Periodic Review Report

April 6, 2017 through February 28, 2019
Hempstead Intersection Street Former MGP Site
NYSDEC Site #130086

AECOM Project Number: 60411920

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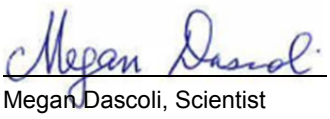	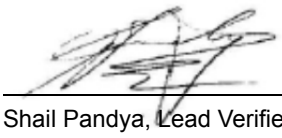	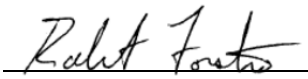
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List of Acronymns and Abbreviations

AECOM	AECOM USA, Inc.
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
cy	cubic yard
DER	Division of Environmental Remediation
DNAPL	Dense Non-Aqueous Phase Liquid
DO	Dissolved Oxygen
DUSR	Data Usability Summary Report
EC	Engineering Control
ELAP	Environmental Laboratory Accreditation Program
ISS	In-Situ Solidification
IRM	Interim Remedial Measure
IC	Institutional Control
IP&T	Island Pump & Tank
LIRR	Long Island Rail Road
MGP	Manufactured Gas Plant
µg/L	micrograms per liter
mg/L	milligrams per liter
NAPL	Non-Aqueous Phase Liquid
National Grid	National Grid USA, Inc.
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
O&M	Operations and Maintenance
PRR	Periodic Review Report
PAH	Polycyclic Aromatic Hydrocarbon
POB	Professional Office Building
ROW	Right-of-Way
Site	National Grid Former Hempstead MGP
SMP	Site Management Plan
USEPA	United States Environmental Protection Agency
VGC	Village of Garden City

1. Introduction

AECOM USA, Inc. (AECOM), on behalf of National Grid USA (National Grid), has prepared this Periodic Review Report (PRR) for the former Hempstead Manufactured Gas Plant (MGP) (Site), located in the Town of Hempstead, New York. This PRR for this Site (NYSDEC Site #130086) is prepared in accordance with the requirements of the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) guidance document DER-10, Technical Guidance for Site Investigation and Remediation (NYSDEC, 2010) and the Site Management Plan (SMP) (URS, 2017) for the Site. In addition, this report presents the groundwater data collected from the site from April 2018 through February 28, 2019 in lieu of a separate "Groundwater Sampling, NAPL Monitoring/Recovery and Groundwater Treatment Performance Report" submittal.

1.1 Site Description

National Grid's corporate predecessor, KeySpan Corporation, entered into an Order on Consent (#D1-0001-98-11) with the NYSDEC to investigate and remediate MGP-related residuals at the Site and surrounding areas in the Villages of Hempstead and Garden City, in the Town of Hempstead, Nassau County, New York. The term "Site" shall be understood to refer to the parcel owned by National Grid (Figure 1). In addition to the Site, the following areas were subjected to soil remediation via excavation removal/backfill and in situ solidification (ISS):

- The Village of Garden City (VGC) municipal property that is adjacent to and west of the National Grid property;
- The parking lot of the Plaza 230 Professional Office Building (POB) that is south of the National Grid property;
- Intersection Street Right-of-Way (ROW) that is between the National Grid property and the POB parking lot;
- The inactive Long Island Rail Road (LIRR) ROW that is adjacent to and east of the National Grid property; and
- Oswego Oil Storage Terminal that is just north of Intersection Street and east of the National Grid property.

These off-Site Areas are shown on Figure 2. Additional off-Site remedial activities include oxygenation systems that address groundwater remediation through oxygen delivery to the subsurface, and the installation and sampling of monitoring wells located throughout the neighborhood.

The Site and adjacent parcels are identified by the Section, Block, and Lot numbers indicated on Figure 3. The Site includes an active natural gas regulator station in the northwest corner of the property, is currently used as a storage area by National Grid (and its contractors) and (through a lease with a car dealership) is used as a storage area for new cars. Figure 4 expands

the project view to include areas where the groundwater oxygen delivery systems are located. Residences and commercial businesses surround the National Grid property which is bordered to the north by Second Street, east by a LIRR ROW, south by Intersection Street, and west by a municipal property owned by the VGC which contains a public parking lot, two public water supply wells, and a recharge basin that is used to service the water supply wells.

1.2 Remedial Chronology

National Grid has performed both on-Site and off-Site remedial actions. Two interim remedial measures (IRMs) and two remedial actions (one off-Site and one on-Site) have been implemented and are summarized below.

A “cut and plug” IRM was conducted in 1999 and 2000. Underground piping associated with historic MGP operations was located, cut, drained of any fluids, and plugged to limit the potential for any off-Site migration of MGP-related constituents.

A second IRM was implemented in 2008 to excavate shallow MGP source materials from the Site and to recover dense non-aqueous phase liquid (DNAPL) from groundwater. A total of 4,432 cubic yards (cy) of MGP-impacted soil and construction/demolition debris was transported to a licensed facility for off-Site treatment and disposal. MGP-impacted liquid (9,493 gallons) was containerized and transported to a licensed facility for off-Site treatment and disposal.

For the off-Site remedial action, National Grid installed two groundwater oxygenation systems downgradient of the Site, as shown on Figure 4. These systems are components of the full Site-wide remedy and are delivering oxygen to the downgradient groundwater plume. The primary objective of the off-Site groundwater oxygenation systems is to increase the level of dissolved oxygen (DO) in the groundwater to encourage aerobic bioremediation. As contaminated groundwater flows through the treatment areas, the increased DO accelerates the rate at which the dissolved contaminant mass is oxidized and leads to decreased contaminant concentrations in groundwater. System #1 was brought on line in April 2011 and is located immediately south of the Site, and runs generally east-west from Hilton Avenue to the west to Sealy Avenue to the east, in a neighborhood that includes residential and light commercial spaces, as well as a portion of the LIRR ROW. System #2 was brought on line in October 2010 and is located in a primarily residential neighborhood about 500 feet to the south of System #1, running from Mirschel Park to the east to Kensington Court to the west.

For the on-Site remedial action (including portions of adjacent parcels as described in Section 1.1), National Grid performed an excavation and ISS remedy addressing MGP source material on the Site from 2011 to 2016, including:

1. Excavation of MGP structures and shallow targeted MGP-impacted soil from the Site and treatment/disposal off-Site.
2. Excavation of shallow clean soil and stockpile for later backfill.
3. Solidification of deeper targeted MGP source material beneath the Site using ISS.

4. Construction of an approximately 15-foot deep subsurface soil-crete retaining wall in the POB parking lot and in portions of Wendell Street and Intersection Street. The soil-crete wall consisted of soil mixed with a cement-based grout to provide concrete-like properties.

5. Excavation to approximately 15 feet below ground surface (bgs) within the soil-crete wall and stockpiling/reuse clean overburden soils and then solidification of deeper targeted MGP source material.

6. Solidification of targeted MGP source material in the VGC municipal property and the Oswego Oil Storage Terminal property.

7. Coverage of solidified material with approximately four feet of clean soil. Surface cover materials to prevent contact with solidified materials and remaining untreated contaminated soil at the Site are as follows:

    - National Grid Property:
        - New York State Department of Transportation (NYSDOT) select stone cover (4 inches thick) in disturbed/work areas; or
        - Asphalt pavement (for access roads and asphalt parking); or
        - Select stone-lined swale (4 inches thick).
    - VGC Municipal Property:
        - Asphalt pavement (access roads and asphalt parking); or
        - Landscaped area including:
            - Topsoil and grass vegetation; or
            - Landscape strips with topsoil (6-inches)/grass, shrubs, and trees.
    - Wendell Street, Intersection Street, and Wydler Place:
        - Asphalt cover with concrete curbs, adjacent topsoil (6-inches)/grass strips, concrete sidewalks, and trees.
    - POB Parking Lot:
        - Asphalt paving; and
        - Curbed decorative gravel islands with trees.
    - Oswego Oil Storage Terminal area where ISS was completed:
        - Four inches of asphaltic concrete on top of 4 inches of subbase course.
    - Implementation of an SMP for the Site and off-Site Areas that required engineering controls (ECs) and institutional controls (ICs) to manage remaining contamination within the Site and off-Site Areas. This PRR is a requirement of the SMP.

2. Remedy Performance, Effectiveness, and Protectiveness

The ECs/ICs remain effective at this Site. No changes have taken place to the ISS mass within the Site. Based on discussions with property owners, no changes have taken place to the ISS mass beneath off-Site Areas. The Site cover system is unchanged, with no intrusive activities noted that penetrated the system. Based on discussions with the off-Site area property owners, the cover system is unchanged and no intrusive activities took place that penetrated the cover system.

The plume downgradient of the Site continues to be treated by the oxygen delivery systems. Figures 5, 6, 7, 8, and 9 show the extent of the remaining plume as defined by total BTEX and PAH concentrations for the five sampling events performed during this reporting period. These figures indicate that the operation of the oxygen system has resulted in a reduction of the plume area when compared to the pre-remedial extent where it reached greater than 3,600 feet downgradient from the Site (south of wells HIMW-15I and HIMW-15S).

Due to the presence of contamination beneath the POB known as Plaza 230, and beneath the powerline running along the LIRR ROW, some dissolved phased contamination remains immediately downgradient of the solidified monolith. However, this contamination is effectively treated by the first oxygenation system located primarily along the LIRR ROW and Smith Street.

During this reporting period, 10.7 gallons of NAPL were recovered from the one recovery well near the POB (HIMW-21, located within an area inaccessible for ISS treatment).

3. IC/EC Plan Compliance

3.1 Engineering Controls Compliance

The SMP lists the following ECs:

- Cover system consisting of one of the following: asphalt pavement, concrete sidewalks, concrete slabs, select stone (gravel), or topsoil, with a minimum of two feet of clean material in all areas.
- Continued collection of NAPL from one passive DNAPL recovery well (HIMW-21) located next to the parking lot; and,
- Groundwater oxygen delivery systems.

Each of these ECs are discussed below.

Cover System Integrity

AECOM regularly accessed the Site during the performance groundwater sampling and product gauging/recovery events during this period, and no impacts to the cover system have been observed. AECOM performed a formal inspection on July 31, 2018 and documented a follow-up inspection on February 15, 2019 that confirmed no changes from the last inspection. The results of these inspections are recorded in the Inspection Forms presented in Appendix A.

Portions of the Site are being used for storage by National Grid and (through a lease) the adjacent automobile dealer. However, these uses have not impacted the surface cover integrity and its surfaces and thicknesses. Item 8 of the Remedy Components description above in Section 1.2 remain intact.

NAPL Recovery

During the reporting period, well HIMW-21 (the only remaining well with the presence of DNAPL detected), was gauged sixteen times and DNAPL was collected on six days. DNAPL thickness at recovery well HIMW-21 was gauged on April 11, June 19, June 30, September 20, December 15 and December 18, 2017, March 19, June 30, July 31, August 31, September 17, October 30, November 30, and December 27, 2018, and January 31 and February 15, 2019. Recovery of DNAPL was conducted on April 11, June 30, September 20, December 15, 2017, June 30, and December 18, 2018. A total of 10.7 gallons of DNAPL were recovered. The results of the gauging and collection are summarized on Table 1.

Oxygenation System Operation

The two oxygenation systems were in operation during this reporting period. As further described in Section 5 below, the compressor on System #1 failed in June 2017. A series of repairs throughout the remainder of 2017 failed to resolve the problem, and therefore a replacement compressor was installed in January 2018 to restart the system. Despite this

breakdown, conditions within the aquifer remained aerobic throughout the period, allowing for continued biodegradation of dissolved hydrocarbons, although contaminant increases were observed in two wells (HIMW-20I and HIMW-25). In September 2018, BTEX and PAHs levels returned to non-detect in these wells, showing returned effectiveness of System #1.

3.2 Institutional Controls Compliance

The SMP lists five ICs, presented below in bold. Compliance with each is discussed below. The monitoring frequency required by the SMP is presented in Table 2.

Operation and maintenance of all ECs as specified in the SMP

All ECs were in place during this period as presented in Section 3.1 above and Section 5 below.

Inspection and certification of all ECs on the Site and in off-Site Areas are at a frequency and in a manner defined in the SMP

Table 2 indicates the SMP requires annual inspection of ECs. This inspection was performed on July 31, 2018, with a supplemental inspection documenting no changes on February 15, 2019, documented in Appendix A. DNAPL depth was measured sixteen times during this reporting period, which is (on average) less than the monthly frequency required by the SMP. Although DNAPL was never measured at thicknesses greater than 2 feet during this period, the inspection frequency has been at least monthly since June 2018 and will continue at this frequency, as required by the SMP. This PRR certifies the inspection of the ECs during this reporting period.

Performance of groundwater and other environmental monitoring as defined in the SMP

Groundwater monitoring was performed on a quarterly basis as specified on Table 2 and as summarized in Section 4 below. On June 1, 2018, National Grid received approval from the NYSDEC to reduce the groundwater monitoring frequency from quarterly to semi-annually, with DNAPL gauging to be performed monthly. This approval is presented in Appendix B.

Reporting all data and information pertinent to management of the Site and off-Site Areas at the frequency and in a manner defined in the SMP

Quarterly and/or annual monitoring and operation reports were provided to NYSDEC in December 2017, May 2018, and August 2018 in accordance with the requirements of the SMP.

Site and off-Site Area environmental monitoring including, but not limited to, groundwater monitoring wells and oxygen delivery points, must be maintained to ensure continued functioning in the manner specified in this SMP.

Two monitoring wells, HIMW-12I and HIMW-12D, have been damaged by vandalism and currently have debris blocking their risers. Some debris was successfully removed; however, not sufficiently to allow these wells to be monitored.

One oxygen delivery well, OW-1-19S, developed a leak as evidenced by the inability to maintain pressure in this delivery line. It is unlikely that the location of the subsurface leak could be detected and repaired. This oxygen delivery well is a single delivery point among the ninety-two

delivery points of System #1; the remaining operating ninety-one delivery points are sufficient for maintaining aerobic conditions within the aquifer, as demonstrated by the continuing overall effectiveness of System #1 described in Section 5 (below).

3.3 IC/EC Certification

The completed IC/EC certification forms are included in Appendix C.

4. Monitoring Plan Compliance

4.1 Monitoring Plan Description

The Monitoring Program is defined in the Field Sampling and Analysis Plan provided as Appendix E of the SMP. The plan calls for quarterly sampling of a subset of the wells adjacent to the Site. Table 3 lists the wells that are gauged for water level and presence of NAPL (as identified on Figures 10, 11 and 12 to evaluate the shallow, intermediate and deep groundwater, respectively) and/or sampled (as identified on Figure 13). On June 1, 2018, NYSDEC approved reducing the frequency of groundwater sampling from quarterly to semi-annually. Each groundwater sample is analyzed by a NYSDOH Environmental Laboratory Accreditation Program (ELAP) certified laboratory for BTEX by United States Environmental Protection Agency (USEPA) Method SW8260C and PAHs by USEPA Method SW8270D.

In addition to this groundwater monitoring, NAPL collection, which is an EC, is also summarized in this section. NAPL is collected from the only remaining well that NAPL is detected in, HIMW-21. The collected DNAPL is transferred to a collection drum stored on-Site, and properly disposed of off-Site.

4.2 Monitoring Performed During Reporting Period

Groundwater sampling was performed on:

- June 19-23 and June 26--29, 2017,
- September 20-22 and September 25-29, 2017,
- December 18-22 and December 26-28, 2017,
- March 20-23 and March 26-29, 2018, and
- September 18-21 and September 24-28, 2018**.**

DNAPL gauging and/or collection was performed at well HIMW-21 on:

- April 11, 2017,
- June 19, 2017,
- June 30, 2017,
- September 20, 2017,
- December 15, 2017,
- December 18, 2017,
- March 19, 2018,
- June 30, 2018,
- July 31, 2018,
- August 31, 2018,

- September 17, 2018,
- October 30, 2018
- November 30, 2018,
- December 27, 2018,
- January 31, 2019, and
- February 15, 2019.

A Data Usability Summary Report (DUSR) for groundwater samples collected in September 2018 is included as Appendix D. DUSRs for prior sampling events have been included in prior monitoring reports.

4.3 Summary of Results of Monitoring

The results of the groundwater sampling analyses are presented on Tables 4, 5, 6, 7, and 8 and on Figures 5, 6, 7, 8, and 9. The results of the DNAPL collection from HIMW-21 are presented on Table 1.

The plume changed slightly during this reporting period. Likely due to the repairs required for Oxygen System #1, which kept the system offline from June 2017 until January 2018, both BTEX and PAH levels increased during the shutdown in wells HIMW-20I and HIMW-25 (immediately downgradient of the oxygen delivery lines), but returned to non-detectable in September 2018. Elevated PAH levels observed prior to this reporting period in well HIMW-24 continued into the first sampling event of this reporting period (June 2017) then decreased until September 2018, when an increase in PAH and BTEX levels was observed. This increase may represent a delayed response as groundwater that passed through the vicinity of Oxygen System #1 during the maintenance shutdown subsequently reached HIMW-24.

The oxygen monitoring points near both Systems #1 and #2 have been monitored monthly by Island Pump & Tank (IP&T). The DO readings from April through December 2018 and January and February 2019 are presented in Table 9. The groundwater treatment system performance data from April through December 2018 and January and February 2019, collected by IP&T, is included as Appendix E. This data from the First Quarter 2018 was submitted in the *Groundwater Sampling, NAPL Monitoring/Recovery and Groundwater Treatment Performance Report for the First Quarter of 2018* and the 2017 data was presented in 2017 quarterly reports submitted to the NYSDEC.

Potentiometric heads and NAPL thickness measurements for September 2018 are presented in Table 10. Potentiometric surface maps for shallow, intermediate, and deep groundwater zones were developed using this data and are shown in Figures 10, 11, and 12 for September 2018. The data indicate that the direction of groundwater flow within the well field was south for shallow, intermediate, and deep water bearing zones.

A total of 10.7 gallons of DNAPL were recovered from well HIMW-21. DNAPL was recovered on 6 days, with an average of 1.9 gallons collected during each event.

4.4 Conclusions and Recommendations

The frequency of well HIMW-21 NAPL gauging (and if appropriate, NAPL collection) will continue at a monthly frequency as called for by the SMP and confirmed in the June 1, 2018 letter from NYSDEC authorizing a decrease in the sampling frequency from quarterly to semi-annually.

5. Operation and Maintenance Compliance

5.1 Oxygen Delivery System Description

There are two oxygen delivery systems installed to enhance the groundwater oxygen concentrations in the groundwater plume. The aerobic conditions allow bacteria to biologically degrade dissolved hydrocarbons, including BTEX and PAHs. System #1 is located along Smith Street, a portion of the LIRR ROW, and a portion of Hilton Avenue and began operation in April 2011. System #2 extends from Mirschel Park in the east to Kensington Court in the west and began operation in October 2010.

At the time of the system construction, the dissolved phase groundwater plume extended approximately 2,000 feet to the south of the site, as shown on Figure 14. The plume boundaries were defined by total BTEX and/or total PAH concentrations greater than 100 micrograms per liter (µg/L). The locations and depths of the delivery wells are presented in Figure 15 and Figure 16 for Systems #1 and #2, respectively.

5.2 Operational Deficiencies

During the reporting period, System #2 operated continuously, but System #1 did not operate for approximately seven months as a series of repairs were required. In June 2017, the System #1 compressor started overheating triggering system shutdowns. Temporary repairs were performed in early June by National Grid's O&M contractor, IP&T, but they were not effective as the system shut down again later that month. IP&T then requested to procure an electric motor subcontractor D&D Electric Motors to visit the Site to troubleshoot and repair. Troubleshooting by D&D Electric Motors during July 2017 did not fix the system.

National Grid then authorized IP&T to retain the compressor manufacturer's (Kaeser) service company for the diagnosis of necessary repairs. Kaeser was not able to schedule a site visit until October 2017, at which time they identified and recommended repairs and provided National Grid with a cost estimate. As required for compliance with internal and regulatory management requirements, National Grid requested a price quotation for replacement of the compressor as an alternative to repairs, which was provided in November 2017. Because the cost for replacement was considerably more expensive, National Grid opted to repair the compressor. Due to the lead time required for procurement of replacement parts, repairs did not commence until December 4, 2017. While these repairs successfully fixed the motor overheating problem, a new problem related to pressure control was discovered. At that point, National Grid abandoned continued attempts to repair the compressor and opted to replace the entire unit. The replacement compressor was installed in January 2018. Upon installation and start-up of the new compressor, damage was found in the load center, which required additional repair. These repairs were performed in February 2018, and the system has been running continuously since then.

5.3 Summary of Oxygen Level Measurements

Oxygen levels were measured monthly in each of the monitoring points installed during construction. Figures 17 and 18 show the oxygen concentrations as measured during the monthly operation and maintenance events by IP&T. The dissolved oxygen levels were measured at the monitoring points shown on Figures 12 and 13 and in Table 9. Appendix E contains the oxygen system operation and maintenance measurements from April – December 2018 and January – February 2019.

5.4 Evaluation of Effectiveness

Figure 17 shows that during the time System #1 was down for repairs, oxygen concentrations dropped to a range of 3 to 12 milligrams per liter (mg/L) (most measurements were between 5 and 10 mg/L). Although this is considerably below the higher levels achievable by the oxygen delivery technology, these levels represent concentrations that would be in equilibrium with sparged air (containing 19% oxygen) and thus still represent aerobic conditions. However, as discussed below in Section 6.2, BTEX and PAH concentrations increased during this period in two wells immediately downgradient of this system, but decreased to non-detect once System #1 resumed normal operation.

Figure 18 shows that System #2 consistently maintained high oxygen concentrations throughout the monitoring period.

5.5 Conclusions and Recommendations

The two oxygenation systems remain effective in maintaining high oxygen concentrations in the groundwater. Oxygen concentrations downgradient of System #1 returned to the previous high levels soon after the system was restarted following repairs. However, the downtime for System #1 allowed BTEX and PAH concentrations to increase for a short period of time in wells HIMW-20I and HIMW-25.

6. Overall PRR Conclusions and Recommendations

6.1 Compliance with SMP

National Grid has operated and maintained the Site in compliance with the SMP, with the following caveats:

- DNAPL gauging and collection was performed less-frequently than monthly at well HIMW-21 (though still at a frequency sufficient to remove DNAPL before it accumulated to a depth of more than two feet in the well) until June 2018; beginning in June 2018, gauging (and collection, when necessary) has been completed monthly, and the monthly frequency will be continued going forward.
- A series of repairs to the compressor on Oxygen System #1 were unsuccessful in restarting this system following a shutdown in June 2017. In the end, National Grid elected to replace the compressor and the system has been running continuously since February 2018. With the installation of the new compressor and ongoing monthly maintenance of this system and System #2, continuous operation should continue.

6.2 Performance and Effectiveness of Remedy

By far, the largest component of the remedy performed was the solidification of 168,600 cy of soil. While there is no direct monitoring of the monolith created by this solidification, it remains in place under cover materials. The cover system remains in place as constructed.

The oxygen delivery systems have been effective in reducing the size and concentration of the downgradient plume. In contrast to the current plume extent shown in Figures 5 through 9, the plume as it existed at the time the oxygen delivery systems were started is shown on Figure 14. Figures 19 and 20 show the total BTEX and PAH concentrations (respectively) in all wells monitoring the plume downgradient of System #1. These charts use a logarithmic concentration scale to effectively show the wide range of concentrations observed in these wells. For the purposes of data presentation, non-detects are shown as a concentration of 1 μg/L. These charts show that following the startup of the systems in 2011, there has been a clear decreasing trend in these wells. This trend is especially clear in the further downgradient wells HIMW-13I and D, HIMW-14I, and HIMW-15I (of the three wells in each of the “13”, “14”, and “15” clusters at these three locations, these are the ones whose screens intercepted the plume). This trend is more evident with BTEX than with PAHs. It is unclear why well HIMW-24, installed upon completion of the oxygenation systems construction, exhibits wide swings in concentration, but this well has had very low contaminant concentrations during the three of the last four monitoring events. As stated above, concentrations in two wells (HIMW-20I and HIMW-25) immediately downgradient of System #1, increased in concentration during the period when System #1 was undergoing repairs, but decreased to non-detect in September 2018.

6.3 Recommendations

Monitoring wells HIMW-12I and HIMW-12D are damaged as a result of vandalism. Efforts to remove the debris currently blocking the risers have been unsuccessful. It is recommended that these wells be decommissioned and a replacement well for HIMW-12I be installed. Well HIMW-12D has historically been non-detect for BTEX and PAHs, and therefore replacement of this well is not recommended.

7. References

NYSDEC, 2010. *DER-10 / Technical Guidance for Site Investigation and Remediation*, May 2010.

URS Corporation, 2017. *Site Management Plan for the Hempstead Intersection Street Former Manufactured Gas Plant Site, Villages of Hempstead & Garden City, Nassau County, New York*, February 2017.

Tables

Table 1
NAPL Gauging and Recovery
April 6, 2017 through February 28, 2019
Hempstead Intersection Street Former MGP Site

Well ID: HIMW-021

Date	Thickness of LNAPL (feet)	Thickness of DNAPL (feet)	Volume of NAPL Removed[(1)] (gallons)
April 11, 2017	ND	1.9	1.3
June 19, 2017	ND	1.8	0
June 30, 2017	ND	1.8	2.7
September 20, 2017	sheen	1.1	1.6
December 15, 2017	0.01	1.0	1.5
December 18, 2017	sheen	blebs	0
March 19, 2018	ND	0.8	0
June 30, 2018	ND	1.2	1.8
July 31, 2018	NC	0.13	0
August 31, 2018	NC	0.3	0
September 17, 2018	sheen	0.5	0
October 30, 2018	NC	0.7	0
November 30, 2018	NC	1.0	0
December 27, 2018	sheen	1.2	1.8
January 31, 2019	NC	0.2	0
February 15, 2019	NC	0.4	0

Total volume of NAPL recovered during period: 10.7

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

NC Measurement Not Collected

Table 2
Monitoring Programs Schedule
Hempstead Intersection Street Former MGP Site

Monitoring/Inspection	Frequency	Analysis	Reporting Frequency
Cover System: Former MGP Area and LIRR ROW	Annually	none	Annually
Cover System: Village of Garden City Property	Annually	none	Annually
Cover System: Oswego Oil Storage Terminal Area	Annually	none	Annually
Cover System: Restored Roadway Areas	Annually	none	Annually
Cover System: POB Parking Lot	Annually	none	Annually
Groundwater Monitoring	Quarterly*	Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) by USEPA Method 8260C and polycyclic aromatic hydrocarbons (PAHs) by USEPA Method 8270D	Quarterly/ Annually
Groundwater level measurements and potentiometric surface map(s)	Quarterly*	N/A	Quarterly/ Annually
DNAPL Depth Gauging	Monthly	Depth	Quarterly/ Annually
Treatment System Monitoring	Monthly	Dissolved Oxygen	Quarterly/ Annually

* On June 1, 2018, NYSDEC approved changing this frequency to Semi-annually

N/A: Not Applicable
LIRR: Long Island Railroad
ROW: Right of Way
MGP: Manufactured Gas Plant
POB: Professional Office Building

Table 3

SMP Monitoring Requirements
Hempstead Intersection Street Former MGP Site

Well ID	First Quarter (1,2)			Second Quarter (1,2)			Third Quarter (1,2)			Fourth Quarter (1,2)		
	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality	Water Level	NAPL Thickness	Water Quality
HIMW-003S	X	X	X	X	X		X	X	X	X	X	
HIMW-003I	X	X	X	X	X		X	X	X	X	X	
HIMW-003D	X	X	X	X	X		X	X	X	X	X	
HIMW-004S	X	X		X	X		X	X		X	X	X
HIMW-004I	X	X		X	X		X	X		X	X	X
HIMW-004D	X	X		X	X		X	X		X	X	
HIMW-005S	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-005I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-005D	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-008S	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-008I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-008D	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-009S	X	X		X	X		X	X		X	X	
HIMW-009I	X	X		X	X		X	X		X	X	
HIMW-009D	X	X		X	X		X	X		X	X	
HIMW-010S	X	X		X	X		X	X		X	X	X
HIMW-010I	X	X		X	X		X	X		X	X	X
HIMW-011S	X	X		X	X		X	X		X	X	X
HIMW-011I	X	X					X	X		X	X	X
HIMW-011D	X	X		X	X		X	X		X	X	X
HIMW-012S	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-012I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-012D	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-013S	X	X	X	X	X		X	X	X	X	X	
HIMW-013I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-013D	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-014I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-014D	X	X	X	X	X		X	X	X	X	X	
HIMW-015I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-015D	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-020S	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-020I	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-21	X	X		X	X		X	X		X	X	
HIMW-22	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-23	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-24	X	X	X	X	X	X	X	X	X	X	X	X
HIMW-25	X	X	X	X	X	X	X	X	X	X	X	X
PZ-02							X	X		X	X	
PZ-03							X	X		X	X	
OSMW-02							X	X		X	X	X
OSMW-03							X	X		X	X	X

Notes:

(1) Field marked with "X" indicates that the activity is to be performed.

(2) Blank field indicates that the activity not required.

(3) This table is from the approved SMP. On June 1, 2018, NYSDEC agreed to reduce the monitoring frequency to semi-annually.

TABLE 4
GROUNDWATER SAMPLE ANALYTICAL RESULTS
JUNE 2017
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

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 4
GROUNDWATER SAMPLE ANALYTICAL RESULTS
JUNE 2017
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

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 4
GROUNDWATER SAMPLE ANALYTICAL RESULTS
JUNE 2017
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

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 4
GROUNDWATER SAMPLE ANALYTICAL RESULTS
JUNE 2017
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

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 4
GROUNDWATER SAMPLE ANALYTICAL RESULTS
JUNE 2017
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

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 4
GROUNDWATER SAMPLE ANALYTICAL RESULTS
JUNE 2017
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

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 4
GROUNDWATER SAMPLE ANALYTICAL RESULTS
JUNE 2017
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

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 5
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2017
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-005D	HIMW-005I	HIMW-005S	HIMW-008D	HIMW-008I
Sample ID			HIMW-05D	HIMW-05I	HIMW-05S	HIMW-8D	HIMW-8I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/29/17	09/29/17	09/28/17	09/26/17	09/26/17
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	6.1	1.4	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	-	3.4	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	66.8	75.0	2.0 U	2.0 U	2.0 U
Total BTEX	UG/L	100	76.3	76.4	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	169 D	241 D	5.0 U	5.0 U	5.0 U
Acenaphthene	UG/L	-	5.0 U	12.5	5.0 U	5.0 U	5.0 U
Acenaphthylene	UG/L	-	65.6	242 D	5.0 U	5.0 U	5.0 U
Anthracene	UG/L	-	5.0 U	2.3 J	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 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
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	-	12.6	29.6	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	-	1,110 D	1,180 D	5.0 U	5.0 U	5.0 U
Phenanthrene	UG/L	-	5.0 U	19.7	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	1,357.2	1,727.1	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

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 5
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2017
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-008S	HIMW-012S	HIMW-013D	HIMW-013I	HIMW-014I
Sample ID			HIMW-8S	HIMW-12S	HIMW-13D	HIMW-13I	HIMW-14I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/26/17	09/27/17	09/21/17	09/21/17	09/21/17
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	0.64 J	1.0 U	1.4	1.8	2.2
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total BTEX	UG/L	100	0.64	ND	1.4	1.8	2.2
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	-	5.0 U	5.0 U	5.5	5.0 U	5.6
Acenaphthylene	UG/L	-	1.5 J	5.0 U	12.4	5.0 U	8.0
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 UJ	5.0 UJ	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	2.6 J
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	-	3.1 J	5.0 U	5.0 U	5.0 U	3.0 J
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	4.6	ND	17.9	ND	19.2

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 5
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2017
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-015D	HIMW-015I	HIMW-020I	HIMW-020S	HIMW-022
Sample ID			HIMW-15D	HIMW-15I	HIMW-20I	HIMW-20S	HIMW-22
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/22/17	09/22/17	09/22/17	09/22/17	09/25/17
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	4.3	3.7	1.0 U	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	34.4	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	15.1	1.0 U	1.0 U
Xylene (total)	UG/L	-	2.0 U	2.0 U	277	2.0 U	2.0 U
Total BTEX	UG/L	100	ND	4.3	330.2	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	141 D	5.0 U	5.0 U
Acenaphthene	UG/L	-	5.0 U	5.0 U	7.7	5.0 U	5.0 U
Acenaphthylene	UG/L	-	5.0 U	5.9	135 D	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 UJ
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	7.4	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	685 D	5.0 U	5.0 U
Phenanthrene	UG/L	-	5.0 U	5.0 U	1.1 J	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	ND	5.9	977.2	ND	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

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[LOGDATE] BETWEEN #9/21/2017# AND #9/29/2017# AND [MATRIX] = 'WG

TABLE 5
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2017
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-023	HIMW-024	HIMW-024	HIMW-025	HIMW-026D
Sample ID			HIMW-23	DUP092617	HIMW-24	HIMW-25	HIMW-26D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/25/17	09/26/17	09/26/17	09/25/17	09/27/17
Parameter	Units	Criteria*		Field Duplicate (1-1)			
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	2.6	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	1.4
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.0 U	6.4
Xylene (total)	UG/L	-	2.0 U	2.0 U	2.0 U	2.0 U	85.3
Total BTEX	UG/L	100	ND	ND	ND	2.6	93.1
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	144 D
Acenaphthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	3.9 J
Acenaphthylene	UG/L	-	5.0 U	5.9	5.8	5.0 U	67.1
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 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
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	2.1 J	2.1 J	5.0 U	10.4
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	1,120 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	9.4
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	ND	8	7.9	ND	1,354.8

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 5
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2017
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	HIMW-28S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/27/17	09/28/17	09/27/17	09/28/17	09/28/17
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	23.1	1.0 U	2.6
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1,060 D	1.0 U	72.0
Toluene	UG/L	-	1.0 U	1.0 U	9.7	1.0 U	1.0 U
Xylene (total)	UG/L	-	2.0 U	2.0 U	874 D	2.0 U	8.1
Total BTEX	UG/L	100	ND	ND	1,966.8	ND	82.7
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	291 D	5.0 U	54.8
Acenaphthene	UG/L	-	5.0 U	5.0 U	117 DJ	5.0 U	34.0
Acenaphthylene	UG/L	-	5.0 U	5.0 U	6.5	5.0 U	5.0 U
Anthracene	UG/L	-	5.0 U	5.0 U	10.6	5.0 U	4.6 J
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 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
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	3.0 J	5.0 U	5.0 U
Fluorene	UG/L	-	5.0 U	5.0 U	47.5	5.0 U	21.4
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	1,350 D	5.0 U	322 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	54.5	5.0 U	25.8
Pyrene	UG/L	-	5.0 U	5.0 U	3.5 J	5.0 U	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	1,883.6	ND	462.6

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 6
GROUNDWATER SAMPLE ANALYTICAL RESULTS
DECEMBER 2017
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-003D	HIMW-003I	HIMW-003S	HIMW-005D	HIMW-005I
Sample ID			HIMW-03D	HIMW-03I	HIMW-03S	HIMW-05D	HIMW-05I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/20/17	12/20/17	12/20/17	12/27/17	12/27/17
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	3.1	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	2.8	1.0 U
Xylene (total)	UG/L	-	2.0 U	2.0 U	2.0 U	57.4	56.4
Total BTEX	UG/L	100	ND	ND	ND	63.3	56.4
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	214 DJ	330 D
Acenaphthene	UG/L	-	5.0 U	5.0 U	5.0 U	4.7 J	14.9
Acenaphthylene	UG/L	-	5.0 U	5.0 U	5.0 U	68.2	297 D
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	3.0 J
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	9.3	34.4
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	1,550 D	1,710 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	1.0 J	21.8
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	ND	ND	ND	1,847.2	2,411.1

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 6
GROUNDWATER SAMPLE ANALYTICAL RESULTS
DECEMBER 2017
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			12/27/17	12/26/17	12/26/17	12/26/17	12/22/17
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	25.0	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	2.7	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	27.7	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	-	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	1.6 J	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	3.6 J	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	ND	ND	ND	5.2	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 6
GROUNDWATER SAMPLE ANALYTICAL RESULTS
DECEMBER 2017
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-013D	HIMW-013D	HIMW-013I	HIMW-013S	HIMW-014D
Sample ID			DUP20171221	HIMW-13D	HIMW-13I	HIMW-13S	HIMW-14D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/21/17	12/21/17	12/21/17	12/19/17	12/21/17
Parameter	Units	Criteria*	Field Duplicate (1-1)				
Volatile Organic Compounds							
Benzene	UG/L	-	1.4	1.3	0.43 J	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	1.4	1.3	0.43	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	-	4.6 J	4.7 J	5.0 U	5.0 U	5.0 U
Acenaphthylene	UG/L	-	9.9	10	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	14.5	14.7	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

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 6
GROUNDWATER SAMPLE ANALYTICAL RESULTS
DECEMBER 2017
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			12/20/17	12/19/17	12/19/17	12/27/17	12/27/17
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	2.4 J	1.0 U	3.9	3.9	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	28.3	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	2.6	1.0 U
Xylene (total)	UG/L	-	2.0 U	2.0 U	2.0 U	153	2.0 U
Total BTEX	UG/L	100	2.4	ND	3.9	187.8	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	9.8	5.0 U
Acenaphthene	UG/L	-	8.2	5.0 U	5.0 U	13.6	5.0 U
Acenaphthylene	UG/L	-	11.1	5.0 U	5.4	225 D	5.0 U
Anthracene	UG/L	-	0.64 J	5.0 U	5.0 U	3.3 J	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	-	3.1 J	5.0 U	5.0 U	25.1	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	158 D	5.0 U
Phenanthrene	UG/L	-	2.8 J	5.0 U	5.0 U	30.2	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	25.84	ND	5.4	465	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 6
GROUNDWATER SAMPLE ANALYTICAL RESULTS
DECEMBER 2017
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	DUP20171228
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/19/17	12/18/17	12/22/17	12/22/17	12/28/17
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	591 D	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	17.4	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	3.5	2.2
Xylene (total)	UG/L	-	2.0 U	2.0 U	2.0 U	217	97.1
Total BTEX	UG/L	100	ND	ND	ND	828.9	99.3
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	13.8	299 D
Acenaphthene	UG/L	-	5.0 U	5.0 U	5.0 U	2.6 J	7.0
Acenaphthylene	UG/L	-	5.0 U	5.0 U	5.0 U	27.2	142 DJ
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	1.3 J
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	3.1 J	18.3
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	5.0 U	460 D	1,830 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	16.6
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	ND	ND	ND	506.7	2,314.2

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 6
GROUNDWATER SAMPLE ANALYTICAL RESULTS
DECEMBER 2017
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-026D	HIMW-026I	HIMW-027I	HIMW-027S	HIMW-028I
Sample ID			HIMW-26D	HIMW-26I	HIMW-27I	HIMW-27S	HIMW-28I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/28/17	12/28/17	12/28/17	12/28/17	12/27/17
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	7.2	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	373 D	1.0 U
Toluene	UG/L	-	2.3	1.0 U	1.0 U	8.9	1.0 U
Xylene (total)	UG/L	-	103	2.0 U	2.0 U	408 D	2.0 U
Total BTEX	UG/L	100	105.3	ND	ND	797.1	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	257 D	5.0 U	5.0 U	259 D	5.0 U
Acenaphthene	UG/L	-	7.1	5.0 U	5.0 U	117 DJ	5.0 U
Acenaphthylene	UG/L	-	137 DJ	5.0 U	5.0 U	5.9	5.0 U
Anthracene	UG/L	-	1.2 J	5.0 U	5.0 U	11.9	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	3.1 J	5.0 U
Fluorene	UG/L	-	18.6	5.0 U	5.0 U	57.3	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	-	1,700 D	5.0 U	5.0 U	1,300 D	5.0 U
Phenanthrene	UG/L	-	16.8	5.0 U	5.0 U	65.8	5.0 U
Pyrene	UG/L	-	5.0 U	5.0 U	5.0 U	4.1 J	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	2,137.7	ND	ND	1,824.1	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 6
GROUNDWATER SAMPLE ANALYTICAL RESULTS
DECEMBER 2017
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-028S
Sample ID			HIMW-28S
Matrix			Groundwater
Depth Interval (ft)			-
Date Sampled			12/27/17
Parameter	**Units**	**Criteria***	
Volatile Organic Compounds			
Benzene	UG/L	-	2.4
Ethylbenzene	UG/L	-	113
Toluene	UG/L	-	1.2
Xylene (total)	UG/L	-	9.3
Total BTEX	UG/L	100	125.9
Semivolatile Organic Compounds			
2-Methylnaphthalene	UG/L	-	156 D
Acenaphthene	UG/L	-	40.1
Acenaphthylene	UG/L	-	2.0 J
Anthracene	UG/L	-	5.0 J
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	-	23.3
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U
Naphthalene	UG/L	-	471 D
Phenanthrene	UG/L	-	23.5
Pyrene	UG/L	-	1.1 J
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	722

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 7
GROUNDWATER SAMPLE ANALYTICAL RESULTS
MARCH 2018
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-005D	HIMW-005I	HIMW-005I	HIMW-005S	HIMW-008D
Sample ID			HIMW-05D	DUP-032718	HIMW-05I	HIMW-05S	HIMW-08D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/27/18	03/27/18	03/27/18	03/28/18	03/20/18
Parameter	Units	Criteria*		Field Duplicate (1-1)			
Volatile Organic Compounds							
Benzene	UG/L	-	2.2	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	UG/L	-	1.8	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	UG/L	-	15.0	1.0 U	1.0 U	1.0 U	1.0 U
Xylene (total)	UG/L	-	159	59.6	58.4	3.0 U	3.0 U
Total BTEX	UG/L	100	178	59.6	58.4	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	121 D	157 D	158 D	5.0 U	5.0 U
Acenaphthene	UG/L	-	3.0 J	11.3	10.9	5.0 U	5.0 U
Acenaphthylene	UG/L	-	41.1	162 D	156 D	5.0 U	5.0 U
Anthracene	UG/L	-	5.0 U	2.4 J	2.3 J	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	-	6.8	26.3	27.8	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	-	544 D	655 D	601 D	5.0 U	5.0 U
Phenanthrene	UG/L	-	1.1 J	18.3	17.6	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	717	1,032.3	973.6	ND	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 7
GROUNDWATER SAMPLE ANALYTICAL RESULTS
MARCH 2018
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-008I	HIMW-008S	HIMW-012S	HIMW-013D	HIMW-013I
Sample ID			HIMW-08I	HIMW-08S	HIMW-12S	HIMW-13D	HIMW-13I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/20/18	03/20/18	03/20/18	03/23/18	03/23/18
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	0.99 J	1.0 U	1.0	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	-	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total BTEX	UG/L	100	ND	0.99	ND	1	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	1.8 J	5.0 U	5.0 U	5.0 U
Acenaphthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.9	5.0 U
Acenaphthylene	UG/L	-	5.0 U	6.4	5.0 U	11.8	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	2.1 J	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	4.5 J	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	1.3 J	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U	3.3 J	5.0 U	5.0 U	5.0 U
Naphthalene	UG/L	-	5.0 U	1.3 J	5.0 U	5.0 U	5.0 U
Phenanthrene	UG/L	-	5.0 U	2.3 J	5.0 U	5.0 U	5.0 U
Pyrene	UG/L	-	5.0 U	1.7 J	5.0 U	5.0 U	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	24.7	ND	17.7	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 7
GROUNDWATER SAMPLE ANALYTICAL RESULTS
MARCH 2018
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			03/20/18	03/26/18	03/26/18	03/22/18	03/22/18
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	2.1	1.0 U	1.0	2.7	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	35.5	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	34.1	1.0 U
Xylene (total)	UG/L	-	3.0 U	3.0 U	3.0 U	161	3.0 U
Total BTEX	UG/L	100	2.1	ND	1	233.3	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	4.7 J	5.0 U
Acenaphthene	UG/L	-	6.1	5.0 U	5.0 U	9.0	5.0 U
Acenaphthylene	UG/L	-	8.5	5.0 U	3.0 J	103 D	5.0 U
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	2.8 J	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 J	5.0 U	5.0 U	17.7	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	323 D	5.0 U
Phenanthrene	UG/L	-	2.4 J	5.0 U	5.0 U	13.8	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	19.1	ND	3	474	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

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[LOGDATE] BETWEEN #3/20/2018# AND #3/29/2018# AND [MATRIX] = 'WG

TABLE 7
GROUNDWATER SAMPLE ANALYTICAL RESULTS
MARCH 2018
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			03/22/18	03/26/18	03/26/18	03/23/18	03/28/18
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	272 D	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	2.7	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	1.8	1.0 U
Xylene (total)	UG/L	-	3.0 U	3.0 U	3.0 U	78.3	65.9
Total BTEX	UG/L	100	ND	ND	ND	354.8	65.9
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	4.4 J	177 D
Acenaphthene	UG/L	-	5.0 U	5.0 U	5.0 U	1.4 J	5.7
Acenaphthylene	UG/L	-	5.0 U	5.0 U	5.0 U	16.2	69.0
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	1.2 J
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	1.6 J	16.3
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	5.0 U	312 D	891 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	16.5
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	ND	ND	ND	335.6	1,176.7

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 7
GROUNDWATER SAMPLE ANALYTICAL RESULTS
MARCH 2018
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-026I	HIMW-027I	HIMW-027S	HIMW-027S	HIMW-028I
Sample ID			HIMW-26I	HIMW-27I	DUP032818	HIMW-27S	HIMW-28I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/29/18	03/29/18	03/28/18	03/28/18	03/27/18
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	16.5	16.7	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	560 D	563 D	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	25.4	24.8	1.0 U
Xylene (total)	UG/L	-	3.0 U	3.0 U	493 D	492 D	3.0 U
Total BTEX	UG/L	100	ND	ND	1,094.9	1,096.5	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	242 D	206 D	5.0 U
Acenaphthene	UG/L	-	5.0 U	5.0 U	69.3	71.9	5.0 U
Acenaphthylene	UG/L	-	5.0 U	5.0 U	4.5 J	4.7 J	5.0 U
Anthracene	UG/L	-	5.0 U	5.0 U	9.0	9.7	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	2.5 J	2.4 J	5.0 U
Fluorene	UG/L	-	5.0 U	5.0 U	36.1	37.6	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	684 D	634 D	5.0 U
Phenanthrene	UG/L	-	5.0 U	1.1 J	45.5	47.4	5.0 U
Pyrene	UG/L	-	5.0 U	5.0 U	2.9 J	3.2 J	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	1.1	1,095.8	1,016.9	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 7
GROUNDWATER SAMPLE ANALYTICAL RESULTS
MARCH 2018
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-028S
Sample ID			HIMW-28S
Matrix			Groundwater
Depth Interval (ft)			-
Date Sampled			03/27/18
Parameter	**Units**	**Criteria***	
Volatile Organic Compounds			
Benzene	UG/L	-	2.4
Ethylbenzene	UG/L	-	138
Toluene	UG/L	-	1.8
Xylene (total)	UG/L	-	11.7
Total BTEX	UG/L	100	153.9
Semivolatile Organic Compounds			
2-Methylnaphthalene	UG/L	-	22.5
Acenaphthene	UG/L	-	24.7
Acenaphthylene	UG/L	-	1.3 J
Anthracene	UG/L	-	2.9 J
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	-	14.2
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U
Naphthalene	UG/L	-	164 D
Phenanthrene	UG/L	-	15.8
Pyrene	UG/L	-	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	245.4

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 8
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2018
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			09/20/18	09/20/18	09/20/18	09/25/18	09/25/18
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	1.0 U	1.3	1.2
Ethylbenzene	UG/L	-	1.0 U	1.0 U	1.0 U	2.3	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	1.0 U	14.6	1.0 U
Xylene (total)	UG/L	-	3.0 U	3.0 U	3.0 U	163	35.0
Total BTEX	UG/L	100	ND	ND	ND	181.2	36.2
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	5.0 U	149 D	70.3
Acenaphthene	UG/L	-	5.0 U	5.0 U	5.0 U	5.6	8.6
Acenaphthylene	UG/L	-	5.0 U	5.0 U	5.0 U	78.5	112 D
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	3.0 J
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	11.1	21.7
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	949 D	384 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	2.0 J	20.5
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	ND	ND	ND	1,195.2	620.1

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 8
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2018
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			09/25/18	09/21/18	09/21/18	09/21/18	09/24/18
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	-	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total BTEX	UG/L	100	ND	ND	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	-	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	1.3 J	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	ND	ND	ND	1.3	ND

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

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[LOGDATE] BETWEEN #9/1/2018# AND #9/30/2018# AND [MATRIX] = 'WG

TABLE 8
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2018
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-013D	HIMW-013I	HIMW-013S	HIMW-014D	HIMW-014I
Sample ID			HIMW-13D	HIMW-13I	HIMW-13S	HIMW-14D	HIMW-14I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/19/18	09/19/18	09/19/18	09/18/18	09/18/18
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	0.63 J	1.0 U	1.0 U	1.0 U	1.1
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	-	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total BTEX	UG/L	100	0.63	ND	ND	ND	1.1
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	-	5.2	5.0 U	5.0 U	5.0 U	3.1 J
Acenaphthylene	UG/L	-	10.4	5.0 U	5.0 U	5.0 U	4.6 J
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	2.3 J
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	1.9 J
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	15.6	ND	ND	ND	11.9

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 8
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2018
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-015D	HIMW-015I	HIMW-020I	HIMW-020S	HIMW-020S
Sample ID			HIMW-15D	HIMW-15I	HIMW-20I	DUP092418	HIMW-20S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/19/18	09/19/18	09/24/18	09/24/18	09/24/18
Parameter	Units	Criteria*				Field Duplicate (1-1)	
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.2	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	-	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Total BTEX	UG/L	100	ND	1.2	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	-	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	UG/L	-	5.0 U	4.9 J	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	ND	4.9	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

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 8
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2018
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			09/20/18	09/24/18	09/27/18	09/27/18	09/27/18
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	117	1.0 U	1.0 U
Ethylbenzene	UG/L	-	1.0 U	1.0 U	26.2	1.0 U	1.0 U
Toluene	UG/L	-	1.0 U	1.0 U	31.3	1.0 U	1.0 U
Xylene (total)	UG/L	-	3.0 U	3.0 U	476 D	3.0 U	65.4
Total BTEX	UG/L	100	ND	ND	650.5	ND	65.4
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	402 D	5.0 U	189 D
Acenaphthene	UG/L	-	5.0 U	5.0 U	16.2	5.0 U	6.0
Acenaphthylene	UG/L	-	5.0 U	5.0 U	72.8	5.0 U	5.0 U
Anthracene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	1.1 J
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	7.6	5.0 U	18.5
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	1,190 D	5.0 U	961 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	5.0 U	5.0 U	12.5
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	ND	ND	1,688.6	ND	1,188.1

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 8
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2018
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	DUP20180928
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/27/18	09/28/18	09/27/18	09/28/18	09/28/18
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1.0 U	1.0 U	17.2	1.0 U	3.6
Ethylbenzene	UG/L	-	1.0 U	1.0 U	565 D	1.0 U	148
Toluene	UG/L	-	1.0 U	1.0 U	16.9	1.0 U	2.2
Xylene (total)	UG/L	-	3.0 U	3.0 U	574 D	3.0 U	12.0
Total BTEX	UG/L	100	ND	ND	1,173.1	ND	165.8
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	5.0 U	5.0 U	258 D	5.0 U	148 D
Acenaphthene	UG/L	-	5.0 U	5.0 U	70.0	5.0 U	28.8
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	8.9	5.0 U	3.8 J
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	2.4 J	5.0 U	5.0 U
Fluorene	UG/L	-	5.0 U	5.0 U	35.9	5.0 U	15.7
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	684 D	5.0 U	391 D
Phenanthrene	UG/L	-	5.0 U	5.0 U	40.0	5.0 U	19.5
Pyrene	UG/L	-	5.0 U	5.0 U	2.9 J	5.0 U	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	1,102.1	ND	606.8

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

TABLE 8
GROUNDWATER SAMPLE ANALYTICAL RESULTS
SEPTEMBER 2018
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-028S
Sample ID			HIMW-28S
Matrix			Groundwater
Depth Interval (ft)			-
Date Sampled			09/28/18
Parameter	**Units**	**Criteria***	
Volatile Organic Compounds			
Benzene	UG/L	-	3.8
Ethylbenzene	UG/L	-	151
Toluene	UG/L	-	2.3
Xylene (total)	UG/L	-	12.1
Total BTEX	UG/L	100	169.2
Semivolatile Organic Compounds			
2-Methylnaphthalene	UG/L	-	132 D
Acenaphthene	UG/L	-	26.7
Acenaphthylene	UG/L	-	5.0 U
Anthracene	UG/L	-	3.7 J
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	-	14.5
Indeno(1,2,3-cd)pyrene	UG/L	-	5.0 U
Naphthalene	UG/L	-	352 D
Phenanthrene	UG/L	-	17.7
Pyrene	UG/L	-	5.0 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	546.6

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

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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

J - The reported concentration is an estimated value.

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

UG/L - Micrograms per liter.

Detection Limits shown are PQL

Table 9
Groundwater Treatment Performance Monitoring
April- December 2018 and January - February 2019
Hempstead Intersection Street Former MGP Site

	System #1 2Q18 Data									System #1 3Q18 Data									System #1 4Q18 Data									System #1 1Q19					
	April 27, 2018			May 29, 2018			June 26, 2018			July 23, 2018			August 30, 2018			September 25, 2018			October 25, 2018			November 30, 2018			December 27, 2018			January 22, 2019			February 21, 2019		
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)	DTW (ft)	PID (ppm)	DO(1) (mg/L)	DTW (ft)	PID (ppm)	DO(1) (mg/L)	DTW (ft)	PID (ppm)	DO(1) (mg/L)	DTW (ft)	PID (ppm)	DO(1) (mg/L)	DTW (ft)	PID (ppm)	DO(1) (mg/L)	DTW (ft)	PID (ppm)	DO(1) (mg/L)	DTW (ft)	PID (ppm)	DO(1) (mg/L)	DTW (ft)	PID (ppm)	DO(1) (mg/L)
MP-1-1S	28.38	0.0	30.47	28.35	0.1	29.18	28.69	0.0	26.91	29.00	0.0	19.25	29.00	0.0	21.44	29.20	0.2	21.88	29.04	0.0	20.88	28.35	0.0	13.35	27.67	0.3	21.94	26.63	0.0	28.11	26.20	0.0	24.88
MP-1-1D	28.34	0.0	23.46	28.31	0.0	18.76	28.87	0.0	18.35	29.08	0.0	13.11	28.97	0.0	16.62	29.28	0.0	23.89	28.96	0.0	18.95	28.27	0.0	15.11	27.56	0.3	26.84	26.61	0.0	24.64	26.16	0.0	29.71
MP-1-2S	22.97	0.2	21.97	22.91	0.1	20.64	23.25	0.1	2.54	23.60	0.0	16.96	23.57	0.0	18.12	23.82	0.3	24.13	23.61	0.1	18.54	22.9	0.0	14.05	22.27	0.0	19.89	21.21	0.0	26.51	20.72	0.0	35.33
MP-1-2D	22.63	0.4	39.57	22.63	0.0	39.12	23.00	0.2	40.12	23.37	0.0	38.9	23.25	0.0	31.51	23.73	0.3	36.37	23.34	0.3	32.81	22.68	0.0	16.70	21.97	0.0	20.79	21.14	0.0	28.71	20.48	0.0	38.00
MP-1-3S	20.83	0.2	15.88	20.75	0.2	16.18	21.14	0.4	15.88	21.50	0.4	14.16	21.48	0.3	13.82	21.75	0.3	14.27	21.47	0.2	15.99	20.72	0.1	12.66	20.06	0.0	12.45	19.11	0.2	26.44	18.65	0.0	23.02
MP-1-3D	20.92	0.5	22.12	20.9	0.0	19.57	21.22	0.3	17.04	21.51	0.3	27.51	21.55	0.4	11.17	21.82	0.4	15.05	21.52	0.0	16.79	20.81	0.3	14.08	20.14	0.0	14.79	19.20	0.4	25.13	18.72	0.0	34.40
MP-1-4S	23.76	0.0	34.82	23.7	0.2	32.44	23.99	0.0	31.81	24.35	0.1	24.23	24.42	0.0	21.07	24.61	0.0	22.32	24.34	0.0	17.49	23.59	0.2	11.51	22.95	0.2	13.55	21.97	0.3	23.74	21.51	0.0	26.55
MP-1-4D	23.73	0.0	35.31	23.67	0.3	34.67	23.98	0.0	34.75	24.30	0.0	29.71	24.40	0.2	25.56	24.58	0.2	25.44	24.33	0.0	16.68	23.56	0.4	13.67	22.93	0.3	14.00	21.94	0.3	24.97	21.45	0.0	34.67
MP-1-5	28.15	0.0	11.42	28.10	0.0	19.70	28.42	0.0	7.55	28.80	0.0	25.53	28.82	0.0	22.36	29.00	0.0	20.10	28.78	0.0	6.17	28.09	0.0	28.09	27.40	0.0	20.42	26.43	0.0	20.10	25.95	0.0	7.71
MP-1-6	20.43	0.0	8.15	20.40	0.0	21.44	20.73	0.0	21.59	21.10	0.2	20.81	21.10	0.0	15.75	21.25	0.0	15.08	21.06	0.0	17.55	20.35	0.0	20.35	19.67	0.0	7.11	18.71	0.0	8.19	18.22	0.0	6.15
MP-1-7	23.75	0.0	13.30	23.71	0.0	7.27	24.03	0.0	15.11	24.37	0.1	29.30	24.43	0.0	27.40	24.61	0.0	20.11	24.35	0.0	18.12	23.61	0.0	23.61	22.97	0.0	7.59	22.00	0.0	12.57	21.50	0.0	4.49
MP-1-8	25.29	0.0	4.07	25.23	0.0	3.35	25.52	0.0	4.57	25.90	0.0	3.02	25.93	0.0	3.80	26.16	0.0	3.02	25.91	0.0	2.87	25.11	0.0	25.11	24.48	0.0	3.02	23.53	0.0	1.97	23.03	0.0	3.02

	System #2 2Q18 Data									System #2 3Q18 Data									System #2 4Q18 Data									System #2 1Q19					
	April 30, 2018			May 30, 2018			June 29, 2018			August 1, 2018			August 31, 2018			September 24, 2018			October 26, 2018			November 29, 2018			December 26, 2018			January 23, 2019			February 22, 2019		
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	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	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	DTW (ft)	PID (ppm)	DO(1) (mg/L) Bottom	DTW (ft)	PID (ppm)	DO(1) (mg/L) Bottom
MP-2-1	31.22	0.0	22.58	31.21	0.0	25.05	31.50	0.0	28.51	31.87	0.3	21.99	31.90	0.0	19.15	32.07	0.0	22.12	31.78	0.0	29.31	31.18	0.0	23.29	30.80	0.0	21.94	29.63	0.0	18.99	29.10	0.0	25.16
MP-2-2	32.57	0.0	33.53	32.55	0.0	36.01	32.90	0.0	26.77	33.20	0.3	21.11	33.25	0.0	18.02	33.42	0.2	17.78	33.21	0.0	21.32	32.55	0.0	19.95	31.84	0.0	20.85	30.97	0.0	19.51	30.49	0.0	24.14
MP-2-3S	32.46	0.0	34.55	32.45	0.1	38.00	32.76	0.1	31.99	33.06	0.0	34.85	33.12	0.2	30.70	33.35	0.4	32.55	33.10	0.0	27.94	32.37	0.0	16.94	31.72	0.0	18.67	30.87	0.0	27.15	30.34	0.0	35.92
MP-2-3D	32.60	0.0	39.14	32.57	0.0	36.29	32.92	0.0	34.94	33.22	0.0	36.06	33.04	0.0	33.10	33.34	0.4	35.32	33.13	0.0	34.15	32.49	0.0	17.69	31.83	0.0	21.85	30.96	0.0	29.02	30.47	0.2	36.24
MP-2-4	21.18	0.0	35.20	21.05	0.0	27.60	21.48	0.2	23.09	21.78	0.2	25.72	21.85	0.0	28.65	22.05	0.0	23.57	21.85	0.0	21.93	21.05	0.0	16.42	20.40	0.0	22.59	19.54	0.0	24.67	19.03	0.0	28.53
MP-2-5	19.37	0.2	26.17	21.29	0.0	27.71	19.66	0.2	24.91	19.97	0.0	24.09	20.04	0.0	27.67	20.23	0.0	25.43	19.98	0.0	39.16	19.18	0.0	22.59	18.57	0.0	23.88	17.72	0.0	23.84	19.21	0.0	24.92

Abbreviations

DTW: Depth to water (feet)
O_2: Oxygen measurement of well headspace (percent oxygen)
PID: Photoionization Detector measurement of well headspace (parts
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%

Table 10
Groundwater and NAPL Measurements
Third Quarter 2018
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	9/17/2018	65.00	ND	21.07	ND	34.31	0	0.00	43.93
HIMW-003I	9/17/2018	64.94	ND	21.48	ND	85.05	0	0.00	43.46
HIMW-003D	9/17/2018	65.26	ND	22.27	ND	141.84	0	0.00	42.99
HIMW-004S	9/17/2018	72.74	ND	29.45	ND	41.58	0	0.00	43.29
HIMW-004I	9/17/2018	72.78	ND	29.86	ND	90.41	0	0.00	42.92
HIMW-004D	9/17/2018	72.65	ND	30.51	ND	177.07	0	0.00	42.14
HIMW-005S	9/17/2018	67.19	ND	23.76	ND	38.88	0	0.00	43.43
HIMW-005I	9/17/2018	67.22	ND	23.97	ND	90.47	0	0.00	43.25
HIMW-005D	9/17/2018	67.22	ND	24.84	ND	135.79	0	0.00	42.38
HIMW-008S	9/17/2018	65.04	ND	21.94	ND	37.01	0	0.00	43.10
HIMW-008I	9/17/2018	65.14	ND	22.14	ND	74.65	0	0.00	43.00
HIMW-008D	9/17/2018	64.93	ND	21.94	ND	114.44	0	0.00	42.99
HIMW-009S	9/17/2018	70.03	ND	26.57	ND	39.66	0	0.00	43.46
HIMW-009I	9/17/2018	69.93	ND	26.48	ND	80.42	0	0.00	43.45
HIMW-009D	9/17/2018	69.96	ND	26.57	ND	122.87	0	0.00	43.39
HIMW-010S	9/17/2018	71.60	ND	27.17	ND	39.15	0	0.00	49.66
HIMW-010I	9/17/2018	71.47	ND	26.99	ND	89.65	0	0.00	49.33
HIMW-011S	9/17/2018	71.62	27.58	27.59	ND	40.25	0.01	0.00	49.69
HIMW-011I	9/17/2018	71.43	ND	27.44	ND	93.27	0	0.00	44.86
HIMW-011D	9/17/2018	71.39	ND	27.46	ND	122.18	0	0.00	44.91
HIMW-012S	9/17/2018	61.58	ND	19.53	ND	33.14	0	0.00	35.01
HIMW-012I	9/17/2018	61.59	ND	19.45	ND	NM	0	NM	34.42
HIMW-012D	9/17/2018	61.82	NM	NM	NM	NM	NM	NM	NM
HIMW-013S	9/17/2018	72.83	ND	32.66	ND	48.79	0	0.00	40.17
HIMW-013I	9/17/2018	72.60	ND	32.45	ND	81.45	0	0.00	40.15
HIMW-013D	9/17/2018	72.53	ND	32.45	ND	121.89	0	0.00	40.08
HIMW-014I	9/17/2018	71.71	ND	31.79	ND	95.55	0	0.00	39.92
HIMW-014D	9/17/2018	71.59	ND	34.63	ND	151.71	0	0.00	36.96
HIMW-015I	9/17/2018	64.18	ND	26.85	ND	92.34	0	0.00	37.33
HIMW-015D	9/17/2018	63.96	ND	29.42	ND	151.90	0	0.00	34.54
HIMW-020S	9/17/2018	70.43	ND	27.81	ND	36.66	0	0.00	42.62
HIMW-020I	9/17/2018	70.30	ND	27.66	ND	74.70	0	0.00	42.64
HIMW-021	9/17/2018	NM	22.21	22.21	44.80	45.30	Sheen	0.50	NM
HIMW-022	9/17/2018	74.07	ND	32.63	ND	65.41	0	0.00	41.44
HIMW-023	9/17/2018	74.41	ND	32.78	ND	74.86	0	0.00	41.63
HIMW-024	9/17/2018	59.83	ND	17.31	ND	54.78	0	0.00	42.52
HIMW-025	9/17/2018	62.75	ND	19.83	ND	52.07	0	0.00	42.92

Table 10
Groundwater and NAPL Measurements
Third Quarter 2018
Hempstead Intersection Street Former MGP Site

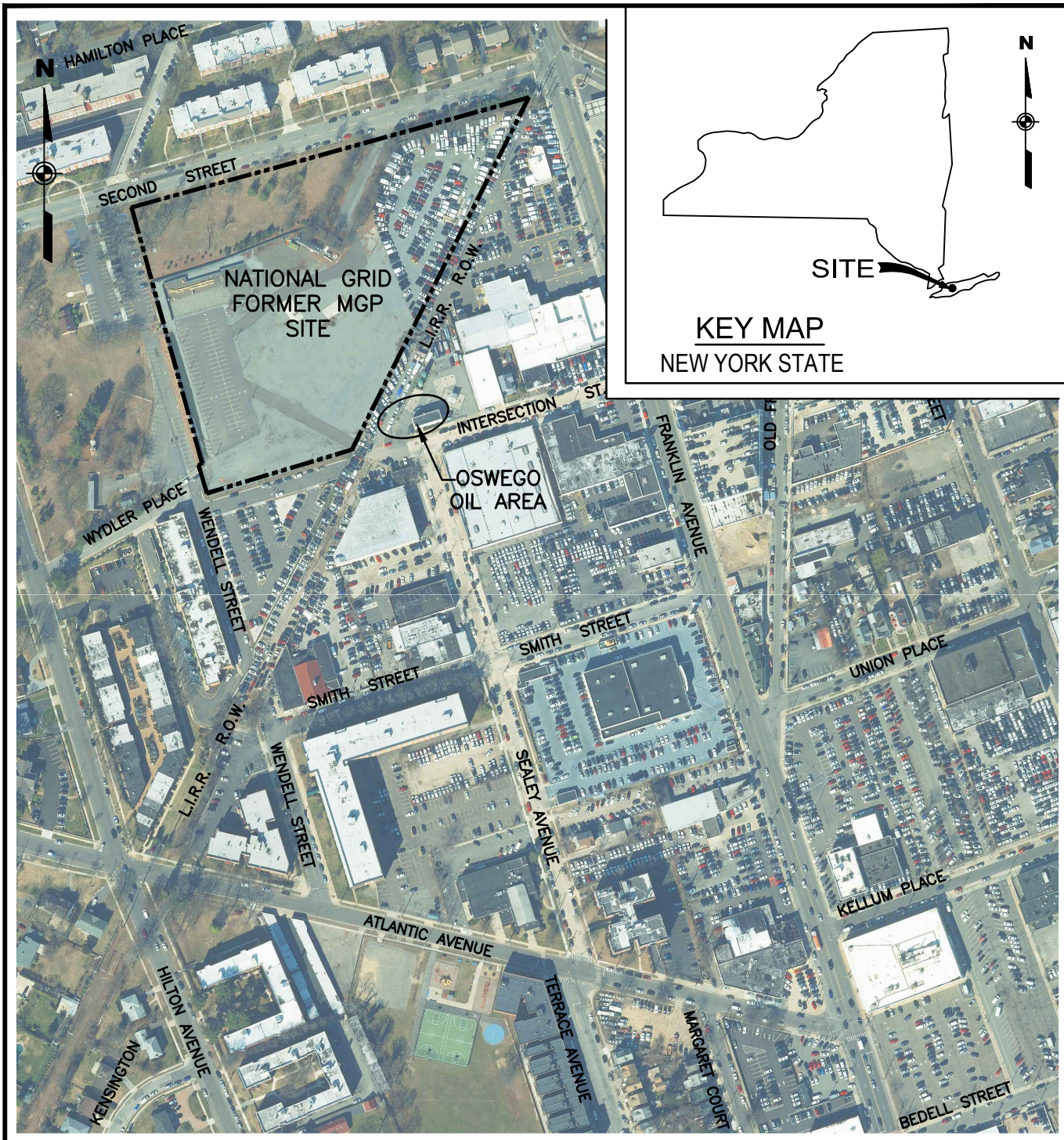
Well ID	Date	Elevation of TOR	Depth to LNAPL	Depth to Water	Depth to DNAPL	Well Depth	Thickness of LNAPL	Thickness of DNAPL	Corrected Potentiometric Head (1)
		[ft bgs]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft amsl]
HIMW-26I	9/17/2018	68.13	ND	25.73	ND	84.81	0	0.00	42.40
HIMW-26D	9/17/2018	68.02	ND	25.86	ND	137.46	0	0.00	42.16
HIMW-27S	9/17/2018	69.49	ND	26.76	ND	41.03	0	0.00	42.73
HIMW-27I	9/17/2018	68.96	ND	26.19	ND	69.90	0	0.00	42.77
HIMW-28S	9/17/2018	69.87	ND	27.32	ND	41.41	0	0.00	42.55
HIMW-28I	9/17/2018	69.56	ND	26.79	ND	71.43	0	0.00	42.77
PZ-02	9/17/2018	72.96	ND	28.34	ND	35.45	0	0.00	44.62
PZ-03	9/17/2018	64.58	ND	20.27	ND	29.85	0	0.00	44.31
OSMW-02	9/17/2018	71.59	ND	27.71	ND	45.15	0	0.00	43.88
OSMW-03	9/17/2018	71.39	ND	27.57	ND	44.60	0	0.00	43.82

Notes:

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

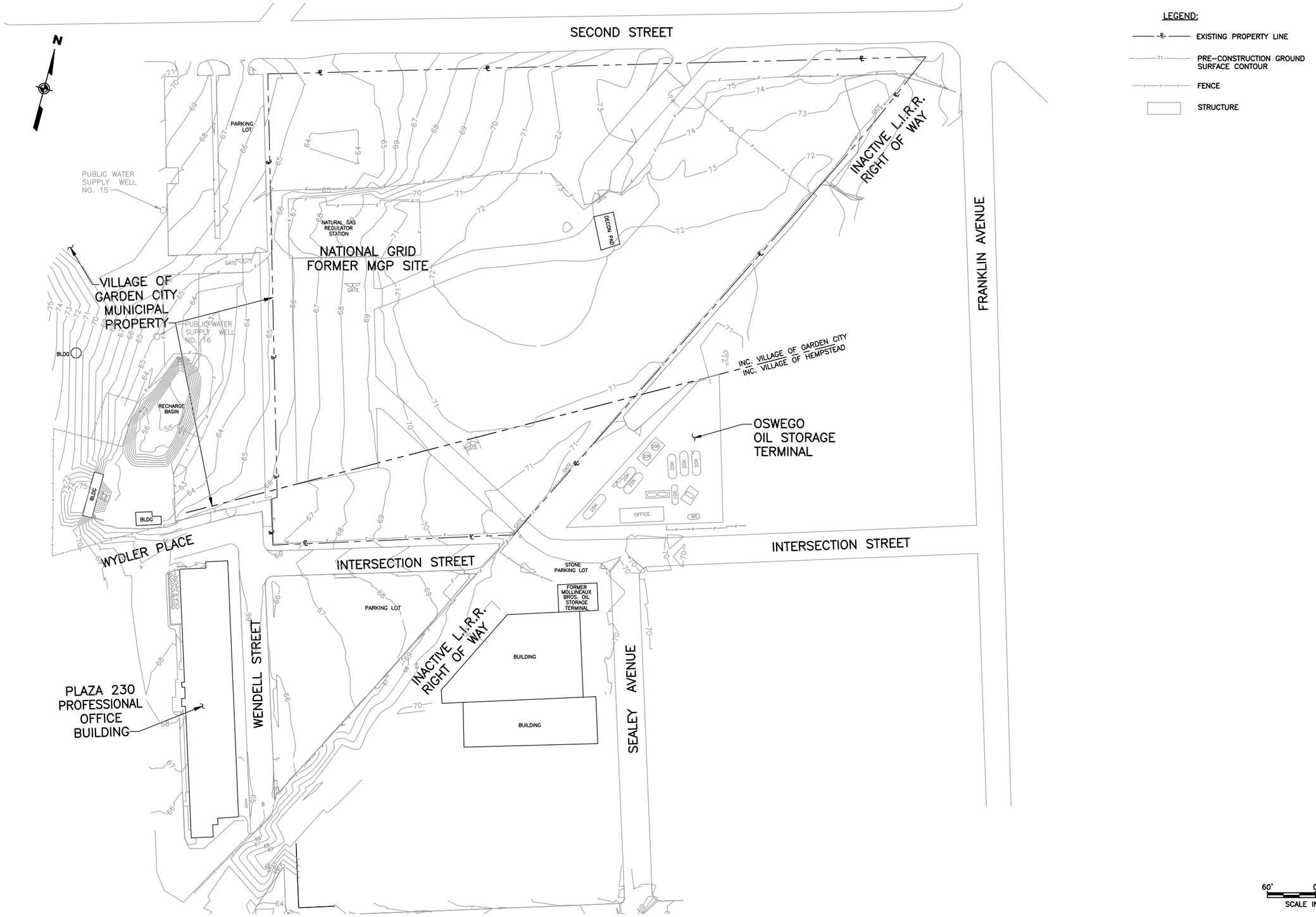
TOR top of riser
LNAPL light non-aqueous phase liquid
DNAPL dense non-aqueous phase liquid
ft bgs feet below ground surface
ft amsl feet above mean sea level
ND NAPL not detected
NM not measured

Figures



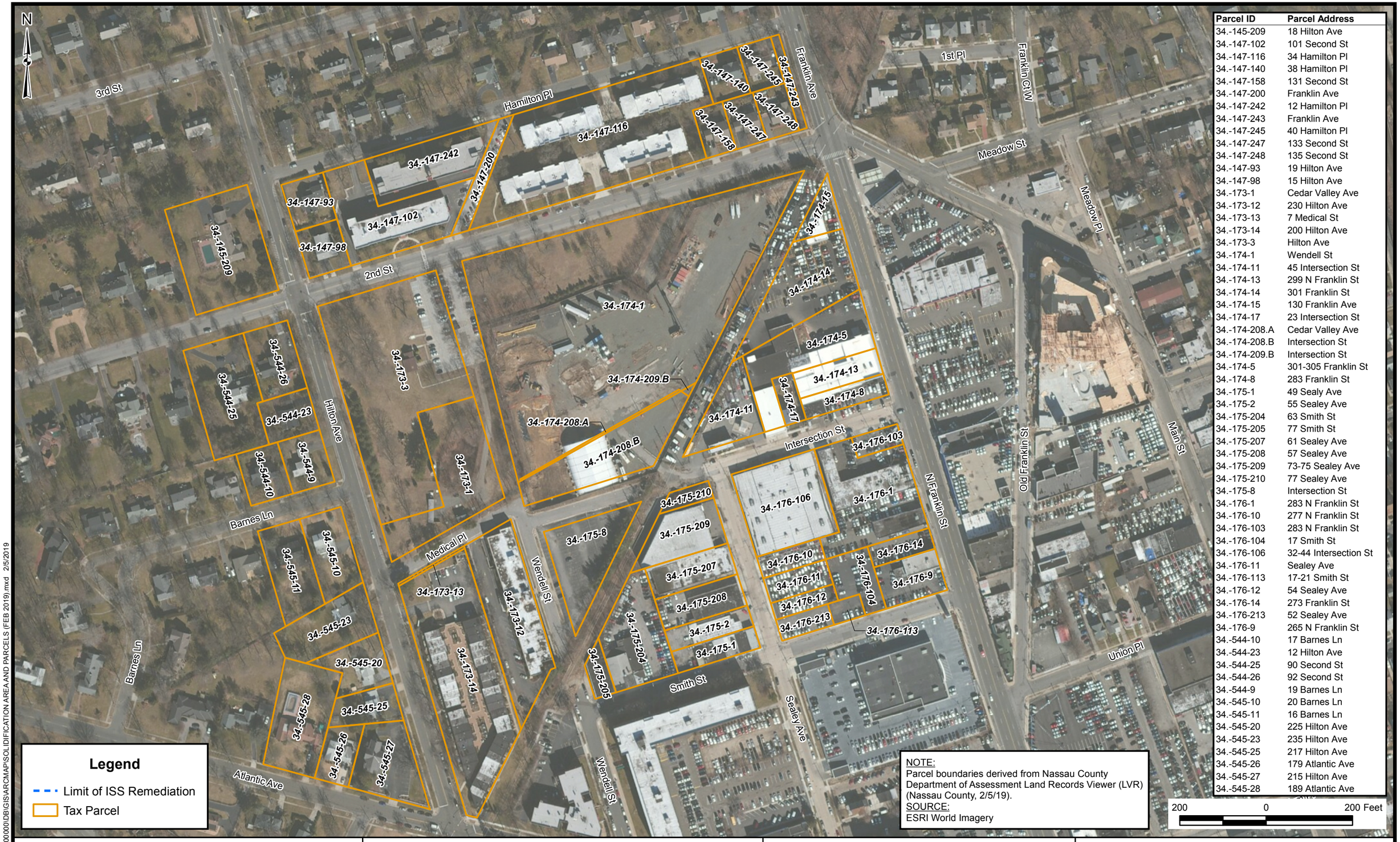
PERIODIC REVIEW REPORT	SITE LOCATION
	DATE: FEB. 2019 — FIGURE 1
AECOM	NATIONAL GRID HEMPSTEAD INTERSECTION STREET FORMER MGP SITE HEMPSTEAD/GARDEN CITY, NY

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\ISS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 1.dwg, 2/5/19, 1:1, 1- RAL



AECOM	NATIONAL GRID HEMPSTEAD INTERSECTION STREET FORMER MGP SITE HEMPSTEAD/GARDEN CITY, NY	PERIODIC REVIEW REPORT	PROJECT SITE MAP DATE: FEB. 2019 FIGURE 2

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 2 & 4.dwg, FIGURE 2, 1:2, 2/5/19 -1-RAL



Parcel ID	Parcel Address
34.-145-209	18 Hilton Ave
34.-147-102	101 Second St
34.-147-116	34 Hamilton Pl
34.-147-140	38 Hamilton Pl
34.-147-158	131 Second St
34.-147-200	Franklin Ave
34.-147-242	12 Hamilton Pl
34.-147-243	Franklin Ave
34.-147-245	40 Hamilton Pl
34.-147-247	133 Second St
34.-147-248	135 Second St
34.-147-93	19 Hilton Ave
34.-147-98	15 Hilton Ave
34.-173-1	Cedar Valley Ave
34.-173-12	230 Hilton Ave
34.-173-13	7 Medical St
34.-173-14	200 Hilton Ave
34.-173-3	Hilton Ave
34.-174-1	Wendell St
34.-174-11	45 Intersection St
34.-174-13	299 N Franklin St
34.-174-14	301 Franklin St
34.-174-15	130 Franklin Ave
34.-174-17	23 Intersection St
34.-174-208.A	Cedar Valley Ave
34.-174-208.B	Intersection St
34.-174-209.B	Intersection St
34.-174-5	301-305 Franklin St
34.-174-8	283 Franklin St
34.-175-1	49 Sealy Ave
34.-175-2	55 Sealey Ave
34.-175-204	63 Smith St
34.-175-205	77 Smith St
34.-175-207	61 Sealey Ave
34.-175-208	57 Sealey Ave
34.-175-209	73-75 Sealey Ave
34.-175-210	77 Sealey Ave
34.-175-8	Intersection St
34.-176-1	283 N Franklin St
34.-176-10	277 N Franklin St
34.-176-103	283 N Franklin St
34.-176-104	17 Smith St
34.-176-106	32-44 Intersection St
34.-176-11	Sealey Ave
34.-176-113	17-21 Smith St
34.-176-12	54 Sealey Ave
34.-176-14	273 Franklin St
34.-176-213	52 Sealey Ave
34.-176-9	265 N Franklin St
34.-544-10	17 Barnes Ln
34.-544-23	12 Hilton Ave
34.-544-25	90 Second St
34.-544-26	92 Second St
34.-544-9	19 Barnes Ln
34.-545-10	20 Barnes Ln
34.-545-11	16 Barnes Ln
34.-545-20	225 Hilton Ave
34.-545-23	235 Hilton Ave
34.-545-25	217 Hilton Ave
34.-545-26	179 Atlantic Ave
34.-545-27	215 Hilton Ave
34.-545-28	189 Atlantic Ave

Legend

- Limit of ISS Remediation
- Tax Parcel

NOTE:
Parcel boundaries derived from Nassau County Department of Assessment Land Records Viewer (LVR) (Nassau County, 2/5/19).
SOURCE:
ESRI World Imagery

200 0 200 Feet

AECOM

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

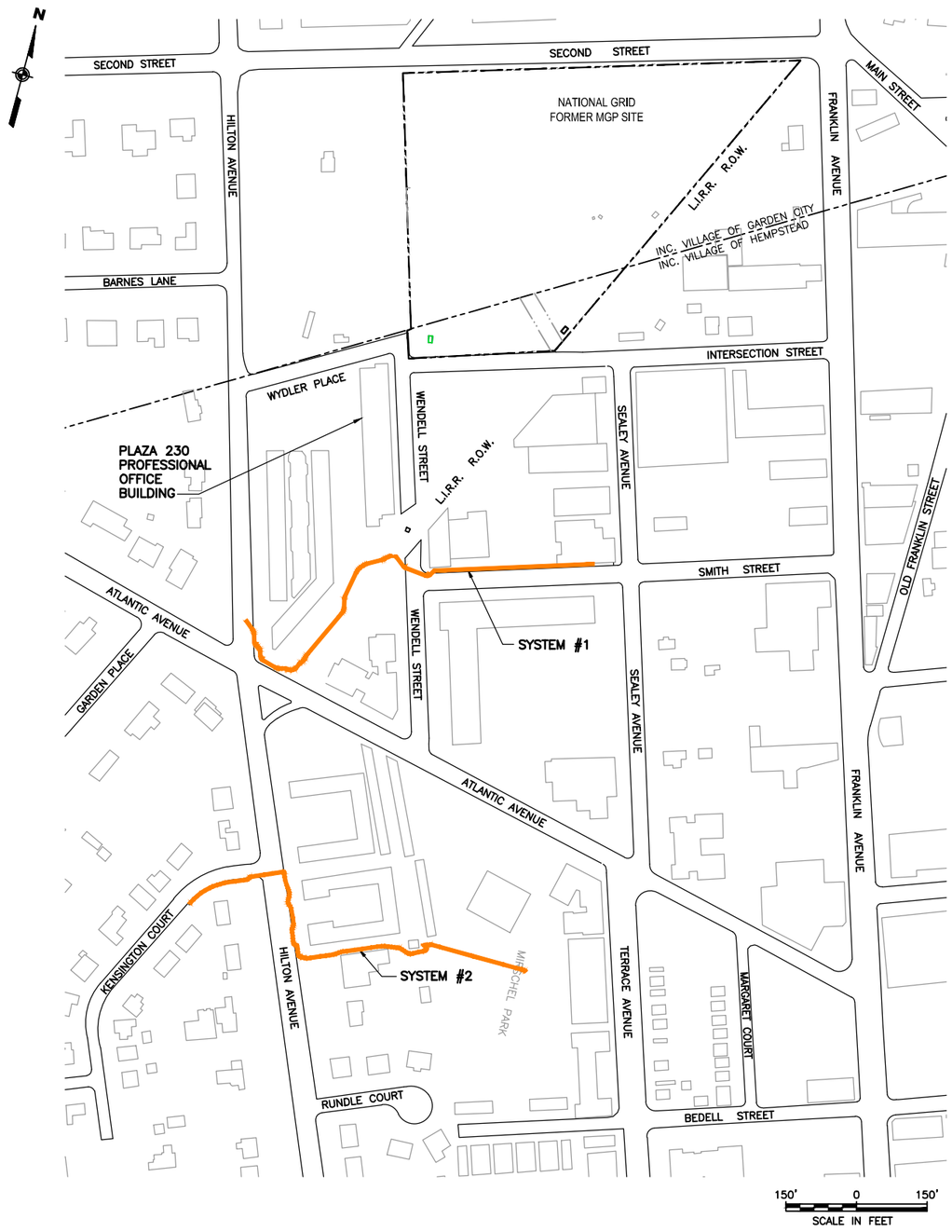
PERIODIC REVIEW REPORT

PARCEL BOUNDARIES

DATE: FEB. 2019

FIGURE 3

J:\Projects\11175065.00000\DB\GIS\ARCMAP\SOLIDIFICATION AREA AND PARCELS (FEB 2019).mxd 2/5/2019



LEGEND:

STRUCTURE

OXYGEN DELIVERY SYSTEM

THIS FIGURE CONTAINS FEATURES INTENDED TO BE PRINTED IN COLOR. REPRODUCTION IN BLACK AND WHITE MAY OBSCURE THE INTENDED EFFECT OF THE COLOR FEATURES.

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 2 & 4.dwg, FIGURE 4, 1:2, 2/5/19 -1-RAL

AECOM	NATIONAL GRID HEMPSTEAD INTERSECTION STREET FORMER MGP SITE HEMPSTEAD/GARDEN CITY, NY	PERIODIC REVIEW REPORT	GROUNDWATER OXYGENATION SYSTEMS DATE: FEB. 2019 — FIGURE 4

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

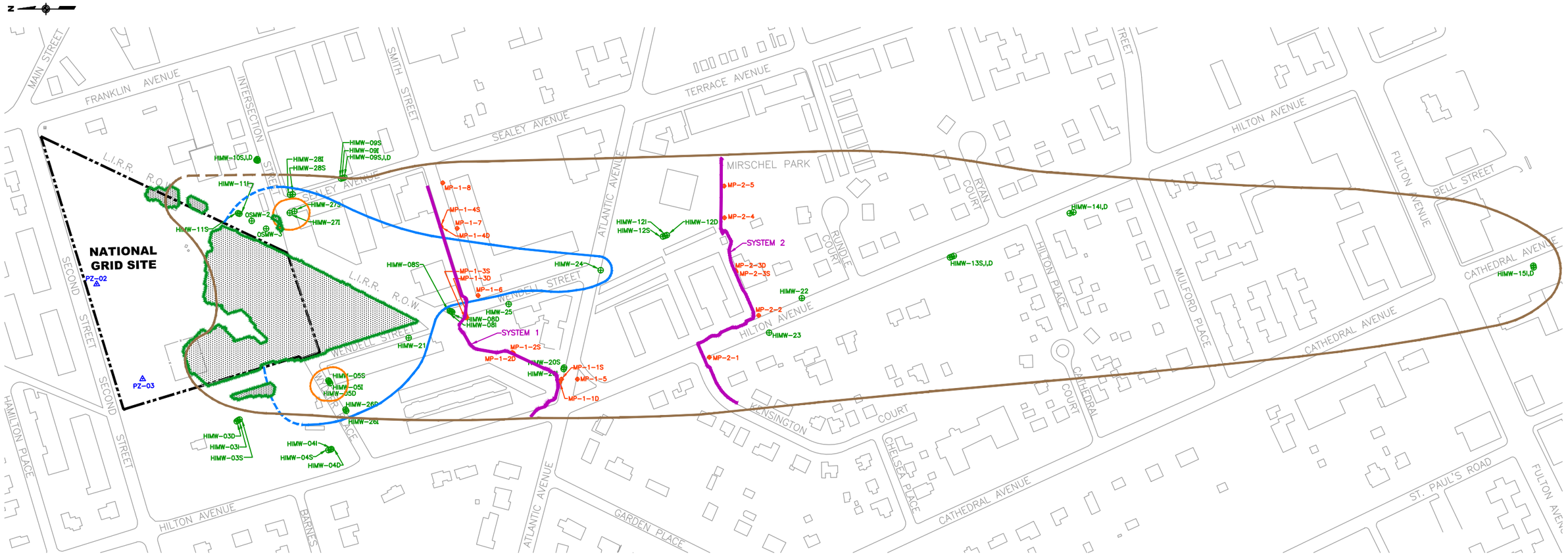
HIMW–013S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
38–48	ND–11 (ND)	ND (ND)
70–80	ND–313 (ND)	ND–156 (ND)
110–120	2–30 (2)	ND–28 (17)

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



LEGEND:

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

LOCATION ID → HIMW–012S,I,D
DEPTH (ft bgs) →

DEPTH	TOT. BTEX	TOT. PAHs
22–32	ND–338.8 (ND)	ND–1,391 (ND)
63–73	6–256	65–527

← CONCENTRATION UNITS ARE ug/L HISTORIC RANGE (JUNE 2017 CONCENTRATION)
← GREY TEXT INDICATES WELL NOT SAMPLED IN JUNE 2017

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.
FURTHEST HISTORICAL EXTENT OF GROUNDWATER PLUME (AS MAPPED CA. 2001) AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS EQUAL TO OR GREATER THAN 100 ug/L
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

PERIODIC REVIEW REPORT

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

DATE: FEB. 2019

FIGURE 5

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 5.dwg 2/21/19 – 5 RAL

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

HIMW–008S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–8,240 (1)	ND–3,069 (5)
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	2–273 (2)	19–288 (19)
140–150	ND–15	ND–6

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 (3)	ND–573 (ND)

HIMW–028S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	ND–213 (83)	10–738 (463)
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 (4)	ND–273 (6)
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	14–93 (93)	118–1,749 (1,355)

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 (76)	891–5,337 (1,727)
130–140	ND–359 (76)	ND–2,698 (1,357)

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

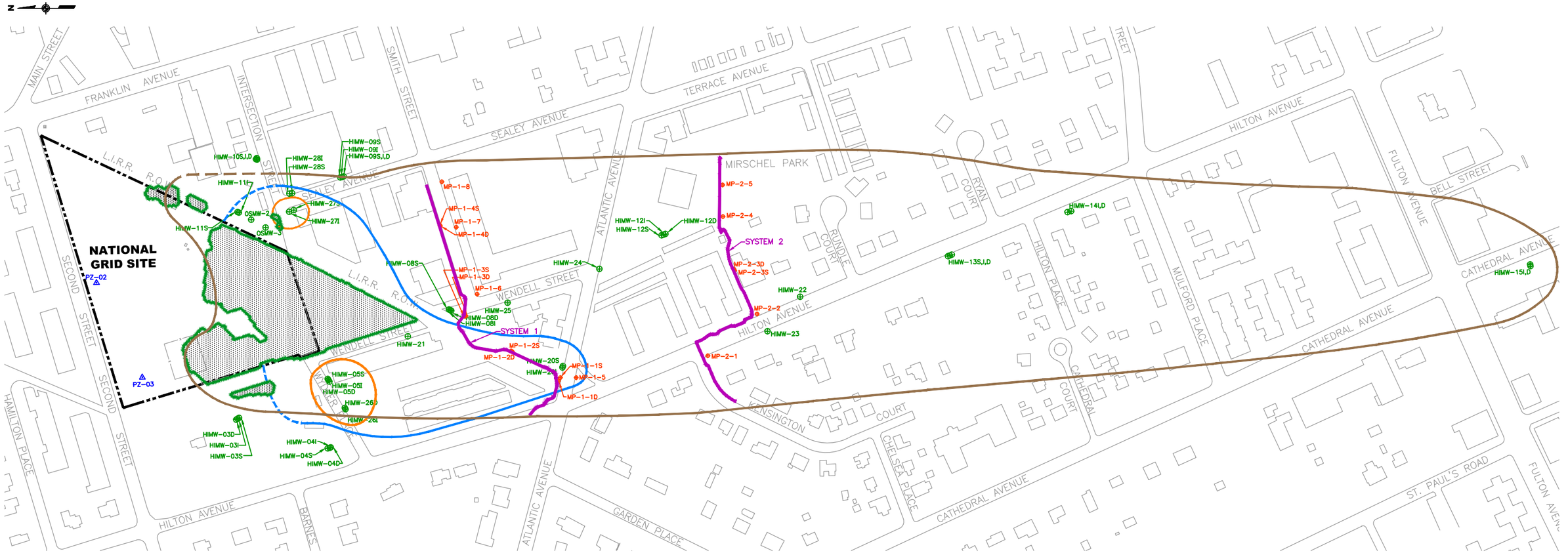
HIMW–013S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
38–48	ND–11	ND
70–80	ND–313 (2)	ND–156 (ND)
110–120	1–30 (1)	ND–28 (18)

HIMW–020S,I		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–3 (ND)	ND–5 (ND)
63–73	ND–474 (330)	ND–3,968 (977)

HIMW–024		
DEPTH	TOT. BTEX	TOT. PAHs
44.6–54.6	ND–900 (ND)	ND–1,024 (8)

HIMW–027S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	447–1,967 (1,967)	695–1,884 (1,884)
50–70	ND–2 (ND)	ND–17 (ND)

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



N

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 6.dwg 2/22/19 – 5 RAL

LEGEND:

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

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

LOCATION ID
DEPTH (ft bgs)
CONCENTRATION UNITS ARE ug/L HISTORIC RANGE (SEPTEMBER 2017 CONCENTRATION)
GREY TEXT INDICATES WELL NOT SAMPLED IN SEPT. 2017

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.
FURTHEST HISTORICAL EXTENT OF GROUNDWATER PLUME (AS MAPPED CA. 2001) AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS EQUAL TO OR GREATER THAN 100 ug/L
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

PERIODIC REVIEW REPORT

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

DATE: FEB. 2019

FIGURE 6

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 (28)	ND–3,069 (5)
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	2–273 (2)	19–288 (26)
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 (829)	ND–573 (507)

HIMW–028S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	ND–213 (126)	10–738 (722)
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 (4)	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	14–105 (105)	118–2,138 (2,138)

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 (56)	891–5,337 (2,411)
130–140	ND–359 (63)	ND–2,698 (1,847)

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

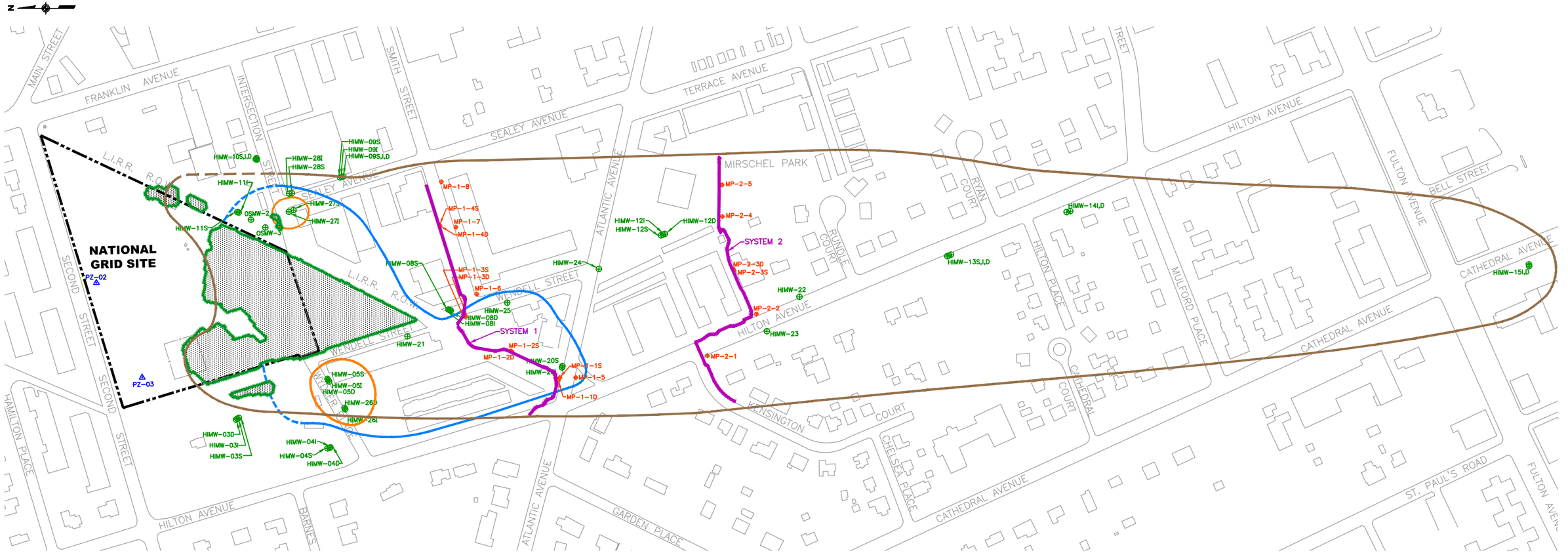
HIMW–013S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
38–48	ND–11 (ND)	ND (ND)
70–80	ND–313 (0.4)	ND–156 (ND)
110–120	1–30 (1)	ND–28 (15)

HIMW–020S,I		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–3 (ND)	ND–5 (ND)
63–73	ND–474 (188)	ND–3,968 (465)

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

HIMW–027S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	447–1,967 (797)	695–1,884 (1,824)
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–012S,I,D
DEPTH (ft bgs) →

DEPTH	TOT. BTEX	TOT. PAHs
22–32	ND–338.8 (ND)	ND–1,391 (ND)
63–73	6–256	65–527

← CONCENTRATION UNITS ARE ug/L HISTORIC RANGE (DECEMBER 2017 CONCENTRATION)
← GREY TEXT INDICATES WELL NOT SAMPLED IN DEC. 2017

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.
- FURTHEST HISTORICAL EXTENT OF GROUNDWATER PLUME (AS MAPPED CA. 2001) AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS EQUAL TO OR GREATER THAN 100 ug/L
- 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

PERIODIC REVIEW REPORT

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

DATE: FEB. 2019

FIGURE 7

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 7.dwg 2/21/19 – 5 RAL

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

HIMW–008S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–8,240 (1)	ND–3,069 (25)
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	2–273 (2)	19–288 (19)
140–150	ND–15	ND–6

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 (355)	ND–573 (336)

HIMW–028S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	ND–213 (154)	10–738 (245)
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 (1)	ND–273 (3)
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	14–105 (66)	118–2,138 (1,177)

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 (58)	891–5,337 (974)
130–140	ND–359 (178)	ND–2,698 (717)

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

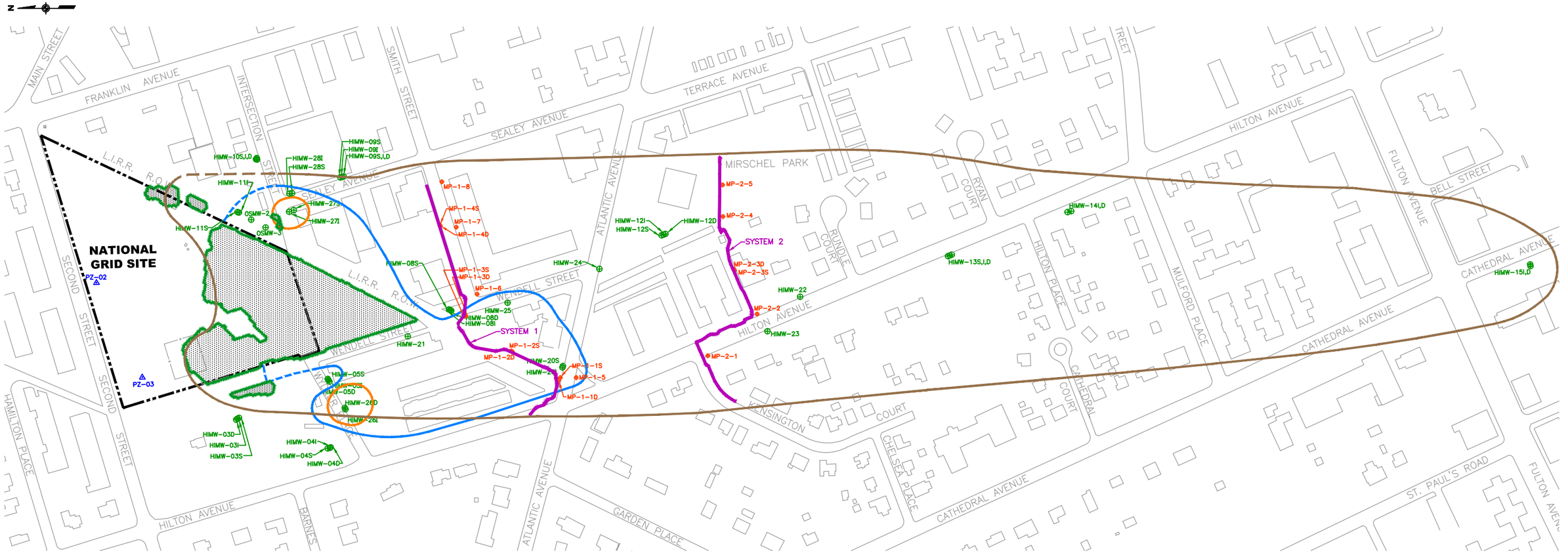
HIMW–013S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
38–48	ND–11	ND
70–80	ND–313 (ND)	ND–156 (ND)
110–120	1–30 (1)	ND–28 (18)

HIMW–020S,I		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–3 (ND)	ND–5 (ND)
63–73	ND–474 (233)	ND–3,968 (474)

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

HIMW–027S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20–40	447–1,967 (1,097)	695–1,884 (1,017)
50–70	ND–2 (ND)	ND–17 (1)

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

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

LOCATION ID
DEPTH (ft bgs)
CONCENTRATION UNITS ARE ug/L HISTORIC RANGE (MARCH 2018 CONCENTRATION)
GREY TEXT INDICATES WELL NOT SAMPLED IN MARCH 2018

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.
- FURTHEST HISTORICAL EXTENT OF GROUNDWATER PLUME (AS MAPPED CA. 2001) AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS EQUAL TO OR GREATER THAN 100 ug/L
- 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

PERIODIC REVIEW REPORT

EXTENT OF DISSOLVED-PHASE PLUME AND GROUNDWATER ANALYTICAL RESULTS - MARCH 2018

DATE: FEB. 2019

FIGURE 8

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 8.dwg 2/22/19 – 5 RAL

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 (1)
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	2-273 (1)	19-288 (12)
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 (169)	10-738 (547)
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 (1)	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	14-105 (65)	118-2,138 (1,188)

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 (36)	891-5,337 (620)
130-140	ND-359 (181)	ND-2,698 (1,195)

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

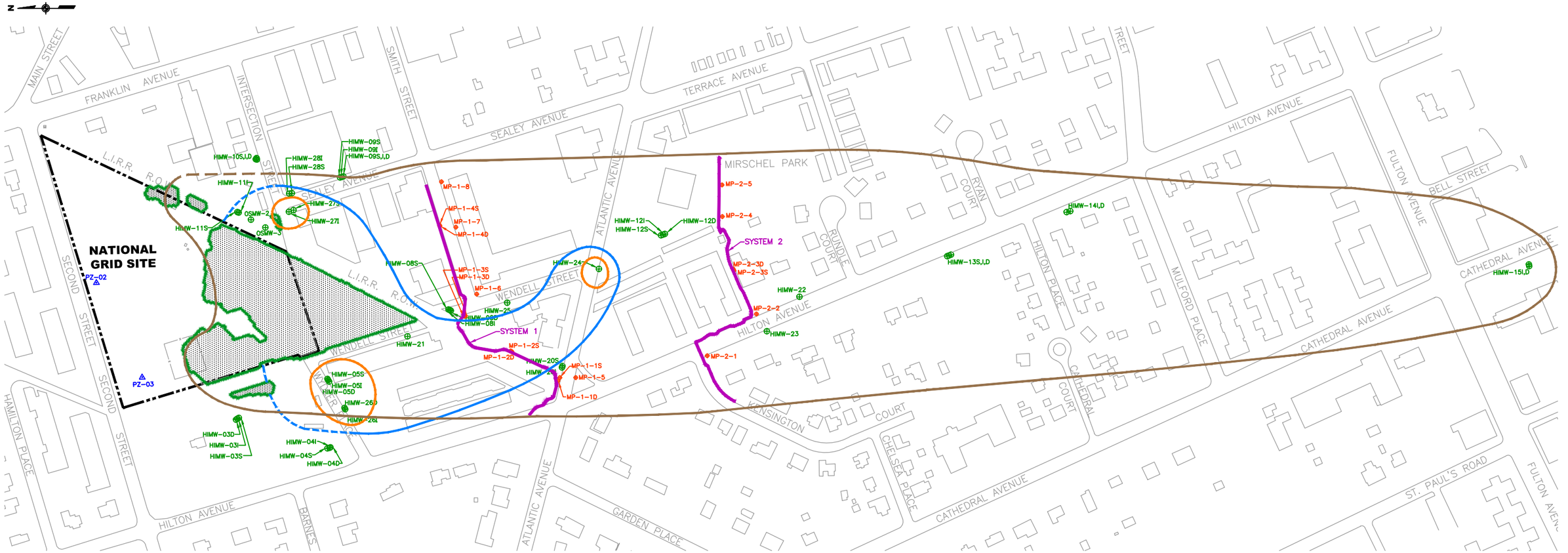
HIMW-013S,I,D		
DEPTH	TOT. BTEX	TOT. PAHs
38-48	ND-11 (ND)	ND (ND)
70-80	ND-313 (ND)	ND-156 (ND)
110-120	1-30 (1)	ND-28 (16)

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 (651)	ND-1,024 (1,689)

HIMW-027S,I		
DEPTH	TOT. BTEX	TOT. PAHs
20-40	447-1,967 (1,173)	695-1,884 (1,102)
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-012S,I,D
DEPTH (ft bgs) →

DEPTH	TOT. BTEX	TOT. PAHs
22-32	ND-338.8 (ND)	ND-1,391 (ND)
63-73	6-256	65-527

← CONCENTRATION UNITS ARE ug/L HISTORIC RANGE (SEPT. 2018 CONCENTRATION)
← GREY TEXT INDICATES WELL NOT SAMPLED IN SEPT. 2018

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.
- FURTHEST HISTORICAL EXTENT OF GROUNDWATER PLUME (AS MAPPED CA 2001) AS DEFINED BY TOTAL BTEX OR TOTAL PAH CONCENTRATIONS EQUAL TO OR GREATER THAN 100 ug/L
- 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

PERIODIC REVIEW REPORT

EXTENT OF DISSOLVED-PHASE
PLUME AND GROUNDWATER
ANALYTICAL RESULTS - SEPTEMBER 2018

DATE: FEB. 2019

FIGURE 9

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 9.dwg 2/21/19 - 5 RAL

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\SEPT 2018\FIGURE 10.dwg 2/22/19 - 1 RAL

N

PZ-02, 44.62
NATIONAL GRID
FORMER MGP SITE

PZ-03, 44.31

OSMW-3, 43.82

HIMW-11S, 44.04

HIMW-03S, 43.93

HIMW-10S, 44.43

OSMW-2, 43.88

HIMW-28S, 42.55

HIMW-04S, 43.29

HIMW-09S, 43.46

HIMW-05S, 43.43

HIMW-27S, 42.73

HIMW-8S, 43.10

HIMW-20S, 42.62

HIMW-12S, 42.05

HIMW-13S, 40.17

44.5
44.0
43.5
43.0
42.5
42.0
41.5
41.0
40.5

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

LEGEND:

⊕	MONITORING WELL
⊞	IPR WELL
△	PIEZOMETER
→	GROUNDWATER FLOW DIRECTION
44	POTENTIOMETRIC SURFACE CONTOUR
— - - —	FORMER MGP SITE BOUNDARY
HIMW-8S, 43.10	LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
NM	NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

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

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR SHALLOW GROUNDWATER, SEPTEMBER 17, 2018

FIGURE 10

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\ISS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 11.dwg 2/22/19 – 3 RAL

N

NATIONAL GRID
FORMER MGP SITE

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

HIMW–03I, 43.46
HIMW–11I, 43.99
HIMW–27I, 42.77
HIMW–10I, 44.48
HIMW–05I, 43.25
HIMW–28I, 42.77
HIMW–04I, 42.92
HIMW–09I, 43.45
HIMW–26I, 42.40
HIMW–08I, 43.00
HIMW–25, 42.92
HIMW–20I, 42.64
HIMW–24, 42.52
HIMW–12I, 42.14
HIMW–23, 41.63
HIMW–22, 41.44
HIMW–13I, 40.15
HIMW–14I, 39.92
HIMW–15I, 37.33

43.5
44.0
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
WYLER PLACE
WENDELL STREET
SEALEY AVENUE
FRANKLIN AVENUE
OLD FRANKLIN STREET
MAIN STREET
STOWE PLACE
SAMMIS PLACE
MILLER PLACE
UNION PLACE
SMITH STREET
INTERSECTION STREET
ATLANTIC AVENUE
GARDEN PLACE
KENSINGTON COURT
CATHEDRAL AVENUE
CHELSEA PLACE
MIRSCHEL PARK
TERRACE AVENUE
MARGARET COURT
BEDELL STREET
RUNDLE COURT
NORTH FRANKLIN STREET
WEST COLUMBIA ST
RYAN COURT
CATHEDRAL COURT
HILTON PLACE
JACKSON STREET
KELLUM PLACE
MULFORD PLACE
FULTON AVENUE
BELL STREET
ST. PAUL'S
R.O.W.
R.R.

LEGEND:

⊕	MONITORING WELL
⊞	IPR WELL
→	GROUNDWATER FLOW DIRECTION
44	POTENTIOMETRIC SURFACE CONTOUR
— - - —	FORMER MGP SITE BOUNDARY
HIMW–08I, 43.00	LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)
NM	NOT MEASURED DURING THIS SAMPLING EVENT

300' 0 300'
SCALE IN FEET

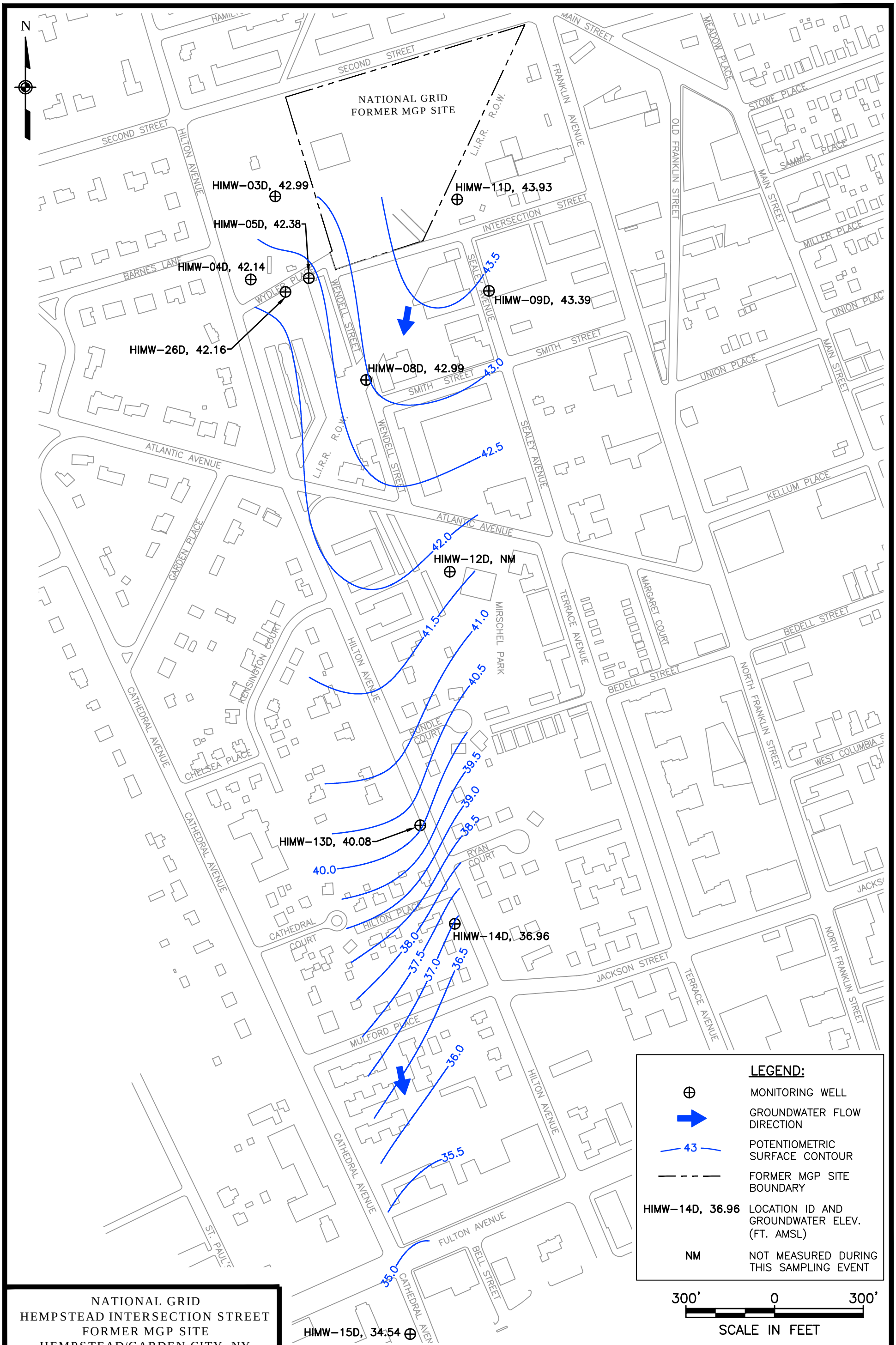
NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR INTERMEDIATE GROUNDWATER, SEPTEMBER 17, 2018

FIGURE 11

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SITE-WIDE REMEDY\GROUNDWATER TREATMENT\SEPT 2018\FIGURE 12.dwg 2/22/19 - 2 RAL



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

AECOM

HEMPSTEAD/GARDEN CITY, NY
POTENTIOMETRIC SURFACE MAP FOR DEEP GROUNDWATER, SEPTEMBER 17, 2018

FIGURE 12

N

NATIONAL GRID
FORMER MGP
SITE

PZ-02

PZ-03

HIMW-28I
HIMW-28S
HIMW-09I
HIMW-09D
HIMW-09S
HIMW-10S,I,D
OSW-1
HIMW-11S,I,D
HIMW-02S,I,D
HIMW-27S
HIMW-27I
OSW-2
OSW-3
HIMW-16S
HIMW-16I
HIMW-17S
HIMW-08S
HIMW-08I
HIMW-08D
HIMW-25
HIMW-21
HIMW-05S
HIMW-05I
HIMW-05D
HIMW-26D
HIMW-26I
HIMW-03D
HIMW-03I
HIMW-03S
HIMW-04I
HIMW-04D
HIMW-04S
HIMW-12I
HIMW-12S
HIMW-12D
HIMW-24
HIMW-22
HIMW-23
HIMW-20S
HIMW-20I
HIMW-13S,I,D
HIMW-14I,D
HIMW-15I,D

MAIN STREET
FRANKLIN AVENUE
INTERSECTION STREET
SMITH STREET
SEALEY AVENUE
L.I.R.R. R.O.W.
SECOND STREET
HAMILTON PLACE
WENDELL STREET
WOLLER PLACE
HILTON AVENUE
BARNES LANE
ATLANTIC AVENUE
MIRSCHEL PARK
TERRACE AVENUE
RUNDLE COURT
RYAN COURT
KENSINGTON COURT
GARDEN PLACE
CHELSEA PLACE
CATHEDRAL AVENUE
CATHEDRAL COURT
HILTON PLACE
MULFORD PLACE
FULTON AVENUE
BELL STREET
ST. PAUL'S ROAD

LEGEND:

HIMW-13⊕	MONITORING WELL
PZ-03 ▲	PIEZOMETER
	MONITORING WELL TO BE SAMPLED AS PART OF MONITORING PLAN
	EXISTING HOUSE OR BUILDING
	NATIONAL GRID PROPERTY BOUNDARY

THIS FIGURE CONTAINS FEATURES INTENDED TO BE PRINTED IN COLOR. REPRODUCTION IN BLACK AND WHITE MAY OBSCURE THE INTENDED EFFECT OF THE COLOR FEATURES.

150' 0 150'
SCALE IN FEET

AECOM

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

PERIODIC REVIEW REPORT

SAMPLED WELL LOCATIONS

DATE: FEB. 2019

FIGURE 13

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 13.dwg 2/5/19 - 1 RAL

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–014 I,D		
DEPTH	TOT. BTEX	TOT. PAHs
85–95	2–273 (29)	19–288 (42)
140–150	ND–15 (ND)	ND–6 (ND)

HIMW–022		
DEPTH	TOT. BTEX	TOT. PAHs
54–64	ND	ND

HIMW–025		
DEPTH	TOT. BTEX	TOT. PAHs
42–52	552	573

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 (64)	65–527 (108)
117–127	ND–6 (ND)	ND–2 (ND)

HIMW–015 I,D		
DEPTH	TOT. BTEX	TOT. PAHs
80–90	1–111 (23)	ND–273 (31)
141.5–151.5	ND–94 (ND)	ND–1 (ND)

HIMW–023		
DEPTH	TOT. BTEX	TOT. PAHs
66–76	43	11

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 (146)	891–5,337 (2,120)
130–140	ND–359 (133)	ND–2,698 (166)

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 (142)	ND–156 (67)
110–120	1–30 (2)	ND–28 (17)

HIMW–020S,I		
DEPTH	TOT. BTEX	TOT. PAHs
25–35	ND–3 (ND)	ND–5 (ND)
63–73	ND–474 (198)	ND–3,968 (530)

HIMW–024		
DEPTH	TOT. BTEX	TOT. PAHs
44.6–54.6	870	1,020

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 (ND)	ND–1,024 (ND)
63–73	6–256	65–527

← CONCENTRATION UNITS ARE ug/L HISTORIC RANGE (MAY 2011 CONCENTRATION)

← GREY TEXT INDICATES WELL NOT SAMPLED IN MAY 2011

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

150' 0 150'
SCALE IN FEET

AECOM

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

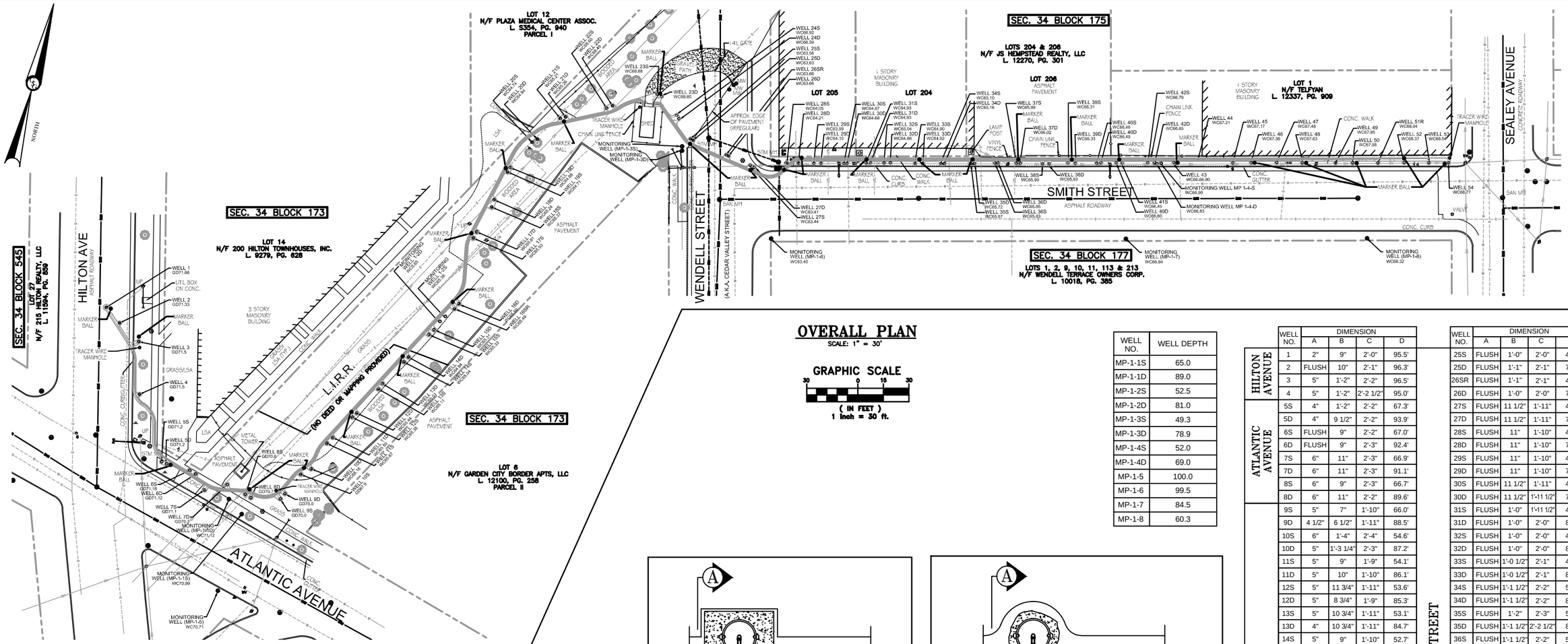
PERIODIC REVIEW REPORT

EXTENT OF DISSOLVED-PHASE PLUME AND GROUNDWATER ANALYTICAL RESULTS - MAY 2011

DATE: FEB. 2019

FIGURE 14

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 14.dwg 2/22/19 - 5 RAL



OVERALL PLAN

SCALE: 1" = 30'

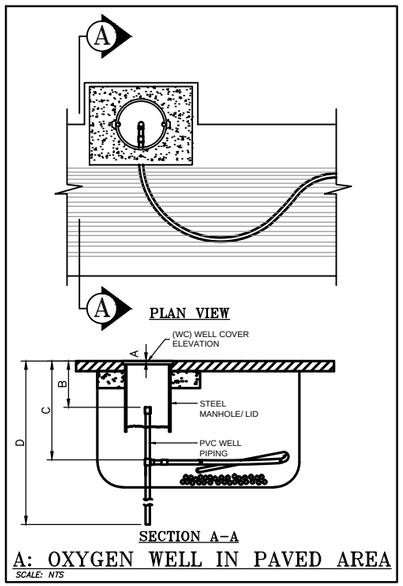
GRAPHIC SCALE

30 0 15 30

(IN FEET)

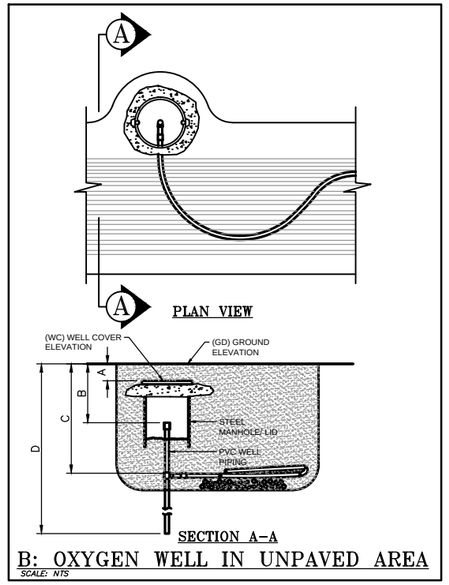
1 inch = 30 ft.

WELL NO.	WELL DEPTH
MP-1-1S	65.0
MP-1-1D	89.0
MP-1-2S	52.5
MP-1-2D	81.0
MP-1-3S	49.3
MP-1-3D	78.9
MP-1-4S	52.0
MP-1-4D	69.0
MP-1-5	100.0
MP-1-6	99.5
MP-1-7	84.5
MP-1-8	60.3



A: OXYGEN WELL IN PAVED AREA

SCALE: NTS



B: OXYGEN WELL IN UNPAVED AREA

SCALE: NTS

MAP LEGEND

PROPERTY LINE	MANHOLE
APPROX. LOC. U.G. WATER LINE	INLET
APPROX. LOC. U.G. TELEPHONE LINE	SEWER CLEANOUT
APPROX. LOC. U.G. GAS LINE	UTILITY POLE
APPROX. LOC. U.G. ELECTRIC LINE	UTILITY POLE/LIGHT POLE
APPROX. LOC. U.G. TELEVISION LINE	GUY ANCHOR
APPROX. LOC. U.G. UNIDENTIFIED UTILITY LINE	TREE STUMP
APPROX. LOC. U.G. SAN. SEWER LINE	TREE
APPROX. LOC. U.G. STM. SEWER LINE	BUILDING FOOTPRINT (NOT FIELD VERIFIED)
HYDRANT	OXYGEN WELL MANHOLE
WATER VALVE	MARKER BALL
3/4" TUBING	TRACER WIRE MANHOLE
WC12.34 GD12.3 — DENOTES ELEVATION AT WELL COVER (WC), TOP OF PIPE (TP) OR GROUND (GD)	MONITORING WELL
	LSA — LANDSCAPED AREA

NOTES:

1. GROUND & WELL COVER ELEVATIONS OBTAINED BY GALLAS SURVEYING GROUP. ELEVATION DATUM IS BASED UPON DESIGN CAD FILES PROVIDED BY CLIENT.
2. LOCATION OF BURIED WELLS AND DIMENSIONS B & C ON WELLS AND PIPE CROSSING DEPTHS WERE OBTAINED BY HIGH POINT ENGINEERING DURING CONSTRUCTION.
3. WELL DEPTHS (DIMENSION 'D') WERE PROVIDED BY FENELY & NICOL ENVIRONMENTAL, INC., 445 BROOK AVENUE, DEER PARK, NY, 11729.
4. COVER ELEVATIONS FOR WELLS 45-54 WERE OBTAINED PRIOR TO INSTALLATION OF CONCRETE WALK.

L.I.R.R. RIGHT OF WAY

	WELL NO.	DIMENSION A	B	C	D
HILTON AVENUE	1	2"	9"	2'-0"	95.5'
	2	FLUSH	10"	2'-1"	96.3'
	3	5"	1'-2"	2'-2"	96.5'
	4	5"	1'-2"	2'-2 1/2"	95.0'
ATLANTIC AVENUE	5S	4"	1'-2"	2'-2"	67.3'
	5D	4"	9 1/2"	2'-2"	93.9'
	6S	FLUSH	9"	2'-2"	67.0'
	6D	FLUSH	9"	2'-3"	92.4'
	7S	6"	11"	2'-3"	66.9'
	7D	6"	11"	2'-3"	91.1'
	8S	6"	9"	2'-3"	66.7'
	8D	6"	11"	2'-2"	89.6'
	9S	5"	7"	1'-10"	66.0'
	9D	4 1/2"	6 1/2"	1'-11"	88.5'
	10S	6"	1'-4"	2'-4"	54.6'
	10D	5"	1'-3 1/4"	2'-3"	87.2'
	11S	5"	9"	1'-9"	54.1'
	11D	5"	10"	1'-10"	86.1'
	12S	5"	11 3/4"	1'-11"	53.6'
	12D	5"	8 3/4"	1'-9"	85.3'
	13S	5"	10 3/4"	1'-11"	53.1'
	13D	4"	10 3/4"	1'-11"	84.7'
	14S	5"	9"	1'-10"	52.7'
	14D	5"	8 1/2"	1'-9"	84.1'
	15S	5"	11"	1'-11"	52.2'
	15D	5"	11"	1'-11"	83.3'
	16SR	5"	9 3/4"	1'-10"	51.8'
	16D	6"	9 1/2"	1'-10 1/2"	82.5'
	17S	6"	11 1/4"	2'-0"	50.7'
	17D	5"	6 3/4"	1'-7"	79.5'
	18S	5"	7 1/2"	1'-9"	50.2'
	18D	5"	7 5/8"	1'-8"	78.3'
	19S	6"	12 1/4"	2'-1"	49.7'
	19D	6"	12 3/8"	2'-1"	78.9'
	20S	6"	9 5/8"	1'-9"	49.3'
	20D	6"	11 3/8"	1'-11 1/2"	79.5'
	21S	5 1/2"	11 1/2"	1'-11"	49.3'
	21D	6"	10"	1'-11 1/2"	79.5'
	22S	5"	9 1/4"	1'-10 1/2"	49.3'
	22D	5"	9 1/4"	1'-10"	79.5'
	23S	5"	12 1/4"	2'-0 1/2"	48.8'
	23D	6"	11 3/4"	1'-11 1/2"	78.7'
	24S	6"	12 5/8"	2'-0"	48.4'
	24D	6"	9"	1'-8 1/2"	78.2'

SMITH STREET

WELL NO.	DIMENSION A	B	C	D
25S	FLUSH	1'-0"	2'-0"	48.8'
25D	FLUSH	1'-1"	2'-1"	78.1'
26SR	FLUSH	1'-1"	2'-1"	48.2'
26D	FLUSH	1'-0"	2'-0"	78.1'
27S	FLUSH	11 1/2"	1'-11"	48.3'
27D	FLUSH	11 1/2"	1'-11"	77.9'
28S	FLUSH	11"	1'-10"	48.3'
28D	FLUSH	11"	1'-10"	78.0'
29S	FLUSH	11"	1'-10"	48.5'
29D	FLUSH	11"	1'-10"	78.4'
30S	FLUSH	11 1/2"	1'-11"	48.8'
30D	FLUSH	11 1/2"	1'-11 1/2"	79.0'
31S	FLUSH	1'-0"	1'-11 1/2"	49.3'
31D	FLUSH	1'-0"	2'-0"	80.5'
32S	FLUSH	1'-0"	2'-0"	49.3'
32D	FLUSH	1'-0"	2'-0"	81.6'
33S	FLUSH	1'-0 1/2"	2'-1"	49.7'
33D	FLUSH	1'-0 1/2"	2'-1"	83.2'
34S	FLUSH	1'-1 1/2"	2'-2"	50.1'
34D	FLUSH	1'-1 1/2"	2'-2"	84.5'
35S	FLUSH	1'-2"	2'-3"	50.3'
35D	FLUSH	1'-1 1/2"	2'-2 1/2"	85.0'
36S	FLUSH	1'-1 1/2"	2'-2"	50.3'
36D	FLUSH	1'-1 1/2"	2'-1 1/2"	85.4'
37S	FLUSH	1'-1"	2'-1"	50.5'
37D	FLUSH	1'-1"	2'-0 1/2"	84.7'
38S	FLUSH	1'-0"	2'-0"	50.6'
38D	FLUSH	1'-0"	2'-0"	82.2'
39S	FLUSH	11"	1'-11"	50.7'
39D	FLUSH	11 1/2"	1'-11"	78.5'
40S	FLUSH	11 1/2"	1'-11"	51.1'
40D	FLUSH	11"	1'-10 1/2"	76.1'
41S	FLUSH	1'-0"	2'-0"	51.5'
41D	FLUSH	1'-1"	2'-1"	73.6'
42S	FLUSH	1'-2"	2'-1"	51.3'
42D	FLUSH	1'-2"	2'-2 1/2"	71.0'
43	FLUSH	1'-2"	2'-3"	67.4'
44	FLUSH	1'-2"	2'-2 1/2"	66.6'
45	FLUSH	1'-3"	2'-3"	65.7'
46	FLUSH	1'-3"	2'-3"	64.3'
47	FLUSH	1'-3"	2'-3 1/2"	63.4'
48	FLUSH	1'-3"	2'-3 1/2"	62.5'
49	FLUSH	1'-3"	2'-3"	61.5'
50	FLUSH	1'-3"	2'-3"	60.8'
51R	FLUSH	1'-3"	2'-3"	60.4'
52	FLUSH	1'-4"	2'-4"	59.3'
53	FLUSH	1'-4"	2'-4'	60.2'
54	FLUSH	1'-4"	2'-4'	60.2'

AECOM

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

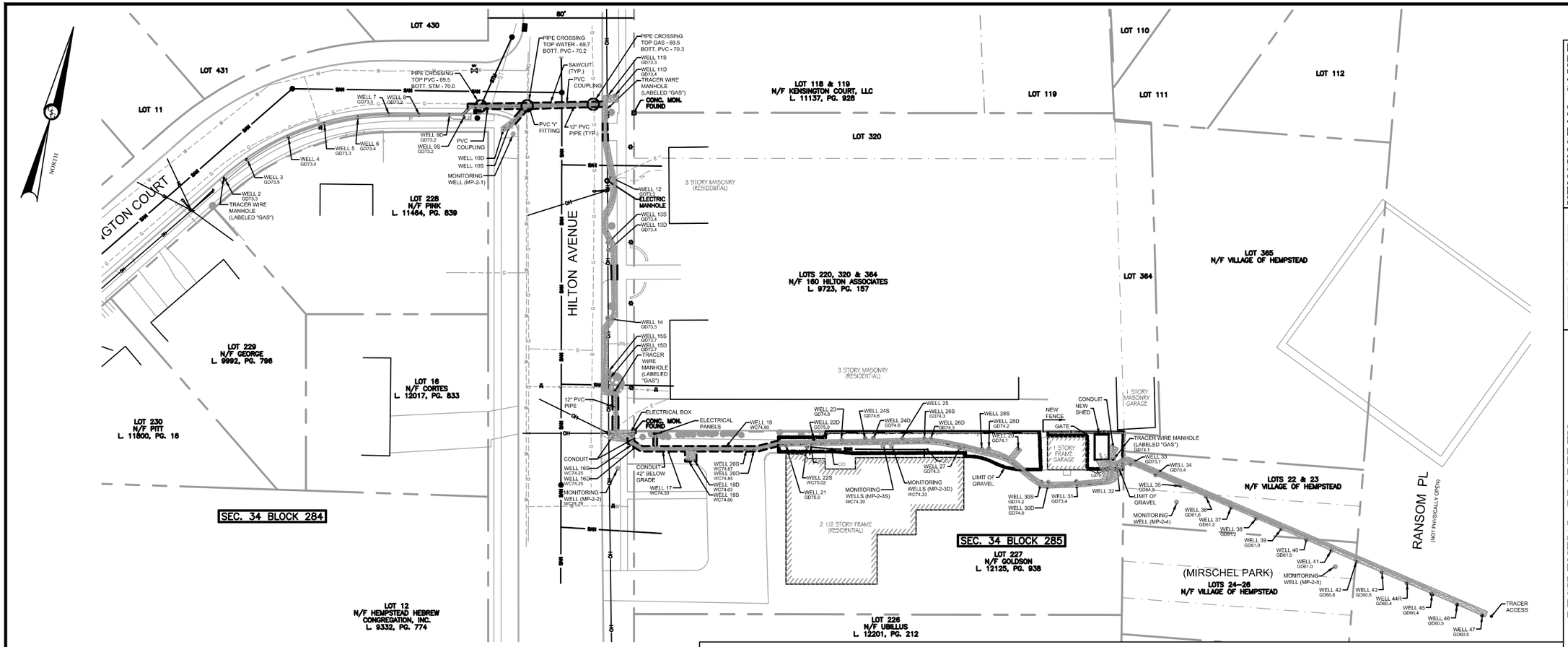
PERIODIC REVIEW REPORT

SYSTEM #1 OXYGEN WELL LOCATION
SITE PLAN

DATE: FEB. 2019

FIGURE 15

J:\Projects\60175065\00000\CAD\DRAFT\TASK2\HEMPSTEAD\ISS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 15.dwg, 11x17, L2, 2/22/19 -1-RAL



OVERALL PLAN

SCALE: 1" = 30'

GRAPHIC SCALE

30 0 15 30

(IN FEET)

1 inch = 30 ft.

MAP LEGEND

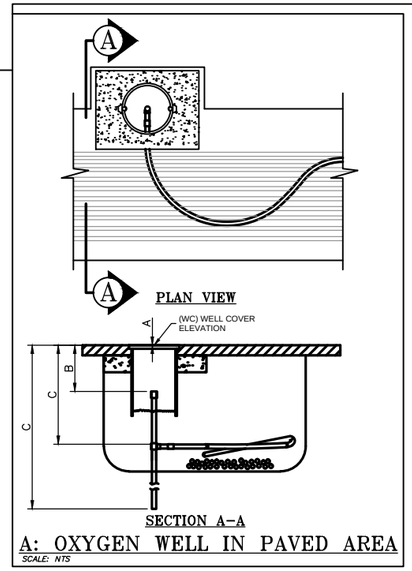
- PROPERTY LINE
- APPROX. LOC. U.G. WATER LINE
- APPROX. LOC. U.G. GAS LINE
- APPROX. LOC. U.G. ELECTRIC LINE
- APPROX. LOC. U.G. TELEVISION LINE
- APPROX. LOC. U.G. UNIDENTIFIED UTILITY LINE
- APPROX. LOC. U.G. SAN. SEWER LINE
- APPROX. LOC. U.G. STM. SEWER LINE
- HYDRANT
- WATER VALVE
- MANHOLE
- INLET
- SEWER CLEANOUT
- UTILITY POLE
- UTILITY POLE/LIGHT POLE
- GUY ANCHOR
- TREE STUMP
- TREE WITH DIAMETER
- BUILDING FOOTPRINT (NOT FIELD VERIFIED)

PROPOSED LEGEND

- APPROX. LOC. OF TRENCH
- LOCATION OF U.G. CONDUIT
- LIMIT OF GRAVEL
- SAWCUT LINE
- OXYGEN WELL MANHOLE
- MONITORING WELL
- TRACER WIRE MANHOLE
- 3/4" TUBING
- WC12.34 TP12.34 GD12.3 — DENOTES ELEVATION AT WELL COVER (WC), TOP OF PIPE (TP) OR GROUND (GD)

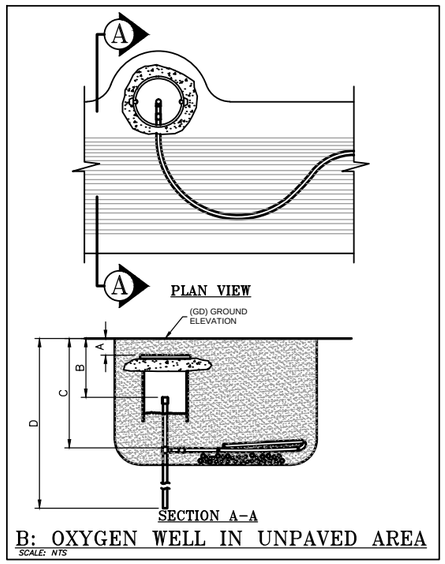
NOTES:

1. GROUND & WELL COVER ELEVATIONS OBTAINED BY GALLAS SURVEYING GROUP. ELEVATION DATUM IS BASED UPON DESIGN CAD FILES PROVIDED BY CLIENT.
2. LOCATION OF BURIED WELLS AND DIMENSIONS B & C ON WELLS AND PIPE CROSSING DEPTHS WERE OBTAINED BY HIGH POINT ENGINEERING DURING CONSTRUCTION.
3. WELL DEPTHS (DIMENSION 'D') WERE PROVIDED BY FENELY & NICOL ENVIRONMENTAL, INC., 445 BROOK AVENUE, DEER PARK, NY, 11729



A: OXYGEN WELL IN PAVED AREA

SCALE: NTS



B: OXYGEN WELL IN UNPAVED AREA

SCALE: NTS

WELL NO.	WELL DEPTH
MP-2-1	97'
MP-2-2	94'
MP-2-3D	97'
MP-2-3S	73.5'
MP-2-4	70.2'
MP-2-5	61.7'

	WELL NO.	DIMENSION A	B	C	D
RESIDENTIAL PROPERTY — KENSINGTON COURT / HILTON AVE.	2	2-1/2"	11"	2'-1"	90.2'
	3	2-1/2"	10"	1'-11"	94.3'
	4	3"	1'-2"	1'-11"	94.7'
	5	3-1/2"	9"	1'-10"	95.3'
	6	2-1/2"	9-1/2"	1'-9"	95.7'
	7	3-1/2"	10"	1'-11"	96'
	8	3-1/2"	9-1/2"	1'-11"	96.3'
	9D	4-1/2"	8-1/2"	1'-11"	96.7'
	9S	3-1/2"	11"	1'-9 1/2"	75'
	10S	2"	9"	2'-0"	75'
	10D	2"	9-1/2"	2'-0"	97.2'
	11S	6"	9"	2'-0"	76.5'
	11D	4"	9"	2'-0"	100.8'
	12	4-3/4"	1'-0"	2'-4"	94'
	13S	5-12"	1'-2"	2'-3 1/2"	75'
	13D	6"	1'-1"	2'-6"	97'
	14	5-1/2"	11"	2'-2"	96.4'
	15S	4"	1'-2"	2'-7 1/2"	75'
	15D	6-1/2"	1'-0"	2'-7"	94.6'
	16S	FLUSH	9-1/2"	2'-3"	75.5'
	16D	FLUSH	1'-0"	2'-6"	94.1'
	17	FLUSH	8 1/2"	2'-1/2"	95'
	18S	FLUSH	7"	1'-8 1/2"	74.5'
	18D	FLUSH	9"	1'-9"	95.5'
	19	FLUSH	9-1/2"	1'-9 1/2"	96.1'
	20S	FLUSH	11"	2'-1/2"	74'
	20D	FLUSH	11"	1'-11 1/2"	96.6'
	21	3"	1'-1"	1'-8"	96.6'
	22S	5"	1'-1 1/2"	2'-0"	76'
	22D	4"	1'-4"	2'-4"	96.3'
	23	2"	1'-1"	2'-2"	97.2'
	24S	2-1/2"	1'-1/2"	1'-10"	77.8'
	24D	3-1/4'	1'-2"	1'-11"	97'
	25	3"	1'-1"	1'-9"	96'
	26S	3"	1'-0"	2'-2"	74'
	26D	3"	1'-1"	2'-0"	95'
	27	2"	1'-0"	1'-11"	93.5'
	28S	2-1/2"	11"	1'-11"	76'
	28D	4"	1'-1/2"	2'-0"	92.1'
	29	4-1/2"	11"	1'-11"	92.2'
	30S	3"	10"	2'-2"	67.8'
	30D	2-1/2"	1'-1/2"	2'-3"	88'
	31	4"	1'-4"	2'-2"	86'
	32	4"	6"	1'-11"	84'
PARK AREA	*33	8"	1'-0"	2'-0"	82'
	*34	8"	1'-0"	2'-0"	71'
	*35	6"	1'-0"	2'-0"	69.2'
	36	5-1/2"	11"	1'-11"	64.8'
	37	2-3/4"	1'-1/2"	1'-11"	62.8'
	38	3-3/4"	1'-1 3/4"	2'-0"	62.1'
	39	4"	1'-3/4"	2'-0"	60'
	40	3-3/4"	11-1/2"	1'-11"	61.7'
	41	4-3/4"	1'-0"	1'-11"	61.7'
	42	3-1/2"	1'-1/2"	1'-11"	61.6'
	43	3-1/2"	1'-0"	2'-0"	61.4'
	44R	4-1/2"	11"	1'-11"	60.6'
	45	4-1/4"	11-3/8"	1'-11"	61.1'
	46	1-1/2"	11"	1'-10"	61'
	47	2-1/2"	7-3/4"	1'-10"	60.5'

* LOCATED ON SLOPE

AECOM

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

PERIODIC REVIEW REPORT

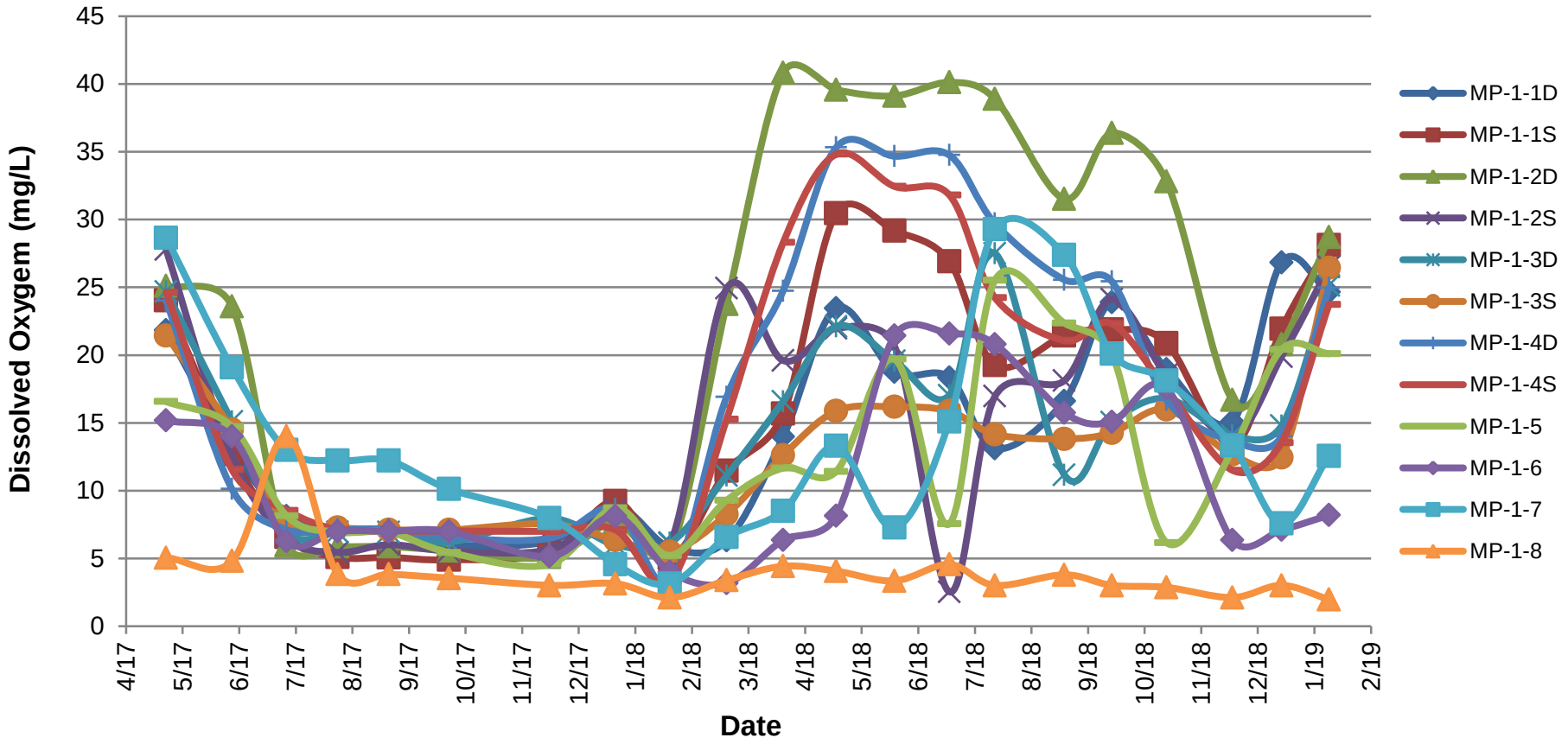
SYSTEM #2 OXYGEN WELL LOCATION
SITE PLAN

DATE: FEB. 2019

FIGURE 16

J:\Projects\11175065.00000\CAD\DRAFT\TASK2\HEMPSTEAD\SSS FINAL ENGNG REPORT\FEB 2019 SUBMITTAL\FIGURE 16.dwg, Site, 1:2, 2/5/19 -1-RAL

Figure 17
Oxygen System #1
Dissolved Oxygen Concentrations



Note: In June 2017, the compressor on Oxygen System #1 failed; replacement compressor was not installed until January 2018.

Figure 18
Oxygen System #2
Dissolved Oxygen Concentrations

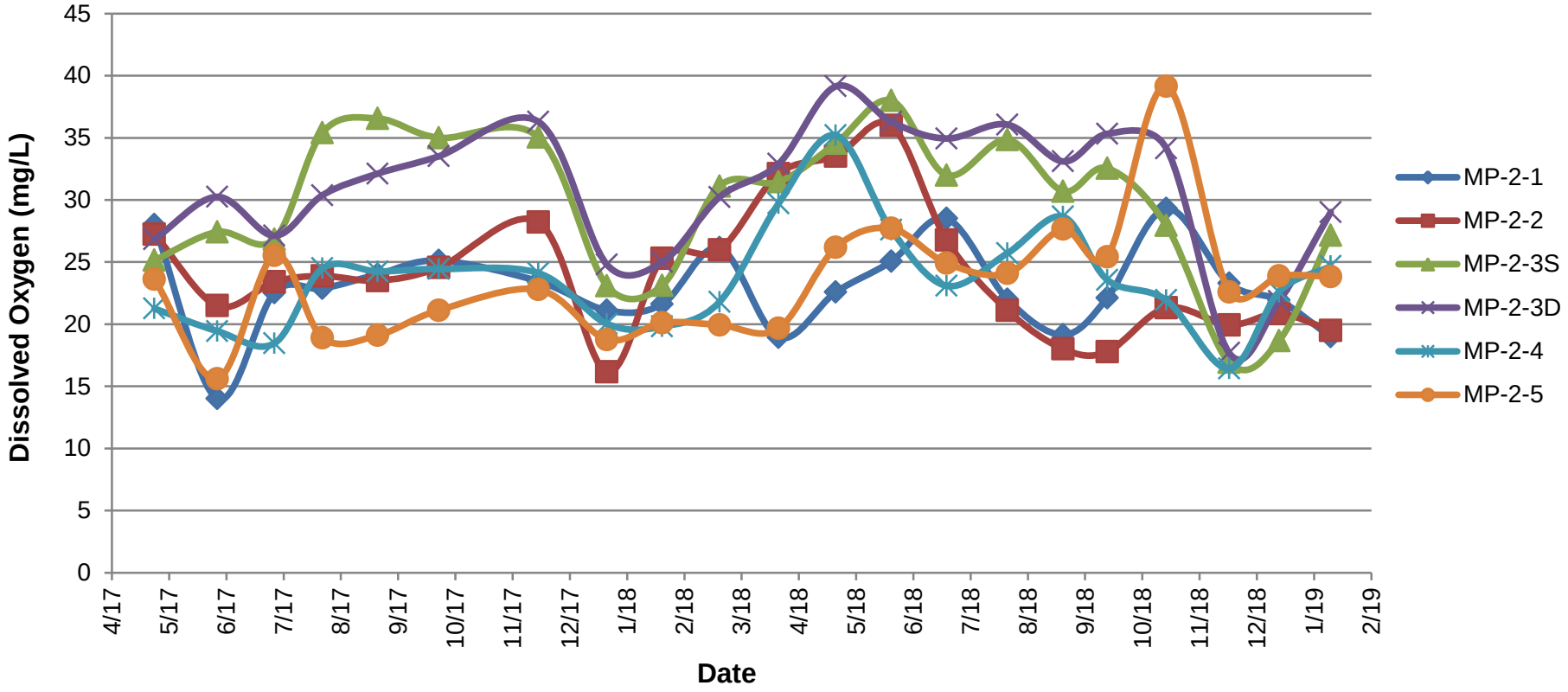
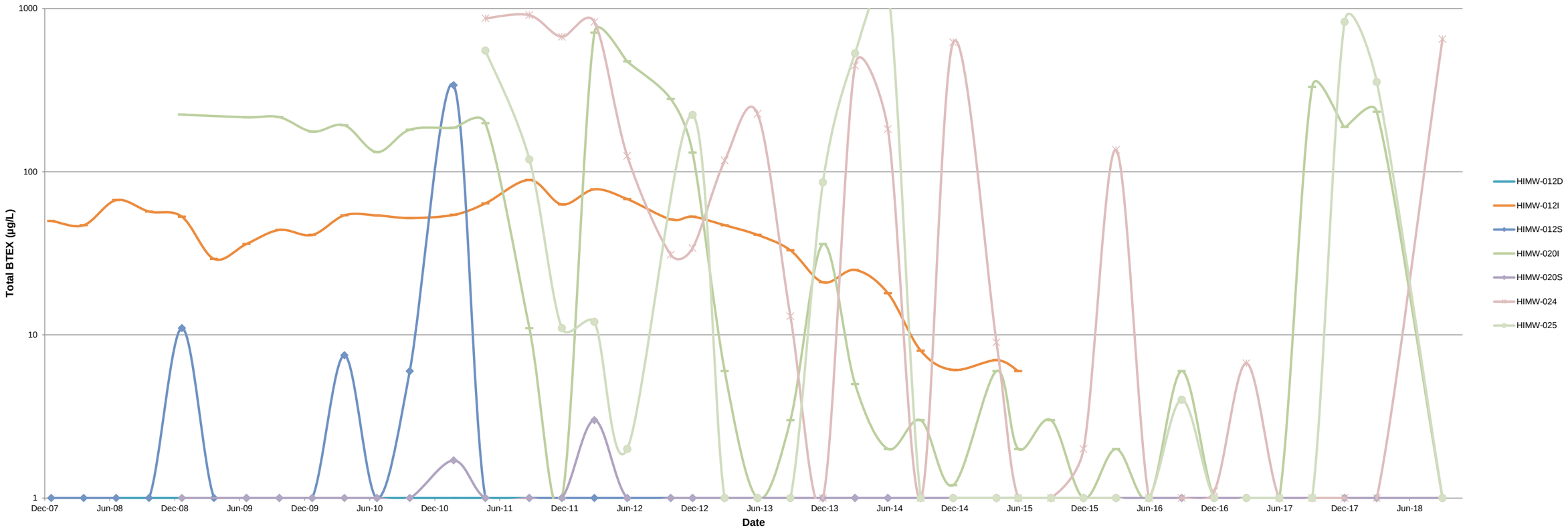


Figure 19A
Total BTEX Concentrations in Wells
Downgradient from Oxygen System #1 and Upgradient from Oxygen System #2



J:\Projects\11175065.00000\WORD\DRAFT\PRR\PRR2019\O2\Total BTEX - Total PAHBTEX - DG

Figure 19B
Total BTEX Concentrations in Wells
Downgradient from Oxygen Systems #1 & 2

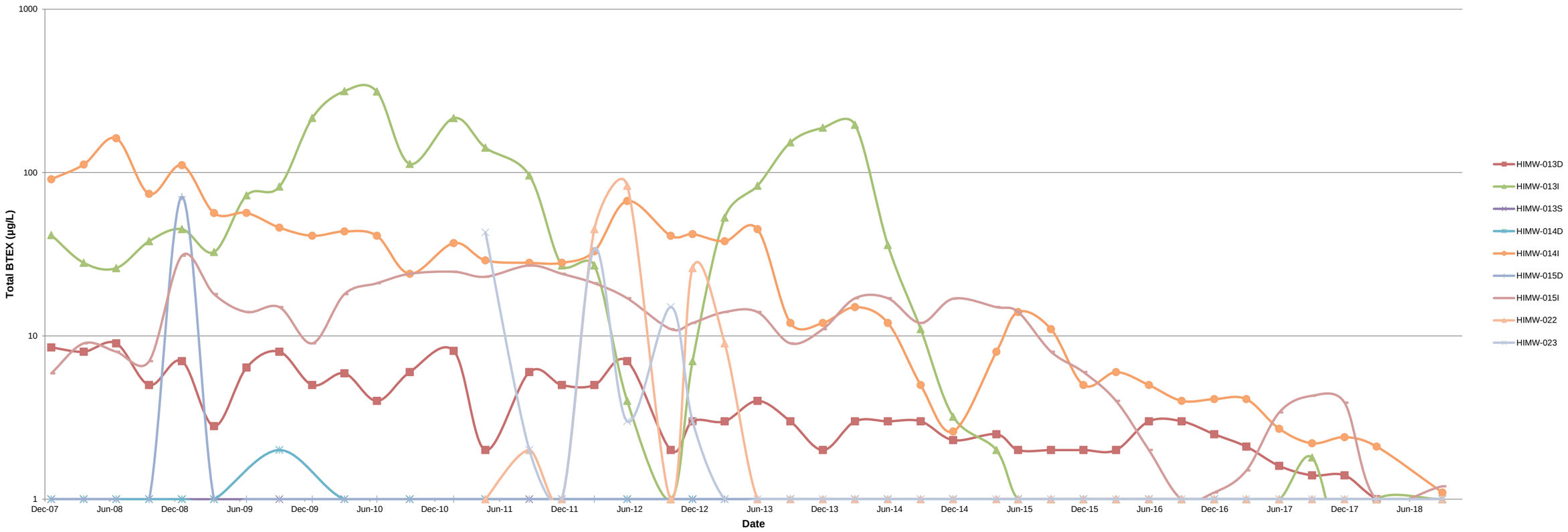
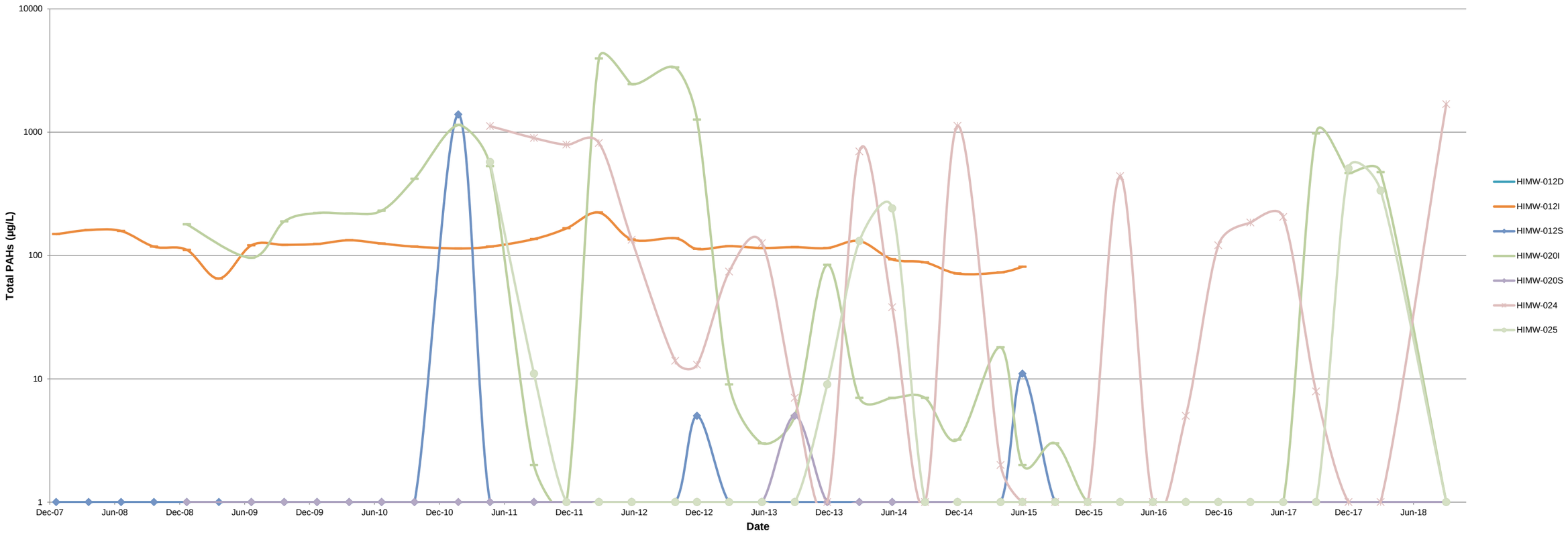
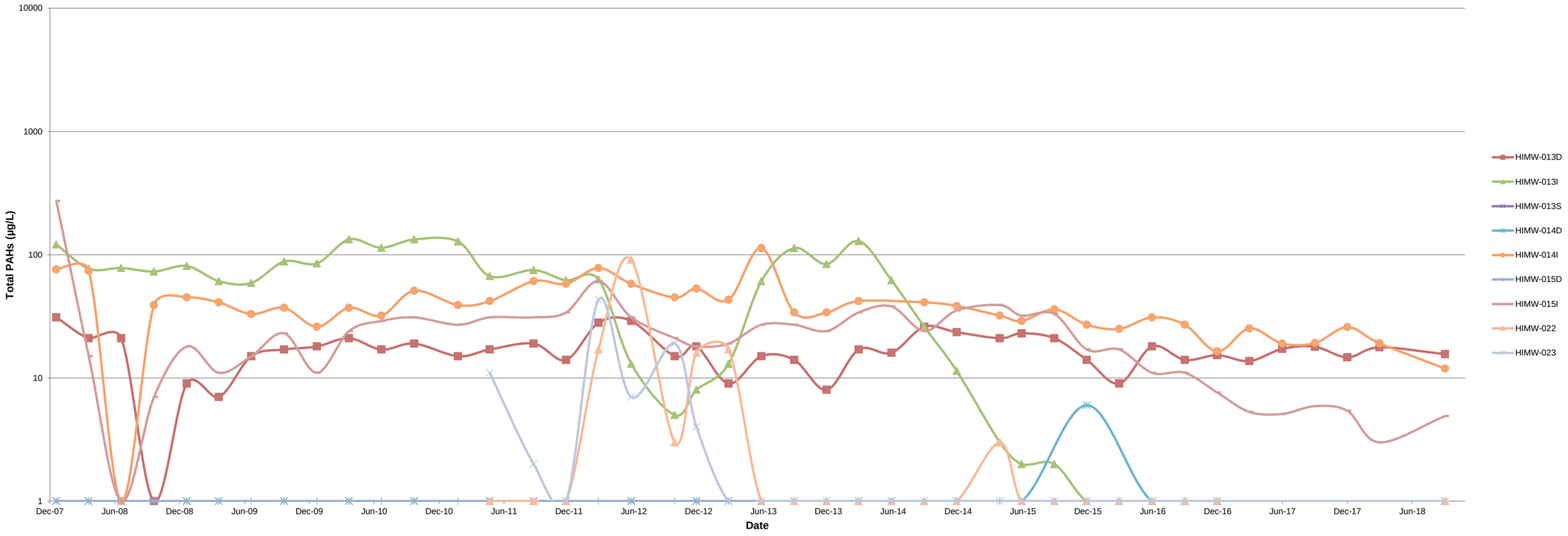


Figure 20A
Total PAH Concentrations in Wells
Downgradient from Oxygen System #1 and Upgradient from Oxygen System #2



J:\Projects\11175065.00000\WORD\DRAFT\PRR\PRR2019\O2\Total BTEX - Total PAHPAH - DG

Figure 20B
Total PAH Concentrations in Wells
Downgradient from Oxygen Systems #1 & 2



Appendix A
Inspection Forms

HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
VILLAGES OF HEMPSTEAD AND GARDEN CITY, NASSAU COUNTY, NY
SITE-WIDE INSPECTION FORM

GENERAL INFORMATION

Date:	July 31, 2018	**Inspector:**	Megan Dascoli, CHMM, STS
Weather:	Partly cloudy, still	**Signature:**	
Temperature:	70°	**Company:**	AECOM
Season (circle one): Winter Spring (Summer) Fall			

SITE INSPECTION LOG SHEET*

Evidence of Change in Site Use	(Yes) No	**Description of New/Additional Site Use**	Site is used as a lay-down and work area for gas main construction. No intrusive work observed. Also, additional area has been used for parking car dealership cars.
Evidence of Site-Wide Disturbance(s)	Yes (No)	**Description of Disturbance(s)**	
Evidence of Site-Wide Excavation	Yes (No)	**Description of Excavation**	
Evidence of Cover System Disturbance(s)	Yes (No)	**Description of Disturbance(s)**	
Evidence of Cover System Excavation to Monolith	Yes (No)	**Description of Excavation**	
Evidence of Building Construction	Yes (No)	**Description of Building Construction**	
Comments:	See attached map.		

* If answering Yes, attach map showing locations and any other information as required.

Hempstead Intersection St. Former MGP Site Map

https://www.google.com/maps/@40.7162742,-73.6322814,404m/data=!3m1!1e3
accessed 7/30/18

Area used by car dealerships for parking new cars

-XX- fence around existing, undisturbed gas regulator station

Map associated with: 7/31/18 site Inspection by Megan Dascoli

HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
VILLAGES OF HEMPSTEAD AND GARDEN CITY, NASSAU COUNTY, NY
SITE-WIDE INSPECTION FORM

GENERAL INFORMATION

Date:	February 15, 2019	**Inspector:**	Megan Dascoli, CHMM, STS
Weather:	Cloudy, moderate N wind	**Signature:**	Megan Dascoli
Temperature:	40°	**Company:**	AECOM
Season (circle one):	(Winter)	Spring	Summer Fall

SITE INSPECTION LOG SHEET*

Evidence of Change in Site Use	Yes (No)	**Description of New/Additional Site Use**	Site appears same as during 7/31/18 inspection.
Evidence of Site-Wide Disturbance(s)	Yes (No)	**Description of Disturbance(s)**	
Evidence of Site-Wide Excavation	Yes (No)	**Description of Excavation**	
Evidence of Cover System Disturbance(s)	Yes (No)	**Description of Disturbance(s)**	
Evidence of Cover System Excavation to Monolith	Yes (No)	**Description of Excavation**	
Evidence of Building Construction	Yes (No)	**Description of Building Construction**	
Comments:	See attached map.		

* If answering Yes, attach map showing locations and any other information as required.

Appendix B
Sampling Frequency Approval Letter

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau C
625 Broadway, 11th Floor, Albany, NY 12233-7014
P: (518) 402-9662 I F: (518) 402-9679
www.dec.ny.gov

June 1, 2018

William J. Ryan
Manager-DNY MGP Program
Site Investigation and Remediation Department
National Grid
175 East Old Country Road
Hicksville, NY 11801

Re: Hempstead Intersection St. Former MGP Site, Hempstead, Nassau Co.
Site 130086
2017 Annual Report

Dear Mr. Ryan:

Thank you and Jon Sundquist for AECOM's May 3, 2018, "2017 Annual Groundwater Sampling, NAPL Monitoring/Recovery and Groundwater Treatment Performance Report for the Hempstead Intersection Street Former Manufactured Gas Plant Site". The Report is approved.

National Grid's request to reduce the frequency of groundwater sampling and analysis to semi-annually is approved. In lieu of an annual report, the Department of Environmental Conservation requests that the 2017 sampling results be presented in the Periodic Review Report. The due date for the Periodic Review Report has been extended to March 1, 2019 in order to accommodate the September sampling round.

If you have any questions please contact me at (518) 402-9686.

Sincerely,

John Spellman, P.E.
Project Manager
Division of Environmental Remediation

Appendix C
IC/EC Certification

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 130086

Site Name K - Intersection St. - Hempstead MGP

Site Address: Intersection St. Zip Code: 11530-
City/Town: Hempstead
County: Nassau
Site Acreage: 7.6

Reporting Period: April 06, 2017 to ~~August 06, 2018~~ February 28, 2019

	YES	NO
1. Is the information above correct?	☐	✓
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	✓
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	✓
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	✓
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	✓

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	✓	☐
7. Are all ICs/ECs in place and functioning as designed?	✓	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 130086 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
	KeySpan Gas East Corp	Ground Water Use Restriction Landuse Restriction Site Management Plan
		Ground Water Use Restriction Landuse Restriction
		Ground Water Use Restriction Landuse Restriction
		Ground Water Use Restriction Landuse Restriction
		Ground Water Use Restriction Landuse Restriction Site Management Plan
		Soil Management Plan Soil Management Plan Soil Management Plan Site Management Plan Soil Management Plan Site Management Plan Soil Management Plan Site Management Plan

Property use must be restricted residential, commercial, or industrial
Groundwater use is prohibited without treatment
Groundwater must be monitored per the SMP
Data must be reported per the SMP
Implement HASP and Excavation Work Plan prior to ground intrusive activity except landscaping

Box 4

Description of Engineering Controls

Parcel	Engineering Control
	Groundwater Treatment System Cover System Groundwater Treatment System Cover System Groundwater Treatment System Cover System Groundwater Treatment System Cover System Groundwater Treatment System Cover System

Provision of two-foot thick soil cover
Active oxygen delivery system in area of impacted groundwater

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
✓	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
✓	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 130086

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Sarah Aldridge (print name) at National Grid (print business address),

am certifying as Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Sarah Aldridge — Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

3/1/19 — Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Robert Forstner at AECOM USA, Inc.
print name print business address

am certifying as a Qualified Environmental Professional for the National Grid USA
(Owner or Remedial Party)

Robert Forstner — 3/1/19

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

Date

Appendix D
Data Usability Summary Report – September 2018 Data

DATA USABILITY SUMMARY
REPORT SECOND SEMIANNUAL 2018

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:

AECOM USA, INC.
257 WEST GENESEE STREET, SUITE 400
BUFFALO, NY 14202-2657

February 2019

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III. DATA DELIVERABLE COMPLETENESS....A-2

IV. SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES....A-2

V. NON-CONFORMANCES....A-2

VI. SAMPLE RESULTS AND REPORTING....A-3

VII. SUMMARY....A-3

TABLES
(Following Text)

Table A-1 Validated Groundwater Sample Analytical Results

Table A-2 Validated Field QC Sample Analytical Results

APPENDICES
(Following Tables)

Attachment A Validated Form 1's

Attachment B Support Documentation

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 AECOM personnel on September 18-28, 2018. The groundwater samples were collected as part of the 2018 2nd semiannual 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. 5*, January 2011.

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 PAH MS/MSD analyses associated with sample HIMW-05S exhibited negative percent recoveries (%Rs) exceedances for naphthalene. This was a result of a high native level of this PAH in the parent sample (i.e., 949 ppb) versus the matrix spiking level of 50 ppb. Therefore, no further qualification of the data was deemed necessary.

VI. SAMPLE RESULTS AND REPORTING

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

For sample HIMW-05D, the laboratory inadvertently reported a result for 1,1,2-trichlorotrifluoroethane (Freon-113) on the Form 1, thus, it was cross out on the Form 1.

Field duplicates were collected from monitoring well locations HIMW-20S 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. AECOM does not recommend the re-collection of any samples at this time.

Prepared By: _____ **Date:** 2/25/19
Peter R. Fairbanks, Senior Chemist

Reviewed By: _____ **Date:** 2/25/19
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.

ATTACHMENT A

VALIDATED FORM 1'S

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-03S **Lab ID: 7065370011** Collected: 09/20/18 12:30 Received: 09/21/18 15:15 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	09/24/18 11:14	09/25/18 20:54	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 20:54	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	61	%	35-114	1	09/24/18 11:14	09/25/18 20:54	4165-60-0	
2-Fluorobiphenyl (S)	65	%	43-116	1	09/24/18 11:14	09/25/18 20:54	321-60-8	
p-Terphenyl-d14 (S)	97	%	33-141	1	09/24/18 11:14	09/25/18 20:54	1718-51-0	
Phenol-d5 (S)	20	%	10-110	1	09/24/18 11:14	09/25/18 20:54	4165-62-2	
2-Fluorophenol (S)	33	%	21-110	1	09/24/18 11:14	09/25/18 20:54	367-12-4	
2,4,6-Tribromophenol (S)	85	%	10-123	1	09/24/18 11:14	09/25/18 20:54	118-79-6	
2-Chlorophenol-d4 (S)	56	%	33-110	1	09/24/18 11:14	09/25/18 20:54	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	58	%	16-110	1	09/24/18 11:14	09/25/18 20:54	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/24/18 15:39	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/24/18 15:39	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/24/18 15:39	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/24/18 15:39	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%	68-153	1		09/24/18 15:39	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-124	1		09/24/18 15:39	460-00-4	
Toluene-d8 (S)	102	%	69-124	1		09/24/18 15:39	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-03I **Lab ID: 7065370010** Collected: 09/20/18 11:25 Received: 09/21/18 15:15 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	09/24/18 11:14	09/25/18 19:58	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:58	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	75	%	35-114	1	09/24/18 11:14	09/25/18 19:58	4165-60-0	
2-Fluorobiphenyl (S)	77	%	43-116	1	09/24/18 11:14	09/25/18 19:58	321-60-8	
p-Terphenyl-d14 (S)	88	%	33-141	1	09/24/18 11:14	09/25/18 19:58	1718-51-0	
Phenol-d5 (S)	18	%	10-110	1	09/24/18 11:14	09/25/18 19:58	4165-62-2	
2-Fluorophenol (S)	29	%	21-110	1	09/24/18 11:14	09/25/18 19:58	367-12-4	
2,4,6-Tribromophenol (S)	86	%	10-123	1	09/24/18 11:14	09/25/18 19:58	118-79-6	
2-Chlorophenol-d4 (S)	54	%	33-110	1	09/24/18 11:14	09/25/18 19:58	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	52	%	16-110	1	09/24/18 11:14	09/25/18 19:58	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/24/18 15:16	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/24/18 15:16	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/24/18 15:16	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/24/18 15:16	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%	68-153	1		09/24/18 15:16	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-124	1		09/24/18 15:16	460-00-4	
Toluene-d8 (S)	104	%	69-124	1		09/24/18 15:16	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-03D **Lab ID: 7065370009** Collected: 09/20/18 09:50 Received: 09/21/18 15:15 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	09/24/18 11:14	09/25/18 19:30	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 19:30	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	61	%	35-114	1	09/24/18 11:14	09/25/18 19:30	4165-60-0	
2-Fluorobiphenyl (S)	71	%	43-116	1	09/24/18 11:14	09/25/18 19:30	321-60-8	
p-Terphenyl-d14 (S)	77	%	33-141	1	09/24/18 11:14	09/25/18 19:30	1718-51-0	
Phenol-d5 (S)	20	%	10-110	1	09/24/18 11:14	09/25/18 19:30	4165-62-2	
2-Fluorophenol (S)	32	%	21-110	1	09/24/18 11:14	09/25/18 19:30	367-12-4	
2,4,6-Tribromophenol (S)	81	%	10-123	1	09/24/18 11:14	09/25/18 19:30	118-79-6	
2-Chlorophenol-d4 (S)	56	%	33-110	1	09/24/18 11:14	09/25/18 19:30	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	55	%	16-110	1	09/24/18 11:14	09/25/18 19:30	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/24/18 14:54	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/24/18 14:54	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/24/18 14:54	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/24/18 14:54	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%	68-153	1		09/24/18 14:54	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-124	1		09/24/18 14:54	460-00-4	
Toluene-d8 (S)	102	%	69-124	1		09/24/18 14:54	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Sample: HIMW-05S **Lab ID: 7065811002** Collected: 09/25/18 10:50 Received: 09/25/18 14:10 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	09/28/18 11:38	10/03/18 19:27	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 19:27	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	66	%	35-114	1	09/28/18 11:38	10/03/18 19:27	4165-60-0	
2-Fluorobiphenyl (S)	79	%	43-116	1	09/28/18 11:38	10/03/18 19:27	321-60-8	
p-Terphenyl-d14 (S)	100	%	33-141	1	09/28/18 11:38	10/03/18 19:27	1718-51-0	
Phenol-d5 (S)	27	%	10-110	1	09/28/18 11:38	10/03/18 19:27	4165-62-2	
2-Fluorophenol (S)	44	%	21-110	1	09/28/18 11:38	10/03/18 19:27	367-12-4	
2,4,6-Tribromophenol (S)	120	%	10-123	1	09/28/18 11:38	10/03/18 19:27	118-79-6	CH,E
2-Chlorophenol-d4 (S)	71	%	33-110	1	09/28/18 11:38	10/03/18 19:27	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	70	%	16-110	1	09/28/18 11:38	10/03/18 19:27	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/26/18 14:27	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/26/18 14:27	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/26/18 14:27	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/26/18 14:27	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%	68-153	1		09/26/18 14:27	17060-07-0	
4-Bromofluorobenzene (S)	104	%	79-124	1		09/26/18 14:27	460-00-4	
Toluene-d8 (S)	104	%	69-124	1		09/26/18 14:27	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Sample: HIMW-05I **Lab ID: 7065811001** Collected: 09/25/18 09:50 Received: 09/25/18 14:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**8.6**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	83-32-9	
Acenaphthylene	**112** D	ug/L	50.0	10	09/28/18 11:38	10/04/18 12:50	208-96-8	
Anthracene	**3.0J**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	206-44-0	
Fluorene	**21.7**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	193-39-5	
2-Methylnaphthalene	**70.3**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	91-57-6	
Naphthalene	**384** D	ug/L	50.0	10	09/28/18 11:38	10/04/18 12:50	91-20-3	
Phenanthrene	**20.5**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:59	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	48	%	35-114	1	09/28/18 11:38	10/03/18 18:59	4165-60-0	
2-Fluorobiphenyl (S)	60	%	43-116	1	09/28/18 11:38	10/03/18 18:59	321-60-8	
p-Terphenyl-d14 (S)	84	%	33-141	1	09/28/18 11:38	10/03/18 18:59	1718-51-0	
Phenol-d5 (S)	16	%	10-110	1	09/28/18 11:38	10/03/18 18:59	4165-62-2	
2-Fluorophenol (S)	26	%	21-110	1	09/28/18 11:38	10/03/18 18:59	367-12-4	
2,4,6-Tribromophenol (S)	107	%	10-123	1	09/28/18 11:38	10/03/18 18:59	118-79-6	CH
2-Chlorophenol-d4 (S)	48	%	33-110	1	09/28/18 11:38	10/03/18 18:59	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	46	%	16-110	1	09/28/18 11:38	10/03/18 18:59	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**1.2**	ug/L	1.0	1		09/26/18 14:04	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/26/18 14:04	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/26/18 14:04	108-88-3	
Xylene (Total)	**35.0**	ug/L	3.0	1		09/26/18 14:04	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%	68-153	1		09/26/18 14:04	17060-07-0	
4-Bromofluorobenzene (S)	103	%	79-124	1		09/26/18 14:04	460-00-4	
Toluene-d8 (S)	103	%	69-124	1		09/26/18 14:04	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
Pace Project No.: 7065370

Sample: HIMW-05D **Lab ID: 7065370022** Collected: 09/25/18 08:50 Received: 09/25/18 14:10 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**5.6**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	83-32-9	
Acenaphthylene	**78.5**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	206-44-0	
Fluorene	**11.1**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	193-39-5	
2-Methylnaphthalene	**149** D	ug/L	100	20	09/28/18 11:38	10/04/18 14:40	91-57-6	M1
Naphthalene	**949** D	ug/L	100	20	09/28/18 11:38	10/04/18 14:40	91-20-3	M1
Phenanthrene	**2.0J**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 20:52	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	63	%	35-114	1	09/28/18 11:38	10/03/18 20:52	4165-60-0	
2-Fluorobiphenyl (S)	69	%	43-116	1	09/28/18 11:38	10/03/18 20:52	321-60-8	
p-Terphenyl-d14 (S)	77	%	33-141	1	09/28/18 11:38	10/03/18 20:52	1718-51-0	
Phenol-d5 (S)	23	%	10-110	1	09/28/18 11:38	10/03/18 20:52	4165-62-2	
2-Fluorophenol (S)	33	%	21-110	1	09/28/18 11:38	10/03/18 20:52	367-12-4	
2,4,6-Tribromophenol (S)	109	%	10-123	1	09/28/18 11:38	10/03/18 20:52	118-79-6	CH,E
2-Chlorophenol-d4 (S)	56	%	33-110	1	09/28/18 11:38	10/03/18 20:52	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	55	%	16-110	1	09/28/18 11:38	10/03/18 20:52	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**1.3**	ug/L	1.0	1		09/27/18 17:57	71-43-2	
Ethylbenzene	**2.3**	ug/L	1.0	1		09/27/18 17:57	100-41-4	
Toluene	**14.6**	ug/L	1.0	1		09/27/18 17:57	108-88-3	
~~1,1,2-Trichlorotrifluoroethane~~	~~<1.0~~	~~ug/L~~	~~1.0~~	~~1~~		~~09/27/18 17:57~~	~~76-13-1~~	
Xylene (Total)	**163**	ug/L	3.0	1		09/27/18 17:57	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%	68-153	1		09/27/18 17:57	17060-07-0	
4-Bromofluorobenzene (S)	103	%	79-124	1		09/27/18 17:57	460-00-4	
Toluene-d8 (S)	105	%	69-124	1		09/27/18 17:57	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

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575 Broad Hollow Road
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(631)694-3040

ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-08S **Lab ID: 7065370015** Collected: 09/21/18 12:10 Received: 09/21/18 15:15 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	09/24/18 11:14	09/25/18 22:48	83-32-9	
Acenaphthylene	**1.3J**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:48	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	64	%	35-114	1	09/24/18 11:14	09/25/18 22:48	4165-60-0	
2-Fluorobiphenyl (S)	79	%	43-116	1	09/24/18 11:14	09/25/18 22:48	321-60-8	
p-Terphenyl-d14 (S)	76	%	33-141	1	09/24/18 11:14	09/25/18 22:48	1718-51-0	
Phenol-d5 (S)	23	%	10-110	1	09/24/18 11:14	09/25/18 22:48	4165-62-2	
2-Fluorophenol (S)	34	%	21-110	1	09/24/18 11:14	09/25/18 22:48	367-12-4	
2,4,6-Tribromophenol (S)	96	%	10-123	1	09/24/18 11:14	09/25/18 22:48	118-79-6	
2-Chlorophenol-d4 (S)	59	%	33-110	1	09/24/18 11:14	09/25/18 22:48	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	56	%	16-110	1	09/24/18 11:14	09/25/18 22:48	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/24/18 17:11	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/24/18 17:11	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/24/18 17:11	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/24/18 17:11	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%	68-153	1		09/24/18 17:11	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-124	1		09/24/18 17:11	460-00-4	
Toluene-d8 (S)	103	%	69-124	1		09/24/18 17:11	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-08I **Lab ID: 7065370014** Collected: 09/21/18 10:50 Received: 09/21/18 15:15 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	09/24/18 11:14	09/25/18 22:19	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 22:19	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	63	%	35-114	1	09/24/18 11:14	09/25/18 22:19	4165-60-0	
2-Fluorobiphenyl (S)	64	%	43-116	1	09/24/18 11:14	09/25/18 22:19	321-60-8	
p-Terphenyl-d14 (S)	87	%	33-141	1	09/24/18 11:14	09/25/18 22:19	1718-51-0	
Phenol-d5 (S)	28	%	10-110	1	09/24/18 11:14	09/25/18 22:19	4165-62-2	
2-Fluorophenol (S)	42	%	21-110	1	09/24/18 11:14	09/25/18 22:19	367-12-4	
2,4,6-Tribromophenol (S)	79	%	10-123	1	09/24/18 11:14	09/25/18 22:19	118-79-6	
2-Chlorophenol-d4 (S)	57	%	33-110	1	09/24/18 11:14	09/25/18 22:19	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	61	%	16-110	1	09/24/18 11:14	09/25/18 22:19	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/24/18 16:48	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/24/18 16:48	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/24/18 16:48	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/24/18 16:48	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%	68-153	1		09/24/18 16:48	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-124	1		09/24/18 16:48	460-00-4	
Toluene-d8 (S)	101	%	69-124	1		09/24/18 16:48	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-08D **Lab ID: 7065370013** Collected: 09/21/18 09:00 Received: 09/21/18 15:15 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	09/24/18 11:14	09/25/18 21:51	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:51	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	58	%	35-114	1	09/24/18 11:14	09/25/18 21:51	4165-60-0	
2-Fluorobiphenyl (S)	67	%	43-116	1	09/24/18 11:14	09/25/18 21:51	321-60-8	
p-Terphenyl-d14 (S)	82	%	33-141	1	09/24/18 11:14	09/25/18 21:51	1718-51-0	
Phenol-d5 (S)	22	%	10-110	1	09/24/18 11:14	09/25/18 21:51	4165-62-2	
2-Fluorophenol (S)	33	%	21-110	1	09/24/18 11:14	09/25/18 21:51	367-12-4	
2,4,6-Tribromophenol (S)	81	%	10-123	1	09/24/18 11:14	09/25/18 21:51	118-79-6	
2-Chlorophenol-d4 (S)	55	%	33-110	1	09/24/18 11:14	09/25/18 21:51	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	58	%	16-110	1	09/24/18 11:14	09/25/18 21:51	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/24/18 16:25	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/24/18 16:25	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/24/18 16:25	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/24/18 16:25	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%	68-153	1		09/24/18 16:25	17060-07-0	
4-Bromofluorobenzene (S)	103	%	79-124	1		09/24/18 16:25	460-00-4	
Toluene-d8 (S)	102	%	69-124	1		09/24/18 16:25	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-12S **Lab ID: 7065370017** Collected: 09/24/18 08:15 Received: 09/25/18 14:10 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	09/28/18 11:38	10/03/18 18:31	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:31	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	69	%	35-114	1	09/28/18 11:38	10/03/18 18:31	4165-60-0	
2-Fluorobiphenyl (S)	78	%	43-116	1	09/28/18 11:38	10/03/18 18:31	321-60-8	
p-Terphenyl-d14 (S)	97	%	33-141	1	09/28/18 11:38	10/03/18 18:31	1718-51-0	
Phenol-d5 (S)	31	%	10-110	1	09/28/18 11:38	10/03/18 18:31	4165-62-2	
2-Fluorophenol (S)	47	%	21-110	1	09/28/18 11:38	10/03/18 18:31	367-12-4	
2,4,6-Tribromophenol (S)	121	%	10-123	1	09/28/18 11:38	10/03/18 18:31	118-79-6	CH,E
2-Chlorophenol-d4 (S)	72	%	33-110	1	09/28/18 11:38	10/03/18 18:31	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	68	%	16-110	1	09/28/18 11:38	10/03/18 18:31	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/27/18 16:02	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/27/18 16:02	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/27/18 16:02	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/27/18 16:02	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	109	%	68-153	1		09/27/18 16:02	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-124	1		09/27/18 16:02	460-00-4	
Toluene-d8 (S)	103	%	69-124	1		09/27/18 16:02	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-13S **Lab ID: 7065370008** Collected: 09/19/18 15:50 Received: 09/21/18 15:15 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	09/24/18 11:14	09/25/18 18:33	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	191-24-2	CH
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 18:33	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	42	%	35-114	1	09/24/18 11:14	09/25/18 18:33	4165-60-0	
2-Fluorobiphenyl (S)	46	%	43-116	1	09/24/18 11:14	09/25/18 18:33	321-60-8	
p-Terphenyl-d14 (S)	78	%	33-141	1	09/24/18 11:14	09/25/18 18:33	1718-51-0	
Phenol-d5 (S)	17	%	10-110	1	09/24/18 11:14	09/25/18 18:33	4165-62-2	
2-Fluorophenol (S)	27	%	21-110	1	09/24/18 11:14	09/25/18 18:33	367-12-4	
2,4,6-Tribromophenol (S)	59	%	10-123	1	09/24/18 11:14	09/25/18 18:33	118-79-6	
2-Chlorophenol-d4 (S)	44	%	33-110	1	09/24/18 11:14	09/25/18 18:33	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	39	%	16-110	1	09/24/18 11:14	09/25/18 18:33	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/24/18 14:31	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/24/18 14:31	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/24/18 14:31	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/24/18 14:31	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	109	%	68-153	1		09/24/18 14:31	17060-07-0	
4-Bromofluorobenzene (S)	103	%	79-124	1		09/24/18 14:31	460-00-4	
Toluene-d8 (S)	104	%	69-124	1		09/24/18 14:31	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-13I **Lab ID: 7065370006** Collected: 09/19/18 14:10 Received: 09/19/18 16:00 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	09/20/18 11:27	09/24/18 16:11	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 16:11	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	63	%	35-114	1	09/20/18 11:27	09/24/18 16:11	4165-60-0	
2-Fluorobiphenyl (S)	77	%	43-116	1	09/20/18 11:27	09/24/18 16:11	321-60-8	
p-Terphenyl-d14 (S)	88	%	33-141	1	09/20/18 11:27	09/24/18 16:11	1718-51-0	
Phenol-d5 (S)	25	%	10-110	1	09/20/18 11:27	09/24/18 16:11	4165-62-2	
2-Fluorophenol (S)	39	%	21-110	1	09/20/18 11:27	09/24/18 16:11	367-12-4	
2,4,6-Tribromophenol (S)	93	%	10-123	1	09/20/18 11:27	09/24/18 16:11	118-79-6	
2-Chlorophenol-d4 (S)	67	%	33-110	1	09/20/18 11:27	09/24/18 16:11	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	61	%	16-110	1	09/20/18 11:27	09/24/18 16:11	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/21/18 12:33	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/21/18 12:33	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/21/18 12:33	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/21/18 12:33	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	109	%	68-153	1		09/21/18 12:33	17060-07-0	
4-Bromofluorobenzene (S)	100	%	79-124	1		09/21/18 12:33	460-00-4	
Toluene-d8 (S)	102	%	69-124	1		09/21/18 12:33	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-13D **Lab ID: 7065370005** Collected: 09/19/18 12:50 Received: 09/19/18 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**5.2**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	83-32-9	
Acenaphthylene	**10.4**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:43	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	61	%	35-114	1	09/20/18 11:27	09/24/18 15:43	4165-60-0	
2-Fluorobiphenyl (S)	76	%	43-116	1	09/20/18 11:27	09/24/18 15:43	321-60-8	
p-Terphenyl-d14 (S)	83	%	33-141	1	09/20/18 11:27	09/24/18 15:43	1718-51-0	
Phenol-d5 (S)	21	%	10-110	1	09/20/18 11:27	09/24/18 15:43	4165-62-2	
2-Fluorophenol (S)	35	%	21-110	1	09/20/18 11:27	09/24/18 15:43	367-12-4	
2,4,6-Tribromophenol (S)	89	%	10-123	1	09/20/18 11:27	09/24/18 15:43	118-79-6	
2-Chlorophenol-d4 (S)	60	%	33-110	1	09/20/18 11:27	09/24/18 15:43	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	56	%	16-110	1	09/20/18 11:27	09/24/18 15:43	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**0.63J**	ug/L	1.0	1		09/21/18 12:55	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/21/18 12:55	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/21/18 12:55	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/21/18 12:55	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%	68-153	1		09/21/18 12:55	17060-07-0	
4-Bromofluorobenzene (S)	100	%	79-124	1		09/21/18 12:55	460-00-4	
Toluene-d8 (S)	103	%	69-124	1		09/21/18 12:55	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-14I **Lab ID: 7065370002** Collected: 09/18/18 14:35 Received: 09/19/18 16:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**3.1J**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	83-32-9	
Acenaphthylene	**4.6J**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	206-44-0	
Fluorene	**2.3J**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	91-20-3	
Phenanthrene	**1.9J**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:19	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	55	%	35-114	1	09/20/18 11:27	09/24/18 14:19	4165-60-0	
2-Fluorobiphenyl (S)	63	%	43-116	1	09/20/18 11:27	09/24/18 14:19	321-60-8	
p-Terphenyl-d14 (S)	88	%	33-141	1	09/20/18 11:27	09/24/18 14:19	1718-51-0	
Phenol-d5 (S)	17	%	10-110	1	09/20/18 11:27	09/24/18 14:19	4165-62-2	
2-Fluorophenol (S)	26	%	21-110	1	09/20/18 11:27	09/24/18 14:19	367-12-4	
2,4,6-Tribromophenol (S)	89	%	10-123	1	09/20/18 11:27	09/24/18 14:19	118-79-6	
2-Chlorophenol-d4 (S)	49	%	33-110	1	09/20/18 11:27	09/24/18 14:19	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	48	%	16-110	1	09/20/18 11:27	09/24/18 14:19	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**1.1**	ug/L	1.0	1		09/21/18 14:04	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/21/18 14:04	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/21/18 14:04	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/21/18 14:04	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	109	%	68-153	1		09/21/18 14:04	17060-07-0	
4-Bromofluorobenzene (S)	104	%	79-124	1		09/21/18 14:04	460-00-4	
Toluene-d8 (S)	104	%	69-124	1		09/21/18 14:04	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-14D **Lab ID: 7065370001** Collected: 09/18/18 12:25 Received: 09/19/18 16:00 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	09/20/18 11:27	09/24/18 13:23	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 13:23	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	60	%	35-114	1	09/20/18 11:27	09/24/18 13:23	4165-60-0	
2-Fluorobiphenyl (S)	67	%	43-116	1	09/20/18 11:27	09/24/18 13:23	321-60-8	
p-Terphenyl-d14 (S)	87	%	33-141	1	09/20/18 11:27	09/24/18 13:23	1718-51-0	
Phenol-d5 (S)	24	%	10-110	1	09/20/18 11:27	09/24/18 13:23	4165-62-2	
2-Fluorophenol (S)	34	%	21-110	1	09/20/18 11:27	09/24/18 13:23	367-12-4	
2,4,6-Tribromophenol (S)	78	%	10-123	1	09/20/18 11:27	09/24/18 13:23	118-79-6	
2-Chlorophenol-d4 (S)	58	%	33-110	1	09/20/18 11:27	09/24/18 13:23	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	56	%	16-110	1	09/20/18 11:27	09/24/18 13:23	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/21/18 14:27	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/21/18 14:27	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/21/18 14:27	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/21/18 14:27	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	111	%	68-153	1		09/21/18 14:27	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-124	1		09/21/18 14:27	460-00-4	
Toluene-d8 (S)	102	%	69-124	1		09/21/18 14:27	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-15I **Lab ID: 7065370004** Collected: 09/19/18 10:00 Received: 09/19/18 16:00 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	09/20/18 11:27	09/24/18 15:15	83-32-9	
Acenaphthylene	**4.9J**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 15:15	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	66	%	35-114	1	09/20/18 11:27	09/24/18 15:15	4165-60-0	
2-Fluorobiphenyl (S)	70	%	43-116	1	09/20/18 11:27	09/24/18 15:15	321-60-8	
p-Terphenyl-d14 (S)	87	%	33-141	1	09/20/18 11:27	09/24/18 15:15	1718-51-0	
Phenol-d5 (S)	25	%	10-110	1	09/20/18 11:27	09/24/18 15:15	4165-62-2	
2-Fluorophenol (S)	40	%	21-110	1	09/20/18 11:27	09/24/18 15:15	367-12-4	
2,4,6-Tribromophenol (S)	88	%	10-123	1	09/20/18 11:27	09/24/18 15:15	118-79-6	
2-Chlorophenol-d4 (S)	62	%	33-110	1	09/20/18 11:27	09/24/18 15:15	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	56	%	16-110	1	09/20/18 11:27	09/24/18 15:15	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**1.2**	ug/L	1.0	1		09/21/18 13:18	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/21/18 13:18	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/21/18 13:18	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/21/18 13:18	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	110	%	68-153	1		09/21/18 13:18	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-124	1		09/21/18 13:18	460-00-4	
Toluene-d8 (S)	102	%	69-124	1		09/21/18 13:18	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-15D **Lab ID: 7065370003** Collected: 09/19/18 08:30 Received: 09/19/18 16:00 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	09/20/18 11:27	09/24/18 14:47	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/20/18 11:27	09/24/18 14:47	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	62	%	35-114	1	09/20/18 11:27	09/24/18 14:47	4165-60-0	
2-Fluorobiphenyl (S)	75	%	43-116	1	09/20/18 11:27	09/24/18 14:47	321-60-8	
p-Terphenyl-d14 (S)	79	%	33-141	1	09/20/18 11:27	09/24/18 14:47	1718-51-0	
Phenol-d5 (S)	27	%	10-110	1	09/20/18 11:27	09/24/18 14:47	4165-62-2	
2-Fluorophenol (S)	38	%	21-110	1	09/20/18 11:27	09/24/18 14:47	367-12-4	
2,4,6-Tribromophenol (S)	89	%	10-123	1	09/20/18 11:27	09/24/18 14:47	118-79-6	
2-Chlorophenol-d4 (S)	62	%	33-110	1	09/20/18 11:27	09/24/18 14:47	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	61	%	16-110	1	09/20/18 11:27	09/24/18 14:47	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/21/18 13:41	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/21/18 13:41	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/21/18 13:41	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/21/18 13:41	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%	68-153	1		09/21/18 13:41	17060-07-0	
4-Bromofluorobenzene (S)	100	%	79-124	1		09/21/18 13:41	460-00-4	
Toluene-d8 (S)	102	%	69-124	1		09/21/18 13:41	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-20S **Lab ID: 7065370020** Collected: 09/24/18 13:45 Received: 09/25/18 14:10 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	09/28/18 11:38	10/03/18 17:35	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 17:35	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	67	%	35-114	1	09/28/18 11:38	10/03/18 17:35	4165-60-0	
2-Fluorobiphenyl (S)	78	%	43-116	1	09/28/18 11:38	10/03/18 17:35	321-60-8	
p-Terphenyl-d14 (S)	97	%	33-141	1	09/28/18 11:38	10/03/18 17:35	1718-51-0	
Phenol-d5 (S)	26	%	10-110	1	09/28/18 11:38	10/03/18 17:35	4165-62-2	
2-Fluorophenol (S)	44	%	21-110	1	09/28/18 11:38	10/03/18 17:35	367-12-4	
2,4,6-Tribromophenol (S)	112	%	10-123	1	09/28/18 11:38	10/03/18 17:35	118-79-6	CH,E
2-Chlorophenol-d4 (S)	73	%	33-110	1	09/28/18 11:38	10/03/18 17:35	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	68	%	16-110	1	09/28/18 11:38	10/03/18 17:35	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/27/18 17:11	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/27/18 17:11	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/27/18 17:11	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/27/18 17:11	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%	68-153	1		09/27/18 17:11	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-124	1		09/27/18 17:11	460-00-4	
Toluene-d8 (S)	105	%	69-124	1		09/27/18 17:11	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: DUP092418 (HMW-205) **Lab ID: 7065370021** Collected: 09/24/18 12:00 Received: 09/25/18 14:10 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	09/28/18 11:38	10/03/18 21:48	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:48	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	59	%	35-114	1	09/28/18 11:38	10/03/18 21:48	4165-60-0	
2-Fluorobiphenyl (S)	66	%	43-116	1	09/28/18 11:38	10/03/18 21:48	321-60-8	
p-Terphenyl-d14 (S)	91	%	33-141	1	09/28/18 11:38	10/03/18 21:48	1718-51-0	
Phenol-d5 (S)	18	%	10-110	1	09/28/18 11:38	10/03/18 21:48	4165-62-2	
2-Fluorophenol (S)	30	%	21-110	1	09/28/18 11:38	10/03/18 21:48	367-12-4	
2,4,6-Tribromophenol (S)	106	%	10-123	1	09/28/18 11:38	10/03/18 21:48	118-79-6	CH
2-Chlorophenol-d4 (S)	56	%	33-110	1	09/28/18 11:38	10/03/18 21:48	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	58	%	16-110	1	09/28/18 11:38	10/03/18 21:48	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/27/18 17:34	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/27/18 17:34	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/27/18 17:34	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/27/18 17:34	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%	68-153	1		09/27/18 17:34	17060-07-0	
4-Bromofluorobenzene (S)	100	%	79-124	1		09/27/18 17:34	460-00-4	
Toluene-d8 (S)	104	%	69-124	1		09/27/18 17:34	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-20I **Lab ID: 7065370019** Collected: 09/24/18 12:20 Received: 09/25/18 14:10 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	09/28/18 11:38	10/03/18 18:04	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 18:04	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	53	%	35-114	1	09/28/18 11:38	10/03/18 18:04	4165-60-0	
2-Fluorobiphenyl (S)	62	%	43-116	1	09/28/18 11:38	10/03/18 18:04	321-60-8	
p-Terphenyl-d14 (S)	94	%	33-141	1	09/28/18 11:38	10/03/18 18:04	1718-51-0	
Phenol-d5 (S)	21	%	10-110	1	09/28/18 11:38	10/03/18 18:04	4165-62-2	
2-Fluorophenol (S)	32	%	21-110	1	09/28/18 11:38	10/03/18 18:04	367-12-4	
2,4,6-Tribromophenol (S)	109	%	10-123	1	09/28/18 11:38	10/03/18 18:04	118-79-6	CH,E
2-Chlorophenol-d4 (S)	54	%	33-110	1	09/28/18 11:38	10/03/18 18:04	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	52	%	16-110	1	09/28/18 11:38	10/03/18 18:04	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/27/18 16:48	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/27/18 16:48	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/27/18 16:48	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/27/18 16:48	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%	68-153	1		09/27/18 16:48	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-124	1		09/27/18 16:48	460-00-4	
Toluene-d8 (S)	104	%	69-124	1		09/27/18 16:48	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-22 **Lab ID: 7065370012** Collected: 09/20/18 14:35 Received: 09/21/18 15:15 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	09/24/18 11:14	09/25/18 21:23	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/24/18 11:14	09/25/18 21:23	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	51	%	35-114	1	09/24/18 11:14	09/25/18 21:23	4165-60-0	
2-Fluorobiphenyl (S)	59	%	43-116	1	09/24/18 11:14	09/25/18 21:23	321-60-8	
p-Terphenyl-d14 (S)	80	%	33-141	1	09/24/18 11:14	09/25/18 21:23	1718-51-0	
Phenol-d5 (S)	16	%	10-110	1	09/24/18 11:14	09/25/18 21:23	4165-62-2	
2-Fluorophenol (S)	26	%	21-110	1	09/24/18 11:14	09/25/18 21:23	367-12-4	
2,4,6-Tribromophenol (S)	81	%	10-123	1	09/24/18 11:14	09/25/18 21:23	118-79-6	
2-Chlorophenol-d4 (S)	46	%	33-110	1	09/24/18 11:14	09/25/18 21:23	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	45	%	16-110	1	09/24/18 11:14	09/25/18 21:23	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/24/18 16:02	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/24/18 16:02	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/24/18 16:02	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/24/18 16:02	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%	68-153	1		09/24/18 16:02	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-124	1		09/24/18 16:02	460-00-4	
Toluene-d8 (S)	101	%	69-124	1		09/24/18 16:02	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: HIMW-23 **Lab ID: 7065370018** Collected: 09/24/18 10:45 Received: 09/25/18 14:10 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	09/28/18 11:38	10/03/18 21:20	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	09/28/18 11:38	10/03/18 21:20	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	59	%	35-114	1	09/28/18 11:38	10/03/18 21:20	4165-60-0	
2-Fluorobiphenyl (S)	67	%	43-116	1	09/28/18 11:38	10/03/18 21:20	321-60-8	
p-Terphenyl-d14 (S)	95	%	33-141	1	09/28/18 11:38	10/03/18 21:20	1718-51-0	
Phenol-d5 (S)	25	%	10-110	1	09/28/18 11:38	10/03/18 21:20	4165-62-2	
2-Fluorophenol (S)	38	%	21-110	1	09/28/18 11:38	10/03/18 21:20	367-12-4	
2,4,6-Tribromophenol (S)	114	%	10-123	1	09/28/18 11:38	10/03/18 21:20	118-79-6	CH,E
2-Chlorophenol-d4 (S)	61	%	33-110	1	09/28/18 11:38	10/03/18 21:20	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	56	%	16-110	1	09/28/18 11:38	10/03/18 21:20	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		09/27/18 16:25	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/27/18 16:25	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/27/18 16:25	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/27/18 16:25	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%	68-153	1		09/27/18 16:25	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-124	1		09/27/18 16:25	460-00-4	
Toluene-d8 (S)	105	%	69-124	1		09/27/18 16:25	2037-26-5	

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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Sample: HIMW-24 **Lab ID: 7065811007** Collected: 09/27/18 12:45 Received: 09/27/18 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**16.2**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	83-32-9	
Acenaphthylene	**72.8**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	206-44-0	
Fluorene	**7.6**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	193-39-5	
2-Methylnaphthalene	**402** D	ug/L	100	20	10/04/18 11:08	10/08/18 18:30	91-57-6	
Naphthalene	**1190** D	ug/L	100	20	10/04/18 11:08	10/08/18 18:30	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 12:47	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	105	%	35-114	1	10/04/18 11:08	10/05/18 12:47	4165-60-0	
2-Fluorobiphenyl (S)	75	%	43-116	1	10/04/18 11:08	10/05/18 12:47	321-60-8	
p-Terphenyl-d14 (S)	78	%	33-141	1	10/04/18 11:08	10/05/18 12:47	1718-51-0	
Phenol-d5 (S)	28	%	10-110	1	10/04/18 11:08	10/05/18 12:47	4165-62-2	
2-Fluorophenol (S)	43	%	21-110	1	10/04/18 11:08	10/05/18 12:47	367-12-4	
2,4,6-Tribromophenol (S)	111	%	10-123	1	10/04/18 11:08	10/05/18 12:47	118-79-6	E
2-Chlorophenol-d4 (S)	71	%	33-110	1	10/04/18 11:08	10/05/18 12:47	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	71	%	16-110	1	10/04/18 11:08	10/05/18 12:47	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**117**	ug/L	1.0	1		10/02/18 12:23	71-43-2	
Ethylbenzene	**26.2**	ug/L	1.0	1		10/02/18 12:23	100-41-4	
Toluene	**31.3**	ug/L	1.0	1		10/02/18 12:23	108-88-3	
Xylene (Total)	**476** D	ug/L	15.0	5		10/02/18 14:46	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%	68-153	1		10/02/18 12:23	17060-07-0	
4-Bromofluorobenzene (S)	105	%	79-124	1		10/02/18 12:23	460-00-4	
Toluene-d8 (S)	105	%	69-124	1		10/02/18 12:23	2037-26-5	

12/4/18

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Sample: HIMW-25 **Lab ID: 7065811006** Collected: 09/27/18 11:40 Received: 09/27/18 15:00 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	10/04/18 11:08	10/05/18 11:49	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:49	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	73	%	35-114	1	10/04/18 11:08	10/05/18 11:49	4165-60-0	
2-Fluorobiphenyl (S)	70	%	43-116	1	10/04/18 11:08	10/05/18 11:49	321-60-8	
p-Terphenyl-d14 (S)	78	%	33-141	1	10/04/18 11:08	10/05/18 11:49	1718-51-0	
Phenol-d5 (S)	26	%	10-110	1	10/04/18 11:08	10/05/18 11:49	4165-62-2	
2-Fluorophenol (S)	40	%	21-110	1	10/04/18 11:08	10/05/18 11:49	367-12-4	
2,4,6-Tribromophenol (S)	94	%	10-123	1	10/04/18 11:08	10/05/18 11:49	118-79-6	
2-Chlorophenol-d4 (S)	67	%	33-110	1	10/04/18 11:08	10/05/18 11:49	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	69	%	16-110	1	10/04/18 11:08	10/05/18 11:49	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		10/02/18 12:46	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		10/02/18 12:46	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		10/02/18 12:46	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		10/02/18 12:46	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%	68-153	1		10/02/18 12:46	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-124	1		10/02/18 12:46	460-00-4	
Toluene-d8 (S)	104	%	69-124	1		10/02/18 12:46	2037-26-5	

Pace Analytical
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Pace Analytical Services, LLC
575 Broad Hollow Road
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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Sample: HIMW-26I **Lab ID: 7065811005** Collected: 09/27/18 09:50 Received: 09/27/18 15:00 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	10/04/18 11:08	10/05/18 11:21	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 11:21	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	70	%	35-114	1	10/04/18 11:08	10/05/18 11:21	4165-60-0	
2-Fluorobiphenyl (S)	68	%	43-116	1	10/04/18 11:08	10/05/18 11:21	321-60-8	
p-Terphenyl-d14 (S)	75	%	33-141	1	10/04/18 11:08	10/05/18 11:21	1718-51-0	
Phenol-d5 (S)	27	%	10-110	1	10/04/18 11:08	10/05/18 11:21	4165-62-2	
2-Fluorophenol (S)	41	%	21-110	1	10/04/18 11:08	10/05/18 11:21	367-12-4	
2,4,6-Tribromophenol (S)	93	%	10-123	1	10/04/18 11:08	10/05/18 11:21	118-79-6	
2-Chlorophenol-d4 (S)	64	%	33-110	1	10/04/18 11:08	10/05/18 11:21	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	63	%	16-110	1	10/04/18 11:08	10/05/18 11:21	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		10/02/18 13:09	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		10/02/18 13:09	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		10/02/18 13:09	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		10/02/18 13:09	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	107	%	68-153	1		10/02/18 13:09	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-124	1		10/02/18 13:09	460-00-4	
Toluene-d8 (S)	104	%	69-124	1		10/02/18 13:09	2037-26-5	

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

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Sample: HIMW-26D **Lab ID: 7065811004** Collected: 09/27/18 08:25 Received: 09/27/18 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**6.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	208-96-8	
Anthracene	**1.1J**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	206-44-0	
Fluorene	**18.5**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	193-39-5	
2-Methylnaphthalene	**189**	ug/L	100	20	10/04/18 11:08	10/08/18 18:01	91-57-6	
Naphthalene	**961** B	ug/L	100	20	10/04/18 11:08	10/08/18 18:01	91-20-3	
Phenanthrene	**12.5**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 10:52	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	87	%	35-114	1	10/04/18 11:08	10/05/18 10:52	4165-60-0	
2-Fluorobiphenyl (S)	71	%	43-116	1	10/04/18 11:08	10/05/18 10:52	321-60-8	
p-Terphenyl-d14 (S)	72	%	33-141	1	10/04/18 11:08	10/05/18 10:52	1718-51-0	
Phenol-d5 (S)	27	%	10-110	1	10/04/18 11:08	10/05/18 10:52	4165-62-2	
2-Fluorophenol (S)	42	%	21-110	1	10/04/18 11:08	10/05/18 10:52	367-12-4	
2,4,6-Tribromophenol (S)	105	%	10-123	1	10/04/18 11:08	10/05/18 10:52	118-79-6	
2-Chlorophenol-d4 (S)	68	%	33-110	1	10/04/18 11:08	10/05/18 10:52	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	66	%	16-110	1	10/04/18 11:08	10/05/18 10:52	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		10/02/18 13:32	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		10/02/18 13:32	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		10/02/18 13:32	108-88-3	
Xylene (Total)	**65.4**	ug/L	3.0	1		10/02/18 13:32	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%	68-153	1		10/02/18 13:32	17060-07-0	
4-Bromofluorobenzene (S)	103	%	79-124	1		10/02/18 13:32	460-00-4	
Toluene-d8 (S)	106	%	69-124	1		10/02/18 13:32	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
Pace Project No.: 7065811

Sample: HIMW-27S **Lab ID: 7065811008** Collected: 09/27/18 13:55 Received: 09/27/18 15:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**70.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	208-96-8	
Anthracene	**8.9**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	53-70-3	
Fluoranthene	**2.4J**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	206-44-0	
Fluorene	**35.9**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	193-39-5	
2-Methylnaphthalene	**258** D	ug/L	50.0	10	10/04/18 11:08	10/08/18 20:24	91-57-6	
Naphthalene	**684** D	ug/L	50.0	10	10/04/18 11:08	10/08/18 20:24	91-20-3	
Phenanthrene	**40.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	85-01-8	
Pyrene	**2.9J**	ug/L	5.0	1	10/04/18 11:08	10/05/18 17:05	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	88	%	35-114	1	10/04/18 11:08	10/05/18 17:05	4165-60-0	
2-Fluorobiphenyl (S)	74	%	43-116	1	10/04/18 11:08	10/05/18 17:05	321-60-8	
p-Terphenyl-d14 (S)	74	%	33-141	1	10/04/18 11:08	10/05/18 17:05	1718-51-0	
Phenol-d5 (S)	30	%	10-110	1	10/04/18 11:08	10/05/18 17:05	4165-62-2	
2-Fluorophenol (S)	45	%	21-110	1	10/04/18 11:08	10/05/18 17:05	367-12-4	
2,4,6-Tribromophenol (S)	109	%	10-123	1	10/04/18 11:08	10/05/18 17:05	118-79-6	E
2-Chlorophenol-d4 (S)	71	%	33-110	1	10/04/18 11:08	10/05/18 17:05	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	68	%	16-110	1	10/04/18 11:08	10/05/18 17:05	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**17.2**	ug/L	1.0	1		10/02/18 12:01	71-43-2	
Ethylbenzene	**565** D	ug/L	10.0	10		10/02/18 15:09	100-41-4	
Toluene	**16.9**	ug/L	1.0	1		10/02/18 12:01	108-88-3	
Xylene (Total)	**574** D	ug/L	30.0	10		10/02/18 15:09	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%	68-153	1		10/02/18 12:01	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-124	1		10/02/18 12:01	460-00-4	
Toluene-d8 (S)	102	%	69-124	1		10/02/18 12:01	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
Pace Project No.: 7065811

Sample: HIMW-27I **Lab ID: 7065811013** Collected: 09/28/18 12:15 Received: 09/28/18 14:00 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	10/04/18 11:08	10/05/18 15:10	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:10	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	59	%	35-114	1	10/04/18 11:08	10/05/18 15:10	4165-60-0	
2-Fluorobiphenyl (S)	61	%	43-116	1	10/04/18 11:08	10/05/18 15:10	321-60-8	
p-Terphenyl-d14 (S)	72	%	33-141	1	10/04/18 11:08	10/05/18 15:10	1718-51-0	
Phenol-d5 (S)	20	%	10-110	1	10/04/18 11:08	10/05/18 15:10	4165-62-2	
2-Fluorophenol (S)	32	%	21-110	1	10/04/18 11:08	10/05/18 15:10	367-12-4	
2,4,6-Tribromophenol (S)	95	%	10-123	1	10/04/18 11:08	10/05/18 15:10	118-79-6	
2-Chlorophenol-d4 (S)	55	%	33-110	1	10/04/18 11:08	10/05/18 15:10	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	55	%	16-110	1	10/04/18 11:08	10/05/18 15:10	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		10/02/18 16:18	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		10/02/18 16:18	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		10/02/18 16:18	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		10/02/18 16:18	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%	68-153	1		10/02/18 16:18	17060-07-0	
4-Bromofluorobenzene (S)	103	%	79-124	1		10/02/18 16:18	460-00-4	
Toluene-d8 (S)	103	%	69-124	1		10/02/18 16:18	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
Pace Project No.: 7065811

Sample: HIMW-28S **Lab ID: 7065811012** Collected: 09/28/18 09:45 Received: 09/28/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**26.7**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	208-96-8	
Anthracene	**3.7J**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	206-44-0	
Fluorene	**14.5**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	193-39-5	
2-Methylnaphthalene	**132** D	ug/L	50.0	10	10/04/18 11:08	10/08/18 19:55	91-57-6	
Naphthalene	**352** D	ug/L	50.0	10	10/04/18 11:08	10/08/18 19:55	91-20-3	
Phenanthrene	**17.7**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:41	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	73	%	35-114	1	10/04/18 11:08	10/05/18 14:41	4165-60-0	
2-Fluorobiphenyl (S)	72	%	43-116	1	10/04/18 11:08	10/05/18 14:41	321-60-8	
p-Terphenyl-d14 (S)	72	%	33-141	1	10/04/18 11:08	10/05/18 14:41	1718-51-0	
Phenol-d5 (S)	28	%	10-110	1	10/04/18 11:08	10/05/18 14:41	4165-62-2	
2-Fluorophenol (S)	42	%	21-110	1	10/04/18 11:08	10/05/18 14:41	367-12-4	
2,4,6-Tribromophenol (S)	104	%	10-123	1	10/04/18 11:08	10/05/18 14:41	118-79-6	
2-Chlorophenol-d4 (S)	67	%	33-110	1	10/04/18 11:08	10/05/18 14:41	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	65	%	16-110	1	10/04/18 11:08	10/05/18 14:41	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**3.8**	ug/L	1.0	1		10/02/18 16:41	71-43-2	
Ethylbenzene	**151**	ug/L	1.0	1		10/02/18 16:41	100-41-4	
Toluene	**2.3**	ug/L	1.0	1		10/02/18 16:41	108-88-3	
Xylene (Total)	**12.1**	ug/L	3.0	1		10/02/18 16:41	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%	68-153	1		10/02/18 16:41	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-124	1		10/02/18 16:41	460-00-4	
Toluene-d8 (S)	103	%	69-124	1		10/02/18 16:41	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
Pace Project No.: 7065811

Sample: DUP20180928 (HIMW-28S) **Lab ID: 7065811010** Collected: 09/28/18 07:00 Received: 09/28/18 14:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV	Analytical Method: EPA 8270D Preparation Method: EPA 3510C							
Acenaphthene	**28.8**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	208-96-8	
Anthracene	**3.8J**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	206-44-0	
Fluorene	**15.7**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	193-39-5	
2-Methylnaphthalene	**148**	ug/L	50.0	10	10/04/18 11:08	10/08/18 19:27	91-57-6	
Naphthalene	**391**	ug/L	50.0	10	10/04/18 11:08	10/08/18 19:27	91-20-3	
Phenanthrene	**19.5**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 14:13	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	80	%	35-114	1	10/04/18 11:08	10/05/18 14:13	4165-60-0	
2-Fluorobiphenyl (S)	75	%	43-116	1	10/04/18 11:08	10/05/18 14:13	321-60-8	
p-Terphenyl-d14 (S)	75	%	33-141	1	10/04/18 11:08	10/05/18 14:13	1718-51-0	
Phenol-d5 (S)	32	%	10-110	1	10/04/18 11:08	10/05/18 14:13	4165-62-2	
2-Fluorophenol (S)	49	%	21-110	1	10/04/18 11:08	10/05/18 14:13	367-12-4	
2,4,6-Tribromophenol (S)	106	%	10-123	1	10/04/18 11:08	10/05/18 14:13	118-79-6	
2-Chlorophenol-d4 (S)	75	%	33-110	1	10/04/18 11:08	10/05/18 14:13	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	71	%	16-110	1	10/04/18 11:08	10/05/18 14:13	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**3.6**	ug/L	1.0	1		10/02/18 17:27	71-43-2	
Ethylbenzene	**148**	ug/L	1.0	1		10/02/18 17:27	100-41-4	
Toluene	**2.2**	ug/L	1.0	1		10/02/18 17:27	108-88-3	
Xylene (Total)	**12.0**	ug/L	3.0	1		10/02/18 17:27	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%	68-153	1		10/02/18 17:27	17060-07-0	
4-Bromofluorobenzene (S)	102	%	79-124	1		10/02/18 17:27	460-00-4	
Toluene-d8 (S)	103	%	69-124	1		10/02/18 17:27	2037-26-5	

12/4/18

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Sample: HIMW-28I **Lab ID: 7065811011** Collected: 09/28/18 08:45 Received: 09/28/18 14:00 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	10/04/18 11:08	10/05/18 15:39	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 15:39	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	65	%	35-114	1	10/04/18 11:08	10/05/18 15:39	4165-60-0	
2-Fluorobiphenyl (S)	67	%	43-116	1	10/04/18 11:08	10/05/18 15:39	321-60-8	
p-Terphenyl-d14 (S)	78	%	33-141	1	10/04/18 11:08	10/05/18 15:39	1718-51-0	
Phenol-d5 (S)	24	%	10-110	1	10/04/18 11:08	10/05/18 15:39	4165-62-2	
2-Fluorophenol (S)	38	%	21-110	1	10/04/18 11:08	10/05/18 15:39	367-12-4	
2,4,6-Tribromophenol (S)	100	%	10-123	1	10/04/18 11:08	10/05/18 15:39	118-79-6	
2-Chlorophenol-d4 (S)	62	%	33-110	1	10/04/18 11:08	10/05/18 15:39	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	58	%	16-110	1	10/04/18 11:08	10/05/18 15:39	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		10/02/18 17:04	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		10/02/18 17:04	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		10/02/18 17:04	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		10/02/18 17:04	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%	68-153	1		10/02/18 17:04	17060-07-0	
4-Bromofluorobenzene (S)	104	%	79-124	1		10/02/18 17:04	460-00-4	
Toluene-d8 (S)	105	%	69-124	1		10/02/18 17:04	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
Pace Project No.: 7065370

Sample: TB20180919 **Lab ID: 7065370007** Collected: 09/19/18 14:10 Received: 09/19/18 16:00 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		09/21/18 12:10	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/21/18 12:10	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/21/18 12:10	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/21/18 12:10	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	108	%	68-153	1		09/21/18 12:10	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-124	1		09/21/18 12:10	460-00-4	
Toluene-d8 (S)	103	%	69-124	1		09/21/18 12:10	2037-26-5	

Pace Analytical Services, LLC
575 Broad Hollow Road
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ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Sample: TB20180921 **Lab ID: 7065370016** Collected: 09/21/18 12:10 Received: 09/21/18 15:15 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		09/24/18 11:50	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/24/18 11:50	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/24/18 11:50	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/24/18 11:50	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	110	%	68-153	1		09/24/18 11:50	17060-07-0	
4-Bromofluorobenzene (S)	101	%	79-124	1		09/24/18 11:50	460-00-4	
Toluene-d8 (S)	102	%	69-124	1		09/24/18 11:50	2037-26-5	

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

ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Sample: TB20180925 **Lab ID: 7065811003** Collected: 09/25/18 10:50 Received: 09/25/18 14:10 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		09/26/18 16:45	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		09/26/18 16:45	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		09/26/18 16:45	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		09/26/18 16:45	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	104	%	68-153	1		09/26/18 16:45	17060-07-0	
4-Bromofluorobenzene (S)	103	%	79-124	1		09/26/18 16:45	460-00-4	
Toluene-d8 (S)	107	%	69-124	1		09/26/18 16:45	2037-26-5	

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

ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Sample: TB20180927 **Lab ID: 7065811009** Collected: 09/27/18 13:55 Received: 09/27/18 15:00 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		10/02/18 11:38	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		10/02/18 11:38	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		10/02/18 11:38	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		10/02/18 11:38	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%	68-153	1		10/02/18 11:38	17060-07-0	
4-Bromofluorobenzene (S)	103	%	79-124	1		10/02/18 11:38	460-00-4	
Toluene-d8 (S)	105	%	69-124	1		10/02/18 11:38	2037-26-5	

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

ANALYTICAL RESULTS

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Sample: FB20180928 **Lab ID: 7065811014** Collected: 09/28/18 12:40 Received: 09/28/18 14:00 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	10/04/18 11:08	10/05/18 13:44	83-32-9	
Acenaphthylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	208-96-8	
Anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	120-12-7	
Benzo(a)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	56-55-3	
Benzo(a)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	50-32-8	
Benzo(b)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	205-99-2	
Benzo(g,h,i)perylene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	191-24-2	
Benzo(k)fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	207-08-9	
Chrysene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	218-01-9	
Dibenz(a,h)anthracene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	53-70-3	
Fluoranthene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	206-44-0	
Fluorene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	86-73-7	
Indeno(1,2,3-cd)pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	193-39-5	
2-Methylnaphthalene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	91-57-6	
Naphthalene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	91-20-3	
Phenanthrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	85-01-8	
Pyrene	**<5.0**	ug/L	5.0	1	10/04/18 11:08	10/05/18 13:44	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	75	%	35-114	1	10/04/18 11:08	10/05/18 13:44	4165-60-0	
2-Fluorobiphenyl (S)	73	%	43-116	1	10/04/18 11:08	10/05/18 13:44	321-60-8	
p-Terphenyl-d14 (S)	82	%	33-141	1	10/04/18 11:08	10/05/18 13:44	1718-51-0	
Phenol-d5 (S)	27	%	10-110	1	10/04/18 11:08	10/05/18 13:44	4165-62-2	
2-Fluorophenol (S)	43	%	21-110	1	10/04/18 11:08	10/05/18 13:44	367-12-4	
2,4,6-Tribromophenol (S)	101	%	10-123	1	10/04/18 11:08	10/05/18 13:44	118-79-6	
2-Chlorophenol-d4 (S)	69	%	33-110	1	10/04/18 11:08	10/05/18 13:44	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	70	%	16-110	1	10/04/18 11:08	10/05/18 13:44	2199-69-1	
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C							
Benzene	**<1.0**	ug/L	1.0	1		10/02/18 15:55	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		10/02/18 15:55	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		10/02/18 15:55	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		10/02/18 15:55	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	106	%	68-153	1		10/02/18 15:55	17060-07-0	
4-Bromofluorobenzene (S)	103	%	79-124	1		10/02/18 15:55	460-00-4	
Toluene-d8 (S)	104	%	69-124	1		10/02/18 15:55	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
Pace Project No.: 7065811

Sample: TB20180928 **Lab ID: 7065811015** Collected: 09/28/18 13:15 Received: 09/28/18 14:00 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		10/02/18 15:32	71-43-2	
Ethylbenzene	**<1.0**	ug/L	1.0	1		10/02/18 15:32	100-41-4	
Toluene	**<1.0**	ug/L	1.0	1		10/02/18 15:32	108-88-3	
Xylene (Total)	**<3.0**	ug/L	3.0	1		10/02/18 15:32	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	104	%	68-153	1		10/02/18 15:32	17060-07-0	
4-Bromofluorobenzene (S)	103	%	79-124	1		10/02/18 15:32	460-00-4	
Toluene-d8 (S)	104	%	69-124	1		10/02/18 15:32	2037-26-5	

ATTACHMENT B

SUPPORT DOCUMENTATION

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

PROJECT NARRATIVE

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Method: **EPA 8270D**
Description: 8270 MSSV
Client: AECOM
Date: October 05, 2018

General Information:
20 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: 83772

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
- LCS (Lab ID: 385566)
  - Benzo(g,h,i)perylene

QC Batch: 84142

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
- HIMW-13S (Lab ID: 7065370008)
  - Benzo(g,h,i)perylene
- LCS (Lab ID: 387145)
  - Benzo(g,h,i)perylene
- MS (Lab ID: 387153)
  - Benzo(g,h,i)perylene

QC Batch: 84882

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
- BLANK (Lab ID: 390221)
  - 2,4,6-Tribromophenol (S)
- DUP092418 (Lab ID: 7065370021)
  - 2,4,6-Tribromophenol (S)
- HIMW-05D (Lab ID: 7065370022)
  - 2,4,6-Tribromophenol (S)
- HIMW-12S (Lab ID: 7065370017)
  - 2,4,6-Tribromophenol (S)
- HIMW-20I (Lab ID: 7065370019)
  - 2,4,6-Tribromophenol (S)
- HIMW-20S (Lab ID: 7065370020)
  - 2,4,6-Tribromophenol (S)
- HIMW-23 (Lab ID: 7065370018)

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

PROJECT NARRATIVE

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: October 05, 2018

QC Batch: 84882

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
- 2,4,6-Tribromophenol (S)
- LCS (Lab ID: 390222)
  - 2,4,6-Tribromophenol (S)
- MS (Lab ID: 390223)
  - 2,4,6-Tribromophenol (S)
- MSD (Lab ID: 390224)
  - 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: 84882

S0: Surrogate recovery outside laboratory control limits.
- LCS (Lab ID: 390222)
  - 2,4,6-Tribromophenol (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: 84882

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7065370022

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 390223)
  - Naphthalene
- MSD (Lab ID: 390224)
  - 2-Methylnaphthalene
  - Naphthalene

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

Additional Comments:

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

PROJECT NARRATIVE

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Method: **EPA 8270D**
Description: 8270 MSSV
Client: AECOM
Date: October 05, 2018

Analyte Comments:

QC Batch: 84882

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- HIMW-05D (Lab ID: 7065370022)
  - 2,4,6-Tribromophenol (S)
- HIMW-12S (Lab ID: 7065370017)
  - 2,4,6-Tribromophenol (S)
- HIMW-20I (Lab ID: 7065370019)
  - 2,4,6-Tribromophenol (S)
- HIMW-20S (Lab ID: 7065370020)
  - 2,4,6-Tribromophenol (S)
- HIMW-23 (Lab ID: 7065370018)
  - 2,4,6-Tribromophenol (S)
- LCS (Lab ID: 390222)
  - 2,4,6-Tribromophenol (S)
- MS (Lab ID: 390223)
  - 2,4,6-Tribromophenol (S)
  - 2-Methylnaphthalene
  - Acenaphthylene
  - Naphthalene
- MSD (Lab ID: 390224)
  - 2,4,6-Tribromophenol (S)
  - 2-Methylnaphthalene
  - Acenaphthylene
  - Naphthalene

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

PROJECT NARRATIVE

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065370

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: AECOM
Date: October 05, 2018

General Information:
22 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.

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CHAIN-OF-CUSTODY / Analytical Request Document

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

WO#: 7065370

7065370

Section A Required Client Information:

Company:	AECOM
Address:	
Email To:	Jon.Sundquist@aecom
Phone:	Fax:
Requested Due Date/TAT:	Standard

Section B Required Project Information:

Report To:	Jon Sundquist
Copy To:	Peder Fairbanks
Purchase Order No.:	
Project Name:	Nat Grid Hempstead
Project Number:	60411920

Section C Invoice Information:

Attention:	Jon Sundquist
Company Name:	AECOM
Address:	
Pace Quote Reference:	
Pace Project Manager:	Jen Aracri
Pace Profile #:	

REGULATORY AGENCY

NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER ______

Site Location STATE: NY

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

Requested Analysis Filtered (Y/N): N N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START (GRAB) DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test	BTEX	PAHs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-14D	GW		9/18/18	1225				4	2			2						X	X		001
2	HIMW-14I	↓		9/18/18	1435				↓	↓			↓						↓	↓		002
3	HIMW-15D	↓		9/19/18	830				↓	↓			↓						↓	↓		003
4	HIMW-15I	↓		↓	1006				↓	↓			↓						↓	↓		004
5	HIMW-13D	↓		↓	1250				↓	↓			↓						↓	↓		005
6	HIMW-13I	↓		↓	1410				↓	↓			↓						X	X		006
7																						
8	TB20180919	W		9/19/18	1410				2				2						2			007
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	M Dascoli / AECOM	9/19/18	1445	Timothy Dock	9/19	1445	3.7	Y	Y	Y
	Tim Dock	9/19/18	16:00	[illegible] PASI	9/19/18	16:00				

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Cory Friedman / M Dascoli

SIGNATURE of SAMPLER: M Dascoli DATE Signed (MM/DD/YY): 9/19/18

*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

Sample Condition Upon Receipt

WO#: 7065370

Client Name: ARCOM

Pr

PM: JSA Due Date: 10/03/18

CLIENT: AECOM-B

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial (Pace) ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: (Yes) ☐ No Seals intact: (Yes) ☐ No

Temperature Blank Present: ☐ Yes (No)

Packing Material: ☐ Bubble Wrap (Bubble Bags) ☐ Ziploc (None) ☐ Other

Type of Ice: (Wet) Blue None

Thermometer Used: (THO91) Correction Factor: 0.0

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 3.7 2.7 Cooler Temperature Corrected (°C): 3.7 2.7

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6°C

USDA Regulated Soil (☐ N/A, water sample)

Date and Initials of person examining contents: TD 9/19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes (No)

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	(Yes)	☐No		1.
Chain of Custody Filled Out:	(Yes)	☐No		2.
Chain of Custody Relinquished:	(Yes)	☐No		3
Sampler Name & Signature on COC:	(Yes)	☐No	☐N/A	4
Samples Arrived within Hold Time:	(Yes)	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	(No)		6.
Rush Turn Around Time Requested:	☐Yes	(No)		7
Sufficient Volume: (Triple volume provided for MS/MSD)	(Yes)	☐No		8
Correct Containers Used:	(Yes)	☐No		9
-Pace Containers Used:	(Yes)	☐No		
Containers Intact:	(Yes)	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	(N/A)	11 Note if sediment is visible in the dissolved container
Sample Labels match COC:	(Yes)	☐No		12.
-Includes date/time/ID/Analysis Matrix: SL WT OIL				
All containers needing preservation have been checked	☐Yes	☐No	(N/A)	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot #				
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NaOH>12 Cyanide)	☐Yes	☐No	(N/A)	Sample #
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water) Per Method, VOA pH is checked after analysis				Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination:	☐Yes	☐No	(N/A)	14
KI starch test strips Lot #				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
Headspace in VOA Vials (>6mm):	☐Yes	(No)	☐N/A	15
Trip Blank Present:	(Yes)	☐No	☐N/A	16.
Trip Blank Custody Seals Present	(Yes)	☐No	☐N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.02

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CHAIN-OF-CUSTODY / Analytical Request Document

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

WO# : 70653?0

7065370

Section A — Required Client Information:

Company: AECOM
Address:
Email To: Jon.Sundquist@aecom.com
Phone: Fax:
Requested Due Date/TAT: Standard

Section B — Required Project Information:

Report To: Jon Sundquist
Copy To: Peter Fairbanks
Purchase Order No.:
Project Name: Nat Grid Hempstead
Project Number: 60411920

Section C — Invoice Information:

Attention: Jon Sundquist
Company Name: AECOM
Address:
Pace Quote Reference:
Pace Project Manager: Jon Aracri
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

Section D — Required Client Information

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

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: BTEX	Analysis Test: DAHs	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-13S			9/19/18	1510			4	1				2					X	X		008
2	HIMW-03D			9/20/18	950																009
3	HIMW-03I				1125																010
4	HIMW-03S				1230																011
5	HIMW-22				1435																012
6	HIMW-08D			9/21/18	900																013
7	HIMW-08I				1050																014
8	HIMW-08S				1210																015
9																					
10	TB							2					2					X			016
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	[signature] AECOM	9/21/18	1425	[signature]	9/21/18	1725
				[signature]	9/21	14-1.7

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Gary Friedman / John Crespo
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 9/21/18

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

Pace Analytical

Sample Condition Upon Receipt

WO#: 70653?0

Client Name: AECOM

Pro. PM: JSA Due Date: 10/03/18

CLIENT: AECOM-B

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No Seals intact: ☑ Yes ☐ No

Temperature Blank Present ☐ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziploc ☑ None ☐ Other

Type of Ice: Wet Blue None

Thermometer Used: TH091 Correction Factor: 0.0

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 4.5 Cooler Temperature Corrected (°C): 4.5

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☐ N/A, water sample)

Date and Initials of person examining contents: JV 10/2/18

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑Yes	☐No		1
Chain of Custody Filled Out:	☑Yes	☐No		2
Chain of Custody Relinquished:	☑Yes	☐No		3.
Sampler Name & Signature on COC	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time	☑Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No		6
Rush Turn Around Time Requested:	☐Yes	☑No		7.
Sufficient Volume: (Triple volume provided for MS/MSD)	☑Yes	☐No		8.
Correct Containers Used:	☑Yes	☐No		9
-Pace Containers Used:	☑Yes	☐No		
Containers Intact:	☑Yes	☐No		10
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11 Note if sediment is visible in the dissolved container
Sample Labels match COC:	☑Yes	☐No		12.
-Includes date/time/ID/Analysis Matrix: SL WT OIL				
All containers needing preservation have been checked	☐Yes	☐No	☑N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot #				
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water) Per Method, VOA pH is checked after analysis	☐Yes	☐No	☑N/A	Sample # / Initial when completed / Lot # of added preservative / Date/Time preservative added
Samples checked for dechlorination	☐Yes	☐No	☑N/A	14
KI starch test strips Lot #				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	15
Trip Blank Present:	☑Yes	☐No	☐N/A	16
Trip Blank Custody Seals Present	☑Yes	☐No	☐N/A	
Pace Trip Blank Lot # (if applicable)				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution

* PM (Project Manager) review is documented electronically in LIMS.

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CHAIN-OF-CUSTODY / Analytical Request Do

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

WO# : 7065370

7065370

2155216

Section A Required Client Information:

Company:	AECOM
Address:	125 Broad St
	NY, NY 10004
Email To:	peter.fairbanks@aecom.com
Phone:	Fax:
Requested Due Date/TAT:	Standard

Section B Required Project Information:

Report To:	Jon Sundquist
Copy To:	Peter Fairbanks
Purchase Order No.:	
Project Name:	National Grid Hempstead
Project Number:	60541920

Section C Invoice Information:

Attention:	Jon Sundquist
Company Name:	AECOM
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

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

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: BTEX 8260	PAH 8270	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-12S	WT	G			9/24/18	815	15	4	2			2					X	X	N	017
2	HIMW-23	WT	G				1045		4	2			2					X	X	N	018
3	HIMW-20I	WT	G				1220		4	2			2					X	X	N	019
4	HIMW-20S	WT	G				1345		4	2			2					X	X	N	020
5	DUP092418 (HIMW-20S)	WT	G			9/24/18	1200	↓	4	2			2					X	X	N	020
6	HIMW-05D	WT	G			9/25/18	840	15	4	2			2					X	X	N	022
7	HIMW-05D MS/MSD	WT	G			9/25/18	850	15	8	4			4					X	X	N	↓
8	HIMW-05I	WT	G			9/25/18	950	15	4	2			2					X	X		
9	HIMW-05S	WT	G			9/25/18	1050	15	4	2			2					X	X		
10																					
11	TB20180925	W	G			9/25/18	1050		2				2					X			
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Meghan Daswani/AECOM	9/25/18	1315		9/25	1315	
		9/25	MIG		9/25	14.10	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Meghan Daswani / Cary Friedman

SIGNATURE of SAMPLER: MD / CF DATE Signed (MM/DD/YY): 9/25/18

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

Sample Condition Upon

WO#: 7065370

PM: JSA Due Date: 10/03/18

CLIENT: AECOM-B

Client Name: Aecom

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☒ Yes ☐ No Seals intact: ☒ Yes ☐ No

Temperature Blank Present: ☐ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ Ziploc ☐ None ☐ Other

Type of Ice: (Wet) Blue None

Thermometer Used: (TH091)

Correction Factor: 0.0

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 4.1/4.2

Cooler Temperature Corrected (°C): 4.1/4.2

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6 0°C

USDA Regulated Soil (☐ N/A, water sample)

Date and Initials of person examining contents: JJ 9/25/18

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☐Yes	☐No		1
Chain of Custody Filled Out:	☐Yes	☐No		2
Chain of Custody Relinquished:	☐Yes	☐No		3
Sampler Name & Signature on COC:	☐Yes	☐No	☐N/A	4
Samples Arrived within Hold Time:	☐Yes	☐No		5
Short Hold Time Analysis (<72hr):	☐Yes	☐No		6
Rush Turn Around Time Requested:	☐Yes	☐No		7
Sufficient Volume: (Triple volume provided for MS/MSD)	☐Yes	☐No		8
Correct Containers Used:	☐Yes	☐No		9
-Pace Containers Used:	☐Yes	☐No		
Containers Intact:	☐Yes	☐No		10
Filtered volume received for Dissolved tests	☐Yes	☐No	☐N/A	11 Note if sediment is visible in the dissolved container
Sample Labels match COC:	☐Yes	☐No		12
-Includes date/time/ID/Analysis Matrix SL WT OIL				
All containers needing preservation have been checked	☐Yes	☐No	☐N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot #				Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	☐Yes	☐No	☐N/A	Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination:	☐Yes	☐No	☐N/A	14
KI starch test strips Lot #				Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #				
Headspace in VOA Vials (>6mm)	☐Yes	☐No	☐N/A	15
Trip Blank Present:	☐Yes	☐No	☐N/A	16
Trip Blank Custody Seals Present	☐Yes	☐No	☐N/A	
Pace Trip Blank Lot # (if applicable)				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.02

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

PROJECT NARRATIVE

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Method: EPA 8270D
Description: 8270 MSSV
Client: AECOM
Date: October 11, 2018

General Information:
12 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: 84882

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- BLANK (Lab ID: 390221)
  - 2,4,6-Tribromophenol (S)
- HIMW-05I (Lab ID: 7065811001)
  - 2,4,6-Tribromophenol (S)
- HIMW-05S (Lab ID: 7065811002)
  - 2,4,6-Tribromophenol (S)
- LCS (Lab ID: 390222)
  - 2,4,6-Tribromophenol (S)
- MS (Lab ID: 390223)
  - 2,4,6-Tribromophenol (S)
- MSD (Lab ID: 390224)
  - 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: 84882

S0: Surrogate recovery outside laboratory control limits.

- LCS (Lab ID: 390222)
  - 2,4,6-Tribromophenol (S)

QC Batch: 85620

S0: Surrogate recovery outside laboratory control limits.

- MS (Lab ID: 393901)

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

PROJECT NARRATIVE

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Method: **EPA 8270D**
Description: 8270 MSSV
Client: AECOM
Date: October 11, 2018

QC Batch: 85620

S0: Surrogate recovery outside laboratory control limits.
- 2-Chlorophenol-d4 (S)
- 2-Fluorophenol (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: 84882

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 7065370022

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 390223)
  - Naphthalene
- MSD (Lab ID: 390224)
  - 2-Methylnaphthalene
  - Naphthalene

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

Additional Comments:

Analyte Comments:

QC Batch: 84882

E: Analyte concentration exceeded the calibration range. The reported result is estimated.
- HIMW-05S (Lab ID: 7065811002)
  - 2,4,6-Tribromophenol (S)
- LCS (Lab ID: 390222)
  - 2,4,6-Tribromophenol (S)
- MS (Lab ID: 390223)
  - 2,4,6-Tribromophenol (S)
  - 2-Methylnaphthalene
  - Acenaphthylene
  - Naphthalene
- MSD (Lab ID: 390224)
  - 2,4,6-Tribromophenol (S)
  - 2-Methylnaphthalene
  - Acenaphthylene
  - Naphthalene

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

PROJECT NARRATIVE

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Method: **EPA 8270D**
Description: 8270 MSSV
Client: AECOM
Date: October 11, 2018

Analyte Comments:

QC Batch: 85620

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- HIMW-24 (Lab ID: 7065811007)
  - 2,4,6-Tribromophenol (S)
- HIMW-27S (Lab ID: 7065811008)
  - 2,4,6-Tribromophenol (S)
- LCS (Lab ID: 393858)
  - 2,4,6-Tribromophenol (S)

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

PROJECT NARRATIVE

Project: NATIONAL GRID HEMPSTEAD
Pace Project No.: 7065811

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: AECOM
Date: October 11, 2018

General Information:
15 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.

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CHAIN-OF-CUSTODY / Analytical Request Document

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

WO#: 7065811

7065811

Section A Required Client Information	Section B Required Project Information:	Section C Invoice Information:
Company: AECOM	Report To: Jon Sundquist	Attention: Jon Sundquist
Address: 125 Broad St NY, NY 10004	Copy To: Peter Fairbanks	Company Name: AECOM
		Address:
Email To: peter.fairbanks@aecom.com	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name: National Grid Hempstead	Pace Project Manager:
Requested Due Date/TAT: Standard	Project Number: 60411920	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

ITEM #	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-12S	WT	G			9/24/18	815	15	4	2			2					X	X		N	
2	HIMW-23	WT	G				1045		4	2			2					X	X		N	
3	HIMW-20I	WT	G				1220		4	2			2					X	X		N	
4	HIMW-20S	WT	G				1345		4	2			2					X	X		N	
5	DUP092418	WT	G			9/24/18	1200	↓	4	2			2					X	X		N	
6	HIMW-05D	WT	G			9/25/18	840	15	4	2			2					X	X		N	
7	HIMW-05D MS/MSD	WT	G			9/25/18	850	15	8	4			4					X	X		N	
8	HIMW-05I	WT	G			9/25/18	950	15	4	2			2					X	X		N	
9	HIMW-05S	WT	G			9/25/18	1050	15	4	2			2					X	X		N	
10																						
11	TB-180925	W	G			9/25/18	1050		2				2					X				
12																						

001
002
003

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Megan Daswick/AECOM	9/25/18	1315		9/25	13:15	
		9/25	1515		9/25	14.10	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Megan Daswick / Cary Friedman

SIGNATURE of SAMPLER: MD / CF

DATE Signed (MM/DD/YY): 9/25/18

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

ORIGINAL

Pace Analytical

Sample Condition Upon Receipt

WO#: 7065811

Client Name: Aecom

Pro PM: JSA Due Date: 10/09/18
CLIENT: AECOM-B

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☒ Yes ☐ No Seals intact: ☒ Yes ☐ No

Temperature Blank Present: ☐ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ Ziploc ☐ None ☐ Other

Type of Ice: Wet Blue None

Thermometer Used: TH001 Correction Factor: 0.0

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 4.1/4.2 Cooler Temperature Corrected (°C): 4.1/4.2

Date/Time 5035A kits placed in freezer _____

Temp should be above freezing to 6 0°C

USDA Regulated Soil (☐ N/A, water sample) Date and Initials of person examining contents: 10/9/18 RS

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☒Yes	☐No		1.
Chain of Custody Filled Out:	☒Yes	☐No		2.
Chain of Custody Relinquished:	☒Yes	☐No		3.
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No		6
Rush Turn Around Time Requested:	☐Yes	☒No		7.
Sufficient Volume. (Triple volume provided for MS/MSD)	☒Yes	☐No		8
Correct Containers Used:	☒Yes	☐No		9.
-Pace Containers Used	☒Yes	☐No		
Containers Intact:	☒Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11. Note if sediment is visible in the dissolved container
Sample Labels match COC:	☒Yes	☐No		12.
-Includes date/time/ID/Analysis Matrix: SL WT OIL				
All containers needing preservation have been checked	☐Yes	☐No	☒N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot #				Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water) Per Method, VOA pH is checked after analysis	☐Yes	☐No	☒N/A	Initial when completed: / Lot # of added preservative: / Date/Time preservative added:
Samples checked for dechlorination	☐Yes	☐No	☒N/A	14.
KI starch test strips Lot #				Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #				
Headspace in VOA Vials (>6mm)	☐Yes	☒No	☐N/A	15
Trip Blank Present:	☐Yes	☒No	☐N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if applicable)				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.02

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CHAIN-OF-CUSTODY / Analytical Request Document

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

WO#: 7065811

PM: JSA Due Date: 10/09/18
CLIENT: AECOM-B

Section A Required Client Information:	Section B Required Project Information.	Section C Invoice Information:
Company: AECOM	Report To: Jun Sundquist	Attention:
Address: 125 Broad St NY, NY, 10004	Copy To: Peter Fairbanks	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name: National Grid Hempstead	Pace Project Manager:
Requested Due Date/TAT: standard	Project Number: 60411925	Pace Profile #:

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____
Site Location STATE: NY

Section D Required Client Information

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

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	BTEX 8260C	PAH 8270C	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HIMW-36D	WT	G			9/27/18	825	15	4	2			2					X	X			
2	HIMW-26I	WT	G			9/27/18	950	15	4	2			2					X	X			
3	HIMW-25	WT	G			9/27/18	1140	15	4	2			2					X	X			
4	HIMW-24	WT	G			9/27/18	1245	15	4	2			2					X	X			
5	HIMW-27S	WT	G			9/27/18	1355	16	4	2			2					X	X			
6	TB20180927	WT				9/27/18	1355		2				2					X				
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Megan Drascoli	9/27/18	1500	Matthew Young	9/27/18	15:00				
	William Kilpen	9/27/18	1600	Sam Pitt	9/27/18	16:00	4.4	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: MDascoli/CFriedman
SIGNATURE of SAMPLER: MD CF
DATE Signed (MM/DD/YY): 9/27/18

*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

Sample Condition Upon Receipt

Pace Analytical

WO#:7065811

Client Name: AECOM

Projec

PM: JSA Due Date: 10/09/18

CLIENT: AECOM-B

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☑ No Seals intact: ☐ Yes ☑ No

Temperature Blank Present: ☐ Yes ☑ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziploc ☑ None ☐ Other

Type of Ice: Wet Blue None

Thermometer Used: TH091 Correction Factor: 0.0

☐ Samples on ice, cooling process has begun

Cooler Temperature (°C): 4.9 Cooler Temperature Corrected (°C): 4.9

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6 0°C

USDA Regulated Soil (☐ N/A, water sample)

Date and Initials of person examining contents: WMG 9/27/18

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☐Yes	☐No		1.
Chain of Custody Filled Out:	☐Yes	☐No		2.
Chain of Custody Relinquished:	☐Yes	☐No		3.
Sampler Name & Signature on COC:	☐Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☐Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☐No		6.
Rush Turn Around Time Requested:	☐Yes	☐No		7.
Sufficient Volume: (Triple volume provided for MS/MSD)	☐Yes	☐No		8.
Correct Containers Used:	☐Yes	☐No		9.
-Pace Containers Used:	☐Yes	☐No		
Containers Intact:	☐Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☐N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC.	☐Yes	☐No		12.
-Includes date/time/ID/Analysis Matrix: SL WT OIL				
All containers needing preservation have been checked	☐Yes	☐No	☐N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot #				Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water) Per Method: VOA pH is checked after analysis	☐Yes	☐No	☐N/A	Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination:	☐Yes	☐No	☐N/A	14
KI starch test strips Lot #				Positive for Res. Chlorine? Y N
Residual chlorine strips Lot #				
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☐N/A	15.
Trip Blank Present:	☐Yes	☐No	☐N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☐N/A	
Pace Trip Blank Lot # (if applicable)				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

F-LI-C-002-rev.02

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Doc

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

WO#:7065811

PM: JSA Due Date: 10/09/18
CLIENT: AECOM-B

Section A Required Client Information:

Company: AECOM
Address: 125 Broad St
NY, NY
Email To:
Phone: Fax:
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Jon Sundquist
Copy To: Peter Fairbanks
Purchase Order No.:
Project Name: National Grid Hempstead
Project Number: 60411920

Section C Invoice Information:

Attention: Jon Sundquist
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): BTEX 8260 – N; PAH 8270 – 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	BTEX 8260	PAH 8270	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	DUP20180928 (HIMW-28S)					9/28/18	700	16	4	2			2						X	X		
2	HIMW-28I					↓	845	16	4	2			2						X	X		
3	HIMW-28S					↓	945	16	4	2			2						X	X		
4	HIMW-27I					↓	1215	16	4	2			2						X	X		
5	PB20180928					9/28/18	1240	20	4	2			2						X	X		
6	TB20180928					9/28/18	1315	20	2				2						X			
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	M Dascoli	9/28/18	1330	[illegible]	9/28/18	13:30				
	[illegible]	9/28/18	14:00	[illegible] PSA	9/28/18	14:00	6.4	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: C Friedman / M Dascoli
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 9/28/18

*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

Sample Condition Upon Receipt

Pace Analytical

Client Name: AECOM

Pr WO#:70658811

PM: JSA Due Date: 10/09/18

CLIENT: AECOM-B

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☐ No Seals intact: ☐ Yes ☐ No

Temperature Blank Present: ☑ Yes ☐ No

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziploc ☐ None ☐ Other

Type of Ice: ☑ Wet ☐ Blue None

Thermometer Used: TH091 Correction Factor: 0.0

Cooler Temperature (°C): 6.4 Cooler Temperature Corrected (°C): 6.4

☐ Samples on ice, cooling process has begun

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6 0°C

USDA Regulated Soil (☑ N/A, water sample)

Date and Initials of person examining contents: 10/9/2018

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☐ NO

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present	☑ Yes	☐ No		1.
Chain of Custody Filled Out	☑ Yes	☐ No		2.
Chain of Custody Relinquished.	☑ Yes	☐ No		3.
Sampler Name & Signature on COC:	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time	☑ Yes	☐ No		5.
Short Hold Time Analysis (<72hr):	☐ Yes	☑ No		6.
Rush Turn Around Time Requested:	☐ Yes	☑ No		7.
Sufficient Volume: (Triple volume provided for MS/MSD	☑ Yes	☐ No		8.
Correct Containers Used.	☑ Yes	☐ No		9.
-Pace Containers Used:	☑ Yes	☐ No		
Containers Intact.	☑ Yes	☐ No		10.
Filtered volume received for Dissolved tests	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☑ Yes	☐ No		12.
-Includes date/time/ID/Analysis Matrix SL (WT) OIL				
All containers needing preservation have been checked	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot #				Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis	☐ Yes	☐ No	☐ N/A	Initial when completed: / Lot # of added preservative: / Date/Time preservative added
Samples checked for dechlorination.	☐ Yes	☐ No	☑ N/A	14
KI starch test strips Lot #				Positive for Res Chlorine? Y N
Residual chlorine strips Lot #				
Headspace in VOA Vials (>6mm)	☐ Yes	☑ No	☐ N/A	15
Trip Blank Present:	☐ Yes	☐ No	☐ N/A	16
Trip Blank Custody Seals Present	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if applicable)				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted Date/Time

Comments/ Resolution

* PM (Project Manager) review is documented electronically in LIMS

F-LI-C-002-rev.07

Appendix E

Oxygen System Operation & Maintenance Measurements, April- December 2018 & January-February 2019

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	4/27/2018
Time:	11:50
Weather:	Rain
Outdoor Temperature:	~54˚ F
Inside Trailer Temperature:	~67˚ F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	21,772.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	110	(psi)
Oxygen Purity	89.8	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	120	(psi)
(readings below are made from control panel)		
Delivery Air	136	(psi)
Element Outlet Temperature	185	(oF)
Running Hours	1,442	(hours)
Loading Hours	1,113	(hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5	30	31	OW-1-5S	67.3	25	20	OW-1-9D	88.5	35	31
OW-1-2	96.5	30	20	OW-1-6S	67.0	30	19	OW-1-10D	87.2	30	25
OW-1-3	96.3	30	26	OW-1-7S	66.9	35	21	OW-1-11D	86.1	30	28
OW-1-4	95.0	30	31	OW-1-8S	66.7	40	19	OW-1-12D	85.3	30	27
OW-1-5D	93.9	30	30	OW-1-9S	66.0	40	20	OW-1-13D	84.7	30	30
OW-1-6D	92.4	30	29	OW-1-10S	54.6	30	14	OW-1-14D	84.1	30	27
OW-1-7D	91.1	35	30	OW-1-11S	54.1	30	15	OW-1-15D	83.3	35	26
OW-1-8D	89.6	35	31	OW-1-12S	53.6	30	15	OW-1-16D	82.5	40	16

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 4/27/2018

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	15	OW-1-17D	79.5	35	15	OW-1-21S	49.3	30	13
OW-1-14S	52.7	30	14	OW-1-18D	78.3	30	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	29	OW-1-20D	79.5	30	29	OW-1-24S	48.4	35	13
OW-1-17S	50.7	30	27	OW-1-21D	79.5	30	26	OW-1-25S	48.8	30	12
OW-1-18S	50.2	30	14	OW-1-22D	79.5	40	26	OW-1-26SR	48.3	30	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	35	27	OW-1-27S	48.3	40	14
OW-1-20S	49.3	40	10	OW-1-24D	78.2	25	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	30	28	OW-1-29S	48.5	35	13	OW-1-33D	83.2	30	28
OW-1-26D	78.1	30	29	OW-1-30S	48.8	35	14	OW-1-34D	84.5	30	29
OW-1-27D	77.9	30	28	OW-1-31S	49.3	35	13	OW-1-35D	85.0	30	27
OW-1-28D	78.0	30	27	OW-1-32S	49.3	30	13	OW-1-36D	85.0	30	29
OW-1-29D	78.4	30	26	OW-1-33S	49.7	25	13	OW-1-37D	84.0	30	28
OW-1-30D	79.0	30	35	OW-1-34S	50.1	20	14	OW-1-38D	82.0	30	27
OW-1-31D	80.5	30	21	OW-1-35S	50.3	30	13	OW-1-39D	78.0	30	27
OW-1-32D	81.6	30	30	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: 4/27/2018

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	30	22	OW-1-43	67.4	35	21
OW-1-38S	50.6	30	12	OW-1-42D	71.0	30	21	OW-1-44	66.6	35	21
OW-1-39S	50.7	35	11	OW-1-45	65.7	30	20	OW-1-51R	60.6	45	18
OW-1-40S	51.1	30	12	OW-1-46	64.3	35	19	OW-1-52	59.3	30	18
OW-1-41S	51.5	30	12	OW-1-47	63.4	30	18	OW-1-53	60.0	30	17
OW-1-42S	51.3	40	12	OW-1-48	62.5	35	18	OW-1-54	60.0	30	18
				OW-1-49	61.5	25	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	28.34		0	MP-1-5	28.15	11.42	0	MP-1-1D	23.46
MP-1-1S	28.38	30.47	0	MP-1-6	20.43	8.15	0	MP-1-2D	39.57
MP-1-2D	22.63		0.4	MP-1-7	23.75	13.30	0	MP-1-3D	22.12
MP-1-2S	22.97	21.97	0.2	MP-1-8	25.29	4.07	0	MP-1-4D	35.31
MP-1-3D	20.92		0.5						
MP-1-3S	20.83	15.88	0.2						
MP-1-4D	23.73		0						
MP-1-4S	23.76	34.82	0						

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 4/27/2018

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 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:

4-11-18 Went to site to check on System #1. Found system operational upon arrival. Found puddle of oil under air compressor. Shut down system to investigate and found oil coming out of gauge on canister. Wiped down motor and oil canister and tightened up all flanges, nuts, bolts, and any fittings found with cooling canister. Removed gauge and replaced with gauge from the old compressor. Added oil and restarted the system. Ran compressor and found no oil leak. Left system running.

4-27-18 Found system running upon arrival. Took apart water knock out bowl to clean out oil buildup in auto drain and bowl. Flushed out discharge line to ensure it was clear. Replaced both fresh air filters on the doors of the shed. Greased booster pump motor and check belt tension. Wiped down all equipment and cleaned inside shed. Restarted system and left running.

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 #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	5/29/2018
Time:	12:45
Weather:	Sunny
Outdoor Temperature:	~80˚ F
Inside Trailer Temperature:	~80˚ F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	22,540.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	100	(psi)
Oxygen Purity	94.5	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	123	(psi)
Element Outlet Temperature	192	(oF)
Running Hours	2,211	(hours)
Loading Hours	1,682	(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	20	OW-1-9D	88.5	35	30
OW-1-2	96.5	35	22	OW-1-6S	67.0	30	19	OW-1-10D	87.2	40	26
OW-1-3	96.3	35	31	OW-1-7S	66.9	40	22	OW-1-11D	86.1	40	25
OW-1-4	95.0	30	30	OW-1-8S	66.7	30	20	OW-1-12D	85.3	30	31
OW-1-5D	93.9	30	32	OW-1-9S	66.0	45	19	OW-1-13D	84.7	30	30
OW-1-6D	92.4	30	32	OW-1-10S	54.6	35	19	OW-1-14D	84.1	30	31
OW-1-7D	91.1	30	31	OW-1-11S	54.1	30	16	OW-1-15D	83.3	30	32
OW-1-8D	89.6	30	30	OW-1-12S	53.6	30	15	OW-1-16D	82.5	30	16

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: 5/29/2018

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	16	OW-1-17D	79.5	30	15	OW-1-21S	49.3	35	14
OW-1-14S	52.7	30	15	OW-1-18D	78.3	30	27	OW-1-22S	49.3	35	13
OW-1-15S	52.2	35	13	OW-1-19D	78.9	25	26	OW-1-23S	48.8	30	13
OW-1-16SR	51.8	30	30	OW-1-20D	79.5	30	30	OW-1-24S	48.4	30	15
OW-1-17S	50.7	30	27	OW-1-21D	79.5	25	28	OW-1-25S	48.8	25	14
OW-1-18S	50.2	25	27	OW-1-22D	79.5	30	27	OW-1-26SR	48.3	30	15
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	12	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	35	29	OW-1-29S	48.5	30	14	OW-1-33D	83.2	30	31
OW-1-26D	78.1	45	28	OW-1-30S	48.8	30	13	OW-1-34D	84.5	30	30
OW-1-27D	77.9	40	28	OW-1-31S	49.3	30	15	OW-1-35D	85.0	45	29
OW-1-28D	78.0	40	28	OW-1-32S	49.3	30	14	OW-1-36D	85.0	40	30
OW-1-29D	78.4	30	28	OW-1-33S	49.7	30	14	OW-1-37D	84.0	35	30
OW-1-30D	79.0	30	35	OW-1-34S	50.1	30	13	OW-1-38D	82.0	35	29
OW-1-31D	80.5	30	22	OW-1-35S	50.3	30	14	OW-1-39D	78.0	30	28
OW-1-32D	81.6	30	31	OW-1-36S	50.3	30	14	OW-1-40D	76.0	25	28

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

Date: 5/29/2018

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	30	24	OW-1-43	67.4	30	20
OW-1-38S	50.6	30	13	OW-1-42D	71.0	30	21	OW-1-44	66.6	30	20
OW-1-39S	50.7	30	14	OW-1-45	65.7	25	20	OW-1-51R	60.6	30	19
OW-1-40S	51.1	30	14	OW-1-46	64.3	30	20	OW-1-52	59.3	30	18
OW-1-41S	51.5	30	14	OW-1-47	63.4	30	19	OW-1-53	60.0	30	19
OW-1-42S	51.3	30	13	OW-1-48	62.5	40	20	OW-1-54	60.0	30	18
				OW-1-49	61.5	40	19				
				OW-1-50	61.0	45	20				

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. 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	28.31		0	MP-1-5	28.10	19.70	0	MP-1-1D	18.76
MP-1-1S	28.35	29.18	0.1	MP-1-6	20.40	21.44	0	MP-1-2D	39.12
MP-1-2D	22.63		0	MP-1-7	23.71	7.27	0	MP-1-3D	19.57
MP-1-2S	22.91	20.64	0.1	MP-1-8	25.23	3.35	0	MP-1-4D	34.67
MP-1-3D	20.90		0						
MP-1-3S	20.75	16.18	0.2						
MP-1-4D	23.67		0.3						
MP-1-4S	23.70	32.44	0.2						

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 5/29/2018

OPERATIONAL NOTES

GA5 Air Compressor

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

AS-80 O_2 Generator

1) 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:

5-29-18 Found system running upon arrival. Greased booster pump shaft & motor. Took apart water knock out bowl to clean out oil buildup in auto drain and bowl. Cut down heavy growth of weeds around shed and chain link fence. Wiped down all equipment and cleaned inside shed. Restarted system and left running.

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 #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	6/28/2018
Time:	11:32
Weather:	Sunny
Outdoor Temperature:	~76˚ F
Inside Trailer Temperature:	~68˚ F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	23,257.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	95	(psi)
Oxygen Purity	89.8	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	139	(psi)
Element Outlet Temperature	193	(oF)
Running Hours	2,927	(hours)
Loading Hours	2,203	(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	19	OW-1-9D	88.5	30	32
OW-1-2	96.5	30	18	OW-1-6S	67.0	30	21	OW-1-10D	87.2	35	27
OW-1-3	96.3	30	31	OW-1-7S	66.9	30	20	OW-1-11D	86.1	35	32
OW-1-4	95.0	40	30	OW-1-8S	66.7	30	20	OW-1-12D	85.3	30	30
OW-1-5D	93.9	45	32	OW-1-9S	66.0	30	19	OW-1-13D	84.7	25	30
OW-1-6D	92.4	30	33	OW-1-10S	54.6	30	14	OW-1-14D	84.1	30	32
OW-1-7D	91.1	30	30	OW-1-11S	54.1	30	15	OW-1-15D	83.3	30	30
OW-1-8D	89.6	30	31	OW-1-12S	53.6	30	14	OW-1-16D	82.5	35	16

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/28/2018

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	15	OW-1-17D	79.5	25	15	OW-1-21S	49.3	30	14
OW-1-14S	52.7	30	16	OW-1-18D	78.3	30	26	OW-1-22S	49.3	30	13
OW-1-15S	52.2	40	14	OW-1-19D	78.9	35	27	OW-1-23S	48.8	30	13
OW-1-16SR	51.8	40	30	OW-1-20D	79.5	40	29	OW-1-24S	48.4	30	13
OW-1-17S	50.7	40	28	OW-1-21D	79.5	30	27	OW-1-25S	48.8	35	13
OW-1-18S	50.2	30	14	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	35	26	OW-1-27S	48.3	40	13
OW-1-20S	49.3	30	12	OW-1-24D	78.2	30	27	OW-1-28S	48.3	40	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	35	27	OW-1-29S	48.5	30	13	OW-1-33D	83.2	30	29
OW-1-26D	78.1	45	26	OW-1-30S	48.8	35	13	OW-1-34D	84.5	30	30
OW-1-27D	77.9	35	29	OW-1-31S	49.3	35	14	OW-1-35D	85.0	30	32
OW-1-28D	78.0	30	28	OW-1-32S	49.3	35	13	OW-1-36D	85.0	25	30
OW-1-29D	78.4	30	28	OW-1-33S	49.7	25	14	OW-1-37D	84.0	30	29
OW-1-30D	79.0	30	35	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	13	OW-1-39D	78.0	30	28
OW-1-32D	81.6	30	30	OW-1-36S	50.3	30	13	OW-1-40D	76.0	30	28

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

Date: 6/28/2018

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	14	OW-1-41D	73.6	30	25	OW-1-43	67.4	30	20
OW-1-38S	50.6	30	14	OW-1-42D	71.0	25	23	OW-1-44	66.6	30	20
OW-1-39S	50.7	30	13	OW-1-45	65.7	20	21	OW-1-51R	60.6	30	19
OW-1-40S	51.1	25	13	OW-1-46	64.3	30	20	OW-1-52	59.3	40	18
OW-1-41S	51.5	30	14	OW-1-47	63.4	35	19	OW-1-53	60.0	40	18
OW-1-42S	51.3	35	14	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	28.87		0	MP-1-5	28.42	7.55	0	MP-1-1D	18.35
MP-1-1S	28.69	26.91	0	MP-1-6	20.73	21.59	0	MP-1-2D	40.12
MP-1-2D	23.00		0.2	MP-1-7	24.03	15.11	0	MP-1-3D	17.04
MP-1-2S	23.25	2.54	0.1	MP-1-8	25.52	4.57	0	MP-1-4D	34.75
MP-1-3D	21.22		0.3						
MP-1-3S	21.14	15.88	0.4						
MP-1-4D	23.98		0						
MP-1-4S	23.99	31.81	0						

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/28/2018

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 X No
7) Oil separator changed Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Profiler changed Yes 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:

6-28-18 Found system running upon arrival. Found oil a little low in compressor and added oil as needed. Took apart water knock out bowl to clean out oil buildup in auto drain and bowl. Checked oxygen generator and made sure valves were cycling properly. Changed both fresh air vent filters on doors. Adjusted belt tension on booster pump as it was starting to get noisy. Greased booster pump motor and shaft. Cut down heavy growth of weeds around shed and chain link fence. Wiped down all equipment and cleaned inside shed. Restarted system and left running.

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 #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	7/23/2018
Time:	13:35
Weather:	Sunny
Outdoor Temperature:	~86˚ F
Inside Trailer Temperature:	~70˚ F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	23,832.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	105	(psi)
Oxygen Purity	89.9	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	120	(psi)
(readings below are made from control panel)		
Delivery Air	135	(psi)
Element Outlet Temperature	191	(oF)
Running Hours	3,502	(hours)
Loading Hours	2,572	(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	31	OW-1-5S	67.3	30	20	OW-1-9D	88.5	30	30
OW-1-2	96.5	40	21	OW-1-6S	67.0	30	20	OW-1-10D	87.2	35	26
OW-1-3	96.3	30	30	OW-1-7S	66.9	35	19	OW-1-11D	86.1	45	32
OW-1-4	95.0	30	31	OW-1-8S	66.7	35	20	OW-1-12D	85.3	30	30
OW-1-5D	93.9	30	32	OW-1-9S	66.0	25	20	OW-1-13D	84.7	30	31
OW-1-6D	92.4	35	30	OW-1-10S	54.6	30	15	OW-1-14D	84.1	30	32
OW-1-7D	91.1	30	30	OW-1-11S	54.1	30	15	OW-1-15D	83.3	30	30
OW-1-8D	89.6	30	30	OW-1-12S	53.6	30	16	OW-1-16D	82.5	25	16

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: 7/23/2018

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	15	OW-1-17D	79.5	30	16	OW-1-21S	49.3	30	13
OW-1-14S	52.7	30	16	OW-1-18D	78.3	30	27	OW-1-22S	49.3	40	13
OW-1-15S	52.2	30	14	OW-1-19D	78.9	30	28	OW-1-23S	48.8	35	14
OW-1-16SR	51.8	30	30	OW-1-20D	79.5	30	28	OW-1-24S	48.4	35	13
OW-1-17S	50.7	30	26	OW-1-21D	79.5	30	27	OW-1-25S	48.8	35	13
OW-1-18S	50.2	30	14	OW-1-22D	79.5	30	26	OW-1-26SR	48.3	45	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	28	OW-1-27S	48.3	30	13
OW-1-20S	49.3	30	11	OW-1-24D	78.2	35	30	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	35	28	OW-1-29S	48.5	30	14	OW-1-33D	83.2	45	32
OW-1-26D	78.1	40	29	OW-1-30S	48.8	30	14	OW-1-34D	84.5	35	30
OW-1-27D	77.9	40	30	OW-1-31S	49.3	30	14	OW-1-35D	85.0	30	29
OW-1-28D	78.0	40	28	OW-1-32S	49.3	35	13	OW-1-36D	85.0	30	29
OW-1-29D	78.4	30	27	OW-1-33S	49.7	30	14	OW-1-37D	84.0	30	30
OW-1-30D	79.0	40	36	OW-1-34S	50.1	30	13	OW-1-38D	82.0	25	29
OW-1-31D	80.5	30	21	OW-1-35S	50.3	35	14	OW-1-39D	78.0	30	30
OW-1-32D	81.6	30	31	OW-1-36S	50.3	40	14	OW-1-40D	76.0	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.

Date: 7/23/2018

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	25	OW-1-43	67.4	30	22
OW-1-38S	50.6	30	13	OW-1-42D	71.0	40	24	OW-1-44	66.6	30	21
OW-1-39S	50.7	30	13	OW-1-45	65.7	40	22	OW-1-51R	60.6	30	18
OW-1-40S	51.1	35	13	OW-1-46	64.3	35	21	OW-1-52	59.3	30	17
OW-1-41S	51.5	30	14	OW-1-47	63.4	35	20	OW-1-53	60.0	30	19
OW-1-42S	51.3	30	14	OW-1-48	62.5	30	21	OW-1-54	60.0	30	19
				OW-1-49	61.5	30	20				
				OW-1-50	61.0	30	20				

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. 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	29.08		0	MP-1-5	28.80	25.53	0	MP-1-1D	13.11
MP-1-1S	29.00	19.25	0	MP-1-6	21.10	20.81	0.2	MP-1-2D	38.90
MP-1-2D	23.37		0	MP-1-7	24.37	29.30	0.1	MP-1-3D	27.51
MP-1-2S	23.60	16.96	0	MP-1-8	25.90	3.02	0	MP-1-4D	29.71
MP-1-3D	21.51		0.3						
MP-1-3S	21.50	14.16	0.4						
MP-1-4D	24.30		0						
MP-1-4S	24.35	24.23	0.1						

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: 7/23/2018

OPERATIONAL NOTES

GA5 Air Compressor

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

7-22-18 System went into compressor alarm with a pressure low alarm.

7-23-18 Found system down upon arrival with alarm code 2101 and oxygen tanks completely drained. Cleared alarm and restart equipment and check system for issues, of which none were found. Found booster pump belt needed to be tightened. Drained water & soil from the separator and cleared stuck auto drain valve. Repaired leak in fittings at base of flow meters. Cut down heavy growth of weeds around shed and chain link fence. Wiped down all equipment and cleaned inside shed. Restarted system and left running.

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 #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	8/30/2018
Time:	13:40
Weather:	Sunny
Outdoor Temperature:	~86˚ F
Inside Trailer Temperature:	~70˚ F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	24,587.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	125	(psi)
Oxygen Purity	89.0	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	120	(psi)
(readings below are made from control panel)		
Delivery Air	139	(psi)
Element Outlet Temperature	197	(oF)
Running Hours	4,304	(hours)
Loading Hours	3,132	(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	35	19	OW-1-9D	88.5	25	30
OW-1-2	96.5	30	21	OW-1-6S	67.0	35	20	OW-1-10D	87.2	30	2,630
OW-1-3	96.3	30	30	OW-1-7S	66.9	35	18	OW-1-11D	86.1	30	30
OW-1-4	95.0	40	30	OW-1-8S	66.7	30	19	OW-1-12D	85.3	35	30
OW-1-5D	93.9	30	31	OW-1-9S	66.0	30	18	OW-1-13D	84.7	30	30
OW-1-6D	92.4	35	32	OW-1-10S	54.6	30	14	OW-1-14D	84.1	30	31
OW-1-7D	91.1	30	30	OW-1-11S	54.1	30	15	OW-1-15D	83.3	30	30
OW-1-8D	89.6	30	30	OW-1-12S	53.6	30	14	OW-1-16D	82.5	30	16

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: 8/30/2018

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

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

Date: 8/30/2018

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	30	24	OW-1-43	67.4	30	24
OW-1-38S	50.6	30	13	OW-1-42D	71.0	35	22	OW-1-44	66.6	30	22
OW-1-39S	50.7	30	14	OW-1-45	65.7	30	20	OW-1-51R	60.6	30	18
OW-1-40S	51.1	30	14	OW-1-46	64.3	35	19	OW-1-52	59.3	30	17
OW-1-41S	51.5	30	15	OW-1-47	63.4	35	18	OW-1-53	60.0	30	17
OW-1-42S	51.3	30	14	OW-1-48	62.5	30	19	OW-1-54	60.0	30	17
				OW-1-49	61.5	30	18				
				OW-1-50	61.0	30	19				

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. 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	28.97		0	MP-1-5	28.82	22.36	0	MP-1-1D	16.62
MP-1-1S	29.00	21.44	0	MP-1-6	21.10	15.75	0	MP-1-2D	31.51
MP-1-2D	23.25		0	MP-1-7	24.43	27.40	0	MP-1-3D	11.17
MP-1-2S	23.57	18.12	0	MP-1-8	25.96	3.80	0	MP-1-4D	25.56
MP-1-3D	21.55		0.4						
MP-1-3S	21.48	13.82	0.3						
MP-1-4D	24.40		0.2						
MP-1-4S	24.42	21.07	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: 8/30/2018

OPERATIONAL NOTES

GA5 Air Compressor

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

AS-80 O_2 Generator

1) 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:

8-3-18 Found equipment operation upon arrival except booster pump was running very loudly. Shut down system to perform routine maintenance. Drained all cooling oil from air compressor and removed filters. Cleaned all inline flow valves of build up. Tightened flow valves that have been loosening up over time. Adjust belt tension. Drained and cleaned oil/water separator and flushed out discharge hoses. Cleaned out mud buildup in water knock out bowl. Replaced filters and auto floats as needed. Removed auto drain from dryer and cleaned and replaced filters from water bowl. Replaced screen in auto drain. Cleaned off coil on dryer due to heavy dust buildup.

8-6-18 Continued routine maintenance. Took apart solenoid valves on oxygen generator and cleaned dust and grease from units. In addition, needed to clean the solenoid shafts and replace the O-rings on the valve bodies. Opened water bowls and changed filters in each unit. Took apart solenoid on water drainage valve and cleaned out sludge buildup. Replace small section of rotten drain hose. Greased motor and pumping unit of booster pump. Checked belt tension and adjusted as needed. Removed fresh air vents in back wall and cleaned heavy dust build up from screens.

8-7-18 Completed routine maintenance. Replaced small sections of rotten hose on booster pump. Cleaned black dust buildup from inside flow meters and repaired leaked found while cleaning. Wiped down all equipment and washed floor of shed. Cut down brush from around shed and fence and cleared a path to the shed from the street. Restarted system and left running.

8-9-18 Check systems after several power failures due to storms during previous night. Found system up an running. Reset maintenance clock on system. Checked oxygen injection line connections with soap and water and repaired leaks as needed.

8-30-18 Found system operation upon arrival. Found auto drain stuck open on dryer unit. Took part and cleaned silt build up. Check all equipment and all was operational. Wiped down all equipment and cleaned inside shed. Restarted system and left running.

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 #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	9/25/2018
Time:	13:45
Weather:	Heavy Rain
Outdoor Temperature:	~64˚ F
Inside Trailer Temperature:	~70˚ F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	25,106.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	115	(psi)
Oxygen Purity	85.8	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	100	(psi)
(readings below are made from control panel)		
Delivery Air	127	(psi)
Element Outlet Temperature	189	(oF)
Running Hours	4,854	(hours)
Loading Hours	3,525	(hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5	30	31	OW-1-5S	67.3	30	18	OW-1-9D	88.5	25	31
OW-1-2	96.5	35	19	OW-1-6S	67.0	30	19	OW-1-10D	87.2	35	27
OW-1-3	96.3	35	30	OW-1-7S	66.9	30	20	OW-1-11D	86.1	30	32
OW-1-4	95.0	35	30	OW-1-8S	66.7	30	18	OW-1-12D	85.3	30	30
OW-1-5D	93.9	30	30	OW-1-9S	66.0	40	18	OW-1-13D	84.7	30	29
OW-1-6D	92.4	30	32	OW-1-10S	54.6	30	15	OW-1-14D	84.1	40	30
OW-1-7D	91.1	30	30	OW-1-11S	54.1	35	14	OW-1-15D	83.3	35	29
OW-1-8D	89.6	30	30	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: 9/25/2018

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

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1	40	28	OW-1-29S	48.5	30	14	OW-1-33D	83.2	30	30
OW-1-26D	78.1	30	30	OW-1-30S	48.8	30	15	OW-1-34D	84.5	30	32
OW-1-27D	77.9	35	30	OW-1-31S	49.3	30	13	OW-1-35D	85.0	30	33
OW-1-28D	78.0	35	28	OW-1-32S	49.3	25	13	OW-1-36D	85.0	30	29
OW-1-29D	78.4	40	27	OW-1-33S	49.7	30	15	OW-1-37D	84.0	30	30
OW-1-30D	79.0	25	35	OW-1-34S	50.1	30	13	OW-1-38D	82.0	30	28
OW-1-31D	80.5	30	22	OW-1-35S	50.3	40	14	OW-1-39D	78.0	30	28
OW-1-32D	81.6	30	30	OW-1-36S	50.3	30	15	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: 9/25/2018

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5	25	13	OW-1-41D	73.6	30	24	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	30	20
OW-1-39S	50.7	35	14	OW-1-45	65.7	30	20	OW-1-51R	60.6	30	19
OW-1-40S	51.1	30	14	OW-1-46	64.3	30	19	OW-1-52	59.3	30	17
OW-1-41S	51.5	30	14	OW-1-47	63.4	35	18	OW-1-53	60.0	30	18
OW-1-42S	51.3	30	13	OW-1-48	62.5	45	18	OW-1-54	60.0	30	18
				OW-1-49	61.5	30	18				
				OW-1-50	61.0	30	20				

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. 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	29.28		0	MP-1-5	29.00	20.10	0	MP-1-1D	23.89
MP-1-1S	29.20	21.88	0.2	MP-1-6	21.25	15.08	0	MP-1-2D	36.37
MP-1-2D	23.73		0.3	MP-1-7	24.61	20.11	0	MP-1-3D	15.05
MP-1-2S	23.82	24.13	0.3	MP-1-8	26.16	3.02	0	MP-1-4D	25.44
MP-1-3D	21.82		0.4						
MP-1-3S	21.75	14.27	0.3						
MP-1-4D	24.58		0.2						
MP-1-4S	24.61	22.32	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: 9/25/2018

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:

9-25-18 Found equipment operational upon arrival. Found two leaks in piping at base of flow meters and repaired as needed. Checked air compressor and added cooling oil. Check each auto drain and made sure each valve was working. Found booster pump making a loud noise. Checked amp draw and found normal. Check belt tension and found to be ok. Greased motor and pumping unit. Wiped down all equipment and cleaned shed floor. Started to cut down brush around shed and along path leading up to shed.

9-26-18 Finished cutting down brush and overgrown weeds. Raked out all areas and bagged up for disposal. Checked booster pump and found still running loud. Checked each of the solenoid valves running with the pump and took each apart to clean diaphragms and to check for damage. Greased pump and motor again. Restarted system and left running.

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 #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	10/25/2018
Time:	13:30
Weather:	Sunny
Outdoor Temperature:	~49° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	25,234.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	0	(psi)
Oxygen Purity	87.1	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	100	(psi)
(readings below are made from control panel)		
Delivery Air	139	(psi)
Element Outlet Temperature	193	(oF)
Running Hours	5,021	(hours)
Loading Hours	3,627	(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	33	OW-1-5S	67.3	35	20	OW-1-9D	88.5	30	30
OW-1-2	96.5	30	21	OW-1-6S	67.0	35	19	OW-1-10D	87.2	30	25
OW-1-3	96.3	30	31	OW-1-7S	66.9	40	18	OW-1-11D	86.1	30	32
OW-1-4	95.0	40	32	OW-1-8S	66.7	30	21	OW-1-12D	85.3	30	30
OW-1-5D	93.9	40	32	OW-1-9S	66.0	30	21	OW-1-13D	84.7	35	31
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	15	OW-1-15D	83.3	30	30
OW-1-8D	89.6	30	30	OW-1-12S	53.6	30	16	OW-1-16D	82.5	30	16

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 10/25/2018

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	40	15	OW-1-17D	79.5	30	15	OW-1-21S	49.3	30	13
OW-1-14S	52.7	45	16	OW-1-18D	78.3	30	27	OW-1-22S	49.3	35	14
OW-1-15S	52.2	30	14	OW-1-19D	78.9	30	26	OW-1-23S	48.8	30	13
OW-1-16SR	51.8	35	30	OW-1-20D	79.5	30	29	OW-1-24S	48.4	30	13
OW-1-17S	50.7	30	25	OW-1-21D	79.5	30	26	OW-1-25S	48.8	30	15
OW-1-18S	50.2	30	13	OW-1-22D	79.5	30	27	OW-1-26SR	48.3	30	14
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	28	OW-1-27S	48.3	35	13
OW-1-20S	49.3	40	10	OW-1-24D	78.2	30	28	OW-1-28S	48.3	35	13

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1	25	30	OW-1-29S	48.5	40	14	OW-1-33D	83.2	30	30
OW-1-26D	78.1	35	29	OW-1-30S	48.8	40	13	OW-1-34D	84.5	30	32
OW-1-27D	77.9	30	29	OW-1-31S	49.3	30	13	OW-1-35D	85.0	30	30
OW-1-28D	78.0	30	28	OW-1-32S	49.3	30	14	OW-1-36D	85.0	30	29
OW-1-29D	78.4	35	27	OW-1-33S	49.7	30	15	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	30
OW-1-31D	80.5	30	21	OW-1-35S	50.3	35	13	OW-1-39D	78.0	30	29
OW-1-32D	81.6	30	30	OW-1-36S	50.3	35	13	OW-1-40D	76.0	30	28

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

Date: 10/25/2018

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	30	25	OW-1-43	67.4	30	20
OW-1-38S	50.6	30	14	OW-1-42D	71.0	30	23	OW-1-44	66.6	30	20
OW-1-39S	50.7	30	13	OW-1-45	65.7	25	20	OW-1-51R	60.6	30	19
OW-1-40S	51.1	25	13	OW-1-46	64.3	25	19	OW-1-52	59.3	30	17
OW-1-41S	51.5	30	14	OW-1-47	63.4	35	18	OW-1-53	60.0	30	18
OW-1-42S	51.3	30	14	OW-1-48	62.5	30	18	OW-1-54	60.0	30	17
				OW-1-49	61.5	40	18				
				OW-1-50	61.0	40	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	28.96		0	MP-1-5	28.78	6.17	0	MP-1-1D	18.95
MP-1-1S	29.04	20.88	0	MP-1-6	21.06	17.55	0	MP-1-2D	32.81
MP-1-2D	23.34		0.3	MP-1-7	24.35	18.12	0	MP-1-3D	16.79
MP-1-2S	23.61	18.54	0.1	MP-1-8	25.91	2.87	0	MP-1-4D	16.68
MP-1-3D	21.52		0.2						
MP-1-3S	21.47	15.99	0.2						
MP-1-4D	24.33		0						
MP-1-4S	24.34	17.49	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: 10/25/2018

OPERATIONAL NOTES

GA5 Air Compressor

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

AS-80 O_2 Generator

1) 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:

10-25-18 Found all equipment operational except the booster pump upon arrival. Found breaker tripped on booster pump. Reset breaker and tested amp draw and found everything in range. Greased booster pump motor and pump shaft and adjust tension on belt. Cleaned out silt buildup in the water knoock out bowls and checked auto drains. Readjusted regulator feeding air sep unit. Wiped down all equipment and cleaned shed floor.

10-30-18 Found air dryer unit tripped main breaker. Tested and found a dead short on the unit. Disconnected and test all components before finding a bad refrigerant compressor capacitor and control switch. Left system on until parts can be found to replace units. Tested all components of booster pump and found all working correctly. Restarted system and left running.

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 #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	11/30/2018
Time:	13:05
Weather:	Cloudy
Outdoor Temperature:	~49° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	25,255.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	80	(psi)
Oxygen Purity	81.9	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	125	(psi)
(readings below are made from control panel)		
Delivery Air	122	(psi)
Element Outlet Temperature	195	(oF)
Running Hours	5,072	(hours)
Loading Hours	3,646	(hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5	30	30	OW-1-5S	67.3	30	20	OW-1-9D	88.5	40	30
OW-1-2	96.5	40	19	OW-1-6S	67.0	30	19	OW-1-10D	87.2	30	25
OW-1-3	96.3	35	30	OW-1-7S	66.9	35	18	OW-1-11D	86.1	25	30
OW-1-4	95.0	30	30	OW-1-8S	66.7	35	18	OW-1-12D	85.3	30	30
OW-1-5D	93.9	30	30	OW-1-9S	66.0	30	18	OW-1-13D	84.7	30	29
OW-1-6D	92.4	30	31	OW-1-10S	54.6	30	13	OW-1-14D	84.1	30	30
OW-1-7D	91.1	30	31	OW-1-11S	54.1	35	15	OW-1-15D	83.3	30	29
OW-1-8D	89.6	30	30	OW-1-12S	53.6	35	14	OW-1-16D	82.5	30	15

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 11/30/2018

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	15	OW-1-17D	79.5	40	15	OW-1-21S	49.3	30	13
OW-1-14S	52.7	30	14	OW-1-18D	78.3	30	27	OW-1-22S	49.3	30	13
OW-1-15S	52.2	30	14	OW-1-19D	78.9	35	26	OW-1-23S	48.8	30	14
OW-1-16SR	51.8	30	30	OW-1-20D	79.5	40	28	OW-1-24S	48.4	35	15
OW-1-17S	50.7	30	26	OW-1-21D	79.5	40	27	OW-1-25S	48.8	30	14
OW-1-18S	50.2	30	13	OW-1-22D	79.5	35	26	OW-1-26SR	48.3	30	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	40	27	OW-1-27S	48.3	35	13
OW-1-20S	49.3	30	10	OW-1-24D	78.2	40	29	OW-1-28S	48.3	40	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	25	30
OW-1-26D	78.1	30	27	OW-1-30S	48.8	35	13	OW-1-34D	84.5	35	29
OW-1-27D	77.9	30	27	OW-1-31S	49.3	35	13	OW-1-35D	85.0	30	29
OW-1-28D	78.0	25	28	OW-1-32S	49.3	35	14	OW-1-36D	85.0	30	30
OW-1-29D	78.4	30	27	OW-1-33S	49.7	30	14	OW-1-37D	84.0	45	19
OW-1-30D	79.0	30	37	OW-1-34S	50.1	30	12	OW-1-38D	82.0	35	28
OW-1-31D	80.5	30	20	OW-1-35S	50.3	30	13	OW-1-39D	78.0	30	28
OW-1-32D	81.6	30	30	OW-1-36S	50.3	30	13	OW-1-40D	76.0	30	28

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

Date: 11/30/2018

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	30	24	OW-1-43	67.4	30	20
OW-1-38S	50.6	30	13	OW-1-42D	71.0	25	22	OW-1-44	66.6	30	20
OW-1-39S	50.7	30	13	OW-1-45	65.7	25	20	OW-1-51R	60.6	30	19
OW-1-40S	51.1	25	13	OW-1-46	64.3	30	19	OW-1-52	59.3	30	17
OW-1-41S	51.5	20	14	OW-1-47	63.4	35	18	OW-1-53	60.0	30	17
OW-1-42S	51.3	30	13	OW-1-48	62.5	30	18	OW-1-54	60.0	30	17
				OW-1-49	61.5	25	17				
				OW-1-50	61.0	30	17				

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

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	28.27		0	MP-1-5	28.09	12.97	0	MP-1-1D	15.11
MP-1-1S	28.35	13.35	0	MP-1-6	20.35	6.37	0	MP-1-2D	16.70
MP-1-2D	22.68		0	MP-1-7	23.61	13.33	0	MP-1-3D	14.08
MP-1-2S	22.90	14.05	0	MP-1-8	25.11	2.12	0	MP-1-4D	13.67
MP-1-3D	20.81		0.3						
MP-1-3S	20.72	12.66	0.1						
MP-1-4D	23.56		0.4						
MP-1-4S	23.59	11.51	0.2						

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 11/30/2018

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:

11-30-18 Found system off due to a booster pump breaker trip. Reset system and let build up pressure. Drained oil water canister. Greased booster pump motor and pump shaft. Added small amount of cooling oil to air compressor. Wiped down all equipment and cleaned shed floor. Restarted system and left running.

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 #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	12/27/2018
Time:	14:00
Weather:	Sunny
Outdoor Temperature:	~44° F
Inside Trailer Temperature:	~65° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	25,268.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	115	(psi)
Oxygen Purity	81.0	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	120	(psi)
(readings below are made from control panel)		
Delivery Air	125	(psi)
Element Outlet Temperature	171	(oF)
Running Hours	5,107	(hours)
Loading Hours	3,658	(hours)

* maximum reading during loading cycle

O_2 Injection System #1

Injection Bank 1				Injection Bank 2				Injection Bank 3			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-1	95.5	30	28	OW-1-5S	67.3	40	20	OW-1-9D	88.5	35	30
OW-1-2	96.5	30	20	OW-1-6S	67.0	30	18	OW-1-10D	87.2	35	25
OW-1-3	96.3	30	30	OW-1-7S	66.9	30	18	OW-1-11D	86.1	40	30
OW-1-4	95.0	30	30	OW-1-8S	66.7	30	19	OW-1-12D	85.3	30	29
OW-1-5D	93.9	35	30	OW-1-9S	66.0	35	18	OW-1-13D	84.7	30	30
OW-1-6D	92.4	30	28	OW-1-10S	54.6	35	12	OW-1-14D	84.1	30	30
OW-1-7D	91.1	35	30	OW-1-11S	54.1	40	14	OW-1-15D	83.3	30	28
OW-1-8D	89.6	30	30	OW-1-12S	53.6	35	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: 12/27/2018

O_2 Injection System #1

Injection Bank 4				Injection Bank 5				Injection Bank 6			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-13S	53.1	35	15	OW-1-17D	79.5	35	15	OW-1-21S	49.3	30	13
OW-1-14S	52.7	35	14	OW-1-18D	78.3	35	26	OW-1-22S	49.3	30	14
OW-1-15S	52.2	40	14	OW-1-19D	78.9	40	27	OW-1-23S	48.8	30	14
OW-1-16SR	51.8	30	30	OW-1-20D	79.5	35	30	OW-1-24S	48.4	30	13
OW-1-17S	50.7	30	27	OW-1-21D	79.5	30	27	OW-1-25S	48.8	30	13
OW-1-18S	50.2	30	13	OW-1-22D	79.5	30	26	OW-1-26SR	48.3	30	13
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	30	26	OW-1-27S	48.3	30	14
OW-1-20S	49.3	35	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	40	29	OW-1-29S	48.5	35	13	OW-1-33D	83.2	30	30
OW-1-26D	78.1	30	28	OW-1-30S	48.8	40	13	OW-1-34D	84.5	30	29
OW-1-27D	77.9	35	29	OW-1-31S	49.3	45	14	OW-1-35D	85.0	30	30
OW-1-28D	78.0	25	28	OW-1-32S	49.3	40	13	OW-1-36D	85.0	30	30
OW-1-29D	78.4	30	29	OW-1-33S	49.7	40	14	OW-1-37D	84.0	30	28
OW-1-30D	79.0	30	37	OW-1-34S	50.1	35	12	OW-1-38D	82.0	30	28
OW-1-31D	80.5	30	20	OW-1-35S	50.3	30	13	OW-1-39D	78.0	30	27
OW-1-32D	81.6	30	30	OW-1-36S	50.3	30	13	OW-1-40D	76.0	30	28

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

Date: 12/27/2018

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	40	4	OW-1-43	67.4	25	22
OW-1-38S	50.6	30	14	OW-1-42D	71.0	30	22	OW-1-44	66.6	30	20
OW-1-39S	50.7	30	13	OW-1-45	65.7	30	20	OW-1-51R	60.6	35	18
OW-1-40S	51.1	30	14	OW-1-46	64.3	30	19	OW-1-52	59.3	25	17
OW-1-41S	51.5	30	14	OW-1-47	63.4	40	18	OW-1-53	60.0	30	17
OW-1-42S	51.3	30	13	OW-1-48	62.5	40	18	OW-1-54	60.0	30	18
				OW-1-49	61.5	35	17				
				OW-1-50	61.0	25	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	27.56		0.3	MP-1-5	27.40	20.42	0	MP-1-1D	26.84
MP-1-1S	27.67	21.94	0.3	MP-1-6	19.67	7.11	0	MP-1-2D	20.79
MP-1-2D	21.97		0	MP-1-7	22.97	7.59	0	MP-1-3D	14.79
MP-1-2S	22.27	19.89	0	MP-1-8	24.48	3.02	0	MP-1-4D	14.00
MP-1-3D	20.14		0.0						
MP-1-3S	20.06	12.45	0						
MP-1-4D	22.93		0.3						
MP-1-4S	22.95	13.55	0.2						

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 12/27/2018

OPERATIONAL NOTES

GA5 Air Compressor

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

AS-80 O_2 Generator

1) 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:

12-27-18 Found system off due to a booster pump breaker trip. Reset system and let build up pressure. Found pump building very slow and amperage building. Drained oil water canister. Checked out booster pump and found worn out tip seals. Wiped down all equipment and cleaned shed floor. Left system off until tip seals can be replaced..

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 #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	1/22/2019
Time:	13:45
Weather:	Sunny
Outdoor Temperature:	~30˚ F
Inside Trailer Temperature:	~70˚ F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	25,519.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	115	(psi)
Oxygen Purity	87.5	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	135	(psi)
(readings below are made from control panel)		
Delivery Air	136	(psi)
Element Outlet Temperature	192	(oF)
Running Hours	5,392	(hours)
Loading Hours	3,860	(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	40	30	OW-1-5S	67.3	30	18	OW-1-9D	88.5	30	30
OW-1-2	96.5	40	18	OW-1-6S	67.0	30	19	OW-1-10D	87.2	30	25
OW-1-3	96.3	35	30	OW-1-7S	66.9	30	18	OW-1-11D	86.1	30	30
OW-1-4	95.0	45	29	OW-1-8S	66.7	30	18	OW-1-12D	85.3	40	30
OW-1-5D	93.9	40	30	OW-1-9S	66.0	40	18	OW-1-13D	84.7	40	29
OW-1-6D	92.4	30	30	OW-1-10S	54.6	30	13	OW-1-14D	84.1	40	30
OW-1-7D	91.1	35	31	OW-1-11S	54.1	35	14	OW-1-15D	83.3	30	28
OW-1-8D	89.6	35	30	OW-1-12S	53.6	35	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: 1/22/2019

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

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1	40	27	OW-1-29S	48.5	30	12	OW-1-33D	83.2	40	28
OW-1-26D	78.1	30	27	OW-1-30S	48.8	30	12	OW-1-34D	84.5	40	29
OW-1-27D	77.9	30	27	OW-1-31S	49.3	30	12	OW-1-35D	85.0	30	22
OW-1-28D	78.0	30	27	OW-1-32S	49.3	35	13	OW-1-36D	85.0	30	29
OW-1-29D	78.4	35	25	OW-1-33S	49.7	35	13	OW-1-37D	84.0	25	28
OW-1-30D	79.0	30	30	OW-1-34S	50.1	35	13	OW-1-38D	82.0	30	27
OW-1-31D	80.5	35	19	OW-1-35S	50.3	45	13	OW-1-39D	78.0	30	27
OW-1-32D	81.6	35	28	OW-1-36S	50.3	40	13	OW-1-40D	76.0	30	28

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

Date: 1/22/2019

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	35	23	OW-1-43	67.4	30	20
OW-1-38S	50.6	30	13	OW-1-42D	71.0	35	22	OW-1-44	66.6	30	19
OW-1-39S	50.7	30	13	OW-1-45	65.7	40	19	OW-1-51R	60.6	30	17
OW-1-40S	51.1	35	12	OW-1-46	64.3	40	18	OW-1-52	59.3	30	16
OW-1-41S	51.5	30	13	OW-1-47	63.4	30	17	OW-1-53	60.0	30	17
OW-1-42S	51.3	30	13	OW-1-48	62.5	30	18	OW-1-54	60.0	30	16
				OW-1-49	61.5	30	18				
				OW-1-50	61.0	30	16				

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

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	26.61		0	MP-1-5	26.43	20.10	0	MP-1-1D	24.64
MP-1-1S	26.63	28.11	0	MP-1-6	18.71	8.19	0	MP-1-2D	28.71
MP-1-2D	21.14		0	MP-1-7	22.00	12.57	0	MP-1-3D	25.13
MP-1-2S	21.21	26.51	0	MP-1-8	23.53	1.97	0	MP-1-4D	24.97
MP-1-3D	19.20		0.4						
MP-1-3S	19.11	26.44	0.2						
MP-1-4D	21.94		0.3						
MP-1-4S	21.97	23.74	0.3						

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 1/22/2019

OPERATIONAL NOTES

GA5 Air Compressor

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

AS-80 O_2 Generator

1) 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:

1-3-19 Checked booster pump and found motor drawing high amps. Removed inline check valves and cleaned as needed. Removed solenoid valves and cleaned and repair as needed. Removed tip seals and replaced. Greased motor and pump bearings and restated system. Observed system cycling and found operating in good condition.

1-22-19 Found system operational upon arrival. Conducted site transition site walk with National Grid. Drained oil water canister and wiped out with pads. Wiped down all equipment and cleaned shed floor. Restarted system and left running.

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 #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	2/21/2019
Time:	14:10
Weather:	Sunny
Outdoor Temperature:	~50° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O_2 Generator (AirSep)

Hours	25,969.0	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	105	(psi)
Oxygen Purity	83.4	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	130	(psi)
(readings below are made from control panel)		
Delivery Air	135	(psi)
Element Outlet Temperature	175	(oF)
Running Hours	5,887	(hours)
Loading Hours	4,220	(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	25	OW-1-5S	67.3	25	18	OW-1-9D	88.5	35	29
OW-1-2	96.5	45	0	OW-1-6S	67.0	30	18	OW-1-10D	87.2	35	28
OW-1-3	96.3	40	30	OW-1-7S	66.9	35	17	OW-1-11D	86.1	35	30
OW-1-4	95.0	35	30	OW-1-8S	66.7	30	18	OW-1-12D	85.3	40	29
OW-1-5D	93.9	40	30	OW-1-9S	66.0	30	18	OW-1-13D	84.7	30	28
OW-1-6D	92.4	30	30	OW-1-10S	54.6	40	13	OW-1-14D	84.1	30	29
OW-1-7D	91.1	30	30	OW-1-11S	54.1	50	15	OW-1-15D	83.3	30	28
OW-1-8D	89.6	30	30	OW-1-12S	53.6	30	15	OW-1-16D	82.5	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 #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: 2/21/2019

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	12	OW-1-17D	79.5	25	13	OW-1-21S	49.3	35	10
OW-1-14S	52.7	30	12	OW-1-18D	78.3	20	25	OW-1-22S	49.3	30	10
OW-1-15S	52.2	35	12	OW-1-19D	78.9	30	25	OW-1-23S	48.8	30	10
OW-1-16SR	51.8	30	18	OW-1-20D	79.5	30	28	OW-1-24S	48.4	40	10
OW-1-17S	50.7	40	25	OW-1-21D	79.5	40	25	OW-1-25S	48.8	40	12
OW-1-18S	50.2	30	12	OW-1-22D	79.5	40	25	OW-1-26SR	48.3	30	12
OW-1-19S	49.7	OFF	OFF	OW-1-23D	78.7	45	25	OW-1-27S	48.3	25	12
OW-1-20S	49.3	40	0	OW-1-24D	78.2	30	25	OW-1-28S	48.3	35	12

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. Injection times at Bank #5 were set at 3 minutes.

O_2 Injection System #1

Injection Bank 7				Injection Bank 8				Injection Bank 9			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-25D	78.1	45	28	OW-1-29S	48.5	35	12	OW-1-33D	83.2	30	28
OW-1-26D	78.1	35	12	OW-1-30S	48.8	40	12	OW-1-34D	84.5	35	30
OW-1-27D	77.9	30	28	OW-1-31S	49.3	40	12	OW-1-35D	85.0	30	29
OW-1-28D	78.0	30	25	OW-1-32S	49.3	35	12	OW-1-36D	85.0	25	29
OW-1-29D	78.4	35	25	OW-1-33S	49.7	40	12	OW-1-37D	84.0	25	29
OW-1-30D	79.0	35	30	OW-1-34S	50.1	35	12	OW-1-38D	82.0	30	28
OW-1-31D	80.5	40	15	OW-1-35S	50.3	40	13	OW-1-39D	78.0	40	27
OW-1-32D	81.6	30	28	OW-1-36S	50.3	40	12	OW-1-40D	76.0	30	28

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

Date: 2/21/2019

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #1

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

O_2 Injection System #1

Injection Bank 10				Injection Bank 11				Injection Bank 12			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	psi
OW-1-37S	50.5	35	12	OW-1-41D	73.6	35	22	OW-1-43	67.4	40	20
OW-1-38S	50.6	30	13	OW-1-42D	71.0	30	22	OW-1-44	66.6	40	19
OW-1-39S	50.7	35	13	OW-1-45	65.7	30	20	OW-1-51R	60.6	35	18
OW-1-40S	51.1	30	12	OW-1-46	64.3	25	18	OW-1-52	59.3	30	11
OW-1-41S	51.5	30	13	OW-1-47	63.4	35	18	OW-1-53	60.0	45	17
OW-1-42S	51.3	30	13	OW-1-48	62.5	30	18	OW-1-54	60.0	45	15
				OW-1-49	61.5	30	17				
				OW-1-50	61.0	35	17				

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

O_2 Injection System #1

Monitoring Points Log				Monitoring Points Log				Monitoring Points Log	
ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DTW	DO (mg/L) Bottom	PID (ppm)	ID	DO (mg/L) Middle
MP-1-1D	26.16		0	MP-1-5	25.95	7.71	0	MP-1-1D	29.71
MP-1-1S	26.20	24.88	0	MP-1-6	18.22	6.15	0	MP-1-2D	38.00
MP-1-2D	20.48		0	MP-1-7	21.50	4.49	0	MP-1-3D	34.40
MP-1-2S	20.72	35.33	0	MP-1-8	23.03	3.02	0	MP-1-4D	34.67
MP-1-3D	18.72		0						
MP-1-3S	18.65	23.02	0						
MP-1-4D	21.45		0						
MP-1-4S	21.51	26.55	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: 2/21/2019

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:

2-21-19 Found system operational upon arrival. Added small amount of oil to compressor. Greased booster pump motor. Removed layer of oil from separator with pads. Checked and secured all auto drains. Wiped down all equipment and cleaned shed floor. Restarted system and left running.

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:	4/30/2018
Time:	11:45
Weather:	Rain
Outdoor Temperature:	~48° F
Inside Trailer Temperature:	~80° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	42,487	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	70	(psi)
Oxygen Receiver Pressure *	120	(psi)
Oxygen Purity	90.2	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	95	(psi)
(readings below are made from control panel)		
Delivery Air	105	(psi)
Element Outlet Temperature	169	(^{o}F)
Running Hours	48,329	(hours)
Loading Hours	42,519	(hours)

* maximum reading during loading cycle

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'	30	28	OW-2-9S	75'	30	20	OW-2-10D	97.2'	35	28
OW-2-3	94.3'	40	29	OW-2-10S	75'	30	29	OW-2-11D	100.8'	35	31
OW-2-4	94.7'	40	30	OW-2-11S	76.5'	30	19	OW-2-12	94'	40	21
OW-2-5	95.3'	30	29	OW-2-13S	75'	30	19	OW-2-13D	97'	45	35
OW-2-6	95.7'	35	30	OW-2-15S	75'	30	17	OW-2-14	96.4'	40	29
OW-2-7	96'	30	29	OW-2-16S	75.5'	30	19	OW-2-15D	94.6'	30	28
OW-2-8	96.3'	30	29	OW-2-18S	74.5'	35	15	OW-2-16D	94.1'	30	28
OW-2-9D	96.7'	30	29	OW-2-20S	79'	30	16	OW-2-17	95'	30	29

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 4/30/2018

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'	40	31	OW-2-22S	76'	30	21	OW-2-26D	95'	35	30
OW-2-19	96.1'	40	29	OW-2-24S	77.8'	30	25	OW-2-27	93.5'	25	31
OW-2-20D	96.6'	30	32	OW-2-26S	74'	30	20	OW-2-28D	92.1'	30	29
OW-2-21	96.6'	25	35	OW-2-28S	76'	30	22	OW-2-29	92.2'	30	29
OW-2-22D	96.3'	30	29	OW-2-30S	67.8'	30	18	OW-2-30D	88'	30	28
OW-2-23	97.2'	30	30	OW-2-34	71'	30	20	OW-2-31	86'	30	27
OW-2-24D	97'	30	30	OW-2-35	69.2'	30	21	OW-2-32	84'	30	31
OW-2-25	96'	25	29	OW-2-36	64.8'	30	20	OW-2-33	82'	30	32

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	21	OW-2-45	61.1'	30	21	MP-2-1	31.22	22.58	0
OW-2-38	62.1'	30	22	OW-2-46	61'	30	19	MP-2-2	32.57	33.53	0
OW-2-39	60'	30	20	OW-2-47	60.5'	30	21	MP-2-3S	32.46	34.55	0
OW-2-40	61.7'	30	20					MP-2-3D	32.60	39.14	0
OW-2-41	61.7'	35	20					MP-2-4	21.18	35.20	0
OW-2-42	61.6'	30	19					MP-2-5	19.37	26.17	0.2
OW-2-43	61.4'	45	21								
OW-2-44R	60.6'	30	21								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 4/30/2018

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:

4-30-18 Found system operational upon arrival. Found auto drain at base of air holding tank stuck open. Removed valve from base of tank and took apart to clean out heavy iron build up in plunger of valve. Blew out discharge line to remove iron build up. Check belt tension and adjusted as needed. Took apart and clean auto drain on water knock out bowl. 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:	5/30/2018
Time:	11:30
Weather:	Cloudy
Outdoor Temperature:	~70° F
Inside Trailer Temperature:	~100° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	43,001	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	100	(psi)
Oxygen Purity	88.7	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	90	(psi)
(readings below are made from control panel)		
Delivery Air	105	(psi)
Element Outlet Temperature	149	(^{o}F)
Running Hours	49,013	(hours)
Loading Hours	43,034	(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	31	OW-2-9S	75'	30	20	OW-2-10D	97.2'	25	27
OW-2-3	94.3'	40	30	OW-2-10S	75'	30	30	OW-2-11D	100.8'	35	31
OW-2-4	94.7'	40	32	OW-2-11S	76.5'	30	22	OW-2-12	94'	40	20
OW-2-5	95.3'	35	30	OW-2-13S	75'	30	20	OW-2-13D	97'	30	35
OW-2-6	95.7'	30	31	OW-2-15S	75'	40	20	OW-2-14	96.4'	30	30
OW-2-7	96'	30	30	OW-2-16S	75.5'	40	21	OW-2-15D	94.6'	30	29
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	35	20	OW-2-16D	94.1'	30	28
OW-2-9D	96.7'	25	31	OW-2-20S	79'	25	22	OW-2-17	95'	30	29

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 5/30/2018

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'	30	30	OW-2-22S	76'	30	20	OW-2-26D	95'	30	29
OW-2-19	96.1'	25	30	OW-2-24S	77.8'	30	25	OW-2-27	93.5'	30	30
OW-2-20D	96.6'	25	32	OW-2-26S	74'	30	21	OW-2-28D	92.1'	40	27
OW-2-21	96.6'	35	34	OW-2-28S	76'	30	33	OW-2-29	92.2'	40	28
OW-2-22D	96.3'	25	29	OW-2-30S	67.8'	30	18	OW-2-30D	88'	40	27
OW-2-23	97.2'	30	30	OW-2-34	71'	30	21	OW-2-31	86'	30	28
OW-2-24D	97'	30	31	OW-2-35	69.2'	30	22	OW-2-32	84'	30	31
OW-2-25	96'	30	29	OW-2-36	64.8'	30	20	OW-2-33	82'	30	32

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	21	OW-2-45	61.1'	30	21	MP-2-1	31.21	25.05	0
OW-2-38	62.1'	35	22	OW-2-46	61'	30	21	MP-2-2	32.55	36.01	0
OW-2-39	60'	30	20	OW-2-47	60.5'	30	20	MP-2-3S	32.45	38.00	0.1
OW-2-40	61.7'	30	19					MP-2-3D	32.57	36.29	0
OW-2-41	61.7'	30	20					MP-2-4	21.05	27.60	0
OW-2-42	61.6'	30	19					MP-2-5	21.29	27.71	0
OW-2-43	61.4'	35	22								
OW-2-44R	60.6'	30	20								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 5/30/2018

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:

5-30-18 Found system operational upon arrival. Added small amount of cooling oil to compressor & tightened up bel on pulley. Changed fresh air intake filters. Found signs of carpenter ants in shed. Sprayed all areas with any killer spray and sealed where the ants were getting in with silicone. Wiped down all equipment and cleaned up debris and leaves around shed. Restarted system and left system running.

5-31-18 Furnished and installed new air conditioner unit in system shed. Sealed areas around new AC unit and started unit at a normal temperature for the shed. Restarted system and left 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:	6/29/2018
Time:	11:00
Weather:	Sunny
Outdoor Temperature:	~86° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	43,228	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	120	(psi)
Oxygen Purity	88	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	100	(psi)
Element Outlet Temperature	163	(^{o}F)
Running Hours	49,354	(hours)
Loading Hours	43,268	(hours)

* maximum reading during loading cycle

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'	30	28	OW-2-9S	75'	30	20	OW-2-10D	97.2'	30	28
OW-2-3	94.3'	30	29	OW-2-10S	75'	30	29	OW-2-11D	100.8'	30	31
OW-2-4	94.7'	30	30	OW-2-11S	76.5'	30	22	OW-2-12	94'	30	25
OW-2-5	95.3'	35	28	OW-2-13S	75'	40	19	OW-2-13D	97'	30	32
OW-2-6	95.7'	30	30	OW-2-15S	75'	35	18	OW-2-14	96.4'	35	28
OW-2-7	96'	25	29	OW-2-16S	75.5'	30	19	OW-2-15D	94.6'	35	30
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	30	18	OW-2-16D	94.1'	30	27
OW-2-9D	96.7'	30	29	OW-2-20S	79'	30	21	OW-2-17	95'	35	29

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/29/2018

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	32	OW-2-22S	76'	25	19	OW-2-26D	95'	30	32
OW-2-19	96.1'	20	30	OW-2-24S	77.8'	35	18	OW-2-27	93.5'	30	29
OW-2-20D	96.6'	30	27	OW-2-26S	74'	40	19	OW-2-28D	92.1'	30	27
OW-2-21	96.6'	35	28	OW-2-28S	76'	40	20	OW-2-29	92.2'	35	28
OW-2-22D	96.3'	40	27	OW-2-30S	67.8'	30	17	OW-2-30D	88'	30	28
OW-2-23	97.2'	30	27	OW-2-34	71'	25	18	OW-2-31	86'	35	30
OW-2-24D	97'	30	29	OW-2-35	69.2'	30	21	OW-2-32	84'	30	27
OW-2-25	96'	35	28	OW-2-36	64.8'	30	19	OW-2-33	82'	30	26

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

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	25	19	OW-2-45	61.1'	30	21	MP-2-1	31.50	28.51	0
OW-2-38	62.1'	30	18	OW-2-46	61'	30	20	MP-2-2	32.90	26.77	0
OW-2-39	60'	40	17	OW-2-47	60.5'	30	20	MP-2-3S	32.76	31.99	0.1
OW-2-40	61.7'	40	18					MP-2-3D	32.92	34.94	0
OW-2-41	61.7'	30	19					MP-2-4	21.48	23.09	0.2
OW-2-42	61.6'	30	18					MP-2-5	19.66	24.91	0.2
OW-2-43	61.4'	30	18								
OW-2-44R	60.6'	25	19								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 6/29/2018

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 X No
7) Oil separator cleaned Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Prefilter changed Yes No 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:

6-17-18 System triggered a compressor alarm.

6-18-18 Found system down upon arrival. Found compressor in alarm with very low cooling oil. Filled back up and found oil leak on top of canister. Took apart each valve and replaced O-rings as needed. Replaced O-ring for main flange and put canister back together. Restarted system and cycled unit and found no leaks.

6-29-18 Found system operational upon arrival. Changed oil in compressor. Repaired cracked hose on oxygen line. Changed blown 100 watt light bulb in shed. Changed fresh air door filters. Cut down heavy growth of weeds from fence area. 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:	8/1/2018
Time:	14:15
Weather:	Sunny
Outdoor Temperature:	~87° F
Inside Trailer Temperature:	~72° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	43,694	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	120	(psi)
Oxygen Purity	79.9	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	100	(psi)
Element Outlet Temperature	165	(^{o}F)
Running Hours	50,085	(hours)
Loading Hours	43,750	(hours)

* maximum reading during loading cycle

O_2 Injection System #2

Injection Bank A				Injection Bank B				Injection Bank C			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-2	90.2'	30	28	OW-2-9S	75'	35	21	OW-2-10D	97.2'	35	27
OW-2-3	94.3'	30	30	OW-2-10S	75'	30	30	OW-2-11D	100.8'	45	32
OW-2-4	94.7'	30	32	OW-2-11S	76.5'	30	22	OW-2-12	94'	45	32
OW-2-5	95.3'	30	30	OW-2-13S	75'	30	18	OW-2-13D	97'	40	30
OW-2-6	95.7'	30	30	OW-2-15S	75'	35	18	OW-2-14	96.4'	30	27
OW-2-7	96'	30	29	OW-2-16S	75.5'	30	19	OW-2-15D	94.6'	30	30
OW-2-8	96.3'	30	29	OW-2-18S	74.5'	30	18	OW-2-16D	94.1'	30	27
OW-2-9D	96.7'	30	29	OW-2-20S	79'	35	21	OW-2-17	95'	30	28

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 8/1/2018

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

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

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	30	20	OW-2-45	61.1'	25	21	MP-2-1	31.87	21.99	0.3
OW-2-38	62.1'	35	22	OW-2-46	61'	30	19	MP-2-2	33.20	21.11	0.3
OW-2-39	60'	35	18	OW-2-47	60.5'	30	18	MP-2-3S	33.06	34.85	0
OW-2-40	61.7'	35	21					MP-2-3D	33.22	36.06	0
OW-2-41	61.7'	30	20					MP-2-4	21.78	25.72	0.2
OW-2-42	61.6'	30	20					MP-2-5	19.97	24.09	0
OW-2-43	61.4'	30	20								
OW-2-44R	60.6'	30	20								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 8/1/2018

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 X No
7) Oil separator cleaned Yes No X
8) Terminal strips checked Yes X No

AS-80 O_2 Generator

1) Prefilter changed Yes No 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:

8-1-18 Found system operational upon arrival. Found auto drain in water knock out bowl stuck open. Took apart drain and cleaned and replaced float. Repaired leak in flow meter by replacing the O-ring. Cut down heavy growth of weeds from fence area. 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:	8/31/2018
Time:	11:45
Weather:	Clear
Outdoor Temperature:	~80° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	44,122	
Feed Air Pressure *	105	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	120	(psi)
Oxygen Purity	89.6	(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	174	(^{o}F)
Running Hours	50,736	(hours)
Loading Hours	44,191	(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	30	OW-2-9S	75'	40	22	OW-2-10D	97.2'	30	29
OW-2-3	94.3'	35	30	OW-2-10S	75'	45	32	OW-2-11D	100.8'	30	31
OW-2-4	94.7'	30	31	OW-2-11S	76.5'	35	23	OW-2-12	94'	30	27
OW-2-5	95.3'	25	29	OW-2-13S	75'	30	21	OW-2-13D	97'	35	33
OW-2-6	95.7'	30	30	OW-2-15S	75'	30	19	OW-2-14	96.4'	35	30
OW-2-7	96'	30	30	OW-2-16S	75.5'	30	19	OW-2-15D	94.6'	30	28
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	35	19	OW-2-16D	94.1'	30	27
OW-2-9D	96.7'	30	30	OW-2-20S	79'	30	21	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: 8/31/2018

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

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	30	20	OW-2-45	61.1'	30	21	MP-2-1	31.90	19.15	0
OW-2-38	62.1'	30	19	OW-2-46	61'	30	21	MP-2-2	33.25	18.02	0
OW-2-39	60'	30	21	OW-2-47	60.5'	30	20	MP-2-3S	33.12	30.70	0.2
OW-2-40	61.7'	40	19					MP-2-3D	33.04	33.10	0
OW-2-41	61.7'	45	20					MP-2-4	21.85	28.65	0
OW-2-42	61.6'	35	20					MP-2-5	20.04	27.67	0
OW-2-43	61.4'	30	19								
OW-2-44R	60.6'	30	20								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 8/31/2018

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:

8-1-18 Found system operational upon arrival. Found auto drain in water knock out bowl stuck open. Took apart drain and cleaned and replaced float. Repaired leak in flow meter by replacing the O-ring. Cut down heavy growth of weeds from fence area. Wiped down all equipment and cleaned up debris and leaves around shed. Restarted system and left system running.

8-2-18 Started routine maintenance. Opened compressor and found cooling oil leak on top of separator canister. Sprayed down motor and controls and wiped down all equipment to cleaned and find and repair leak. Drained oil and changed all filters, belts, and fresh air filters on compressor. Replaced filter in water knock out bowl and auto drain float. Cleaned oil/water separator and replaced short section of rotten hose. Adjust leaking valve on air regulator feed line. Wiped down all equipment and washed shed floor. Pulled out weeds from along fence areas. Restarted system and left running.

8-9-18 Check system after several power failures due to storms during previous night. Found system up an running. Reset maintenance clock on system. Checked oxygen injection line connections with soap and water and repaired leaks as needed.

8-31-18 Found system running upon arrival. Check system and found leak in brass union on the oxygen manifold. Tighter fitting to repair leak. Wiped down all equipment and cleaned up debris and leaves around shed. Restarted system and left system running.

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:	9/24/2018
Time:	11:45
Weather:	Cloudy
Outdoor Temperature:	~64° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	44,409	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	125	(psi)
Oxygen Purity	88.5	(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	172	(^{o}F)
Running Hours	51,157	(hours)
Loading Hours	44,484	(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	psi
OW-2-2	90.2'	30	30	OW-2-9S	75'	25	22	OW-2-10D	97.2'	25	27
OW-2-3	94.3'	30	32	OW-2-10S	75'	35	30	OW-2-11D	100.8'	35	32
OW-2-4	94.7'	30	32	OW-2-11S	76.5'	30	22	OW-2-12	94'	35	23
OW-2-5	95.3'	35	30	OW-2-13S	75'	30	20	OW-2-13D	97'	35	30
OW-2-6	95.7'	30	30	OW-2-15S	75'	30	20	OW-2-14	96.4'	30	27
OW-2-7	96'	20	29	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	30	30
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	35	18	OW-2-16D	94.1'	30	27
OW-2-9D	96.7'	30	31	OW-2-20S	79'	30	20	OW-2-17	95'	30	28

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 9/24/2018

O_2 Injection System #2

Injection Bank D				Injection Bank E				Injection Bank F			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	Depth	scfh	scfh
OW-2-18D	95.5'	30	28	OW-2-22S	76'	30	21	OW-2-26D	95'	30	28
OW-2-19	96.1'	35	30	OW-2-24S	77.8'	30	22	OW-2-27	93.5'	30	28
OW-2-20D	96.6'	30	30	OW-2-26S	74'	30	20	OW-2-28D	92.1'	30	27
OW-2-21	96.6'	35	30	OW-2-28S	76'	30	20	OW-2-29	92.2'	30	29
OW-2-22D	96.3'	35	28	OW-2-30S	67.8'	30	18	OW-2-30D	88'	30	27
OW-2-23	97.2'	30	27	OW-2-34	71'	30	19	OW-2-31	86'	40	28
OW-2-24D	97'	30	28	OW-2-35	69.2'	30	23	OW-2-32	84'	35	27
OW-2-25	96'	30	30	OW-2-36	64.8'	30	20	OW-2-33	82'	35	30

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. 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	23	OW-2-45	61.1'	30	21	MP-2-1	32.07	22.12	0
OW-2-38	62.1'	25	24	OW-2-46	61'	30	20	MP-2-2	33.42	17.78	0.2
OW-2-39	60'	30	20	OW-2-47	60.5'	30	19	MP-2-3S	33.35	32.55	0.4
OW-2-40	61.7'	35	21					MP-2-3D	33.34	35.32	0.4
OW-2-41	61.7'	40	21					MP-2-4	22.05	23.57	0
OW-2-42	61.6'	40	21					MP-2-5	20.23	25.43	0
OW-2-43	61.4'	35	20								
OW-2-44R	60.6'	30	20								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 9/24/2018

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:

9-13-18 Responded to alarm condition for a compressor overload alarm. Checked compressor and found no issues with unit. Restarted unit and tested all controls and found to be working correctly. Restarted system and left system running.

9-24-18 Found system running upon arrival. Checked cooling oil system for leaks and belt for proper tension. Found water leak on top of separator canister and repaired as needed. Greased booster pump and motor. Checked all auto drains for proper operation. Found heavy overgrowth of weeds within enclosure and along path leading to shed. Started to cut down all weeds. Restarted system and left running.

9-26-18 Finished cutting down weeds and over growth around shed and paths. Raked and bagged all waste for disposal.

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:	10/26/2018
Time:	11:45
Weather:	Sunny
Outdoor Temperature:	~42° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	44,950	
Feed Air Pressure *	105	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	125	(psi)
Oxygen Purity	87.2	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	110	(psi)
(readings below are made from control panel)		
Delivery Air	115	(psi)
Element Outlet Temperature	169	(^{o}F)
Running Hours	51,874	(hours)
Loading Hours	45,037	(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	psi
OW-2-2	90.2'	45	29	OW-2-9S	75'	30	21	OW-2-10D	97.2'	30	28
OW-2-3	94.3'	35	30	OW-2-10S	75'	40	30	OW-2-11D	100.8'	30	32
OW-2-4	94.7'	40	32	OW-2-11S	76.5'	30	22	OW-2-12	94'	30	23
OW-2-5	95.3'	40	30	OW-2-13S	75'	30	19	OW-2-13D	97'	30	30
OW-2-6	95.7'	30	30	OW-2-15S	75'	40	18	OW-2-14	96.4'	30	27
OW-2-7	96'	30	30	OW-2-16S	75.5'	45	20	OW-2-15D	94.6'	35	30
OW-2-8	96.3'	30	29	OW-2-18S	74.5'	45	18	OW-2-16D	94.1'	40	28
OW-2-9D	96.7'	35	29	OW-2-20S	79'	40	30	OW-2-17	95'	30	28

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 10/26/2018

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

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. 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	21	MP-2-1	31.78	29.31	0
OW-2-38	62.1'	30	24	OW-2-46	61'	35	20	MP-2-2	33.21	21.32	0
OW-2-39	60'	30	20	OW-2-47	60.5'	35	20	MP-2-3S	33.10	27.94	0
OW-2-40	61.7'	30	23					MP-2-3D	33.13	34.15	0
OW-2-41	61.7'	30	20					MP-2-4	21.85	21.93	0
OW-2-42	61.6'	30	20					MP-2-5	19.98	39.16	0
OW-2-43	61.4'	30	20								
OW-2-44R	60.6'	30	20								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 10/26/2018

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:

10-26-18 Found system running upon arrival. Checked cooling oil system for leaks and belt for proper tension. Found auto drain stuck open in the air dryer, adjusted as needed. Adjust pressure switch as oxygen level was dropping to low in holding tank. Wiped down all equipment and cleaned shed floor. Restarted system and left running.

10-28-18 Responded to alarm condition for a compressor overload alarm. Checked compressor and found no issues with unit. Restarted unit and tested all controls and found to be working correctly. Restarted system and left system running.

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

Action Items:

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date:	11/29/2018
Time:	12:45
Weather:	Cloudy
Outdoor Temperature:	~42° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	45,584	
Feed Air Pressure *	105	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	120	(psi)
Oxygen Purity	80.1	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	105	(psi)
(readings below are made from control panel)		
Delivery Air	105	(psi)
Element Outlet Temperature	171	(^{o}F)
Running Hours	52,637	(hours)
Loading Hours	45,682	(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	psi
OW-2-2	90.2'	30	30	OW-2-9S	75'	25	20	OW-2-10D	97.2'	40	30
OW-2-3	94.3'	35	30	OW-2-10S	75'	35	30	OW-2-11D	100.8'	35	32
OW-2-4	94.7'	30	30	OW-2-11S	76.5'	30	24	OW-2-12	94'	40	28
OW-2-5	95.3'	35	30	OW-2-13S	75'	30	20	OW-2-13D	97'	40	33
OW-2-6	95.7'	35	30	OW-2-15S	75'	30	20	OW-2-14	96.4'	30	30
OW-2-7	96'	30	32	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	30	30
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	35	20	OW-2-16D	94.1'	30	30
OW-2-9D	96.7'	30	30	OW-2-20S	79'	30	22	OW-2-17	95'	30	30

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 11/29/2018

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

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

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	30	20	OW-2-45	61.1'	30	21	MP-2-1	31.18	23.29	0
OW-2-38	62.1'	35	20	OW-2-46	61'	30	20	MP-2-2	32.55	19.95	0
OW-2-39	60'	40	18	OW-2-47	60.5'	30	20	MP-2-3S	32.37	16.94	0
OW-2-40	61.7'	30	18					MP-2-3D	32.49	17.69	0
OW-2-41	61.7'	30	20					MP-2-4	21.05	16.42	0
OW-2-42	61.6'	30	20					MP-2-5	19.18	22.59	0
OW-2-43	61.4'	35	20								
OW-2-44R	60.6'	30	20								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 11/29/2018

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:

11-29-18 Found system running upon arrival. Drained oil/water separator of liquids. Drain small amount of water from knock out bowls. Added small amount of oil to compressor and adjusted belt tension. Wiped down all equipment and cleaned shed floor. Restarted system and left running.

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:	12/26/2018
Time:	13:30
Weather:	Sunny
Outdoor Temperature:	~42° F
Inside Trailer Temperature:	~68° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	46,100	
Feed Air Pressure *	105	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	125	(psi)
Oxygen Purity	85.6	(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	171	(^{o}F)
Running Hours	53,239	(hours)
Loading Hours	46,205	(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	psi
OW-2-2	90.2'	30	28	OW-2-9S	75'	30	22	OW-2-10D	97.2'	45	28
OW-2-3	94.3'	40	31	OW-2-10S	75'	30	30	OW-2-11D	100.8'	30	31
OW-2-4	94.7'	30	30	OW-2-11S	76.5'	30	21	OW-2-12	94'	30	22
OW-2-5	95.3'	30	29	OW-2-13S	75'	35	18	OW-2-13D	97'	40	28
OW-2-6	95.7'	30	30	OW-2-15S	75'	35	18	OW-2-14	96.4'	35	29
OW-2-7	96'	40	29	OW-2-16S	75.5'	25	19	OW-2-15D	94.6'	35	30
OW-2-8	96.3'	40	30	OW-2-18S	74.5'	30	17	OW-2-16D	94.1'	40	28
OW-2-9D	96.7'	35	30	OW-2-20S	79'	40	17	OW-2-17	95'	30	28

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 12/26/2018

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

Comments: All injection point flows were adjusted to the target flow rate of ~30 scfh provided that the pressure reading was no greater than the pressures provided in the hydrostatic tables prepared by URS Corporation after collecting readings. 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	20	OW-2-45	61.1'	35	21	MP-2-1	30.80	21.94	0
OW-2-38	62.1'	35	18	OW-2-46	61'	20	19	MP-2-2	31.84	20.85	0
OW-2-39	60'	30	18	OW-2-47	60.5'	30	20	MP-2-3S	31.72	18.67	0
OW-2-40	61.7'	30	20					MP-2-3D	31.83	21.85	0
OW-2-41	61.7'	30	20					MP-2-4	20.40	22.59	0
OW-2-42	61.6'	40	20					MP-2-5	18.57	23.88	0
OW-2-43	61.4'	35	18								
OW-2-44R	60.6'	30	20								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 12/26/2018

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:

12-26-18 Found system running upon arrival. Drained oil/water separator of liquids. Drain small amount of water from knock out bowls. Added small amount of oil to compressor and adjusted belt tension. Found air leaks in two lines under flow meters 19 & 23D, shut wells off until repairs could be made. Repaired stuck valve on auto drain in air dryer unit. Wiped down all equipment and cleaned shed floor. Restarted system and left running.

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:	1/23/2019
Time:	11:45
Weather:	Cloudy
Outdoor Temperature:	~39° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	46,663	
Feed Air Pressure *	85	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	80	(psi)
Oxygen Purity	87.2	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	85	(psi)
(readings below are made from control panel)		
Delivery Air	100	(psi)
Element Outlet Temperature	171	(^{o}F)
Running Hours	53,885	(hours)
Loading Hours	46,774	(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	psi
OW-2-2	90.2'	30	32	OW-2-9S	75'	30	20	OW-2-10D	97.2'	35	27
OW-2-3	94.3'	30	30	OW-2-10S	75'	30	30	OW-2-11D	100.8'	30	30
OW-2-4	94.7'	30	34	OW-2-11S	76.5'	40	22	OW-2-12	94'	30	20
OW-2-5	95.3'	30	30	OW-2-13S	75'	30	18	OW-2-13D	97'	30	24
OW-2-6	95.7'	35	30	OW-2-15S	75'	40	18	OW-2-14	96.4'	30	27
OW-2-7	96'	35	30	OW-2-16S	75.5'	45	20	OW-2-15D	94.6'	30	27
OW-2-8	96.3'	30	30	OW-2-18S	74.5'	30	18	OW-2-16D	94.1'	30	27
OW-2-9D	96.7'	35	30	OW-2-20S	79'	30	18	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: 1/23/2019

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

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

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	30	20	OW-2-45	61.1'	30	20	MP-2-1	29.63	18.99	0
OW-2-38	62.1'	30	20	OW-2-46	61'	35	20	MP-2-2	30.97	19.51	0
OW-2-39	60'	30	18	OW-2-47	60.5'	40	20	MP-2-3S	30.87	27.15	0
OW-2-40	61.7'	30	20					MP-2-3D	30.96	29.02	0
OW-2-41	61.7'	30	20					MP-2-4	19.54	24.67	0
OW-2-42	61.6'	30	20					MP-2-5	17.72	23.84	0
OW-2-43	61.4'	40	16								
OW-2-44R	60.6'	30	20								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 1/23/2019

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:

1-23-19 Found system running upon arrival. Drained oil/water separator of liquids. Drain small amount of water from knock out bowls. Checked all auto drains for proper operation. Wiped down all equipment and cleaned shed floor. Restarted system and left running.

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:	2/22/2019
Time:	13:30
Weather:	Cloudy
Outdoor Temperature:	~42° F
Inside Trailer Temperature:	~70° F
Performed By:	Mike Ryan

O2 Generator (AirSep)

Hours	47,252	
Feed Air Pressure *	100	(psi)
Cycle Pressure *	65	(psi)
Oxygen Receiver Pressure *	105	(psi)
Oxygen Purity	79.2	(percent)

* maximum reading during loading cycle

Compressor (Kaesar Rotary Screw)

Compressor Tank *	110	(psi)
(readings below are made from control panel)		
Delivery Air	125	(psi)
Element Outlet Temperature	171	(^{o}F)
Running Hours	54,574	(hours)
Loading Hours	47,372	(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	psi
OW-2-2	90.2'	45	32	OW-2-9S	75'	30	20	OW-2-10D	97.2'	30	25
OW-2-3	94.3'	40	30	OW-2-10S	75'	35	30	OW-2-11D	100.8'	30	25
OW-2-4	94.7'	35	32	OW-2-11S	76.5'	45	21	OW-2-12	94'	30	20
OW-2-5	95.3'	30	30	OW-2-13S	75'	45	28	OW-2-13D	97'	35	24
OW-2-6	95.7'	30	30	OW-2-15S	75'	40	27	OW-2-14	96.4'	40	22
OW-2-7	96'	30	30	OW-2-16S	75.5'	30	20	OW-2-15D	94.6'	40	24
OW-2-8	96.3'	40	30	OW-2-18S	74.5'	40	20	OW-2-16D	94.1'	40	22
OW-2-9D	96.7'	30	30	OW-2-20S	79'	45	22	OW-2-17	95'	40	26

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 2/22/2019

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'	45	31	OW-2-22S	76'	40	21	OW-2-26D	95'	30	36
OW-2-19	96.1'	35	30	OW-2-24S	77.8'	40	26	OW-2-27	93.5'	30	28
OW-2-20D	96.6'	30	30	OW-2-26S	74'	45	20	OW-2-28D	92.1'	30	27
OW-2-21	96.6'	30	29	OW-2-28S	76'	50	22	OW-2-29	92.2'	35	28
OW-2-22D	96.3'	25	28	OW-2-30S	67.8'	35	16	OW-2-30D	88'	40	26
OW-2-23	97.2'	25	0	OW-2-34	71'	40	20	OW-2-31	86'	35	31
OW-2-24D	97'	30	0	OW-2-35	69.2'	40	23	OW-2-32	84'	30	25
OW-2-25	96'	30	28	OW-2-36	64.8'	30	19	OW-2-33	82'	30	26

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

O_2 Injection System #2

Injection Bank G				Injection Bank H				Monitoring Points Log			
ID	Depth	scfh	psi	ID	Depth	scfh	psi	ID	DTW	DO (mg/L) Bottom	PID (ppm)
OW-2-37	62.8'	25	20	OW-2-45	61.1'	30	22	MP-2-1	29.10	25.16	0
OW-2-38	62.1'	30	20	OW-2-46	61'	35	20	MP-2-2	30.49	24.14	0
OW-2-39	60'	35	18	OW-2-47	60.5'	35	21	MP-2-3S	30.34	35.92	0
OW-2-40	61.7'	30	19					MP-2-3D	30.47	36.24	0.2
OW-2-41	61.7'	30	20					MP-2-4	19.03	28.53	0
OW-2-42	61.6'	30	20					MP-2-5	19.21	24.92	0
OW-2-43	61.4'	35	16								
OW-2-44R	60.6'	30	20								

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

OXYGEN INJECTION OPERATION MAINTENANCE LOG SHEET

SYSTEM #2

Hempstead Intersection Street
Former MGP Site
Nassau County, New York

Date: 2/22/2019

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:

2-22-19 Found system running upon arrival. Drained oil/water separator of liquids. Drain small amount of water from knock out bowls. Checked all auto drains for proper operation. Wiped down all equipment and cleaned shed floor. Restarted system and left running.

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

Action Items: