5)
141.5–151.5	ND–94 (ND)	ND–1 (ND)

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

HIMW–26I,D		
DEPTH	TOT. BTEX	TOT. PAHs
65–85	ND (ND)	ND–3 (ND)
115–135	14–87 (39)	118–1,749 (879)

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

HIMW–005S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
27–37	ND–232 (ND)	ND–765 (ND)
80–90	50–439 (57)	891–5,337 (1,551)
130–140	ND–359 (43)	ND–2,698 (1,374)

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

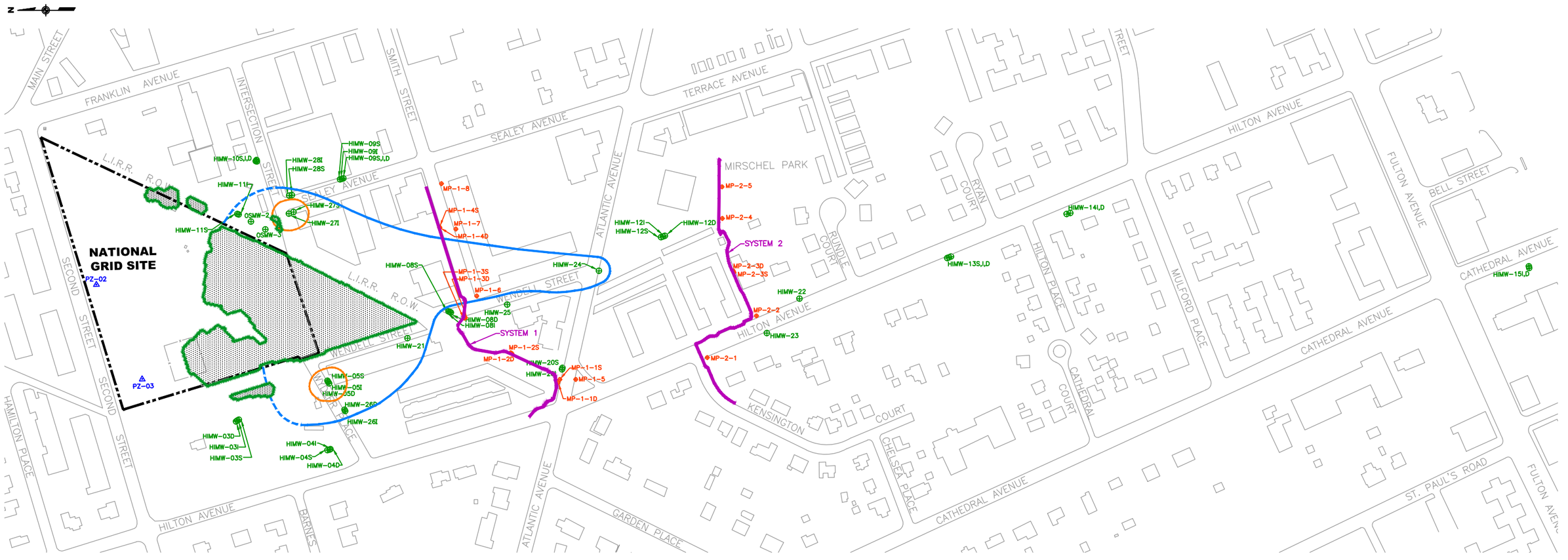
HIMW–013S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
38–48	ND–11 (ND)	ND (ND)
70–80	ND–313 (ND)	ND–156 (ND)
110–120	2–30 (2)	ND–28 (17)

HIMW–020S,I		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–3 (ND)	ND–5 (ND)
63–73	ND–474 (ND)	ND–3,968 (ND)

HIMW–024		
DEPTH	TOT. BTEX	TOT. PAHs
44.6–54.6	ND–900 (1)	ND–1,024 (205)

HIMW–027S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	447–1,483 (1,322)	695–1,807 (1,677)
50–70	ND–2 (ND)	ND–17 (ND)

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



HIMW–13 ⊕ MONITORING WELL
PZ–02 △ PIEZOMETER
MP–2–1 ⊕ OXYGEN SYSTEM MONITORING WELL
NA NOT ANALYZED
ND NOT DETECTED

LOCATION ID → HIMW–024
DEPTH (ft bgs) →

DEPTH	TOT. BTEX	TOT. PAHs
44.6–54.6	ND–900 (1)	ND–1,024 (205)

← CONCENTRATION UNITS ARE ug/L (JUNE 2017 CONCENTRATION)

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

LEGEND:

- 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 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.
- INSTALLED GROUNDWATER TREATMENT SYSTEM
- LIMIT OF MGP SOURCE MATERIAL TREATMENT

150' 0 150'
SCALE IN FEET

AECOM

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

EXTENT OF DISSOLVED-PHASE PLUME AND GROUNDWATER ANALYTICAL RESULTS - JUNE 2017

FIGURE 4

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\GROUNDWATER MONITORING\SECOND QUARTER 2017\FIGURE 4.dwg 9/19/17 - 5 RAL

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\JUNE 2017\FIGURE 5.dwg 9/19/17 - 1 RAL

N

PZ-02, 44.74

NATIONAL GRID
FORMER MGP SITE

PZ-03, 44.53

HIMW-03S, 44.51

OSMW-3, 44.0

HIMW-11S, 44.17

HIMW-10S, 44.53

OSMW-2, 43.75

HIMW-28S, 42.86

HIMW-09S, 43.62

HIMW-27S, 42.87

HIMW-04S, 43.65

HIMW-05S, 43.83

HIMW-8S, 43.26

HIMW-20S, 42.73

HIMW-12S, 42.04

HIMW-13S, 39.99

44.5
44.0
43.5
43.0
42.5
42.0
41.5
41.0
40.5
40.0

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

LEGEND:

⊕	MONITORING WELL
⊞	IPR WELL
△	PIEZOMETER
→	GROUNDWATER FLOW DIRECTION
44	POTENTIOMETRIC SURFACE CONTOUR
— - - —	FORMER MGP SITE BOUNDARY
HIMW-8S, 43.26	LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
NM	NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

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

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR SHALLOW GROUNDWATER
JUNE 19, 2017

FIGURE 5

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\JUNE 2017\FIGURE 6.dwg 9/19/17 - 3 RAL

N

NATIONAL GRID
FORMER MGP SITE

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

HIMW-03I, 43.82
HIMW-05I, 43.51
HIMW-04I, 43.45
HIMW-26I, 42.75
HIMW-27I, 42.90
HIMW-11I, 44.14
HIMW-10I, 44.57
HIMW-28I, 42.74
HIMW-09I, 43.56
HIMW-08I, 43.15
HIMW-25, 43.04
HIMW-20I, 42.74
HIMW-24, 42.52
HIMW-12I, 42.17
HIMW-23, 41.63
HIMW-22, 41.46
HIMW-13I, 40.17
HIMW-14I, 40.19
HIMW-15I, 37.40

44.5
44.0
43.5
43.0
42.5
42.0
41.5
41.0
40.5
40.0
39.5
39.0
38.5
38.0
37.5

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

LEGEND:

- MONITORING WELL
- IPR WELL
- GROUNDWATER FLOW DIRECTION
- 44 — POTENTIOMETRIC SURFACE CONTOUR
- FORMER MGP SITE BOUNDARY
- HIMW-08I, 43.15 — LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
- NM — NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

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

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR INTERMEDIATE GROUNDWATER
JUNE 19, 2017

FIGURE 6

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\JUNE 2017\FIGURE 7.dwg 9/19/17 - 2 RAL

N

NATIONAL GRID
FORMER MGP SITE

HIMW-03D, 43.40
HIMW-11D, 44.08
HIMW-05D, 42.63
HIMW-04D, 42.60
HIMW-09D, 43.53
HIMW-26D, 42.50
HIMW-08D, 43.14
HIMW-12D, NM
HIMW-13D, 40.11
HIMW-14D, 37.72
HIMW-15D, 35.30

44.0
43.5
43.0
42.5
42.0
41.5
41.0
40.5
40.0
39.5
39.0
38.5
38.0
37.5
37.0
36.5
36.0
35.5

SECOND STREET
HILTON AVENUE
BARNES LANE
WITHER 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
UNION PLACE
SEALEY AVENUE
SMITH STREET
ATLANTIC AVENUE
GARDEN PLACE
KELLUM PLACE
KENSINGTON COURT
CATHEDRAL AVENUE
CHELSEA PLACE
MIRSCHEL PARK
TERRACE AVENUE
MARGARET COURT
BEDELL STREET
NORTH FRANKLIN STREET
WEST COLUMBIA ST
RUNDLE COURT
RYAN COURT
CATHEDRAL COURT
HILTON PLACE
JACKSON STREET
MULFORD PLACE
FULTON AVENUE
BELL STREET

LEGEND:

⊕	MONITORING WELL
→	GROUNDWATER FLOW DIRECTION
43	POTENTIOMETRIC SURFACE CONTOUR
— - - —	FORMER MGP SITE BOUNDARY
HIMW-14D, 37.72	LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
NM	NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

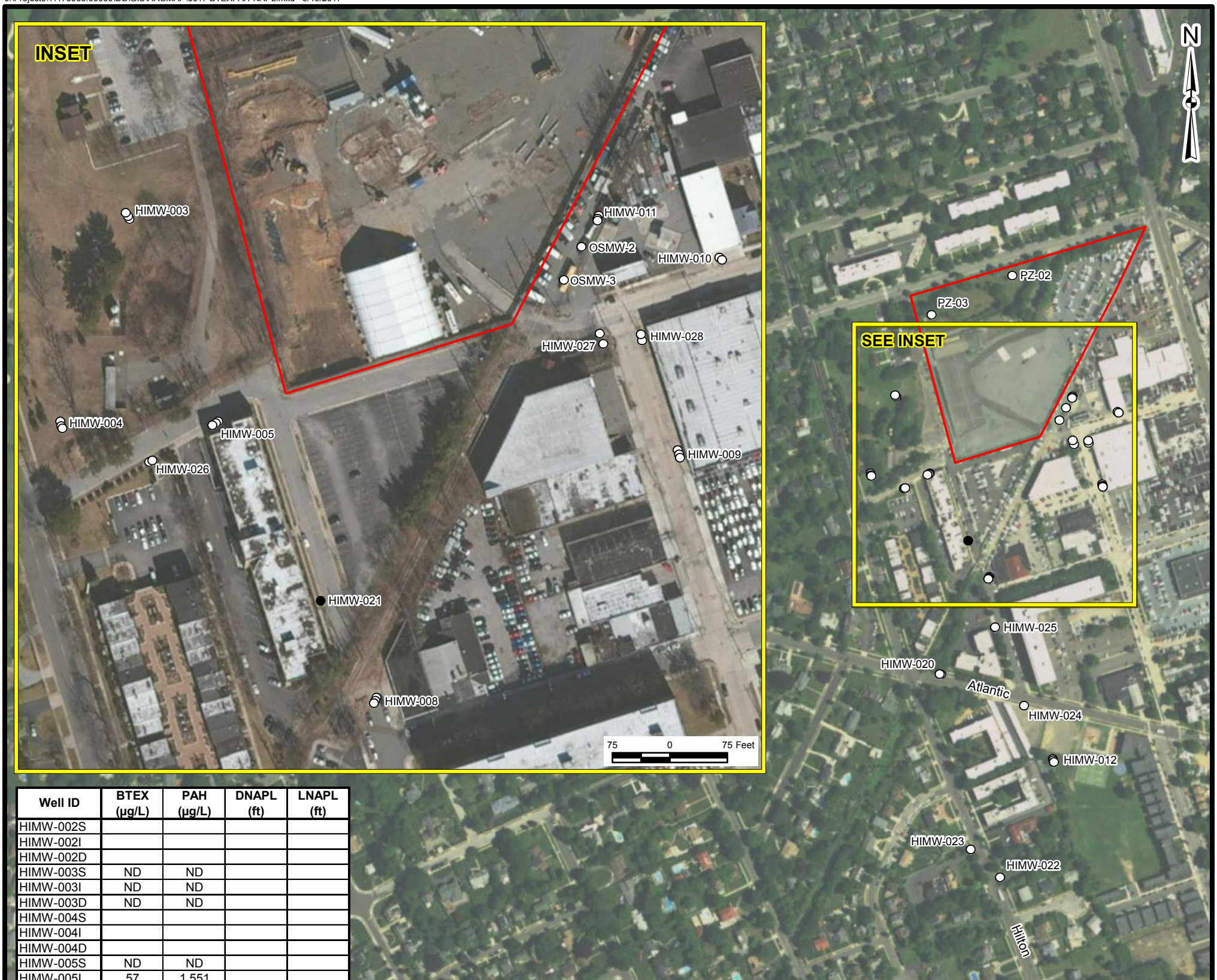
NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR DEEP GROUNDWATER
JUNE 19, 2017

FIGURE 7

J:\Projects\11175065.00000\DB\GIS\ARCMAP\0617 BTEXPAH-NAPL.mxd 9/19/2017



Well ID	BTEX (µg/L)	PAH (µg/L)	DNAPL (ft)	LNAPL (ft)
HIMW-002S				
HIMW-002I				
HIMW-002D				
HIMW-003S	ND	ND		
HIMW-003I	ND	ND		
HIMW-003D	ND	ND		
HIMW-004S				
HIMW-004I				
HIMW-004D				
HIMW-005S	ND	ND		
HIMW-005I	57	1,551		
HIMW-005D	43	1,374		
HIMW-008S	ND	3		
HIMW-008I	ND	ND		
HIMW-008D	ND	ND		
HIMW-009S				
HIMW-009I				
HIMW-009D				
HIMW-010S				
HIMW-010I				
HIMW-011S				
HIMW-011I				
HIMW-011D				
HIMW-012S	ND	ND		
HIMW-012I				
HIMW-012D				
HIMW-013S	ND	ND		
HIMW-013I	ND	ND		
HIMW-013D	2	17		
HIMW-014I	3	19		
HIMW-014D	ND	ND		
HIMW-015I	3	5		
HIMW-015D	ND	ND		
HIMW-020S	ND	ND		
HIMW-020I	ND	ND		
HIMW-021			1.80	
HIMW-022	ND	ND		
HIMW-023	ND	ND		
HIMW-024	1	205		
HIMW-025	ND	ND		
HIMW-026I	ND	ND		
HIMW-026D	39	879		
HIMW-027S	1,322	1,677		
HIMW-027I	ND	ND		
HIMW-028S	90	379		
HIMW-028I	ND	ND		
PZ-02				
PZ-03				
OSMW-01				
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

Source: ESRI World Imagery

400 0 400 Feet

AECOM

HEMPSTEAD/GARDEN CITY, NY
TOTAL DISSOLVED-PHASE BTEX/PAH CONCENTRATIONS
SECOND QUARTER 2017

FIGURE 8

APPENDIX A

DATA USABILITY SUMMARY REPORT

(Provided in Electronic Format Only)

APPENDIX A
DATA USABILITY SUMMARY REPORT
SECOND QUARTER 2017

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

September 2017

TABLE OF CONTENTS

TABLES
(Following Text)

APPENDICES
(Following Tables)

I. INTRODUCTION

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

This DUSR discusses the usability of the analytical data for twenty-nine (29) groundwater samples, two (2) field duplicates, one (1) matrix spike/matrix spike duplicate (MS/MSD) pair, one (1) field blank, and five (5) trip blanks collected by URS personnel on June 20-27, 2017. Six (6) of the groundwater samples (i.e., HIMW-26I, -26D, -27S, -27I, -28S, and -28I) were collected as part of the oxygen treatment system design evaluation, while the remaining twenty three (23) groundwater samples were collected as part of the 2016 2nd quarter groundwater monitoring event at the Hempstead Intersection Street Former MGP Site.

II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION

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

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

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

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

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

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

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

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

III. DATA DELIVERABLE COMPLETENESS

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

IV. SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody (COC). All samples were analyzed within the required holding times.

V. NON-CONFORMANCES

The percent differences (%D) between the ICAL average RRFs and the RRFs in the continuing calibration (CCAL) standards were greater than 20% for one or more of the following SVOCs: 2-methylnaphthalene and pyrene. The non-detect results for these compounds in the samples in WO# 7022589 were qualified 'UJ' and the detected results were qualified 'J'.

VI. SAMPLE RESULTS AND REPORTING

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

Field duplicates were collected from monitoring well locations HIMW-013D and HIMW-28S, 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. Those results qualified 'UJ' (estimated quantitation limit) or 'J' (estimated concentration) during the data review are considered conditionally usable. URS does not recommend the re-collection of any samples at this time.

Prepared By: _____ **Date:** 9/18/17
Ann Marie Kropovitch, Chemist

Reviewed By: _____ **Date:** 9/18/17
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
SECOND QUARTER 2017
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			06/21/17	06/21/17	06/21/17	06/29/17	06/29/17
Parameter	**Units**	**Criteria***					
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	1.1	1.0 U
Xylene (total)	UG/L	-	2.0 U	2.0 U	2.0 U	42.2	57.4
Total BTEX	UG/L	100	ND	ND	ND	43.3	57.4
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	199 DJ	216 DJ
Acenaphthene	UG/L	-	5.0 U	5.0 U	5.0 U	4.2	11.9
Acenaphthylene	UG/L	-	5.0 U	5.0 U	5.0 U	71.4	179 D
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	2.3
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	UG/L	-	5.0 U	5.0 U	5.0 U	9.4	24.1
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	1,090 D	1,100 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	17.5
Pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	1,374	1,550.8

*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

J - The reported concentration is an estimated value.
U - Not detected above the reported quantitation limit.
D - Result reported from a secondary dilution analysis.
Made By: AMK 9/14/17; Checked By: GEK 9/18/17

Detection Limits shown are PQL

TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
SECOND QUARTER 2017
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-005S	HIMW-008D	HIMW-008I	HIMW-008S	HIMW-012S
Sample ID			HIMW-05S	HIMW-08D	HIMW-08I	HIMW-08S	HIMW-12S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/29/17	06/26/17	06/26/17	06/28/17	06/23/17
Parameter	**Units**	**Criteria***					
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	-	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total BTEX	UG/L	100	ND	ND	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Acenaphthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	UG/L	-	5.0 U	5.0 U	5.0 U	2.3	5.0 U
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 U	5.0 U	5.0 U	1.1	5.0 U
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	UG/L	-	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	3.4	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

J - The reported concentration is an estimated value.
U - Not detected above the reported quantitation limit.
D - Result reported from a secondary dilution analysis.
Made By: AMK 9/14/17; Checked By: GEK 9/18/17

Detection Limits shown are PQL

TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
SECOND QUARTER 2017
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-013D	HIMW-013D	HIMW-013I	HIMW-013S	HIMW-014D
Sample ID			DUP20170622	HIMW-13D	HIMW-13I	HIMW-13S	HIMW-14D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/22/17	06/22/17	06/22/17	06/22/17	06/23/17
Parameter	Units	Criteria*	Field Duplicate (1-1)				
Volatile Organic Compounds							
Benzene	UG/L	-	1.6	1.5	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	-	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total BTEX	UG/L	100	1.6	1.5	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthene	UG/L	-	4.9	5.0	5.0 U	5.0 U	5.0 U
Acenaphthylene	UG/L	-	12.1	12.2	5.0 U	5.0 U	5.0 U
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	17	17.2	ND	ND	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit.

D - Result reported from a secondary dilution analysis.

Made By: AMK 9/14/17; Checked By: GEK 9/18/17

Detection Limits shown are PQL

Advanced Selection AMK-TEMP
J:\Projects\11175065.00000\DB\Program\EDMS_dev.mdb
Printed: 9/18/2017 2:20:05 PM
[LOGDATE] >= #6/1/2017# AND [MATRIX] = 'WG' AND [LOCID] <> 'FIELDQC'

TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
SECOND QUARTER 2017
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-014I	HIMW-015D	HIMW-015I	HIMW-020I	HIMW-020S
Sample ID			HIMW-14I	HIMW-15D	HIMW-15I	HIMW-20I	HIMW-20S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/23/17	06/20/17	06/20/17	06/26/17	06/26/17
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	2.7	1.0 U	3.4	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	-	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total BTEX	UG/L	100	2.7	ND	3.4	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ
Acenaphthene	UG/L	-	5.9	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	UG/L	-	8.3	5.0 U	5.1	5.0 U	5.0 U
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	UG/L	-	2.1	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenanthrene	UG/L	-	2.7	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	19	ND	5.1	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

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit.

D - Result reported from a secondary dilution analysis.

Made By: AMK 9/14/17; Checked By: GEK 9/18/17

Detection Limits shown are PQL

Advanced Selection: AMK-TEMP
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Printed: 9/18/2017 2:20:06 PM
[LOGDATE] >= #6/1/2017# AND [MATRIX] = 'WG' AND [LOCID] <> 'FIELDQC'

TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
SECOND QUARTER 2017
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-022	HIMW-023	HIMW-024	HIMW-025	HIMW-026D
Sample ID			HIMW-22	HIMW-23	HIMW-24	HIMW-25	HIMW-26D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/21/17	06/20/17	06/27/17	06/27/17	06/27/17
Parameter	**Units**	**Criteria***					
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	-	2.0 U	2.0 U	1.0	2.0 U	38.7
Total BTEX	UG/L	100	ND	ND	1	ND	38.7
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	11.2 J	5.0 UJ	127 DJ
Acenaphthene	UG/L	-	5.0 U	5.0 U	1.7	5.0 U	4.4
Acenaphthylene	UG/L	-	5.0 U	5.0 U	20.0	5.0 U	78.9
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	UG/L	-	5.0 U	5.0 U	5.0	5.0 U	11.3
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	UG/L	-	5.0 U	5.0 U	166 D	5.0 U	645 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	1.2	5.0 U	12.4
Pyrene	UG/L	-	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	205.1	ND	879

*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

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit.

D - Result reported from a secondary dilution analysis.

Made By: AMK 9/14/17; Checked By: GEK 9/18/17

Detection Limits shown are PQL

Advanced Selection: AMX-TEMP
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[LOGDATE] >= #6/1/2017# AND [MATRIX] = 'WG' AND [LOCID] <> 'FIELDQC'

TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
SECOND QUARTER 2017
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-026I	HIMW-027I	HIMW-027S	HIMW-028I	HIMW-028S
Sample ID			HIMW-26I	HIMW-27I	HIMW-27S	HIMW-28I	DUPE20170628
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/27/17	06/28/17	06/28/17	06/28/17	06/28/17
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	11.1	1.0 U	4.1
Ethylbenzene	UG/L	-	1.0 U	1.0 U	618 D	1.0 U	76.5
Toluene	UG/L	-	1.0 U	1.0 U	29.1	1.0 U	1.0 U
Xylene (total)	UG/L	-	2.0 U	2.0 U	664 D	2.0 U	4.8
Total BTEX	UG/L	100	ND	ND	1,322.2	ND	85.4
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 UJ	5.0 UJ	351 DJ	5.0 UJ	40.7 J
Acenaphthene	UG/L	-	5.0 U	5.0 U	103 D	5.0 U	34.8
Acenaphthylene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Anthracene	UG/L	-	5.0 U	5.0 U	12.1	5.0 U	4.5
Benzo(a)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	UG/L	-	5.0 U	5.0 U	3.3	5.0 U	5.0 U
Fluorene	UG/L	-	5.0 U	5.0 U	41.4	5.0 U	19.5
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	UG/L	-	5.0 U	5.0 U	1,100 D	5.0 U	275 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	61.4	5.0 U	25.8
Pyrene	UG/L	-	5.0 UJ	5.0 UJ	4.4 J	5.0 UJ	5.0 UJ
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	1,676.6	ND	400.3

*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

J - The reported concentration is an estimated value.

U - Not detected above the reported quantitation limit.

D - Result reported from a secondary dilution analysis.

Made By: AMK 9/14/17; Checked By: GEK 9/18/17

Detection Limits shown are PQL

Advanced Selection: AMK-TEMP
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[LOGDATE] >= #6/1/2017# AND [MATRIX] = 'WG' AND [LOCID] <> 'FIELDQC'

TABLE A-1
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
SECOND QUARTER 2017
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-028S
Sample ID			HIMW-028S
Matrix			Groundwater
Depth Interval (ft)			-
Date Sampled			06/28/17
Parameter	**Units**	**Criteria***	
Volatile Organic Compounds			
Benzene	UG/L	-	4.1
Ethylbenzene	UG/L	-	80.9
Toluene	UG/L	-	1.0 U
Xylene (total)	UG/L	-	5.2
Total BTEX	UG/L	100	90.2
Semivolatile Organic Compounds			
2-Methylnaphthalene	UG/L	-	38.6 J
Acenaphthene	UG/L	-	31.4
Acenaphthylene	UG/L	-	5.0 U
Anthracene	UG/L	-	4.0
Benzo(a)anthracene	UG/L	-	5.0 U
Benzo(a)pyrene	UG/L	-	5.0 U
Benzo(b)fluoranthene	UG/L	-	5.0 U
Benzo(g,h,i)perylene	UG/L	-	5.0 U
Benzo(k)fluoranthene	UG/L	-	5.0 U
Chrysene	UG/L	-	5.0 U
Dibenz(a,h)anthracene	UG/L	-	5.0 U
Fluoranthene	UG/L	-	5.0 U
Fluorene	UG/L	-	17.5
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U
Naphthalene	UG/L	-	264 D
Phenanthrene	UG/L	-	23.6
Pyrene	UG/L	-	5.0 UJ
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	379.1

*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

J - The reported concentration is an estimated value.
U - Not detected above the reported quantitation limit.
D - Result reported from a secondary dilution analysis.
Made By: AMK 9/14/17; Checked By: GEK 9/18/17

Detection Limits shown are PQL

Advanced Selection AMK-TEMP
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Printed: 9/18/2017 2:20:06 PM
[LOGDATE] >= #6/1/2017# AND [MATRIX] = 'WG' AND [LOCID] <> 'FIELDQC'

TABLE A-2
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
SECOND QUARTER 2017
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			TB20170620	TB20170622	TB20170623	TB20170627	FB20170629
Matrix			Water Quality	Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/20/17	06/22/17	06/23/17	06/27/17	06/29/17
Parameter	Units	Criteria*	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Field 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	-	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total BTEX	UG/L	100	ND	ND	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	NA	NA	NA	NA	5.0 UJ
Acenaphthene	UG/L	-	NA	NA	NA	NA	5.0 U
Acenaphthylene	UG/L	-	NA	NA	NA	NA	5.0 U
Anthracene	UG/L	-	NA	NA	NA	NA	5.0 U
Benzo(a)anthracene	UG/L	-	NA	NA	NA	NA	5.0 U
Benzo(a)pyrene	UG/L	-	NA	NA	NA	NA	5.0 U
Benzo(b)fluoranthene	UG/L	-	NA	NA	NA	NA	5.0 U
Benzo(g,h,i)perylene	UG/L	-	NA	NA	NA	NA	5.0 U
Benzo(k)fluoranthene	UG/L	-	NA	NA	NA	NA	5.0 U
Chrysene	UG/L	-	NA	NA	NA	NA	5.0 U
Dibenz(a,h)anthracene	UG/L	-	NA	NA	NA	NA	5.0 U
Fluoranthene	UG/L	-	NA	NA	NA	NA	5.0 U
Fluorene	UG/L	-	NA	NA	NA	NA	5.0 U
Indeno(1,2,3-cd)pyrene	UG/L	-	NA	NA	NA	NA	5.0 U
Naphthalene	UG/L	-	NA	NA	NA	NA	5.0 U
Phenanthrene	UG/L	-	NA	NA	NA	NA	5.0 U
Pyrene	UG/L	-	NA	NA	NA	NA	5.0 UJ
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	NA	NA	NA	NA	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

Made By: AMK 9/14/17; Checked By: GEK 9/18/17

Detection Limits shown are PQL

Advanced Selection: AMK-TEMP2
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[LOGDATE] >= #6/1/2017# AND [LOCID] = 'FIELDQC'

TABLE A-2
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
SECOND QUARTER 2017
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			FIELDQC
Sample ID			TB20170629
Matrix			Water Quality
Depth Interval (ft)			-
Date Sampled			06/29/17
Parameter	**Units**	**Criteria***	Trip Blank (1-1)
Volatile Organic Compounds			
Benzene	UG/L	-	1.0 U
Ethylbenzene	UG/L	-	1.0 U
Toluene	UG/L	-	1.0 U
Xylene (total)	UG/L	-	2.0 U
Total BTEX	UG/L	100	ND
Semivolatile Organic Compounds			
2-Methylnaphthalene	UG/L	-	NA
Acenaphthene	UG/L	-	NA
Acenaphthylene	UG/L	-	NA
Anthracene	UG/L	-	NA
Benzo(a)anthracene	UG/L	-	NA
Benzo(a)pyrene	UG/L	-	NA
Benzo(b)fluoranthene	UG/L	-	NA
Benzo(g,h,i)perylene	UG/L	-	NA
Benzo(k)fluoranthene	UG/L	-	NA
Chrysene	UG/L	-	NA
Dibenz(a,h)anthracene	UG/L	-	NA
Fluoranthene	UG/L	-	NA
Fluorene	UG/L	-	NA
Indeno(1,2,3-cd)pyrene	UG/L	-	NA
Naphthalene	UG/L	-	NA
Phenanthrene	UG/L	-	NA
Pyrene	UG/L	-	NA
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	NA

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

Made By: AMK 9/14/17; Checked By: GEK 9/18/17

Detection Limits shown are PQL

Advanced Selection: AMK-TEMP2
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Printed: 9/18/2017 2:22:03 PM
[LOGDATE] >= #6/1/2017# AND [LOCID] = 'FIELDQC'

ATTACHMENT A

VALIDATED FORM 1'S

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Sample: HIMW-03D **Lab ID: 7022178001** Collected: 06/21/17 09:20 Received: 06/22/17 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	206-44-0	R1
Fluorene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 15:08	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	69	%.	35-114	1	06/23/17 09:31	06/26/17 15:08	4165-60-0	
2-Fluorobiphenyl (S)	74	%.	43-116	1	06/23/17 09:31	06/26/17 15:08	321-60-8	
p-Terphenyl-d14 (S)	84	%.	33-141	1	06/23/17 09:31	06/26/17 15:08	1718-51-0	
Phenol-d5 (S)	25	%.	10-110	1	06/23/17 09:31	06/26/17 15:08	4165-62-2	
2-Fluorophenol (S)	44	%.	21-110	1	06/23/17 09:31	06/26/17 15:08	367-12-4	CC
2,4,6-Tribromophenol (S)	72	%.	10-123	1	06/23/17 09:31	06/26/17 15:08	118-79-6	
2-Chlorophenol-d4 (S)	55	%.	33-110	1	06/23/17 09:31	06/26/17 15:08	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	53	%.	16-110	1	06/23/17 09:31	06/26/17 15:08	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/25/17 15:46	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 15:46	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 15:46	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 15:46	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%.	68-153	1		06/25/17 15:46	17060-07-0	
4-Bromofluorobenzene (S)	102	%.	79-124	1		06/25/17 15:46	460-00-4	
Toluene-d8 (S)	86	%.	69-124	1		06/25/17 15:46	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Sample: HIMW-03I **Lab ID: 7022178002** Collected: 06/21/17 10:30 Received: 06/22/17 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:32	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	78	%.	35-114	1	06/23/17 09:31	06/26/17 16:32	4165-60-0	
2-Fluorobiphenyl (S)	82	%.	43-116	1	06/23/17 09:31	06/26/17 16:32	321-60-8	
p-Terphenyl-d14 (S)	60	%.	33-141	1	06/23/17 09:31	06/26/17 16:32	1718-51-0	
Phenol-d5 (S)	28	%.	10-110	1	06/23/17 09:31	06/26/17 16:32	4165-62-2	
2-Fluorophenol (S)	29	%.	21-110	1	06/23/17 09:31	06/26/17 16:32	367-12-4	CC
2,4,6-Tribromophenol (S)	69	%.	10-123	1	06/23/17 09:31	06/26/17 16:32	118-79-6	
2-Chlorophenol-d4 (S)	64	%.	33-110	1	06/23/17 09:31	06/26/17 16:32	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	56	%.	16-110	1	06/23/17 09:31	06/26/17 16:32	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/25/17 16:05	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 16:05	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 16:05	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 16:05	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%.	68-153	1		06/25/17 16:05	17060-07-0	
4-Bromofluorobenzene (S)	106	%.	79-124	1		06/25/17 16:05	460-00-4	
Toluene-d8 (S)	88	%.	69-124	1		06/25/17 16:05	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Sample: HIMW-03S **Lab ID: 7022178003** Collected: 06/21/17 11:30 Received: 06/22/17 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 16:59	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	83	%.	35-114	1	06/23/17 09:31	06/26/17 16:59	4165-60-0	
2-Fluorobiphenyl (S)	83	%.	43-116	1	06/23/17 09:31	06/26/17 16:59	321-60-8	
p-Terphenyl-d14 (S)	84	%.	33-141	1	06/23/17 09:31	06/26/17 16:59	1718-51-0	
Phenol-d5 (S)	31	%.	10-110	1	06/23/17 09:31	06/26/17 16:59	4165-62-2	
2-Fluorophenol (S)	47	%.	21-110	1	06/23/17 09:31	06/26/17 16:59	367-12-4	CC
2,4,6-Tribromophenol (S)	78	%.	10-123	1	06/23/17 09:31	06/26/17 16:59	118-79-6	
2-Chlorophenol-d4 (S)	71	%.	33-110	1	06/23/17 09:31	06/26/17 16:59	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	62	%.	16-110	1	06/23/17 09:31	06/26/17 16:59	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/25/17 16:25	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 16:25	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 16:25	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 16:25	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	68-153	1		06/25/17 16:25	17060-07-0	
4-Bromofluorobenzene (S)	105	%.	79-124	1		06/25/17 16:25	460-00-4	
Toluene-d8 (S)	89	%.	69-124	1		06/25/17 16:25	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-05D **Lab ID: 7022589017** Collected: 06/29/17 09:32 Received: 06/29/17 13:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**4.2J**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	83-32-9	
Acenaphthylene	**71.4**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	206-44-0	
Fluorene	**9.4**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	193-39-5	
2-Methylnaphthalene	**199**	ug/L	100	20	06/30/17 09:01	07/05/17 20:08	91-57-6	CC
Naphthalene	**1090**	ug/L	100	20	06/30/17 09:01	07/05/17 20:08	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:14	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	66	%.	35-114	1	06/30/17 09:01	07/04/17 00:14	4165-60-0	
2-Fluorobiphenyl (S)	90	%.	43-116	1	06/30/17 09:01	07/04/17 00:14	321-60-8	
p-Terphenyl-d14 (S)	128	%.	33-141	1	06/30/17 09:01	07/04/17 00:14	1718-51-0	CC
Phenol-d5 (S)	37	%.	10-110	1	06/30/17 09:01	07/04/17 00:14	4165-62-2	
2-Fluorophenol (S)	62	%.	21-110	1	06/30/17 09:01	07/04/17 00:14	367-12-4	
2,4,6-Tribromophenol (S)	97	%.	10-123	1	06/30/17 09:01	07/04/17 00:14	118-79-6	
2-Chlorophenol-d4 (S)	75	%.	33-110	1	06/30/17 09:01	07/04/17 00:14	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	65	%.	16-110	1	06/30/17 09:01	07/04/17 00:14	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/30/17 00:17	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/30/17 00:17	100-41-4	
Toluene	**1.1**	ug/L	1.0	1		06/30/17 00:17	108-88-3	
Xylene (Total)	**42.2**	ug/L	2.0	1		06/30/17 00:17	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	120	%.	68-153	1		06/30/17 00:17	17060-07-0	
4-Bromofluorobenzene (S)	98	%.	79-124	1		06/30/17 00:17	460-00-4	
Toluene-d8 (S)	94	%.	69-124	1		06/30/17 00:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-05I **Lab ID: 7022589016** Collected: 06/29/17 08:18 Received: 06/29/17 13:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**11.9**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	83-32-9	
Acenaphthylene	**179**	ug/L	100	20	06/30/17 09:01	07/05/17 19:40	208-96-8	
Anthracene	**2.3J**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	206-44-0	
Fluorene	**24.1**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	193-39-5	
2-Methylnaphthalene	**216**	ug/L	100	20	06/30/17 09:01	07/05/17 19:40	91-57-6	CC
Naphthalene	**1100**	ug/L	100	20	06/30/17 09:01	07/05/17 19:40	91-20-3	
Phenanthrene	**17.5**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:46	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	64	%.	35-114	1	06/30/17 09:01	07/03/17 23:46	4165-60-0	
2-Fluorobiphenyl (S)	87	%.	43-116	1	06/30/17 09:01	07/03/17 23:46	321-60-8	
p-Terphenyl-d14 (S)	72	%.	33-141	1	06/30/17 09:01	07/03/17 23:46	1718-51-0	CC
Phenol-d5 (S)	33	%.	10-110	1	06/30/17 09:01	07/03/17 23:46	4165-62-2	
2-Fluorophenol (S)	59	%.	21-110	1	06/30/17 09:01	07/03/17 23:46	367-12-4	
2,4,6-Tribromophenol (S)	98	%.	10-123	1	06/30/17 09:01	07/03/17 23:46	118-79-6	
2-Chlorophenol-d4 (S)	75	%.	33-110	1	06/30/17 09:01	07/03/17 23:46	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	62	%.	16-110	1	06/30/17 09:01	07/03/17 23:46	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 23:55	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 23:55	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 23:55	108-88-3	
Xylene (Total)	**57.4**	ug/L	2.0	1		06/29/17 23:55	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%.	68-153	1		06/29/17 23:55	17060-07-0	
4-Bromofluorobenzene (S)	96	%.	79-124	1		06/29/17 23:55	460-00-4	
Toluene-d8 (S)	95	%.	69-124	1		06/29/17 23:55	2037-26-5	

9/8/17

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-05S **Lab ID: 7022589015** Collected: 06/29/17 07:18 Received: 06/29/17 13:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 23:18	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	85	%.	35-114	1	06/30/17 09:01	07/03/17 23:18	4165-60-0	
2-Fluorobiphenyl (S)	87	%.	43-116	1	06/30/17 09:01	07/03/17 23:18	321-60-8	
p-Terphenyl-d14 (S)	104	%.	33-141	1	06/30/17 09:01	07/03/17 23:18	1718-51-0	CC
Phenol-d5 (S)	34	%.	10-110	1	06/30/17 09:01	07/03/17 23:18	4165-62-2	
2-Fluorophenol (S)	58	%.	21-110	1	06/30/17 09:01	07/03/17 23:18	367-12-4	
2,4,6-Tribromophenol (S)	93	%.	10-123	1	06/30/17 09:01	07/03/17 23:18	118-79-6	
2-Chlorophenol-d4 (S)	71	%.	33-110	1	06/30/17 09:01	07/03/17 23:18	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	58	%.	16-110	1	06/30/17 09:01	07/03/17 23:18	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 23:33	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 23:33	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 23:33	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/29/17 23:33	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	121	%.	68-153	1		06/29/17 23:33	17060-07-0	
4-Bromofluorobenzene (S)	96	%.	79-124	1		06/29/17 23:33	460-00-4	
Toluene-d8 (S)	94	%.	69-124	1		06/29/17 23:33	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-08D **Lab ID: 7022589003** Collected: 06/26/17 14:05 Received: 06/27/17 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:43	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	72	%.	35-114	1	06/30/17 09:01	07/03/17 17:43	4165-60-0	
2-Fluorobiphenyl (S)	75	%.	43-116	1	06/30/17 09:01	07/03/17 17:43	321-60-8	
p-Terphenyl-d14 (S)	77	%.	33-141	1	06/30/17 09:01	07/03/17 17:43	1718-51-0	CC
Phenol-d5 (S)	29	%.	10-110	1	06/30/17 09:01	07/03/17 17:43	4165-62-2	
2-Fluorophenol (S)	50	%.	21-110	1	06/30/17 09:01	07/03/17 17:43	367-12-4	
2,4,6-Tribromophenol (S)	83	%.	10-123	1	06/30/17 09:01	07/03/17 17:43	118-79-6	
2-Chlorophenol-d4 (S)	61	%.	33-110	1	06/30/17 09:01	07/03/17 17:43	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	55	%.	16-110	1	06/30/17 09:01	07/03/17 17:43	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 19:37	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 19:37	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 19:37	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/29/17 19:37	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	117	%.	68-153	1		06/29/17 19:37	17060-07-0	
4-Bromofluorobenzene (S)	95	%.	79-124	1		06/29/17 19:37	460-00-4	
Toluene-d8 (S)	94	%.	69-124	1		06/29/17 19:37	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-08S **Lab ID: 7022589010** Collected: 06/28/17 08:55 Received: 06/29/17 13:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	83-32-9	
Acenaphthylene	**2.3J**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	205-99-2	
Benzo(g,h,i)perylene	**1.1J**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:37	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	85	%.	35-114	1	06/30/17 09:01	07/04/17 01:37	4165-60-0	
2-Fluorobiphenyl (S)	88	%.	43-116	1	06/30/17 09:01	07/04/17 01:37	321-60-8	
p-Terphenyl-d14 (S)	89	%.	33-141	1	06/30/17 09:01	07/04/17 01:37	1718-51-0	CC
Phenol-d5 (S)	35	%.	10-110	1	06/30/17 09:01	07/04/17 01:37	4165-62-2	
2-Fluorophenol (S)	59	%.	21-110	1	06/30/17 09:01	07/04/17 01:37	367-12-4	
2,4,6-Tribromophenol (S)	98	%.	10-123	1	06/30/17 09:01	07/04/17 01:37	118-79-6	
2-Chlorophenol-d4 (S)	73	%.	33-110	1	06/30/17 09:01	07/04/17 01:37	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	59	%.	16-110	1	06/30/17 09:01	07/04/17 01:37	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 21:46	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 21:46	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 21:46	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/29/17 21:46	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	122	%.	68-153	1		06/29/17 21:46	17060-07-0	
4-Bromofluorobenzene (S)	95	%.	79-124	1		06/29/17 21:46	460-00-4	
Toluene-d8 (S)	95	%.	69-124	1		06/29/17 21:46	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-08I **Lab ID: 7022589004** Collected: 06/26/17 15:30 Received: 06/27/17 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L U5	5.0	1	06/30/17 09:01	07/03/17 18:11	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:11	85-01-8	
Pyrene	**<5.0**	ug/L U5	5.0	1	06/30/17 09:01	07/03/17 18:11	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	75	%.	35-114	1	06/30/17 09:01	07/03/17 18:11	4165-60-0	
2-Fluorobiphenyl (S)	74	%.	43-116	1	06/30/17 09:01	07/03/17 18:11	321-60-8	
p-Terphenyl-d14 (S)	62	%.	33-141	1	06/30/17 09:01	07/03/17 18:11	1718-51-0	CC
Phenol-d5 (S)	29	%.	10-110	1	06/30/17 09:01	07/03/17 18:11	4165-62-2	
2-Fluorophenol (S)	49	%.	21-110	1	06/30/17 09:01	07/03/17 18:11	367-12-4	
2,4,6-Tribromophenol (S)	73	%.	10-123	1	06/30/17 09:01	07/03/17 18:11	118-79-6	
2-Chlorophenol-d4 (S)	62	%.	33-110	1	06/30/17 09:01	07/03/17 18:11	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	51	%.	16-110	1	06/30/17 09:01	07/03/17 18:11	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 19:58	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 19:58	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 19:58	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/29/17 19:58	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%.	68-153	1		06/29/17 19:58	17060-07-0	
4-Bromofluorobenzene (S)	95	%.	79-124	1		06/29/17 19:58	460-00-4	
Toluene-d8 (S)	95	%.	69-124	1		06/29/17 19:58	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022287

Sample: HIMW-12S **Lab ID: 7022287001** Collected: 06/23/17 09:00 Received: 06/23/17 14:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:08	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	73	%.	35-114	1	06/28/17 21:54	06/29/17 23:08	4165-60-0	
2-Fluorobiphenyl (S)	71	%.	43-116	1	06/28/17 21:54	06/29/17 23:08	321-60-8	
p-Terphenyl-d14 (S)	108	%.	33-141	1	06/28/17 21:54	06/29/17 23:08	1718-51-0	
Phenol-d5 (S)	15	%.	10-110	1	06/28/17 21:54	06/29/17 23:08	4165-62-2	
2-Fluorophenol (S)	25	%.	21-110	1	06/28/17 21:54	06/29/17 23:08	367-12-4	
2,4,6-Tribromophenol (S)	113	%.	10-123	1	06/28/17 21:54	06/29/17 23:08	118-79-6	CC
2-Chlorophenol-d4 (S)	54	%.	33-110	1	06/28/17 21:54	06/29/17 23:08	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	58	%.	16-110	1	06/28/17 21:54	06/29/17 23:08	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/25/17 18:42	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 18:42	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 18:42	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 18:42	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%.	68-153	1		06/25/17 18:42	17060-07-0	
4-Bromofluorobenzene (S)	106	%.	79-124	1		06/25/17 18:42	460-00-4	
Toluene-d8 (S)	88	%.	69-124	1		06/25/17 18:42	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Sample: HIMW-13D **Lab ID: 7022178007** Collected: 06/22/17 13:50 Received: 06/22/17 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	83-32-9	
Acenaphthylene	**12.2**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:50	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	75	%.	35-114	1	06/23/17 09:31	06/26/17 18:50	4165-60-0	
2-Fluorobiphenyl (S)	69	%.	43-116	1	06/23/17 09:31	06/26/17 18:50	321-60-8	
p-Terphenyl-d14 (S)	77	%.	33-141	1	06/23/17 09:31	06/26/17 18:50	1718-51-0	
Phenol-d5 (S)	29	%.	10-110	1	06/23/17 09:31	06/26/17 18:50	4165-62-2	
2-Fluorophenol (S)	47	%.	21-110	1	06/23/17 09:31	06/26/17 18:50	367-12-4	CC
2,4,6-Tribromophenol (S)	74	%.	10-123	1	06/23/17 09:31	06/26/17 18:50	118-79-6	
2-Chlorophenol-d4 (S)	61	%.	33-110	1	06/23/17 09:31	06/26/17 18:50	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	55	%.	16-110	1	06/23/17 09:31	06/26/17 18:50	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**1.5**	ug/L	1.0	1		06/25/17 17:43	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 17:43	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 17:43	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 17:43	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%.	68-153	1		06/25/17 17:43	17060-07-0	
4-Bromofluorobenzene (S)	105	%.	79-124	1		06/25/17 17:43	460-00-4	
Toluene-d8 (S)	87	%.	69-124	1		06/25/17 17:43	2037-26-5	

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HIMW-013D

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Sample: DUP20170622 **Lab ID: 7022178008** Collected: 06/22/17 07:00 Received: 06/22/17 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**4.9J**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	83-32-9	
Acenaphthylene	**12.1**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 19:17	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	73	%.	35-114	1	06/23/17 09:31	06/26/17 19:17	4165-60-0	
2-Fluorobiphenyl (S)	72	%.	43-116	1	06/23/17 09:31	06/26/17 19:17	321-60-8	
p-Terphenyl-d14 (S)	69	%.	33-141	1	06/23/17 09:31	06/26/17 19:17	1718-51-0	
Phenol-d5 (S)	27	%.	10-110	1	06/23/17 09:31	06/26/17 19:17	4165-62-2	
2-Fluorophenol (S)	47	%.	21-110	1	06/23/17 09:31	06/26/17 19:17	367-12-4	CC
2,4,6-Tribromophenol (S)	84	%.	10-123	1	06/23/17 09:31	06/26/17 19:17	118-79-6	
2-Chlorophenol-d4 (S)	59	%.	33-110	1	06/23/17 09:31	06/26/17 19:17	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	51	%.	16-110	1	06/23/17 09:31	06/26/17 19:17	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**1.6**	ug/L	1.0	1		06/25/17 18:03	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 18:03	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 18:03	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 18:03	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%.	68-153	1		06/25/17 18:03	17060-07-0	
4-Bromofluorobenzene (S)	106	%.	79-124	1		06/25/17 18:03	460-00-4	
Toluene-d8 (S)	87	%.	69-124	1		06/25/17 18:03	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Sample: HIMW-13I **Lab ID: 7022178006** Collected: 06/22/17 10:50 Received: 06/22/17 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 18:22	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	74	%.	35-114	1	06/23/17 09:31	06/26/17 18:22	4165-60-0	
2-Fluorobiphenyl (S)	75	%.	43-116	1	06/23/17 09:31	06/26/17 18:22	321-60-8	
p-Terphenyl-d14 (S)	94	%.	33-141	1	06/23/17 09:31	06/26/17 18:22	1718-51-0	
Phenol-d5 (S)	35	%.	10-110	1	06/23/17 09:31	06/26/17 18:22	4165-62-2	
2-Fluorophenol (S)	42	%.	21-110	1	06/23/17 09:31	06/26/17 18:22	367-12-4	CC
2,4,6-Tribromophenol (S)	92	%.	10-123	1	06/23/17 09:31	06/26/17 18:22	118-79-6	
2-Chlorophenol-d4 (S)	63	%.	33-110	1	06/23/17 09:31	06/26/17 18:22	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	50	%.	16-110	1	06/23/17 09:31	06/26/17 18:22	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/25/17 17:23	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 17:23	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 17:23	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 17:23	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%.	68-153	1		06/25/17 17:23	17060-07-0	
4-Bromofluorobenzene (S)	108	%.	79-124	1		06/25/17 17:23	460-00-4	
Toluene-d8 (S)	90	%.	69-124	1		06/25/17 17:23	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Sample: HIMW-13S **Lab ID: 7022178005** Collected: 06/22/17 09:40 Received: 06/22/17 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:54	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	65	%.	35-114	1	06/23/17 09:31	06/26/17 17:54	4165-60-0	
2-Fluorobiphenyl (S)	70	%.	43-116	1	06/23/17 09:31	06/26/17 17:54	321-60-8	
p-Terphenyl-d14 (S)	87	%.	33-141	1	06/23/17 09:31	06/26/17 17:54	1718-51-0	
Phenol-d5 (S)	31	%.	10-110	1	06/23/17 09:31	06/26/17 17:54	4165-62-2	
2-Fluorophenol (S)	49	%.	21-110	1	06/23/17 09:31	06/26/17 17:54	367-12-4	CC
2,4,6-Tribromophenol (S)	75	%.	10-123	1	06/23/17 09:31	06/26/17 17:54	118-79-6	
2-Chlorophenol-d4 (S)	58	%.	33-110	1	06/23/17 09:31	06/26/17 17:54	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	47	%.	16-110	1	06/23/17 09:31	06/26/17 17:54	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/25/17 17:04	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 17:04	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 17:04	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 17:04	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%.	68-153	1		06/25/17 17:04	17060-07-0	
4-Bromofluorobenzene (S)	103	%.	79-124	1		06/25/17 17:04	460-00-4	
Toluene-d8 (S)	87	%.	69-124	1		06/25/17 17:04	2037-26-5	

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022287

Sample: HIMW-14D **Lab ID: 7022287002** Collected: 06/23/17 11:35 Received: 06/23/17 14:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/29/17 23:36	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	79	%.	35-114	1	06/28/17 21:54	06/29/17 23:36	4165-60-0	
2-Fluorobiphenyl (S)	77	%.	43-116	1	06/28/17 21:54	06/29/17 23:36	321-60-8	
p-Terphenyl-d14 (S)	106	%.	33-141	1	06/28/17 21:54	06/29/17 23:36	1718-51-0	
Phenol-d5 (S)	15	%.	10-110	1	06/28/17 21:54	06/29/17 23:36	4165-62-2	
2-Fluorophenol (S)	26	%.	21-110	1	06/28/17 21:54	06/29/17 23:36	367-12-4	
2,4,6-Tribromophenol (S)	125	%.	10-123	1	06/28/17 21:54	06/29/17 23:36	118-79-6	CC,S3
2-Chlorophenol-d4 (S)	56	%.	33-110	1	06/28/17 21:54	06/29/17 23:36	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	65	%.	16-110	1	06/28/17 21:54	06/29/17 23:36	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/25/17 19:01	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 19:01	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 19:01	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 19:01	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	68-153	1		06/25/17 19:01	17060-07-0	
4-Bromofluorobenzene (S)	105	%.	79-124	1		06/25/17 19:01	460-00-4	
Toluene-d8 (S)	86	%.	69-124	1		06/25/17 19:01	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022287

Sample: HIMW-14I **Lab ID: 7022287003** Collected: 06/23/17 13:15 Received: 06/23/17 14:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**5.9**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	83-32-9	
Acenaphthylene	**8.3**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	206-44-0	
Fluorene	**2.1J**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	91-20-3	
Phenanthrene	**2.7J**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/28/17 21:54	06/30/17 00:05	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	77	%.	35-114	1	06/28/17 21:54	06/30/17 00:05	4165-60-0	
2-Fluorobiphenyl (S)	74	%.	43-116	1	06/28/17 21:54	06/30/17 00:05	321-60-8	
p-Terphenyl-d14 (S)	105	%.	33-141	1	06/28/17 21:54	06/30/17 00:05	1718-51-0	
Phenol-d5 (S)	15	%.	10-110	1	06/28/17 21:54	06/30/17 00:05	4165-62-2	
2-Fluorophenol (S)	26	%.	21-110	1	06/28/17 21:54	06/30/17 00:05	367-12-4	
2,4,6-Tribromophenol (S)	129	%.	10-123	1	06/28/17 21:54	06/30/17 00:05	118-79-6	CC,S0
2-Chlorophenol-d4 (S)	57	%.	33-110	1	06/28/17 21:54	06/30/17 00:05	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	63	%.	16-110	1	06/28/17 21:54	06/30/17 00:05	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**2.7**	ug/L	1.0	1		06/25/17 19:21	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 19:21	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 19:21	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 19:21	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	104	%.	68-153	1		06/25/17 19:21	17060-07-0	
4-Bromofluorobenzene (S)	107	%.	79-124	1		06/25/17 19:21	460-00-4	
Toluene-d8 (S)	88	%.	69-124	1		06/25/17 19:21	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7021912

Sample: HIMW-15D **Lab ID: 7021912002** Collected: 06/20/17 11:25 Received: 06/20/17 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:21	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	69	%.	35-114	1	06/21/17 09:25	06/22/17 16:21	4165-60-0	
2-Fluorobiphenyl (S)	66	%.	43-116	1	06/21/17 09:25	06/22/17 16:21	321-60-8	
p-Terphenyl-d14 (S)	81	%.	33-141	1	06/21/17 09:25	06/22/17 16:21	1718-51-0	
Phenol-d5 (S)	24	%.	10-110	1	06/21/17 09:25	06/22/17 16:21	4165-62-2	
2-Fluorophenol (S)	43	%.	21-110	1	06/21/17 09:25	06/22/17 16:21	367-12-4	
2,4,6-Tribromophenol (S)	92	%.	10-123	1	06/21/17 09:25	06/22/17 16:21	118-79-6	
2-Chlorophenol-d4 (S)	63	%.	33-110	1	06/21/17 09:25	06/22/17 16:21	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	50	%.	16-110	1	06/21/17 09:25	06/22/17 16:21	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/24/17 00:57	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/24/17 00:57	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/24/17 00:57	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/24/17 00:57	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	111	%.	68-153	1		06/24/17 00:57	17060-07-0	
4-Bromofluorobenzene (S)	94	%.	79-124	1		06/24/17 00:57	460-00-4	
Toluene-d8 (S)	87	%.	69-124	1		06/24/17 00:57	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7021912

Sample: HIMW-15I **Lab ID: 7021912001** Collected: 06/20/17 10:05 Received: 06/20/17 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	83-32-9	
Acenaphthylene	**5.1**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 15:50	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	67	%.	35-114	1	06/21/17 09:25	06/22/17 15:50	4165-60-0	
2-Fluorobiphenyl (S)	69	%.	43-116	1	06/21/17 09:25	06/22/17 15:50	321-60-8	
p-Terphenyl-d14 (S)	80	%.	33-141	1	06/21/17 09:25	06/22/17 15:50	1718-51-0	
Phenol-d5 (S)	26	%.	10-110	1	06/21/17 09:25	06/22/17 15:50	4165-62-2	
2-Fluorophenol (S)	44	%.	21-110	1	06/21/17 09:25	06/22/17 15:50	367-12-4	
2,4,6-Tribromophenol (S)	104	%.	10-123	1	06/21/17 09:25	06/22/17 15:50	118-79-6	
2-Chlorophenol-d4 (S)	62	%.	33-110	1	06/21/17 09:25	06/22/17 15:50	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	46	%.	16-110	1	06/21/17 09:25	06/22/17 15:50	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**3.4**	ug/L	1.0	1		06/24/17 00:39	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/24/17 00:39	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/24/17 00:39	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/24/17 00:39	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	115	%.	68-153	1		06/24/17 00:39	17060-07-0	
4-Bromofluorobenzene (S)	100	%.	79-124	1		06/24/17 00:39	460-00-4	
Toluene-d8 (S)	92	%.	69-124	1		06/24/17 00:39	2037-26-5	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-20I **Lab ID: 7022589002** Collected: 06/26/17 09:55 Received: 06/27/17 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 17:15	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	86	%.	35-114	1	06/30/17 09:01	07/03/17 17:15	4165-60-0	
2-Fluorobiphenyl (S)	85	%.	43-116	1	06/30/17 09:01	07/03/17 17:15	321-60-8	
p-Terphenyl-d14 (S)	63	%.	33-141	1	06/30/17 09:01	07/03/17 17:15	1718-51-0	CC
Phenol-d5 (S)	30	%.	10-110	1	06/30/17 09:01	07/03/17 17:15	4165-62-2	
2-Fluorophenol (S)	53	%.	21-110	1	06/30/17 09:01	07/03/17 17:15	367-12-4	
2,4,6-Tribromophenol (S)	93	%.	10-123	1	06/30/17 09:01	07/03/17 17:15	118-79-6	
2-Chlorophenol-d4 (S)	69	%.	33-110	1	06/30/17 09:01	07/03/17 17:15	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	58	%.	16-110	1	06/30/17 09:01	07/03/17 17:15	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 19:15	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 19:15	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 19:15	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/29/17 19:15	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	118	%.	68-153	1		06/29/17 19:15	17060-07-0	
4-Bromofluorobenzene (S)	96	%.	79-124	1		06/29/17 19:15	460-00-4	
Toluene-d8 (S)	94	%.	69-124	1		06/29/17 19:15	2037-26-5	

9/8/17

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-20S **Lab ID: 7022589001** Collected: 06/26/17 11:25 Received: 06/27/17 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 16:47	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	82	%.	35-114	1	06/30/17 09:01	07/03/17 16:47	4165-60-0	
2-Fluorobiphenyl (S)	80	%.	43-116	1	06/30/17 09:01	07/03/17 16:47	321-60-8	
p-Terphenyl-d14 (S)	108	%.	33-141	1	06/30/17 09:01	07/03/17 16:47	1718-51-0	CC
Phenol-d5 (S)	32	%.	10-110	1	06/30/17 09:01	07/03/17 16:47	4165-62-2	
2-Fluorophenol (S)	55	%.	21-110	1	06/30/17 09:01	07/03/17 16:47	367-12-4	
2,4,6-Tribromophenol (S)	81	%.	10-123	1	06/30/17 09:01	07/03/17 16:47	118-79-6	
2-Chlorophenol-d4 (S)	69	%.	33-110	1	06/30/17 09:01	07/03/17 16:47	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	56	%.	16-110	1	06/30/17 09:01	07/03/17 16:47	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 18:54	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 18:54	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 18:54	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/29/17 18:54	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%.	68-153	1		06/29/17 18:54	17060-07-0	
4-Bromofluorobenzene (S)	94	%.	79-124	1		06/29/17 18:54	460-00-4	
Toluene-d8 (S)	96	%.	69-124	1		06/29/17 18:54	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Sample: HIMW-22 **Lab ID: 7022178004** Collected: 06/21/17 13:30 Received: 06/22/17 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/23/17 09:31	06/26/17 17:27	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	122	%.	35-114	1	06/23/17 09:31	06/26/17 17:27	4165-60-0	S3
2-Fluorobiphenyl (S)	82	%.	43-116	1	06/23/17 09:31	06/26/17 17:27	321-60-8	
p-Terphenyl-d14 (S)	68	%.	33-141	1	06/23/17 09:31	06/26/17 17:27	1718-51-0	
Phenol-d5 (S)	28	%.	10-110	1	06/23/17 09:31	06/26/17 17:27	4165-62-2	
2-Fluorophenol (S)	41	%.	21-110	1	06/23/17 09:31	06/26/17 17:27	367-12-4	CC
2,4,6-Tribromophenol (S)	85	%.	10-123	1	06/23/17 09:31	06/26/17 17:27	118-79-6	
2-Chlorophenol-d4 (S)	65	%.	33-110	1	06/23/17 09:31	06/26/17 17:27	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	55	%.	16-110	1	06/23/17 09:31	06/26/17 17:27	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/25/17 16:44	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 16:44	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 16:44	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 16:44	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%.	68-153	1		06/25/17 16:44	17060-07-0	
4-Bromofluorobenzene (S)	108	%.	79-124	1		06/25/17 16:44	460-00-4	
Toluene-d8 (S)	88	%.	69-124	1		06/25/17 16:44	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7021912

Sample: HIMW-23 **Lab ID: 7021912003** Collected: 06/20/17 13:45 Received: 06/20/17 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/21/17 09:25	06/22/17 16:51	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	74	%.	35-114	1	06/21/17 09:25	06/22/17 16:51	4165-60-0	
2-Fluorobiphenyl (S)	69	%.	43-116	1	06/21/17 09:25	06/22/17 16:51	321-60-8	
p-Terphenyl-d14 (S)	89	%.	33-141	1	06/21/17 09:25	06/22/17 16:51	1718-51-0	
Phenol-d5 (S)	28	%.	10-110	1	06/21/17 09:25	06/22/17 16:51	4165-62-2	
2-Fluorophenol (S)	32	%.	21-110	1	06/21/17 09:25	06/22/17 16:51	367-12-4	
2,4,6-Tribromophenol (S)	84	%.	10-123	1	06/21/17 09:25	06/22/17 16:51	118-79-6	
2-Chlorophenol-d4 (S)	69	%.	33-110	1	06/21/17 09:25	06/22/17 16:51	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	48	%.	16-110	1	06/21/17 09:25	06/22/17 16:51	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/24/17 01:15	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/24/17 01:15	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/24/17 01:15	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/24/17 01:15	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	113	%.	68-153	1		06/24/17 01:15	17060-07-0	
4-Bromofluorobenzene (S)	93	%.	79-124	1		06/24/17 01:15	460-00-4	
Toluene-d8 (S)	105	%.	69-124	1		06/24/17 01:15	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
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ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-24 **Lab ID: 7022589008** Collected: 06/27/17 14:30 Received: 06/27/17 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**1.7J**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	83-32-9	
Acenaphthylene	**20.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	206-44-0	
Fluorene	**5.0J**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	193-39-5	
2-Methylnaphthalene	**11.2**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	91-57-6	CC
Naphthalene	**166**	ug/L	20.0	4	06/30/17 09:01	07/05/17 17:50	91-20-3	
Phenanthrene	**1.2J**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 20:58	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	81	%.	35-114	1	06/30/17 09:01	07/03/17 20:58	4165-60-0	
2-Fluorobiphenyl (S)	80	%.	43-116	1	06/30/17 09:01	07/03/17 20:58	321-60-8	
p-Terphenyl-d14 (S)	84	%.	33-141	1	06/30/17 09:01	07/03/17 20:58	1718-51-0	CC
Phenol-d5 (S)	28	%.	10-110	1	06/30/17 09:01	07/03/17 20:58	4165-62-2	
2-Fluorophenol (S)	45	%.	21-110	1	06/30/17 09:01	07/03/17 20:58	367-12-4	
2,4,6-Tribromophenol (S)	79	%.	10-123	1	06/30/17 09:01	07/03/17 20:58	118-79-6	
2-Chlorophenol-d4 (S)	63	%.	33-110	1	06/30/17 09:01	07/03/17 20:58	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	53	%.	16-110	1	06/30/17 09:01	07/03/17 20:58	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 21:24	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 21:24	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 21:24	108-88-3	
Xylene (Total)	**1.0J**	ug/L	2.0	1		06/29/17 21:24	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%.	68-153	1		06/29/17 21:24	17060-07-0	
4-Bromofluorobenzene (S)	96	%.	79-124	1		06/29/17 21:24	460-00-4	
Toluene-d8 (S)	95	%.	69-124	1		06/29/17 21:24	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-25 **Lab ID: 7022589005** Collected: 06/27/17 09:15 Received: 06/27/17 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 18:38	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	70	%.	35-114	1	06/30/17 09:01	07/03/17 18:38	4165-60-0	
2-Fluorobiphenyl (S)	70	%.	43-116	1	06/30/17 09:01	07/03/17 18:38	321-60-8	
p-Terphenyl-d14 (S)	81	%.	33-141	1	06/30/17 09:01	07/03/17 18:38	1718-51-0	CC
Phenol-d5 (S)	31	%.	10-110	1	06/30/17 09:01	07/03/17 18:38	4165-62-2	
2-Fluorophenol (S)	51	%.	21-110	1	06/30/17 09:01	07/03/17 18:38	367-12-4	
2,4,6-Tribromophenol (S)	85	%.	10-123	1	06/30/17 09:01	07/03/17 18:38	118-79-6	
2-Chlorophenol-d4 (S)	62	%.	33-110	1	06/30/17 09:01	07/03/17 18:38	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	46	%.	16-110	1	06/30/17 09:01	07/03/17 18:38	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 20:20	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 20:20	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 20:20	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/29/17 20:20	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%.	68-153	1		06/29/17 20:20	17060-07-0	
4-Bromofluorobenzene (S)	96	%.	79-124	1		06/29/17 20:20	460-00-4	
Toluene-d8 (S)	96	%.	69-124	1		06/29/17 20:20	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical
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575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-26D **Lab ID: 7022589007** Collected: 06/27/17 12:25 Received: 06/27/17 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**4.4J**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	83-32-9	
Acenaphthylene	**78.9**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	191-24-2	R1
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	53-70-3	R1
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	206-44-0	
Fluorene	**11.3**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	193-39-5	R1
2-Methylnaphthalene	**127**	ug/L 3D	50.0	10	06/30/17 09:01	07/05/17 16:01	91-57-6	CC,M1
Naphthalene	**645**	ug/L	50.0	10	06/30/17 09:01	07/05/17 16:01	91-20-3	M1
Phenanthrene	**12.4**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:34	85-01-8	
Pyrene	**<5.0**	ug/L 3J	5.0	1	06/30/17 09:01	07/03/17 19:34	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	64	%.	35-114	1	06/30/17 09:01	07/03/17 19:34	4165-60-0	
2-Fluorobiphenyl (S)	78	%.	43-116	1	06/30/17 09:01	07/03/17 19:34	321-60-8	
p-Terphenyl-d14 (S)	80	%.	33-141	1	06/30/17 09:01	07/03/17 19:34	1718-51-0	CC
Phenol-d5 (S)	31	%.	10-110	1	06/30/17 09:01	07/03/17 19:34	4165-62-2	
2-Fluorophenol (S)	53	%.	21-110	1	06/30/17 09:01	07/03/17 19:34	367-12-4	
2,4,6-Tribromophenol (S)	92	%.	10-123	1	06/30/17 09:01	07/03/17 19:34	118-79-6	
2-Chlorophenol-d4 (S)	66	%.	33-110	1	06/30/17 09:01	07/03/17 19:34	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	50	%.	16-110	1	06/30/17 09:01	07/03/17 19:34	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 21:04	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 21:04	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 21:04	108-88-3	
Xylene (Total)	**38.7**	ug/L	2.0	1		06/29/17 21:04	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	115	%.	68-153	1		06/29/17 21:04	17060-07-0	
4-Bromofluorobenzene (S)	97	%.	79-124	1		06/29/17 21:04	460-00-4	
Toluene-d8 (S)	95	%.	69-124	1		06/29/17 21:04	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-26I **Lab ID: 7022589006** Collected: 06/27/17 11:10 Received: 06/27/17 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 19:06	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	78	%.	35-114	1	06/30/17 09:01	07/03/17 19:06	4165-60-0	
2-Fluorobiphenyl (S)	77	%.	43-116	1	06/30/17 09:01	07/03/17 19:06	321-60-8	
p-Terphenyl-d14 (S)	68	%.	33-141	1	06/30/17 09:01	07/03/17 19:06	1718-51-0	CC
Phenol-d5 (S)	32	%.	10-110	1	06/30/17 09:01	07/03/17 19:06	4165-62-2	
2-Fluorophenol (S)	56	%.	21-110	1	06/30/17 09:01	07/03/17 19:06	367-12-4	
2,4,6-Tribromophenol (S)	91	%.	10-123	1	06/30/17 09:01	07/03/17 19:06	118-79-6	
2-Chlorophenol-d4 (S)	68	%.	33-110	1	06/30/17 09:01	07/03/17 19:06	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	53	%.	16-110	1	06/30/17 09:01	07/03/17 19:06	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 20:42	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 20:42	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 20:42	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/29/17 20:42	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	119	%.	68-153	1		06/29/17 20:42	17060-07-0	
4-Bromofluorobenzene (S)	96	%.	79-124	1		06/29/17 20:42	460-00-4	
Toluene-d8 (S)	95	%.	69-124	1		06/29/17 20:42	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-27I **Lab ID: 7022589013** Collected: 06/28/17 14:00 Received: 06/29/17 13:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:22	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	88	%.	35-114	1	06/30/17 09:01	07/03/17 22:22	4165-60-0	
2-Fluorobiphenyl (S)	83	%.	43-116	1	06/30/17 09:01	07/03/17 22:22	321-60-8	
p-Terphenyl-d14 (S)	73	%.	33-141	1	06/30/17 09:01	07/03/17 22:22	1718-51-0	CC
Phenol-d5 (S)	32	%.	10-110	1	06/30/17 09:01	07/03/17 22:22	4165-62-2	
2-Fluorophenol (S)	57	%.	21-110	1	06/30/17 09:01	07/03/17 22:22	367-12-4	
2,4,6-Tribromophenol (S)	89	%.	10-123	1	06/30/17 09:01	07/03/17 22:22	118-79-6	
2-Chlorophenol-d4 (S)	71	%.	33-110	1	06/30/17 09:01	07/03/17 22:22	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	58	%.	16-110	1	06/30/17 09:01	07/03/17 22:22	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 22:50	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 22:50	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 22:50	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/29/17 22:50	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	120	%.	68-153	1		06/29/17 22:50	17060-07-0	
4-Bromofluorobenzene (S)	94	%.	79-124	1		06/29/17 22:50	460-00-4	
Toluene-d8 (S)	95	%.	69-124	1		06/29/17 22:50	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-27S **Lab ID: 7022589014** Collected: 06/28/17 15:15 Received: 06/29/17 13:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**103**	ug/L	100	20	06/30/17 09:01	07/05/17 19:13	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	208-96-8	
Anthracene	**12.1**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	53-70-3	
Fluoranthene	**3.3J**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	206-44-0	
Fluorene	**41.4**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	193-39-5	
2-Methylnaphthalene	**351**	ug/L D5	100	20	06/30/17 09:01	07/05/17 19:13	91-57-6	CC
Naphthalene	**1100**	ug/L D	100	20	06/30/17 09:01	07/05/17 19:13	91-20-3	
Phenanthrene	**61.4**	ug/L	5.0	1	06/30/17 09:01	07/03/17 22:49	85-01-8	
Pyrene	**4.4J**	ug/L J	5.0	1	06/30/17 09:01	07/03/17 22:49	129-00-0	CC
Surrogates								
Nitrobenzene-d5 (S)	65	%.	35-114	1	06/30/17 09:01	07/03/17 22:49	4165-60-0	
2-Fluorobiphenyl (S)	77	%.	43-116	1	06/30/17 09:01	07/03/17 22:49	321-60-8	
p-Terphenyl-d14 (S)	97	%.	33-141	1	06/30/17 09:01	07/03/17 22:49	1718-51-0	CC
Phenol-d5 (S)	34	%.	10-110	1	06/30/17 09:01	07/03/17 22:49	4165-62-2	
2-Fluorophenol (S)	58	%.	21-110	1	06/30/17 09:01	07/03/17 22:49	367-12-4	
2,4,6-Tribromophenol (S)	89	%.	10-123	1	06/30/17 09:01	07/03/17 22:49	118-79-6	
2-Chlorophenol-d4 (S)	81	%.	33-110	1	06/30/17 09:01	07/03/17 22:49	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	53	%.	16-110	1	06/30/17 09:01	07/03/17 22:49	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**11.1**	ug/L	1.0	1		06/29/17 23:11	71-43-2	
Ethylbenzene	**618**	ug/L D	10.0	10		06/30/17 23:24	100-41-4	
Toluene	**29.1**	ug/L	1.0	1		06/29/17 23:11	108-88-3	
Xylene (Total)	**664**	ug/L D	20.0	10		06/30/17 23:24	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	110	%.	68-153	1		06/29/17 23:11	17060-07-0	
4-Bromofluorobenzene (S)	97	%.	79-124	1		06/29/17 23:11	460-00-4	
Toluene-d8 (S)	97	%.	69-124	1		06/29/17 23:11	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-28I **Lab ID: 7022589011** Collected: 06/28/17 10:05 Received: 06/29/17 13:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:27	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	75	%.	35-114	1	06/30/17 09:01	07/03/17 21:27	4165-60-0	
2-Fluorobiphenyl (S)	77	%.	43-116	1	06/30/17 09:01	07/03/17 21:27	321-60-8	
p-Terphenyl-d14 (S)	76	%.	33-141	1	06/30/17 09:01	07/03/17 21:27	1718-51-0	CC
Phenol-d5 (S)	31	%.	10-110	1	06/30/17 09:01	07/03/17 21:27	4165-62-2	
2-Fluorophenol (S)	53	%.	21-110	1	06/30/17 09:01	07/03/17 21:27	367-12-4	
2,4,6-Tribromophenol (S)	87	%.	10-123	1	06/30/17 09:01	07/03/17 21:27	118-79-6	
2-Chlorophenol-d4 (S)	65	%.	33-110	1	06/30/17 09:01	07/03/17 21:27	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	53	%.	16-110	1	06/30/17 09:01	07/03/17 21:27	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 22:07	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 22:07	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 22:07	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/29/17 22:07	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	123	%.	68-153	1		06/29/17 22:07	17060-07-0	
4-Bromofluorobenzene (S)	96	%.	79-124	1		06/29/17 22:07	460-00-4	
Toluene-d8 (S)	95	%.	69-124	1		06/29/17 22:07	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: HIMW-28S **Lab ID: 7022589012** Collected: 06/28/17 11:30 Received: 06/29/17 13:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**31.4**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	208-96-8	
Anthracene	**4.0J**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	206-44-0	
Fluorene	**17.5**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	193-39-5	
2-Methylnaphthalene	**38.6**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	91-57-6	CC
Naphthalene	**264**	ug/L	20.0	4	06/30/17 09:01	07/05/17 18:18	91-20-3	
Phenanthrene	**23.6**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/03/17 21:54	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	77	%.	35-114	1	06/30/17 09:01	07/03/17 21:54	4165-60-0	
2-Fluorobiphenyl (S)	82	%.	43-116	1	06/30/17 09:01	07/03/17 21:54	321-60-8	
p-Terphenyl-d14 (S)	89	%.	33-141	1	06/30/17 09:01	07/03/17 21:54	1718-51-0	CC
Phenol-d5 (S)	36	%.	10-110	1	06/30/17 09:01	07/03/17 21:54	4165-62-2	
2-Fluorophenol (S)	55	%.	21-110	1	06/30/17 09:01	07/03/17 21:54	367-12-4	
2,4,6-Tribromophenol (S)	88	%.	10-123	1	06/30/17 09:01	07/03/17 21:54	118-79-6	
2-Chlorophenol-d4 (S)	79	%.	33-110	1	06/30/17 09:01	07/03/17 21:54	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	64	%.	16-110	1	06/30/17 09:01	07/03/17 21:54	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**4.1**	ug/L	1.0	1		06/29/17 22:29	71-43-2	
Ethylbenzene	**80.9**	ug/L	1.0	1		06/29/17 22:29	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 22:29	108-88-3	
Xylene (Total)	**5.2**	ug/L	2.0	1		06/29/17 22:29	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	118	%.	68-153	1		06/29/17 22:29	17060-07-0	
4-Bromofluorobenzene (S)	93	%.	79-124	1		06/29/17 22:29	460-00-4	
Toluene-d8 (S)	93	%.	69-124	1		06/29/17 22:29	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

NIMW-028S

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: DUPE20170628 **Lab ID: 7022589018** Collected: 06/28/17 12:00 Received: 06/29/17 13:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**34.8**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	208-96-8	
Anthracene	**4.5J**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	206-44-0	
Fluorene	**19.5**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	193-39-5	
2-Methylnaphthalene	**40.7**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	91-57-6	CC
Naphthalene	**275**	ug/L	20.0	4	06/30/17 09:01	07/05/17 18:45	91-20-3	
Phenanthrene	**25.8**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 00:41	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	83	%.	35-114	1	06/30/17 09:01	07/04/17 00:41	4165-60-0	
2-Fluorobiphenyl (S)	90	%.	43-116	1	06/30/17 09:01	07/04/17 00:41	321-60-8	
p-Terphenyl-d14 (S)	91	%.	33-141	1	06/30/17 09:01	07/04/17 00:41	1718-51-0	
Phenol-d5 (S)	39	%.	10-110	1	06/30/17 09:01	07/04/17 00:41	4165-62-2	
2-Fluorophenol (S)	65	%.	21-110	1	06/30/17 09:01	07/04/17 00:41	367-12-4	
2,4,6-Tribromophenol (S)	95	%.	10-123	1	06/30/17 09:01	07/04/17 00:41	118-79-6	
2-Chlorophenol-d4 (S)	82	%.	33-110	1	06/30/17 09:01	07/04/17 00:41	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	74	%.	16-110	1	06/30/17 09:01	07/04/17 00:41	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**4.1**	ug/L	1.0	1		06/30/17 00:38	71-43-2	
Ethylbenzene	**76.5**	ug/L	1.0	1		06/30/17 00:38	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/30/17 00:38	108-88-3	
Xylene (Total)	**4.8**	ug/L	2.0	1		06/30/17 00:38	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	117	%.	68-153	1		06/30/17 00:38	17060-07-0	
4-Bromofluorobenzene (S)	93	%.	79-124	1		06/30/17 00:38	460-00-4	
Toluene-d8 (S)	93	%.	69-124	1		06/30/17 00:38	2037-26-5	

9/8/17

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: FB20170629 **Lab ID: 7022589020** Collected: 06/29/17 11:30 Received: 06/29/17 13:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	06/30/17 09:01	07/04/17 01:09	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	84	%.	35-114	1	06/30/17 09:01	07/04/17 01:09	4165-60-0	
2-Fluorobiphenyl (S)	84	%.	43-116	1	06/30/17 09:01	07/04/17 01:09	321-60-8	
p-Terphenyl-d14 (S)	90	%.	33-141	1	06/30/17 09:01	07/04/17 01:09	1718-51-0	CC
Phenol-d5 (S)	33	%.	10-110	1	06/30/17 09:01	07/04/17 01:09	4165-62-2	
2-Fluorophenol (S)	56	%.	21-110	1	06/30/17 09:01	07/04/17 01:09	367-12-4	
2,4,6-Tribromophenol (S)	84	%.	10-123	1	06/30/17 09:01	07/04/17 01:09	118-79-6	
2-Chlorophenol-d4 (S)	70	%.	33-110	1	06/30/17 09:01	07/04/17 01:09	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	65	%.	16-110	1	06/30/17 09:01	07/04/17 01:09	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/30/17 19:06	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/30/17 19:06	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/30/17 19:06	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/30/17 19:06	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	120	%.	68-153	1		06/30/17 19:06	17060-07-0	
4-Bromofluorobenzene (S)	93	%.	79-124	1		06/30/17 19:06	460-00-4	
Toluene-d8 (S)	95	%.	69-124	1		06/30/17 19:06	2037-26-5	

9/8/17

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7021912

Sample: TB20170620 **Lab ID: 7021912004** Collected: 06/20/17 13:45 Received: 06/20/17 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/25/17 14:47	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 14:47	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 14:47	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 14:47	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%.	68-153	1		06/25/17 14:47	17060-07-0	
4-Bromofluorobenzene (S)	109	%.	79-124	1		06/25/17 14:47	460-00-4	
Toluene-d8 (S)	88	%.	69-124	1		06/25/17 14:47	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Sample: TB20170622 **Lab ID: 7022178009** Collected: 06/22/17 00:00 Received: 06/22/17 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/25/17 15:07	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 15:07	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 15:07	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 15:07	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%.	68-153	1		06/25/17 15:07	17060-07-0	
4-Bromofluorobenzene (S)	106	%.	79-124	1		06/25/17 15:07	460-00-4	
Toluene-d8 (S)	86	%.	69-124	1		06/25/17 15:07	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022287

Sample: TB20170623 **Lab ID: 7022287004** Collected: 06/23/17 13:15 Received: 06/23/17 14:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/25/17 15:26	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/25/17 15:26	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/25/17 15:26	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/25/17 15:26	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%.	68-153	1		06/25/17 15:26	17060-07-0	
4-Bromofluorobenzene (S)	104	%.	79-124	1		06/25/17 15:26	460-00-4	
Toluene-d8 (S)	88	%.	69-124	1		06/25/17 15:26	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: TB20170627 **Lab ID: 7022589009** Collected: 06/27/17 14:30 Received: 06/27/17 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/29/17 18:33	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/29/17 18:33	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/29/17 18:33	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/29/17 18:33	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	117	%.	68-153	1		06/29/17 18:33	17060-07-0	
4-Bromofluorobenzene (S)	95	%.	79-124	1		06/29/17 18:33	460-00-4	
Toluene-d8 (S)	95	%.	69-124	1		06/29/17 18:33	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Sample: TB20170629 **Lab ID: 7022589019** Collected: 06/29/17 12:00 Received: 06/29/17 13:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		06/30/17 01:00	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		06/30/17 01:00	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		06/30/17 01:00	108-88-3	
Xylene (Total)	**<2.0**	ug/L	2.0	1		06/30/17 01:00	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	121	%.	68-153	1		06/30/17 01:00	17060-07-0	
4-Bromofluorobenzene (S)	94	%.	79-124	1		06/30/17 01:00	460-00-4	
Toluene-d8 (S)	94	%.	69-124	1		06/30/17 01:00	2037-26-5	

ATTACHMENT B

SUPPORT DOCUMENTATION

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Docur

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed acc

WO#:7021912

7021912

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM	Report To: Peter Fairbanks	Attention:
Address:	Copy To: Jon Sundquist	Company Name:
		Address:
Email To: Jon.Sundquist@AECOM.com	Purchase Order No.:	Pace Quote Reference:
Phone: 716-923-1207 Fax:	Project Name: National Grid Hempstead	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 60471192C.1117698.00004	Pace Profile #:

REGULATORY AGENCY

NPDES Y GROUND WATER DRINKING WATER

UST RCRA OTHER _____

Site Location STATE: NY

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: BTEX 8260C	PAH 8270D	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-15I		WT	G			6/20/17	1005	19	4	X			X						X	X		-001
2	HIMW-15D		WT	G			6/20/17	1125	19	4	X			X						X	X		-002
3	HIMW-23		WT	G			6/20/17	1345	19	4	2			2						X	X		-003
4	TB20170620		WT	G			6/20/17	1345	20	2				2						X			-004
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Megan Dascoli / AECOM	6/20/17	1445		6/20/17	1445	4|0
		6/20/17	1650		6/20/17	16:50	↓ Y N Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Megan Dascoli

SIGNATURE of SAMPLER: Megan Dascoli DATE Signed (MM/DD/YY): 6/20/17

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7021912

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: AECOM
Date: July 03, 2017

General Information:
4 samples were analyzed for EPA 8260C/5030C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7021912

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: July 03, 2017

General Information:
3 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (Including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Docu

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed acc

WO#: 7022178

7022178

1934445

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM	Report To: Peter Fairbanks	Attention:
Address:	Copy To: Jon Sundquist	Company Name:
		Address:
Email To: Jon.Sundquist@AECOM.com	Purchase Order No.:	Pace Quote Reference:
Phone: 716-923-1205 Fax:	Project Name: National Grid Hempstead	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 60471920.11176098.00004	Pace Profile #:

REGULATORY AGENCY

NPDES X GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: NY

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information / SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: BTEX 8260	Analysis Test: PAH 8270	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
	Matrix Codes: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT																	N	N			
1	HIMW-03D	WT	G			6/21/17	0920	17	4	2			2					X	X			-001
2	HIMW-03I	WT	G			6/21/17	1030	17	4	2			2					X	X			-002
3	HIMW-03S	WT	G			6/21/17	1130	18	4	2			2					X	X			-003
4	HIMW-22	WT	G			6/21/17	1330	18	4	2			2					X	X			-004
5	HIMW-13S	WT	G			6/22/17	940	17	4	2			2					X	X			-005
6	HIMW-13I	WT	G			6/22/17	1050	17	4	2			2					X	X			-006
7	HIMW-13D	WT	G			6/22/17	1350	17	4	2			2					X	X			-007
8	DUP20170622	WT	G			6/22/17	0700	17	4	2			2					X	X		HIMW-13D	-008
9																						
10																						
11	TB20170622	WT	G			6/22/17			2				2					X				-009
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Megan Dascoli AECOM	6/22/17	14:35	D'Agnese	6/22/17	14:35	
	D'Agnese	6/22/17	15:25	Michelle Lee	6/22/17	15:25	5.6 5.7 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Megan Dascoli

SIGNATURE of SAMPLER: Megan Dascoli DATE Signed (MM/DD/YY): 6/22/17

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: July 03, 2017

General Information:
8 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 29093

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.

- BLANK (Lab ID: 134821)
  - 2-Fluorophenol (S)
- DUP20170622 (Lab ID: 7022178008)
  - 2-Fluorophenol (S)
- HIMW-03D (Lab ID: 7022178001)
  - 2-Fluorophenol (S)
- HIMW-03I (Lab ID: 7022178002)
  - 2-Fluorophenol (S)
- HIMW-03S (Lab ID: 7022178003)
  - 2-Fluorophenol (S)
- HIMW-13D (Lab ID: 7022178007)
  - 2-Fluorophenol (S)
- HIMW-13I (Lab ID: 7022178006)
  - 2-Fluorophenol (S)
- HIMW-13S (Lab ID: 7022178005)
  - 2-Fluorophenol (S)
- HIMW-22 (Lab ID: 7022178004)
  - 2-Fluorophenol (S)
- LCS (Lab ID: 134822)
  - 2-Fluorophenol (S)
- MS (Lab ID: 135358)
  - 2-Fluorophenol (S)
- MSD (Lab ID: 135359)
  - 2-Fluorophenol (S)

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: July 03, 2017

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 29093

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.
- HIMW-22 (Lab ID: 7022178004)
  - Nitrobenzene-d5 (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 29093

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7022178001

R1: RPD value was outside control limits.
- MSD (Lab ID: 135359)
  - Fluoranthene

Additional Comments:

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Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7022178

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: AECOM
Date: July 03, 2017

General Information:
9 samples were analyzed for EPA 8260C/5030C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Do

The Chain-of Custody is a LEGAL DOCUMENT. All relevant fields must be completed

WO# : 7022287

7022287 1954444

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM	Report To: Peter Fairbanks	Attention:
Address:	Copy To: Jon Sundquist	Company Name:
		Address:
Email To: Jon.Sundquist@AECOM.com	Purchase Order No.:	Pace Quote Reference:
Phone: 716-923-1207 Fax:	Project Name: National Grid Hempstead	Pace Project Manager:
Requested Due Date/TAT: standard	Project Number: 60611920.1117698.00004	Pace Profile #:

REGULATORY AGENCY

NPDES Y GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: NY

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Matrix Codes (see valid codes to left)

MATRIX / CODE	
Drinking Water	DW
Water	W
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: BTEX 8260	P+H 8270	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-12S	WT	G			6/23/17	0900	16	4	2			2						X	X		COI
2	HIMW-14D	WT	G			6/23/17	1135	16	4	2			2						X	X		COZ
3	HIMW-14I	WT	G			6/23/17	1315	17	4	2			2						X	X		COB
4																						
5																						
6	TB20170623	WT	G			6/23/17	1315		2				2						X			COY
7																						
8																						
9																						
10																						
11																						
12																						

16 of 504

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Megan Dascoli/AECOM	6/23/17	1410	Chy D'Anna	6/23/17	1410	
	Chy D'Anna	6/23/17	1430		6/23/17	1430	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Megan Dascoli

SIGNATURE of SAMPLER: Megan Dascoli DATE Signed (MM/DD/YY): 6/23/17

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7022287

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: July 05, 2017

General Information:
3 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 29650

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.
- BLANK (Lab ID: 137447)
  - 2,4,6-Tribromophenol (S)
- HIMW-12S (Lab ID: 7022287001)
  - 2,4,6-Tribromophenol (S)
- HIMW-14D (Lab ID: 7022287002)
  - 2,4,6-Tribromophenol (S)
- HIMW-14I (Lab ID: 7022287003)
  - 2,4,6-Tribromophenol (S)
- LCS (Lab ID: 137448)
  - 2,4,6-Tribromophenol (S)

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 29650

S0: Surrogate recovery outside laboratory control limits.
- HIMW-14I (Lab ID: 7022287003)
  - 2,4,6-Tribromophenol (S)

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.
- HIMW-14D (Lab ID: 7022287002)
  - 2,4,6-Tribromophenol (S)

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7022287

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: July 05, 2017

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7022287

Method: EPA 8260C/5030C
Description: 8260C Volatile Organics
Client: AECOM
Date: July 05, 2017

General Information:
4 samples were analyzed for EPA 8260C/5030C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

WO#:7022589

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT All relevant fields must be completed accurately

Page: 1 of 1

1934438

7022589

Section A Required Client Information

Company: AECOM	
Address:	
Email To: Jen.Sundquist@AECOM.com	
Phone: 716-923-1207	Fax:
Requested Due Date/TAT: Standard	

Section B Required Project Information

Report To: Peter.Fairbanks@AECOM.com	
Copy To: Jen Sundquist	
Purchase Order No.:	
Project Name: National Grid Hempstead	
Project Number: 60411920.11176098.00004	

Section C Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

NPDES ✓ GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: NY

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Tissue TS, Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX 8260	PAH 8270	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-20S	WT	G			6/26/17	1125	16	4	2			2						X	X		001
2	HIMW-20I	WT	G			↓	0955	16	4	2			2						X	X		002
3	HIMW-08D	WT	G			↓	1405	18	4	2			2						X	X		003
4	HIMW-08I	WT	G			6/26/17	1530	18	4	2			2						X	X		004
5	HIMW-25	WT	G			6/27/17	0915	17	4	2			2						X	X		005
6	HIMW-26I	WT	G			6/27/17	1110	15	4	2			2						X	X		006
7	HIMW-26D	WT	G			6/27/17	1225	18	4	2			2						X	X		007
8	HIMW-26D MS/MSD	WT	G			6/27/17	1230	18	8	4			4						X	X		↓
9	HIMW-24	WT	G			6/27/17	1430	18	4	2			2						X	X		008
10	TB20170627	WT	G			6/27/17	1430	18	2				2						X			009
11																						~~010~~
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Megan Dascoli	6/27/17	1302	[signature]	6/27/17	1302				
	[signature]	6/27/17	1550	Jaclyn [signature]	6/27/17	1550	3.7			

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Megan Dascoli
SIGNATURE of SAMPLER:	[signature]
DATE Signed (MM/DD/YY):	6/26/17

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

F-ALL-Q-020rev 07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be complete

WO#: 7022589

PM: JSA Due Date: 07/12/17
CLIENT: AECOM-B

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM	Report To: Peter.Fairbanks@AECOM.com	Attention:
Address:	Copy To: Jon Sundquist	Company Name:
		Address:
Email To: Jon.Sundquist@AECOM.com	Purchase Order No.:	Pace Quote Reference:
Phone: 716-923-1207 Fax:	Project Name: National Grid Hempstead	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 60419920.1117609B.00004	Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: NY

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information / SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX 8260	PAH 8270	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-08S	WT	G			6/23/17	0855	17	4	2			2					X	X		-010
2	HIMW-28I	WT	G			6/28/17	1005	16	4	2			2					X	X		-011
3	HIMW-28S	WT	G			6/28/17	1130	16	4	2			2					X	X		-012
4	HIMW-27I	WT	G			6/28/17	1400	18	4	2			2					X	X		-013
5	HIMW-27S	WT	G			6/28/17	1515	17	4	2			2					X	X		-014
6	HIMW-05S	WT	G			6/29/17	0718	15	4	2			2					X	X		-015
7	HIMW-05I	WT	G			6/29/17	0818	16	4	2			2					X	X		-016
8	HIMW-05D	WT	G			6/29/17	0932	16	4	2			2					X	X		-017
9	DUP20170628	WT	G			6/28/17	1200		4	2			2					X	X	HIMW-08S	-018
10	TB20170629	WT	G			6/29/17	1200		2				2					X			-019
11	FB20170629	WT	G			6/29/17	1130		4	2			2					X	X		-020
12																					

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Megan Dascoli AECOM	6/29/17	1305	Clay D Arne	6/29/17	13:05	
	Clay D Arne	6/29/17	13:45	Evan Pitt	6/29/17	13:45	3.7
							1.4

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Megan Dascoli

SIGNATURE of SAMPLER: Megan Dascoli DATE Signed (MM/DD/YY): 6/29/17

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for ... not paid within 30 days

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Method: **EPA 8270D**
Description: 8270 MSSV
Client: AECOM
Date: July 12, 2017

General Information:
18 samples were analyzed for EPA 8270D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (Including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 29901

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.

- BLANK (Lab ID: 138343)
  - p-Terphenyl-d14 (S)
- DUPE20170628 (Lab ID: 7022589018)
  - 2-Methylnaphthalene
- FB20170629 (Lab ID: 7022589020)
  - p-Terphenyl-d14 (S)
- HIMW-05D (Lab ID: 7022589017)
  - 2-Methylnaphthalene
  - p-Terphenyl-d14 (S)
- HIMW-05I (Lab ID: 7022589016)
  - 2-Methylnaphthalene
  - p-Terphenyl-d14 (S)
- HIMW-05S (Lab ID: 7022589015)
  - p-Terphenyl-d14 (S)
- HIMW-08D (Lab ID: 7022589003)
  - p-Terphenyl-d14 (S)
- HIMW-08I (Lab ID: 7022589004)
  - p-Terphenyl-d14 (S)
- HIMW-08S (Lab ID: 7022589010)
  - p-Terphenyl-d14 (S)
- HIMW-20I (Lab ID: 7022589002)
  - p-Terphenyl-d14 (S)
- HIMW-20S (Lab ID: 7022589001)
  - p-Terphenyl-d14 (S)
- HIMW-24 (Lab ID: 7022589008)
  - 2-Methylnaphthalene
  - p-Terphenyl-d14 (S)

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Method: **EPA 8270D**
Description: 8270 MSSV
Client: AECOM
Date: July 12, 2017

QC Batch: 29901

CC: The continuing calibration for this compound is outside of method control limits. The result is estimated.

- HIMW-25 (Lab ID: 7022589005)
  - p-Terphenyl-d14 (S)
- HIMW-26D (Lab ID: 7022589007)
  - 2-Methylnaphthalene
  - p-Terphenyl-d14 (S)
- HIMW-26I (Lab ID: 7022589006)
  - p-Terphenyl-d14 (S)
- HIMW-27I (Lab ID: 7022589013)
  - p-Terphenyl-d14 (S)
- HIMW-27S (Lab ID: 7022589014)
  - 2-Methylnaphthalene
  - Pyrene
  - p-Terphenyl-d14 (S)
- HIMW-28I (Lab ID: 7022589011)
  - p-Terphenyl-d14 (S)
- HIMW-28S (Lab ID: 7022589012)
  - 2-Methylnaphthalene
  - p-Terphenyl-d14 (S)
- LCS (Lab ID: 138344)
  - 2-Methylnaphthalene
  - Pyrene
  - p-Terphenyl-d14 (S)
- MS (Lab ID: 138345)
  - 2-Methylnaphthalene
  - Pyrene
  - p-Terphenyl-d14 (S)
- MSD (Lab ID: 138346)
  - 2-Methylnaphthalene
  - Pyrene
  - p-Terphenyl-d14 (S)

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: July 12, 2017

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 29901

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7022589007

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 138345)
  - Naphthalene
- MSD (Lab ID: 138346)
  - 2-Methylnaphthalene
  - Naphthalene

R1: RPD value was outside control limits.

- MSD (Lab ID: 138346)
  - Benzo(g,h,i)perylene
  - Dibenz(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene

Additional Comments:

Pace Analytical Services, LLC
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Melville, NY 11747
(631)694-3040

PROJECT NARRATIVE

Project: National Grid Hempstead Site
Pace Project No.: 7022589

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: AECOM
Date: July 12, 2017

General Information:
20 samples were analyzed for EPA 8260C/5030C. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (Including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

MSSV Full Scan - FORM V SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - New York SDG No.: 7022589 Contract: National Grid Hempstead Site
Lab File ID: 8270-070317.B\R39943.D DFTPP Injection Date: 07/03/2017
Instrument ID: 70MSS3 DFTPP Injection Time: 15:00

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.00 - 60.00% of mass 198	35.01	
68	Less than 2.00% of mass 69	0.22	(0.52)[1]
69	Base Peak, 100.00% relative abundance	41.94	
70	Less than 2.00% of mass 69	0.19	(0.45)[1]
127	40.00 - 60.00% of mass 198	52.61	
197	Less than 1.00% of mass 198	0.30	
198	Base Peak, 100.00% relative abundance	100.00	
199	5.00 - 9.00% of mass 198	7.39	
275	10.00 - 30.00% of mass 198	28.31	
365	1.00 - 100.00% of mass 198	4.44	
441	0.10 - 100.00% of mass 443	13.31	
442	40.00 - 110.00% of mass 198	84.78	
443	17.00 - 23.00% of mass 442	17.05	(20.11)[2]

1 - Value is % mass 69 2 - Value is % mass 442

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
9010678CCV	9010678CCV	8270-070317.B\R39944.D	07/03/2017	15:24
138343BLANK	138343BLANK	8270-070317.B\R39945.D	07/03/2017	15:51
138344LCS	138344LCS	8270-070317.B\R39946.D	07/03/2017	16:19
HIMW-20S	7022589001	8270-070317.B\R39947.D	07/03/2017	16:47
HIMW-20I	7022589002	8270-070317.B\R39948.D	07/03/2017	17:15
HIMW-08D	7022589003	8270-070317.B\R39949.D	07/03/2017	17:43
HIMW-08I	7022589004	8270-070317.B\R39950.D	07/03/2017	18:11
HIMW-25	7022589005	8270-070317.B\R39951.D	07/03/2017	18:38
HIMW-26I	7022589006	8270-070317.B\R39952.D	07/03/2017	19:06
HIMW-26D	7022589007	8270-070317.B\R39953.D	07/03/2017	19:34
138345MS	138345MS	8270-070317.B\R39954.D	07/03/2017	20:02
138346MSD	138346MSD	8270-070317.B\R39955.D	07/03/2017	20:31
HIMW-24	7022589008	8270-070317.B\R39956.D	07/03/2017	20:58
HIMW-28I	7022589011	8270-070317.B\R39957.D	07/03/2017	21:27
HIMW-28S	7022589012	8270-070317.B\R39958.D	07/03/2017	21:54
HIMW-27I	7022589013	8270-070317.B\R39959.D	07/03/2017	22:22
HIMW-27S	7022589014	8270-070317.B\R39960.D	07/03/2017	22:49
HIMW-05S	7022589015	8270-070317.B\R39961.D	07/03/2017	23:18
HIMW-05I	7022589016	8270-070317.B\R39962.D	07/03/2017	23:46

MSSV Full Scan - FORM V SVOA-2
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: Pace Analytical - New York SDG No.: 7022589 Contract: National Grid Hempstead Site
Lab File ID: 8270-070317.B\R39943.D DFTPP Injection Date: 07/03/2017
Instrument ID: 70MSS3 DFTPP Injection Time: 15:00

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
HIMW-05D	7022589017	8270-070317.B\R39963.D	07/04/2017	00:14
DUPE20170628	7022589018	8270-070317.B\R39964.D	07/04/2017	00:41
FB20170629	7022589020	8270-070317.B\R39965.D	07/04/2017	01:09
HIMW-08S	7022589010	8270-070317.B\R39966.D	07/04/2017	01:37

SAMPLE NO.

9010678CCV

MSSV FULL SCAN - FORM VII SVOA-1
MSSV FULL SCAN CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - New York
Calibration Date: 07/03/2017 Time: 15:24

Instrument ID: 70MSS3 GC Column: Col 1
Init. Calib. Date(s): 06/14/2017 06/14/2017

Lab File ID: 8270-070317.B\R39944.D
Init. Calib. Time(s): 17:51 20:37

SDG No.: 7022589

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acenaphthene	Averaged	1.12892	1.18203	0.9000	4.7040	20.0000
Acenaphthylene	Averaged	1.58689	1.65379	0.9000	4.2159	20.0000
Anthracene	Averaged	1.01190	1.12726	0.7000	11.4003	20.0000
Benzo(a)anthracene	Averaged	1.09012	1.22228	0.8000	12.1231	20.0000
Benzo(a)pyrene	Averaged	1.09680	1.18052	0.7000	7.6335	20.0000
Benzo(b)fluoranthene	Averaged	1.19757	1.37658	0.7000	14.9479	20.0000
Benzo(g,h,i)perylene	Averaged	0.93881	0.84096	0.5000	-10.4224	20.0000
Benzo(k)fluoranthene	Averaged	1.16886	1.23133	0.7000	5.3446	20.0000
Chrysene	Averaged	0.94361	1.02741	0.7000	8.8812	20.0000
Dibenz(a,h)anthracene	Linear	25	20.01920	0.4000	-19.9232	20.0000
Fluoranthene	Averaged	1.09501	1.19029	0.6000	8.7011	20.0000
Fluorene	Linear	25	21.07852	0.9000	-15.6859	20.0000
Indeno(1,2,3-cd)pyrene	Averaged	1.21668	1.10210	0.5000	-9.4177	20.0000
2-Methylnaphthalene	Averaged	0.70651	1.00094	0.4000	41.6751	20.0000
Naphthalene	Averaged	0.99128	1.01010	0.7000	1.8981	20.0000
Phenanthrene	Averaged	1.06492	1.17080	0.7000	9.9422	20.0000
Pyrene	Averaged	1.11511	1.38740	0.6000	24.4187	20.0000
2-Chlorophenol-d4 (S)	Averaged	1.40587	1.34306	0.0100	-4.4680	20.0000
1,2-Dichlorobenzene-d4 (S)	Averaged	0.95619	0.95360	0.0100	-0.2708	20.0000
2-Fluorobiphenyl (S)	Averaged	1.21959	1.31273	0.0100	7.6368	20.0000
2-Fluorophenol (S)	Averaged	1.09943	1.25337	0.0100	14.0017	20.0000
Nitrobenzene-d5 (S)	Averaged	0.36171	0.39023	0.0100	7.8845	20.0000
Phenol-d5 (S)	Averaged	1.42644	1.53052	0.0100	7.2969	20.0000
p-Terphenyl-d14 (S)	Averaged	0.76374	0.98095	0.0100	28.4403	20.0000
2,4,6-Tribromophenol (S)	Linear	25	25.08373	0.0100	0.3349	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/04/2017 11:23

APPENDIX B

OXYGEN SYSTEM OPERATION & MAINTENANCE MEASUREMENTS

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	4/25/2017
Time:	14:00
Weather:	Sunny
Outdoor Temperature:	~68° F
Inside Trailer Temperature:	~80° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	20,216.0	
Feed Air Pressure *	105	(psi)
Cycle Pressure *	75	(psi)
Oxygen Receiver Pressure *	90	(psi)
Oxygen Purity	67.0	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	110	(psi)
(readings below are made from control panel)		
Delivery Air	105	(psi)
Element Outlet Temperature	187	(oF)
Running Hours	23,541	(hours)
Loading Hours	15,398	(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	35	30	OW-1-5S	67.3	30	18	OW-1-9D	88.5	35	31
OW-1-2	96.5	30	18	OW-1-6S	67.0	35	18	OW-1-10D	87.2	30	26
OW-1-3	96.3	40	30	OW-1-7S	66.9	35	19	OW-1-11D	86.1	35	30
OW-1-4	95.0	30	31	OW-1-8S	66.7	40	19	OW-1-12D	85.3	30	29
OW-1-5D	93.9	30	32	OW-1-9S	66.0	40	19	OW-1-13D	84.7	35	29
OW-1-6D	92.4	35	30	OW-1-10S	54.6	30	13	OW-1-14D	84.1	40	30
OW-1-7D	91.1	30	30	OW-1-11S	54.1	30	14	OW-1-15D	83.3	40	29
OW-1-8D	89.6	40	32	OW-1-12S	53.6	30	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: 4/25/2017

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	14	OW-1-17D	79.5	30	15	OW-1-21S	49.3	30	13
OW-1-14S	52.7	35	15	OW-1-18D	78.3	30	26	OW-1-22S	49.3	30	13
OW-1-15S	52.2	35	13	OW-1-19D	78.9	30	27	OW-1-23S	48.8	30	14
OW-1-16SR	51.8	40	30	OW-1-20D	79.5	30	29	OW-1-24S	48.4	30	13
OW-1-17S	50.7	30	26	OW-1-21D	79.5	45	26	OW-1-25S	48.8	30	13
OW-1-18S	50.2	35	13	OW-1-22D	79.5	35	27	OW-1-26SR	48.3	30	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	27	OW-1-27S	48.3	30	13
OW-1-20S	49.3	30	10	OW-1-24D	78.2	30	29	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	45	28	OW-1-29S	48.5	20	13	OW-1-33D	83.2	35	30
OW-1-26D	78.1	40	29	OW-1-30S	48.8	25	14	OW-1-34D	84.5	35	29
OW-1-27D	77.9	30	28	OW-1-31S	49.3	30	13	OW-1-35D	85.0	40	29
OW-1-28D	78.0	30	27	OW-1-32S	49.3	30	13	OW-1-36D	85.0	30	30
OW-1-29D	78.4	25	27	OW-1-33S	49.7	30	14	OW-1-37D	84.0	30	29
OW-1-30D	79.0	35	37	OW-1-34S	50.1	30	13	OW-1-38D	82.0	30	28
OW-1-31D	80.5	30	21	OW-1-35S	50.3	40	14	OW-1-39D	78.0	30	28
OW-1-32D	81.6	30	31	OW-1-36S	50.3	35	14	OW-1-40D	76.0	30	27

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

Date: 4/25/2017

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	13	OW-1-41D	73.6	35	23	OW-1-43	67.4	30	22
OW-1-38S	50.6	35	14	OW-1-42D	71.0	35	22	OW-1-44	66.6	35	20
OW-1-39S	50.7	40	14	OW-1-45	65.7	45	20	OW-1-51R	60.6	40	17
OW-1-40S	51.1	30	13	OW-1-46	64.3	40	19	OW-1-52	59.3	40	17
OW-1-41S	51.5	30	14	OW-1-47	63.4	30	18	OW-1-53	60.0	40	17
OW-1-42S	51.3	30	14	OW-1-48	62.5	30	18	OW-1-54	60.0	35	17
				OW-1-49	61.5	40	17				
				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	29.25		0.3	MP-1-5	29.03	16.57	0	MP-1-1D	21.83
MP-1-1S	29.32	24.04	0.1	MP-1-6	21.41	15.19	0	MP-1-2D	25.11
MP-1-2D	23.63		0	MP-1-7	24.65	28.65	0	MP-1-3D	24.69
MP-1-2S	23.85	27.77	0	MP-1-8	26.17	5.05	0	MP-1-4D	24.01
MP-1-3D	21.82		0						
MP-1-3S	21.78	21.45	0						
MP-1-4D	24.61		0.2						
MP-1-4S	24.63	24.63	0						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 4/25/2017

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) X Normal (green) High (orange)
3) Oil added Yes X No
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator changed Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

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

GENERAL SYSTEM NOTES

Trailer

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

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

4-25-17 Found system running upon arrival. Added a small amount of oil to the compressor. Found pressures not even on oxygen generator. Found bad valves and ordered parts to replace. Repaired small leak in separator canister top. Wiped down all equipment and cleaned up debris and leaves around shed. Restarted system and left system running.

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

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

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

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	5/31/2017
Time:	14:45
Weather:	Sunny
Outdoor Temperature:	~70° F
Inside Trailer Temperature:	~67° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	20,289.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	105	(psi)
Oxygen Purity	65.0	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	110	(psi)
(readings below are made from control panel)		
Delivery Air	110	(psi)
Element Outlet Temperature	190	(oF)
Running Hours	23,622	(hours)
Loading Hours	15,461	(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	32	OW-1-5S	67.3	30	18	OW-1-9D	88.5	35	29
OW-1-2	96.5	40	19	OW-1-6S	67.0	30	19	OW-1-10D	87.2	35	25
OW-1-3	96.3	30	30	OW-1-7S	66.9	30	19	OW-1-11D	86.1	25	31
OW-1-4	95.0	35	31	OW-1-8S	66.7	40	18	OW-1-12D	85.3	25	0
OW-1-5D	93.9	35	31	OW-1-9S	66.0	30	19	OW-1-13D	84.7	25	30
OW-1-6D	92.4	30	30	OW-1-10S	54.6	30	13	OW-1-14D	84.1	30	30
OW-1-7D	91.1	30	30	OW-1-11S	54.1	30	14	OW-1-15D	83.3	35	28
OW-1-8D	89.6	40	31	OW-1-12S	53.6	30	14	OW-1-16D	82.5	30	14

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #1 and Bank #3 were set at 3 minutes.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 5/31/2017

O_2 Injection System #1

Injection Bank 4				Injection Bank 5				Injection Bank 6			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-13S	53.1	30	14	OW-1-17D	79.5	30	14	OW-1-21S	49.3	25	13
OW-1-14S	52.7	35	15	OW-1-18D	78.3	40	27	OW-1-22S	49.3	25	13
OW-1-15S	52.2	30	13	OW-1-19D	78.9	35	26	OW-1-23S	48.8	30	13
OW-1-16SR	51.8	30	28	OW-1-20D	79.5	30	28	OW-1-24S	48.4	30	13
OW-1-17S	50.7	35	25	OW-1-21D	79.5	30	27	OW-1-25S	48.8	45	13
OW-1-18S	50.2	25	13	OW-1-22D	79.5	30	26	OW-1-26SR	48.3	40	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	26	OW-1-27S	48.3	30	13
OW-1-20S	49.3	30	14	OW-1-24D	78.2	30	27	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	30	28	OW-1-29S	48.5	30	13	OW-1-33D	83.2	20	30
OW-1-26D	78.1	30	28	OW-1-30S	48.8	30	13	OW-1-34D	84.5	30	29
OW-1-27D	77.9	30	28	OW-1-31S	49.3	30	13	OW-1-35D	85.0	35	29
OW-1-28D	78.0	35	27	OW-1-32S	49.3	30	13	OW-1-36D	85.0	35	28
OW-1-29D	78.4	30	27	OW-1-33S	49.7	30	14	OW-1-37D	84.0	25	28
OW-1-30D	79.0	35	37	OW-1-34S	50.1	30	13	OW-1-38D	82.0	30	28
OW-1-31D	80.5	30	20	OW-1-35S	50.3	30	14	OW-1-39D	78.0	30	28
OW-1-32D	81.6	30	30	OW-1-36S	50.3	30	14	OW-1-40D	76.0	30	27

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

Date: 5/31/2017

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5	30	12	OW-1-41D	73.6	25	23	OW-1-43	67.4	30	20
OW-1-38S	50.6	35	13	OW-1-42D	71.0	30	22	OW-1-44	66.6	35	20
OW-1-39S	50.7	30	14	OW-1-45	65.7	35	20	OW-1-51R	60.6	30	18
OW-1-40S	51.1	30	14	OW-1-46	64.3	30	18	OW-1-52	59.3	30	16
OW-1-41S	51.5	35	14	OW-1-47	63.4	45	17	OW-1-53	60.0	35	17
OW-1-42S	51.3	30	13	OW-1-48	62.5	40	18	OW-1-54	60.0	30	17
				OW-1-49	61.5	30	18				
				OW-1-50	61.0	30	17				

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection time at Bank #11 was set at 6 minutes.

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	29.00		2.4	MP-1-5	28.80	14.72	18	MP-1-1D	13.11
MP-1-1S	29.05	12.70	0.1	MP-1-6	21.10	14.00	0	MP-1-2D	23.60
MP-1-2D	23.40		0.9	MP-1-7	23.32	19.10	0	MP-1-3D	15.10
MP-1-2S	23.60	12.55	0.4	MP-1-8	25.85	4.81	0	MP-1-4D	10.12
MP-1-3D	21.53		0						
MP-1-3S	21.47	14.51	0						
MP-1-4D	24.25		0						
MP-1-4S	24.31	11.55	0						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 5/31/2017

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) X Normal (green) High (orange)
3) Oil added Yes X No
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator changed Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

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

GENERAL SYSTEM NOTES

Trailer

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

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

5-31-17 Found system down upon arrival. Found no communication from alarm system. Found transmitter on top of shed damaged due to overgrown tree limbs. Repaired transmitter and tested communication. Found communication functioning properly. Checked out compressor and found unit to be over heating. Added a small amount of oil to the compressor and checked for cooling oil clogs. Found no visible issues with compressor. Requested D&D Electric Motors to come to site to trouble shoot compressor.

6-1-17 Took apart solenoid valves on oxygen generator and cleaned all dirt and silt buildup. Replaced one exhaust solenoid valve. Took apart both filter bowls and found heavy build up of silt. Changed filters, o-rings, and reinstalled. Took apart auto drains and cleaned. Blew out discharge hoses of silt. Left system off while waiting for D&D.

6-2-17 Went to site to wait for D&D. Replaced worn out section of 3/8 teflon hose into separator unit. Took apart contacts on motor control for booster pump and cleaned and greased bearings on motor. Repaired exhaust vent in wall and sealed with silicone. Wiped down all equipment and left system off while waiting for D&D.

6-5-17 Met with D&D at site. Checked compressor and found a section of cable from the heat transmitter was broken and needs to be replaced, as well as the thermostat inside the junction block not functioning. Made a temporary repair to the cable so system can run while we wait for parts.

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

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

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

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	6/30/2017
Time:	13:45
Weather:	Sunny
Outdoor Temperature:	~86° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours: 20,311.0

Feed Air Pressure *: _____ (psi)

Cycle Pressure *: _____ (psi)

Oxygen Receiver Pressure *: _____ (psi)

Oxygen Purity: _____ (percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *: _____ (psi)

(readings below are made from control panel)

Delivery Air: _____ (psi)

Element Outlet Temperature: _____ (oF)

Running Hours: 23,681 (hours)

Loading Hours: 15,499 (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	OFF	OFF	OW-1-5S	67.3	OFF	OFF	OW-1-9D	88.5	OFF	OFF
OW-1-2	96.5	OFF	OFF	OW-1-6S	67.0	OFF	OFF	OW-1-10D	87.2	OFF	OFF
OW-1-3	96.3	OFF	OFF	OW-1-7S	66.9	OFF	OFF	OW-1-11D	86.1	OFF	OFF
OW-1-4	95.0	OFF	OFF	OW-1-8S	66.7	OFF	OFF	OW-1-12D	85.3	OFF	OFF
OW-1-5D	93.9	OFF	OFF	OW-1-9S	66.0	OFF	OFF	OW-1-13D	84.7	OFF	OFF
OW-1-6D	92.4	OFF	OFF	OW-1-10S	54.6	OFF	OFF	OW-1-14D	84.1	OFF	OFF
OW-1-7D	91.1	OFF	OFF	OW-1-11S	54.1	OFF	OFF	OW-1-15D	83.3	OFF	OFF
OW-1-8D	89.6	OFF	OFF	OW-1-12S	53.6	OFF	OFF	OW-1-16D	82.5	OFF	OFF

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #1 and Bank #3 were set at 3 minutes.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/30/2017

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

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	OFF	OFF	OW-1-29S	48.5	OFF	OFF	OW-1-33D	83.2	OFF	OFF
OW-1-26D	78.1	OFF	OFF	OW-1-30S	48.8	OFF	OFF	OW-1-34D	84.5	OFF	OFF
OW-1-27D	77.9	OFF	OFF	OW-1-31S	49.3	OFF	OFF	OW-1-35D	85.0	OFF	OFF
OW-1-28D	78.0	OFF	OFF	OW-1-32S	49.3	OFF	OFF	OW-1-36D	85.0	OFF	OFF
OW-1-29D	78.4	OFF	OFF	OW-1-33S	49.7	OFF	OFF	OW-1-37D	84.0	OFF	OFF
OW-1-30D	79.0	OFF	OFF	OW-1-34S	50.1	OFF	OFF	OW-1-38D	82.0	OFF	OFF
OW-1-31D	80.5	OFF	OFF	OW-1-35S	50.3	OFF	OFF	OW-1-39D	78.0	OFF	OFF
OW-1-32D	81.6	OFF	OFF	OW-1-36S	50.3	OFF	OFF	OW-1-40D	76.0	OFF	OFF

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

Date: 6/30/2017

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	OFF	OFF	OW-1-41D	73.6	OFF	OFF	OW-1-43	67.4	OFF	OFF
OW-1-38S	50.6	OFF	OFF	OW-1-42D	71.0	OFF	OFF	OW-1-44	66.6	OFF	OFF
OW-1-39S	50.7	OFF	OFF	OW-1-45	65.7	OFF	OFF	OW-1-51R	60.6	OFF	OFF
OW-1-40S	51.1	OFF	OFF	OW-1-46	64.3	OFF	OFF	OW-1-52	59.3	OFF	OFF
OW-1-41S	51.5	OFF	OFF	OW-1-47	63.4	OFF	OFF	OW-1-53	60.0	OFF	OFF
OW-1-42S	51.3	OFF	OFF	OW-1-48	62.5	OFF	OFF	OW-1-54	60.0	OFF	OFF
				OW-1-49	61.5	OFF	OFF				
				OW-1-50	61.0	OFF	OFF				

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection time at Bank #11 was set at 6 minutes.

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	28.85		0.2	MP-1-5	28.66	8.14	0	MP-1-1D	8.13
MP-1-1S	28.92	6.57	0	MP-1-6	20.99	6.27	0	MP-1-2D	5.98
MP-1-2D	23.23		0	MP-1-7	24.22	13.00	0	MP-1-3D	7.00
MP-1-2S	23.45	6.55	0	MP-1-8	25.76	14.01	0	MP-1-4D	7.12
MP-1-3D	21.41		0.3						
MP-1-3S	21.35	7.67	0.5						
MP-1-4D	24.17		0						
MP-1-4S	21.21	8.55	0						

Comments: DO readings were collected at the following depths: MP-1-1S (66 feet), MP-1-1D (~45 feet), MP-1-2S (46 feet), MP-1-2D (~41 feet), MP-1-3S (49 feet), MP-1-3D (~40 feet), MP-1-4S (53 feet), MP-1-4D (~35 feet), MP-1-5 (78 feet), MP-1-6 (61 feet), MP-1-7 (64 feet) and MP-1-8 (58 feet).

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/30/2017

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes ____ No X
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) X Normal (green) ____ High (orange) ____
3) Oil added Yes ____ No X
4) Oil changed Yes ____ No X
5) Oil filter changed Yes ____ No X
6) Air filter Changed Yes ____ No X
7) Oil separator changed Yes ____ No X
8) Terminal strips checked Yes ____ No X

AS-80 O_2 Generator

1) Profiler changed Yes ____ No X
2) Coalescing changed Yes ____ No X

GENERAL SYSTEM NOTES

Trailer

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

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

6-1-17 Took apart solenoid valves on oxygen generator and cleaned all dirt and silt buildup. Replaced one exhaust solenoid valve. Took apart both filter bowls and found heavy build up of silt. Changed filters, O-rings, and reinstalled. Took apart auto drains and cleaned. Blew out discharge hoses of silt. Left system off while waiting for D&D.

6-2-17 Went to site to wait for D&D. Replaced worn out section of 3/8 Teflon hose into separator unit. Took apart contacts on motor control for booster pump and cleaned and greased bearings on motor. Repaired exhaust vent in wall and sealed with silicone. Wiped down all equipment and left system off while waiting for D&D.

6-5-17 Met with D&D at site. Checked compressor and found a section of cable from the heat transmitter was broken and needs to be replaced, as well as the thermostat inside the junction block not functioning. Made a temporary repair to the cable so system can run while we wait for parts.

6-26-17 Found system down upon arrival due to temporary repair not holding. Found oil boiled out of holing canister and the lines melted and broken apart. Drained all remaining oil and flushed out burned oil with all remaining oil in stock. Need more oil and new canister filters from Kaeser in order to restart system. Installed new thermostat and thermostat cable. Left system off.

6-30-17 Collected readings from monitoring point while system awaits parts to be repaired. Cut down overgrown brush from around fence areas and cleaned up garbage.

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

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

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	4/26/2017
Time:	17:00
Weather:	Clear
Outdoor Temperature:	~59° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	36,938	
Feed Air Pressure *	95	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	95	(psi)
Oxygen Purity	70.5	(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	189	(^{o}F)
Running Hours	39,981	(hours)
Loading Hours	36,938	(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	32	OW-2-9S	75'	25	21	OW-2-10D	97.2'	30	29
OW-2-3	94.3'	35	30	OW-2-10S	75'	30	34	OW-2-11D	100.8'	40	34
OW-2-4	94.7'	40	33	OW-2-11S	76.5'	30	25	OW-2-12	94'	45	20
OW-2-5	95.3'	30	30	OW-2-13S	75'	25	21	OW-2-13D	97'	40	36
OW-2-6	95.7'	30	29	OW-2-15S	75'	30	21	OW-2-14	96.4'	35	28
OW-2-7	96'	35	30	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	30	29
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	30	20	OW-2-16D	94.1'	30	29
OW-2-9D	96.7'	30	31	OW-2-20S	79'	30	21	OW-2-17	95'	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.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 4/26/2017

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

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	22	OW-2-45	61.1'	30	22	MP-2-1	32.17	28.00	0
OW-2-38	62.1'	30	22	OW-2-46	61'	30	21	MP-2-2	33.50	27.25	0
OW-2-39	60'	25	20	OW-2-47	60.5'	35	21	MP-2-3S	33.41	25.14	0
OW-2-40	61.7'	30	21					MP-2-3D	33.52	26.84	0
OW-2-41	61.7'	30	22					MP-2-4	22.10	21.26	0
OW-2-42	61.6'	30	19					MP-2-5	20.29	23.63	0
OW-2-43	61.4'	30	20								
OW-2-44R	60.6'	35	22								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 4/26/2017

OPERATIONAL NOTES

GA5 Air Compressor

1) Oil Level Checked with system unloaded* Yes X No
   * Unload system, wait until Delivery Air Pressure is less than 9 psi
2) Oil Level with system unloaded
   Low (red) X Normal (green) High (orange)
3) Oil added Yes X No
4) Oil changed Yes No X
5) Oil filter changed Yes No X
6) Air filter Changed Yes No X
7) Oil separator cleaned Yes No X
8) Terminal strips checked Yes X No

AS-80 O_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:

4-26-17 Found system down upon arrival due to air compressor alarm. Checked system and found all holding tank empty. Opened compressor and found belt had shredded to pieces. Replaced damaged belt and restarted system. Added small amount of cooling oil to compressor. Took apart auto drains to clean heavy buildup on floats. Wiped down all equipment and cleaned up debris and leaves around shed. Restarted system and left system running.

5-3-17 Found leak in oxygen generator. Took apart generator and replaced leaking valve. Restarted system and let pressure rebuild. Added small amount of cooling oil to compressor. Took apart auto drains to clean heavy buildup of silt. Wiped down all equipment and cleaned up debris and leaves around shed. Restarted system and left system running.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

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

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	5/30/2017
Time:	11:45
Weather:	Rain
Outdoor Temperature:	~70° F
Inside Trailer Temperature:	~65° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	37,361	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	95	(psi)
Oxygen Purity	76.9	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	110	(psi)
Element Outlet Temperature	171	(^{o}F)
Running Hours	40,598	(hours)
Loading Hours	37,099	(hours)

* maximum reading during loading cycle

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'	40	31	OW-2-9S	75'	35	20	OW-2-10D	97.2'	30	30
OW-2-3	94.3'	30	29	OW-2-10S	75'	30	14	OW-2-11D	100.8'	30	34
OW-2-4	94.7'	35	33	OW-2-11S	76.5'	30	23	OW-2-12	94'	35	21
OW-2-5	95.3'	45	30	OW-2-13S	75'	35	20	OW-2-13D	97'	30	36
OW-2-6	95.7'	40	29	OW-2-15S	75'	30	21	OW-2-14	96.4'	35	29
OW-2-7	96'	40	29	OW-2-16S	75.5'	40	20	OW-2-15D	94.6'	40	28
OW-2-8	96.3'	30	28	OW-2-18S	74.5'	30	19	OW-2-16D	94.1'	40	29
OW-2-9D	96.7'	35	30	OW-2-20S	79'	40	20	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: 5/30/2017

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'	35	32	OW-2-22S	76'	40	19	OW-2-26D	95'	30	30
OW-2-19	96.1'	40	9	OW-2-24S	77.8'	30	23	OW-2-27	93.5'	30	30
OW-2-20D	96.6'	30	28	OW-2-26S	74'	30	20	OW-2-28D	92.1'	35	30
OW-2-21	96.6'	30	34	OW-2-28S	76'	30	21	OW-2-29	92.2'	40	29
OW-2-22D	96.3'	35	28	OW-2-30S	67.8'	40	20	OW-2-30D	88'	40	29
OW-2-23	97.2'	30	30	OW-2-34	71'	35	22	OW-2-31	86'	40	27
OW-2-24D	97'	35	29	OW-2-35	69.2'	35	23	OW-2-32	84'	30	29
OW-2-25	96'	35	31	OW-2-36	64.8'	30	34	OW-2-33	82'	30	22

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'	40	23	OW-2-45	61.1'	30	21	MP-2-1	38.85	14.02	0
OW-2-38	62.1'	45	22	OW-2-46	61'	35	21	MP-2-2	33.20	21.49	0
OW-2-39	60'	40	20	OW-2-47	60.5'	30	20	MP-2-3S	33.05	27.42	0
OW-2-40	61.7'	30	19					MP-2-3D	33.20	30.25	0
OW-2-41	61.7'	35	20					MP-2-4	21.75	19.45	0
OW-2-42	61.6'	30	19					MP-2-5	19.90	15.60	0
OW-2-43	61.4'	30	21								
OW-2-44R	60.6'	30	22								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 5/30/2017

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_2 Generator

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

GENERAL SYSTEM NOTES

Trailer

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

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

5-30-17 Found system operation upon arrival. Found leak in auto drain bowl. Glued crack to repair. Added small amount of cooling oil to compressor. Flushed out discharge lines and cleaned out base of oil/water separator. Wiped down all equipment and cleaned up debris and leaves around shed. Restarted system and left system running.

PID was checked with 100 ppm isobutylene prior to calibration and unit was reading 98 ppm. Zeroed unit with fresh air and was reading 0.0 ppm. Calibrated with 100 ppm isobutylene and reading was 100 ppm.

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

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	6/30/2017
Time:	10:30
Weather:	Sunny
Outdoor Temperature:	~84° F
Inside Trailer Temperature:	~80° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	37,777	
Feed Air Pressure *	85	(psi)
Cycle Pressure *	60	(psi)
Oxygen Receiver Pressure *	120	(psi)
Oxygen Purity	83	(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	41,332	(hours)
Loading Hours	37,547	(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	32	OW-2-9S	75'	40	21	OW-2-10D	97.2'	30	29
OW-2-3	94.3'	30	30	OW-2-10S	75'	30	15	OW-2-11D	100.8'	30	32
OW-2-4	94.7'	30	33	OW-2-11S	76.5'	40	21	OW-2-12	94'	35	21
OW-2-5	95.3'	35	30	OW-2-13S	75'	30	20	OW-2-13D	97'	35	35
OW-2-6	95.7'	25	30	OW-2-15S	75'	35	20	OW-2-14	96.4'	30	30
OW-2-7	96'	30	29	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	30	28
OW-2-8	96.3'	30	28	OW-2-18S	74.5'	30	20	OW-2-16D	94.1'	30	29
OW-2-9D	96.7'	30	30	OW-2-20S	79'	30	19	OW-2-17	95'	35	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.

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/30/2017

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

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'	35	24	OW-2-45	61.1'	35	21	MP-2-1	37.70	22.54	0.7
OW-2-38	62.1'	30	23	OW-2-46	61'	30	20	MP-2-2	33.05	23.41	0
OW-2-39	60'	35	21	OW-2-47	60.5'	30	20	MP-2-3S	32.92	26.84	0
OW-2-40	61.7'	30	20					MP-2-3D	33.10	27.12	0
OW-2-41	61.7'	35	20					MP-2-4	19.81	18.47	1.3
OW-2-42	61.6'	40	18					MP-2-5	21.64	25.55	0
OW-2-43	61.4'	30	21								
OW-2-44R	60.6'	30	22								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/30/2017

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_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:

6-30-17 Found system operational upon arrival. Check auto drains and found clear and operating properly. Found AC unit not functioning. Tested cord and got unit to restart. Wiped down all equipment and cleaned up debris and leaves around shed. Restarted system and left system running.

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: