

NRG Potomac River, LLC
25100 Chalk Point Road
Aquasco, MD 20608

January 26, 2017

Via email delivery only

Mr. Alex Wardle
Virginia Department of Environmental Quality (DEQ)
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

**Re: Annual CAP Implementation Monitoring Report
NRG Potomac River Generating Station
1400 North Royal Street
Alexandria, VA 22314
PC#2013-3154**

Dear Mr. Wardle:

NRG Potomac River LLC (PRGS) is pleased to submit the Annual CAP Implementation Monitoring Report (CMR).

The following activities were conducted during the Fourth Quarter of 2016:

- Monthly liquid level gauging and manual light non-aqueous phase liquid (LNAPL) bailing of select site monitoring wells;
- Comprehensive gauging of all accessible site monitoring wells on November 28, 2016;
- Biostimulation headspace vapor monitoring of select site monitoring wells to measure the presence of volatile organic compounds (VOCs), oxygen, carbon dioxide, and methane on November 28 and December 8, 2016;
- Down-well water quality measurements recorded on November 28, 2016 of select site groundwater wells to monitor dissolved oxygen, pH, temperature, oxidation reduction potential and conductivity;
- Routine annual sampling of groundwater from select site monitoring wells for petroleum hydrocarbons and from select wells for biostimulation parameters, in accordance with the groundwater sampling plan, on November 28-29 and December 8, 2016;
- Continued semi-monthly operation and maintenance (O&M) field events of the remediation system from October to December 2016;

- Monthly submittals of Self-Monitoring Reports (SMRs) to Alexandria Renewal Enterprises; and
- An annual evaluation of the remedial system effectiveness, hydrocarbon recoverability, and proposed remedial system modifications.

If you have any questions or require additional information please contact me at (301)843-4439 or by email at Mark.Nitz@nrg.com. For any technical questions, if you prefer, you can contact our consultants at GES directly.

Sincerely,



Mark G. Nitz, P.E.

Environmental Specialist, NRG

Cc: J. Rodriguez, DOEE; K. Tran, City of Alexandria, VA; P. McCallum, NPS



**Groundwater
& Environmental Services, Inc.**

**ANNUAL CAP IMPLEMENTATION MONITORING REPORT
JANUARY 2017**

**POTOMAC RIVER GENERATING STATION
1400 NORTH ROYAL STREET
ALEXANDRIA, VA**

PC# 2013-3154

PREPARED FOR:
**MARK G. NITZ, P.E.
NRG POTOMAC RIVER LLC
25100 CHALK POINT ROAD
AQUASCO, MD 20608**

SUBMITTED TO:
**VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE
13901 CROWN COURT
WOODBIDGE, VA 22193-1453**

PREPARED BY:
**GROUNDWATER & ENVIRONMENTAL SERVICES, INC.
1350 BLAIR DRIVE, SUITE A
ODENTON, MD 21113**

JANUARY 26, 2017



SITE NAME: Potomac River Generating Station

SITE LOCATION: 1400 North Royal Street, Alexandria, VA

VDEQ PC# 2013-3154

DATE OF REPORT: January 26, 2017

LAND USE CLASSIFICATION: Industrial

CURRENT PROPERTY OWNER: NRG Potomac River LLC
25100 Chalk Point Road
Aquasco, MD 20608

CONSULTANT: Groundwater & Environmental Services, Inc.
1350 Blair Drive, Suite A
Odenton, MD 21113
(800) 220-3606

RELEASE INFORMATION: Release from two former 25,000-gallon Number 2 fuel oil underground storage tanks

Prepared by:

A handwritten signature in black ink, appearing to read 'Lindsay Keeney', written over a horizontal line.

Lindsay Keeney
Associate Geologist

Reviewed by:

A handwritten signature in blue ink, appearing to read 'Daniel R. Drennan', written over a horizontal line.

Dan Drennan, PE
Project Engineer

A handwritten signature in black ink, appearing to read 'A. Ashley Bell', written over a horizontal line.

A. Ashley Bell
Senior Project Manager

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- B – CONCENTRATION TREND GRAPHS**
- C – LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY
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1.0 INTRODUCTION

Groundwater & Environmental Services, Inc. (GES) has prepared this Annual CAP Implementation Monitoring Report (CMR) on behalf of NRG Potomac River LLC (NRG), documenting environmental monitoring and corrective action activities performed at the Potomac River Generating Station (PRGS), located at 1400 North Royal Street, Alexandria, VA (the site). Site activities were performed to address a subsurface petroleum release regulated by the Virginia Department of Environmental Quality (VDEQ) Northern Regional Office (NRO) under Pollution Complaint (PC) #2013-3154. The site is the location of a decommissioned power generating facility. A Site Location Map is provided as **Figure 1**, a Site Layout Map, depicting pertinent features of the site and adjacent areas, is provided as **Figure 2**, and a Site Map is provided as **Figure 3**.

Specifically, this summary report documents the following activities conducted during the 4th Quarter 2016:

- Monthly liquid level gauging and manual bailing of light non-aqueous phase liquid (LNAPL), if present, from select site groundwater wells;
- Annual groundwater sampling on November 28-29 and December 8, 2016 from select site groundwater wells for total petroleum hydrocarbons – diesel range organics (TPH-DRO), benzene, toluene, ethylbenzene, and total xylenes (BTEX) and naphthalene, as well as from select wells for biological indicator parameters;
- Comprehensive gauging of all accessible site groundwater wells on November 28, 2016;
- Headspace vapor measurements recorded on November 28 and December 8, 2016 from select site groundwater wells to monitor the presence of volatile organic compounds (VOCs), oxygen, carbon dioxide, and methane;
- Down-well water quality measurements recorded on November 28, 2016 of select site groundwater wells to monitor dissolved oxygen, pH, temperature, oxidation reduction potential (ORP) and conductivity; and
- Bi-monthly operations and maintenance (O&M) events during October through December, including once a month gauging of recovery wells and groundwater and vapor sampling of the system.
- Monthly submittals of Self-Monitoring Reports (SMRs) to Alexandria Renewal Enterprises (AlexRenew).

In addition, the report will evaluate remediation system operation since the system was turned on in March 2016 and will provide recommendations for changes to the scope of work moving forward.

1.1 SITE HISTORY

The site was developed as a power generating facility in the 1940s. The first generating unit was constructed by 1949, and the last of the five units was brought online in 1954. The facility used Number 2 (No. 2) fuel oil to preheat its generating unit boilers and coal as its primary fuel to generate electricity. The No. 2 fuel oil was stored in two adjoining 25,000-gallon underground storage tanks (USTs) centrally located within



the power plant complex, as shown on the Site Map provided as **Figure 3**. On October 1, 2012, the coal-fired power plant ceased operation.

The VDEQ opened PC #2013-3154 following the detection of petroleum hydrocarbons during closure activities associated with the two 25,000-gallon fuel oil USTs. The VDEQ requested that a Site Characterization Report (SCR) be prepared to characterize the extent of contamination at the site. URS Corporation (URS) submitted a Site Conceptual Model (SCM) on June 11, 2013, which included a discussion of the initial detection of petroleum hydrocarbons during the closures of the two No. 2 fuel oil USTs, as well as descriptions of the various subsurface utilities in the vicinity of the USTs.

The VDEQ subsequently requested the submittal of a Site Characterization Report Addendum (SCRA), as stated in a directive letter dated July 10, 2013. This SCRA was submitted on February 14, 2014, by URS and described the activities associated with a subsurface characterization of the site using laser-induced fluorescence (LIF), the advancement of soil borings for soil sampling at the site, and the installation of fourteen monitoring wells. The site history, recent field activities, laboratory analytical results, a preliminary risk assessment, and an assessment of remedial options were also discussed in the SCRA.

After review of the SCRA, on March 4, 2014, the VDEQ requested that a Corrective Action Plan (CAP) be developed for the site. GES and Geosyntec Consultants (Geosyntec), on September 5, 2014, submitted Part I of a CAP, (CAP-I) summarizing the site characterization data and evaluation; presenting an updated SCM based on this data; and providing a presentation, assessment, and evaluation of the viable remedial technologies that can be employed, consistent with the CAP requirements. Subsequently, Part II of the CAP (CAP-II) was submitted to the VDEQ on December 23, 2014. The CAP was approved by the VDEQ on March 17, 2015, and was assigned CAP tracking number 513.

During the 2nd Quarter 2015, GES initiated remediation system installation on site with the install of eight total phase extraction (TPE), three standard compliance/delineation monitoring, and six air sparge wells from June 22, 2015 to July 8, 2015. On June 26, 2015, Product Recovery Management, Inc. (PRM) was chosen to construct the remediation system after winning the three-vendor bid system process for the system design and procurement packages. On October 15, 2015, the remediation system was delivered to the Site. GES selected Odyssey Environmental Services (Odyssey) to install the system's piping to the onsite TPE, pump and treat (P&T), and air sparge wells and began piping installs on September 28, 2015, which continued through October 2015. GES worked to obtain a Special Use Permit from the National Park Service (NPS) for offsite access and system install activities throughout 2nd and 3rd Quarters 2015.

During the 4th Quarter 2015, power connections to the onsite system and aboveground piping and wellhead connections for 8 onsite air/biosparge wells, 11 TPE wells, and 5 P&T wells was completed. Pumps were installed in the P&T wells and the treated groundwater discharge line to an AlexRenew sanitary sewer tie-in location was installed. On November 12, 2015 a draft Special Use Permit was issued by NPS. GES sent a final permit package for groundwater discharge authorization to AlexRenew on November 20, 2015.

During the 1st Quarter 2016, all remaining installation tasks associated with the remediation system were completed, except for offsite installs on the NPS property. On January 13, 2016, AlexRenew issued an



approval letter with special requirements for discharge. The onsite remediation system was started on March 14, 2016 and continues to operate.

NPS authorized a final Special Use Permit on February 11, 2016 for planned field activities on NPS property. Once GES obtained the NPS Special Use Permit, install of the offsite remediation system and bulkhead wall seep sealing were initiated. CAP-II requirements to repair and seal the bulkhead wall seep were completed between April and June 2016. A total of 6 bulkhead wall seep areas, 17 rigging holes, and 3 outfall pipes in need of repair were identified within the steel bulkhead wall along the Potomac River. These areas were identified as locations with the potential for impacted groundwater to migrate into the Potomac River, and were therefore, sealed. On April 4, 2016, Odyssey and GES mobilized to the Site to clear vegetation for the installation of seven new biosparge points (SP-09, SP-10, SP-11, SP-12, SP-13, SP-14, and SP-15) on NPS property. Remediation trenching, piping, well head modifications and tie-ins, and manifold connections were completed from April 13 through April 18, 2016, and the seven biosparge wells were brought online on May 3, 2016. GES worked on the agreement and implementation of the site restoration with the NPS from April 25 through May 17, 2016. On May 16, 2016 tree planting was initiated under GES supervision.

1.2 SURROUNDING PROPERTIES

The surrounding properties in the immediate vicinity of the site are primarily residential and commercial, with some buildings used as office space. To the north, south, and west, the site is bordered by a mixture of condominium and office buildings. To the east, the site is bordered by the NPS Mt. Vernon Trail, beyond which lies the Potomac River.

2.0 SITE CHARACTERIZATION AND MONITORING ACTIVITIES

A Well Construction Table, included as **Table 1**, details well construction of monitored and sampled wells. The Groundwater Monitoring and Sampling Plan, included as **Table 2**, details the quarterly and annual monitoring and sampling schedule of monitoring and recovery wells. The following site characterization and monitoring activities were conducted during the 4th Quarter 2016:

- October - December 2016:
 - Monthly gauging of select groundwater wells. Hand bailing of LNAPL from monitoring well MW-01S in November and December.
- November 28 and December 8, 2016:
 - Site-wide gauging and headspace vapor monitoring and collection of down-well field parameters of select groundwater wells.
- November 28-29 and December 7-8, 2016:
 - Gauging and groundwater sampling of accessible site groundwater wells in accordance with the Groundwater Monitoring and Sampling Plan.

2.1 WELL GAUGING AND LNAPL BAILING

An oil-water interface probe capable of measuring groundwater and LNAPL to 0.01 feet was used to gauge the site groundwater wells. During the 4th Quarter 2016, all accessible site groundwater wells were gauged during a comprehensive gauging event on November 28, 2016. Select groundwater wells that historically exhibited measureable LNAPL or elevated dissolved phase hydrocarbon concentrations were also gauged on a monthly basis. Gauging events conducted during the 4th Quarter 2016 are summarized below:

- Monthly gauging of select wells:
 - October 20, 2016
 - November 28, 2016
 - December 22, 2016
- Site-wide gauging of all accessible wells:
 - November 28, 2016

Historical and 4th Quarter 2016 groundwater and LNAPL elevation data is presented in **Table 3** – Historical Groundwater Monitoring and Analytical Data Summary. LNAPL was detected in groundwater well MW-01S during the 4th Quarter 2016, with a maximum thickness of 0.13 feet measured in MW-01S on November 29, 2016. During the November groundwater sampling event, approximately 0.02 gallons of LNAPL were bailed from MW-01S. No LNAPL was bailed from any wells connected to the remediation system. During comprehensive gauging on November 28, 2016 monitoring wells MW-16S, MW/RW-72S, and MW-107 were dry, recovery well RW-05S had a clogged drop-tube and was gauged as dry due to the clog, and depth-to-water measurements could not be obtained at MW-01S, MW-102, MW/RW-05, and RW-119S. Monitoring well MW-102 could not be located or gauged due to vegetation overgrowth, MW-01S was missed during gauging, and gauging was attempted at MW/RW-05 and RW-119S, but depth-to-water measurements could not be obtained because system components prevented the interface probe from reaching the water table.

Measured groundwater depths ranged from 3.00 feet below ground surface (bgs) in MW-105 to 32.92 feet bgs in MW/RW-51 during the 4th Quarter 2016, which is consistent with historical data from the site. Site-wide gauging was conducted on November 28, 2016, in accordance with the tidal cycle of the Potomac River. High tide occurred at 8:33 am on November 28, 2016 at the site. Multiple personnel gauged the site wells as quickly as possible bracketing the river's high tide, with priority given to gauging of the deep wells as they are the ones affected by the tidal cycle. This approach minimized the impact of tidal influence on groundwater elevation data.

Groundwater contour maps representing shallow zone and deep zone data, respectively, from the November 28, 2016 comprehensive gauging event are presented as **Figure 4** and **Figure 5**. The shallow zone groundwater contour map indicates that groundwater flow is predominantly towards the east-northeast, towards the Potomac River. Mounding was observed around MW-25S and drawdown was observed around RW-30S. The deep zone groundwater contour map indicates that groundwater flow is predominantly to the east-northeast towards the Potomac River. Mounding was observed around MW-11 and MW/RW-72 and drawdown is observed around RW-25 and MW/RW-31. The calculated hydraulic gradient at the site ranged from approximately 0.01 feet per foot in the shallow zone to approximately 0.15 feet per foot in the deep zone during the November 2016 monitoring event.

2.2 HEADSPACE VAPOR MONITORING

Monitoring well vapor headspace readings were collected at select groundwater wells on November 28 and December 8, 2016 using a photoionization detector (PID) and a GEM 2000 landfill gas meter. The PID was fitted with a 10.6 electron volt bulb and was calibrated using a factory-supplied calibration gas standard (100 parts per million [ppm] isobutylene) prior to use. The landfill gas meter was fitted with a carbon filter during sampling on November 28th but not on December 8th (due to an error by the rental company).

To obtain reproducible and stable readings, a vapor monitoring well cap was inserted securely into the well, and the PID and landfill gas meter were used to record VOC, oxygen, carbon dioxide, and methane concentrations. This arrangement allows for the withdrawal of air from the well through the PID and landfill gas meter pumps while minimizing the exchange of ambient air. The PID and landfill gas meter responses were recorded in the field book after the stabilization period.

Detailed PID and landfill gas meter response data are presented in **Table 4 – Historical Groundwater Field Parameters Data Summary**.

2.3 GROUNDWATER SAMPLING

On November 28-29 and December 1 and 8, 2016, groundwater samples were collected from 39 groundwater monitoring/recovery wells (MW-08S, MW/RW-10S, MW-11, MW/RW-14, MW-15S, MW-16, MW-25S, MW/RW-25, MW-27, MW/RW-31, MW-33, MW-51S, MW/RW-51, MW/RW-72, MW-100S, MW-100, MW-106, MW-109s, MW-109, MW-110S, MW-110, MW-111, MW-112S, MW-112, MW-113, MW-114, MW-121, MW-122, MW/RW-123S, RW-1, RW-05S, MW/RW-05, RW-25S, RW-28S, RW-30S, RW-116S, RW-118S, RW-117S, and RW-119S) using disposable bailers or dedicated sampling ports and 6 temporary wells (TW-03, TW-04, TW-05, TW-06, TW-07, and TW-14) using a peristaltic pump and dedicated polyethylene tubing. Monitoring well MW-01S could not be sampled due to the presence of LNAPL. Monitoring wells MW/RW-72S, TW-12S, MW-107, and MW-108 were not sampled during the 4th Quarter 2016 sampling event since the wells had insufficient water. Monitoring well MW-16 was added to the sampling schedule during the annual event due to the migration of LNAPL into MW/RW-14 in 2nd and 3rd Quarters 2016 following remediation system startup and the need to monitor groundwater concentrations cross-gradient of MW/RW-14. The sampling plan is presented in **Table 2**.

Each monitoring well was gauged prior to purging and sampling, and gauging data is presented in **Table 3**. Prior to the collection of groundwater samples, a minimum of three well volumes of water was purged from each monitoring well using purge bailers. Purge bailers were decontaminated prior to purging each well. System wells with pumps were sampled using sampling ports at the well heads. Temporary wells were sampled by Geosyntec in accordance with low-flow sampling protocols using a peristaltic pump and dedicated polyethylene tubing. Select wells containing minimal volumes of water were not purged, and grab samples were immediately collected. Purge water was containerized in 55-gallon drums and stored on site for proper disposal. On December 14, 2016, Triumvirate pumped out the drums and transported the purge water to their facility in Baltimore, MD. Waste documentation is included in **Attachment A**. Groundwater samples were collected directly in laboratory provided bottleware, packaged on ice in coolers, and transported under proper chain of custody to Eurofins Lancaster Laboratories Environmental (Eurofins) in Lancaster, PA. Samples were requested to be analyzed for the following:

- Annual parameters (select wells)
 - Total Petroleum Hydrocarbons – Diesel Range Organics (TPH-DRO)
 - Benzene, toluene, ethylbenzene, xylenes (BTEX)
 - Naphthalene
- Biological indicator parameters (select wells)
 - Alkalinity
 - Nitrate (NO_3^{1-})
 - Nitrite (NO_2^{1-})
 - Manganese (Mn^{2+})
 - Ferrous Iron (Fe^{2+})
 - Sulfate (SO_4^{2-})
 - Methane

TPH-DRO, BTEX, and naphthalene analytical results are presented in the Historical Groundwater Monitoring and Analytical Data Summary included as **Table 3** and discussed further in **Section 2.4**. Concentration trend graphs are included as **Attachment B** and discussed further in Section 2.4. The analytical results for biological indicator parameters are presented in the Historical Groundwater Biostimulation Analytical Data Summary provided as **Table 5** and discussed further in **Section 2.4**.

The complete laboratory reports and chain of custody documentation for the groundwater sampling event conducted in November and December 2016 are included in **Attachment C**.

2.4 GROUNDWATER ANALYTICAL FINDINGS

During the 4th Quarter 2016, 45 monitoring, recovery and temporary wells were sampled for TPH-DRO and 14 were sampled for BTEX and naphthalene during the annual groundwater sampling event in November and December. Current and historical benzene, toluene, ethylbenzene, total xylenes, methyl tert-butyl ether (MTBE), tert-butyl alcohol, 1,2-dibromoethane, 1,2-dichloroethane, naphthalene, and TPH-GRO data are also presented for select wells in the Historical Groundwater Monitoring and Analytical Data Table (**Table 3**). Results for TW-03 through TW-07 and TW-14, which were sampled by Geosyntec in November and December 2016 in accordance with requirements from the District of Columbia Department of Energy & Environment, are also included in the attached **Table 3**. Two TPH-DRO contour maps representing shallow zone data and deep zone data, respectively, from November and December's comprehensive sampling events are presented as **Figure 6** and **Figure 7**. BTEX and Naphthalene concentrations in both the shallow and deep zone aquifers are presented on **Figure 8**. The results from the collection and analysis of groundwater samples during the 4th Quarter 2016 are presented below:

- TPH-DRO was detected in 29 of the 39 groundwater monitoring wells sampled during the annual sampling event in November and December, with a maximum concentration of 1,200,000 micrograms per liter ($\mu\text{g/L}$) in recovery well MW-25S. A sheen was observed in monitoring well MW-25S during sampling, which likely explains the high concentration of TPH-DRO. TPH-DRO was also detected in all temporary wells sampled (TW-03, TW-04, TW-05, TW-06, TW-07 and TW-14), with a maximum concentration of 1,200 $\mu\text{g/L}$ in temporary well TW-06.

- Benzene was detected in 4 of the 14 groundwater wells sampled during the annual sampling event in November and December, with a maximum concentration of 6 µg/L in monitoring well MW-08S.
- Toluene was detected in 1 of the 14 groundwater wells sampled during the annual sampling event in November and December, at a concentration of 1 µg/L in recovery well RW-25S.
- Ethylbenzene was detected in 3 of the 14 groundwater wells sampled during the annual sampling event in November and December, at a maximum concentration of 4 µg/L in monitoring well MW-25S.
- Total xylenes were detected in 3 of the 14 groundwater wells sampled during the annual sampling event in November and December, at a maximum concentration of 5 µg/L in recovery well RW-25S.
- Naphthalene was detected in 4 of the 14 groundwater wells sampled during the annual sampling event in November and December, at a maximum concentration of 11 µg/L in monitoring well MW-121.

Concentration trend graphs are presented in **Attachment B**, showing historical and current benzene, naphthalene, and TPH-DRO concentrations, depths to water, and depths to LNAPL for select monitoring, recovery, and temporary wells. Trends observed as of 4th Quarter 2016 are presented below:

- TPH-DRO concentrations have an overall increasing trend in wells MW-01S, MW/RW-10S, MW/RW-14, MW-51S, MW/RW-123S, RW-05S, RW-116S, and RW-119S. TPH-DRO concentrations have an overall decreasing trend in wells MW/RW-05, MW-08S, MW/RW-25, MW/RW-31, MW/RW-51, MW/RW-72, TW-03, TW-04, TW-06, TW-07, RW-1, RW-117S, and RW-118S. TPH-DRO concentrations are relatively stable in wells MW-25S, MW-27, RW-30S, MW/RW-72S, and RW-28S. There is not sufficient data to show a trend in recovery well RW-25S due to the presence of LNAPL in the well until May 2016.
- In wells that have been sampled for naphthalene enough times to establish a trend, an overall decreasing trend is observed in wells MW-27, MW/RW-72, TW-04, TW-06, and TW-07. In MW/RW-31 and TW-03, historical naphthalene concentrations have a relatively stable trend with low to non-detect concentrations.
- In wells that have been sampled for benzene enough times to establish a trend, an overall decreasing trend is observed in MW/RW-72 and TW-04. Wells TW-03, TW-06, and TW-07 have an overall stable trend with low or non-detect concentrations.

Biological indicator data and field parameters were collected from select wells within the shallow and deep zone aquifers in order to evaluate the natural attenuation potential of the aquifers and to determine the dominant terminal electron accepting process. A Historical Groundwater Biostimulation Analytical Data Summary is presented as **Table 5**, and a Historical Groundwater Field Parameters Data Summary is presented as **Table 4**.

The following chart details the anticipated changes in groundwater chemistry in order of reaction preference during various stages of biodegradation from aerobic to highly anaerobic conditions. Increased concentrations of alkalinity, nitrite, dissolved manganese, ferrous iron, and methane and decreased

concentrations of oxidation reduction potential (ORP), dissolved oxygen (DO), nitrate, and sulfate are indicators of anaerobic activity.

	Time →					
	← Distance from Source					
	Aerobic Respiration	Nitrate Reduction	Manganese Reduction	Ferric Iron Reduction	Sulfate Reduction	Methanogenesis
	Aerobic	Anaerobic				
Electron Acceptor	O ₂	NO ₃ ⁻	Mn ⁴⁺	Fe ³⁺ (solid)	SO ₄ ²⁻	CO ₂
Metabolic By-Product	CO ₂	N ₂ , CO ₂	Mn ²⁺	Fe ²⁺ (dissolved)	H ₂ S	CH ₄ (methane)
Expected Relationship with High BTEX	O ₂ ↓	NO ₃ ⁻ ↓	Mn ²⁺ ↑	Fe ²⁺ ↑	SO ₄ ²⁻ ↓	CH ₄ ↑

The observed concentrations of DO, ORP, carbonate alkalinity, nitrate nitrogen, nitrite nitrogen, manganese, ferrous iron, sulfate as SO₄²⁻, and methane generally provide supporting evidence that due to system start-up in March 2016, site conditions within the dissolved hydrocarbon plume have changed from anaerobic to aerobic. Based on a review of the biological indicator data and the field parameters, the following observations have been made:

- The groundwater quality data from monitoring wells MW-112S (shallow zone aquifer) and MW-114 (deep zone aquifer) are considered to be representative of background conditions due to the historical relative absence of dissolved-phase hydrocarbons and aerobic conditions within these wells.
- Monitoring wells MW-11, MW-33, MW-70, and MW-100 show current or historic low levels of contamination and are up-gradient or side-gradient of the main body of the plume. They have historically shown slight changes in some of the biological indicator parameters and appear generally to be fringe wells.
- Prior to the start-up of the remediation system, DO concentrations within the dissolved hydrocarbon plume in both the shallow and deep zone aquifers were indicative of anaerobic conditions. During the annual groundwater monitoring event in November, DO concentrations were considered aerobic (> 1.0 mg/L) in nine of the eleven measured shallow zone aquifer wells (MW-01S, MW/RW-10S, MW-51S, MW/RW-123S, RW-05S, RW-28S, RW-30S, RW-116S, and RW-117S) and in ten of the fifteen measured deep zone aquifer wells (MW/RW-05, MW/RW-14, MW/RW-25, MW-27, MW/RW-51, MW/RW-72, MW-100, MW-106, TW-05, and TW-07). Three of the wells, MW-01S, MW-51S, and TW-14 became aerobic since the last time they were measured. Anaerobic conditions were observed in seven wells during the quarterly sampling event (MW-100S, RW-25S, RW-1, TW-03, TW-06, MW-121, and MW-122). Three of these wells, MW-100S, RW-1, and RW-25S became anaerobic since the last time they were measured.

- ORP values were positive in three of the eleven measured shallow aquifer zone wells (MW/RW-10S, RW-28S, and RW-116S) and in eleven of the fifteen measured deep zone aquifer wells (MW/RW-05, MW/RW-14, MW/RW-25, MW-27, MW/RW-72, MW-100, MW-106, RW-1, TW-03, TW-05, and TW-07) during the annual groundwater monitoring event in November. Positive ORP values are indicative of aerobic conditions. The ORP value in temporary well TW-05 was negative during the 3rd quarter 2016 and returned to positive during this sampling event. Wells with negative ORP readings included MW-01S, MW-51S, MW-100S, MW/RW-123S, RW-25S, RW-30S, and RW-117S in the shallow zone aquifer and MW/RW-51, MW-121, MW-122, and TW-06 in the deep zone aquifer. Three of these wells, MW-100S, RW-117S, and MW/RW-123S, had been positive the last time they were measured.
- Alkalinity generally shows a decreasing trend at a majority of monitoring wells where a trend can be established, but significant decreases were not observed in the 4th quarter and the pH remains favorable for aerobic biodegradation in the majority of monitoring wells. At monitoring wells MW/RW-14, MW-27, and MW/RW-72, declines in alkalinity are the most notable, but only at MW/RW-72 has the pH begun to significantly decline (6.63 in the 3rd quarter to 5.36 in the 4th quarter). The pH is below 6.0 at 8 of the 25 wells where it was measured. It is below 5.0 at 4 of the monitoring wells (MW/RW-05, MW-106, RW-116S, and TW-07). Of those four wells with pH less than 5.0, alkalinity is measured at MW-106 and TW-07 and is below 2 mg/L at both wells. If the alkalinity continues to decline (reducing the buffering capacity of the aquifer) and the pH drops, microbial activity could be diminished by the low pH environment. Nitrate was detected in 1 of the 3 shallow zone aquifer wells where it was measured (MW/RW-10S) and in 4 of the 10 deep zone aquifer wells where it was measured (MW/RW-14, MW-27, MW/RW-72, and MW-100). Decreasing nitrate trends (an indicator nitrate reduction is occurring) have not been observed in any of the monitoring wells, either because nitrate was previously depleted or because aerobic conditions exist and conditions are not favorable for denitrification. At monitoring wells MW/RW-10S, MW/RW-14, MW-27, and MW/RW-72, nitrate rebound has occurred where nitrate had previously been depleted.
- Nitrite, an intermediate in denitrification, was detected at low levels in two (MW-51S and MW-100S) of the shallow zone aquifer wells where it was measured and in five (MW/RW-72, MW-100, TW-03, TW-05, and TW-06) of the deep zone aquifer wells where it was measured, but significant increases in nitrite were not observed at any well.
- Manganese concentrations have decreased in a majority of wells across the site since system start-up, although most wells still exceed background concentrations. This indicates that manganese reduction formerly occurring at the site has largely diminished. Increases in dissolved manganese (an indicator manganese reduction is occurring) were observed in wells MW/RW-72, TW-03, TW-05, and TW-06. Dissolved oxygen and ORP have increased or are starting to increase in these four wells as a result of system operation, so the use of manganese as an electron acceptor should lessen over time. Supplying oxygen to these areas should continue to be a focus of the biosparge system.
- Ferrous iron concentrations have generally decreased since system operation began. This reduction is likely due to the increase in oxygen in the system and the conversion of ferrous iron to ferric iron. However, this trend is not consistent across the site. Increases in ferrous iron concentrations have been observed in monitoring wells TW-05 and TW-06, suggesting iron reduction has occurred

in these areas. Dissolved oxygen and ORP have increased or are starting to increase in these two wells as a result of system operation, so the use of iron as an electron acceptor should lessen over time. Supplying oxygen to these areas should continue to be a focus of the biosparge system.

- Sulfate concentrations have remained stable or have increased in the majority of wells since system operation began, suggesting that sulfate is not currently a significant electron acceptor in the aquifer. Increases in sulfate have been observed and may be due to historic power plant operations. Sulfate concentrations have decreased since last quarter (3rd Quarter 2016) in shallow zone wells MW/RW-10S and MW-51S. At MW/RW-10S, conditions have become aerobic since the system began operation. At MW/RW-51S, dissolved oxygen has increased but ORP still remains negative for now. The use of sulfate as an electron acceptor should lessen over time with expanded system influence.
- Methane concentrations in two of the three shallow zone aquifer wells where it was measured (MW-51S and MW-100S) and in five of the ten deep zone aquifer wells where it was measured (MW-121, MW-122, TW-03, TW-05, and TW-06) are above historical background well concentrations. Most wells with methane concentrations above background show methane concentrations have decreased since the startup of the remediation system, which is consistent with the introduction of oxygen into the subsurface and a reduction in contaminant mass. However, at shallow zone well MW-51S and deep zone wells MW-121 and MW-122, previous declines in dissolved methane reversed in the 4th quarter, with each well showing an increase relative to the 3rd quarter. Increasing oxygen in these areas should continue to be a focus of the remediation system.

Overall, the biological indicator data and field parameters indicate that the remediation system continues to successfully introduce oxygen into the subsurface, particularly in the source area. However, certain changes to system operation are advisable and will be addressed in **Section 4.0**.

3.0 REMEDIATION SYSTEM OPERATION

The remediation system operated during the 4th Quarter 2016, in accordance with the CAP-II, which was approved by the VDEQ on March 17, 2015. The remediation system consists of three separate systems: total phase extraction (TPE), pump and treat (P&T), and biosparge. The locations of the current wells used for each system are shown on the Remediation System Layout Map (**Figure 9**). The TPE, P&T, and biosparge systems all operated during the 4th Quarter 2016. The reporting period for the 4th Quarter 2016 was from September 30, 2016 to December 22, 2016, and was controlled by the O&M schedule. Activities of note completed during the 4th Quarter 2016 included:

- Bi-monthly system operations and/or maintenance (O&M) visits were performed on October 5 and 20, November 3 and 22, and December 7 and 22, including monthly system sampling and gauging of select wells.
- Monthly Self-Monitoring Reports (SMRs) for 4th Quarter 2016 were submitted to AlexRenew on November 10 and December 8, 2016, and January 9, 2017.
- On October 21, 2016 GES insulated air and water lines and installed heat trace to MW/RW-14.



- On November 3, 2016 GES changed out all silt filter bags after all systems were down on arrival due to a low pressure alarm caused by clogged silt filter bags.
- During a bi-monthly O&M on November 22, 2016 MW/RW-14, MW/RW-31, and MW/RW-51 were not pumping on arrival, requiring maintenance, but were pumping on departure.
- On December 8, 2016 the drop tube assembly in TPE recovery well RW-05S was pulled and confirmed to be fouled with what appeared to be sediment, iron, and biological matter. The quarterly groundwater sample was collected from the well once the drop tub assembly removed. Replacement materials were ordered for the well and the drop tube assembly was reinstalled on January 19, 2017.
- On December 14, 2016 an oil/water separator (OWS) and system-cleaning event was conducted and the LNAPL drum and 4 purged groundwater drums were pumped out and properly transported, treated, and disposed. The Bill of Lading for the wastewater from system cleaning and purged groundwater/LNAPL waste is appended in **Attachment A – Waste Documentation**.
- On December 22, 2016 P&T recovery wells MW/RW-14 and MW/RW-31 were not pumping on arrival, GES pulled and cleaned the check valve on MW/RW-31 and all systems were operational on departure.

The TPE system operated for approximately 75 days out of 83 days during the reporting period, with a system uptime of 90%. The average vapor flow rate for the reporting period was 357 standard cubic feet per minute (scfm). The total groundwater recovered for the reporting period was 11,712 gallons (gal) with an average flow rate of 0.1 gallons per minute (gpm). The cumulative groundwater flow was 59,137 gallons by the end of the reporting period. The estimated vapor C1-C10 hydrocarbon recovery for the reporting period was 500 pounds (lbs), and the estimated groundwater TPH-DRO recovery for the reporting period was 5.9 lbs. A TPE Operational Summary is included as **Table 6**, TPE recovery data is included in **Table 9**, and system sampling analytical reports are included in **Attachment D**.

The P&T system operated for approximately 75 days out of 83 days during the reporting period, with a system uptime of 90%. The total groundwater flow for the reporting period was 192,296 gallons, with an average flow rate of 1.8 gpm. The cumulative groundwater flow since system startup was 757,517 gallons. The estimated groundwater TPH-DRO recovery for the reporting period was 6.7 lbs. An additional 0.0 lbs of LNAPL was recovered by the oil/water separator and manual bailing. A P&T Operational Summary is included as **Table 7**, P&T recovery data is included in **Table 9**, and analytical reports are included in **Attachment D**.

The biosparge system operated for approximately 75 days out of 83 days during the reporting period, with a system uptime of 90%. The average flow for each of the biosparge wells on the first leg (SP-01 through SP-08) was 0.5 scfm and the average flow for the wells on the second leg (SP-09 through SP-13) was 0.3 scfm. Biosparge wells SP-14 and SP-15 were not operated due to observed mounding, turbidity in nearby wells, and continued elevated dissolved oxygen levels without their operation. A Biosparge Operational Summary is included as **Table 8** and recovery data is provided in **Table 9**.



The total estimated hydrocarbon recovery to date is 2,210 lbs (302 gallons). This includes 94 lbs of dissolved-phase, 2,031 lbs of vapor-phase, and 85 lbs of liquid-phase. The liquid-phase recovery is inclusive of previously bailed LNAPL and recovery from the TPE and P&T systems. A Hydrocarbon Recovery Summary is included as **Table 9**.

Hydrocarbon Recovery:

Dissolved-Phase Hydrocarbons (Period/Cumulative): **12.6 lbs / 94 lbs**

Vapor-Phase Hydrocarbons (Period/Cumulative): **500 lbs / 2,031 lbs**

Liquid-Phase Hydrocarbons (Period/Cumulative): **0 lbs / 85 lbs**

Total Hydrocarbon Recovery (Period/Cumulative): **513 lbs / 2,210 lbs**

3.1 PERMIT SUMMARY

Special Use Permit

Required for: Work along the NPS Trail

Issued by: National Parks Service

Status: Special Use Permit NCR GWMP 6000-15-088 is effective 2/11/2016 – 10/31/2018.

Significant Industrial User Permit:

Required for: Sanitary sewer discharges less than 25,000 gallons per day with low risk of negatively impacting the sanitary sewer system.

Issued by: AlexRenew

Status: AlexRenew issued an approval letter on January 13, 2016, pending results from initial system effluent sampling. Following receipt of the preliminary system effluent sampling results, final approval to discharge was granted on March 11, 2016. Monthly SMRs were submitted to AlexRenew during the 4th Quarter 2016.

Air Permit

A Minor New Source Review permit would only be required for the site if the uncontrolled emissions exceed 25 tons per year for VOCs for a new source. Because the maximum uncontrolled emissions were projected to be less than 25 tons per year, a Minor New Source Review permit was not required. Current discharge rates are far below 25 tons per year. Nuisance odors have not been a problem since system start-up. However, in the event of future odor complaints, additional treatment options may be considered.

4.0 CAP EFFECTIVENESS EVALUATION

GES has completed this 4th Quarter 2016 CMR for the Potomac River Generating Station, located at 1400 North Royal Street, Alexandria, Virginia. As stated in the CAP approval letter dated March 17, 2015, an evaluation of CAP effectiveness is to be presented annually. The following is a summary of pertinent

findings from remedial activities conducted at the site to date:

Deep Zone:

- Of the five existing wells that have exhibited LNAPL in the past, none currently contain LNAPL.
- Only one well (MW-121) exceeds the remedial goal for naphthalene of 10 µg/L.
- Significant declines in TPH-DRO concentrations have been observed since system operation began and currently only one well (MW/RW-14) exceeds the remedial goal of 15 mg/L.
- The groundwater contours show the system continues to maintain influence over the source area.
- Groundwater quality and biological indicator parameters continue to show trends toward aerobic degradation and influence from the remediation system.
- Groundwater sampling at monitoring well MW-16 was conducted in the 4th quarter 2016 (after previously being discontinued) to confirm delineation north of MW/RW-14 is achieved. TPH-DRO was not detected at MW-16. Additional delineation between MW/RW-14 and MW-16 is not proposed at this time, but concentration trends and the groundwater gradient in this area will continue to be evaluated.

Shallow Zone:

- Of the eight existing wells that have exhibited LNAPL in the past, only MW-01S currently contains LNAPL.
- None of the wells currently exceed the remedial goal for naphthalene.
- Currently nine shallow wells exceed the remedial goal of 15 mg/L TPH-DRO or contain LNAPL.
- The increasing trends in TPH-DRO concentrations observed at shallow monitoring wells partly coincide with the elimination of LNAPL at the respective wells. Increases in TPH-DRO concentrations may be attributed to LNAPL emulsification into the groundwater and collected groundwater samples. It may also be that the groundwater movement and TPE-caused agitation is serving to cause dissolution of LNAPL trapped in pore spaces.
- Monitoring well MW-01S (the last monitoring well currently exhibiting LNAPL) is located at the southern extent of the recovery well network. The frequency of LNAPL detection in the well has reduced since system operation has begun, but TPH-DRO concentrations have trended upward since the well was installed. MW-01S is located approximately 20 feet south of existing TPE recovery well RW-119S. During vacuum influence testing, significant vacuum influence (12.5 inches of water [i.w.]) was observed at MW-01S, and the groundwater potentiometric surface map shows groundwater flow in the area of MW-01S toward the recovery well network. For these reasons, delineation to the south of MW-01S (approaching MW-100S) is not seen as necessary at this time. However, to expedite remediation at MW-01S, it is proposed to convert the well into a TPE recovery well.
- Further modifications to the TPE recovery well network are also proposed. Monitoring wells MW-25S and MW-51S exceed the TPH-DRO remedial goal of 15 mg/L. The wells do exhibit significant vacuum influence from the remediation system (21 i.w. at MW-25S and 16 i.w. at MW-51S), but it is proposed to connect these two monitoring wells (in addition to MW-01S) to the recovery well network to expedite remediation. In order to maintain the design vacuum and flow of the remediation system, it is proposed to suspend recovery from the three least impacted recovery wells

(RW-28S, RW-30S, and RW-118S), which currently exhibit a maximum TPH-DRO concentration of 2 mg/L.

Remediation System Performance:

- Since operation of the remedial system began, the three phases of the system have operated with an uptime of 88% to 91%, and cumulative recovery has now reached 2,210 lbs of hydrocarbons.
- Included as **Attachment E** are Remediation System Performance Graphs that track system performance over time. The first graph plots hydrocarbon recovery of the different system streams (TPE vapor recovery, TPE groundwater recovery, P&T groundwater recovery, and LNAPL recovery). The second graph plots influent recovered groundwater concentrations from the TPE influent and P&T influent.
- A total of 85 pounds of LNAPL were recovered through July 2016; no measurable LNAPL has been recovered since. The presence of LNAPL measured in wells across the site has substantially reduced since operation of the system began. Recoverability of the remaining LNAPL now appears to be limited.
- P&T groundwater recovery has also declined significantly over time (with the exception of the increase observed when MW/RW-14 was brought online in August 2016). The decline in P&T recovery corresponds with decreased groundwater concentrations throughout the deep zone. Deep zone remediation should continue to focus on groundwater recovery in the vicinity of MW/RW-14 along with continued supply of oxygen in the aquifer to improve groundwater quality and prevent rebound in the future.
- Recovery from the shallow zone (both TPE vapor and TPE groundwater) has declined from initial values, but has not significantly declined since. Maximizing recovery from the TPE system and optimizing the recovery well network should continue until the shallow zone recovery and groundwater concentrations decline.

Summary of Proposed Actions:

- Because naphthalene was detected at monitoring well MW-121 at a concentration above the remedial goal, it is proposed to increase the frequency of naphthalene sampling at monitoring well MW-121 to quarterly in order to better monitor naphthalene trends in the well.
- Due to the low BTEX concentrations observed throughout the site, along with the lack of a remedial goal for the compounds, it is proposed to discontinue BTEX sampling during the annual sampling event. A Revised Groundwater Monitoring and Sampling Plan is included as **Table 10** and provides proposed changes to be implemented upon approval by the VDEQ.
- To optimize the recovery well network to target wells that exceed the remedial goal for TPH-DRO, it is proposed to modify the TPE network to convert MW-01S, MW-25S, and MW-51S into TPE recovery wells and suspend TPE recovery at RW-28S, RW-30S, and RW-118S.

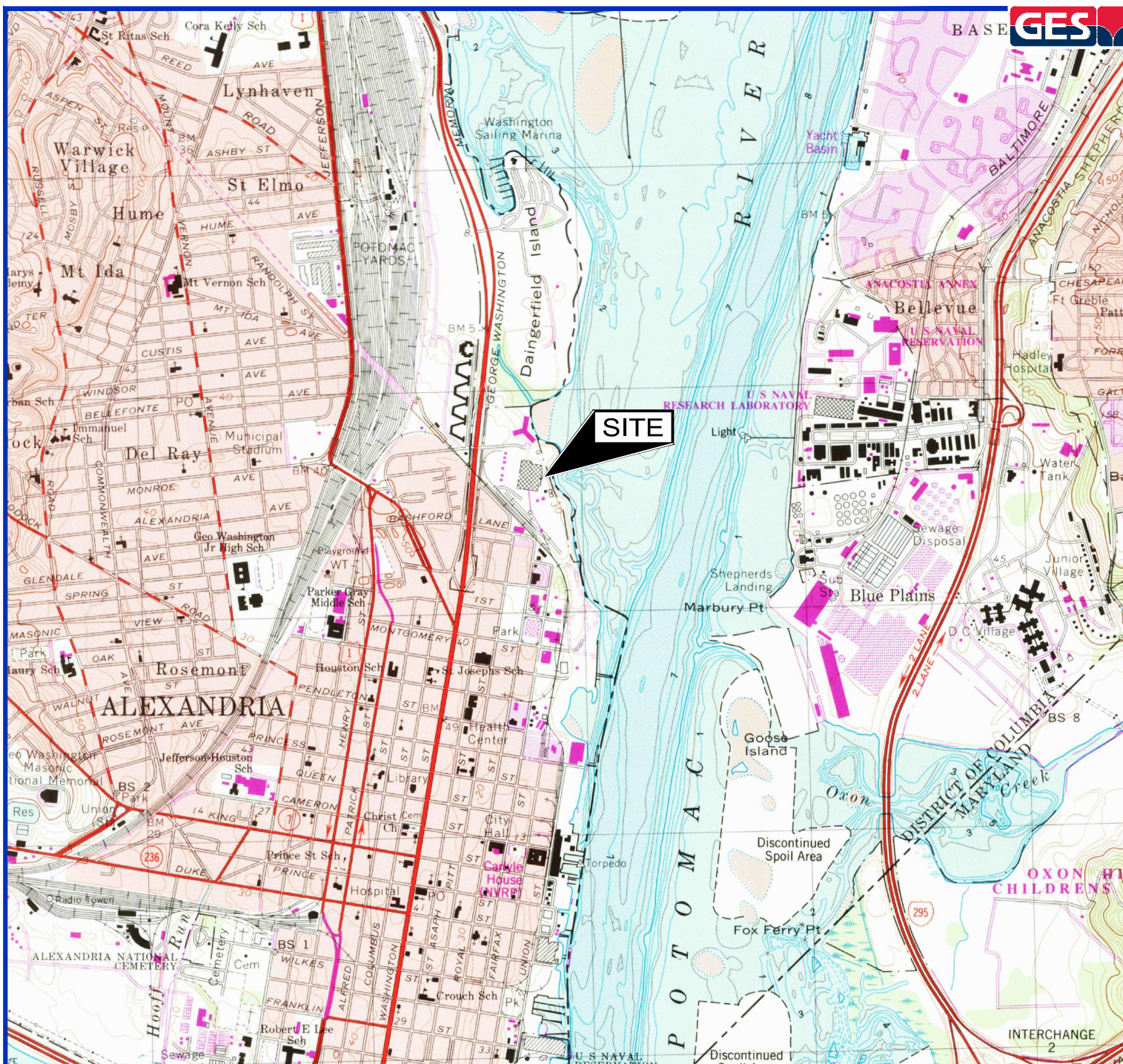
4.1 FUTURE ACTIVITIES (1ST QUARTER 2017)

- Conversion of MW-01S, MW-25S, and MW-51S into TPE recovery wells and suspension of TPE recovery at RW-28S, RW-30S, and RW-118S.

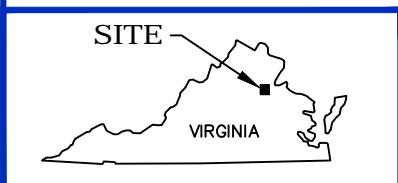


- Routine quarterly groundwater sampling for petroleum and biological indicator parameters in accordance with the revised groundwater sampling plan;
- Monthly gauging of select wells;
- Twice monthly system O&M field events, including system sampling;
- Submittal of quarterly CMR; and
- Submittal of monthly SMRs.

FIGURES



REFERENCE: "ALEXANDRIA, VIRGINIA"
7.5' QUADRANGLE, USGS, (1965, PHOTOREVISED 1983,
BATHYMETRY 1982).



QUADRANGLE LOCATION
NO SCALE

DRAFTED BY:

JW

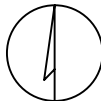
CHECKED BY:

NG

REVIEWED BY:

AC

NORTH



SITE LOCATION MAP

FORMER POTOMAC RIVER GENERATING STATION ALEXANDRIA, VIRGINIA

Groundwater & Environmental Services, Inc.
1350 BLAIR DR., SUITE A, CROFTON, MD 21113

SCALE IN FEET

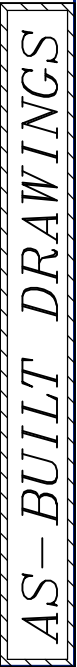


DATE

7-17-15

FIGURE

1





L:\Projects\NRG\PRGS\GIS\NRG_PRGS_Shallow_GW_Contours_November2016.mxd - Scale 1:600 - 1/19/2017 10:28:56 AM - Jauterio - NAD 1983 StatePlane Virginia North FIPS 4501 Feet



Legend

- FORMER RAILWAY TRACK
- STORM WATER CATCH BASIN
- UTILITY MANHOLE
- SEEP LOCATION
- DEEP BIOSPARGE WELL
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- DEEP PUMP & TREAT RECOVERY WELL
- SHALLOW TOTAL PHASE EXTRACTION WELL
- ABANDONED MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
- POTOMAC RIVER
- PROPERTY BOUNDARY
- GROUNDWATER CONTOUR (FT)
- DASHED WHERE INFERRED
- 8.46 GROUNDWATER ELEVATION (FT)
- NM NOT MEASURED

NOTE:

MW-01S was gauged on November 29, 2016 and measured 0.13 feet of LNAPL.

RW-119S could not be gauged due to an obstruction in the well.

MW-16S and RW-72S were dry.

DRAFTED BY: JTL	POTENTIOMETRIC SURFACE SHALLOW ZONE AQUIFER - NOVEMBER 28, 2016		
CHECKED BY: DMC	FORMER POTOMAC RIVER GENERATING STATION 1400 NORTH ROYAL STREET ALEXANDRIA, VIRGINIA		
REVIEWED BY:	Groundwater & Environmental Services, Inc. 1350 BLAIR DRIVE, SUITE A, ODENTON, MD 21113		
NORTH 	SCALE IN FEET 		FIGURE 4
	DATE 1-19-17		

L:\Projects\NRG\PRGS\GIS\NRG_PRGS_Deep_GW_Contours_November2016.mxd - Scale 1:600 - 1/19/2017 10:43:59 AM - jauterio - NAD 1983 StatePlane Virginia North FIPS 4501 Feet



Legend

- FORMER RAILWAY TRACK
- STORM WATER CATCH BASIN
- UTILITY MANHOLE
- SEEP LOCATION
- DEEP BIOSPARGE WELL
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- DEEP PUMP & TREAT RECOVERY WELL
- SHALLOW TOTAL PHASE EXTRACTION WELL
- ABANDONED MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
- POTOMAC RIVER
- PROPERTY BOUNDARY
- GROUNDWATER CONTOUR (FT)
- DASHED WHERE INFERRED
- GROUNDWATER ELEVATION (FT)
- NM NOT MEASURED

NOTE:
MW-102 could not be located and gauged due to vegetation overgrowth.

RW-05 could not be gauged due to an obstruction in the well.

MW/RW-05, 14, 25, 31, and 51 are connected to the pump and treat (P&T) system and were actively pumping when gauged.

DRAFTED BY: JTL	POTENTIOMETRIC SURFACE DEEP ZONE AQUIFER – NOVEMBER 28, 2016		
CHECKED BY: DMC	FORMER POTOMAC RIVER GENERATING STATION 1400 NORTH ROYAL STREET ALEXANDRIA, VIRGINIA		
REVIEWED BY:	Groundwater & Environmental Services, Inc. 1350 BLAIR DRIVE, SUITE A, ODENTON, MD 21113		
NORTH 	SCALE IN FEET 	DATE 1-19-17	FIGURE 5

L:\Projects\NRG\PRGS\GIS\NRG_PRGS_SiteMap_AR_Shallow_TPHDRO_2016Q4.mxd - Scale 1:600 - 1/24/2017 12:10:00 PM - jlauterio - NAD 1983 StatePlane Virginia North FIPS 4501 Feet



Legend

- FORMER RAILWAY TRACK
- STORM WATER CATCH BASIN
- UTILITY MANHOLE
- SEEP LOCATION
- DEEP BIOSPARGE WELL
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- DEEP PUMP & TREAT RECOVERY WELL
- SHALLOW TOTAL PHASE EXTRACTION WELL
- ABANDONED MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
- TPH-DRO CONCENTRATION CONTOUR ($\mu\text{g/L}$)
- DASHED WHERE INFERRED
- LNAPL OBSERVED
- LNAPL CONTOUR
- (1,600) TPH-DRO CONCENTRATION (UG/L)
- (NS) NOT SAMPLED
- (0.13) LNAPL THICKNESS (FT)

Note:
1) TPH-DRO: Total Petroleum Hydrocarbons - Diesel Range Organics
2) $\mu\text{g/L}$: Micrograms per liter
3) MW/RW-72S, TW-12S, MW-107, and MW-108 could not be sampled due to an insufficient amount of water.
4) MW-01S was not sampled due to measurable LNAPL.
5) MW-16S, MW-103, MW-104, and MW-105 were not sampled since they are currently not in the sampling plan.

DRAFTED BY: JTL	TPH-DRO CONCENTRATION CONTOURS SHALLOW ZONE AQUIFER - FOURTH QUARTER 2016		
CHECKED BY: DMC	FORMER POTOMAC RIVER GENERATING STATION 1400 NORTH ROYAL STREET ALEXANDRIA, VIRGINIA		
REVIEWED BY: AAB	Groundwater & Environmental Services, Inc. 1350 BLAIR DRIVE, SUITE A, ODENTON, MD 21113		
NORTH 	SCALE IN FEET 	DATE 1-24-17	FIGURE 6

L:\Projects\NRG\PRGS\GIS\NRG_PRGS_SiteMap_AR_Deep_TPHDRO_2016Q4.mxd - Scale 1:600 - 1/24/2017 10:44:52 AM - jlauro - NAD 1983 StatePlane Virginia North FIPS 4501 Feet



Legend

- FORMER RAILWAY TRACK
- STORM WATER CATCH BASIN
- UTILITY MANHOLE
- SEEP LOCATION
- DEEP BIOSPARGE WELL
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- DEEP PUMP & TREAT RECOVERY WELL
- SHALLOW TOTAL PHASE EXTRACTION WELL
- ABANDONED MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
- TPH-DRO CONCENTRATION CONTOUR (µg/L)
- DASHED WHERE INFERRED
- (1,100) TPH-DRO CONCENTRATION (UG/L)
- (NS) NOT SAMPLED

Note:
1) TPH-DRO: Total Petroleum Hydrocarbons - Diesel Range Organics
2) µg/L: Micrograms per liter
3) MW-52, MW-70, and MW-102 were not sampled since they are currently not in the sampling plan.

DRAFTED BY: JTL	TPH-DRO CONCENTRATION CONTOURS DEEP ZONE AQUIFER - FOURTH QUARTER 2016		
CHECKED BY: DMC	FORMER POTOMAC RIVER GENERATING STATION 1400 NORTH ROYAL STREET ALEXANDRIA, VIRGINIA		
REVIEWED BY: AAB	Groundwater & Environmental Services, Inc. 1350 BLAIR DRIVE, SUITE A, ODENTON, MD 21113		
NORTH 	SCALE IN FEET 		FIGURE 7
	DATE 1-24-17		



Legend

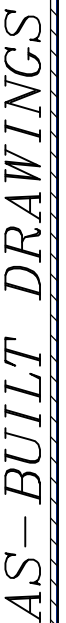
- FORMER RAILWAY TRACK
- STORM WATER CATCH BASIN
- UTILITY MANHOLE
- SEEP LOCATION
- DEEP BIOSPARGE WELL
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- DEEP PUMP & TREAT RECOVERY WELL
- SHALLOW TOTAL PHASE EXTRACTION WELL
- ABANDONED MONITORING WELL
- APPROXIMATE SOIL BORING LOCATION
- B BENZENE CONCENTRATION (µg/L)
- T TOLUENE CONCENTRATION (µg/L)
- E ETHYLBENZENE CONCENTRATION (µg/L)
- X XYLENES, TOTAL CONCENTRATION (µg/L)
- N NAPHTHALENE CONCENTRATION (µg/L)
- µg/L MICROGRAMS PER LITER

Note:

RW-72S, TW-12S, MW-107, and MW-108 could not be sampled due to an insufficient amount of water.

MW-01S was not sampled due to measurable LNAPL.

DRAFTED BY: JTL	BTEx & NAPHTHALENE NOVEMBER 2016		
CHECKED BY: DMC	FORMER POTOMAC RIVER GENERATING STATION 1400 NORTH ROYAL STREET ALEXANDRIA, VIRGINIA		
REVIEWED BY: AAB			
NORTH 	Groundwater & Environmental Services, Inc. 1350 BLAIR DRIVE, SUITE A, ODENTON, MD 21113		
SCALE IN FEET 	DATE 1-19-17	FIGURE 8	



TABLES

Table 1

WELL CONSTRUCTION TABLE

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Monitoring Well	Well type	Aquifer Zone Designation	Date Installed	Well Diameter (in)	Total Depth of Well from Ground Surface (ft)	Length of Casing (ft)	Length of Screen (ft)
MW-01S	MW	Shallow	7/29/2014	4	27	17	10
MW-05 / RW-05	P&T	Deep	8/1/2014	4	35	25	10
MW-08S	MW	Shallow	7/23/2014	4	25	15	10
MW-10S / RW-10S	TPE	Shallow	7/28/2014	4	27	17	10
MW-11	MW	Deep	7/24/2014	4	35	25	10
MW-14 / RW-14	P&T	Deep	7/29/2014	4	38.5	28.5	10
MW-15S	MW	Shallow	7/31/2014	4	26	16	10
MW-16S	MW	Shallow	8/13/2014	2	25	15	10
MW-16	MW	Deep	8/14/2014	2	36	26	10
MW-25S	MW	Shallow	8/5/2014	4	26	16	10
MW-25 / RW-25	P&T	Deep	7/24/2014	4	35	25	10
MW-27	MW	Deep	7/21/2014	4	35	25	10
MW-31 / RW-31	P&T	Deep	8/5/2014	4	36	26	10
MW-33	MW	Deep	8/5/2014	4	35	25	10
MW-51S	MW	Shallow	8/6/2014	4	25.5	15.5	10
MW-51 / RW-51	P&T	Deep	7/22/2014	4	37	27	10
MW-52	MW	Deep	8/14/2014	2	36	26	10
MW-70	MW	Deep	8/13/2014	2	36	26	10
MW-72S / RW-72S	TPE	Shallow	8/7/2014	4	25	15	10
MW-72 / RW-72	MW	Deep	7/30/2014	4	35	25	10
MW-100S	MW	Shallow	8/12/2014	2	24.5	14.5	10
MW-100	MW	Deep	8/12/2014	2	37.5	27.5	10
MW-102	MW	Deep	8/11/2014	2	37	27	10

Table 1

WELL CONSTRUCTION TABLE

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Monitoring Well	Well type	Aquifer Zone Designation	Date Installed	Well Diameter (in)	Total Depth of Well from Ground Surface (ft)	Length of Casing (ft)	Length of Screen (ft)
MW-103	MW	Shallow	7/23/2014	2	15	5	10
MW-104	MW	Shallow	7/24/2014	2	12	2	10
MW-105	MW	Shallow	7/24/2014	2	10	1	9
MW-106	MW	Deep	7/22/2014	2	10	3	7
MW-107	MW	Shallow	7/22/2014	2	11	3	8
MW-108	MW	Shallow	7/23/2014	2	10	4	6
MW-109S	MW	Shallow	8/20/2014	4	13.5	3.5	10
MW-109	MW	Deep	8/19/2014	4	24	14	10
MW-110S	MW	Shallow	8/20/2014	4	13	3	10
MW-110	MW	Deep	8/20/2014	4	24	14	10
MW-111	MW	Deep	8/18/2014	2	22	12	10
MW-112S	MW	Shallow	8/12/2014	4	13	3	10
MW-112	MW	Deep	8/12/2014	4	24	14	10
MW-113	MW	Deep	8/19/2014	2	23	13	10
MW-114	MW	Deep	8/21/2014	2	23	13	10
MW-121	MW	Deep	7/2/2015	4	37	27	10
MW-122	MW	Deep	6/24/2015	4	37	27	10
MW-123S / RW-123S	TPE	Shallow	7/7/2015	4	25	21	4
TW-02	MW	Deep	12/12/2013	1	24	14	10
TW-03	MW	Deep	12/12/2013	1	15	5	10
TW-04	MW	Deep	12/13/2013	1	15	5	10
TW-05	MW	Deep	12/13/2013	1	10	0	10
TW-06	MW	Deep	12/13/2013	1	15	5	10

Table 1

WELL CONSTRUCTION TABLE

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Monitoring Well	Well type	Aquifer Zone Designation	Date Installed	Well Diameter (in)	Total Depth of Well from Ground Surface (ft)	Length of Casing (ft)	Length of Screen (ft)
TW-07	MW	Deep	12/13/2013	1	15	5	10
TW-12S	MW	Shallow	12/18/2013	1	25	15	10
TW-14	MW	Shallow	1/15/2014	1	5.5	0.5	5
RW-1	MW	Deep	10/2/2014	4	41	26	15
RW-05S	TPE	Shallow	6/29/2015	4	26	21	5
RW-25S	TPE	Shallow	7/7/2015	4	25	20	5
RW-28S	TPE	Shallow	7/6/2015	4	27	22	5
RW-30S	TPE	Shallow	6/23/2015	4	29	24	5
RW-116S	TPE	Shallow	6/26/2015	4	26	21	5
RW-117S	TPE	Shallow	6/23/2015	4	25	20	5
RW-118S	TPE	Shallow	6/25/2015	4	25	20	5
RW-119S	TPE	Shallow	6/29/2015	4	26	21	5
SP-01	SP	Deep	10/2/2014	2	35	32	3
SP-02	SP	Deep	9/30/2014	2	36	33	3
SP-03	SP	Deep	6/30/2015	2	36	33	3
SP-04	SP	Deep	7/1/2015	2	36	33	3
SP-05	SP	Deep	7/8/2015	2	36	33	3
SP-06	SP	Deep	6/30/2015	2	36	33	3
SP-07	SP	Deep	6/25/2015	2	36	33	3
SP-08	SP	Deep	7/8/2015	2	36	33	3
SP-09	SP	Deep	4/12/2016	2	21	18	3
SP-10	SP	Deep	4/7/2016	2	24.5	21.5	3
SP-11	SP	Deep	4/11/2016	2	19.5	16.5	3

Table 1

WELL CONSTRUCTION TABLE

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Monitoring Well	Well type	Aquifer Zone Designation	Date Installed	Well Diameter (in)	Total Depth of Well from Ground Surface (ft)	Length of Casing (ft)	Length of Screen (ft)
SP-12	SP	Deep	4/13/2016	2	19	16	3
SP-13	SP	Deep	4/13/2016	2	19	16	3
SP-14	SP	Deep	4/8/2016	2	18	15	3
SP-15	SP	Deep	4/8/2016	2	15	12	3

Notes:

Field parameters include pH, specific conductance, temperature, oxidation reduction potential (ORP), dissolved oxygen (DO), headspace carbon dioxide concentration, headspace volatile organic compound concentration, headspace oxygen concentration

Volatile organic compound (VOC) groundwater samples were analyzed for benzene, toluene, ethylbenzene, total xylenes, and naphthalene.

Biostimulation parameters include alkalinity, nitrate nitrogen, manganese, ferrous iron, sulfate as SO_4^{2-} , and methane.

- = Not available

ft = Feet

in = Inches

NA = Not applicable

MW = Monitoring Well

P&T = Pump & Treat Well

SP = Air Sparge Point

TPE = Total Phase Extraction Well

TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics

VDEQ = Virginia Department of Environmental Quality

DDOE = District Department of the Environment



Table 2

GROUNDWATER MONITORING AND SAMPLING PLAN

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Aquifer Zone	Field Parameters								Laboratory Parameters								Sample Method	Comments
		pH	Specific Conductance	Temperature	Oxidation Reduction Potential	Dissolved Oxygen	Headspace CO2 concentration	Headspace VOC concentration	Headspace O2	TPH-DRO C10-C28 (SW-846 8015B)	BTEX Naphthalene (8260)	Alkalinity (SM 2320B)	Nitrate NO ₃ ⁻¹ & Nitrite NO ₂ ⁻² (EPA 353.2)	Manganese (Mn2+)	Ferrous Iron Fe ²⁺ (SM 3500-Fe B modified-1997)	Sulfate SO ₄ ²⁻ (EPA 300.0)	Methane (RSKSOP-175 modified)		
MW-01S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-05 / RW-05	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A							P&S	
MW-08S	Shallow									Q	A							P&S	
MW-10S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-11	Deep									A								P&S	
MW-14 / RW-14	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q		Q	Q	Q	Q	Q	Q	P&S	
MW-15S	Shallow									A								P&S	
MW-16S	Shallow																	NS	Gauge only
MW-16	Deep									Q	A							P&S	
MW-25S	Shallow									Q	A							P&S	
MW-25 / RW-25	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A							P&S	
MW-27	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-31 / RW-31	Deep									Q								P&S	
MW-33	Deep									A								P&S	
MW-51S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q		Q	Q	Q	Q	Q	Q	P&S	
MW-51 / RW-51	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A							P&S	
MW-52	Deep																	NS	Gauge only
MW-70	Deep																	NS	Gauge only
MW-72S / RW-72S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-72 / RW-72	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-100S	Shallow	A	A	A	A	A	A	A	A	A		A	A	A	A	A	A	P&S	
MW-100	Deep	A	A	A	A	A	A	A	A	A		A	A	A	A	A	A	P&S	

Table 2

GROUNDWATER MONITORING AND SAMPLING PLAN

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Aquifer Zone	Field Parameters								Laboratory Parameters								Sample Method	Comments
		pH	Specific Conductance	Temperature	Oxidation Reduction Potential	Dissolved Oxygen	Headspace CO2 concentration	Headspace VOC concentration	Headspace O2	TPH-DRO C10-C28 (SW-846 8015B)	BTEX Naphthalene (8260)	Alkalinity (SM 2320B)	Nitrate NO ₃ ⁻¹ & Nitrite NO ₂ ⁻² (EPA 353.2)	Manganese (Mn2+)	Ferrous Iron Fe ²⁺ (SM 3500-Fe B modified-1997)	Sulfate SO ₄ ²⁻ (EPA 300.0)	Methane (RSKSOP-175 modified)		
MW-102	Deep																	NS	Gauge only
MW-103	Shallow																	NS	Gauge only
MW-104	Shallow																	NS	Gauge only
MW-105	Shallow																	NS	Gauge only
MW-106	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-107	Deep									A								P&S	
MW-108	Deep									Q								P&S	Typically Dry
MW-109S	Shallow									A								P&S	basement wells
MW-109	Deep									A								P&S	
MW-110S	Shallow									A								P&S	
MW-110	Deep									A								P&S	
MW-111	Deep									A								P&S	
MW-112S	Shallow									A								P&S	
MW-112	Deep									A								P&S	
MW-113	Deep									A								P&S	
MW-114	Deep									A								P&S	
MW-121	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-122	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-123S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
TW-02	Deep																	NS	Gauge only
TW-03	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q		Q	Q	Q	Q	Q	Q	LF	Provide biostimulation bottleware to Geosyntec

Table 2

GROUNDWATER MONITORING AND SAMPLING PLAN

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Aquifer Zone	Field Parameters								Laboratory Parameters								Sample Method	Comments
		pH	Specific Conductance	Temperature	Oxidation Reduction Potential	Dissolved Oxygen	Headspace CO2 concentration	Headspace VOC concentration	Headspace O2	TPH-DRO C10-C28 (SW-846 8015B)	BTEX Naphthalene (8260)	Alkalinity (SM 2320B)	Nitrate NO ₃ ⁻¹ & Nitrite NO ₂ ⁻² (EPA 353.2)	Manganese (Mn2+)	Ferrous Iron Fe ²⁺ (SM 3500-Fe B modified-1997)	Sulfate SO ₄ ²⁻ (EPA 300.0)	Methane (RSKSOP-175 modified)		
TW-04	Deep									Q								LF	
TW-05	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q		Q	Q	Q	Q	Q	Q	LF	Provide biostimulation bottleware to Geosyntec
TW-06	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q		Q	Q	Q	Q	Q	Q	LF	Provide biostimulation bottleware to Geosyntec
TW-07	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q								LF	
TW-12S	Shallow									Q								P&S	
TW-14	Shallow									Q	A							LF	
RW-1	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-05S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-25S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q	A							P&S	
RW-28S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-30S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-116S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-117S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-118S	Shallow									Q								P&S	
RW-119S	Shallow									Q								P&S	

Notes:

Select annual samples were collected during the 4th quarter of 2015. Moving forward, annual sampling to be completed in the 4th quarter of a year.

Q - Quarterly sampling frequency

A - Annual sampling frequency

P&S - Purge and Sample

LF - Low Flow Sampling

Table 2

GROUNDWATER MONITORING AND SAMPLING PLAN

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Aquifer Zone	Field Parameters							Laboratory Parameters							Sample Method	Comments
		pH	Specific Conductance	Temperature	Oxidation Reduction Potential	Dissolved Oxygen	Headspace CO2 concentration	Headspace VOC concentration	Headspace O2	TPH-DRO C10-C28 (SW-846 8015B)	BTEX Naphthalene (8260)	Alkalinity (SM 2320B)	Nitrate NO ₃ ⁻¹ & Nitrite NO ₂ ⁻² (EPA 353.2)	Manganese (Mn2+)	Ferrous Iron Fe ²⁺ (SM 3500-Fe B modified-1997)	Sulfate SO ₄ ²⁻ (EPA 300.0)	Methane (RSKSOP-175 modified)

NS - No Sampling Planned

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-01S	08/08/2014	30.78	22.67	-	-	-	26.58	8.11	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	08/11/2014	30.78	22.62	-	-	-	-	8.16	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	08/15/2014	30.78	22.60	-	-	-	-	8.18	-	-	-	-	-	-	-	-	-	-	-	2,670	-
MW-01S	08/18/2014	30.78	22.88	-	-	-	-	7.90	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	08/25/2014	30.87	22.27	-	-	-	-	8.60	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	09/02/2014	30.87	22.28	-	-	-	-	8.59	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	09/15/2014	30.87	22.61	-	-	-	-	8.26	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	09/22/2014	30.87	22.75	-	-	-	-	8.12	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	09/24/2014	30.87	22.95	-	-	-	-	7.92	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	10/01/2014	30.87	22.94	-	-	-	26.59	7.93	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	10/10/2014	30.87	23.06	-	-	-	-	7.81	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	10/20/2014	30.87	23.53	-	-	-	26.58	7.34	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	10/22/2014	30.87	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23,000	-
MW-01S	02/24/2015	30.87	25.89	25.74	0.15	-	26.65	5.11	15:24	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	02/26/2015	30.87	25.61	25.51	0.10	-	-	5.35	16:10	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	03/04/2015	30.87	25.63	25.52	0.11	-	-	5.34	14:21	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	03/11/2015	30.87	25.51	25.39	0.12	-	-	5.47	13:00	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	03/18/2015	30.87	25.14	25.03	0.11	-	-	5.83	11:19	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	03/26/2015	30.87	25.07	24.98	0.09	-	26.60	5.88	10:35	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	04/02/2015	30.87	25.06	24.96	0.10	-	26.60	5.90	11:33	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	04/08/2015	30.87	25.10	24.96	0.14	-	26.64	5.89	9:27	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	04/13/2015	30.87	24.92	24.83	0.09	-	-	6.03	10:35	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	04/23/2015	30.87	24.38	24.35	0.03	-	26.55	6.52	12:04	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	04/29/2015	30.87	24.38	24.34	0.04	-	26.60	6.53	14:29	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	05/04/2015	30.87	24.32	24.28	0.04	-	-	6.59	11:55	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	05/11/2015	30.87	24.37	24.31	0.06	-	-	6.55	10:55	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	05/21/2015	30.87	24.46	24.41	0.05	-	-	6.45	12:15	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	05/28/2015	30.87	24.65	24.54	0.11	-	26.55	6.32	11:50	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	06/02/2015	30.87	24.52	24.46	0.06	-	-	6.40	13:16	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	06/09/2015	30.87	24.12	24.10	0.02	-	-	6.77	10:43	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	06/16/2015	30.87	24.05	24.04	0.01	-	-	6.83	11:37	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	06/26/2015	30.87	23.72	-	-	-	26.50	7.15	10:43	-	-	-	-	-	-	-	-	-	-	-	-
MW-01S	07/01/2015	30.87	23.25	23.24	0.01	-	-	7.63	12:34	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-01S	07/08/2015	30.87	22.93	22.93	TRACE	TRACE	-	7.94	11:50	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	07/13/2015	30.87	22.72	-	-	-	-	8.15	9:42	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	07/20/2015	30.87	22.40	-	-	-	-	8.47	9:37	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	07/28/2015	30.87	22.43	-	-	-	26.69	8.44	10:56	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	08/04/2015	30.87	22.46	22.45	0.01	TRACE	26.56	8.42	10:35	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	08/11/2015	30.87	22.50	22.50	TRACE	TRACE	26.61	8.37	10:39	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	08/18/2015	30.87	22.63	-	-	-	-	8.24	10:46	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	08/24/2015	30.87	22.69	-	-	-	-	8.18	10:43	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	09/02/2015	30.87	22.90	22.88	0.02	TRACE	26.62	7.99	9:32	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	09/09/2015	30.87	22.96	22.95	0.01	-	26.60	7.92	11:17	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	09/17/2015	30.87	23.19	23.18	0.01	-	26.62	7.69	10:58	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	09/23/2015	30.87	23.07	23.06	0.01	TRACE	-	7.81	11:01	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	09/28/2015	30.87	23.10	23.10	TRACE	-	26.10	7.77	10:08	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	10/05/2015	30.87	23.09	23.09	TRACE	-	26.60	7.78	11:07	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	11/10/2015	30.87	23.59	-	-	-	-	7.28	13:10	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	12/01/2015	30.87	24.05	24.04	0.01	-	26.57	6.83	12:02	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	01/27/2016	30.87	23.98	23.98	TRACE	-	-	6.89	9:54	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	02/15/2016	30.87	23.54	-	-	-	-	7.33	9:40	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	03/14/2016	30.87	23.27	-	-	-	26.60	7.60	11:45	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	03/16/2016	30.87	23.16	-	-	-	26.60	7.71	12:46	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	04/21/2016	30.87	23.48	-	-	-	26.59	7.39	11:05	-	-	-	-	-	-	-	-	-	-	56,000	
MW-01S	05/23/2016	30.87	23.69	23.68	0.01	-	-	7.19	12:00	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-01S	06/21/2016	30.87	22.93	-	-	-	-	7.94	11:17	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	07/21/2016	30.87	22.57	-	-	-	-	8.30	10:40	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	08/24/2016	30.87	22.96	-	-	-	26.67	7.91	11:07	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	08/25/2016	30.87	23.08	-	-	-	26.75	7.79	10:55	-	-	-	-	-	-	-	-	-	-	140,000	
MW-01S	11/28/2016	30.87	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	11/29/2016	30.87	25.61	25.48	0.13	0.02	26.58	5.37	11:50	-	-	-	-	-	-	-	-	-	-	-	
MW-01S	12/22/2016	30.87	25.78	25.78	TRACE	TRACE	-	5.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	07/24/2014	30.86	26.59	-	-	-	-	4.27	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	07/31/2014	30.86	22.08	-	-	-	24.35	8.78	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	08/08/2014	30.86	21.33	-	-	-	24.64	9.53	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	08/11/2014	30.86	21.42	-	-	-	-	9.44	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-08S	08/15/2014	30.86	21.41	-	-	-	-	9.45	-	-	-	-	-	-	-	-	-	-	-	7,540	
MW-08S	08/18/2014	30.86	21.46	-	-	-	-	9.40	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	08/25/2014	30.86	21.49	-	-	-	-	9.37	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	09/02/2014	30.86	21.45	-	-	-	-	9.41	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	09/15/2014	30.86	21.58	-	-	-	-	9.28	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	09/22/2014	30.86	21.67	-	-	-	-	9.19	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	09/24/2014	30.86	21.68	-	-	-	-	9.18	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	10/01/2014	30.86	21.67	-	-	-	24.66	9.19	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	10/10/2014	30.86	21.71	-	-	-	-	9.15	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	10/13/2014	30.86	21.72	-	-	-	-	9.14	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	10/20/2014	30.86	21.80	-	-	-	24.65	9.06	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	10/22/2014	30.86	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52,000	
MW-08S	10/27/2014	30.86	21.88	-	-	-	-	8.98	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	11/07/2014	30.86	21.84	-	-	-	-	9.02	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	11/12/2014	30.86	21.94	-	-	-	-	8.92	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	11/21/2014	30.86	21.99	-	-	-	-	8.87	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	11/26/2014	30.86	22.01	-	-	-	-	8.85	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	12/05/2014	30.86	22.03	-	-	-	-	8.83	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	12/11/2014	30.86	22.03	-	-	-	-	8.83	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	12/16/2014	30.86	22.04	-	-	-	-	8.82	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	12/23/2014	30.86	22.07	-	-	-	-	8.79	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	12/30/2014	30.86	22.10	-	-	-	-	8.76	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	01/09/2015	30.86	22.12	-	-	-	-	8.74	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	01/16/2015	30.86	22.05	-	-	-	-	8.81	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	01/19/2015	30.86	22.01	-	-	-	-	8.85	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	01/26/2015	30.86	22.08	-	-	-	-	8.78	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	02/03/2015	30.86	22.15	-	-	-	24.72	8.71	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	02/09/2015	30.86	22.14	-	-	-	-	8.72	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	02/18/2015	30.86	22.15	-	-	-	-	8.71	-	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	02/24/2015	30.86	22.15	-	-	-	24.64	8.71	15:48	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	02/26/2015	30.86	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22,000	
MW-08S	03/04/2015	30.86	21.34	-	-	-	-	9.52	14:15	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	03/11/2015	30.86	21.80	-	-	-	-	9.06	12:45	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-08S	03/18/2015	30.86	21.88	-	-	-	-	8.98	11:05	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	03/26/2015	30.86	22.05	-	-	-	24.70	8.81	11:40	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	04/02/2015	30.86	22.03	-	-	-	24.60	8.83	11:25	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	04/08/2015	30.86	22.07	-	-	-	24.68	8.79	8:50	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	04/13/2015	30.86	22.08	-	-	-	-	8.78	10:41	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	04/23/2015	30.86	22.08	-	-	-	24.65	8.78	11:55	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	04/29/2015	30.86	22.09	-	-	-	24.60	8.77	14:22	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	05/04/2015	30.86	22.09	-	-	-	-	8.77	11:39	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	05/11/2015	30.86	22.10	-	-	-	24.70	8.76	9:50	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	05/12/2015	30.86	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27,000	
MW-08S	05/21/2015	30.86	22.05	-	-	-	24.65	8.81	12:22	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	05/28/2015	30.86	22.11	-	-	-	24.60	8.75	11:45	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	06/02/2015	30.86	22.06	-	-	-	-	8.80	13:04	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	06/09/2015	30.86	22.05	-	-	-	-	8.81	10:30	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	06/16/2015	30.86	22.05	-	-	-	-	8.81	11:24	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	06/26/2015	30.86	21.98	-	-	-	24.50	8.88	10:40	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	07/01/2015	30.86	22.02	-	-	-	-	8.84	12:15	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	07/08/2015	30.86	22.01	-	-	-	-	8.85	11:18	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	07/13/2015	30.86	21.95	-	-	-	-	8.91	9:26	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	07/20/2015	30.86	21.75	-	-	-	-	9.11	9:16	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	07/28/2015	30.86	21.08	-	-	-	24.75	9.78	11:46	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	08/04/2015	30.86	21.05	-	-	-	24.30	9.81	9:39	-	-	-	-	-	-	-	-	-	-	14,000	
MW-08S	08/11/2015	30.86	21.15	-	-	-	24.69	9.71	10:18	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	08/18/2015	30.86	21.24	-	-	-	-	9.62	10:16	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	08/24/2015	30.86	21.32	-	-	-	-	9.54	10:26	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	09/02/2015	30.86	21.32	-	-	-	24.66	9.54	11:10	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	09/09/2015	30.86	21.50	-	-	-	24.71	9.36	10:15	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	09/17/2015	30.86	21.61	-	-	-	24.74	9.25	10:17	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	09/23/2015	30.86	21.63	-	-	-	-	9.23	10:40	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	09/28/2015	30.86	21.68	-	-	-	24.69	9.18	9:22	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	10/05/2015	30.86	21.75	-	-	-	24.70	9.11	9:23	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	11/10/2015	30.86	21.95	-	-	-	-	8.91	13:13	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	12/01/2015	30.86	22.00	-	-	-	24.66	8.86	10:43	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-08S	12/02/2015	30.86	NR	-	-	-	-	-	-	61	<0.5	5.00	48	-	-	-	-	30	-	15,000	
MW-08S	01/27/2016	30.86	21.98	-	-	-	-	8.88	10:33	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	02/15/2016	30.86	21.83	-	-	-	-	9.03	10:14	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	03/14/2016	30.86	21.72	-	-	-	25.62	9.14	11:04	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	03/16/2016	30.86	21.72	-	-	-	24.65	9.14	12:42	-	-	-	-	-	-	-	-	-	-	20,000	
MW-08S	04/21/2016	30.86	22.21	-	-	-	24.65	8.65	12:11	-	-	-	-	-	-	-	-	-	-	11,000	
MW-08S	05/23/2016	30.86	25.03	-	-	-	25.48	5.83	11:00	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	05/24/2016	30.86	22.05	-	-	-	24.68	8.81	10:11	-	-	-	-	-	-	-	-	-	-	8,500	
MW-08S	06/21/2016	30.86	22.18	-	-	-	-	8.68	10:56	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	07/21/2016	30.86	21.20	-	-	-	-	9.66	10:55	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	08/24/2016	30.86	21.77	-	-	-	24.65	9.09	11:22	-	-	-	-	-	-	-	-	-	-	7,400	
MW-08S	11/28/2016	30.86	22.07	-	-	-	24.82	8.79	10:26	-	-	-	-	-	-	-	-	-	-	-	
MW-08S	11/29/2016	30.86	22.07	-	-	-	24.75	8.79	9:36	6	<0.5	<0.5	0.7 J	-	-	-	-	2 J	-	12,000	
MW/RW-10S	08/08/2014	31.24	22.40	-	-	-	26.51	8.84	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	08/11/2014	31.24	22.41	-	-	-	-	8.83	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	08/15/2014	31.24	22.02	-	-	-	-	9.22	-	-	-	-	-	-	-	-	-	-	-	36,000	
MW/RW-10S	08/18/2014	31.24	22.03	-	-	-	-	9.21	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	08/25/2014	31.24	22.06	-	-	-	-	9.18	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	09/02/2014	31.24	22.11	-	-	-	-	9.13	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	09/15/2014	31.24	22.15	-	-	-	-	9.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	09/22/2014	31.24	22.18	-	-	-	-	9.06	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	09/24/2014	31.24	22.19	-	-	-	-	9.05	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	10/01/2014	31.24	22.22	-	-	-	26.09	9.02	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	10/10/2014	31.24	22.18	22.18	TRACE	-	-	9.06	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	10/13/2014	31.24	22.21	-	-	-	-	9.03	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	10/20/2014	31.24	22.35	-	-	-	26.10	8.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	10/22/2014	31.24	22.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100,000	
MW/RW-10S	10/27/2014	31.24	22.32	-	-	-	-	8.92	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	11/07/2014	31.24	22.30	-	-	-	-	8.94	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	11/12/2014	31.24	22.32	-	-	-	-	8.92	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	11/21/2014	31.24	22.38	-	-	-	-	8.86	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	11/26/2014	31.24	22.35	-	-	-	-	8.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	12/05/2014	31.24	22.40	22.38	0.02	TRACE	-	8.86	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-10S	12/11/2014	31.24	22.33	22.33	TRACE	-	-	8.91	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	12/16/2014	31.24	22.36	22.36	TRACE	-	-	8.88	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	12/23/2014	31.24	22.37	-	-	-	-	8.87	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-10S	12/30/2014	31.24	22.42	22.42	TRACE	-	-	8.82	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	01/09/2015	31.24	22.44	22.43	0.01	TRACE	-	8.81	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-10S	01/16/2015	31.24	22.41	22.40	0.01	TRACE	-	8.84	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-10S	01/19/2015	31.24	22.43	22.42	0.01	TRACE	-	8.82	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-10S	01/26/2015	31.24	22.23	22.22	0.01	TRACE	-	9.02	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-10S	02/03/2015	31.24	22.50	-	-	-	26.11	8.74	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-10S	02/09/2015	31.24	22.43	22.42	0.01	-	-	8.82	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	02/18/2015	31.24	22.44	22.43	0.01	-	-	8.81	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	02/24/2015	31.24	22.50	22.49	0.01	-	26.11	8.75	15:44	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	03/04/2015	31.24	22.50	22.48	0.02	-	-	8.76	14:28	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	03/11/2015	31.24	22.51	22.48	0.03	-	-	8.76	12:54	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	03/18/2015	31.24	22.56	22.52	0.04	-	-	8.72	11:23	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	03/26/2015	31.24	22.53	22.50	0.03	-	26.10	8.74	11:27	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	04/02/2015	31.24	22.55	22.51	0.04	-	26.05	8.73	11:52	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	04/08/2015	31.24	22.53	22.52	0.01	-	26.10	8.72	9:05	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	04/13/2015	31.24	22.56	22.53	0.03	-	-	8.71	10:59	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	04/23/2015	31.24	22.53	22.51	0.02	-	26.05	8.73	12:22	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	04/29/2015	31.24	23.53	23.50	0.03	-	26.00	7.74	14:43	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	05/04/2015	31.24	22.57	22.54	0.03	-	-	8.70	11:59	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	05/11/2015	31.24	22.86	22.84	0.02	-	26.10	8.40	10:00	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	05/21/2015	31.24	22.59	22.56	0.03	-	-	8.68	12:46	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	05/28/2015	31.24	22.60	22.56	0.04	-	26.00	8.68	12:01	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	06/02/2015	31.24	22.60	22.56	0.04	-	-	8.68	13:20	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	06/09/2015	31.24	22.54	22.53	0.01	-	-	8.71	10:40	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	06/19/2015	31.24	22.54	22.53	0.01	-	-	8.71	11:34	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	06/26/2015	31.24	22.61	22.54	0.07	-	26.00	8.69	11:26	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	07/01/2015	31.24	22.58	22.52	0.06	-	-	8.71	12:26	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	07/08/2015	31.24	22.54	22.49	0.05	TRACE	-	8.74	11:57	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	07/13/2015	31.24	21.96	-	-	-	-	9.28	9:44	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-10S	07/20/2015	31.24	21.48	-	-	-	-	9.76	9:13	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-10S	07/28/2015	31.24	21.36	-	-	-	26.11	9.88	10:39	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	08/05/2015	31.24	21.51	21.42	0.09	-	-	9.81	9:24	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	08/11/2015	31.24	21.49	21.49	TRACE	TRACE	26.15	9.75	10:22	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	08/18/2015	31.24	21.76	21.59	0.17	0.02	-	9.63	10:40	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	08/24/2015	31.24	21.80	21.68	0.12	0.01	-	9.55	10:50	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	09/02/2015	31.24	21.95	21.81	0.14	0.01	26.10	9.41	10:00	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	09/09/2015	31.24	22.05	21.91	0.14	0.02	26.11	9.31	11:08	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	09/17/2015	31.24	22.10	22.00	0.10	TRACE	-	9.23	10:35	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	09/23/2015	31.24	22.06	22.02	0.04	TRACE	-	9.22	11:10	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	09/28/2015	31.24	22.14	22.07	0.07	TRACE	26.10	9.16	10:00	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	10/05/2015	31.24	22.12	-	-	-	26.10	9.12	9:26	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	11/10/2015	31.24	24.00	24.00	TRACE	-	-	7.24	13:25	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	12/01/2015	33.02	24.10	-	-	-	27.85	8.92	10:53	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	01/27/2016	33.02	24.18	24.18	TRACE	-	-	8.84	10:52	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	02/15/2016	33.02	24.37	24.36	0.01	-	-	8.66	10:35	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	03/14/2016	33.02	24.07	-	-	-	27.87	8.95	12:50	-	-	-	-	-	-	-	-	-	-	29,000	LNAPL NMB
MW/RW-10S	04/21/2016	33.02	25.99	25.95	0.04	-	-	7.07	11:27	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	05/23/2016	33.02	25.55	-	-	-	27.90	7.47	11:40	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	05/24/2016	33.02	25.57	-	-	-	27.89	7.45	10:00	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	06/21/2016	33.02	25.62	-	-	-	-	7.40	10:40	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	07/21/2016	33.02	25.57	-	-	-	-	7.45	10:15	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	08/24/2016	33.02	25.61	-	-	-	27.80	7.41	11:11	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	08/25/2016	33.02	24.97	-	-	-	-	8.05	11:55	-	-	-	-	-	-	-	-	-	-	25,000	
MW/RW-10S	09/22/2016	33.02	25.68	-	-	-	27.89	7.34	12:24	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	10/20/2016	33.02	25.68	-	-	-	-	7.34	11:55	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	11/28/2016	33.02	25.68	-	-	-	-	7.34	9:56	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-10S	11/29/2016	33.02	25.71	-	-	-	27.95	7.31	-	<3	<3	<3	<3	-	-	-	-	<5	-	-	
MW/RW-10S	12/22/2016	33.02	25.66	-	-	-	27.72	7.36	10:18	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-10S	12/22/2016	33.02	25.66	-	-	-	27.72	7.36	10:18	-	-	-	-	-	-	-	-	-	-	-	
MW-11	07/25/2014	30.85	26.90	-	-	-	33.40	3.95	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	08/08/2014	30.85	26.76	-	-	-	34.00	4.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	08/11/2014	30.85	26.57	-	-	-	-	4.28	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	08/15/2014	30.85	27.15	-	-	-	-	3.70	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	08/16/2014	30.85	26.81	-	-	-	34.00	4.04	-	-	-	-	-	-	-	-	-	-	-	423	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-11	08/18/2014	30.85	26.77	-	-	-	-	4.08	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	08/25/2014	30.85	26.43	-	-	-	-	4.42	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	09/02/2014	30.85	26.83	-	-	-	-	4.02	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	09/15/2014	30.85	26.75	-	-	-	-	4.10	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	09/22/2014	30.85	26.64	-	-	-	-	4.21	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	09/24/2014	30.85	27.08	-	-	-	-	3.77	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	10/01/2014	30.85	26.87	-	-	-	34.02	3.98	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	10/13/2014	30.85	26.86	-	-	-	-	3.99	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	10/20/2014	30.85	26.96	-	-	-	33.99	3.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW-11	10/22/2014	30.85	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	840	
MW-11	02/24/2015	30.85	27.03	-	-	-	-	3.82	13:39	-	-	-	-	-	-	-	-	-	-	-	
MW-11	02/26/2015	30.85	27.07	-	-	-	34.00	3.78	10:18	-	-	-	-	-	-	-	-	-	-	920	
MW-11	03/04/2015	30.85	26.95	-	-	-	-	3.90	14:09	-	-	-	-	-	-	-	-	-	-	-	
MW-11	03/11/2015	30.85	26.58	-	-	-	-	4.27	12:39	-	-	-	-	-	-	-	-	-	-	-	
MW-11	03/18/2015	30.85	26.74	-	-	-	-	4.11	10:59	-	-	-	-	-	-	-	-	-	-	-	
MW-11	03/26/2015	30.85	26.56	-	-	-	33.90	4.29	11:22	-	-	-	-	-	-	-	-	-	-	-	
MW-11	04/02/2015	30.85	26.69	-	-	-	33.90	4.16	11:12	-	-	-	-	-	-	-	-	-	-	-	
MW-11	04/08/2015	30.85	27.00	-	-	-	33.82	3.85	9:25	-	-	-	-	-	-	-	-	-	-	-	
MW-11	04/13/2015	30.85	26.88	-	-	-	-	3.97	10:32	-	-	-	-	-	-	-	-	-	-	-	
MW-11	04/23/2015	30.85	26.40	-	-	-	33.85	4.45	11:40	-	-	-	-	-	-	-	-	-	-	-	
MW-11	04/29/2015	30.85	26.56	-	-	-	33.80	4.29	14:09	-	-	-	-	-	-	-	-	-	-	-	
MW-11	05/04/2015	30.85	26.39	-	-	-	-	4.46	11:33	-	-	-	-	-	-	-	-	-	-	-	
MW-11	05/11/2015	30.85	26.35	-	-	-	33.80	4.50	15:05	-	-	-	-	-	-	-	-	-	-	-	
MW-11	05/12/2015	30.85	NR	-	-	-	-	-	-	2	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<1	-	900	
MW-11	05/21/2015	30.85	26.88	-	-	-	33.90	3.97	12:12	-	-	-	-	-	-	-	-	-	-	-	
MW-11	05/28/2015	30.85	26.83	-	-	-	33.80	4.02	11:38	-	-	-	-	-	-	-	-	-	-	-	
MW-11	06/02/2015	30.85	26.50	-	-	-	-	4.35	12:58	-	-	-	-	-	-	-	-	-	-	-	
MW-11	06/09/2015	30.85	26.23	-	-	-	-	4.62	10:24	-	-	-	-	-	-	-	-	-	-	-	
MW-11	06/16/2015	30.85	26.28	-	-	-	-	4.57	11:18	-	-	-	-	-	-	-	-	-	-	-	
MW-11	06/26/2015	30.85	26.22	-	-	-	33.80	4.63	10:32	-	-	-	-	-	-	-	-	-	-	-	
MW-11	07/01/2015	30.85	25.73	-	-	-	-	5.12	12:09	-	-	-	-	-	-	-	-	-	-	-	
MW-11	08/04/2015	30.85	25.94	-	-	-	33.86	4.91	12:13	-	-	-	-	-	-	-	-	-	-	-	
MW-11	08/05/2015	30.85	26.31	-	-	-	33.84	4.54	8:46	-	-	-	-	-	-	-	-	-	-	5,300	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-11	09/28/2015	30.85	25.92	25.90	0.02	-	33.92	4.95	9:58	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	10/05/2015	30.85	25.72	-	-	-	33.92	5.13	9:29	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	11/10/2015	30.85	26.35	-	-	-	-	4.50	13:23	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	12/01/2015	30.85	26.48	-	-	-	33.92	4.37	13:38	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	12/02/2015	30.85	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,000	-
MW-11	01/27/2016	30.85	26.68	-	-	-	-	4.17	10:31	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	02/15/2016	30.85	27.03	-	-	-	-	3.82	10:03	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	03/14/2016	30.85	26.63	-	-	-	34.06	4.22	8:30	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	04/21/2016	30.85	26.97	-	-	-	-	3.88	10:04	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	05/23/2016	30.85	27.68	-	-	-	32.83	3.17	9:59	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	06/21/2016	30.85	26.03	-	-	-	-	4.82	10:36	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	07/21/2016	30.85	25.75	-	-	-	-	5.10	10:18	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	08/24/2016	30.85	25.35	-	-	-	30.69	5.50	9:22	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	11/28/2016	30.85	26.25	-	-	-	-	4.60	8:10	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	11/29/2016	30.85	26.53	-	-	-	29.60	4.32	9:43	-	-	-	-	-	-	-	-	-	-	770	-
MW/RW-14	07/31/2014	31.22	28.04	-	-	-	38.15	3.18	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	08/08/2014	31.22	28.21	-	-	-	38.14	3.01	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	08/11/2014	31.22	27.81	-	-	-	-	3.41	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	08/15/2014	31.22	27.43	-	-	-	-	3.79	-	-	-	-	-	-	-	-	-	-	-	305	-
MW/RW-14	08/18/2014	31.22	27.17	-	-	-	-	4.05	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	08/25/2014	31.22	26.83	-	-	-	-	4.39	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	09/02/2014	31.22	27.25	-	-	-	-	3.97	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	09/15/2014	31.22	27.15	-	-	-	-	4.07	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	09/22/2014	31.22	27.04	-	-	-	-	4.18	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	10/01/2014	31.22	27.23	-	-	-	37.28	3.99	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	10/13/2014	31.22	27.25	27.25	TRACE	-	-	3.97	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	10/20/2014	31.22	27.32	-	-	-	37.30	3.90	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	10/22/2014	31.22	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,100	-
MW/RW-14	02/24/2015	31.22	27.42	-	-	-	37.31	3.80	13:40	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	02/25/2015	31.22	27.46	-	-	-	37.31	3.76	10:47	-	-	-	-	-	-	-	-	-	-	6,000	-
MW/RW-14	03/04/2015	31.22	27.39	-	-	-	-	3.83	14:06	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	03/11/2015	31.22	26.94	-	-	-	-	4.28	12:36	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-14	03/18/2015	31.22	27.13	-	-	-	-	4.09	10:56	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-14	03/26/2015	31.22	26.92	-	-	-	37.30	4.30	11:19	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	04/02/2015	31.22	27.04	-	-	-	37.25	4.18	11:08	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	04/08/2015	31.22	27.30	-	-	-	37.21	3.92	9:26	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	04/13/2015	31.22	27.30	-	-	-	-	3.92	10:55	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	04/23/2015	31.22	26.72	-	-	-	37.25	4.50	11:37	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	04/29/2015	31.22	26.94	-	-	-	37.25	4.28	14:06	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	05/04/2015	31.22	26.77	-	-	-	-	4.45	11:30	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	05/11/2015	31.22	26.71	-	-	-	37.37	4.51	14:52	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	05/12/2015	31.22	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,500	
MW/RW-14	05/21/2015	31.22	26.93	-	-	-	37.33	4.29	12:10	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	05/28/2015	31.22	27.25	-	-	-	37.25	3.97	11:36	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	06/02/2015	31.22	26.92	-	-	-	-	4.30	12:55	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	06/09/2015	31.22	26.67	-	-	-	-	4.55	10:21	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	06/16/2015	31.22	26.73	-	-	-	-	4.49	11:15	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	06/26/2015	31.22	26.65	-	-	-	37.30	4.57	10:30	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	07/01/2015	31.22	26.12	-	-	-	-	5.10	12:06	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	08/04/2015	31.22	26.26	-	-	-	37.28	4.96	12:09	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	08/05/2015	31.22	26.75	-	-	-	37.27	4.47	8:50	-	-	-	-	-	-	-	-	-	-	7,300	Sheen
MW/RW-14	12/01/2015	31.22	26.88	-	-	-	37.30	4.34	13:35	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	12/02/2015	31.22	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	
MW/RW-14	03/14/2016	31.22	26.93	-	-	-	37.30	4.29	8:55	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	03/15/2016	31.22	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28,000	
MW/RW-14	04/21/2016	31.22	28.05	27.42	0.63	0.75	-	3.72	9:33	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	05/05/2016	31.22	29.03	28.20	0.83	-	-	2.92	13:00	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	05/23/2016	31.22	26.82	26.81	0.01	-	-	4.41	11:54	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	06/21/2016	31.22	28.18	27.77	0.41	0.06	-	3.40	10:26	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	07/21/2016	31.22	28.85	27.90	0.95	0.44	-	3.20	11:21	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	08/04/2016	31.22	28.32	27.75	0.57	0.00	-	3.40	12:00	-	-	-	-	-	-	-	-	-	-	-	installed pump & lines & started pump in well
MW/RW-14	08/24/2016	31.22	30.32	-	-	-	-	0.90	10:05	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-14	08/25/2016	31.22	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,000	pump in well
MW/RW-14	09/22/2016	31.22	31.30	-	-	-	-	-0.08	13:10	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-14	10/20/2016	31.22	31.22	-	-	-	-	0.00	11:14	-	-	-	-	-	-	-	-	-	-	-	pump in well

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-14	11/28/2016	31.22	30.87	-	-	-	-	0.35	10:12	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-14	11/29/2016	31.22	27.47	-	-	-	-	3.75	12:25	-	-	-	-	-	-	-	-	-	-	110,000	pump in well
MW/RW-14	12/22/2016	31.22	30.25	-	-	-	-	0.97	-	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW-15S	08/08/2014	31.03	26.11	-	-	-	26.20	4.92	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	08/11/2014	31.03	26.11	-	-	-	-	4.92	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	08/15/2014	31.03	24.00	-	-	-	-	7.03	-	-	-	-	-	-	-	-	-	-	-	909	-
MW-15S	08/18/2014	31.03	24.67	-	-	-	-	6.36	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	08/25/2014	31.03	24.82	-	-	-	-	6.21	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	09/02/2014	31.03	24.82	-	-	-	-	6.21	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	09/15/2014	31.03	24.96	-	-	-	-	6.07	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	09/22/2014	31.03	25.06	-	-	-	-	5.97	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	10/01/2014	31.03	25.20	-	-	-	25.88	5.83	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	10/13/2014	31.03	26.37	-	-	-	-	4.66	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	10/20/2014	31.03	25.45	-	-	-	25.90	5.58	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	10/22/2014	31.03	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,800	-
MW-15S	02/26/2015	31.03	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,800	-
MW-15S	05/11/2015	31.03	25.33	-	-	-	26.00	5.70	9:10	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	05/12/2015	31.03	25.35	-	-	-	-	5.68	12:10	-	-	-	-	-	-	-	-	-	-	1,800	-
MW-15S	08/04/2015	31.03	22.16	-	-	-	25.90	8.87	9:47	-	-	-	-	-	-	-	-	-	-	5,900	-
MW-15S	12/01/2015	31.03	25.46	-	-	-	25.88	5.57	11:03	-	-	-	-	-	-	-	-	-	-	4,200	-
MW-15S	03/14/2016	31.03	25.58	-	-	-	26.00	5.45	8:55	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	05/23/2016	31.03	25.29	-	-	-	26.00	5.74	11:08	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	07/21/2016	31.03	25.44	-	-	-	-	5.59	11:26	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	08/24/2016	31.03	22.07	-	-	-	25.86	8.96	12:16	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	11/28/2016	31.03	25.15	-	-	-	26.70	5.88	10:34	-	-	-	-	-	-	-	-	-	-	-	-
MW-15S	11/29/2016	31.03	25.14	-	-	-	25.94	5.89	9:47	-	-	-	-	-	-	-	-	-	-	160	-
MW-16S	08/15/2014	31.03	24.13	-	-	-	24.61	6.90	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-16S	08/16/2014	31.03	24.12	-	-	-	24.48	6.91	-	-	-	-	-	-	-	-	-	-	-	1,720	-
MW-16S	08/18/2014	31.03	24.13	-	-	-	-	6.90	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-16S	08/25/2014	31.03	24.24	-	-	-	-	6.79	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-16S	09/02/2014	31.03	DRY	-	-	-	24.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-16S	09/15/2014	31.03	DRY	-	-	-	24.64	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-16S	09/22/2014	31.03	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-16S	10/01/2014	31.03	DRY	-	-	-	24.64	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16S	10/10/2014	31.03	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16S	10/20/2014	31.03	DRY	-	-	-	24.64	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16S	02/24/2015	31.03	DRY	-	-	-	24.70	-	15:36	-	-	-	-	-	-	-	-	-	-	-	
MW-16S	05/11/2015	31.03	DRY	-	-	-	24.70	-	10:15	-	-	-	-	-	-	-	-	-	-	-	
MW-16S	08/04/2015	31.03	22.63	-	-	-	24.62	8.40	9:54	-	-	-	-	-	-	-	-	-	-	-	
MW-16S	09/09/2015	31.03	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	
MW-16S	12/01/2015	31.03	DRY	-	-	-	24.64	-	11:07	-	-	-	-	-	-	-	-	-	-	-	
MW-16S	03/14/2016	31.03	DRY	-	-	-	24.70	-	8:45	-	-	-	-	-	-	-	-	-	-	-	
MW-16S	05/23/2016	31.03	DRY	-	-	-	24.82	-	11:15	-	-	-	-	-	-	-	-	-	-	-	
MW-16S	08/24/2016	31.03	DRY	-	-	-	24.65	-	12:18	-	-	-	-	-	-	-	-	-	-	-	
MW-16S	11/28/2016	31.03	DRY	-	-	-	24.68	-	8:21	-	-	-	-	-	-	-	-	-	-	-	
MW-16	08/15/2014	30.97	26.78	-	-	-	35.74	4.19	-	-	-	-	-	-	-	-	-	-	-	<300	
MW-16	08/18/2014	30.97	26.73	-	-	-	-	4.24	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16	08/25/2014	30.97	26.55	-	-	-	-	4.42	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16	09/02/2014	30.97	26.91	-	-	-	-	4.06	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16	09/15/2014	30.97	26.76	-	-	-	-	4.21	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16	09/22/2014	30.97	26.80	-	-	-	-	4.17	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16	10/01/2014	30.97	26.95	-	-	-	35.53	4.02	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16	10/10/2014	30.97	26.85	-	-	-	-	4.12	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16	10/20/2014	30.97	27.19	-	-	-	35.61	3.78	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16	10/22/2014	30.97	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.02	<20	<45	
MW-16	02/24/2015	30.97	27.25	-	-	-	35.61	3.72	13:34	-	-	-	-	-	-	-	-	-	-	-	
MW-16	02/25/2015	30.97	27.23	-	-	-	35.62	3.74	11:14	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.03	<20	<45	
MW-16	05/11/2015	30.97	26.43	-	-	-	35.60	4.54	14:50	-	-	-	-	-	-	-	-	-	-	-	
MW-16	05/12/2015	30.97	26.90	-	-	-	-	4.07	9:52	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<1	<20	<45	
MW-16	08/04/2015	30.97	24.75	-	-	-	35.55	6.22	12:06	-	-	-	-	-	-	-	-	-	-	-	
MW-16	08/05/2015	30.97	25.04	-	-	-	35.53	5.93	9:51	-	-	-	-	-	-	-	-	-	-	<45	
MW-16	12/01/2015	30.97	26.55	-	-	-	27.90	4.42	13:30	-	-	-	-	-	-	-	-	-	-	-	
MW-16	03/14/2016	30.97	26.67	-	-	-	35.55	4.30	9:00	-	-	-	-	-	-	-	-	-	-	-	
MW-16	05/23/2016	30.97	26.65	-	-	-	35.82	4.32	10:35	-	-	-	-	-	-	-	-	-	-	-	
MW-16	08/24/2016	30.97	26.75	-	-	-	35.55	4.22	9:42	-	-	-	-	-	-	-	-	-	-	-	
MW-16	11/28/2016	30.97	27.24	-	-	-	35.49	3.73	8:17	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-16	11/29/2016	30.97	27.05	-	-	-	35.80	3.92	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	-	<45	
MW-25S	08/08/2014	31.07	23.64	-	-	-	25.80	7.43	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	08/11/2014	31.07	22.35	-	-	-	-	8.72	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	08/15/2014	31.07	21.94	-	-	-	-	9.13	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	08/18/2014	31.07	21.95	-	-	-	-	9.12	-	-	-	-	-	-	-	-	-	-	-	49,000	
MW-25S	08/25/2014	31.07	21.98	-	-	-	-	9.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	09/02/2014	31.07	21.99	-	-	-	-	9.08	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	09/15/2014	31.07	22.04	-	-	-	-	9.03	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	09/22/2014	31.07	22.50	-	-	-	-	8.57	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	09/24/2014	31.07	22.12	22.12	TRACE	-	-	8.95	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	10/01/2014	31.07	22.07	-	-	-	25.47	9.00	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	10/10/2014	31.07	22.09	22.09	TRACE	-	-	8.98	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	10/13/2014	31.07	22.13	22.11	0.02	TRACE	-	8.96	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	10/20/2014	31.07	22.19	22.18	0.01	TRACE	-	8.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	10/27/2014	31.07	22.10	22.09	0.01	TRACE	-	8.98	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	10/27/2014	31.07	22.10	22.09	0.01	TRACE	-	8.98	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	11/07/2014	31.07	22.08	22.07	0.01	TRACE	-	9.00	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	11/12/2014	31.07	22.28	22.10	0.18	0.06	-	8.95	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	11/21/2014	31.07	22.43	22.18	0.25	0.09	-	8.86	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	11/26/2014	31.07	22.37	22.17	0.20	0.06	-	8.88	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	12/05/2014	31.07	22.57	22.20	0.37	-	25.50	8.82	-	-	-	-	-	-	-	-	-	-	-	840,000	HIT event
MW-25S	12/11/2014	31.07	22.22	22.21	0.01	TRACE	-	8.86	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	12/16/2014	31.07	22.38	22.11	0.27	0.03	-	8.93	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	12/23/2014	31.07	22.43	22.13	0.30	0.05	-	8.90	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	12/30/2014	31.07	22.50	22.20	0.30	0.04	-	8.83	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	01/09/2015	31.07	22.49	22.19	0.30	-	-	8.84	-	-	-	-	-	-	-	-	-	-	-	2,200,000	HIT event
MW-25S	01/16/2015	31.07	22.60	22.48	0.12	0.01	-	8.58	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	01/19/2015	31.07	22.34	22.25	0.09	0.01	-	8.81	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	01/26/2015	31.07	22.30	22.16	0.14	0.02	-	8.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	02/03/2015	31.07	22.25	-	-	-	25.50	8.82	-	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	02/09/2015	31.07	22.31	22.14	0.17	-	-	8.91	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	02/18/2015	31.07	22.37	22.18	0.19	-	-	8.87	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	02/24/2015	31.07	22.59	22.28	0.31	-	-	8.75	14:03	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-25S	03/04/2015	31.07	22.48	22.30	0.18	-	-	8.75	14:31	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	03/11/2015	31.07	22.50	22.30	0.20	-	-	8.75	13:04	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	03/18/2015	31.07	22.46	22.23	0.23	-	-	8.81	11:26	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	03/26/2015	31.07	22.35	22.17	0.18	-	25.50	8.88	11:59	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	04/02/2015	31.07	22.40	22.18	0.22	-	25.45	8.86	12:06	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	04/08/2015	31.07	22.40	22.08	0.32	-	25.47	8.95	9:15	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	04/13/2015	31.07	22.50	22.22	0.28	-	-	8.82	11:03	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	04/23/2015	31.07	22.39	22.16	0.23	-	25.50	8.88	12:25	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	04/29/2015	31.07	22.35	22.12	0.23	-	25.50	8.92	14:48	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	05/04/2015	31.07	22.47	22.19	0.28	-	-	8.85	12:04	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	05/11/2015	31.07	22.45	22.20	0.25	-	-	8.84	11:00	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	05/21/2015	31.07	22.40	22.23	0.17	-	-	8.82	12:53	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	05/28/2015	31.07	22.60	22.27	0.33	-	25.50	8.76	12:06	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	06/02/2015	31.07	22.53	22.25	0.28	-	-	8.79	13:24	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	06/09/2015	31.07	22.38	22.16	0.22	-	-	8.88	10:46	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	06/16/2015	31.07	22.37	22.13	0.24	-	-	8.91	11:40	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	06/26/2015	31.07	22.35	22.12	0.23	-	25.40	8.92	11:28	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	07/01/2015	31.07	22.23	22.04	0.19	-	-	9.01	12:18	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	07/08/2015	31.07	22.08	21.88	0.20	0.04	-	9.17	12:04	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	07/13/2015	31.07	21.89	21.74	0.15	-	-	9.31	9:48	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	07/20/2015	31.07	21.37	21.33	0.04	TRACE	-	9.74	9:43	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	07/28/2015	31.07	21.20	-	-	-	25.49	9.87	12:25	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	08/04/2015	31.07	21.28	21.24	TRACE	TRACE	-	9.79	12:22	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	08/11/2015	31.07	21.37	21.36	0.01	0.01	25.49	9.71	11:22	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	08/18/2015	31.07	21.51	21.46	0.05	TRACE	-	9.60	10:50	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	08/24/2015	31.07	21.60	21.54	0.06	TRACE	-	9.52	10:53	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	09/02/2015	31.07	21.76	21.69	0.07	0.01	25.47	9.37	10:31	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	09/09/2015	31.07	21.81	21.77	0.04	0.01	25.49	9.30	10:50	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	09/17/2015	31.07	21.92	21.89	0.03	0.01	25.52	9.18	10:37	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	09/23/2015	31.07	21.92	21.89	0.03	TRACE	-	9.18	11:14	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	09/28/2015	31.07	21.96	21.92	0.04	TRACE	25.48	9.15	9:49	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	10/05/2015	31.07	22.01	21.98	0.03	TRACE	25.51	9.09	11:32	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW-25S	11/10/2015	31.07	22.09	22.06	0.03	TRACE	-	9.01	13:27	-	-	-	-	-	-	-	-	-	-	-	HIT event

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-25S	12/01/2015	31.07	22.19	22.16	0.03	-	25.43	8.91	12:10	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	01/27/2016	31.07	22.10	22.08	0.02	-	-	8.99	10:56	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-25S	02/15/2016	31.07	22.10	22.07	0.03	TRACE	-	9.00	10:39	-	-	-	-	-	-	-	-	-	-	-	strong product odor
MW-25S	03/14/2016	31.07	22.02	-	-	-	25.50	9.05	9:20	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	04/21/2016	31.07	22.38	22.35	0.03	TRACE	-	8.72	12:15	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	05/23/2016	31.07	22.16	22.14	0.02	TRACE	-	8.93	11:45	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	06/21/2016	31.07	22.17	22.13	0.04	TRACE	-	8.94	10:14	-	-	-	-	-	-	-	-	-	-	-	
MW-25S	07/21/2016	31.07	22.02	-	-	-	-	9.05	11:16	-	-	-	-	-	-	-	-	-	-	-	-
MW-25S	08/24/2016	31.07	22.07	-	-	-	25.65	9.00	11:35	-	-	-	-	-	-	-	-	-	-	-	-
MW-25S	08/25/2016	31.07	22.16	-	-	-	25.52	8.91	11:15	-	-	-	-	-	-	-	-	-	-	24,000	-
MW-25S	11/28/2016	31.07	22.48	-	-	-	25.49	8.59	9:34	-	-	-	-	-	-	-	-	-	-	-	-
MW-25S	11/29/2016	31.07	22.51	-	-	-	25.51	8.56	-	3	<0.5	4	2	-	-	-	-	9	-	1,200,000	Sheen
MW/RW-25	08/08/2014	31.13	27.97	27.60	0.37	0.08	36.69	3.48	-	-	-	-	-	-	-	-	-	-	-	-	Transducer installed for pump test
MW/RW-25	08/11/2014	31.13	27.61	27.37	0.24	NA	-	3.73	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	08/13/2014	31.13	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,280	Transducer installed for pump test
MW/RW-25	08/15/2014	31.13	28.11	28.05	0.06	NA	-	3.07	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	08/16/2014	31.13	27.81	27.75	0.06	NA	-	3.37	-	-	-	-	-	-	-	-	-	-	-	-	Transducer installed for pump test
MW/RW-25	08/18/2014	31.13	27.94	27.71	0.23	NA	-	3.39	-	-	-	-	-	-	-	-	-	-	-	-	Transducer installed for pump test
MW/RW-25	08/25/2014	31.13	26.89	26.74	0.15	0.05	-	4.37	-	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW/RW-25	09/02/2014	31.13	27.77	27.03	0.74	0.50	-	4.01	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	09/15/2014	31.13	27.69	26.87	0.82	NR	-	4.16	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	09/19/2014	31.13	28.10	26.95	1.15	0.93	-	4.04	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	09/22/2014	31.13	27.53	26.91	0.62	0.38	-	4.14	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	09/24/2014	31.13	27.73	27.23	0.50	NR	-	3.84	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	10/01/2014	31.13	27.47	27.02	0.45	0.19	35.90	4.06	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	10/10/2014	31.13	27.65	26.91	0.74	0.50	-	4.13	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	10/13/2014	31.13	27.60	27.03	0.57	NR	-	4.03	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	10/20/2014	31.13	27.49	27.19	0.30	0.13	-	3.90	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	10/27/2014	31.13	27.87	27.25	0.62	NR	-	3.80	-	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW/RW-25	11/07/2014	31.13	27.53	27.08	0.45	0.19	-	4.00	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-25	11/12/2014	31.13	27.50	27.07	0.43	0.19	-	4.01	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	11/21/2014	31.13	28.53	27.81	0.72	0.16	-	3.23	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	11/26/2014	31.13	27.70	27.23	0.47	0.19	-	3.84	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	12/05/2014	31.13	27.63	27.15	0.48	-	35.87	3.92	-	-	-	-	-	-	-	-	-	-	-	50,000	HIT event
MW/RW-25	12/11/2014	31.13	27.31	26.98	0.33	0.06	-	4.11	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	12/16/2014	31.13	27.27	27.04	0.23	0.03	-	4.06	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	12/23/2014	31.13	27.20	26.95	0.25	0.04	-	4.15	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	12/30/2014	31.13	28.02	27.33	0.69	0.28	-	3.72	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	01/09/2015	31.13	27.80	27.38	0.42	-	-	3.70	-	-	-	-	-	-	-	-	-	-	-	56,000	HIT event
MW/RW-25	01/16/2015	31.13	27.24	27.16	0.08	0.00	-	3.96	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	01/19/2015	31.13	27.28	26.97	0.31	0.06	-	4.12	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	01/26/2015	31.13	27.27	26.98	0.29	0.05	-	4.11	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	02/03/2015	31.13	28.10	27.52	0.58	-	35.86	3.54	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	02/09/2015	31.13	27.43	27.06	0.37	-	-	4.02	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	02/18/2015	31.13	27.63	27.24	0.39	-	-	3.84	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	02/24/2015	31.13	27.68	27.18	0.50	-	-	3.89	14:00	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	03/04/2015	31.13	27.85	27.19	0.66	-	-	3.86	14:35	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	03/11/2015	31.13	27.27	26.76	0.51	-	-	4.31	13:08	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	03/18/2015	31.13	27.63	26.93	0.70	-	-	4.11	11:30	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	03/26/2015	31.13	27.31	26.70	0.61	-	35.90	4.36	12:03	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	04/02/2015	31.13	27.60	26.85	0.75	-	35.80	4.19	12:09	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	04/08/2015	31.13	28.00	27.15	0.85	-	35.90	3.88	9:10	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	04/13/2015	31.13	27.98	27.05	0.93	-	-	3.97	11:06	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	04/23/2015	31.13	27.21	26.47	0.74	-	35.90	4.57	12:28	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	04/29/2015	31.13	27.50	26.67	0.83	-	35.90	4.36	14:52	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	05/04/2015	31.13	27.37	26.57	0.80	-	-	4.46	12:08	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	05/11/2015	31.13	27.50	27.43	0.07	-	-	3.69	15:10	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	05/13/2015	31.13	28.31	27.19	1.12	1.50	-	3.80	12:53	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	05/21/2015	31.13	26.85	26.82	0.03	-	-	4.31	12:50	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	05/28/2015	31.13	27.55	27.09	0.46	-	35.80	3.98	12:10	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	06/02/2015	31.13	27.10	26.74	0.36	-	-	4.35	13:28	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	06/09/2015	31.13	26.91	26.46	0.45	-	-	4.62	10:50	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	06/16/2015	31.13	26.86	26.56	0.30	-	-	4.53	11:43	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-25	06/26/2015	31.13	26.91	26.48	0.43	-	35.80	4.60	11:31	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	07/01/2015	31.13	26.43	25.98	0.45	-	-	5.10	12:22	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	07/08/2015	31.13	26.63	26.13	0.50	0.25	-	4.94	12:00	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	07/13/2015	31.13	26.13	25.89	0.24	-	-	5.21	9:50	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	07/20/2015	31.13	26.23	26.23	TRACE	TRACE	-	4.90	9:48	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW/RW-25	07/28/2015	31.13	26.37	26.23	0.14	TRACE	36.00	4.88	12:10	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	08/04/2015	31.13	26.27	26.20	0.07	0.02	-	4.92	12:25	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	08/11/2015	31.13	26.05	25.90	0.15	0.03	35.88	5.21	11:19	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	08/18/2015	31.13	26.52	26.42	0.10	0.01	-	4.70	10:53	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	08/24/2015	31.13	26.55	26.33	0.22	0.02	-	4.77	10:56	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	09/02/2015	31.13	26.80	26.62	0.18	0.02	35.92	4.49	10:28	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	09/09/2015	31.13	26.51	26.45	0.06	0.02	35.93	4.67	10:42	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	09/17/2015	31.13	26.73	26.53	0.20	0.04	35.95	4.58	10:48	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	09/23/2015	31.13	26.82	26.63	0.19	0.02	-	4.48	11:18	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	09/28/2015	31.13	26.34	26.31	0.03	0.01	35.89	4.82	9:51	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	10/05/2015	31.13	26.21	26.06	0.15	0.05	35.87	5.05	11:18	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-25	11/10/2015	31.13	26.05	26.02	0.03	-	-	5.11	13:31	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-25	12/01/2015	30.52	26.19	26.06	0.13	-	-	4.44	13:54	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-25	01/27/2016	30.52	26.68	26.38	0.30	-	-	4.10	11:00	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-25	02/15/2016	30.52	26.88	26.59	0.29	-	-	3.89	10:39	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-25	03/14/2016	30.52	26.42	26.27	0.15	-	-	4.23	10:30	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-25	03/30/2016	30.52	32.73	-	-	-	-	-2.21	-	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-25	04/21/2016	30.52	32.76	-	-	-	-	-2.24	10:18	-	-	-	-	-	-	-	-	-	-	5,800	pump in well
MW/RW-25	05/23/2016	30.52	32.81	-	-	-	33.70	-2.29	11:39	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-25	05/24/2016	30.52	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,900	pump in well
MW/RW-25	06/21/2016	30.52	32.76	-	-	-	-	-2.24	10:10	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-25	07/21/2016	30.52	32.75	-	-	-	-	-2.23	11:12	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-25	08/24/2016	30.52	30.20	-	-	-	-	0.32	10:40	-	-	-	-	-	-	-	-	-	-	4,600	pump in well
MW/RW-25	09/22/2016	30.52	32.70	-	-	-	-	-2.18	13:05	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-25	10/20/2016	30.52	32.85	-	-	-	-	-2.33	11:10	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-25	11/28/2016	30.52	32.65	-	-	-	-	-2.13	9:30	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	-	250	pump in well
MW/RW-25	12/22/2016	30.52	32.83	-	-	-	-	-2.31	-	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW-27	07/24/2014	31.43	27.59	-	-	-	-	3.84	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-27	07/31/2014	31.43	27.58	-	-	-	34.47	3.85	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	08/08/2014	31.43	27.69	-	-	-	34.46	3.74	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	08/11/2014	31.43	27.33	-	-	-	-	4.10	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	08/15/2014	31.43	27.90	-	-	-	-	3.53	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	08/16/2014	31.43	27.65	-	-	-	34.48	3.78	-	-	-	-	-	-	-	-	-	-	-	1,490	
MW-27	08/18/2014	31.43	27.62	-	-	-	-	3.81	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	08/25/2014	31.43	27.09	-	-	-	-	4.34	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	09/02/2014	31.43	27.52	-	-	-	-	3.91	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	09/15/2014	31.43	27.38	-	-	-	-	4.05	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	09/22/2014	31.43	27.24	-	-	-	-	4.19	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	10/01/2014	31.43	27.44	-	-	-	34.27	3.99	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	10/10/2014	31.43	27.24	-	-	-	-	4.19	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	10/20/2014	31.43	27.59	-	-	-	34.13	3.84	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	10/23/2014	31.43	NR	-	-	-	-	-	-	0.5	<0.5	2	2	<0.5	2	<0.5	<0.5	6	100	1,900	
MW-27	10/27/2014	31.43	27.66	-	-	-	-	3.77	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	11/07/2014	31.43	27.43	-	-	-	-	4.00	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	11/12/2014	31.43	27.43	-	-	-	-	4.00	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	11/21/2014	31.43	28.23	-	-	-	-	3.20	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	11/26/2014	31.43	27.64	-	-	-	-	3.79	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	12/05/2014	31.43	27.50	-	-	-	-	3.93	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	12/11/2014	31.43	27.38	-	-	-	-	4.05	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	12/16/2014	31.43	27.34	-	-	-	-	4.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	12/23/2014	31.43	27.22	-	-	-	-	4.21	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	12/30/2014	31.43	27.80	-	-	-	-	3.63	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	01/09/2015	31.43	27.59	-	-	-	-	3.84	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	01/16/2015	31.43	27.46	-	-	-	-	3.97	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	01/19/2015	31.43	27.38	-	-	-	-	4.05	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	01/26/2015	31.43	27.40	-	-	-	-	4.03	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	02/03/2015	31.43	28.01	-	-	-	34.05	3.42	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	02/09/2015	31.43	27.43	-	-	-	-	4.00	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	02/18/2015	31.43	27.52	-	-	-	-	3.91	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	02/24/2015	31.43	26.61	-	-	-	-	4.82	13:15	-	-	-	-	-	-	-	-	-	-	-	
MW-27	02/25/2015	31.43	27.45	-	-	-	34.06	3.98	13:38	<0.5	<0.5	1	0.5	<0.5	<2	<0.5	<0.5	8.3	120	1,700	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-27	03/04/2015	31.43	27.63	-	-	-	-	3.80	13:59	-	-	-	-	-	-	-	-	-	-	-	
MW-27	03/11/2015	31.43	27.11	-	-	-	-	4.32	12:26	-	-	-	-	-	-	-	-	-	-	-	
MW-27	03/18/2015	31.43	27.36	-	-	-	-	4.07	10:49	-	-	-	-	-	-	-	-	-	-	-	
MW-27	03/26/2015	31.43	27.20	-	-	-	34.00	4.23	10:50	-	-	-	-	-	-	-	-	-	-	-	
MW-27	04/02/2015	31.43	27.28	-	-	-	34.05	4.15	11:15	-	-	-	-	-	-	-	-	-	-	-	
MW-27	04/08/2015	31.43	27.55	-	-	-	34.04	3.88	9:30	-	-	-	-	-	-	-	-	-	-	-	
MW-27	04/13/2015	31.43	27.53	-	-	-	-	3.90	10:14	-	-	-	-	-	-	-	-	-	-	-	
MW-27	04/23/2015	31.43	26.92	-	-	-	34.05	4.51	11:33	-	-	-	-	-	-	-	-	-	-	-	
MW-27	04/29/2015	31.43	27.18	-	-	-	34.05	4.25	13:52	-	-	-	-	-	-	-	-	-	-	-	
MW-27	05/04/2015	31.43	26.96	-	-	-	-	4.47	11:26	-	-	-	-	-	-	-	-	-	-	-	
MW-27	05/11/2015	31.43	26.86	-	-	-	34.04	4.57	15:15	-	-	-	-	-	-	-	-	-	-	-	
MW-27	05/13/2015	31.43	27.55	-	-	-	-	3.88	9:52	<0.5	<0.5	2	1	<0.5	2 J	<0.5	<0.5	30	260	19,000	
MW-27	05/21/2015	31.43	27.12	-	-	-	34.12	4.31	12:02	-	-	-	-	-	-	-	-	-	-	-	
MW-27	05/28/2015	31.43	27.51	-	-	-	34.00	3.92	11:25	-	-	-	-	-	-	-	-	-	-	-	
MW-27	06/02/2015	31.43	27.11	-	-	-	-	4.32	12:45	-	-	-	-	-	-	-	-	-	-	-	
MW-27	06/09/2015	31.43	26.92	-	-	-	-	4.51	10:11	-	-	-	-	-	-	-	-	-	-	-	
MW-27	06/16/2015	31.43	26.86	-	-	-	-	4.57	11:05	-	-	-	-	-	-	-	-	-	-	-	
MW-27	06/26/2015	31.43	26.87	-	-	-	34.00	4.56	10:15	-	-	-	-	-	-	-	-	-	-	-	
MW-27	07/01/2015	31.43	26.38	-	-	-	-	5.05	11:57	-	-	-	-	-	-	-	-	-	-	-	
MW-27	07/08/2015	31.43	26.64	-	-	-	-	4.79	10:45	-	-	-	-	-	-	-	-	-	-	-	
MW-27	07/13/2015	31.43	26.19	-	-	-	-	5.24	9:10	-	-	-	-	-	-	-	-	-	-	-	
MW-27	07/20/2015	31.43	26.51	-	-	-	-	4.92	8:52	-	-	-	-	-	-	-	-	-	-	-	
MW-27	07/28/2015	31.43	26.55	-	-	-	34.13	4.88	9:56	-	-	-	-	-	-	-	-	-	-	-	
MW-27	08/04/2015	31.43	26.58	-	-	-	34.05	4.85	12:05	-	-	-	-	-	-	-	-	-	-	-	
MW-27	08/05/2015	31.43	27.06	27.06	TRACE	TRACE	34.07	4.37	8:16	-	-	-	-	-	-	-	-	-	-	2,100	
MW-27	08/11/2015	31.43	26.16	26.16	TRACE	TRACE	34.03	5.27	9:38	-	-	-	-	-	-	-	-	-	-	-	
MW-27	08/18/2015	31.43	26.77	-	-	-	-	4.66	10:03	-	-	-	-	-	-	-	-	-	-	-	
MW-27	08/24/2015	31.43	26.75	-	-	-	-	4.68	10:06	-	-	-	-	-	-	-	-	-	-	-	
MW-27	09/02/2015	31.43	27.09	27.09	TRACE	TRACE	34.08	4.34	9:08	-	-	-	-	-	-	-	-	-	-	-	
MW-27	09/09/2015	31.43	26.82	26.82	TRACE	TRACE	34.05	4.61	9:57	-	-	-	-	-	-	-	-	-	-	-	
MW-27	09/17/2015	31.43	27.16	-	-	-	34.08	4.27	10:07	-	-	-	-	-	-	-	-	-	-	-	
MW-27	09/23/2015	31.43	27.03	-	-	-	-	4.40	10:24	-	-	-	-	-	-	-	-	-	-	-	
MW-27	09/28/2015	31.43	26.52	-	-	-	34.09	4.91	9:42	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-27	10/05/2015	31.43	26.39	-	-	-	34.05	5.04	9:00	-	-	-	-	-	-	-	-	-	-	-	Sheen
MW-27	11/10/2015	31.43	26.97	-	-	-	-	4.46	12:51	-	-	-	-	-	-	-	-	-	-	-	
MW-27	12/01/2015	31.43	26.98	-	-	-	33.35	4.45	13:39	-	-	-	-	-	-	-	-	-	-	-	
MW-27	12/03/2015	31.43	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	1.00 J	-	1,700	
MW-27	01/27/2016	31.43	27.28	-	-	-	-	4.15	10:14	-	-	-	-	-	-	-	-	-	-	-	
MW-27	02/15/2016	31.43	27.64	-	-	-	-	3.79	9:55	-	-	-	-	-	-	-	-	-	-	-	
MW-27	03/14/2016	31.43	27.32	-	-	-	34.03	4.11	9:00	-	-	-	-	-	-	-	-	-	-	-	
MW-27	03/15/2016	31.43	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33,000	Sheen
MW-27	04/21/2016	31.43	27.85	-	-	-	33.80	3.58	10:30	-	-	-	-	-	-	-	-	-	-	8,400	
MW-27	05/23/2016	31.43	26.84	-	-	-	33.70	4.59	11:14	-	-	-	-	-	-	-	-	-	-	-	
MW-27	05/25/2016	31.43	28.07	-	-	-	33.81	3.36	-	-	-	-	-	-	-	-	-	-	-	-	
MW-27	06/21/2016	31.43	27.63	-	-	-	-	3.80	9:50	-	-	-	-	-	-	-	-	-	-	18,000	
MW-27	07/21/2016	31.43	27.53	-	-	-	-	3.90	9:44	-	-	-	-	-	-	-	-	-	-	-	
MW-27	08/24/2016	31.43	27.59	-	-	-	33.50	3.84	10:10	-	-	-	-	-	-	-	-	-	-	-	
MW-27	08/25/2016	31.43	27.62	-	-	-	33.60	3.81	11:10	-	-	-	-	-	-	-	-	-	-	3,100	
MW-27	09/22/2016	31.43	26.96	-	-	-	-	4.47	14:15	-	-	-	-	-	-	-	-	-	-	-	
MW-27	11/28/2016	31.43	27.84	-	-	-	34.40	3.59	8:51	-	-	-	-	-	-	-	-	-	-	-	
MW-27	11/29/2016	31.43	27.31	-	-	-	33.58	4.12	13:00	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	-	880	
MW-30S	08/08/2014	30.67	23.31	-	-	-	25.28	7.36	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	08/11/2014	30.67	23.33	-	-	-	-	7.34	-	-	-	-	-	-	-	-	-	-	-	-	7,040
MW-30S	08/15/2014	30.67	24.84	-	-	-	-	5.83	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	08/18/2014	30.67	24.84	-	-	-	-	5.83	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	08/25/2014	30.67	24.79	-	-	-	-	5.88	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	09/02/2014	30.67	24.83	-	-	-	-	5.84	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	09/15/2014	30.67	24.85	-	-	-	-	5.82	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	09/22/2014	30.67	24.88	-	-	-	-	5.79	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	10/01/2014	30.67	24.88	-	-	-	25.28	5.79	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	10/10/2014	30.67	24.87	-	-	-	-	5.80	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	10/20/2014	30.67	24.77	-	-	-	25.29	5.90	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	10/23/2014	30.67	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	3	<0.5	<0.5	-	25	2,900	
MW-30S	10/27/2014	30.67	24.78	-	-	-	-	5.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	11/07/2014	30.67	24.85	-	-	-	-	5.82	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	11/12/2014	30.67	24.87	-	-	-	-	5.80	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-30S	11/21/2014	30.67	24.94	-	-	-	-	5.73	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	11/26/2014	30.67	24.93	-	-	-	-	5.74	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	12/05/2014	30.67	24.92	-	-	-	-	5.75	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	12/11/2014	30.67	24.72	-	-	-	-	5.95	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	12/16/2014	30.67	24.74	-	-	-	-	5.93	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	12/23/2014	30.67	24.70	-	-	-	-	5.97	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	12/30/2014	30.67	24.68	-	-	-	-	5.99	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	01/09/2015	30.67	24.66	-	-	-	-	6.01	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	01/16/2015	30.67	24.62	-	-	-	-	6.05	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	01/19/2015	30.67	24.60	-	-	-	-	6.07	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	01/26/2015	30.67	24.48	-	-	-	-	6.19	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	02/03/2015	30.67	24.56	-	-	-	25.34	6.11	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	02/09/2015	30.67	24.57	-	-	-	-	6.10	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	02/18/2015	30.67	24.63	-	-	-	-	6.04	-	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	02/24/2015	30.67	24.24	-	-	-	25.31	6.43	15:32	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	02/25/2015	30.67	24.10	-	-	-	25.31	6.57	13:10	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	3.9	22	3,500	
MW-30S	03/04/2015	30.67	24.20	-	-	-	-	6.47	14:04	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	03/11/2015	30.67	24.20	-	-	-	-	6.47	12:32	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	03/18/2015	30.67	24.22	-	-	-	-	6.45	10:55	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	03/26/2015	30.67	24.32	-	-	-	25.30	6.35	10:42	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	04/02/2015	30.67	24.27	-	-	-	25.30	6.40	11:02	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	04/08/2015	30.67	24.30	-	-	-	25.29	6.37	9:31	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	04/13/2015	30.67	24.31	-	-	-	-	6.36	10:28	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	04/23/2015	30.67	DRY	-	-	-	25.28	#VALUE!	11:23	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	04/29/2015	30.67	24.27	-	-	-	25.25	6.40	13:38	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	05/04/2015	30.67	24.32	-	-	-	-	6.35	11:23	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	05/11/2015	30.67	24.41	-	-	-	25.20	6.26	10:50	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	05/13/2015	30.67	24.41	-	-	-	-	6.26	9:50	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<1	<20	3,200	
MW-30S	05/21/2015	30.67	24.68	-	-	-	25.15	5.99	12:04	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	05/28/2015	30.67	24.67	-	-	-	25.28	6.00	11:21	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	06/02/2015	30.67	24.55	-	-	-	-	6.12	12:51	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	06/09/2015	30.67	24.30	-	-	-	-	6.37	10:17	-	-	-	-	-	-	-	-	-	-	-	
MW-30S	06/16/2015	30.67	24.33	-	-	-	-	6.34	11:08	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-30S	06/22/2015	Destroyed during overdrilling activities; replaced with RW-30S																			
MW/RW-31	08/08/2014	31.23	27.31	-	-	-	36.35	3.92	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	08/11/2014	31.23	26.88	-	-	-	-	4.35	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	08/15/2014	31.23	27.00	-	-	-	-	4.23	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	08/16/2014	31.23	26.92	-	-	-	35.00	4.31	-	-	-	-	-	-	-	-	-	-	-	27,200	
MW/RW-31	08/18/2014	31.23	27.11	-	-	-	-	4.12	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	08/25/2014	31.23	26.90	-	-	-	-	4.33	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	09/02/2014	31.23	27.31	-	-	-	-	3.92	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	09/15/2014	31.23	27.18	-	-	-	-	4.05	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	09/22/2014	31.23	27.05	-	-	-	-	4.18	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	10/01/2014	31.23	27.21	-	-	-	35.50	4.02	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	10/10/2014	31.23	27.02	-	-	-	-	4.21	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	10/20/2014	31.23	27.40	-	-	-	35.50	3.83	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	10/23/2014	31.23	NR	-	-	-	-	-	-	<0.5	<0.5	0.6	0.6	<0.5	<2	<0.5	<0.5	4	140	7,200	
MW/RW-31	10/27/2014	31.23	27.43	-	-	-	-	3.80	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	11/07/2014	31.23	24.23	-	-	-	-	7.00	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	11/12/2014	31.23	27.18	-	-	-	-	4.05	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	11/21/2014	31.23	28.03	-	-	-	-	3.20	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	11/26/2014	31.23	27.39	-	-	-	-	3.84	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	12/05/2014	31.23	27.33	-	-	-	-	3.90	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	12/11/2014	31.23	27.14	-	-	-	-	4.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	12/16/2014	31.23	27.15	-	-	-	-	4.08	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	12/23/2014	31.23	27.02	-	-	-	-	4.21	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	12/30/2014	31.23	27.61	-	-	-	-	3.62	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	01/09/2015	31.23	27.42	-	-	-	-	3.81	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	01/16/2015	31.23	27.26	-	-	-	-	3.97	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	01/19/2015	31.23	27.20	-	-	-	-	4.03	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	01/26/2015	31.23	27.18	-	-	-	-	4.05	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	02/03/2015	31.23	27.81	-	-	-	35.49	3.42	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	02/09/2015	31.23	27.18	-	-	-	-	4.05	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	02/18/2015	31.23	27.34	-	-	-	-	3.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	02/24/2015	31.23	27.27	-	-	-	-	3.96	13:09	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	02/25/2015	31.23	27.50	-	-	-	35.52	3.73	10:28	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	2.7	97	1,800	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-31	03/04/2015	31.23	27.45	-	-	-	-	3.78	14:02	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	03/11/2015	31.23	26.78	-	-	-	-	4.45	12:29	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	03/18/2015	31.23	27.13	-	-	-	-	4.10	10:52	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	03/26/2015	31.23	26.99	-	-	-	35.50	4.24	10:46	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	04/02/2015	31.23	27.04	-	-	-	35.45	4.19	11:04	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	04/08/2015	31.23	27.27	-	-	-	35.42	3.96	9:32	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	04/13/2015	31.23	27.35	-	-	-	-	3.88	10:25	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	04/23/2015	31.23	26.67	-	-	-	35.45	4.56	11:27	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	04/29/2015	31.23	26.97	-	-	-	35.40	4.26	13:34	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	05/04/2015	31.23	26.75	-	-	-	-	4.48	11:20	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	05/11/2015	31.23	26.65	-	-	-	35.40	4.58	14:55	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	05/13/2015	31.23	27.35	-	-	-	-	3.88	9:47	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	3 J	120	14,000	
MW/RW-31	05/21/2015	31.23	26.87	-	-	-	35.50	4.36	12:06	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	05/28/2015	31.23	27.31	-	-	-	35.40	3.92	11:23	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	06/02/2015	31.23	26.87	-	-	-	-	4.36	12:48	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	06/09/2015	31.23	26.71	-	-	-	-	4.52	10:14	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	06/16/2015	31.23	26.68	-	-	-	-	4.55	11:11	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	06/26/2015	31.23	26.58	-	-	-	35.20	4.65	9:20	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	07/01/2015	31.23	26.02	-	-	-	-	5.21	12:00	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	07/08/2015	31.23	26.26	-	-	-	-	4.97	10:48	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	07/13/2015	31.23	25.88	-	-	-	-	5.35	9:13	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	07/20/2015	31.23	26.22	-	-	-	-	5.01	8:58	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	07/28/2015	31.23	26.31	-	-	-	35.56	4.92	10:22	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	08/04/2015	31.23	29.82	-	-	-	35.42	1.41	12:09	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	08/05/2015	31.23	26.78	-	-	-	35.47	4.45	8:22	-	-	-	-	-	-	-	-	-	-	2,400	
MW/RW-31	08/11/2015	31.23	25.93	-	-	-	35.43	5.30	9:48	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	08/18/2015	31.23	26.56	-	-	-	-	4.67	9:56	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	08/24/2015	31.23	26.55	-	-	-	-	4.68	10:00	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	09/02/2015	31.23	26.87	-	-	-	35.42	4.36	9:20	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	09/09/2015	31.23	26.61	-	-	-	35.47	4.62	10:03	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	09/17/2015	31.23	26.96	-	-	-	35.50	4.27	10:01	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	09/23/2015	31.23	26.82	-	-	-	-	4.41	10:18	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	09/28/2015	31.23	26.29	-	-	-	35.44	4.94	9:35	-	-	-	-	-	-	-	-	-	-	-	

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-31	10/05/2015	31.23	26.11	-	-	-	35.42	5.12	9:02	-	-	-	-	-	-	-	-	-	-	-	pump in well pump in well Pump Obstruction during gauging pump in well pump in well pump in well pump in well pump in well pump in well pump in well pump in well pump in well pump in well pump in well pump in well pump in well pump in well pump in well pump in well pump in well pump in well
MW/RW-31	11/10/2015	31.23	26.61	-	-	-	-	4.62	12:47	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	12/01/2015	31.23	26.27	-	-	-	-	4.96	13:47	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	12/03/2015	31.23	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	
MW/RW-31	01/27/2016	31.23	26.24	-	-	-	-	4.99	10:06	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	02/15/2016	31.23	27.21	-	-	-	-	4.02	9:49	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	03/14/2016	31.23	26.76	-	-	-	-	4.47	9:33	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	03/15/2016	31.23	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,000	
MW/RW-31	03/30/2016	31.23	32.98	-	-	-	-	-1.75	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	04/21/2016	31.23	33.03	-	-	-	-	-1.80	10:27	-	-	-	-	-	-	-	-	-	-	440	
MW/RW-31	05/23/2016	31.23	NR	-	-	-	-	-	11:13	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	05/24/2016	31.23	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	
MW/RW-31	06/21/2016	31.23	33.05	-	-	-	-	-1.82	10:00	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	07/21/2016	31.23	33.05	-	-	-	-	-1.82	9:48	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	08/24/2016	31.23	27.31	-	-	-	-	3.92	10:05	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	08/25/2016	31.23	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	830	
MW/RW-31	09/22/2016	31.23	27.60	-	-	-	-	3.63	13:15	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	10/20/2016	31.23	31.47	-	-	-	-	-0.24	10:54	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-31	11/28/2016	31.23	30.92	-	-	-	-	0.31	8:41	-	-	-	-	-	-	-	-	-	-	120	
MW/RW-31	12/22/2016	31.23	31.20	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-	
MW-33	08/08/2014	30.93	27.91	-	-	-	35.41	3.02	-	-	-	-	-	-	-	-	-	-	-	-	
MW-33	08/11/2014	30.93	27.41	-	-	-	-	3.52	-	-	-	-	-	-	-	-	-	-	-	-	
MW-33	08/15/2014	30.93	26.98	-	-	-	34.45	3.95	-	-	-	-	-	-	-	-	-	-	-	440	
MW-33	08/18/2014	30.93	26.76	-	-	-	-	4.17	-	-	-	-	-	-	-	-	-	-	-	-	
MW-33	08/25/2014	30.93	26.47	-	-	-	-	4.46	-	-	-	-	-	-	-	-	-	-	-	-	
MW-33	09/02/2014	30.93	26.87	-	-	-	-														

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-33	02/24/2015	30.93	26.99	-	-	-	-	3.94	13:05	-	-	-	-	-	-	-	-	-	-	-	
MW-33	02/25/2015	30.93	27.03	-	-	-	34.45	3.90	10:08	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.03	<20	<45	
MW-33	05/11/2015	30.93	26.22	-	-	-	34.40	4.71	14:54	-	-	-	-	-	-	-	-	-	-	-	
MW-33	05/13/2015	30.93	26.90	-	-	-	34.40	4.03	9:45	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.1	<20	<45	
MW-33	08/04/2015	30.93	25.91	-	-	-	34.39	5.02	12:14	-	-	-	-	-	-	-	-	-	-	-	
MW-33	08/05/2015	30.93	26.43	-	-	-	34.42	4.50	8:26	-	-	-	-	-	-	-	-	-	-	<45	
MW-33	12/01/2015	30.93	26.37	-	-	-	34.40	4.56	13:35	-	-	-	-	-	-	-	-	-	-	-	
MW-33	12/03/2015	30.93	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<45	
MW-33	03/14/2016	30.93	26.59	-	-	-	34.46	4.34	10:21	-	-	-	-	-	-	-	-	-	-	-	
MW-33	05/23/2016	30.93	26.58	-	-	-	34.40	4.35	10:49	-	-	-	-	-	-	-	-	-	-	-	
MW-33	08/24/2016	30.93	26.80	-	-	-	34.40	4.13	9:35	-	-	-	-	-	-	-	-	-	-	-	
MW-33	11/28/2016	30.93	27.11	-	-	-	34.36	3.82	8:25	-	-	-	-	-	-	-	-	-	-	-	
MW-33	11/29/2016	30.93	26.87	-	-	-	34.40	4.06	11:15	-	-	-	-	-	-	-	-	-	-	<45	
MW-51S	08/08/2014	30.81	21.15	-	-	-	25.27	9.66	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	08/11/2014	30.81	21.27	-	-	-	-	9.54	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	08/15/2014	30.81	21.17	-	-	-	25.30	9.64	-	-	-	-	-	-	-	-	-	-	-	1,590	
MW-51S	08/18/2014	30.81	21.23	-	-	-	-	9.58	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	08/25/2014	30.81	21.34	-	-	-	-	9.47	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	09/02/2014	30.81	21.38	-	-	-	-	9.43	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	09/15/2014	30.81	21.46	-	-	-	-	9.35	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	09/22/2014	30.81	21.48	-	-	-	-	9.33	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	09/24/2014	30.81	21.49	-	-	-	-	9.32	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	10/01/2014	30.81	21.32	21.32	TRACE	-	25.30	9.49	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW-51S	10/10/2014	30.81	21.53	-	-	-	-	9.28	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	10/13/2014	30.81	21.52	-	-	-	-	9.29	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	10/20/2014	30.81	21.58	-	-	-	25.33	9.23	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	10/22/2014	30.81	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,400	
MW-51S	10/27/2014	30.81	21.64	-	-	-	-	9.17	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	11/07/2014	30.81	21.53	-	-	-	-	9.28	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	11/12/2014	30.81	21.66	-	-	-	-	9.15	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	11/21/2014	30.81	21.73	-	-	-	-	9.08	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	12/05/2014	30.81	21.64	-	-	-	-	9.17	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	12/11/2014	30.81	21.72	-	-	-	-	9.09	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-51S	12/16/2014	30.81	21.78	-	-	-	-	9.03	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	12/23/2014	30.81	21.83	-	-	-	-	8.98	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	12/30/2014	30.81	21.87	-	-	-	-	8.94	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	01/09/2015	30.81	21.89	-	-	-	-	8.92	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	01/16/2015	30.81	21.80	-	-	-	-	9.01	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	01/19/2015	30.81	21.87	-	-	-	-	8.94	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	01/26/2015	30.81	21.82	-	-	-	-	8.99	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	02/03/2015	30.81	22.00	-	-	-	25.21	8.81	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	02/09/2015	30.81	21.92	-	-	-	-	8.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	02/18/2015	30.81	21.92	-	-	-	-	8.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	02/24/2015	30.81	21.96	-	-	-	25.33	8.85	16:00	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	02/26/2015	30.81	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,100	
MW-51S	03/11/2015	30.81	21.67	-	-	-	-	9.14	12:48	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	03/18/2015	30.81	21.71	-	-	-	-	9.10	11:08	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	03/26/2015	30.81	21.76	-	-	-	25.30	9.05	11:45	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	04/02/2015	30.81	21.80	-	-	-	25.30	9.01	11:27	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	04/08/2015	30.81	21.75	-	-	-	25.19	9.06	8:55	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	04/13/2015	30.81	21.87	-	-	-	-	8.94	10:44	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	04/23/2015	30.81	21.89	-	-	-	25.25	8.92	11:59	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	04/29/2015	30.81	21.88	-	-	-	25.25	8.93	14:26	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	05/04/2015	30.81	21.89	-	-	-	-	8.92	11:43	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	05/11/2015	30.81	21.93	-	-	-	24.50	8.88	10:45	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	05/13/2015	30.81	21.95	-	-	-	-	8.86	10:00	-	-	-	-	-	-	-	-	-	-	17,000	
MW-51S	05/21/2015	30.81	21.68	-	-	-	25.35	9.13	12:12	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	05/28/2015	30.81	21.93	-	-	-	25.30	8.88	11:47	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	06/09/2015	30.81	21.85	-	-	-	-	8.96	10:34	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	06/16/2015	30.81	21.79	-	-	-	-	9.02	11:27	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	06/26/2015	30.81	21.62	-	-	-	-	9.19	10:35	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	07/08/2015	30.81	21.33	-	-	-	-	9.48	11:40	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	07/13/2015	30.81	21.62	-	-	-	-	9.19	9:41	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	07/20/2015	30.81	21.57	-	-	-	-	9.24	9:19	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	07/28/2015	30.81	21.37	-	-	-	25.35	9.44	11:29	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	08/04/2015	30.81	21.21	-	-	-	25.30	9.60	12:02	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-51S	08/05/2015	30.81	21.25	-	-	-	25.30	9.56	9:12	-	-	-	-	-	-	-	-	-	-	11,000	
MW-51S	08/11/2015	30.81	21.28	-	-	-	25.31	9.53	10:14	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	08/18/2015	30.81	21.22	-	-	-	-	9.59	10:19	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	08/24/2015	30.81	21.27	-	-	-	-	9.54	10:30	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	09/02/2015	30.81	21.35	-	-	-	25.30	9.46	9:54	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	09/09/2015	30.81	21.42	-	-	-	25.32	9.39	10:32	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	09/17/2015	30.81	21.52	-	-	-	25.43	9.29	10:32	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	09/23/2015	30.81	21.48	-	-	-	-	9.33	10:53	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	09/28/2015	30.81	21.56	-	-	-	25.30	9.25	9:44	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	10/05/2015	30.81	21.55	-	-	-	25.61	9.26	9:21	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	11/10/2015	30.81	21.67	-	-	-	-	9.14	13:14	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	12/01/2015	30.81	21.80	-	-	-	25.30	9.01	10:48	-	-	-	-	-	-	-	-	-	-	-	
MW-51S	12/02/2015	30.81	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,000
MW-51S	01/27/2016	30.81	21.95	-	-	-	-	8.86	10:36	-	-	-	-	-	-	-	-	-	-	-	-
MW-51S	02/15/2016	30.81	21.31	-	-	-	-	9.50	10:18	-	-	-	-	-	-	-	-	-	-	-	-
MW-51S	03/14/2016	30.81	21.23	-	-	-	25.30	9.58	12:45	-	-	-	-	-	-	-	-	-	-	-	-
MW-51S	03/15/2016	30.81	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	67,000
MW-51S	04/21/2016	30.81	22.04	-	-	-	25.30	8.77	10:58	-	-	-	-	-	-	-	-	-	-	-	27,000
MW-51S	05/23/2016	30.81	21.93	-	-	-	25.21	8.88	11:20	-	-	-	-	-	-	-	-	-	-	-	-
MW-51S	05/24/2016	30.81	21.77	-	-	-	25.28	9.04	10:08	-	-	-	-	-	-	-	-	-	-	-	11,000
MW-51S	06/21/2016	30.81	22.20	-	-	-	-	8.61	11:00	-	-	-	-	-	-	-	-	-	-	-	-
MW-51S	07/21/2016	30.81	21.27	-	-	-	-	9.54	11:08	-	-	-	-	-	-	-	-	-	-	-	-
MW-51S	08/24/2016	30.81	21.89	-	-	-	25.30	8.92	10:45	-	-	-	-	-	-	-	-	-	-	-	-
MW-51S	08/25/2016	30.81	21.60	-	-	-	25.45	9.21	11:05	-	-	-	-	-	-	-	-	-	-	-	15,000
MW-51S	11/28/2016	30.81	22.23	-	-	-	25.25	8.58	9:25	-	-	-	-	-	-	-	-	-	-	-	-
MW-51S	11/29/2016	30.81	22.37	-	-	-	25.35	8.44	9:51	-	-	-	-	-	-	-	-	-	-	-	19,000
MW/RW-51	07/25/2014	30.97	27.25	-	-	-	35.95	3.72	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	08/08/2014	30.97	27.00	27.00	TRACE	-	36.48	3.97	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	08/11/2014	30.97	26.70	-	-	-	-	4.27	-	-	-	-	-	-	-	-	-	-	-	-	1,180
MW/RW-51	08/13/2014	30.97	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,650
MW/RW-51	08/15/2014	30.97	27.30	-	-	-	-	3.67	-	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	08/16/2014	30.97	26.99	26.99	TRACE	-	34.65	3.98	-	-	-	-	-	-	-	-	-	-	-	-	281,000
MW/RW-51	08/18/2014	30.97	26.94	26.94	TRACE	-	-	4.03	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-51	08/25/2014	30.97	26.59	26.59	TRACE	-	-	4.38	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	09/02/2014	30.97	26.93	26.93	TRACE	-	-	4.04	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	09/15/2014	30.97	26.88	26.85	0.03	TRACE	-	4.12	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	09/22/2014	30.97	26.83	26.80	0.03	TRACE	-	4.17	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	09/24/2014	30.97	27.19	27.15	0.04	-	-	3.82	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	10/01/2014	30.97	26.93	26.93	TRACE	-	36.15	4.04	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	10/10/2014	30.97	26.84	26.81	0.03	-	-	4.16	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	10/13/2014	30.97	27.01	26.94	0.07	-	-	4.02	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	10/20/2014	30.97	27.05	27.03	0.02	TRACE	-	3.94	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	10/27/2014	30.97	27.16	27.12	0.04	TRACE	-	3.85	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	11/07/2014	30.97	27.11	27.07	0.04	TRACE	-	3.90	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	11/12/2014	30.97	26.92	26.90	0.02	TRACE	-	4.07	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	11/21/2014	30.97	27.57	27.50	0.07	TRACE	-	3.46	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	11/26/2014	30.97	27.20	27.17	0.03	TRACE	-	3.80	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	12/05/2014	30.97	26.98	26.96	0.02	TRACE	-	4.01	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	12/11/2014	30.97	26.88	26.87	0.01	TRACE	-	4.10	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	12/16/2014	30.97	26.83	26.80	0.03	TRACE	-	4.17	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	12/23/2014	30.97	26.83	26.83	TRACE	TRACE	-	4.14	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	12/30/2014	30.97	27.28	27.22	0.06	TRACE	-	3.74	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	01/09/2015	30.97	27.20	27.15	0.05	TRACE	-	3.81	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	01/16/2015	30.97	26.95	26.91	0.04	TRACE	-	4.06	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	01/19/2015	30.97	26.88	26.83	0.05	TRACE	-	4.13	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	01/26/2015	30.97	26.98	26.92	0.06	TRACE	-	4.04	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	02/03/2015	30.97	27.52	27.45	0.07	-	36.15	3.51	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	02/09/2015	30.97	26.93	26.91	0.02	-	-	4.06	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	02/18/2015	30.97	27.07	27.02	0.05	-	-	3.94	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	02/24/2015	30.97	27.07	27.06	0.01	TRACE	-	3.91	13:46	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-51	03/04/2015	30.97	27.24	27.17	0.07	-	-	3.79	14:25	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	03/11/2015	30.97	26.68	26.65	0.03	-	-	4.32	12:51	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	03/18/2015	30.97	26.94	26.84	0.10	-	-	4.12	11:11	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	03/26/2015	30.97	26.74	26.60	0.14	-	36.10	4.35	11:50	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	04/02/2015	30.97	27.78	27.75	0.03	-	36.05	3.22	11:46	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	04/08/2015	30.97	27.15	27.02	0.13	-	36.11	3.93	9:00	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-51	04/13/2015	30.97	27.09	26.98	0.11	-	-	3.98	10:47	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	04/23/2015	30.97	26.42	26.35	0.07	-	36.05	4.61	12:17	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	04/29/2015	30.97	26.71	26.60	0.11	-	36.00	4.36	14:39	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	05/04/2015	30.97	26.54	26.48	0.06	-	-	4.48	11:46	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	05/11/2015	30.97	26.44	26.40	0.04	-	-	4.57	15:00	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	05/13/2015	30.97	27.31	27.10	0.21	0.03	-	3.84	12:35	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	05/21/2015	30.97	26.74	26.71	0.03	-	-	4.26	12:10	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	05/28/2015	30.97	27.10	26.95	0.15	-	36.05	4.00	11:58	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	06/02/2015	30.97	26.85	26.82	0.03	-	-	4.15	13:07	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	06/09/2015	30.97	26.75	26.72	0.03	-	-	4.25	10:37	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	06/16/2015	30.97	26.57	26.54	0.03	-	-	4.43	11:30	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	06/26/2015	30.97	26.44	26.31	0.13	-	36.00	4.64	11:23	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	07/01/2015	30.97	25.86	25.85	0.01	-	-	5.12	12:30	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	07/08/2015	30.97	26.28	26.05	0.23	0.05	-	4.89	11:54	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	07/13/2015	30.97	26.03	25.90	0.13	-	-	5.05	9:46	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW/RW-51	07/20/2015	30.97	25.97	25.92	0.05	TRACE	-	5.04	9:52	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	07/28/2015	30.97	26.16	26.10	0.06	TRACE	36.18	4.86	11:55	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	08/04/2015	30.97	26.11	26.02	0.09	0.01	-	4.94	12:28	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	08/11/2015	30.97	25.78	25.70	0.08	0.01	36.14	5.26	11:07	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	08/18/2015	30.97	27.29	27.23	0.06	TRACE	-	3.73	10:43	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	08/24/2015	30.97	26.18	26.16	0.02	TRACE	-	4.81	10:46	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	09/02/2015	30.97	26.42	26.40	0.02	0.01	36.10	4.57	10:50	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	09/09/2015	30.97	26.35	26.27	0.08	0.02	36.12	4.69	10:35	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	09/17/2015	30.97	26.61	-	-	-	36.14	4.36	10:54	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	09/23/2015	30.97	26.49	26.47	0.02	TRACE	-	4.50	11:06	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	09/28/2015	30.97	26.00	26.00	TRACE	-	36.10	4.97	10:01	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	10/05/2015	30.97	26.67	-	-	-	36.15	4.30	12:15	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-51	11/10/2015	30.97	26.52	26.48	0.04	-	-	4.49	13:42	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	12/01/2015	30.97	26.57	26.55	0.02	-	-	4.42	13:53	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-51	01/27/2016	30.97	26.86	26.73	0.13	-	-	4.22	10:48	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-51	02/15/2016	30.97	27.22	27.14	0.08	-	-	3.82	10:23	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-51	03/14/2016	30.97	26.72	26.63	0.09	-	-	4.33	10:25	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-51	03/30/2016	30.97	33.60	-	-	-	-	-2.63	-	-	-	-	-	-	-	-	-	-	-	-	pump in well

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-51	04/21/2016	30.97	33.00	-	-	-	-	-2.03	10:13	-	-	-	-	-	-	-	-	-	-	2,900	pump in well
MW/RW-51	05/23/2016	30.97	33.31	-	-	-	34.52	-2.34	11:30	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-51	05/24/2016	30.97	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	780	pump in well
MW/RW-51	06/21/2016	30.97	33.00	-	-	-	-	-2.03	11:05	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-51	07/21/2016	30.97	33.70	-	-	-	-	-2.73	11:05	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-51	08/24/2016	30.97	32.95	-	-	-	-	-1.98	11:03	-	-	-	-	-	-	-	-	-	-	350	pump in well
MW/RW-51	09/22/2016	30.97	33.35	-	-	-	-	-2.38	13:00	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-51	10/20/2016	30.97	32.92	-	-	-	-	-1.95	11:50	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-51	11/28/2016	30.97	30.64	-	-	-	-	0.33	9:19	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	-	110	pump in well
MW/RW-51	12/22/2016	30.97	31.35	-	-	-	-	-0.38	-	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW-52	08/15/2014	30.17	28.11	-	-	-	35.78	2.06	-	-	-	-	-	-	-	-	-	-	-	<600	Manhole flooded
MW-52	08/18/2014	30.17	26.07	-	-	-	-	4.10	-	-	-	-	-	-	-	-	-	-	-	-	
MW-52	08/25/2014	30.17	25.76	-	-	-	-	4.41	-	-	-	-	-	-	-	-	-	-	-	-	
MW-52	09/02/2014	30.17	26.15	-	-	-	-	4.02	-	-	-	-	-	-	-	-	-	-	-	-	
MW-52	09/15/2014	30.17	25.99	-	-	-	-	4.18	-	-	-	-	-	-	-	-	-	-	-	-	
MW-52	09/22/2014	30.17	26.00	-	-	-	-	4.17	-	-	-	-	-	-	-	-	-	-	-	-	
MW-52	10/01/2014	30.17	26.03	-	-	-	35.65	4.14	-	-	-	-	-	-	-	-	-	-	-	-	
MW-52	10/10/2014	30.17	26.07	-	-	-	-	4.10	-	-	-	-	-	-	-	-	-	-	-	-	
MW-52	10/20/2014	30.17	26.24	-	-	-	35.64	3.93	-	-	-	-	-	-	-	-	-	-	-	-	
MW-52	10/22/2014	30.17	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120	
MW-52	05/11/2015	30.17	25.81	-	-	-	35.65	4.36	14:45	-	-	-	-	-	-	-	-	-	-	-	
MW-52	05/12/2015	30.17	26.10	-	-	-	-	4.07	9:50	-	-	-	-	-	-	-	-	-	-	<45	
MW-52	08/04/2015	30.17	25.21	-	-	-	35.55	4.96	12:01	-	-	-	-	-	-	-	-	-	-	-	
MW-52	08/05/2015	30.17	25.68	-	-	-	35.49	4.49	9:47	-	-	-	-	-	-	-	-	-	-	110	
MW-52	12/01/2015	30.17	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-52	03/14/2016	30.17	26.61	-	-	-	35.30	3.56	9:10	-	-	-	-	-	-	-	-	-	-	-	
MW-52	05/23/2016	30.17	26.29	-	-	-	35.22	3.88	10:40	-	-	-	-	-	-	-	-	-	-	-	
MW-52	08/24/2016	30.17	26.38	-	-	-	35.30	3.79	9:46	-	-	-	-	-	-	-	-	-	-	-	
MW-52	11/28/2016	30.17	26.62	-	-	-	35.24	3.55	8:33	-	-	-	-	-	-	-	-	-	-	-	
MW-70	08/15/2014	30.86	26.63	-	-	-	34.95	4.23	-	-	-	-	-	-	-	-	-	-	-	<153	
MW-70	08/18/2014	30.86	26.61	-	-	-	-	4.25	-	-	-	-	-	-	-	-	-	-	-	-	
MW-70	08/25/2014	30.86	26.25	-	-	-	-	4.61	-	-	-	-	-	-	-	-	-	-	-	-	
MW-70	09/02/2014	30.86	26.68	-	-	-	-	4.18	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-70	09/15/2014	30.86	26.63	-	-	-	-	4.23	-	-	-	-	-	-	-	-	-	-	-	-	
MW-70	09/22/2014	30.86	26.47	-	-	-	-	4.39	-	-	-	-	-	-	-	-	-	-	-	-	
MW-70	10/01/2014	30.86	26.66	-	-	-	34.88	4.20	-	-	-	-	-	-	-	-	-	-	-	-	
MW-70	10/10/2014	30.86	26.57	-	-	-	-	4.29	-	-	-	-	-	-	-	-	-	-	-	-	
MW-70	10/20/2014	30.86	26.79	-	-	-	34.90	4.07	-	-	-	-	-	-	-	-	-	-	-	-	
MW-70	10/21/2014	30.86	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<45	
MW-70	02/24/2015	30.86	26.62	-	-	-	-	4.24	13:00	-	-	-	-	-	-	-	-	-	-	-	
MW-70	02/26/2015	30.86	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,200	
MW-70	05/11/2015	30.86	26.02	-	-	-	35.15	4.84	14:55	-	-	-	-	-	-	-	-	-	-	-	
MW-70	05/12/2015	30.86	26.21	-	-	-	-	4.65	14:05	-	-	-	-	-	-	-	-	-	-	100	
MW-70	08/04/2015	30.86	25.73	-	-	-	35.16	5.13	12:28	-	-	-	-	-	-	-	-	-	-	-	
MW-70	08/05/2015	30.86	26.10	-	-	-	35.05	4.76	9:55	-	-	-	-	-	-	-	-	-	-	<45	
MW-70	12/01/2015	30.86	26.23	-	-	-	35.05	4.63	13:32	-	-	-	-	-	-	-	-	-	-	-	
MW-70	03/14/2016	30.86	26.45	-	-	-	35.11	4.41	9:45	-	-	-	-	-	-	-	-	-	-	-	
MW-70	05/23/2016	30.86	26.71	-	-	-	35.05	4.15	10:22	-	-	-	-	-	-	-	-	-	-	-	
MW-70	08/24/2016	30.86	26.64	-	-	-	35.05	4.22	9:52	-	-	-	-	-	-	-	-	-	-	-	
MW-70	11/28/2016	30.86	26.91	-	-	-	35.04	3.95	8:27	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	08/08/2014	30.63	23.33	-	-	-	25.30	7.30	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	08/11/2014	30.63	22.85	-	-	-	-	7.78	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	08/15/2014	30.63	21.35	-	-	-	23.90	9.28	-	-	-	-	-	-	-	-	-	-	-	5,980	
MW/RW-72S	08/18/2014	30.63	21.34	-	-	-	-	9.29	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	08/25/2014	30.63	21.41	-	-	-	-	9.22	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	09/02/2014	30.63	21.45	-	-	-	-	9.18	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	09/15/2014	30.63	21.54	-	-	-	-	9.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	09/22/2014	30.63	21.56	-	-	-	-	9.07	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	10/01/2014	30.63	21.63	-	-	-	23.90	9.00	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	10/10/2014	30.63	21.69	-	-	-	-	8.94	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	10/20/2014	30.63	21.73	-	-	-	23.88	8.90	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	10/22/2014	30.63	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,300	
MW/RW-72S	10/27/2014	30.63	21.80	-	-	-	-	8.83	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	11/07/2014	30.63	21.83	-	-	-	-	8.80	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	11/12/2014	30.63	21.88	-	-	-	-	8.75	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	11/21/2014	30.63	22.04	-	-	-	-	8.59	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-72S	11/26/2014	30.63	22.10	-	-	-	-	8.53	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	12/05/2014	30.63	22.23	-	-	-	-	8.40	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	12/11/2014	30.63	22.11	-	-	-	-	8.52	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	12/16/2014	30.63	22.00	-	-	-	-	8.63	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	12/23/2014	30.63	21.99	-	-	-	-	8.64	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	12/30/2014	30.63	21.98	-	-	-	-	8.65	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	01/09/2015	30.63	21.94	-	-	-	-	8.69	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	01/16/2015	30.63	21.93	-	-	-	-	8.70	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	01/19/2015	30.63	21.88	-	-	-	-	8.75	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	01/26/2015	30.63	21.78	-	-	-	-	8.85	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	02/03/2015	30.63	21.79	-	-	-	23.93	8.84	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	02/09/2015	30.63	21.77	-	-	-	-	8.86	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	02/18/2015	30.63	21.85	-	-	-	-	8.78	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	02/24/2015	30.63	21.90	-	-	-	23.89	8.73	15:53	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	02/25/2015	30.63	21.87	-	-	-	23.75	8.76	14:10	-	-	-	-	-	-	-	-	-	-	3,400	
MW/RW-72S	03/04/2015	30.63	21.79	-	-	-	-	8.84	13:45	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	03/11/2015	30.63	21.75	-	-	-	-	8.88	12:12	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	03/18/2015	30.63	21.70	-	-	-	-	8.93	10:35	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	03/26/2015	30.63	21.73	-	-	-	23.90	8.90	11:10	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	04/02/2015	30.63	21.78	-	-	-	23.90	8.85	10:55	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	04/08/2015	30.63	21.82	-	-	-	23.87	8.81	9:35	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	04/13/2015	30.63	21.86	-	-	-	-	8.77	10:08	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	04/23/2015	30.63	21.86	-	-	-	23.87	8.77	11:12	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	04/29/2015	30.63	21.85	-	-	-	23.85	8.78	13:56	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	05/04/2015	30.63	21.84	-	-	-	-	8.79	11:06	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	05/11/2015	30.63	21.91	-	-	-	23.90	8.72	10:48	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	05/13/2015	30.63	21.90	-	-	-	-	8.73	9:57	13	<0.5	24	<0.5	<0.5	<2	<0.5	<0.5	16.00	-	4,000	
MW/RW-72S	05/21/2015	30.63	21.88	-	-	-	23.90	8.75	11:47	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	05/28/2015	30.63	22.04	-	-	-	23.90	8.59	11:27	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	06/02/2015	30.63	22.03	-	-	-	-	8.60	12:30	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	06/09/2015	30.63	21.67	-	-	-	-	8.96	9:56	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	06/16/2015	30.63	21.68	-	-	-	-	8.95	10:50	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	06/26/2015	30.63	21.55	-	-	-	23.80	9.08	10:17	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-72S	07/01/2015	30.63	21.38	-	-	-	-	9.25	11:45	-	-	-	-	-	-	-	-	-	-	-	Obstruction during gauging
MW/RW-72S	08/04/2015	30.63	21.55	-	-	-	23.90	9.08	12:38	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	08/05/2015	30.63	21.51	-	-	-	23.90	9.12	9:25	-	-	-	-	-	-	-	-	-	-	3,700	
MW/RW-72S	12/01/2015	30.63	24.65	-	-	-	26.17	5.98	11:26	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	12/03/2015	30.63	NR	-	-	-	-	-	-	8	<0.5	15	<0.5	-	-	-	-	2.00 J	-	2,100	
MW/RW-72S	03/14/2016	30.63	23.71	-	-	-	26.02	6.92	12:25	-	-	-	-	-	-	-	-	-	-	8,200	
MW/RW-72S	05/23/2016	30.63	25.75	-	-	-	-	4.88	11:43	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	05/25/2016	30.63	24.22	-	-	-	25.85	6.41	-	-	-	-	-	-	-	-	-	-	-	3,800	
MW/RW-72S	06/21/2016	30.63	26.04	-	-	-	-	4.59	10:17	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	07/21/2016	30.63	26.02	-	-	-	-	4.61	10:04	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	08/24/2016	30.63	25.60	-	-	-	26.15	5.03	11:40	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	08/25/2016	30.63	23.95	-	-	-	-	6.68	13:00	-	-	-	-	-	-	-	-	-	-	5,300	
MW/RW-72S	09/22/2016	30.63	26.07	-	-	-	26.13	4.56	12:16	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	10/20/2016	30.63	26.02	-	-	-	-	4.61	11:02	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	11/28/2016	30.63	DRY	-	-	-	25.79	-	9:59	-	-	-	-	-	-	-	-	-	-	-	DRY Insufficient GW Vol. Insufficient GW Vol. DRY
MW/RW-72S	11/29/2016	30.63	26.04	-	-	-	26.10	4.59	13:30	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	12/07/2016	30.63	26.07	-	-	-	26.13	4.56	12:26	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72S	12/22/2016	30.63	DRY	-	-	-	26.10	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	08/08/2014	31.06	26.97	-	-	-	34.55	4.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	08/11/2014	31.06	26.85	-	-	-	-	4.21	-	-	-	-	-	-	-	-	-	-	-	<300	
MW/RW-72	08/13/2014	31.06	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,100	
MW/RW-72	08/15/2014	31.06	27.43	-	-	-	-	3.63	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	08/16/2014	31.06	27.05	-	-	-	34.43	4.01	-	-	-	-	-	-	-	-	-	-	-	1,340	
MW/RW-72	08/18/2014	31.06	27.00	-	-	-	-	4.06	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	08/25/2014	31.06	26.66	-	-	-	-	4.40	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	09/02/2014	31.06	27.11	-	-	-	-	3.95	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	09/15/2014	31.06	27.02	-	-	-	-	4.04	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	09/22/2014	31.06	26.88	-	-	-	-	4.18	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	10/01/2014	31.06	27.10	-	-	-	34.48	3.96	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	10/10/2014	31.06	26.94	-	-	-	-	4.12	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	10/20/2014	31.06	27.19	-	-	-	34.43	3.87	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	10/22/2014	31.06	NR	-	-	-	-	-	-	41	<0.5	1	66	0.6	2	<0.5	<0.5	61	480	2,000	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-72	10/27/2014	31.06	27.34	-	-	-	-	3.72	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	11/07/2014	31.06	27.04	-	-	-	-	4.02	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	11/12/2014	31.06	27.12	-	-	-	-	3.94	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	11/21/2014	31.06	27.82	-	-	-	-	3.24	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	11/26/2014	31.06	27.36	-	-	-	-	3.70	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	12/05/2014	31.06	27.01	-	-	-	-	4.05	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	12/11/2014	31.06	27.03	-	-	-	-	4.03	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	12/16/2014	31.06	26.91	-	-	-	-	4.15	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	12/23/2014	31.06	26.89	-	-	-	-	4.17	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	12/30/2014	31.06	27.36	-	-	-	-	3.70	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	01/09/2015	31.06	27.27	-	-	-	-	3.79	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	01/16/2015	31.06	27.03	-	-	-	-	4.03	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	01/19/2015	31.06	26.98	-	-	-	-	4.08	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	01/26/2015	31.06	26.96	-	-	-	-	4.10	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	02/03/2015	31.06	27.65	-	-	-	34.19	3.41	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	02/09/2015	31.06	27.14	-	-	-	-	3.92	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	02/18/2015	31.06	27.11	-	-	-	-	3.95	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	02/24/2015	31.06	27.27	-	-	-	-	3.79	13:35	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	02/25/2015	31.06	27.33	-	-	-	34.28	3.73	9:50	8	<0.5	<0.5	3	<0.5	<2	<0.5	<0.5	<0.03	65	590	
MW/RW-72	03/04/2015	31.06	27.17	-	-	-	-	3.89	13:48	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	03/11/2015	31.06	26.98	-	-	-	-	4.08	12:15	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	03/18/2015	31.06	26.94	-	-	-	-	4.12	10:38	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	03/26/2015	31.06	26.78	-	-	-	34.10	4.28	11:13	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	04/02/2015	31.06	26.86	-	-	-	34.15	4.20	10:57	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	04/08/2015	31.06	27.20	-	-	-	33.98	3.86	9:40	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	04/13/2015	31.06	27.11	-	-	-	-	3.95	10:11	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	04/23/2015	31.06	26.61	-	-	-	34.13	4.45	11:15	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	04/29/2015	31.06	26.76	-	-	-	33.95	4.30	14:00	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	05/04/2015	31.06	26.60	-	-	-	-	4.46	11:09	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	05/11/2015	31.06	26.55	-	-	-	33.90	4.51	14:58	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	05/13/2015	31.06	27.12	-	-	-	-	3.94	9:55	13	<0.5	<0.5	6	<0.5	<2	<0.5	<0.5	13.00	120	630	
MW/RW-72	05/21/2015	31.06	26.81	-	-	-	34.04	4.25	11:49	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	05/28/2015	31.06	27.05	-	-	-	34.00	4.01	11:28	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-72	06/02/2015	31.06	26.68	-	-	-	-	4.38	12:33	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	06/09/2015	31.06	26.46	-	-	-	-	4.60	10:00	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	06/16/2015	31.06	26.48	-	-	-	-	4.58	10:53	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	06/26/2015	31.06	26.42	-	-	-	34.00	4.64	10:19	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	07/01/2015	31.06	25.91	-	-	-	-	5.15	11:48	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	08/04/2015	31.06	26.19	-	-	-	34.14	4.87	12:35	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	08/05/2015	31.06	26.61	-	-	-	34.26	4.45	9:22	-	-	-	-	-	-	-	-	-	-	3,900	
MW/RW-72	12/01/2015	31.06	26.68	-	-	-	-	4.38	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	12/03/2015	31.06	NR	-	-	-	-	-	-	20	<0.5	29	100	-	-	-	-	26	-	960	
MW/RW-72	03/14/2016	31.06	26.87	-	-	-	-	4.19	9:05	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	03/15/2016	31.06	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	03/30/2016	31.06	31.47	-	-	-	-	-0.41	-	-	-	-	-	-	-	-	-	-	-	1,200	
MW/RW-72	04/21/2016	31.06	31.45	-	-	-	-	-0.39	10:22	-	-	-	-	-	-	-	-	-	-	350	
MW/RW-72	05/23/2016	31.06	31.50	-	-	-	-	-0.44	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	05/24/2016	31.06	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	360	
MW/RW-72	06/21/2016	31.06	31.50	-	-	-	-	-0.44	10:21	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	07/21/2016	31.06	31.51	-	-	-	-	-0.45	10:01	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	08/04/2016	31.06	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
																					Uninstalled pump to use in MW-14 due to increasing LNAPL levels in MW-14
MW/RW-72	08/24/2016	31.06	27.21	-	-	-	33.00	3.85	11:43	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	08/25/2016	31.06	27.42	-	-	-	33.18	3.64	11:06	-	-	-	-	-	-	-	-	-	-	330	
MW/RW-72	09/22/2016	31.06	26.54	-	-	-	-	4.52	14:10	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	11/28/2016	31.06	26.36	-	-	-	33.69	4.70	8:50	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-72	11/29/2016	31.06	26.72	-	-	-	33.07	4.34	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	-	160	
MW-100S	08/15/2014	31.06	21.32	-	-	-	24.22	9.74	-	-	-	-	-	-	-	-	-	-	-	<300	
MW-100S	08/18/2014	31.06	21.28	-	-	-	-	9.78	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	08/25/2014	31.06	21.31	-	-	-	-	9.75	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	09/02/2014	31.06	21.39	-	-	-	-	9.67	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	09/15/2014	31.06	21.39	-	-	-	-	9.67	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	09/22/2014	31.06	21.52	-	-	-	-	9.54	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-100S	10/01/2014	31.06	21.62	-	-	-	24.16	9.44	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	10/10/2014	31.06	21.61	-	-	-	-	9.45	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	10/20/2014	31.06	21.67	-	-	-	24.17	9.39	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	10/21/2014	31.06	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<45	
MW-100S	02/24/2015	31.06	21.75	-	-	-	24.18	9.31	15:18	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	02/26/2015	31.06	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	690	
MW-100S	05/11/2015	31.06	21.55	-	-	-	24.20	9.51	9:55	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	05/12/2015	31.06	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<45	
MW-100S	08/04/2015	31.06	20.66	-	-	-	24.15	10.40	12:44	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	08/05/2015	31.06	20.70	-	-	-	24.15	10.36	10:03	-	-	-	-	-	-	-	-	-	-	<45	
MW-100S	12/01/2015	31.06	21.57	-	-	-	24.16	9.49	11:38	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	03/14/2016	31.06	21.41	-	-	-	24.20	9.65	9:40	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	05/23/2016	31.06	21.33	-	-	-	24.31	9.73	10:46	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	08/24/2016	31.06	21.11	-	-	-	24.24	9.95	11:41	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	11/28/2016	31.06	21.73	-	-	-	24.16	9.33	9:08	-	-	-	-	-	-	-	-	-	-	-	
MW-100S	11/29/2016	31.06	21.72	-	-	-	24.15	9.34	9:30	-	-	-	-	-	-	-	-	-	-	<45	
MW-100	08/15/2014	30.78	26.80	-	-	-	36.90	3.98	-	-	-	-	-	-	-	-	-	-	-	<152	
MW-100	08/18/2014	30.78	26.66	-	-	-	-	4.12	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100	08/25/2014	30.78	26.26	-	-	-	-	4.52	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100	09/02/2014	30.78	26.70	-	-	-	-	4.08	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100	09/15/2014	30.78	26.65	-	-	-	-	4.13	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100	09/22/2014	30.78	26.48	-	-	-	-	4.30	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100	10/01/2014	30.78	26.69	-	-	-	36.68	4.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100	10/10/2014	30.78	26.60	-	-	-	-	4.18	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100	10/20/2014	30.78	26.86	-	-	-	36.58	3.92	-	-	-	-	-	-	-	-	-	-	-	-	
MW-100	10/21/2014	30.78	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	
MW-100	02/24/2015	30.78	26.88	-	-	-	36.61	3.90	13:08	-	-	-	-	-	-	-	-	-	-	-	
MW-100	02/25/2015	30.78	26.87	-	-	-	36.62	3.91	11:32	-	-	-	-	-	-	-	-	-	-	300	
MW-100	05/11/2015	30.78	26.17	-	-	-	36.60	4.61	14:57	-	-	-	-	-	-	-	-	-	-	-	
MW-100	05/12/2015	30.78	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<45	
MW-100	08/04/2015	30.78	25.80	-	-	-	36.80	4.98	12:31	-	-	-	-	-	-	-	-	-	-	-	
MW-100	08/05/2015	30.78	26.22	-	-	-	36.61	4.56	9:59	-	-	-	-	-	-	-	-	-	-	<45	
MW-100	12/01/2015	30.78	26.25	-	-	-	36.35	4.53	13:24	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-100	03/14/2016	30.78	26.54	-	-	-	36.46	4.24	9:54	-	-	-	-	-	-	-	-	-	-	-	
MW-100	05/23/2016	30.78	26.74	-	-	-	36.69	4.04	10:28	-	-	-	-	-	-	-	-	-	-	-	
MW-100	08/24/2016	30.78	26.72	-	-	-	36.42	4.06	11:44	-	-	-	-	-	-	-	-	-	-	-	
MW-100	11/28/2016	30.78	26.87	-	-	-	27.44	3.91	9:10	-	-	-	-	-	-	-	-	-	-	-	
MW-100	11/29/2016	30.78	26.66	-	-	-	36.39	4.12	9:35	-	-	-	-	-	-	-	-	-	-	<45	
MW-102	08/15/2014	29.72	29.91	-	-	-	36.64	-0.19	-	-	-	-	-	-	-	-	-	-	-	<1,500	
MW-102	08/18/2014	29.72	29.81	-	-	-	-	-0.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW-102	08/25/2014	29.72	28.40	-	-	-	-	1.32	-	-	-	-	-	-	-	-	-	-	-	-	
MW-102	09/02/2014	29.72	27.23	-	-	-	-	2.49	-	-	-	-	-	-	-	-	-	-	-	-	
MW-102	09/15/2014	29.72	24.97	-	-	-	-	4.75	-	-	-	-	-	-	-	-	-	-	-	-	
MW-102	09/22/2014	29.72	24.83	-	-	-	-	4.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW-102	10/01/2014	29.72	24.73	-	-	-	36.45	4.99	-	-	-	-	-	-	-	-	-	-	-	-	
MW-102	10/10/2014	29.72	24.66	-	-	-	-	5.06	-	-	-	-	-	-	-	-	-	-	-	-	
MW-102	10/20/2014	29.72	24.78	-	-	-	36.44	4.94	-	-	-	-	-	-	-	-	-	-	-	-	
MW-102	10/21/2014	29.72	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<45	
MW-102	05/11/2015	29.72	24.44	-	-	-	36.40	5.28	15:01	-	-	-	-	-	-	-	-	-	-	-	
MW-102	05/12/2015	29.72	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<45	
MW-102	08/04/2015	29.72	23.39	-	-	-	36.43	6.33	12:35	-	-	-	-	-	-	-	-	-	-	-	
MW-102	08/05/2015	29.72	23.50	-	-	-	36.42	6.22	10:14	-	-	-	-	-	-	-	-	-	-	<45	
MW-102	12/01/2015	29.72	22.61	-	-	-	31.80	7.11	13:52	-	-	-	-	-	-	-	-	-	-	-	
MW-102	03/14/2016	29.72	24.11	-	-	-	36.41	5.61	10:04	-	-	-	-	-	-	-	-	-	-	-	
MW-102	05/23/2016	29.72	23.33	-	-	-	36.40	6.39	10:15	-	-	-	-	-	-	-	-	-	-	-	
MW-102	08/24/2016	29.72	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	VO
MW-102	11/28/2016	29.72	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	VO
MW-103	07/24/2014	11.07	7.87	-	-	-	-	3.20	-	-	-	-	-	-	-	-	-	-	-	-	
MW-103	08/08/2014	11.07	4.61	-	-	-	15.06	6.46	-	-	-	-	-	-	-	-	-	-	-	-	
MW-103	08/11/2014	11.07	4.63	-	-	-	-	6.44	-	-	-	-	-	-	-	-	-	-	-	-	
MW-103	08/15/2014	11.07	4.26	-	-	-	14.95	6.81	-	-	-	-	-	-	-	-	-	-	-	479	
MW-103	08/18/2014	11.07	4.48	-	-	-	-	6.59	-	-	-	-	-	-	-	-	-	-	-	-	
MW-103	08/25/2014	11.07	4.45	-	-	-	-	6.62	-	-	-	-	-	-	-	-	-	-	-	-	
MW-103	09/02/2014	11.07	4.50	-	-	-	-	6.57	-	-	-	-	-	-	-	-	-	-	-	-	
MW-103	09/15/2014	11.07	4.63	-	-	-	-	6.44	-	-	-	-	-	-	-	-	-	-	-	-	
MW-103	09/22/2014	11.07	4.76	-	-	-	-	6.31	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-103	10/01/2014	11.07	4.85	-	-	-	14.88	6.22	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-103	10/10/2014	11.07	4.93	-	-	-	-	6.14	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-103	10/20/2014	11.07	4.70	-	-	-	14.88	6.37	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-103	10/21/2014	11.07	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.02	26	54	-
MW-103	02/24/2015	11.07	5.02	-	-	-	-	6.05	15:27	-	-	-	-	-	-	-	-	-	-	-	-
MW-103	02/26/2015	11.07	5.21	-	-	-	14.90	5.86	11:53	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.03	<20	<45	-
MW-103	05/11/2015	11.07	4.67	-	-	-	14.88	6.40	10:20	-	-	-	-	-	-	-	-	-	-	-	-
MW-103	05/12/2015	11.07	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<1	22 J	<45	-
MW-103	08/04/2015	11.07	3.69	-	-	-	14.88	7.38	10:19	-	-	-	-	-	-	-	-	-	-	-	-
MW-103	08/05/2015	11.07	3.71	-	-	-	14.87	7.36	10:20	-	-	-	-	-	-	-	-	-	-	<45	-
MW-103	12/01/2015	11.07	9.70	-	-	-	-	1.37	11:30	-	-	-	-	-	-	-	-	-	-	-	-
MW-103	03/14/2016	11.07	4.15	-	-	-	14.89	6.92	10:08	-	-	-	-	-	-	-	-	-	-	-	-
MW-103	05/23/2016	11.07	4.01	-	-	-	14.80	7.06	11:28	-	-	-	-	-	-	-	-	-	-	-	-
MW-103	08/24/2016	11.07	4.26	-	-	-	14.98	6.81	11:35	-	-	-	-	-	-	-	-	-	-	-	-
MW-103	11/28/2016	11.07	5.15	-	-	-	15.05	5.92	11:36	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	07/24/2014	12.00	5.24	-	-	-	-	6.76	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	08/08/2014	12.00	4.28	-	-	-	12.05	7.72	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	08/11/2014	12.00	4.40	-	-	-	-	7.60	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	08/15/2014	12.00	3.95	-	-	-	12.20	8.05	-	-	-	-	-	-	-	-	-	-	-	1,630	-
MW-104	08/18/2014	12.00	4.22	-	-	-	-	7.78	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	08/25/2014	12.00	4.29	-	-	-	-	7.71	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	09/02/2014	12.00	4.38	-	-	-	-	7.62	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	09/15/2014	12.00	4.52	-	-	-	-	7.48	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	09/22/2014	12.00	4.73	-	-	-	-	7.27	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	10/01/2014	12.00	4.73	-	-	-	11.98	7.27	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	10/10/2014	12.00	4.77	-	-	-	-	7.23	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	10/20/2014	12.00	3.98	-	-	-	12.07	8.02	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	10/21/2014	12.00	NR	-	-	-	-	-	-	<0.5	<0.5	0.7	2	<0.5	<2	<0.5	<0.5	1	59	150	-
MW-104	02/24/2015	12.00	5.43	-	-	-	-	6.57	15:38	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	02/26/2015	12.00	5.70	-	-	-	12.00	6.30	12:07	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.03	<20	<45	-
MW-104	05/11/2015	12.00	4.51	-	-	-	12.10	7.49	10:25	-	-	-	-	-	-	-	-	-	-	-	-
MW-104	05/12/2015	12.00	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<1	<20	<45	-
MW-104	08/04/2015	12.00	3.82	-	-	-	12.00	8.18	10:08	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-104	08/05/2015	12.00	3.85	-	-	-	12.50	8.15	10:23	-	-	-	-	-	-	-	-	-	-	<45	
MW-104	12/01/2015	12.00	4.29	-	-	-	12.05	7.71	11:42	-	-	-	-	-	-	-	-	-	-	-	
MW-104	03/14/2016	12.00	3.80	-	-	-	11.99	8.20	10:14	-	-	-	-	-	-	-	-	-	-	-	
MW-104	05/23/2016	12.00	3.72	-	-	-	12.00	8.28	11:28	-	-	-	-	-	-	-	-	-	-	-	
MW-104	08/24/2016	12.00	4.17	-	-	-	12.12	7.83	11:28	-	-	-	-	-	-	-	-	-	-	-	
MW-104	11/28/2016	12.00	5.13	-	-	-	12.15	6.87	11:19	-	-	-	-	-	-	-	-	-	-	-	
MW-105	07/24/2014	10.94	2.34	-	-	-	-	8.60	-	-	-	-	-	-	-	-	-	-	-	-	
MW-105	08/08/2014	10.94	2.15	-	-	-	10.06	8.79	-	-	-	-	-	-	-	-	-	-	-	-	
MW-105	08/11/2014	10.94	2.39	-	-	-	-	8.55	-	-	-	-	-	-	-	-	-	-	-	-	
MW-105	08/15/2014	10.94	1.67	-	-	-	9.95	9.27	-	-	-	-	-	-	-	-	-	-	-	<1,500	
MW-105	08/18/2014	10.94	2.06	-	-	-	-	8.88	-	-	-	-	-	-	-	-	-	-	-	-	
MW-105	08/25/2014	10.94	2.25	-	-	-	-	8.69	-	-	-	-	-	-	-	-	-	-	-	-	
MW-105	09/02/2014	10.94	2.24	-	-	-	-	8.70	-	-	-	-	-	-	-	-	-	-	-	-	
MW-105	09/15/2014	10.94	2.32	-	-	-	-	8.62	-	-	-	-	-	-	-	-	-	-	-	-	
MW-105	09/22/2014	10.94	2.71	-	-	-	-	8.23	-	-	-	-	-	-	-	-	-	-	-	-	
MW-105	10/01/2014	10.94	2.57	-	-	-	9.88	8.37	-	-	-	-	-	-	-	-	-	-	-	-	
MW-105	10/10/2014	10.94	2.70	-	-	-	-	8.24	-	-	-	-	-	-	-	-	-	-	-	-	
MW-105	10/20/2014	10.94	1.70	-	-	-	9.93	9.24	-	-	-	-	-	-	-	-	-	-	-	-	
MW-105	10/21/2014	10.94	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.06	<20	<45	
MW-105	05/11/2015	10.94	2.40	-	-	-	9.70	8.54	10:35	-	-	-	-	-	-	-	-	-	-	-	
MW-105	05/12/2015	10.94	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<1	<20	<45	
MW-105	08/04/2015	10.94	1.65	-	-	-	9.62	9.29	10:15	-	-	-	-	-	-	-	-	-	-	-	
MW-105	08/05/2015	10.94	1.67	-	-	-	9.60	9.27	10:26	-	-	-	-	-	-	-	-	-	-	<45	
MW-105	12/01/2015	10.94	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Manhole flooded
MW-105	03/14/2016	10.94	0.30	-	-	-	9.24	10.64	10:17	-	-	-	-	-	-	-	-	-	-	-	
MW-105	05/23/2016	10.94	0.91	-	-	-	9.50	10.03	11:36	-	-	-	-	-	-	-	-	-	-	-	
MW-105	08/24/2016	10.94	1.70	-	-	-	9.22	9.24	11:25	-	-	-	-	-	-	-	-	-	-	-	
MW-105	11/28/2016	10.94	3.00	-	-	-	9.19	7.94	11:14	-	-	-	-	-	-	-	-	-	-	-	
MW-106	08/08/2014	11.12	8.30	-	-	-	10.27	2.82	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	08/11/2014	11.12	8.27	-	-	-	-	2.85	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	08/15/2014	11.12	7.63	-	-	-	9.88	3.49	-	-	-	-	-	-	-	-	-	-	-	89,200	
MW-106	08/18/2014	11.12	7.58	-	-	-	-	3.54	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	08/25/2014	11.12	7.52	-	-	-	-	3.60	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-106	09/02/2014	11.12	7.79	-	-	-	-	3.33	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	09/15/2014	11.12	7.90	-	-	-	-	3.22	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	09/22/2014	11.12	7.87	-	-	-	-	3.25	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	10/01/2014	11.12	7.93	-	-	-	9.88	3.19	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	10/10/2014	11.12	7.71	-	-	-	-	3.41	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	10/13/2014	11.12	7.92	-	-	-	-	3.20	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	10/20/2014	11.12	7.86	-	-	-	9.88	3.26	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	10/22/2014	11.12	NR	-	-	-	-	-	-	<0.5	<0.5	1	<0.5	<0.5	<2	<0.5	<0.5	23	230	2,000	
MW-106	10/27/2014	11.12	7.77	-	-	-	-	3.35	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	11/07/2014	11.12	7.83	-	-	-	-	3.29	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	11/12/2014	11.12	7.88	-	-	-	-	3.24	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	11/21/2014	11.12	8.23	-	-	-	-	2.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	11/26/2014	11.12	8.03	-	-	-	-	3.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	12/05/2014	11.12	7.21	-	-	-	-	3.91	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	12/11/2014	11.12	6.95	-	-	-	-	4.17	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	12/16/2014	11.12	7.18	-	-	-	-	3.94	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	12/23/2014	11.12	7.31	-	-	-	-	3.81	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	12/30/2014	11.12	6.97	-	-	-	-	4.15	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	01/09/2015	11.12	7.34	-	-	-	-	3.78	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	01/16/2015	11.12	6.88	-	-	-	-	4.24	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	01/19/2015	11.12	6.77	-	-	-	-	4.35	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	01/26/2015	11.12	5.79	-	-	-	-	5.33	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	02/03/2015	11.12	7.24	-	-	-	9.90	3.88	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	02/09/2015	11.12	7.42	-	-	-	-	3.70	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	02/18/2015	11.12	7.63	-	-	-	-	3.49	-	-	-	-	-	-	-	-	-	-	-	-	
MW-106	02/24/2015	11.12	7.76	-	-	-	9.84	3.36	13:18	-	-	-	-	-	-	-	-	-	-	-	
MW-106	02/25/2015	11.12	7.80	-	-	-	9.79	3.32	10:20	<0.5	<0.5	2	<0.5	<0.5	<2	<0.5	<0.5	4.1	130	9,500	
MW-106	03/04/2015	11.12	7.57	-	-	-	-	3.55	13:52	-	-	-	-	-	-	-	-	-	-	-	
MW-106	03/11/2015	11.12	5.17	-	-	-	-	5.95	12:19	-	-	-	-	-	-	-	-	-	-	-	
MW-106	03/18/2015	11.12	6.39	-	-	-	-	4.73	10:42	-	-	-	-	-	-	-	-	-	-	-	
MW-106	03/26/2015	11.12	7.02	-	-	-	9.90	4.10	11:02	-	-	-	-	-	-	-	-	-	-	-	
MW-106	04/02/2015	11.12	7.15	-	-	-	9.85	3.97	10:47	-	-	-	-	-	-	-	-	-	-	-	
MW-106	04/08/2015	11.12	7.55	-	-	-	9.87	3.57	9:46	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-106	04/13/2015	11.12	7.63	-	-	-	-	3.49	10:18	-	-	-	-	-	-	-	-	-	-	-	
MW-106	04/23/2015	11.12	6.70	-	-	-	9.85	4.42	11:00	-	-	-	-	-	-	-	-	-	-	-	
MW-106	04/29/2015	11.12	7.15	-	-	-	9.85	3.97	13:34	-	-	-	-	-	-	-	-	-	-	-	
MW-106	05/04/2015	11.12	7.23	-	-	-	-	3.89	11:17	-	-	-	-	-	-	-	-	-	-	-	
MW-106	05/11/2015	11.12	7.43	-	-	-	9.85	3.69	14:51	-	-	-	-	-	-	-	-	-	-	-	
MW-106	05/12/2015	11.12	7.50	-	-	-	-	3.62	10:35	<0.5	<0.5	5	<0.5	<0.5	<2	<0.5	<0.5	2 J	75	7,800	
MW-106	05/28/2015	11.12	7.81	-	-	-	9.80	3.31	11:11	-	-	-	-	-	-	-	-	-	-	-	
MW-106	06/02/2015	11.12	6.66	-	-	-	-	4.46	12:38	-	-	-	-	-	-	-	-	-	-	-	
MW-106	06/09/2015	11.12	6.37	-	-	-	-	4.75	10:04	-	-	-	-	-	-	-	-	-	-	-	
MW-106	06/16/2015	11.12	7.21	-	-	-	-	3.91	11:01	-	-	-	-	-	-	-	-	-	-	-	
MW-106	06/26/2015	11.12	6.27	-	-	-	9.90	4.85	9:13	-	-	-	-	-	-	-	-	-	-	-	
MW-106	07/01/2015	11.12	4.77	-	-	-	-	6.35	11:54	-	-	-	-	-	-	-	-	-	-	-	
MW-106	08/04/2015	11.12	7.42	-	-	-	9.86	3.70	12:19	-	-	-	-	-	-	-	-	-	-	-	
MW-106	08/05/2015	11.12	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,300	
MW-106	12/01/2015	11.12	7.65	-	-	-	9.85	3.47	13:45	-	-	-	-	-	-	-	-	-	-	-	
MW-106	12/03/2015	11.12	NR	-	-	-	-	-	-	<0.5	<0.5	1	<0.5	-	-	-	-	<1	-	3,300	
MW-106	03/14/2016	11.12	7.33	-	-	-	9.84	3.79	9:10	-	-	-	-	-	-	-	-	-	-	-	
MW-106	03/15/2016	11.12	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,900	
MW-106	04/21/2016	11.12	7.85	-	-	-	9.80	3.27	9:42	-	-	-	-	-	-	-	-	-	-	2,000	
MW-106	05/05/2016	11.12	6.97	-	-	-	-	4.15	12:17	-	-	-	-	-	-	-	-	-	-	-	
MW-106	05/23/2016	11.12	6.52	-	-	-	9.80	4.60	10:21	-	-	-	-	-	-	-	-	-	-	-	
MW-106	05/24/2016	11.12	6.26	-	-	-	9.60	4.86	13:00	-	-	-	-	-	-	-	-	-	-	1,100	
MW-106	06/21/2016	11.12	7.90	-	-	-	-	3.22	9:45	-	-	-	-	-	-	-	-	-	-	-	
MW-106	07/21/2016	11.12	7.63	-	-	-	-	3.49	9:37	-	-	-	-	-	-	-	-	-	-	-	
MW-106	08/24/2016	11.12	7.90	-	-	-	9.60	3.22	9:37	-	-	-	-	-	-	-	-	-	-	-	
MW-106	08/25/2016	11.12	7.80	-	-	-	-	3.32	14:15	-	-	-	-	-	-	-	-	-	-	1,800	
MW-106	09/22/2016	11.12	7.87	-	-	-	-	3.25	14:20	-	-	-	-	-	-	-	-	-	-	-	
MW-106	11/28/2016	11.12	8.51	-	-	-	9.50	2.61	8:31	-	-	-	-	-	-	-	-	-	-	-	
MW-106	11/29/2016	11.12	8.15	-	-	-	9.45	2.97	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	-	8,800	
MW-107	08/08/2014	15.74	10.62	-	-	-	11.57	5.12	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	08/11/2014	15.74	9.02	-	-	-	-	6.72	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	08/15/2014	15.74	8.94	-	-	-	-	6.80	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	08/16/2014	15.74	8.93	-	-	-	11.57	6.81	-	-	-	-	-	-	-	-	-	-	-	8,540	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-107	08/18/2014	15.74	8.89	-	-	-	-	6.85	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	08/25/2014	15.74	8.38	-	-	-	-	7.36	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	09/02/2014	15.74	8.43	-	-	-	-	7.31	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	09/15/2014	15.74	9.39	-	-	-	-	6.35	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	09/22/2014	15.74	9.92	-	-	-	-	5.82	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	10/01/2014	15.74	10.32	-	-	-	11.03	5.42	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	10/10/2014	15.74	10.53	-	-	-	-	5.21	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	10/13/2014	15.74	10.67	-	-	-	-	5.07	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	10/20/2014	15.74	8.43	-	-	-	11.04	7.31	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	10/22/2014	15.74	NR	-	-	-	-	-	-	<0.5	<0.5	2	2	<0.5	<2	<0.5	<0.5	0.9	49	840	
MW-107	10/27/2014	15.74	7.97	-	-	-	-	7.77	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	11/07/2014	15.74	8.32	-	-	-	-	7.42	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	11/12/2014	15.74	8.63	-	-	-	-	7.11	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	11/21/2014	15.74	9.38	-	-	-	-	6.36	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	11/26/2014	15.74	8.93	-	-	-	-	6.81	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	12/05/2014	15.74	7.47	-	-	-	-	8.27	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	12/11/2014	15.74	7.43	-	-	-	-	8.31	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	12/16/2014	15.74	8.28	-	-	-	-	7.46	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	12/23/2014	15.74	8.35	-	-	-	-	7.39	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	12/30/2014	15.74	8.20	-	-	-	-	7.54	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	01/09/2015	15.74	8.03	-	-	-	-	7.71	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	01/16/2015	15.74	7.68	-	-	-	-	8.06	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	01/19/2015	15.74	6.76	-	-	-	-	8.98	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	01/26/2015	15.74	5.84	-	-	-	-	9.90	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	02/03/2015	15.74	8.63	-	-	-	11.04	7.11	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	02/09/2015	15.74	8.73	-	-	-	-	7.01	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	02/18/2015	15.74	9.21	-	-	-	-	6.53	-	-	-	-	-	-	-	-	-	-	-	-	
MW-107	02/24/2015	15.74	9.78	-	-	-	11.00	5.96	13:23	-	-	-	-	-	-	-	-	-	-	-	
MW-107	02/25/2015	15.74	9.64	-	-	-	11.00	6.10	11:40	1	<0.5	0.7	0.7	<0.5	<2	<0.5	<0.5	-	37	480	
MW-107	03/04/2015	15.74	9.48	-	-	-	-	6.26	13:55	-	-	-	-	-	-	-	-	-	-	-	
MW-107	03/11/2015	15.74	4.08	-	-	-	-	11.66	12:22	-	-	-	-	-	-	-	-	-	-	-	
MW-107	03/18/2015	15.74	7.44	-	-	-	-	8.30	10:45	-	-	-	-	-	-	-	-	-	-	-	
MW-107	03/26/2015	15.74	8.98	-	-	-	11.00	6.76	11:05	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-107	04/02/2015	15.74	8.63	-	-	-	11.00	7.11	10:49	-	-	-	-	-	-	-	-	-	-	-	
MW-107	04/08/2015	15.74	9.00	-	-	-	11.00	6.74	9:45	-	-	-	-	-	-	-	-	-	-	-	
MW-107	04/13/2015	15.74	9.06	-	-	-	-	6.68	10:21	-	-	-	-	-	-	-	-	-	-	-	
MW-107	04/23/2015	15.74	7.18	-	-	-	11.00	8.56	11:04	-	-	-	-	-	-	-	-	-	-	-	
MW-107	04/29/2015	15.74	9.14	-	-	-	11.00	6.60	13:39	-	-	-	-	-	-	-	-	-	-	-	
MW-107	05/04/2015	15.74	9.03	-	-	-	-	6.71	11:14	-	-	-	-	-	-	-	-	-	-	-	
MW-107	05/11/2015	15.74	9.19	-	-	-	11.00	6.55	14:49	-	-	-	-	-	-	-	-	-	-	-	
MW-107	05/12/2015	15.74	9.25	-	-	-	-	6.49	10:37	<0.5	<0.5	2	3	<0.5	<2	<0.5	<0.5	5.00	40 J	150	
MW-107	05/21/2015	15.74	9.21	-	-	-	11.00	6.53	11:57	-	-	-	-	-	-	-	-	-	-	-	
MW-107	05/28/2015	15.74	9.27	-	-	-	11.00	6.47	11:13	-	-	-	-	-	-	-	-	-	-	-	
MW-107	06/02/2015	15.74	3.95	-	-	-	-	11.79	12:41	-	-	-	-	-	-	-	-	-	-	-	
MW-107	06/09/2015	15.74	6.78	-	-	-	-	8.96	10:07	-	-	-	-	-	-	-	-	-	-	-	
MW-107	06/16/2015	15.74	9.05	-	-	-	-	6.69	10:58	-	-	-	-	-	-	-	-	-	-	-	
MW-107	06/26/2015	15.74	6.86	-	-	-	11.00	8.88	9:15	-	-	-	-	-	-	-	-	-	-	-	
MW-107	07/01/2015	15.74	4.03	-	-	-	-	11.71	11:51	-	-	-	-	-	-	-	-	-	-	-	
MW-107	08/04/2015	15.74	9.40	-	-	-	11.00	6.34	12:21	-	-	-	-	-	-	-	-	-	-	-	
MW-107	08/05/2015	15.74	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	280	
MW-107	12/01/2015	15.74	8.80	-	-	-	11.01	6.94	13:47	-	-	-	-	-	-	-	-	-	-	-	
MW-107	12/03/2015	15.74	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	730	
MW-107	03/14/2016	15.74	8.09	-	-	-	11.03	7.65	9:15	-	-	-	-	-	-	-	-	-	-	-	
MW-107	05/23/2016	15.74	7.29	-	-	-	10.90	8.45	10:26	-	-	-	-	-	-	-	-	-	-	-	
MW-107	08/24/2016	15.74	DRY	-	-	-	11.02	-	9:30	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-107	11/28/2016	15.74	DRY	-	-	-	11.00	-	8:27	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-107	12/07/2016	15.74	DRY	-	-	-	11.00	-	12:18	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	08/08/2014	15.61	DRY	-	-	-	9.49	-	-	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	08/11/2014	15.61	DRY	-	-	-	9.52	-	-	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	08/15/2014	15.61	9.01	-	-	-	9.22	6.60	-	-	-	-	-	-	-	-	-	-	-	-	
MW-108	08/18/2014	15.61	9.07	-	-	-	-	6.54	-	-	-	-	-	-	-	-	-	-	-	-	
MW-108	08/25/2014	15.61	DRY	-	-	-	9.23	-	-	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	09/02/2014	15.61	DRY	-	-	-	9.23	-	-	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	09/15/2014	15.61	DRY	-	-	-	9.22	-	-	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	09/22/2014	15.61	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	10/01/2014	15.61	DRY	-	-	-	10.48	-	-	-	-	-	-	-	-	-	-	-	-	-	DRY

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-108	10/10/2014	15.61	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	10/20/2014	15.61	DRY	-	-	-	10.48	-	-	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	05/11/2015	15.61	DRY	-	-	-	9.20	-	14:47	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	05/12/2015	15.61	DRY	-	-	-	-	-	10:40	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	08/04/2015	15.61	DRY	-	-	-	9.21	-	12:27	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	12/01/2015	15.61	DRY	-	-	-	9.21	-	13:49	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	03/14/2016	15.61	DRY	-	-	-	9.22	-	9:18	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	05/23/2016	15.61	8.37	-	-	-	9.20	7.24	10:28	-	-	-	-	-	-	-	-	-	-	-	-
MW-108	05/25/2016	15.61	8.34	-	-	-	9.20	7.27	12:13	-	-	-	-	-	-	-	-	-	-	51 J	-
MW-108	08/24/2016	15.61	DRY	-	-	-	9.23	-	9:32	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	08/25/2016	15.61	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-108	11/28/2016	15.61	9.07	-	-	-	9.25	6.54	8:29	-	-	-	-	-	-	-	-	-	-	-	Insufficient GW Vol.
MW-108	12/07/2016	15.61	DRY	-	-	-	9.24	-	12:21	-	-	-	-	-	-	-	-	-	-	-	DRY
MW-109S	08/21/2014	19.27	10.08	-	-	-	13.35	9.19	13:50	-	-	-	-	-	-	-	-	-	-	7,500	-
MW-109S	09/15/2014	19.27	10.19	-	-	-	-	9.08	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	09/22/2014	19.27	10.24	-	-	-	-	9.03	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	10/01/2014	19.27	10.33	-	-	-	13.20	8.94	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	10/10/2014	19.27	10.47	-	-	-	-	8.80	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	10/13/2014	19.27	10.58	-	-	-	-	8.69	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	10/20/2014	19.27	10.67	-	-	-	13.20	8.60	-	-	-	-	-	-	-	-	-	-	-	12,000	-
MW-109S	10/27/2014	19.27	10.83	-	-	-	-	8.44	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	11/07/2014	19.27	10.76	-	-	-	-	8.51	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	11/12/2014	19.27	10.85	-	-	-	-	8.42	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	11/21/2014	19.27	11.04	-	-	-	-	8.23	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	11/26/2014	19.27	11.02	-	-	-	-	8.25	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	02/24/2015	19.27	11.43	-	-	-	13.06	7.84	13:55	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	02/26/2015	19.27	11.36	-	-	-	13.06	7.91	10:40	-	-	-	-	-	-	-	-	-	-	1,800	-
MW-109S	05/11/2015	19.27	11.31	-	-	-	13.20	7.96	15:06	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	05/12/2015	19.27	11.28	-	-	-	13.20	7.99	10:00	<0.5	<0.5	<0.5	<0.5	<0.5	4 J	<0.5	<0.5	<1	-	180	-
MW-109S	05/21/2015	19.27	11.40	-	-	-	13.06	7.87	12:34	-	-	-	-	-	-	-	-	-	-	-	-
MW-109S	11/28/2016	19.27	10.97	-	-	-	13.25	8.30	9:25	-	-	-	-	-	-	-	-	-	-	2,300	-
MW-109	08/21/2014	19.16	14.82	-	-	-	22.40	4.34	13:55	-	-	-	-	-	-	-	-	-	-	<600	-
MW-109	08/25/2014	19.16	14.59	-	-	-	-	4.57	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-109	09/15/2014	19.16	14.98	-	-	-	-	4.18	-	-	-	-	-	-	-	-	-	-	-	-	
MW-109	09/22/2014	19.16	14.88	-	-	-	-	4.28	-	-	-	-	-	-	-	-	-	-	-	-	
MW-109	10/01/2014	19.16	15.07	-	-	-	22.79	4.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW-109	10/10/2014	19.16	14.96	-	-	-	-	4.20	-	-	-	-	-	-	-	-	-	-	-	-	
MW-109	10/13/2014	19.16	15.09	-	-	-	-	4.07	-	-	-	-	-	-	-	-	-	-	-	-	
MW-109	10/20/2014	19.16	15.22	-	-	-	22.72	3.94	-	-	-	-	-	-	-	-	-	-	-	200	
MW-109	10/27/2014	19.16	15.27	-	-	-	-	3.89	-	-	-	-	-	-	-	-	-	-	-	-	
MW-109	11/07/2014	19.16	15.07	-	-	-	-	4.09	-	-	-	-	-	-	-	-	-	-	-	-	
MW-109	11/12/2014	19.16	15.13	-	-	-	-	4.03	-	-	-	-	-	-	-	-	-	-	-	-	
MW-109	11/21/2014	19.16	15.81	-	-	-	-	3.35	-	-	-	-	-	-	-	-	-	-	-	-	
MW-109	11/26/2014	19.16	15.33	-	-	-	-	3.83	-	-	-	-	-	-	-	-	-	-	-	-	
MW-109	02/24/2015	19.16	15.25	-	-	-	22.80	3.91	13:58	-	-	-	-	-	-	-	-	-	-	-	
MW-109	02/26/2015	19.16	15.25	-	-	-	22.80	3.91	10:44	-	-	-	-	-	-	-	-	-	-	100	
MW-109	05/11/2015	19.16	14.61	-	-	-	22.84	4.55	15:04	-	-	-	-	-	-	-	-	-	-	-	
MW-109	05/12/2015	19.16	14.77	-	-	-	22.84	4.39	9:57	-	-	-	-	-	-	-	-	-	-	<45	
MW-109	05/21/2015	19.16	15.23	-	-	-	22.80	3.93	12:36	-	-	-	-	-	-	-	-	-	-	-	
MW-109	11/28/2016	19.16	16.95	-	-	-	22.24	2.21	9:29	-	-	-	-	-	-	-	-	-	-	<45	
MW-110S	08/25/2014	19.13	10.05	-	-	-	12.70	9.08	-	-	-	-	-	-	-	-	-	-	-	6,630	
MW-110S	09/15/2014	19.13	10.23	-	-	-	-	8.90	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110S	09/22/2014	19.13	10.28	-	-	-	-	8.85	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110S	10/01/2014	19.13	10.33	-	-	-	12.65	8.80	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110S	10/10/2014	19.13	10.41	-	-	-	-	8.72	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110S	10/20/2014	19.13	10.45	-	-	-	12.66	8.68	-	-	-	-	-	-	-	-	-	-	-	8,500	
MW-110S	10/27/2014	19.13	10.48	-	-	-	-	8.65	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110S	11/07/2014	19.13	10.50	-	-	-	-	8.63	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110S	11/12/2014	19.13	10.53	-	-	-	-	8.60	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110S	11/21/2014	19.13	10.60	-	-	-	-	8.53	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110S	11/26/2014	19.13	10.60	-	-	-	-	8.53	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110S	02/24/2015	19.13	11.53	-	-	-	12.67	7.60	13:49	-	-	-	-	-	-	-	-	-	-	-	
MW-110S	02/26/2015	19.13	11.59	-	-	-	12.67	7.54	10:33	-	-	-	-	-	-	-	-	-	-	6,700	
MW-110S	05/11/2015	19.13	12.24	-	-	-	12.65	6.89	14:56	-	-	-	-	-	-	-	-	-	-	-	
MW-110S	05/12/2015	19.13	12.24	-	-	-	12.65	6.89	9:47	-	-	-	-	-	-	-	-	-	-	2,300	
MW-110S	05/21/2015	19.13	11.55	-	-	-	12.67	7.58	12:38	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-110S	11/28/2016	19.13	11.98	-	-	-	12.70	7.15	9:19	-	-	-	-	-	-	-	-	-	-	5,900	
MW-110	08/25/2014	19.51	14.70	-	-	-	24.40	4.81	-	-	-	-	-	-	-	-	-	-	-	<153	
MW-110	09/15/2014	19.51	15.11	-	-	-	-	4.40	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110	09/22/2014	19.51	14.98	-	-	-	-	4.53	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110	10/01/2014	19.51	15.18	-	-	-	23.33	4.33	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110	10/10/2014	19.51	15.07	-	-	-	-	4.44	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110	10/20/2014	19.51	14.35	-	-	-	23.34	5.16	-	-	-	-	-	-	-	-	-	-	-	<45	
MW-110	10/27/2014	19.51	14.39	-	-	-	-	5.12	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110	11/07/2014	19.51	15.18	-	-	-	-	4.33	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110	11/12/2014	19.51	15.25	-	-	-	-	4.26	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110	11/21/2014	19.51	15.97	-	-	-	-	3.54	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110	11/26/2014	19.51	15.45	-	-	-	-	4.06	-	-	-	-	-	-	-	-	-	-	-	-	
MW-110	02/24/2015	19.51	15.38	-	-	-	23.36	4.13	13:52	-	-	-	-	-	-	-	-	-	-	-	
MW-110	02/26/2015	19.51	15.38	-	-	-	23.36	4.13	10:36	-	-	-	-	-	-	-	-	-	-	<45	
MW-110	05/11/2015	19.51	14.74	-	-	-	23.42	4.77	14:54	-	-	-	-	-	-	-	-	-	-	-	
MW-110	05/12/2015	19.51	14.91	-	-	-	23.42	4.60	9:44	-	-	-	-	-	-	-	-	-	-	<45	
MW-110	05/21/2015	19.51	15.40	-	-	-	23.36	4.11	12:40	-	-	-	-	-	-	-	-	-	-	-	
MW-110	11/28/2016	19.51	15.67	-	-	-	23.52	3.84	9:22	-	-	-	-	-	-	-	-	-	-	<45	
MW-111	08/21/2014	19.17	14.80	-	-	-	22.00	4.37	14:47	-	-	-	-	-	-	-	-	-	-	<600	
MW-111	10/10/2014	19.17	14.97	-	-	-	-	4.20	-	-	-	-	-	-	-	-	-	-	-	-	
MW-111	10/20/2014	19.17	14.25	-	-	-	21.97	4.92	-	-	-	-	-	-	-	-	-	-	-	<45	
MW-111	02/24/2015	19.17	15.30	-	-	-	21.96	3.87	13:43	-	-	-	-	-	-	-	-	-	-	-	
MW-111	02/26/2015	19.17	15.28	-	-	-	21.96	3.89	10:25	-	-	-	-	-	-	-	-	-	-	260	
MW-111	05/11/2015	19.17	14.66	-	-	-	21.87	4.51	14:51	-	-	-	-	-	-	-	-	-	-	-	
MW-111	05/12/2015	19.17	14.78	-	-	-	21.87	4.39	9:41	-	-	-	-	-	-	-	-	-	-	150	
MW-111	11/28/2016	19.17	15.57	-	-	-	21.62	3.60	9:08	-	-	-	-	-	-	-	-	-	-	<45	
MW-112S	08/15/2014	19.22	10.31	-	-	-	12.40	8.91	-	-	-	-	-	-	-	-	-	-	-	<1,500	
MW-112S	08/18/2014	19.22	10.22	-	-	-	12.45	9.00	-	-	-	-	-	-	-	-	-	-	-	-	
MW-112S	08/25/2014	19.22	10.29	-	-	-	-	8.93	-	-	-	-	-	-	-	-	-	-	-	-	
MW-112S	09/15/2014	19.22	10.43	-	-	-	-	8.79	-	-	-	-	-	-	-	-	-	-	-	-	
MW-112S	09/22/2014	19.22	10.56	-	-	-	-	8.66	-	-	-	-	-	-	-	-	-	-	-	-	
MW-112S	10/01/2014	19.22	10.58	-	-	-	12.46	8.64	-	-	-	-	-	-	-	-	-	-	-	-	
MW-112S	10/10/2014	19.22	10.64	-	-	-	-	8.58	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-112S	10/20/2014	19.22	10.75	-	-	-	12.47	8.47	-	-	-	-	-	-	-	-	-	-	-	380	
MW-112S	02/24/2015	19.22	11.30	-	-	-	12.48	7.92	13:37	-	-	-	-	-	-	-	-	-	-	-	
MW-112S	02/26/2015	19.22	11.34	-	-	-	12.48	7.88	10:19	-	-	-	-	-	-	-	-	-	-	<45	
MW-112S	05/11/2015	19.22	11.21	-	-	-	12.44	8.01	15:01	-	-	-	-	-	-	-	-	-	-	-	
MW-112S	05/12/2015	19.22	11.21	-	-	-	12.44	8.01	9:54	-	-	-	-	-	-	-	-	-	-	<45	
MW-112S	11/28/2016	19.22	11.05	-	-	-	12.50	8.17	9:15	-	-	-	-	-	-	-	-	-	-	73 J	
MW-112	08/15/2014	19.08	15.11	-	-	-	22.55	3.97	-	-	-	-	-	-	-	-	-	-	-	<1,500	
MW-112	08/18/2014	19.08	14.43	-	-	-	22.31	4.65	-	-	-	-	-	-	-	-	-	-	-	-	
MW-112	08/25/2014	19.08	14.53	-	-	-	-	4.55	-	-	-	-	-	-	-	-	-	-	-	-	
MW-112	09/02/2014	19.08	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No Access to Gauge
MW-112	09/15/2014	19.08	14.85	-	-	-	-	4.23	-	-	-	-	-	-	-	-	-	-	-	-	
MW-112	09/22/2014	19.08	14.77	-	-	-	-	4.31	-	-	-	-	-	-	-	-	-	-	-	-	
MW-112	10/01/2014	19.08	14.92	-	-	-	22.83	4.16	-	-	-	-	-	-	-	-	-	-	-	-	
MW-112	10/10/2014	19.08	14.87	-	-	-	-	4.21	-	-	-	-	-	-	-	-	-	-	-	-	
MW-112	10/20/2014	19.08	15.15	-	-	-	22.83	3.93	-	-	-	-	-	-	-	-	-	-	-	<45	
MW-112	02/24/2015	19.08	15.19	-	-	-	22.75	3.89	13:40	-	-	-	-	-	-	-	-	-	-	-	
MW-112	02/26/2015	19.08	15.15	-	-	-	22.75	3.93	10:22	-	-	-	-	-	-	-	-	-	-	<45	
MW-112	05/11/2015	19.08	14.52	-	-	-	22.83	4.56	14:59	-	-	-	-	-	-	-	-	-	-	-	
MW-112	05/12/2015	19.08	14.64	-	-	-	22.83	4.44	9:51	-	-	-	-	-	-	-	-	-	-	<45	
MW-112	11/28/2016	19.08	15.50	-	-	-	22.85	3.58	9:12	-	-	-	-	-	-	-	-	-	-	<45	
MW-113	08/25/2014	19.11	14.49	-	-	-	-	4.62	-	-	-	-	-	-	-	-	-	-	-	<600	
MW-113	09/15/2014	19.11	14.96	-	-	-	-	4.15	-	-	-	-	-	-	-	-	-	-	-	-	
MW-113	09/22/2014	19.11	14.83	-	-	-	-	4.28	-	-	-	-	-	-	-	-	-	-	-	-	
MW-113	10/01/2014	19.11	15.04	-	-	-	22.95	4.07	-	-	-	-	-	-	-	-	-	-	-	-	
MW-113	10/10/2014	19.11	14.84	-	-	-	-	4.27	-	-	-	-	-	-	-	-	-	-	-	-	
MW-113	10/20/2014	19.11	15.20	-	-	-	22.95	3.91	-	-	-	-	-	-	-	-	-	-	-	61	
MW-113	02/24/2015	19.11	15.24	-	-	-	22.95	3.87	13:46	-	-	-	-	-	-	-	-	-	-	-	
MW-113	02/26/2015	19.11	15.27	-	-	-	22.95	3.84	10:29	-	-	-	-	-	-	-	-	-	-	90	
MW-113	05/11/2015	19.11	14.58	-	-	-	22.77	4.53	14:48	-	-	-	-	-	-	-	-	-	-	-	
MW-113	05/12/2015	19.11	14.81	-	-	-	22.77	4.30	9:38	-	-	-	-	-	-	-	-	-	-	<45	
MW-113	11/28/2016	19.11	15.54	-	-	-	22.83	3.57	9:04	-	-	-	-	-	-	-	-	-	-	<45	
MW-114	08/25/2014	19.26	14.62	-	-	-	22.78	4.64	-	-	-	-	-	-	-	-	-	-	-	<600	
MW-114	09/15/2014	19.26	14.89	-	-	-	-	4.37	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-114	09/22/2014	19.26	14.87	-	-	-	-	4.39	-	-	-	-	-	-	-	-	-	-	-	-	
MW-114	10/01/2014	19.26	14.96	-	-	-	22.77	4.30	-	-	-	-	-	-	-	-	-	-	-	-	
MW-114	10/10/2014	19.26	15.01	-	-	-	-	4.25	-	-	-	-	-	-	-	-	-	-	-	-	
MW-114	10/20/2014	19.26	15.29	-	-	-	22.77	3.97	-	-	-	-	-	-	-	-	-	-	-	<45	
MW-114	02/24/2015	19.26	15.25	-	-	-	22.77	4.01	13:34	-	-	-	-	-	-	-	-	-	-	-	
MW-114	02/26/2015	19.26	15.10	-	-	-	22.77	4.16	10:15	-	-	-	-	-	-	-	-	-	-	<45	
MW-114	05/11/2015	19.26	14.52	-	-	-	22.75	4.74	14:45	-	-	-	-	-	-	-	-	-	-	-	
MW-114	05/12/2015	19.26	14.51	-	-	-	22.75	4.75	9:35	-	-	-	-	-	-	-	-	-	-	<45	
MW-114	11/28/2016	19.26	15.62	-	-	-	22.80	3.64	9:00	-	-	-	-	-	-	-	-	-	-	<45	
MW-121	07/08/2015	31.48	26.52	-	-	-	-	4.96	11:21	-	-	-	-	-	-	-	-	-	-	-	
MW-121	07/13/2015	31.48	26.14	-	-	-	36.93	5.34	9:28	-	-	-	-	-	-	-	-	-	-	-	
MW-121	07/20/2015	31.48	26.37	-	-	-	-	5.11	9:25	-	-	-	-	-	-	-	-	-	-	-	
MW-121	07/28/2015	31.48	26.53	-	-	-	37.06	4.95	11:38	-	-	-	-	-	-	-	-	-	-	-	
MW-121	08/04/2015	30.88	25.91	-	-	-	36.33	4.97	12:22	-	-	-	-	-	-	-	-	-	-	9,400	
MW-121	08/11/2015	30.88	25.58	-	-	-	36.31	5.30	9:59	-	-	-	-	-	-	-	-	-	-	-	
MW-121	08/18/2015	30.88	26.12	-	-	-	-	4.76	10:23	-	-	-	-	-	-	-	-	-	-	-	
MW-121	08/24/2015	30.88	26.02	-	-	-	-	4.86	10:23	-	-	-	-	-	-	-	-	-	-	-	
MW-121	09/02/2015	30.88	26.38	-	-	-	36.31	4.50	9:45	-	-	-	-	-	-	-	-	-	-	-	
MW-121	09/09/2015	30.88	26.11	-	-	-	36.29	4.77	10:23	-	-	-	-	-	-	-	-	-	-	-	
MW-121	09/17/2015	30.88	26.51	-	-	-	36.41	4.37	10:27	-	-	-	-	-	-	-	-	-	-	-	
MW-121	09/23/2015	30.88	26.32	-	-	-	-	4.56	10:43	-	-	-	-	-	-	-	-	-	-	-	
MW-121	09/28/2015	30.88	26.18	-	-	-	36.25	4.70	9:24	-	-	-	-	-	-	-	-	-	-	-	
MW-121	10/05/2015	30.88	26.02	-	-	-	36.25	4.86	9:18	-	-	-	-	-	-	-	-	-	-	-	
MW-121	11/10/2015	30.88	26.62	-	-	-	-	4.26	13:06	-	-	-	-	-	-	-	-	-	-	-	
MW-121	12/01/2015	30.88	26.48	-	-	-	36.20	4.40	13:56	-	-	-	-	-	-	-	-	-	-	-	
MW-121	12/02/2015	30.88	NR	-	-	-	-	-	-	2.00	<0.5	8.00	<0.5	-	-	-	-	41.00	-	4,500	
MW-121	01/27/2016	30.88	26.58	-	-	-	-	4.30	9:44	-	-	-	-	-	-	-	-	-	-	-	
MW-121	02/15/2016	30.88	27.11	-	-	-	-	3.77	9:30	-	-	-	-	-	-	-	-	-	-	-	
MW-121	03/14/2016	30.88	26.57	-	-	-	36.28	4.31	8:45	-	-	-	-	-	-	-	-	-	-	-	
MW-121	03/15/2016	30.88	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,500	
MW-121	04/21/2016	30.88	30.48	-	-	-	-	0.40	9:38	-	-	-	-	-	-	-	-	-	-	-	
MW-121	05/23/2016	30.88	27.26	-	-	-	37.06	3.62	10:10	-	-	-	-	-	-	-	-	-	-	-	
MW-121	05/25/2016	30.88	29.73	-	-	-	36.60	1.15	-	-	-	-	-	-	-	-	-	-	-	12,000	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-121	06/21/2016	30.88	29.17	-	-	-	-	1.71	11:07	-	-	-	-	-	-	-	-	-	-	-	
MW-121	07/21/2016	30.88	29.57	-	-	-	-	1.31	10:50	-	-	-	-	-	-	-	-	-	-	-	
MW-121	08/24/2016	30.88	27.56	-	-	-	36.39	3.32	9:26	-	-	-	-	-	-	-	-	-	-	-	
MW-121	08/25/2016	30.88	26.90	-	-	-	36.35	3.98	11:02	-	-	-	-	-	-	-	-	-	-	2,400	
MW-121	09/22/2016	30.88	28.52	-	-	-	-	2.36	14:05	-	-	-	-	-	-	-	-	-	-	-	
MW-121	11/28/2016	30.88	28.13	-	-	-	37.35	2.75	8:54	-	-	-	-	-	-	-	-	-	-	-	
MW-121	11/29/2016	30.88	28.75	-	-	-	36.36	2.13	9:33	<0.5	<0.5	0.9 J	<0.5	-	-	-	-	11	-	3,400	
MW-122	07/08/2015	31.12	25.58	-	-	-	-	5.54	11:32	-	-	-	-	-	-	-	-	-	-	-	
MW-122	07/13/2015	31.12	25.36	-	-	-	34.72	5.76	9:29	-	-	-	-	-	-	-	-	-	-	-	
MW-122	07/20/2015	31.12	25.20	-	-	-	-	5.92	9:31	-	-	-	-	-	-	-	-	-	-	-	
MW-122	07/28/2015	31.12	25.38	-	-	-	34.85	5.74	11:13	-	-	-	-	-	-	-	-	-	-	-	
MW-122	08/04/2015	31.12	25.54	-	-	-	34.61	5.58	12:24	-	-	-	-	-	-	-	-	-	-	2,000	
MW-122	08/11/2015	31.12	25.46	-	-	-	34.79	5.66	9:58	-	-	-	-	-	-	-	-	-	-	-	
MW-122	08/18/2015	31.12	25.98	-	-	-	-	5.14	10:30	-	-	-	-	-	-	-	-	-	-	-	
MW-122	08/24/2015	31.12	25.83	-	-	-	-	5.29	10:37	-	-	-	-	-	-	-	-	-	-	-	
MW-122	09/02/2015	31.12	26.21	-	-	-	34.76	4.91	9:41	-	-	-	-	-	-	-	-	-	-	-	
MW-122	09/09/2015	31.12	26.03	-	-	-	34.78	5.09	10:21	-	-	-	-	-	-	-	-	-	-	-	
MW-122	09/17/2015	31.12	26.45	-	-	-	34.83	4.67	10:25	-	-	-	-	-	-	-	-	-	-	-	
MW-122	09/23/2015	31.12	26.18	-	-	-	-	4.94	10:46	-	-	-	-	-	-	-	-	-	-	-	
MW-122	09/28/2015	31.12	25.98	-	-	-	34.72	5.14	9:48	-	-	-	-	-	-	-	-	-	-	-	
MW-122	10/05/2015	31.12	25.50	25.50	TRACE	-	34.72	5.62	9:13	-	-	-	-	-	-	-	-	-	-	-	
MW-122	11/10/2015	31.12	26.32	-	-	-	-	4.80	13:07	-	-	-	-	-	-	-	-	-	-	-	
MW-122	12/01/2015	31.12	26.57	-	-	-	34.72	4.55	13:53	-	-	-	-	-	-	-	-	-	-	-	
MW-122	12/02/2015	31.12	NR	-	-	-	-	-	-	1.00	<0.5	8.00	<0.5	-	-	-	-	<1	-	1,600	
MW-122	01/27/2016	31.12	26.63	-	-	-	-	4.49	9:47	-	-	-	-	-	-	-	-	-	-	-	
MW-122	02/15/2016	31.12	27.05	-	-	-	-	4.07	9:33	-	-	-	-	-	-	-	-	-	-	-	
MW-122	03/14/2016	31.12	26.47	-	-	-	34.77	4.65	8:50	-	-	-	-	-	-	-	-	-	-	-	
MW-122	03/15/2016	31.12	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,800	
MW-122	04/21/2016	31.12	27.32	-	-	-	-	3.80	9:42	-	-	-	-	-	-	-	-	-	-	-	
MW-122	05/23/2016	31.12	27.35	-	-	-	34.82	3.77	10:15	-	-	-	-	-	-	-	-	-	-	-	
MW-122	05/25/2016	31.12	27.51	-	-	-	34.90	3.61	-	-	-	-	-	-	-	-	-	-	-	4,000	
MW-122	06/21/2016	31.12	27.33	-	-	-	-	3.79	11:10	-	-	-	-	-	-	-	-	-	-	-	
MW-122	07/21/2016	31.12	27.22	-	-	-	-	3.90	10:45	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW-122	08/24/2016	31.12	27.07	-	-	-	34.80	4.05	9:30	-	-	-	-	-	-	-	-	-	-	-	-
MW-122	08/25/2016	31.12	26.93	-	-	-	36.77	4.19	10:58	-	-	-	-	-	-	-	-	-	-	1,900	-
MW-122	09/22/2016	31.12	27.03	-	-	-	-	4.09	14:00	-	-	-	-	-	-	-	-	-	-	-	-
MW-122	11/28/2016	31.12	27.24	-	-	-	35.80	3.88	8:55	-	-	-	-	-	-	-	-	-	-	-	-
MW-122	11/29/2016	31.12	27.28	-	-	-	34.78	3.84	9:30	2	<0.5	<0.5	<0.5	-	-	-	-	<1	-	1,300	-
MW/RW-123S	07/08/2015	31.09	DRY	-	-	-	24.92	-	11:35	-	-	-	-	-	-	-	-	-	-	-	DRY
MW/RW-123S	07/13/2015	31.09	23.96	-	-	-	24.90	7.13	9:17	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	07/20/2015	31.09	22.37	-	-	-	-	8.72	9:22	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	07/28/2015	31.09	22.15	-	-	-	24.98	8.94	11:05	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	08/04/2015	31.09	22.04	-	-	-	24.91	9.05	13:08	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	08/05/2015	31.09	22.07	-	-	-	24.93	9.02	9:16	-	-	-	-	-	-	-	-	-	-	2,400	-
MW/RW-123S	08/11/2015	31.09	22.04	-	-	-	24.91	9.05	10:10	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	08/18/2015	31.09	22.05	-	-	-	-	9.04	9:50	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	08/24/2015	31.09	22.08	-	-	-	-	9.01	9:53	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	09/02/2015	31.09	22.26	22.25	0.01	TRACE	24.92	8.84	9:28	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	09/09/2015	31.09	22.33	-	-	-	24.92	8.76	10:28	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	09/17/2015	31.09	22.56	-	-	-	24.97	8.53	10:19	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	09/23/2015	31.09	22.57	-	-	-	-	8.52	10:11	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	09/28/2015	31.09	22.59	-	-	-	24.91	8.50	9:30	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	10/05/2015	31.09	22.61	22.61	TRACE	-	24.92	8.48	9:09	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-123S	11/10/2015	31.09	25.31	-	-	-	-	5.78	12:43	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	12/01/2015	33.54	25.53	-	-	-	27.40	8.01	10:55	-	-	-	-	-	-	-	-	-	-	2,500	-
MW/RW-123S	01/27/2016	33.54	25.76	-	-	-	-	7.78	9:57	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	02/15/2016	33.54	24.93	-	-	-	-	8.61	9:43	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	03/14/2016	33.54	24.35	-	-	-	27.39	9.19	12:00	-	-	-	-	-	-	-	-	-	-	13,000	-
MW/RW-123S	04/21/2016	33.54	25.93	-	-	-	27.16	7.61	10:52	-	-	-	-	-	-	-	-	-	-	150,000	-
MW/RW-123S	05/23/2016	33.54	26.06	-	-	-	27.32	7.48	11:33	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	05/24/2016	33.54	25.46	-	-	-	27.50	8.08	8:55	-	-	-	-	-	-	-	-	-	-	100,000	-
MW/RW-123S	06/21/2016	33.54	26.05	-	-	-	-	7.49	10:04	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	07/21/2016	33.54	26.03	-	-	-	-	7.51	9:54	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	08/24/2016	33.54	26.09	-	-	-	27.00	7.45	11:59	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-123S	08/25/2016	33.54	24.11	-	-	-	-	9.43	9:50	-	-	-	-	-	-	-	-	-	-	1,200,000	-
MW/RW-123S	09/22/2016	33.54	26.14	-	-	-	27.02	7.40	12:48	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-123S	10/20/2016	33.54	26.16	-	-	-	-	7.38	11:45	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-123S	11/28/2016	33.54	26.12	-	-	-	27.00	7.42	11:09	-	-	-	-	-	-	-	-	-	-	190,000	
MW/RW-123S	12/22/2016	33.54	26.15	-	-	-	27.05	7.39	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	10/10/2014	31.19	26.93	-	-	-	-	4.26	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	10/13/2014	31.19	27.09	-	-	-	-	4.10	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	10/20/2014	31.19	27.27	-	-	-	40.65	3.92	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	10/22/2014	31.19	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30,000	
RW-1	10/27/2014	31.19	27.35	-	-	-	-	3.84	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	11/07/2014	31.19	27.10	-	-	-	-	4.09	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	11/12/2014	31.19	27.15	-	-	-	-	4.04	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	11/21/2014	31.19	27.83	-	-	-	-	3.36	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	11/26/2014	31.19	27.42	-	-	-	-	3.77	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	12/05/2014	31.19	27.25	-	-	-	-	3.94	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	12/11/2014	31.19	27.09	-	-	-	-	4.10	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	12/16/2014	31.19	26.98	-	-	-	-	4.21	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	12/23/2014	31.19	26.98	-	-	-	-	4.21	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	12/30/2014	31.19	27.38	-	-	-	-	3.81	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	01/09/2015	31.19	27.37	-	-	-	-	3.82	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	01/16/2015	31.19	27.08	-	-	-	-	4.11	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	01/19/2015	31.19	27.07	-	-	-	-	4.12	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	01/26/2015	31.19	27.03	-	-	-	-	4.16	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	02/03/2015	31.19	27.80	-	-	-	40.75	3.39	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	02/09/2015	31.19	27.18	-	-	-	-	4.01	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	02/18/2015	31.19	27.22	-	-	-	-	3.97	-	-	-	-	-	-	-	-	-	-	-	-	
RW-1	02/24/2015	31.19	27.42	-	-	-	40.35	3.77	13:49	-	-	-	-	-	-	-	-	-	-	-	
RW-1	02/26/2015	31.19	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,200	
RW-1	03/04/2015	31.19	27.27	-	-	-	-	3.92	14:12	-	-	-	-	-	-	-	-	-	-	-	
RW-1	03/11/2015	31.19	26.90	-	-	-	-	4.29	12:42	-	-	-	-	-	-	-	-	-	-	-	
RW-1	03/18/2015	31.19	27.04	-	-	-	-	4.15	11:02	-	-	-	-	-	-	-	-	-	-	-	
RW-1	03/26/2015	31.19	26.87	-	-	-	40.70	4.32	11:35	-	-	-	-	-	-	-	-	-	-	-	
RW-1	04/02/2015	31.19	27.02	-	-	-	40.60	4.17	11:23	-	-	-	-	-	-	-	-	-	-	-	
RW-1	04/08/2015	31.19	27.30	-	-	-	40.55	3.89	8:45	-	-	-	-	-	-	-	-	-	-	-	
RW-1	04/13/2015	31.19	27.18	-	-	-	-	4.01	10:38	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
RW-1	04/23/2015	31.19	26.67	-	-	-	40.65	4.52	11:52	-	-	-	-	-	-	-	-	-	-	-	
RW-1	04/29/2015	31.19	26.87	-	-	-	40.70	4.32	14:19	-	-	-	-	-	-	-	-	-	-	-	
RW-1	05/04/2015	31.19	26.72	-	-	-	-	4.47	11:36	-	-	-	-	-	-	-	-	-	-	-	
RW-1	05/11/2015	31.19	26.70	-	-	-	40.78	4.49	15:03	-	-	-	-	-	-	-	-	-	-	-	
RW-1	05/12/2015	31.19	26.92	-	-	-	40.63	4.27	14:15	-	-	-	-	-	-	-	-	-	-	8,400	
RW-1	05/21/2015	31.19	26.90	-	-	-	40.70	4.29	12:20	-	-	-	-	-	-	-	-	-	-	-	
RW-1	05/28/2015	31.19	27.11	-	-	-	40.60	4.08	11:43	-	-	-	-	-	-	-	-	-	-	-	
RW-1	06/02/2015	31.19	26.79	-	-	-	-	4.40	13:01	-	-	-	-	-	-	-	-	-	-	-	
RW-1	06/09/2015	31.19	26.57	-	-	-	-	4.62	10:27	-	-	-	-	-	-	-	-	-	-	-	
RW-1	06/16/2015	31.19	26.60	-	-	-	-	4.59	11:21	-	-	-	-	-	-	-	-	-	-	-	
RW-1	06/26/2015	31.19	26.52	-	-	-	40.50	4.67	10:37	-	-	-	-	-	-	-	-	-	-	-	
RW-1	07/01/2015	31.19	26.07	-	-	-	-	5.12	12:12	-	-	-	-	-	-	-	-	-	-	-	
RW-1	08/04/2015	31.19	26.30	-	-	-	40.66	4.89	12:16	-	-	-	-	-	-	-	-	-	-	-	
RW-1	08/05/2015	31.19	26.67	-	-	-	40.65	4.52	9:08	-	-	-	-	-	-	-	-	-	-	2,500	
RW-1	12/01/2015	31.19	26.77	-	-	-	40.67	4.42	13:41	-	-	-	-	-	-	-	-	-	-	-	
RW-1	12/02/2015	31.19	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,300	
RW-1	03/14/2016	31.19	26.95	-	-	-	40.65	4.24	8:40	-	-	-	-	-	-	-	-	-	-	-	
RW-1	03/15/2016	31.19	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,300	
RW-1	04/21/2016	31.19	27.82	-	-	-	40.69	3.37	9:47	-	-	-	-	-	-	-	-	-	-	2,600	
RW-1	05/23/2016	31.19	27.73	-	-	-	41.31	3.46	10:06	-	-	-	-	-	-	-	-	-	-	-	
RW-1	05/24/2016	31.19	27.89	-	-	-	40.65	3.30	10:15	-	-	-	-	-	-	-	-	-	-	1,500	
RW-1	06/21/2016	31.19	27.22	-	-	-	-	3.97	10:53	-	-	-	-	-	-	-	-	-	-	-	
RW-1	07/21/2016	31.19	27.08	-	-	-	-	4.11	11:00	-	-	-	-	-	-	-	-	-	-	-	
RW-1	08/24/2016	31.19	27.42	-	-	-	40.70	3.77	10:00	-	-	-	-	-	-	-	-	-	-	1,500	
RW-1	11/28/2016	31.19	27.68	-	-	-	41.93	3.51	8:52	-	-	-	-	-	-	-	-	-	-	-	
RW-1	11/29/2016	31.19	27.45	-	-	-	40.78	3.74	9:40	-	-	-	-	-	-	-	-	-	-	970	
RW-05S	07/08/2015	31.38	22.72	-	-	-	-	8.66	11:25	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	07/13/2015	31.38	22.57	-	-	-	26.03	8.81	9:34	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	07/20/2015	31.38	21.82	-	-	-	-	9.56	9:28	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	07/28/2015	31.38	21.77	-	-	-	26.07	9.61	11:21	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	08/05/2015	31.38	21.87	-	-	-	26.03	9.51	9:27	-	-	-	-	-	-	-	-	-	-	6,900	
RW-05S	08/11/2015	31.38	21.95	-	-	-	26.06	9.43	10:05	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	08/18/2015	31.38	22.17	-	-	-	-	9.21	10:27	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
RW-05S	08/24/2015	31.38	22.42	-	-	-	-	8.96	10:20	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	09/02/2015	31.38	22.47	-	-	-	26.05	8.91	9:49	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	09/09/2015	31.38	22.60	-	-	-	26.07	8.78	10:25	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	09/17/2015	31.38	22.69	-	-	-	26.07	8.69	10:30	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	09/23/2015	31.38	22.69	-	-	-	-	8.69	10:37	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	09/28/2015	31.38	22.78	-	-	-	26.07	8.60	9:26	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	10/05/2015	31.38	22.71	-	-	-	26.20	8.67	9:15	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	11/10/2015	31.38	25.07	-	-	-	-	6.31	13:05	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	12/01/2015	33.47	25.36	-	-	-	28.15	8.11	11:51	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	12/02/2015	33.47	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17,000	
RW-05S	01/27/2016	33.47	26.23	-	-	-	-	7.24	10:40	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	02/15/2016	33.47	25.44	-	-	-	-	8.03	10:27	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	03/14/2016	33.47	25.21	-	-	-	28.20	8.26	11:40	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	03/15/2016	33.47	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,000	
RW-05S	04/21/2016	33.47	20.05	-	-	-	27.95	13.42	11:13	-	-	-	-	-	-	-	-	-	-	19,000	
RW-05S	05/23/2016	33.47	25.78	-	-	-	27.97	7.69	11:24	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	05/24/2016	33.47	25.18	-	-	-	28.10	8.29	9:30	-	-	-	-	-	-	-	-	-	-	59,000	
RW-05S	06/21/2016	33.47	25.83	-	-	-	-	7.64	10:46	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	07/21/2016	33.47	25.91	-	-	-	-	7.56	10:25	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	08/24/2016	33.47	25.77	-	-	-	27.95	7.70	11:05	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	08/25/2016	33.47	24.14	-	-	-	-	9.33	10:05	-	-	-	-	-	-	-	-	-	-	66,000	
RW-05S	09/22/2016	33.47	23.80	-	-	-	24.48	9.67	12:40	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	10/20/2016	33.47	24.95	-	-	-	-	8.52	11:30	-	-	-	-	-	-	-	-	-	-	-	
RW-05S	11/28/2016	33.47	DRY	-	-	-	23.75	-	9:51	-	-	-	-	-	-	-	-	-	-	-	Clogged drop-tube
RW-05S	11/29/2016	33.47	DRY	-	-	-	23.65	-	12:55	-	-	-	-	-	-	-	-	-	-	-	Clogged drop-tube
RW-05S	12/07/2016	33.47	DRY	-	-	-	23.33	-	12:35	-	-	-	-	-	-	-	-	-	-	-	Clogged drop-tube
RW-05S	12/08/2016	31.38	23.60	-	-	-	26.13	7.78	10:45	-	-	-	-	-	-	-	-	-	-	22,000	Pulled & cleaned drop tube
RW-05S	12/22/2016	31.38	23.28	-	-	-	26.13	8.10	10:25	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	08/08/2014	31.57	25.41	-	-	-	33.94	6.16	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	08/11/2014	31.57	25.16	-	-	-	-	6.41	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	08/15/2014	31.57	24.98	-	-	-	-	6.59	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-05	08/16/2014	31.57	24.84	24.80	0.04	NA	-	6.77	-	-	-	-	-	-	-	-	-	-	-	-	Transducers in well for pump test
MW/RW-05	08/18/2014	31.57	24.88	24.80	0.08	NA	-	6.76	-	-	-	-	-	-	-	-	-	-	-	-	Transducers in well for pump test
MW/RW-05	08/25/2014	31.57	23.27	22.99	0.28	0.06	-	8.55	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	09/02/2014	31.57	23.62	23.07	0.55	0.31	-	8.43	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	09/15/2014	31.57	23.63	23.13	0.50	NR	-	8.38	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	09/19/2014	31.57	23.72	23.18	0.54	0.17	-	8.32	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	09/22/2014	31.57	23.25	22.97	0.28	0.06	-	8.57	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	09/24/2014	31.57	23.33	23.13	0.20	NR	-	8.42	-	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW/RW-05	10/01/2014	31.57	26.67	26.67	TRACE	TRACE	31.94	4.90	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	10/10/2014	31.57	26.58	26.57	0.01	TRACE	-	5.00	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	10/13/2014	31.57	26.73	26.71	0.02	TRACE	-	4.86	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	10/20/2014	31.57	26.91	26.89	0.02	TRACE	-	4.68	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	10/27/2014	31.57	27.07	27.06	0.01	TRACE	-	4.51	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	11/07/2014	31.57	26.93	26.88	0.05	TRACE	-	4.68	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	11/12/2014	31.57	26.96	26.94	0.02	TRACE	-	4.63	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	11/21/2014	31.57	27.74	27.73	0.01	TRACE	-	3.84	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	11/26/2014	31.57	27.28	27.25	0.03	TRACE	-	4.32	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	12/05/2014	31.57	27.18	27.16	0.02	TRACE	-	4.41	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	12/11/2014	31.57	26.93	-	0.00	TRACE	-	4.64	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	12/16/2014	31.57	26.87	26.82	0.05	TRACE	-	4.74	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	12/23/2014	31.57	26.95	26.92	0.03	TRACE	-	4.65	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	12/30/2014	31.57	27.35	27.32	0.03	TRACE	-	4.25	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	01/09/2015	31.57	27.36	27.32	0.04	TRACE	-	4.25	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	01/16/2015	31.57	27.06	27.02	0.04	TRACE	-	4.55	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	01/19/2015	31.57	27.08	27.03	0.05	TRACE	-	4.53	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	01/26/2015	31.57	26.99	26.95	0.04	TRACE	-	4.62	-	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	02/03/2015	31.57	27.73	27.71	0.02	-	32.04	3.86	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	02/09/2015	31.57	27.23	27.17	0.06	-	-	4.39	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	02/18/2015	31.57	27.25	27.21	0.04	-	-	4.36	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	02/24/2015	31.57	27.38	27.37	0.01	TRACE	-	4.20	13:51	-	-	-	-	-	-	-	-	-	-	-	
MW/RW-05	03/04/2015	31.57	27.25	27.20	0.05	-	-	4.36	14:18	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-05	03/11/2015	31.57	27.07	26.97	0.10	-	-	4.59	12:57	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	03/18/2015	31.57	27.11	27.03	0.08	-	-	4.53	11:15	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	03/26/2015	31.57	26.81	26.73	0.08	-	31.90	4.83	12:06	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	04/02/2015	31.57	27.13	26.97	0.16	-	31.95	4.58	11:37	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	04/08/2015	31.57	27.49	27.20	0.29	-	32.00	4.33	9:20	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	04/13/2015	31.57	27.53	27.07	0.46	-	-	4.44	10:51	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	04/23/2015	31.57	27.41	26.55	0.86	-	32.00	4.92	12:10	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	04/29/2015	31.57	27.78	26.61	1.17	-	31.90	4.82	14:39	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	05/04/2015	31.57	28.03	26.56	1.47	-	-	4.83	11:51	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	05/11/2015	31.57	28.24	26.40	1.84	-	-	4.95	15:10	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	05/13/2015	31.57	28.75	26.84	1.91	1.50	-	4.50	13:20	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	05/21/2015	31.57	26.87	26.78	0.09	-	-	4.78	12:48	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	05/28/2015	31.57	28.45	27.00	1.45	-	32.00	4.39	11:54	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	06/02/2015	31.57	28.52	26.62	1.90	-	-	4.72	13:11	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	06/09/2015	31.57	28.67	26.12	2.55	-	-	5.14	10:55	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	06/16/2015	31.57	29.17	25.86	3.31	-	-	5.31	11:48	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	06/26/2015	31.57	28.51	25.55	2.96	-	32.00	5.66	10:50	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	07/01/2015	31.57	27.93	24.65	3.28	-	-	6.52	12:39	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	07/08/2015	31.57	27.50	23.75	3.75	-	-	7.36	8:00	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	07/13/2015	31.57	24.16	22.98	1.18	-	-	8.45	8:10	-	-	-	-	-	-	-	-	-	-	-	Baildown test HIT event
MW/RW-05	07/20/2015	31.57	23.03	22.69	0.34	0.09	-	8.84	9:56	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	07/28/2015	31.57	22.75	22.55	0.20	0.09	32.07	9.00	12:40	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	08/04/2015	31.57	22.92	22.63	0.29	0.06	-	8.90	12:31	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	08/11/2015	31.57	23.57	22.60	0.97	0.09	32.05	8.85	10:43	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	08/18/2015	31.57	23.74	23.02	0.72	0.38	-	8.46	10:56	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	08/21/2015	31.57	23.46	23.15	0.31	-	-	8.38	7:55	-	-	-	-	-	-	-	-	-	-	-	HIT event
MW/RW-05	08/24/2015	31.57	23.88	23.86	0.02	TRACE	-	7.71	11:00	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	09/02/2015	31.57	24.72	24.44	0.28	0.05	32.04	7.10	11:00	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	09/09/2015	31.57	24.60	24.39	0.21	0.06	32.05	7.15	11:20	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	09/17/2015	31.57	24.83	24.36	0.47	0.07	32.08	7.15	11:00	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	09/23/2015	31.57	24.88	24.70	0.18	0.02	-	6.85	11:23	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	09/28/2015	31.57	24.50	24.48	0.02	0.04	31.94	7.09	10:05	-	-	-	-	-	-	-	-	-	-	-	-
MW/RW-05	10/05/2015	31.57	24.41	24.31	0.10	0.05	32.01	7.25	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
MW/RW-05	11/10/2015	31.57	25.53	25.38	0.15	-	-	6.17	13:44	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	12/01/2015	31.57	26.16	25.98	0.18	-	-	5.57	13:56	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
MW/RW-05	01/27/2016	31.57	26.56	26.34	0.22	-	-	5.20	10:44	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	02/15/2016	31.57	26.99	26.98	0.01	-	-	4.59	10:31	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	03/14/2016	31.57	25.65	25.65	TRACE	-	-	5.92	10:20	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	03/24/2016	31.57	29.70	-	-	-	-	1.87	-	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	03/30/2016	31.57	29.68	-	-	-	-	1.89	-	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	04/21/2016	31.57	29.65	-	-	-	-	1.92	10:34	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	05/23/2016	31.57	29.80	-	-	-	-	1.77	11:27	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	05/24/2016	31.57	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62,000	pump in well
MW/RW-05	06/21/2016	31.57	29.79	-	-	-	-	1.78	10:50	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	07/21/2016	31.57	23.85	-	-	-	-	7.72	10:30	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	08/24/2016	31.57	21.60	-	-	-	-	9.97	11:11	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	08/25/2016	31.57	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16,000	pump in well
MW/RW-05	09/22/2016	31.57	29.00	-	-	-	-	2.57	11:40	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	10/20/2016	31.57	29.00	-	-	-	-	2.57	11:35	-	-	-	-	-	-	-	-	-	-	-	pump in well
MW/RW-05	11/28/2016	31.57	NR	-	-	-	-	-	9:45	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<1	-	7,300	Pump Obstruction at 26.80 ft during gauging
MW/RW-05	12/22/2016	31.57	28.22	-	-	-	-	3.35	-	-	-	-	-	-	-	-	-	-	-	-	pump in well
RW-25S	07/08/2015	30.97	DRY	-	-	-	24.64	-	11:43	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB
RW-25S	07/13/2015	30.97	DRY	-	-	-	24.65	-	9:39	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	07/20/2015	30.97	DRY	-	-	-	-	-	9:40	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	07/28/2015	30.97	DRY	-	-	-	24.71	-	10:47	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	08/04/2015	30.97	DRY	-	-	-	24.64	-	13:06	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	08/11/2015	30.97	DRY	-	-	-	-	-	11:25	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	08/18/2015	30.97	24.62	-	-	-	-	6.35	10:36	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	08/24/2015	30.97	24.56	-	-	-	-	6.41	10:33	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	09/02/2015	30.97	NR	24.51	-	0.01	24.69	-	10:23	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	09/09/2015	30.97	NR	24.50	-	0.01	24.69	-	11:00	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	09/17/2015	30.97	NR	24.54	-	-	24.65	-	10:50	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	09/23/2015	30.97	24.62	24.50	0.12	0.01	24.62	6.46	10:56	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	09/28/2015	30.97	NR	24.57	TRACE	TRACE	24.65	-	9:55	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
RW-25S	10/05/2015	30.97	NR	24.54	-	TRACE	24.59	-	11:27	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB LNAPL NMB LNAPL NMB LNAPL NMB LNAPL NMB
RW-25S	11/10/2015	30.97	NR	26.28	-	-	26.38	-	13:36	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	12/01/2015	32.70	26.34	26.27	0.07	-	26.36	6.42	11:55	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	01/27/2016	32.70	26.30	26.22	0.08	-	-	6.47	11:04	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	02/15/2016	32.70	25.59	25.42	0.17	-	-	7.26	10:44	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	03/14/2016	32.70	24.45	24.44	0.01	-	-	8.26	13:00	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	04/21/2016	32.70	25.51	25.50	0.01	-	-	7.20	11:45	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	05/23/2016	32.70	25.38	-	-	-	26.28	7.32	11:36	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	05/24/2016	32.70	25.43	25.41	0.02	-	-	7.29	-	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	06/21/2016	32.70	25.38	-	-	-	-	7.32	10:07	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	07/21/2016	32.70	25.39	-	-	-	-	7.31	9:57	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	08/24/2016	32.70	25.35	-	-	-	25.62	7.35	10:52	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	08/25/2016	32.70	24.97	-	-	-	25.61	7.73	-	-	-	-	-	-	-	-	-	-	-	-	DRY
RW-25S	08/30/2016	32.70	25.86	-	-	-	27.36	6.84	11:35	-	-	-	-	-	-	-	-	-	-	470,000	
RW-25S	09/22/2016	32.70	26.08	-	-	-	26.38	6.62	12:20	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	10/20/2016	32.70	26.10	-	-	-	-	6.60	11:06	-	-	-	-	-	-	-	-	-	-	-	
RW-25S	11/28/2016	32.70	25.57	-	-	-	-	7.13	9:41	0.7 J	1	2	5	-	-	-	-	4 J	-	1,000,000	
RW-25S	12/22/2016	32.70	26.03	-	-	-	26.27	6.67	9:57	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	07/08/2015	31.35	26.40	-	-	-	-	4.95	10:42	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	07/13/2015	31.35	25.20	-	-	-	26.66	6.15	9:11	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	07/20/2015	31.35	24.14	-	-	-	-	7.21	8:55	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	07/28/2015	31.35	23.92	-	-	-	26.73	7.43	10:04	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	08/04/2015	31.35	23.97	-	-	-	26.67	7.38	13:21	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	08/05/2015	31.35	24.98	-	-	-	26.66	6.37	8:18	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	08/05/2015	31.35	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,300	
RW-28S	08/11/2015	31.35	24.03	-	-	-	26.65	7.32	9:42	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	08/18/2015	31.35	24.13	-	-	-	-	7.22	10:00	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	08/24/2015	31.35	24.18	-	-	-	-	7.17	10:03	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	09/02/2015	31.35	24.31	-	-	-	26.68	7.04	9:10	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	09/09/2015	31.35	24.41	-	-	-	26.65	6.94	9:58	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	09/17/2015	31.35	24.55	-	-	-	26.69	6.80	9:51	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	09/23/2015	31.35	24.58	-	-	-	-	6.77	10:21	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	09/28/2015	31.35	24.65	-	-	-	26.60	6.70	9:40	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
RW-28S	10/05/2015	31.35	24.60	-	-	-	26.68	6.75	8:58	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	11/10/2015	31.35	26.71	-	-	-	-	4.64	12:48	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	12/01/2015	32.98	26.91	-	-	-	28.28	6.07	12:34	-	-	-	-	-	-	-	-	-	-	2,500	
RW-28S	01/27/2016	32.98	27.09	-	-	-	-	5.89	10:10	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	02/15/2016	32.98	25.86	-	-	-	-	7.12	9:51	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	03/14/2016	32.98	25.74	-	-	-	28.30	7.24	12:15	-	-	-	-	-	-	-	-	-	-	790	
RW-28S	04/21/2016	32.98	26.84	-	-	-	28.30	6.14	10:40	-	-	-	-	-	-	-	-	-	-	2,300	
RW-28S	05/05/2016	32.98	25.65	-	-	-	28.32	7.33	12:52	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	05/23/2016	32.98	25.82	-	-	-	28.32	7.16	12:15	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	05/24/2016	32.98	25.82	-	-	-	28.32	7.16	12:15	-	-	-	-	-	-	-	-	-	-	3,300	
RW-28S	06/21/2016	32.98	25.65	-	-	-	-	7.33	9:53	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	07/21/2016	32.98	25.71	-	-	-	-	7.27	9:41	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	08/24/2016	32.98	25.62	-	-	-	28.65	7.36	11:54	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	08/25/2016	32.98	26.56	-	-	-	-	6.42	10:55	-	-	-	-	-	-	-	-	-	-	2,300	
RW-28S	09/22/2016	32.98	25.82	-	-	-	28.35	7.16	12:12	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	10/20/2016	32.98	25.79	-	-	-	-	7.19	10:58	-	-	-	-	-	-	-	-	-	-	-	
RW-28S	11/28/2016	32.98	25.80	-	-	-	28.61	7.18	10:51	-	-	-	-	-	-	-	-	-	-	1,400	
RW-28S	12/22/2016	32.98	26.05	-	-	-	28.37	6.93	-	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	06/26/2015	31.32	DRY	-	-	-	28.40	-	9:28	-	-	-	-	-	-	-	-	-	-	-	DRY
RW-30S	07/01/2015	31.32	24.02	-	-	-	-	7.30	12:03	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	07/08/2015	31.32	25.39	-	-	-	-	5.93	10:51	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	07/13/2015	31.32	26.60	-	-	-	28.40	4.72	9:12	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	07/20/2015	31.32	26.07	-	-	-	-	5.25	9:01	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	07/28/2015	31.32	26.04	-	-	-	28.48	5.28	10:13	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	08/04/2015	31.32	26.07	-	-	-	28.40	5.25	13:25	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	08/05/2015	31.32	26.05	-	-	-	28.42	5.27	8:20	-	-	-	-	-	-	-	-	-	-	890	
RW-30S	08/11/2015	31.32	26.42	-	-	-	28.44	4.90	9:44	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	08/18/2015	31.32	26.31	-	-	-	-	5.01	9:53	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	08/24/2015	31.32	26.28	-	-	-	-	5.04	9:56	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	09/02/2015	31.32	26.37	26.36	0.01	TRACE	28.45	4.96	9:14	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	09/09/2015	31.32	26.38	-	-	-	28.43	4.94	10:08	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	09/17/2015	31.32	26.52	-	-	-	28.46	4.80	10:05	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	09/23/2015	31.32	26.47	-	-	-	-	4.85	10:15	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
RW-30S	09/28/2015	31.32	26.42	-	-	-	28.41	4.90	9:37	-	-	-	-	-	-	-	-	-	-	-	DRY
RW-30S	10/05/2015	31.32	26.20	-	-	-	28.41	5.12	9:05	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	11/10/2015	31.32	28.73	-	-	-	-	2.59	12:46	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	12/01/2015	33.63	28.99	-	-	-	30.54	4.64	12:36	-	-	-	-	-	-	-	-	-	-	1,300	
RW-30S	01/27/2016	33.63	29.08	-	-	-	-	4.55	10:01	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	02/15/2016	33.63	29.44	-	-	-	-	4.19	9:47	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	03/14/2016	33.63	28.78	-	-	-	30.60	4.85	12:10	-	-	-	-	-	-	-	-	-	-	61,000	
RW-30S	04/21/2016	33.63	28.95	-	-	-	29.03	4.68	10:44	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	04/27/2016	33.63	29.02	-	-	-	29.12	4.61	10:18	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	05/05/2016	33.63	29.05	-	-	-	29.10	4.58	12:48	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	05/23/2016	33.63	29.02	-	-	-	29.70	4.61	11:14	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	05/25/2016	33.63	DRY	-	-	-	29.05	-	-	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	06/21/2016	33.63	26.45	-	-	-	-	7.18	9:56	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	07/21/2016	33.63	26.40	-	-	-	-	7.23	9:51	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	08/24/2016	33.63	24.65	-	-	-	29.37	8.98	11:56	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	08/25/2016	33.63	28.88	-	-	-	29.20	4.75	-	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	08/30/2016	33.63	29.65	-	-	-	29.79	3.98	-	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	09/22/2016	33.63	26.60	-	-	-	29.35	7.03	12:07	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	10/20/2016	33.63	26.80	-	-	-	-	6.83	10:50	-	-	-	-	-	-	-	-	-	-	-	
RW-30S	11/28/2016	33.63	28.64	-	-	-	30.35	4.99	10:48	-	-	-	-	-	-	-	-	-	-	1,700	
RW-30S	12/22/2016	33.63	27.37	-	-	-	29.75	6.26	-	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	07/08/2015	31.80	22.48	-	-	-	-	9.32	11:28	-	-	-	-	-	-	-	-	-	-	-	7,000
RW-116S	07/13/2015	31.80	22.03	-	-	-	26.20	9.77	9:24	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	07/20/2015	31.80	21.77	-	-	-	-	10.03	9:10	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	07/28/2015	31.44	21.46	-	-	-	25.90	9.98	10:31	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	08/04/2015	31.44	21.55	-	-	-	25.82	9.89	13:11	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	08/05/2015	31.44	21.57	-	-	-	25.82	9.87	9:05	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	08/11/2015	31.44	21.72	-	-	-	24.88	9.72	10:31	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	08/18/2015	31.44	21.79	-	-	-	-	9.65	10:13	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	08/24/2015	31.44	21.90	-	-	-	-	9.54	10:16	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	09/02/2015	31.44	22.06	-	-	-	25.86	9.38	10:05	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	09/09/2015	31.44	22.18	-	-	-	25.89	9.26	10:12	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	09/17/2015	31.44	22.31	-	-	-	25.89	9.13	10:14	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
RW-116S	09/23/2015	31.44	22.35	-	-	-	-	9.09	10:34	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	09/28/2015	31.44	22.42	-	-	-	25.84	9.02	9:20	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	10/05/2015	31.44	22.47	-	-	-	25.84	8.97	9:31	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	11/10/2015	31.44	25.05	-	-	-	-	6.39	13:03	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	12/01/2015	33.78	25.73	-	-	-	28.20	8.05	11:20	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	12/02/2015	33.78	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,000	
RW-116S	01/27/2016	33.78	26.53	-	-	-	-	7.25	10:29	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	02/15/2016	33.78	26.53	-	-	-	-	7.25	10:10	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	03/14/2016	33.78	26.26	-	-	-	28.18	7.52	11:35	-	-	-	-	-	-	-	-	-	-	7,600	
RW-116S	04/21/2016	33.78	26.33	-	-	-	28.25	7.45	11:18	-	-	-	-	-	-	-	-	-	-	3,000	
RW-116S	05/23/2016	33.78	26.03	-	-	-	28.25	7.75	11:20	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	05/24/2016	33.78	26.32	-	-	-	28.90	7.46	9:45	-	-	-	-	-	-	-	-	-	-	230,000	
RW-116S	06/21/2016	33.78	26.06	-	-	-	-	7.72	10:43	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	07/21/2016	33.78	26.02	-	-	-	-	7.76	10:22	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	08/24/2016	33.78	26.02	-	-	-	27.76	7.76	11:08	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	08/25/2016	33.78	25.10	-	-	-	-	8.68	10:15	-	-	-	-	-	-	-	-	-	-	6,200	
RW-116S	09/22/2016	33.78	26.07	-	-	-	27.82	7.71	12:36	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	10/20/2016	33.78	26.07	-	-	-	-	7.71	11:26	-	-	-	-	-	-	-	-	-	-	-	
RW-116S	11/28/2016	33.78	26.09	-	-	-	28.05	7.69	11:01	-	-	-	-	-	-	-	-	-	-	59,000	
RW-116S	12/22/2016	33.78	26.06	-	-	-	27.85	7.72	-	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	07/08/2015	31.81	22.53	-	-	-	-	9.28	11:08	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	07/13/2015	31.81	22.27	-	-	-	24.25	9.54	9:22	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	07/20/2015	31.81	21.97	-	-	-	-	9.84	9:07	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	07/28/2015	31.81	21.86	-	-	-	24.34	9.95	9:30	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	08/04/2015	31.81	21.94	-	-	-	24.23	9.87	13:15	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	08/05/2015	31.81	21.96	-	-	-	24.27	9.85	9:20	-	-	-	-	-	-	-	-	-	-	6,600	
RW-117S	08/11/2015	31.81	22.06	-	-	-	24.30	9.75	10:28	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	08/18/2015	31.81	22.16	-	-	-	-	9.65	10:10	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	08/24/2015	31.81	22.25	-	-	-	-	9.56	10:13	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	09/02/2015	31.81	22.40	-	-	-	24.30	9.41	10:10	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	09/09/2015	31.81	22.51	22.51	TRACE	TRACE	24.31	9.30	10:10	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	09/17/2015	31.81	22.61	-	-	-	24.31	9.20	10:12	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	09/23/2015	31.81	22.61	-	-	-	-	9.20	10:31	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
RW-117S	09/28/2015	31.81	22.66	-	-	-	24.29	9.15	9:18	-	-	-	-	-	-	-	-	-	-	-	DRY
RW-117S	10/05/2015	31.81	22.76	-	-	-	24.30	9.05	9:34	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	11/10/2015	31.81	25.29	-	-	-	-	6.52	12:59	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	12/01/2015	33.73	25.72	-	-	-	26.13	8.01	11:16	-	-	-	-	-	-	-	-	-	-	13,000	
RW-117S	01/27/2016	33.73	26.06	-	-	-	-	7.67	10:25	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	02/15/2016	33.73	26.05	-	-	-	-	7.68	10:07	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	03/14/2016	33.73	26.06	-	-	-	26.09	7.67	11:05	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	04/21/2016	33.73	25.74	-	-	-	26.07	7.99	11:38	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	04/27/2016	33.73	25.75	-	-	-	26.08	7.98	10:14	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	05/05/2016	33.73	25.79	-	-	-	26.05	7.94	12:56	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	05/23/2016	33.73	25.70	-	-	-	26.05	8.03	11:16	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	05/24/2016	33.73	DRY	-	-	-	26.07	#VALUE!	-	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	06/21/2016	33.73	25.70	-	-	-	-	8.03	10:33	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	07/21/2016	33.73	25.67	-	-	-	-	8.06	10:12	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	08/24/2016	33.73	DRY	-	-	-	26.08	#VALUE!	11:15	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	08/25/2016	33.73	25.52	-	-	-	26.08	8.21	-	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	08/30/2016	33.73	25.97	-	-	-	26.77	7.76	11:10	-	-	-	-	-	-	-	-	-	-	4,400	
RW-117S	09/22/2016	33.73	25.71	-	-	-	26.18	8.02	12:32	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	10/20/2016	33.73	25.72	-	-	-	-	8.01	11:22	-	-	-	-	-	-	-	-	-	-	-	
RW-117S	11/28/2016	33.73	25.75	-	-	-	26.77	7.98	10:57	-	-	-	-	-	-	-	-	-	-	2,800	
RW-117S	12/22/2016	33.73	25.63	-	-	-	26.15	8.10	-	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	07/08/2015	31.09	21.79	-	-	-	-	9.30	11:03	-	-	-	-	-	-	-	-	-	-	-	8,200
RW-118S	07/13/2015	31.09	21.64	-	-	-	24.90	9.45	9:20	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	07/20/2015	31.09	21.27	-	-	-	-	9.82	9:04	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	07/28/2015	31.09	21.22	-	-	-	25.00	9.87	9:39	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	08/04/2015	31.09	21.28	-	-	-	24.93	9.81	13:18	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	08/05/2015	31.09	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	08/11/2015	31.09	21.44	-	-	-	24.96	9.65	10:33	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	08/18/2015	31.09	21.52	-	-	-	-	9.57	10:07	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	08/24/2015	31.09	21.62	-	-	-	-	9.47	10:10	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	09/02/2015	31.09	21.76	-	-	-	24.97	9.33	10:13	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	09/09/2015	31.09	21.56	-	-	-	24.95	9.53	10:07	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	09/17/2015	31.09	21.96	-	-	-	25.01	9.13	10:10	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
RW-118S	09/23/2015	31.09	21.97	-	-	-	-	9.12	10:28	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	09/28/2015	31.09	22.03	-	-	-	24.95	9.06	9:16	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	10/05/2015	31.09	22.68	-	-	-	25.00	8.41	12:20	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	11/10/2015	31.09	22.35	-	-	-	-	8.74	12:55	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	12/01/2015	31.24	22.84	-	-	-	25.08	8.40	13:09	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	12/02/2015	31.24	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11,000	
RW-118S	01/27/2016	31.24	24.02	-	-	-	-	7.22	10:19	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	02/15/2016	31.24	22.23	-	-	-	-	9.01	9:50	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	03/14/2016	31.24	22.26	-	-	-	25.15	8.98	9:05	-	-	-	-	-	-	-	-	-	-	8,200	
RW-118S	04/21/2016	31.24	23.85	-	-	-	25.10	7.39	12:06	-	-	-	-	-	-	-	-	-	-	1,100	
RW-118S	05/23/2016	31.24	23.95	-	-	-	25.15	7.29	11:50	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	05/24/2016	31.24	23.88	-	-	-	25.10	7.36	11:35	-	-	-	-	-	-	-	-	-	-	1,600	
RW-118S	06/21/2016	31.24	23.95	-	-	-	-	7.29	10:30	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	07/21/2016	31.24	23.92	-	-	-	-	7.32	10:08	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	08/24/2016	31.24	23.91	-	-	-	25.11	7.33	12:05	-	-	-	-	-	-	-	-	-	-	750	
RW-118S	08/25/2016	31.24	23.94	-	-	-	-	7.30	13:30	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	09/22/2016	31.24	23.94	-	-	-	25.17	7.30	12:28	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	10/20/2016	31.24	23.97	-	-	-	-	7.27	11:18	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	11/28/2016	31.24	23.95	-	-	-	25.24	7.29	10:38	-	-	-	-	-	-	-	-	-	-	-	
RW-118S	11/29/2016	31.24	24.00	-	-	-	25.15	7.24	-	-	-	-	-	-	-	-	-	-	-	2,000	
RW-118S	12/22/2016	31.24	24.33	-	-	-	25.17	6.91	-	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	07/08/2015	30.38	21.80	-	-	-	-	8.58	11:46	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	07/13/2015	30.38	21.83	-	-	-	26.15	8.55	9:32	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	07/20/2015	30.38	21.53	-	-	-	-	8.85	9:34	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	07/28/2015	30.38	21.51	-	-	-	26.25	8.87	9:48	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	08/04/2015	30.38	21.50	-	-	-	26.15	8.88	10:37	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	08/05/2015	30.38	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,700	
RW-119S	08/11/2015	30.38	21.53	-	-	-	26.15	8.85	9:53	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	08/18/2015	30.38	21.73	-	-	-	-	8.65	10:33	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	08/24/2015	30.38	21.82	-	-	-	-	8.56	10:40	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	09/02/2015	30.38	22.01	-	-	-	26.17	8.37	9:38	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	09/09/2015	30.38	22.09	-	-	-	26.20	8.29	10:17	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	09/17/2015	30.38	22.34	-	-	-	26.21	8.04	10:22	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
RW-119S	09/23/2015	30.38	22.35	-	-	-	-	8.03	10:49	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	09/28/2015	30.38	22.32	-	-	-	26.20	8.06	9:33	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	10/05/2015	30.38	22.45	-	-	-	26.20	7.93	12:04	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	11/10/2015	30.38	25.50	-	-	-	-	4.88	13:09	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	12/01/2015	33.33	25.65	-	-	-	29.02	7.68	13:03	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	12/02/2015	33.33	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,000	
RW-119S	01/27/2016	33.33	25.63	-	-	-	-	7.70	9:50	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	02/15/2016	33.33	26.89	-	-	-	-	6.44	9:36	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	03/14/2016	33.33	25.85	-	-	-	29.20	7.48	9:28	-	-	-	-	-	-	-	-	-	-	4,400	
RW-119S	04/21/2016	33.33	25.40	-	-	-	29.17	7.93	11:03	-	-	-	-	-	-	-	-	-	-	3,300	
RW-119S	05/23/2016	33.33	26.20	-	-	-	29.18	7.13	11:30	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	05/24/2016	33.33	25.05	-	-	-	29.50	8.28	9:10	-	-	-	-	-	-	-	-	-	-	2,100	
RW-119S	06/21/2016	33.33	26.28	-	-	-	-	7.05	11:13	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	07/21/2016	33.33	26.24	-	-	-	-	7.09	10:35	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	08/24/2016	33.33	26.30	-	-	-	29.70	7.03	12:00	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	08/25/2016	33.33	24.82	-	-	-	-	8.51	9:40	-	-	-	-	-	-	-	-	-	-	1,200	
RW-119S	09/22/2016	33.33	26.28	-	-	-	29.28	7.05	12:44	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	10/20/2016	33.33	26.24	-	-	-	-	7.09	11:40	-	-	-	-	-	-	-	-	-	-	-	
RW-119S	11/28/2016	33.33	NR	-	-	-	-	-	11:06	-	-	-	-	-	-	-	-	-	-	-	Obstruction at 12.63 ft during gauging
RW-119S	11/29/2016	33.33	26.31	-	-	-	28.96	7.02	-	-	-	-	-	-	-	-	-	-	-	24,000	
RW-119S	12/22/2016	33.33	26.30	-	-	-	28.95	7.03	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	12/16/2013	38.31	NR	-	-	-	-	-	-	14.3	ND	13.1	63.5	1.55	-	-	-	119	-	14,100	
TW-01	12/18/2013	38.31	31.38	-	-	-	-	6.93	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	01/08/2014	38.31	31.80	31.79	0.01	-	-	6.52	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	03/07/2014	38.31	30.41	-	-	-	-	7.90	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	03/13/2014	38.31	31.13	-	-	-	-	7.18	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	03/20/2014	38.31	30.36	-	-	-	-	7.95	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	03/27/2014	38.31	31.22	-	-	-	-	7.09	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	04/03/2014	38.31	30.36	-	-	-	-	7.95	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	04/08/2014	38.31	30.21	-	-	-	-	8.10	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	04/17/2014	38.31	31.02	-	-	-	-	7.29	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	04/22/2014	38.31	30.18	-	-	-	-	8.13	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-01	04/29/2014	38.31	30.22	-	-	-	-	8.09	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	05/05/2014	38.31	30.29	-	-	-	-	8.02	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	05/12/2014	38.31	30.28	-	-	-	-	8.03	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	05/19/2014	38.31	30.16	-	-	-	-	8.15	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	06/02/2014	38.31	30.17	-	-	-	-	8.14	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	06/09/2014	38.31	30.08	-	-	-	-	8.23	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	06/16/2014	38.31	30.23	-	-	-	-	8.08	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	06/23/2014	38.31	30.02	-	-	-	-	8.29	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	07/02/2014	38.31	29.98	-	-	-	-	8.33	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	07/07/2014	38.31	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27,400	
TW-01	07/14/2014	38.31	29.89	-	-	-	-	8.42	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	07/31/2014	38.31	30.26	-	-	-	34.50	8.05	-	-	-	-	-	-	-	-	-	-	-	-	
TW-01	08/01/2014	Overdrilled and replaced with MW-05																			
TW-02	12/16/2013	20.60	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	0.791	-	-	-	ND	-	584	
TW-02	12/18/2013	20.60	15.52	-	-	-	-	5.08	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	01/08/2014	20.60	15.08	-	-	-	-	5.52	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	03/07/2014	20.60	14.81	-	-	-	-	5.79	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	03/13/2014	20.60	14.22	-	-	-	-	6.38	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	03/20/2014	20.60	13.39	-	-	-	-	7.21	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	03/27/2014	20.60	14.31	-	-	-	-	6.29	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	04/03/2014	20.60	13.25	-	-	-	-	7.35	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	04/08/2014	20.60	13.74	-	-	-	-	6.86	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	04/17/2014	20.60	13.70	-	-	-	-	6.90	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	04/22/2014	20.60	13.62	-	-	-	-	6.98	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	04/29/2014	20.60	13.96	-	-	-	-	6.64	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	05/05/2014	20.60	13.55	-	-	-	-	7.05	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	05/12/2014	20.60	14.25	-	-	-	-	6.35	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	05/19/2014	20.60	13.63	-	-	-	-	6.97	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	05/27/2014	20.60	14.31	-	-	-	-	6.29	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	06/02/2014	20.60	14.34	-	-	-	-	6.26	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	06/09/2014	20.60	14.71	-	-	-	-	5.89	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	06/16/2014	20.60	14.30	-	-	-	-	6.30	-	-	-	-	-	-	-	-	-	-	-	-	
TW-02	06/23/2014	20.60	14.48	-	-	-	-	6.12	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-02	07/02/2014	20.60	14.77	-	-	-	-	5.83	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	07/07/2014	20.60	15.08	-	-	-	21.28	5.52	-	-	-	-	-	-	-	-	-	-	-	<1,160	-
TW-02	07/14/2014	20.60	15.02	-	-	-	-	5.58	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	07/31/2014	20.60	15.40	-	-	-	21.22	5.20	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	08/08/2014	20.60	15.40	-	-	-	-	5.20	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	08/11/2014	20.60	15.28	-	-	-	-	5.32	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	08/15/2014	20.60	14.84	-	-	-	21.15	5.76	-	-	-	-	-	-	-	-	-	-	-	<600	-
TW-02	08/18/2014	20.60	15.06	-	-	-	-	5.54	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	08/25/2014	NR	14.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	09/02/2014	NR	15.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	09/15/2014	NR	14.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	09/22/2014	NR	15.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	10/01/2014	NR	15.22	-	-	-	21.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	10/13/2014	NR	14.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	10/20/2014	NR	15.10	-	-	-	20.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	10/23/2014	NR	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	-	<20	60	-
TW-02	02/24/2015	16.11	14.34	-	-	-	-	1.77	15:01	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	03/04/2015	16.11	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.20	<20	<45	-
TW-02	05/11/2015	16.11	14.38	-	-	-	20.80	1.73	15:18	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	05/13/2015	16.11	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<1	<20	<45	-
TW-02	08/04/2015	16.11	15.08	-	-	-	20.87	1.03	12:15	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	08/05/2015	16.11	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.20	<20	<45	-
TW-02	12/01/2015	16.11	15.08	-	-	-	20.88	1.03	13:28	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	12/03/2015	16.11	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.07	<20	81 J	-
TW-02	03/14/2016	16.11	14.32	-	-	-	20.97	1.79	9:40	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	03/16/2016	16.11	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.08	<20	<45	-
TW-02	05/23/2016	16.11	13.26	-	-	-	-	2.85	10:37	-	-	-	-	-	-	-	-	-	-	-	-
TW-02	05/25/2016	16.11	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.08	<20	<45	-
TW-02	08/24/2016	16.11	14.83	-	-	-	21.20	1.28	10:50	-	-	-	-	-	-	-	-	-	-	<45	-
TW-02	11/28/2016	16.11	15.50	-	-	-	21.83	0.61	8:49	-	-	-	-	-	-	-	-	-	-	-	-
TW-03	12/16/2013	14.87	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	ND	-	351	-
TW-03	12/18/2013	14.87	9.08	-	-	-	-	5.79	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-03	01/08/2014	14.87	9.42	-	-	-	-	5.45	-	-	-	-	-	-	-	-	-	-	-	-	-

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Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-03	03/07/2014	14.87	7.66	-	-	-	-	7.21	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	03/13/2014	14.87	8.09	-	-	-	-	6.78	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	03/20/2014	14.87	7.50	-	-	-	-	7.37	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	03/27/2014	14.87	8.47	-	-	-	-	6.40	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	04/03/2014	14.87	6.99	-	-	-	-	7.88	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	04/08/2014	14.87	7.64	-	-	-	-	7.23	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	04/17/2014	14.87	7.33	-	-	-	-	7.54	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	04/22/2014	14.87	7.64	-	-	-	-	7.23	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	04/29/2014	14.87	7.36	-	-	-	-	7.51	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	05/05/2014	14.87	7.58	-	-	-	-	7.29	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	05/12/2014	14.87	7.93	-	-	-	-	6.94	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	05/19/2014	14.87	8.42	-	-	-	-	6.45	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	05/27/2014	14.87	7.69	-	-	-	-	7.18	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	06/02/2014	14.87	8.00	-	-	-	-	6.87	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	06/09/2014	14.87	7.77	-	-	-	-	7.10	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	06/16/2014	14.87	7.60	-	-	-	-	7.27	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	06/23/2014	14.87	7.68	-	-	-	-	7.19	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	07/02/2014	14.87	7.97	-	-	-	-	6.90	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	07/07/2014	14.87	8.31	-	-	-	13.45	6.56	-	-	-	-	-	-	-	-	-	-	-	<1,160	
TW-03	07/14/2014	14.87	7.55	-	-	-	-	7.32	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	07/25/2014	14.87	8.45	-	-	-	13.30	6.42	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	07/31/2014	14.87	8.14	-	-	-	13.35	6.73	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	08/08/2014	14.87	8.39	-	-	-	-	6.48	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	08/11/2014	14.87	8.12	-	-	-	-	6.75	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	08/15/2014	14.87	8.10	-	-	-	13.40	6.77	-	-	-	-	-	-	-	-	-	-	-	<1,500	
TW-03	08/18/2014	14.87	8.25	-	-	-	-	6.62	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	08/25/2014	10.40	7.85	-	-	-	-	2.55	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	09/02/2014	10.40	8.52	-	-	-	-	1.88	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	09/15/2014	10.40	8.33	-	-	-	-	2.07	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	09/22/2014	10.40	8.26	-	-	-	-	2.14	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	10/01/2014	10.40	8.35	-	-	-	13.15	2.05	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	10/13/2014	10.40	8.18	-	-	-	-	2.22	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	10/20/2014	10.40	8.50	-	-	-	13.14	1.90	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-03	10/23/2014	10.40	NR	-	-	-	-	-	-	0.7	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	-	<20	49	Geosyntec sampling, could not gauge
TW-03	02/24/2015	10.40	8.57	-	-	-	-	1.83	14:49	-	-	-	-	-	-	-	-	-	-	-	
TW-03	03/04/2015	10.40	NR	-	-	-	-	-	-	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.03	<20	180	
TW-03	05/11/2015	10.40	7.74	-	-	-	13.10	2.66	15:23	-	-	-	-	-	-	-	-	-	-	-	
TW-03	05/13/2015	10.40	NR	-	-	-	-	-	-	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<1	21 J	200	
TW-03	08/04/2015	10.40	7.82	-	-	-	13.14	2.58	12:13	-	-	-	-	-	-	-	-	-	-	-	
TW-03	08/05/2015	10.40	NR	-	-	-	-	-	-	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.20	<20	150	
TW-03	12/01/2015	10.40	7.64	-	-	-	13.12	2.76	13:26	-	-	-	-	-	-	-	-	-	-	-	
TW-03	12/02/2015	10.40	NR	-	-	-	-	-	-	0.7 J	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.04	<20	56 J	
TW-03	03/14/2016	10.40	7.95	-	-	-	13.10	2.45	9:45	-	-	-	-	-	-	-	-	-	-	-	
TW-03	03/16/2016	10.40	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.1 J	32 J	150	
TW-03	05/05/2016	10.40	7.53	-	-	-	-	2.87	12:21	-	-	-	-	-	-	-	-	-	-	-	
TW-03	5/23/2016 ^H	10.40	8.68	-	-	-	-	1.72	-	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.1 J	31 J	190	
TW-03	5/23/2016 ^L	10.40	NR	-	-	-	-	-	-	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.1 J	27 J	180	
TW-03	08/24/2016	10.40	8.70	-	-	-	13.22	1.70	10:45	-	-	-	-	-	-	-	-	-	-	100	
TW-03	08/25/2016	10.40	8.09	-	-	-	-	2.31	-	-	-	-	-	-	-	-	-	-	-	-	
TW-03	09/22/2016	10.40	8.18	-	-	-	-	2.22	14:25	-	-	-	-	-	-	-	-	-	-	-	
TW-03	11/28/2016	10.40	8.83	-	-	-	13.10	1.57	8:46	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	54 J	
TW-04	12/16/2013	13.26	NR	-	-	-	-	-	-	2.2	<0.5	3.45	7.11	<0.5	-	-	-	27.7	-	2,000	
TW-04	12/18/2013	13.26	6.25	-	-	-	-	7.01	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	01/08/2014	13.26	6.71	-	-	-	-	6.55	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	03/07/2014	13.26	6.06	-	-	-	-	7.20	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	03/13/2014	13.26	6.26	-	-	-	-	7.00	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	03/20/2014	13.26	6.17	-	-	-	-	7.09	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	03/27/2014	13.26	6.55	-	-	-	-	6.71	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	04/03/2014	13.26	4.64	-	-	-	-	8.62	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	04/08/2014	13.26	5.38	-	-	-	-	7.88	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	04/17/2014	13.26	5.60	-	-	-	-	7.66	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	04/22/2014	13.26	5.56	-	-	-	-	7.70	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	04/29/2014	13.26	5.91	-	-	-	-	7.35	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	05/05/2014	13.26	5.06	-	-	-	-	8.20	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	05/12/2014	13.26	5.82	-	-	-	-	7.44	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-04	05/19/2014	13.26	4.61	-	-	-	-	8.65	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	05/27/2014	13.26	5.66	-	-	-	-	7.60	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	06/02/2014	13.26	5.83	-	-	-	-	7.43	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	06/09/2014	13.26	5.87	-	-	-	-	7.39	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	06/16/2014	13.26	5.21	-	-	-	-	8.05	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	06/23/2014	13.26	5.68	-	-	-	-	7.58	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	07/02/2014	13.26	5.96	-	-	-	-	7.30	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	07/07/2014	13.26	6.18	-	-	-	13.77	7.08	-	-	-	-	-	-	-	-	-	-	-	1,270	
TW-04	07/14/2014	13.26	5.80	-	-	-	-	7.46	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	07/25/2014	13.26	6.20	-	-	-	13.70	7.06	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	07/31/2014	13.26	6.08	-	-	-	13.76	7.18	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	08/08/2014	13.26	6.21	-	-	-	-	7.05	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	08/11/2014	13.26	6.19	-	-	-	-	7.07	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	08/15/2014	13.26	5.99	-	-	-	13.75	7.27	-	-	-	-	-	-	-	-	-	-	-	1,610	
TW-04	08/18/2014	13.26	5.92	-	-	-	-	7.34	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	08/25/2014	9.49	5.87	-	-	-	-	3.62	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	09/02/2014	9.49	6.25	-	-	-	-	3.24	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	09/15/2014	9.49	6.17	-	-	-	-	3.32	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	09/22/2014	9.49	6.20	-	-	-	-	3.29	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	10/01/2014	9.49	6.23	-	-	-	13.55	3.26	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	10/10/2014	9.49	6.18	-	-	-	-	3.31	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	10/13/2014	9.49	6.19	-	-	-	-	3.30	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	10/20/2014	9.49	6.28	-	-	-	13.40	3.21	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	10/23/2014	9.49	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.3	<20	160	
TW-04	10/27/2014	9.49	6.04	-	-	-	-	3.45	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	11/07/2014	9.49	6.27	-	-	-	-	3.22	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	11/12/2014	9.49	6.19	-	-	-	-	3.30	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	11/21/2014	9.49	6.78	-	-	-	-	2.71	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	11/26/2014	9.49	6.33	-	-	-	-	3.16	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	12/05/2014	9.49	5.75	-	-	-	-	3.74	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	12/11/2014	9.49	5.60	-	-	-	-	3.89	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	12/16/2014	9.49	5.83	-	-	-	-	3.66	-	-	-	-	-	-	-	-	-	-	-	-	
TW-04	12/23/2014	9.49	5.82	-	-	-	-	3.67	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-04	12/30/2014	9.49	5.73	-	-	-	-	3.76	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	01/09/2015	9.49	6.06	-	-	-	-	3.43	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	01/16/2015	9.49	5.64	-	-	-	-	3.85	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	01/19/2015	9.49	5.37	-	-	-	-	4.12	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	01/26/2015	9.49	4.78	-	-	-	-	4.71	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	02/03/2015	9.49	6.06	-	-	-	13.21	3.43	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	02/09/2015	9.49	6.08	-	-	-	-	3.41	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	02/18/2015	9.49	6.19	-	-	-	-	3.30	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	02/24/2015	9.49	6.21	-	-	-	-	3.28	15:00	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	03/04/2015	9.49	6.11	-	-	-	-	3.38	11:45	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	1	27 J	940	-
TW-04	03/11/2015	9.49	3.93	-	-	-	-	5.56	12:00	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	03/18/2015	9.49	5.40	-	-	-	-	4.09	10:23	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	03/26/2015	9.49	5.75	-	-	-	13.20	3.74	12:21	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	04/02/2015	9.49	5.85	-	-	-	13.25	3.64	10:28	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	04/08/2015	9.49	6.20	-	-	-	13.25	3.29	10:00	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	04/13/2015	9.49	6.28	-	-	-	-	3.21	9:55	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	04/23/2015	9.49	5.44	-	-	-	13.25	4.05	10:43	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	04/29/2015	9.49	5.85	-	-	-	13.25	3.64	13:15	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	05/04/2015	9.49	5.75	-	-	-	-	3.74	10:50	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	05/11/2015	9.49	5.83	-	-	-	13.20	3.66	15:33	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	05/13/2015	9.49	NR	-	-	-	-	-	-	1 J	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<1	33 J	700	-
TW-04	05/21/2015	9.49	5.89	-	-	-	13.27	3.60	13:05	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	05/28/2015	9.49	6.28	-	-	-	13.25	3.21	10:55	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	06/02/2015	9.49	5.01	-	-	-	-	4.48	12:15	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	06/09/2015	9.49	5.17	-	-	-	-	4.32	9:45	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	06/16/2015	9.49	5.67	-	-	-	-	3.82	10:35	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	06/26/2015	9.49	4.98	-	-	-	13.20	4.51	8:45	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	07/01/2015	9.49	3.57	-	-	-	-	5.92	11:35	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	07/08/2015	9.49	4.57	-	-	-	-	4.92	10:20	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	07/13/2015	9.49	4.28	-	-	-	-	5.21	8:53	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	07/20/2015	9.49	5.32	-	-	-	-	4.17	8:40	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	08/04/2015	9.49	5.62	-	-	-	13.70	3.87	12:02	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	08/06/2015	9.49	NR	-	-	-	-	-	-	0.6 J	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.6	38 J	1,000	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-04	08/18/2015	9.49	5.88	-	-	-	-	3.61	9:20	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	08/24/2015	9.49	5.76	-	-	-	-	3.73	9:40	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	09/02/2015	9.49	5.92	-	-	-	13.20	3.57	11:36	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	09/09/2015	9.49	6.06	-	-	-	13.18	3.43	14:09	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	09/17/2015	9.49	6.11	-	-	-	13.21	3.38	11:48	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	09/23/2015	9.49	6.08	-	-	-	-	3.41	10:00	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	09/28/2015	9.49	5.61	-	-	-	13.08	3.88	10:36	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	10/05/2015	9.49	5.22	-	-	-	13.13	4.27	10:20	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	11/10/2015	9.49	5.92	-	-	-	-	3.57	12:29	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	12/01/2015	9.49	5.78	-	-	-	13.10	3.71	13:20	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	12/02/2015	9.49	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.04	22 J	280	-
TW-04	02/15/2016	9.49	6.07	-	-	-	-	3.42	9:05	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	03/14/2016	9.49	5.93	-	-	-	13.11	3.56	9:55	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.2	31 J	980	-
TW-04	04/21/2016	9.49	6.23	-	-	-	-	3.26	9:17	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	05/05/2016	9.49	5.50	-	-	-	-	3.99	12:27	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	05/23/2016	9.49	4.83	-	-	-	-	4.66	10:49	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	05/24/2016	9.49	NR	-	-	-	-	-	-	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.5	50 J	1,100	-
TW-04	06/21/2016	9.49	6.30	-	-	-	-	3.19	9:35	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	07/21/2016	9.49	5.91	-	-	-	-	3.58	9:25	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	08/24/2016	9.49	6.35	-	-	-	13.15	3.14	9:44	-	-	-	-	-	-	-	-	-	-	-	430
TW-04	09/22/2016	9.49	6.20	-	-	-	-	3.29	14:45	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	11/28/2016	9.49	6.69	-	-	-	10.07	2.80	8:35	-	-	-	-	-	-	-	-	-	-	-	-
TW-04	11/29/2016	9.49	NR	-	-	-	-	-	-	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	220	-
TW-05	12/16/2013	13.73	NR	-	-	-	-	-	-	7.68	<0.5	62.8	40.3	<0.5	-	-	-	240	-	136,000	-
TW-05	12/18/2013	13.73	6.45	-	-	-	-	7.28	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-05	01/08/2014	13.73	6.98	-	-	-	-	6.75	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-05	03/07/2014	13.73	6.34	-	-	-	-	7.39	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-05	03/13/2014	13.73	6.49	-	-	-	-	7.24	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-05	03/20/2014	13.73	6.04	-	-	-	-	7.69	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-05	03/27/2014	13.73	6.68	-	-	-	-	7.05	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-05	04/03/2014	13.73	4.29	-	-	-	-	9.44	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-05	04/08/2014	13.73	5.36	-	-	-	-	8.37	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-05	04/17/2014	13.73	5.33	-	-	-	-	8.40	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-05	04/22/2014	13.73	5.65	-	-	-	-	8.08	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	04/29/2014	13.73	6.06	-	-	-	-	7.67	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	05/05/2014	13.73	4.91	-	-	-	-	8.82	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	05/12/2014	13.73	6.01	-	-	-	-	7.72	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	05/19/2014	13.73	4.65	-	-	-	-	9.08	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	05/27/2014	13.73	5.91	-	-	-	-	7.82	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	06/02/2014	13.73	6.07	-	-	-	-	7.66	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	06/09/2014	13.73	6.11	-	-	-	-	7.62	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	06/16/2014	13.73	5.28	-	-	-	-	8.45	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	06/23/2014	13.73	5.95	-	-	-	-	7.78	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	07/02/2014	13.73	6.28	-	-	-	-	7.45	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	07/07/2014	13.73	6.49	-	-	-	12.06	7.24	-	-	-	-	-	-	-	-	-	-	-	66,300	
TW-05	07/14/2014	13.73	6.06	-	-	-	-	7.67	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	07/25/2014	13.73	5.43	-	-	-	12.08	8.30	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	07/31/2014	13.73	6.50	-	-	-	12.10	7.23	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	08/08/2014	13.73	6.56	-	-	-	-	7.17	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	08/11/2014	13.73	6.51	-	-	-	-	7.22	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	08/15/2014	13.73	5.91	-	-	-	11.95	7.82	-	-	-	-	-	-	-	-	-	-	-	271,000	
TW-05	08/18/2014	13.73	6.14	-	-	-	-	7.59	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	08/25/2014	9.64	6.13	-	-	-	-	3.51	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	09/02/2014	9.64	6.59	-	-	-	-	3.05	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	09/15/2014	9.64	6.57	-	-	-	-	3.07	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	09/22/2014	9.64	6.58	-	-	-	-	3.06	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	10/01/2014	9.64	6.63	-	-	-	11.74	3.01	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	10/10/2014	9.64	6.52	-	-	-	-	3.12	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	10/13/2014	9.64	6.58	-	-	-	-	3.06	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	10/20/2014	9.64	6.60	-	-	-	12.63	3.04	-	4	<0.5	14	<0.5	<0.5	<2	<0.5	<0.5	21	140	29,000	
TW-05	10/27/2014	9.64	6.23	-	-	-	-	3.41	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	11/07/2014	9.64	6.58	-	-	-	-	3.06	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	11/12/2014	9.64	6.56	-	-	-	-	3.08	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	11/21/2014	9.64	7.07	-	-	-	-	2.57	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	11/26/2014	9.64	6.67	-	-	-	-	2.97	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	12/05/2014	9.64	5.57	-	-	-	-	4.07	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-05	12/11/2014	9.64	5.38	-	-	-	-	4.26	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	12/16/2014	9.64	5.86	-	-	-	-	3.78	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	12/23/2014	9.64	6.08	-	-	-	-	3.56	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	12/30/2014	9.64	5.50	-	-	-	-	4.14	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	01/09/2015	9.64	6.27	-	-	-	-	3.37	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	01/16/2015	9.64	5.48	-	-	-	-	4.16	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	01/19/2015	9.64	5.08	-	-	-	-	4.56	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	01/26/2015	9.64	4.30	-	-	-	-	5.34	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	02/03/2015	9.64	6.20	-	-	-	11.88	3.44	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	02/09/2015	9.64	6.38	-	-	-	-	3.26	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	02/18/2015	9.64	6.64	-	-	-	-	3.00	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	02/24/2015	9.64	6.61	-	-	-	-	3.03	14:57	-	-	-	-	-	-	-	-	-	-	-	
TW-05	03/04/2015	9.64	6.27	-	-	-	-	3.37	12:15	2	<0.50	1	<0.5	<0.5	<2	<0.5	<0.5	3	130	2,200	
TW-05	03/11/2015	9.64	3.15	-	-	-	-	6.49	12:03	-	-	-	-	-	-	-	-	-	-	-	
TW-05	03/18/2015	9.64	4.61	-	-	-	-	5.03	10:26	-	-	-	-	-	-	-	-	-	-	-	
TW-05	03/26/2015	9.64	5.94	-	-	-	12.10	3.70	12:25	-	-	-	-	-	-	-	-	-	-	-	
TW-05	04/02/2015	9.64	6.00	-	-	-	12.10	3.64	10:30	-	-	-	-	-	-	-	-	-	-	-	
TW-05	04/08/2015	9.64	6.41	-	-	-	12.14	3.23	10:05	-	-	-	-	-	-	-	-	-	-	-	
TW-05	04/13/2015	9.64	6.53	-	-	-	-	3.11	9:58	-	-	-	-	-	-	-	-	-	-	-	
TW-05	04/23/2015	9.64	5.48	-	-	-	12.20	4.16	10:45	-	-	-	-	-	-	-	-	-	-	-	
TW-05	04/29/2015	9.64	5.99	-	-	-	12.20	3.65	13:17	-	-	-	-	-	-	-	-	-	-	-	
TW-05	05/04/2015	9.64	5.94	-	-	-	-	3.70	10:53	-	-	-	-	-	-	-	-	-	-	-	
TW-05	05/11/2015	9.64	6.12	-	-	-	12.30	3.52	15:39	-	-	-	-	-	-	-	-	-	-	-	
TW-05	05/13/2015	9.64	NR	-	-	-	-	-	-	3	<0.50	<0.50	<0.5	<0.5	<2	<0.5	<0.5	1 J	44 J	1,100	
TW-05	05/21/2015	9.64	6.15	-	-	-	12.48	3.49	13:07	-	-	-	-	-	-	-	-	-	-	-	
TW-05	05/28/2015	9.64	6.56	-	-	-	12.50	3.08	10:57	-	-	-	-	-	-	-	-	-	-	-	
TW-05	06/02/2015	9.64	4.05	-	-	-	-	5.59	12:18	-	-	-	-	-	-	-	-	-	-	-	
TW-05	06/09/2015	9.64	4.63	-	-	-	-	5.01	9:48	-	-	-	-	-	-	-	-	-	-	-	
TW-05	06/16/2015	9.64	5.99	-	-	-	-	3.65	10:38	-	-	-	-	-	-	-	-	-	-	-	
TW-05	06/26/2015	9.64	4.52	-	-	-	12.80	5.12	8:47	-	-	-	-	-	-	-	-	-	-	-	
TW-05	07/01/2015	9.64	1.82	-	-	-	-	7.82	11:38	-	-	-	-	-	-	-	-	-	-	-	
TW-05	07/08/2015	9.64	4.22	-	-	-	-	5.42	10:23	-	-	-	-	-	-	-	-	-	-	-	
TW-05	07/13/2015	9.64	4.24	-	-	-	-	5.40	8:55	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-05	07/20/2015	9.64	5.64	-	-	-	-	4.00	8:43	-	-	-	-	-	-	-	-	-	-	-	
TW-05	07/28/2015	9.64	6.01	-	-	-	12.42	3.63	13:15	-	-	-	-	-	-	-	-	-	-	-	
TW-05	08/04/2015	9.64	6.07	-	-	-	12.32	3.57	12:05	-	-	-	-	-	-	-	-	-	-	-	
TW-05	08/06/2015	9.64	NR	-	-	-	-	-	-	2	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.8	37 J	790	
TW-05	08/11/2015	9.64	5.56	-	-	-	12.54	4.08	12:30	-	-	-	-	-	-	-	-	-	-	-	
TW-05	08/18/2015	9.64	6.28	-	-	-	-	3.36	9:23	-	-	-	-	-	-	-	-	-	-	-	
TW-05	08/24/2015	9.64	6.23	-	-	-	-	3.41	9:43	-	-	-	-	-	-	-	-	-	-	-	
TW-05	09/02/2015	9.64	6.32	-	-	-	12.53	3.32	11:33	-	-	-	-	-	-	-	-	-	-	-	
TW-05	09/09/2015	9.64	6.73	-	-	-	12.55	2.91	14:06	-	-	-	-	-	-	-	-	-	-	-	
TW-05	09/17/2015	9.64	6.54	-	-	-	12.53	3.10	11:45	-	-	-	-	-	-	-	-	-	-	-	
TW-05	09/23/2015	9.64	6.41	-	-	-	-	3.23	10:03	-	-	-	-	-	-	-	-	-	-	-	
TW-05	09/28/2015	9.64	6.01	-	-	-	12.51	3.63	10:38	-	-	-	-	-	-	-	-	-	-	-	
TW-05	10/05/2015	9.64	5.43	-	-	-	12.54	4.21	10:17	-	-	-	-	-	-	-	-	-	-	-	
TW-05	11/10/2015	9.64	6.31	-	-	-	-	3.33	12:31	-	-	-	-	-	-	-	-	-	-	-	
TW-05	12/01/2015	9.64	5.99	-	-	-	12.38	3.65	13:10	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.04	30 J	330	
TW-05	02/15/2016	9.64	6.34	-	-	-	-	3.30	9:09	-	-	-	-	-	-	-	-	-	-	-	
TW-05	03/14/2016	9.64	6.22	-	-	-	12.43	3.42	10:00	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	0.3	<20	960	
TW-05	04/21/2016	9.64	6.92	-	-	-	-	2.72	9:21	-	-	-	-	-	-	-	-	-	-	-	
TW-05	05/05/2016	9.64	5.40	-	-	-	-	4.24	12:30	-	-	-	-	-	-	-	-	-	-	-	
TW-05	05/23/2016	9.64	5.46	-	-	-	-	4.18	10:55	-	-	-	-	-	-	-	-	-	-	-	
TW-05	06/21/2016	9.64	7.02	-	-	-	-	2.62	9:38	-	-	-	-	-	-	-	-	-	-	-	
TW-05	07/21/2016	9.64	6.37	-	-	-	-	3.27	9:28	-	-	-	-	-	-	-	-	-	-	-	
TW-05	08/24/2016	9.64	6.80	-	-	-	12.85	2.84	9:49	-	-	-	-	-	-	-	-	-	-	890	
TW-05	08/25/2016	9.64	6.20	-	-	-	-	3.44	-	-	-	-	-	-	-	-	-	-	-	-	
TW-05	09/22/2016	9.64	6.75	-	-	-	-	2.89	14:40	-	-	-	-	-	-	-	-	-	-	-	
TW-05	11/28/2016	9.64	7.07	-	-	-	13.02	2.57	8:41	-	-	-	-	-	-	-	-	-	-	-	
TW-05	11/29/2016	9.64	NR	-	-	-	-	-	-	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	430	
TW-06	12/16/2013	13.97	NR	-	-	-	-	-	-	1.09	ND	20.3	7.86	ND	-	-	-	174	-	47,000	
TW-06	12/18/2013	13.97	6.21	-	-	-	-	7.76	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	01/08/2014	13.97	6.98	-	-	-	-	6.99	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	03/07/2014	13.97	6.40	-	-	-	-	7.57	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	03/13/2014	13.97	6.62	-	-	-	-	7.35	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	03/20/2014	13.97	6.26	-	-	-	-	7.71	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-06	03/27/2014	13.97	6.88	-	-	-	-	7.09	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	04/03/2014	13.97	4.81	-	-	-	-	9.16	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	04/08/2014	13.97	5.82	-	-	-	-	8.15	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	04/17/2014	13.97	5.41	-	-	-	-	8.56	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	04/22/2014	13.97	5.90	-	-	-	-	8.07	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	04/29/2014	13.97	6.30	-	-	-	-	7.67	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	05/05/2014	13.97	4.98	-	-	-	-	8.99	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	05/12/2014	13.97	6.18	-	-	-	-	7.79	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	05/19/2014	13.97	4.63	-	-	-	-	9.34	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	05/27/2014	13.97	6.79	-	-	-	-	7.18	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	06/02/2014	13.97	6.24	-	-	-	-	7.73	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	06/09/2014	13.97	6.31	-	-	-	-	7.66	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	06/16/2014	13.97	5.33	-	-	-	-	8.64	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	06/23/2014	13.97	6.12	-	-	-	-	7.85	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	07/02/2014	13.97	6.52	-	-	-	-	7.45	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	07/07/2014	13.97	6.70	-	-	-	12.60	7.27	-	-	-	-	-	-	-	-	-	-	-	113,000	
TW-06	07/14/2014	13.97	6.24	-	-	-	-	7.73	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	07/25/2014	13.97	6.65	-	-	-	12.60	7.32	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	08/08/2014	13.97	6.81	-	-	-	-	7.16	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	08/11/2014	13.97	6.71	-	-	-	-	7.26	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	08/15/2014	13.97	6.01	-	-	-	12.70	7.96	-	-	-	-	-	-	-	-	-	-	-	147,000	
TW-06	08/18/2014	13.97	6.33	-	-	-	-	7.64	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	08/25/2014	9.86	6.37	-	-	-	-	3.49	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	09/02/2014	9.86	6.80	-	-	-	-	3.06	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	09/15/2014	9.86	6.79	-	-	-	-	3.07	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	09/22/2014	9.86	6.77	-	-	-	-	3.09	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	10/01/2014	9.86	6.88	-	-	-	12.60	2.98	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	10/10/2014	9.86	6.77	-	-	-	-	3.09	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	10/13/2014	9.86	6.85	-	-	-	-	3.01	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	10/20/2014	9.86	6.76	-	-	-	12.63	3.10	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	10/23/2014	9.86	NR	-	-	-	-	-	-	0.8	<0.5	11	1	<0.5	<2	<0.5	<0.5	5	230	16,000	
TW-06	10/27/2014	9.86	6.39	-	-	-	-	3.47	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	11/07/2014	9.86	6.83	-	-	-	-	3.03	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-06	11/12/2014	9.86	6.85	-	-	-	-	3.01	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	11/21/2014	9.86	7.28	-	-	-	-	2.58	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	11/26/2014	9.86	7.02	-	-	-	-	2.84	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	12/05/2014	9.86	5.85	-	-	-	-	4.01	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	12/11/2014	9.86	5.75	-	-	-	-	4.11	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	12/16/2014	9.86	6.18	-	-	-	-	3.68	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	12/23/2014	9.86	6.36	-	-	-	-	3.50	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	12/30/2014	9.86	5.85	-	-	-	-	4.01	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	01/09/2015	9.86	6.52	-	-	-	-	3.34	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	01/16/2015	9.86	5.77	-	-	-	-	4.09	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	01/19/2015	9.86	5.46	-	-	-	-	4.40	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	01/26/2015	9.86	4.69	-	-	-	-	5.17	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	02/03/2015	9.86	6.39	-	-	-	12.58	3.47	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	02/09/2015	9.86	6.62	-	-	-	-	3.24	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	02/18/2015	9.86	6.89	-	-	-	-	2.97	-	-	-	-	-	-	-	-	-	-	-	-	
TW-06	02/24/2015	9.86	6.90	-	-	-	-	2.96	14:54	-	-	-	-	-	-	-	-	-	-	-	
TW-06	03/04/2015	9.86	6.43	-	-	-	-	3.43	13:00	2	<0.5	6	<0.5	<0.5	<2	<0.5	<0.5	<0.03	170	2,200	
TW-06	03/11/2015	9.86	4.47	-	-	-	-	5.39	12:06	-	-	-	-	-	-	-	-	-	-	-	
TW-06	03/18/2015	9.86	5.33	-	-	-	-	4.53	10:29	-	-	-	-	-	-	-	-	-	-	-	
TW-06	03/26/2015	9.86	6.13	-	-	-	12.60	3.73	12:27	-	-	-	-	-	-	-	-	-	-	-	
TW-06	04/02/2015	9.86	6.20	-	-	-	12.65	3.66	10:32	-	-	-	-	-	-	-	-	-	-	-	
TW-06	04/08/2015	9.86	6.66	-	-	-	12.62	3.20	10:15	-	-	-	-	-	-	-	-	-	-	-	
TW-06	04/13/2015	9.86	6.76	-	-	-	-	3.10	10:01	-	-	-	-	-	-	-	-	-	-	-	
TW-06	04/23/2015	9.86	5.62	-	-	-	12.60	4.24	10:47	-	-	-	-	-	-	-	-	-	-	-	
TW-06	04/29/2015	9.86	6.22	-	-	-	12.65	3.64	13:19	-	-	-	-	-	-	-	-	-	-	-	
TW-06	05/04/2015	9.86	6.14	-	-	-	-	3.72	10:56	-	-	-	-	-	-	-	-	-	-	-	
TW-06	05/11/2015	9.86	6.38	-	-	-	12.70	3.48	15:40	-	-	-	-	-	-	-	-	-	-	-	
TW-06	05/13/2015	9.86	NR	-	-	-	-	-	-	2	<0.5	4	<0.5	<0.5	<2	<0.5	<0.5	4	130	2,300	
TW-06	05/21/2015	9.86	6.24	-	-	-	12.65	3.62	13:09	-	-	-	-	-	-	-	-	-	-	-	
TW-06	05/28/2015	9.86	6.79	-	-	-	12.60	3.07	10:59	-	-	-	-	-	-	-	-	-	-	-	
TW-06	06/02/2015	9.86	4.41	-	-	-	-	5.45	12:21	-	-	-	-	-	-	-	-	-	-	-	
TW-06	06/09/2015	9.86	5.28	-	-	-	-	4.58	9:51	-	-	-	-	-	-	-	-	-	-	-	
TW-06	06/16/2015	9.86	6.24	-	-	-	-	3.62	10:41	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-06	06/26/2015	9.86	5.08	-	-	-	12.70	4.78	8:49	-	-	-	-	-	-	-	-	-	-	-	
TW-06	07/01/2015	9.86	3.55	-	-	-	-	6.31	11:41	-	-	-	-	-	-	-	-	-	-	-	
TW-06	07/08/2015	9.86	4.88	-	-	-	-	4.98	10:26	-	-	-	-	-	-	-	-	-	-	-	
TW-06	07/13/2015	9.86	4.78	-	-	-	-	5.08	8:55	-	-	-	-	-	-	-	-	-	-	-	
TW-06	07/20/2015	9.86	5.93	-	-	-	-	3.93	8:46	-	-	-	-	-	-	-	-	-	-	-	
TW-06	07/28/2015	9.86	6.31	-	-	-	12.61	3.55	12:55	-	-	-	-	-	-	-	-	-	-	-	
TW-06	08/04/2015	9.86	6.34	-	-	-	12.64	3.52	12:07	-	-	-	-	-	-	-	-	-	-	-	
TW-06	08/06/2015	9.86	NR	-	-	-	-	-	-	2	<0.5	1	<0.5	<0.5	<2	<0.5	<0.5	2	81	1,400	
TW-06	08/11/2015	9.86	6.15	-	-	-	12.64	3.71	12:35	-	-	-	-	-	-	<0.5	-	-	-	-	
TW-06	08/18/2015	9.86	6.58	-	-	-	-	3.28	9:26	-	-	-	-	-	-	-	-	-	-	-	
TW-06	08/24/2015	9.86	6.51	-	-	-	-	3.35	9:46	-	-	-	-	-	-	-	-	-	-	-	
TW-06	09/02/2015	9.86	6.65	-	-	-	12.06	3.21	11:30	-	-	-	-	-	-	-	-	-	-	-	
TW-06	09/09/2015	9.86	6.02	-	-	-	12.66	3.84	14:03	-	-	-	-	-	-	-	-	-	-	-	
TW-06	09/17/2015	9.86	6.85	-	-	-	12.69	3.01	11:40	-	-	-	-	-	-	-	-	-	-	-	
TW-06	09/23/2015	9.86	6.69	-	-	-	-	3.17	10:06	-	-	-	-	-	-	-	-	-	-	-	
TW-06	09/28/2015	9.86	6.27	-	-	-	12.61	3.59	10:41	-	-	-	-	-	-	-	-	-	-	-	
TW-06	10/05/2015	9.86	5.70	-	-	-	12.63	4.16	10:13	-	-	-	-	-	-	-	-	-	-	-	
TW-06	11/10/2015	9.86	6.65	-	-	-	-	3.21	12:32	-	-	-	-	-	-	-	-	-	-	-	
TW-06	12/01/2015	9.86	6.55	-	-	-	12.62	3.31	13:22	0.8 J	<0.5	1	<0.5	<0.5	<2	<0.5	<0.5	0.8	92	1,300	
TW-06	02/15/2016	9.86	6.60	-	-	-	-	3.26	9:15	-	-	-	-	-	-	-	-	-	-	-	
TW-06	03/14/2016	9.86	6.57	-	-	-	12.63	3.29	10:05	-	-	-	-	-	-	-	-	-	-	-	
TW-06	03/15/2016	9.86	NR	-	-	-	-	-	-	0.8 J	<0.5	3	<0.5	<0.5	<2	<0.5	<0.5	1	110	43,000	
TW-06	04/21/2016	9.99	6.70	-	-	-	12.40	3.29	9:28	-	-	-	-	-	-	-	-	-	-	32,000	Sheen; Elevation change due to well being disturbed during construction activities
TW-06	05/05/2016	9.99	5.52	-	-	-	-	4.47	12:35	-	-	-	-	-	-	-	-	-	-	-	
TW-06	05/23/2016	9.99	4.77	-	-	-	-	5.22	11:00	-	-	-	-	-	-	-	-	-	-	-	
TW-06	05/24/2016	9.99	NR	-	-	-	-	-	-	<0.5	<0.5	4	<0.5	<0.5	<2	<0.5	<0.5	1	120	1,800	
TW-06	06/21/2016	9.99	6.93	-	-	-	-	3.06	11:17	-	-	-	-	-	-	-	-	-	-	-	
TW-06	07/21/2016	9.99	6.12	-	-	-	-	3.87	9:33	-	-	-	-	-	-	-	-	-	-	-	
TW-06	08/24/2016	9.99	6.88	-	-	-	12.88	3.11	9:54	-	-	-	-	-	-	-	-	-	-	1,500	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-06	08/25/2016	9.99	6.13	-	-	-	-	3.86	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-06	09/22/2016	9.99	6.89	-	-	-	-	3.10	14:35	-	-	-	-	-	-	-	-	-	-	-	-
TW-06	11/28/2016	9.99	7.42	-	-	-	12.45	2.57	8:43	-	-	-	-	-	-	-	-	-	-	-	-
TW-06	11/29/2016	9.99	NR	-	-	-	-	-	-	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1,200	-
TW-07	12/16/2013	14.00	NR	-	-	-	-	-	-	2.38	ND	0.97	ND	ND	-	-	-	34	-	-	3,290
TW-07	12/18/2013	14.00	7.56	-	-	-	-	6.44	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	01/08/2014	14.00	7.91	-	-	-	-	6.09	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	03/07/2014	14.00	6.91	-	-	-	-	7.09	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	03/13/2014	14.00	7.40	-	-	-	-	6.60	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	03/20/2014	14.00	6.78	-	-	-	-	7.22	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	03/27/2014	14.00	7.56	-	-	-	-	6.44	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	04/03/2014	14.00	5.67	-	-	-	-	8.33	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	04/08/2014	14.00	6.77	-	-	-	-	7.23	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	04/17/2014	14.00	5.51	-	-	-	-	8.49	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	04/22/2014	14.00	6.75	-	-	-	-	7.25	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	04/29/2014	14.00	6.60	-	-	-	-	7.40	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	05/05/2014	14.00	5.41	-	-	-	-	8.59	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	05/12/2014	14.00	6.89	-	-	-	-	7.11	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	05/19/2014	14.00	6.16	-	-	-	-	7.84	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	05/27/2014	14.00	6.70	-	-	-	-	7.30	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	06/02/2014	14.00	6.94	-	-	-	-	7.06	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	06/09/2014	14.00	7.81	-	-	-	-	6.19	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	06/16/2014	14.00	6.47	-	-	-	-	7.53	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	06/23/2014	14.00	6.69	-	-	-	-	7.31	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	07/02/2014	14.00	7.00	-	-	-	-	7.00	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	07/07/2014	14.00	7.27	-	-	-	13.42	6.73	-	-	-	-	-	-	-	-	-	-	-	41,500	-
TW-07	07/14/2014	14.00	6.70	-	-	-	-	7.30	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	07/25/2014	14.00	7.33	-	-	-	13.30	6.67	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	07/31/2014	14.00	7.22	-	-	-	13.30	6.78	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	08/08/2014	14.00	7.39	-	-	-	-	6.61	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	08/11/2014	14.00	7.17	-	-	-	13.20	6.83	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	08/15/2014	14.00	7.05	-	-	-	-	6.95	-	-	-	-	-	-	-	-	-	-	-	19,600	-
TW-07	08/18/2014	14.00	7.14	-	-	-	-	6.86	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-07	08/25/2014	9.88	6.87	-	-	-	-	3.01	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	09/02/2014	9.88	7.43	-	-	-	-	2.45	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	09/15/2014	9.88	7.33	-	-	-	-	2.55	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	09/22/2014	9.88	7.28	-	-	-	-	2.60	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	10/01/2014	9.88	7.38	-	-	-	12.98	2.50	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	10/13/2014	9.88	7.30	-	-	-	-	2.58	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	10/20/2014	9.88	7.49	-	-	-	12.97	2.39	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	10/23/2014	9.88	NR	-	-	-	-	-	-	2	<0.5	0.6	<0.5	<0.5	<2	<0.5	<0.5	6	29	4,700	-
TW-07	02/24/2015	9.88	7.45	-	-	-	-	2.43	14:52	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	03/04/2015	9.88	NR	-	-	-	-	-	-	9	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	2.2	46 J	670	-
TW-07	05/11/2015	9.88	6.92	-	-	-	12.70	2.96	15:27	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	05/13/2015	9.88	NR	-	-	-	-	-	-	10	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	3 J	36 J	320	-
TW-07	08/04/2015	9.88	6.88	-	-	-	12.74	3.00	12:10	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	08/05/2015	9.88	NR	-	-	-	-	-	-	7	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	2	57	220	-
TW-07	12/01/2015	9.88	5.97	-	-	-	12.99	3.91	13:24	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	12/02/2015	9.88	NR	-	-	-	-	-	-	3	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	1	<20	110	-
TW-07	03/14/2016	9.88	7.13	-	-	-	13.05	2.75	9:50	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	03/15/2016	9.88	NR	-	-	-	-	-	-	3	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.08	<20	160	-
TW-07	05/05/2016	9.88	6.53	-	-	-	-	3.35	12:24	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	05/23/2016	9.88	5.13	-	-	-	-	4.75	10:46	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	05/24/2016	9.88	NR	-	-	-	-	-	-	3	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.08	20 J	160*	-
TW-07	05/25/2016	9.88	NR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<45*	-
TW-07	08/24/2016	9.88	7.52	-	-	-	13.20	2.36	10:40	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	08/25/2016	9.88	7.19	-	-	-	-	2.69	-	-	-	-	-	-	-	-	-	-	-	-	340
TW-07	09/22/2016	9.88	7.30	-	-	-	-	2.58	14:30	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	11/28/2016	9.88	7.87	-	-	-	13.45	2.01	8:44	-	-	-	-	-	-	-	-	-	-	-	-
TW-07	11/30/2016	9.88	NR	-	-	-	-	-	-	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	59 J	-
TW-08S	12/18/2013	36.75	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	01/08/2014	36.75	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	03/07/2014	36.75	24.14	-	-	-	-	12.61	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	03/13/2014	36.75	24.06	-	-	-	-	12.69	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	03/20/2014	36.75	24.37	-	-	-	-	12.38	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	03/27/2014	36.75	24.54	-	-	-	-	12.21	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-08S	04/03/2014	36.75	24.26	-	-	-	-	12.49	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	04/08/2014	36.75	23.85	-	-	-	-	12.90	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	04/17/2014	36.75	24.13	-	-	-	-	12.62	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	04/22/2014	36.75	23.92	-	-	-	-	12.83	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	04/29/2014	36.75	23.91	-	-	-	-	12.84	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	05/05/2014	36.75	22.89	-	-	-	-	13.86	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	05/12/2014	36.75	23.02	-	-	-	-	13.73	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	05/19/2014	36.75	22.90	-	-	-	-	13.85	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	06/02/2014	36.75	23.24	-	-	-	-	13.51	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	06/09/2014	36.75	23.21	-	-	-	-	13.54	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	06/16/2014	36.75	22.40	-	-	-	-	14.35	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	06/23/2014	36.75	22.41	-	-	-	-	14.34	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	07/02/2014	36.75	22.40	-	-	-	-	14.35	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	07/07/2014	36.75	22.65	-	-	-	25.85	14.10	-	-	-	-	-	-	-	-	-	-	-	29,500	-
TW-08S	07/14/2014	36.75	23.23	-	-	-	-	13.52	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	07/24/2014	36.75	23.09	-	-	-	-	13.66	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	07/31/2014	36.75	23.26	-	-	-	25.82	13.49	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-08S	08/07/2014	Overdrilled and replaced with MW-72S																			
TW-09S	12/18/2013	36.65	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	01/08/2014	36.65	DRY	25.54	0.46	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	03/07/2014	36.65	24.71	24.70	0.01	-	-	11.95	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	03/13/2014	36.65	25.78	24.71	1.07	0.10	-	11.81	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	03/20/2014	36.65	DRY	25.65	0.50	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	03/27/2014	36.65	DRY	25.58	0.54	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	04/03/2014	36.65	23.37	23.18	0.19	0.10	-	13.45	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	04/08/2014	36.65	23.39	23.23	0.16	0.10	-	13.40	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	04/17/2014	36.65	23.72	23.66	0.06	-	-	12.99	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	04/22/2014	36.65	23.53	23.40	0.13	0.10	-	13.24	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	04/29/2014	36.65	23.76	23.68	0.08	-	-	12.96	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	05/05/2014	36.65	23.23	23.17	0.06	-	-	13.48	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	05/12/2014	36.65	23.25	23.23	0.02	-	-	13.42	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	05/19/2014	36.65	23.17	23.16	0.01	-	-	13.49	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	06/02/2014	36.65	23.19	-	-	-	-	13.46	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-09S	06/09/2014	36.65	23.17	-	-	-	-	13.48	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	06/16/2014	36.65	23.13	-	-	-	-	13.52	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	06/23/2014	36.65	23.11	-	-	-	-	13.54	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	07/02/2014	36.65	23.03	23.03	TRACE	TRACE	-	13.62	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	07/07/2014	36.65	23.01	-	-	-	26.15	13.64	-	-	-	-	-	-	-	-	-	-	-	2,330,000	-
TW-09S	07/14/2014	36.65	23.02	-	-	-	-	13.63	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-09S	07/23/2014	Overdrilled and replaced with MW-08S																			
TW-10	12/18/2013	37.28	30.31	-	-	-	-	6.97	-	2.51	ND	19.7	4.99	ND	-	-	-	131	-	3,040	-
TW-10	01/08/2014	37.28	30.56	-	-	-	-	6.72	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	03/07/2014	37.28	29.70	-	-	-	-	7.58	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	03/13/2014	37.28	30.08	-	-	-	-	7.20	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	03/20/2014	37.28	29.22	-	-	-	-	8.06	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	03/27/2014	37.28	30.13	-	-	-	-	7.15	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	04/03/2014	37.28	29.08	-	-	-	-	8.20	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	04/08/2014	37.28	29.14	-	-	-	-	8.14	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	04/17/2014	37.28	29.66	-	-	-	-	7.62	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	04/22/2014	37.28	29.12	-	-	-	-	8.16	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	04/29/2014	37.28	28.96	-	-	-	-	8.32	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	05/05/2014	37.28	29.22	-	-	-	-	8.06	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	05/12/2014	37.28	29.06	-	-	-	-	8.22	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	05/19/2014	37.28	29.02	-	-	-	-	8.26	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	06/02/2014	37.28	28.99	-	-	-	-	8.29	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	06/09/2014	37.28	28.89	-	-	-	-	8.39	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	06/16/2014	37.28	29.02	-	-	-	-	8.26	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	06/23/2014	37.28	28.86	-	-	-	-	8.42	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	07/02/2014	37.28	28.87	-	-	-	-	8.41	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	07/07/2014	37.28	29.12	-	-	-	36.47	8.16	-	-	-	-	-	-	-	-	-	-	-	23,400	-
TW-10	07/14/2014	37.28	28.68	-	-	-	-	8.60	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-10	07/21/2014	Overdrilled and replaced with MW-27																			
TW-11	12/18/2013	37.39	26.40	-	-	-	-	10.99	-	1.55	0.664	8.3	9.67	0.578	-	-	-	263	-	170,000	-
TW-11	01/08/2014	37.39	27.73	-	-	-	-	9.66	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-11	03/07/2014	37.39	29.17	-	-	-	-	8.22	-	-	-	-	-	-	-	-	-	-	-	-	-
TW-11	03/13/2014	37.39	27.56	-	-	-	-	9.83	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments	
TW-11	03/20/2014	37.39	27.15	-	-	-	-	10.24	-	-	-	-	-	-	-	-	-	-	-	-	-	LNAPL NMB LNAPL NMB
TW-11	03/27/2014	37.39	27.40	-	-	-	-	9.99	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	04/03/2014	37.39	26.28	26.26	0.02	0.10	-	11.12	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	04/08/2014	37.39	26.52	-	-	-	-	10.87	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	04/17/2014	37.39	26.85	-	-	-	-	10.54	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	04/22/2014	37.39	27.09	-	-	-	-	10.30	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	04/29/2014	37.39	27.39	-	-	-	-	10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	05/05/2014	37.39	26.26	26.24	0.02	-	-	11.14	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	05/12/2014	37.39	26.97	-	-	-	-	10.42	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	05/19/2014	37.39	25.91	25.90	0.01	-	-	11.49	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	06/02/2014	37.39	26.32	26.31	0.01	-	-	11.08	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	06/09/2014	37.39	25.23	-	-	-	-	12.16	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	06/16/2014	37.39	25.35	25.36	0.01	-	-	12.05	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	06/23/2014	37.39	26.55	-	-	-	-	10.84	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	07/02/2014	37.39	26.91	26.91	TRACE	-	-	10.48	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	07/07/2014	37.39	27.08	-	-	-	37.10	10.31	-	-	-	-	-	-	-	-	-	-	-	117,000	-	
TW-11	07/14/2014	37.39	26.95	26.95	TRACE	-	-	10.44	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	07/24/2014	37.39	26.88	-	-	-	-	10.51	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	07/31/2014	37.39	27.10	-	-	-	37.02	10.29	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-11	08/05/2014	Overdrilled and replaced with MW-31																				
TW-12S	12/18/2013	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	01/08/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	03/07/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	03/13/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	03/20/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	03/27/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	04/03/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	04/08/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	04/17/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	04/22/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	04/29/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	05/05/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	05/12/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-12S	05/19/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	06/02/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	06/09/2014	38.01	DRY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	06/16/2014	38.01	26.37	-	-	-	-	11.64	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	06/23/2014	38.01	26.37	-	-	-	-	11.64	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	07/02/2014	38.01	26.40	-	-	-	-	11.61	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	07/07/2014	38.01	26.40	-	-	-	26.60	11.61	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	07/14/2014	38.01	26.48	-	-	-	-	11.53	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	07/24/2014	38.01	26.48	-	-	-	-	11.53	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	07/31/2014	38.01	26.48	-	-	-	26.56	11.53	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	08/08/2014	38.01	26.49	-	-	-	26.60	11.52	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	08/11/2014	38.01	26.47	-	-	-	-	11.54	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	08/15/2014	38.01	26.47	-	-	-	26.58	11.54	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	08/18/2014	38.01	26.47	-	-	-	-	11.54	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	08/25/2014	38.01	26.47	-	-	-	-	11.54	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	09/02/2014	31.33	24.84	-	-	-	24.97	6.49	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	09/15/2014	31.33	24.82	-	-	-	-	6.51	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	09/22/2014	31.33	24.83	-	-	-	-	6.50	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	10/01/2014	31.33	24.81	-	-	-	24.91	6.52	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	10/10/2014	31.33	24.82	-	-	-	-	6.51	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	10/20/2014	31.33	24.82	-	-	-	24.92	6.51	-	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	02/24/2015	31.33	24.81	-	-	-	-	6.52	15:47	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	05/11/2015	31.33	24.82	-	-	-	24.90	6.51	10:40	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	08/04/2015	31.33	24.78	-	-	-	25.00	6.55	10:25	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	12/01/2015	31.33	24.82	-	-	-	24.92	6.51	11:32	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	03/14/2016	31.33	24.76	-	-	-	25.00	6.57	9:34	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	05/23/2016	31.33	24.75	-	-	-	24.90	6.58	11:19	-	-	-	-	-	-	-	-	-	-	-	
TW-12S	05/25/2016	31.33	24.69	-	-	-	24.91	6.64	12:08	-	-	-	-	-	-	-	-	-	-	-	DRY
TW-12S	08/24/2016	31.33	24.71	-	-	-	24.94	6.62	12:11	-	-	-	-	-	-	-	-	-	-	-	DRY
TW-12S	08/25/2016	31.33	24.72	-	-	-	24.94	6.61	-	-	-	-	-	-	-	-	-	-	-	-	DRY
TW-12S	08/30/2016	31.33	24.73	-	-	-	24.93	6.60	-	-	-	-	-	-	-	-	-	-	-	-	DRY
TW-12S	11/28/2016	31.33	24.75	-	-	-	25.04	6.58	10:43	-	-	-	-	-	-	-	-	-	-	-	Insufficient GW Vol.
TW-12S	11/29/2016	31.33	DRY	-	-	-	24.92	-	11:10	-	-	-	-	-	-	-	-	-	-	-	DRY

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-12S	12/07/2016	31.33	24.77	-	-	-	24.93	6.56	12:14	-	-	-	-	-	-	-	-	-	-	-	Insufficient GW Vol.
TW-13	12/18/2013	36.99	NR	-	-	-	-	-	-	6.06	ND	44.5	137	ND	-	-	-	239	-	3,580	
TW-13	01/08/2014	36.99	30.45	-	-	-	-	6.54	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	03/07/2014	36.99	29.11	-	-	-	-	7.88	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	03/13/2014	36.99	29.91	-	-	-	-	7.08	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	03/20/2014	36.99	29.09	-	-	-	-	7.90	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	03/27/2014	36.99	29.98	-	-	-	-	7.01	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	04/03/2014	36.99	29.05	-	-	-	-	7.94	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	04/08/2014	36.99	29.98	-	-	-	-	7.01	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	04/17/2014	36.99	29.62	-	-	-	-	7.37	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	04/22/2014	36.99	28.93	-	-	-	-	8.06	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	04/29/2014	36.99	28.90	-	-	-	-	8.09	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	05/05/2014	36.99	29.95	-	-	-	-	7.04	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	05/12/2014	36.99	28.91	-	-	-	-	8.08	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	05/19/2014	36.99	28.87	-	-	-	-	8.12	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	06/02/2014	36.99	28.86	-	-	-	-	8.13	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	06/09/2014	36.99	28.73	-	-	-	-	8.26	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	06/16/2014	36.99	28.88	-	-	-	-	8.11	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	06/23/2014	36.99	28.65	-	-	-	-	8.34	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	07/02/2014	36.99	28.69	-	-	-	-	8.30	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	07/07/2014	36.99	28.91	-	-	-	35.02	8.08	-	-	-	-	-	-	-	-	-	-	-	17,500	
TW-13	07/14/2014	36.99	28.58	-	-	-	-	8.41	-	-	-	-	-	-	-	-	-	-	-	-	
TW-13	07/29/2014	Overdrilled and replaced with MW-14																			
TW-14	01/17/2014	15.55	2.48	-	-	-	-	13.07	-	<0.5	<0.5	<0.5	<0.5	0.536	-	-	-	ND	-	2,290	
TW-14	03/07/2014	15.55	2.29	-	-	-	-	13.26	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	03/13/2014	15.55	2.55	-	-	-	-	13.00	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	03/20/2014	15.55	2.25	-	-	-	-	13.30	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	03/27/2014	15.55	2.42	-	-	-	-	13.13	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	04/03/2014	15.55	2.31	-	-	-	-	13.24	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	04/08/2014	15.55	2.27	-	-	-	-	13.28	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	04/17/2014	15.55	2.26	-	-	-	-	13.29	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	04/22/2014	15.55	2.48	-	-	-	-	13.07	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	04/29/2014	15.55	2.66	-	-	-	-	12.89	-	-	-	-	-	-	-	-	-	-	-	-	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-14	05/05/2014	15.55	2.56	-	-	-	-	12.99	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	05/12/2014	15.55	2.58	-	-	-	-	12.97	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	05/19/2014	15.55	2.38	-	-	-	-	13.17	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	06/02/2014	15.55	2.52	-	-	-	-	13.03	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	06/09/2014	15.55	2.50	-	-	-	-	13.05	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	06/16/2014	15.55	2.31	-	-	-	-	13.24	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	06/23/2014	15.55	2.44	-	-	-	-	13.11	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	07/02/2014	15.55	4.63	-	-	-	-	10.92	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	07/07/2014	15.55	4.65	-	-	-	7.27	10.90	-	-	-	-	-	-	-	-	-	-	-	16,000	
TW-14	07/14/2014	15.55	4.40	-	-	-	-	11.15	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	07/24/2014	15.55	4.46	-	-	-	-	11.09	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	07/31/2014	15.55	4.63	-	-	-	7.39	10.92	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	08/08/2014	15.55	4.43	-	-	-	7.39	11.12	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	08/11/2014	15.55	4.57	-	-	-	-	10.98	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	08/15/2014	15.55	4.36	-	-	-	7.39	11.19	-	-	-	-	-	-	-	-	-	-	-	3,900	
TW-14	08/18/2014	15.55	4.49	-	-	-	-	11.06	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	08/25/2014	11.61	3.01	-	-	-	-	8.60	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	09/02/2014	11.61	3.03	-	-	-	-	8.58	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	09/15/2014	11.61	3.19	-	-	-	-	8.42	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	09/22/2014	11.61	3.38	-	-	-	-	8.23	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	10/01/2014	11.61	3.50	-	-	-	5.90	8.11	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	10/10/2014	11.61	3.67	-	-	-	-	7.94	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	10/20/2014	11.61	3.02	-	-	-	5.90	8.59	-	-	-	-	-	-	-	-	-	-	-	-	
TW-14	10/21/2014	11.61	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	-	100	670	
TW-14	02/24/2015	11.61	2.67	-	-	-	-	8.94	15:29	-	-	-	-	-	-	-	-	-	-	-	
TW-14	02/26/2015	11.61	2.68	-	-	-	5.90	8.93	12:00	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.03	73	120	
TW-14	05/11/2015	11.61	3.28	-	-	-	6.90	8.33	10:30	-	-	-	-	-	-	-	-	-	-	-	
TW-14	05/12/2015	11.61	NR	-	-	-	-	-	-	1	<0.5	<0.5	<0.5	<0.5	7.00	<0.5	<0.5	<1	220	2,000	
TW-14	08/04/2015	11.61	3.37	-	-	-	5.98	8.24	10:31	-	-	-	-	-	-	-	-	-	-	-	
TW-14	08/11/2015	11.61	3.65	-	-	-	6.00	7.96	12:00	-	-	-	-	-	-	-	-	-	-	-	
TW-14	08/13/2015	11.61	NR	-	-	-	-	-	-	1	<0.5	<0.5	<0.5	<0.5	9	<0.5	<0.5	<0.08	130	3,700	
TW-14	08/18/2015	11.61	3.83	-	-	-	-	7.78	9:15	-	-	-	-	-	-	-	-	-	-	-	
TW-14	12/01/2015	11.61	2.76	-	-	-	-	8.85	9:15	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.04	<20	<45	

Table 3

HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Date	Top of Casing (ft)	Depth to Water (DTW) (ft)	Depth to LNAPL (ft)	LNAPL Thickness (ft)	Volume of LNAPL Recovered (gal)	Depth to Bottom (DTB) - Measured Depth (ft)	Groundwater Elevation (ft)	Gauging Time	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Methyl tert-butyl ether (µg/L)	tert-Butyl alcohol (µg/L)	1,2-Dibromoethane (µg/L)	1,2-Dichloroethane (µg/L)	Naphthalene (µg/L)	TPH-GRO (µg/L)	TPH-DRO (µg/L)	Comments
TW-14	03/14/2016	11.61	2.80	-	-	-	6.02	8.81	10:11	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.08	<20	54 J	
TW-14	05/23/2016	11.61	2.71	-	-	-	6.00	8.90	11:24	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.08	22 J	45 J	
TW-14	08/24/2016	11.61	3.05	-	-	-	-	8.56	-	-	-	-	-	-	-	-	-	-	-	<45	
TW-14	11/28/2016	11.61	4.07	-	-	-	6.03	7.54	11:24	-	-	-	-	-	-	-	-	-	-	-	
TW-14	12/01/2016	11.61	NR	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	NT	<0.08	<20	480	

Notes:

- Specific gravity was tested at MW-05 and MW-25, and the average specific gravity (0.878) is used for groundwater elevation adjustments.

- In 4Q2016 TPH-DRO analytical data results from TW wells TW-03, TW-04, TW-05, TW-06, TW-07, and TW-14 were provided by Geosyntec and not appended to the Fourth Quarter 2016 Monitoring Report.

* = Two samples for TPH-DRO were collected from TW-07. The first sample was collected by Geosyntec for the purpose of analyzing all parameters at this location for quality control purposes (MS/MSD). A second sample was also collected by GES as part of their routine monitoring program. The results reported for TW-07 were 160 J+ micrograms per Liter (µg/L) and <45 µg/L. The difference between the two results is less than twice the reporting limit and therefore deemed valid as received.

- = No data available

<# = Result less than the method detection limit (#), i.e. non-detect

µg/L = Micrograms per liter

J = Result detected between the Method Detection Limit and the Reporting Limit; therefore, result is an estimated value.

ND = Non-detect

TPH-GRO = Total Petroleum Hydrocarbons, Gasoline Range Organics (C6-C10)

TPH-DRO = Total Petroleum Hydrocarbons, Diesel Range Organics C10-C28

(Date)^H = Well sampled during the Potomac River's high tide.

(Date)^L = Well sampled during the Potomac River's low tide.

ft = feet

gal = gallons

DRY = No water for sampling.

Vol. = Insufficient Groundwater (GW) Volume (Vol.) for sampling

GW = Groundwater

LNAPL = Light Non-Aqueous Phase Liquid

NR = Not recorded

TRACE = LNAPL thickness is less than 0.01 feet

VO = Vegetation Overgrowth (could not locate well to gauge and/or sample).

NMB = Not Manually Bailed

NT = Not Tabulated, laboratory data results available.

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
MW-01S	10/10/2014	10.2	6.3	-	-	0.53	6.68	17.69	-95.0	880	-
MW-01S	10/20/2014	1.0	6.3	10.1	10.3	-	-	-	-	-	-
MW-01S	10/22/2014	-	-	-	-	0.80	6.63	17.81	-91.6	369	-
MW-01S	2/24/2015	8.4	3.0	12.2	26.6	0.10	6.53	16.31	-172.6	724	-
MW-01S	5/11/2015	64.8	1.6	10.8	27.8	PRODUCT					
MW-01S	8/4/2015	11.4	8.9	7.2	9.2	PRODUCT					
MW-01S	3/14/2016	78.8	3.5	10.8	2.2	0.13	6.65	16.46	-104.0	860	-
MW-01S	4/21/2016	14.8	20.8	0.3	0.1	0.11	6.62	16.14	-57.6	970	-
MW-01S	5/23/2016	0.0	20.9	0.0	0.0	PRODUCT					
MW-01S	8/24/2016	1.8	-	-	-	0.76	6.61	16.50	-127.8	1,040	-
MW-01S	8/30/2016	64.3	22.6	0.1	0.1	-	-	-	-	-	-
MW-01S	11/28/2016	-	-	-	-	1.47	7.12	17.44	-84.0	1,017	-
MW-01S	12/8/2016	0.3	20.9	0.0	0.0	-	-	-	-	-	-
MW/RW-05	10/13/2014	15.9	13.0	-	-	PRODUCT					
MW/RW-05	10/15/2014	137.0	9.6	-	-	PRODUCT					
MW/RW-05	2/24/2015	11.4	1.0	15.9	25.3	PRODUCT					
MW/RW-05	5/11/2015	90.2	5.8	11.1	19.6	PRODUCT					
MW/RW-05	8/4/2015	71.9	18.2	1.9	2.1	PRODUCT					
MW/RW-05	12/1/2015	12.8	2.6	15.1	26.6	PRODUCT					
MW/RW-05	3/14/2016	98.8	19.8	0.7	0.4	PRODUCT					
MW/RW-05	5/23/2016	0.2	20.8	0.0	0.0	8.46	3.48	16.03	385.0	3,150	-
MW/RW-05	8/24/2016	6.4	-	-	-	2.69	6.53	19.98	15.2	640	-
MW/RW-05	8/30/2016	47.4	21.6	0.1	10.0	-	-	-	-	-	-
MW/RW-05	11/28/2016	0.7	20.9	0.2	0.0	13.12	4.35	17.10	229.5	1,280	-
MW-08S	10/13/2014	21.0	14.5	-	-	0.89	6.68	18.18	-123.6	1,488	-

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MW-08S	10/13/2014	-	-	-	-	0.81	6.70	18.26	-108.0	1,386	-
MW-08S	10/14/2014	-	-	-	-	0.16	6.77	18.18	-129.0	1,424	-
MW-08S	10/15/2014	8.7	20.4	-	-	0.83	6.68	18.29	-105.8	1,325	-
MW-08S	10/15/2014	-	-	-	-	0.28	6.66	18.23	-113.1	1,408	-
MW-08S	10/20/2014	15.9	10.9	6.2	1.9	-	-	-	-	-	-
MW-08S	10/22/2014	-	-	-	-	1.24	6.59	18.27	-98.8	1,276	-
MW-08S	2/24/2015	49.3	0.4	13.8	15.4	-	-	-	-	-	-
MW-08S	2/25/2015	-	-	-	-	0.09	6.69	16.81	-137.5	1,236	-
MW/RW-10S	10/13/2014	23.1	17.0	-	-	0.75	6.59	18.17	-117.6	1,202	-
MW/RW-10S	10/13/2014	-	-	-	-	0.60	6.60	18.20	-113.0	1,185	-
MW/RW-10S	10/15/2014	8.3	20.4	-	-	0.41	6.54	18.23	-118.5	1,185	-
MW/RW-10S	10/15/2014	-	-	-	-	0.60	6.56	18.30	-104.5	1,189	-
MW/RW-10S	10/16/2014	18.5	20.9	-	-	-	-	-	-	-	-
MW/RW-10S	10/20/2014	25.2	15.2	3.7	0.2	-	-	-	-	-	-
MW/RW-10S	10/22/2014	-	-	-	-	1.30	6.48	18.44	-72.7	1,002	-
MW/RW-10S	2/24/2015	54.5	1.0	14.7	3.4	-	-	-	-	-	-
MW/RW-10S	5/11/2015	22.6	6.5	9.2	7.6	-	-	-	-	-	-
MW/RW-10S	8/4/2015	53.6	4.2	10.6	7.6	0.02	6.73	16.52	-90.0	1,440	-
MW/RW-10S	3/14/2016	134.2	19.4	1.2	0.4	0.14	6.59	15.38	-121.4	1,350	-
MW/RW-10S	4/21/2016	190.3	17.5	2.5	0.5	-	-	-	-	-	-
MW/RW-10S	5/23/2016	44.3	20.9	0.3	0.0	6.87	3.93	15.87	114.8	1,570	-
MW/RW-10S	8/24/2016	45.8	-	-	-	-	-	-	-	-	-
MW/RW-10S	8/30/2016	208.1	20.1	1.2	0.1	6.09	6.45	20.54	65.4	1,410	-
MW/RW-10S	11/28/2016	0.2	20.9	0.0	0.0	6.68	6.75	14.12	218.1	1,300	-
MW-11	10/13/2014	5.4	19.0	-	-	2.30	6.27	18.16	56.2	324	-

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Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
MW-11	10/13/2014	-	-	-	-	3.23	6.14	18.29	48.6	349	-
MW-11	10/15/2014	23.6	15.3	-	-	-	-	-	-	-	-
MW-11	10/20/2014	22.0	11.6	6.3	1.9	-	-	-	-	-	-
MW-11	10/22/2014	-	-	-	-	0.38	5.73	18.38	160.2	323	-
MW-11	2/24/2015	3.2	19.3	3.7	0.1	-	-	-	-	-	-
MW-11	2/25/2015	-	-	-	-	0.12	5.60	17.83	62.6	370	-
MW-11	5/11/2015	0.6	20.6	0.2	0.1	0.07	5.66	17.27	91.2	390	-
MW-11	8/4/2015	4.3	2.5	15.0	26.8	0.09	6.66	18.45	-39.8	1,150	-
MW/RW-14	10/13/2014	15.9	17.2	-	-	2.79	6.00	18.13	68.0	368	-
MW/RW-14	10/20/2014	82.4	14.4	3.7	1.3	-	-	-	-	-	-
MW/RW-14	10/22/2014	-	-	-	-	0.26	5.79	18.43	216.2	310	-
MW/RW-14	2/24/2015	188.0	14.4	0.9	0.4	-	-	-	-	-	-
MW/RW-14	2/25/2015	-	-	-	-	0.84	6.25	17.90	-98.6	460	-
MW/RW-14	5/11/2015	166.8	18.4	2.4	0.2	0.07	6.22	17.30	-69.6	420	-
MW/RW-14	8/4/2015	11.9	17.8	3.2	0.3	0.07	6.72	17.10	-69.4	1,100	-
MW/RW-14	3/14/2016	143.4	13.6	5.9	0.8	0.10	6.35	16.95	-84.7	490	-
MW/RW-14	4/21/2016	503.7	20.4	1.5	0.8	PRODUCT					
MW/RW-14	5/23/2016	132.0	20.8	0.3	0.2	PRODUCT					
MW/RW-14	8/24/2016	550.3	-	-	-	7.06	5.76	18.95	103.60	190	-
MW/RW-14	8/30/2016	101.8	21.7	0.0	0.1	-	-	-	-	-	-
MW/RW-14	11/28/2016	0.8	20.9	0.2	0.0	11.69	5.94	14.91	87.9	209	-
MW-15S	10/13/2014	34.0	12.4	-	-	0.84	6.32	18.03	-17.1	647	-
MW-15S	10/20/2014	18.2	2.2	11.6	0.0	-	-	-	-	-	-
MW-15S	10/22/2014	-	-	-	-	0.88	6.48	17.61	-37.4	989	-
MW-16S	10/10/2014	9.0	7.2	-	-	-	-	-	-	-	-



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Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
MW-16S	2/24/2015	0.0	5.5	12.4	0.1	1.54	6.11	14.50	60.2	1,600	-
MW-16	10/10/2014	11.1	6.9	-	-	0.46	5.88	17.50	162.4	707	-
MW-16	10/22/2014	-	-	-	-	0.87	5.79	17.75	211.0	681	30,200
MW-16	2/24/2015	0.0	20.9	0.3	0.1	2.62	5.92	17.57	101.8	1,010	-
MW-16	5/11/2015	-	-	-	-	0.49	5.83	17.05	112.4	830	-
MW-25S	10/13/2014	-	-	-	-	0.96	6.46	18.51	-84.0	914	-
MW-25S	10/13/2014	13.0	20.3	-	-	-	-	-	-	-	-
MW-25S	10/15/2014	192.0	19.3	-	-	-	-	-	-	-	-
MW-25S	10/16/2014	34.4	20.9	-	-	-	-	-	-	-	-
MW-25S	10/20/2014	30.2	16.6	3.4	0.3	-	-	-	-	-	-
MW-25S	2/24/2015	127.0	3.6	12.7	2.3	-	-	-	-	-	-
MW-25S	5/11/2015	51.8	6.5	8.3	6.4	-	-	-	-	-	-
MW-25S	8/4/2015	70.5	4.4	9.5	4.6	-	-	-	-	-	-
MW/RW-25	10/13/2014	139.0	19.2	-	-	-	-	-	-	-	-
MW/RW-25	10/14/2014	79.0	17.5	-	-	-	-	-	-	-	-
MW/RW-25	10/15/2014	8.4	20.9	-	-	-	-	-	-	-	-
MW/RW-25	10/16/2014	28.2	14.3	-	-	-	-	-	-	-	-
MW/RW-25	2/24/2015	121.0	15.4	5.5	1.3	-	-	-	-	-	-
MW/RW-25	5/11/2015	263.0	11.6	6.7	0.6	-	-	-	-	-	-
MW/RW-25	8/4/2015	118.4	15.8	3.7	0.4	-	-	-	-	-	-
MW/RW-25	12/1/2015	79.5	14.7	5.4	1.1	-	-	-	-	-	-
MW/RW-25	3/14/2016	6.2	10.9	8.9	3.2	-	-	-	-	-	-
MW/RW-25	4/21/2016	50.2	20.9	0.2	0.2	8.30	5.45	16.77	154.2	310	-
MW/RW-25	5/23/2016	23.1	20.7	0.1	0.0	6.45	5.54	17.26	142.1	340	-
MW/RW-25	8/24/2016	54.8	-	-	-	2.58	5.56	18.78	101.8	300	-

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Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
MW/RW-25	8/30/2016	79.8	21.7	0.0	0.0	-	-	-	-	-	-
MW/RW-25	11/28/2016	17.8	20.9	0.2	0.0	12.82	5.81	15.46	100.3	332	-
MW-27	10/10/2014	41.5	17.7	-	-	0.28	6.55	17.74	-79.8	1,075	-
MW-27	10/15/2014	7.3	20.9	-	-	0.02	6.51	17.97	-36.3	1,057	-
MW-27	10/15/2014	21.9	16.1	-	-	1.67	6.37	18.18	44.5	831	-
MW-27	10/16/2014	21.9	16.1	-	-	-	-	-	-	-	-
MW-27	10/20/2014	25.3	14.3	6.5	8.6	-	-	-	-	-	-
MW-27	10/23/2014	-	-	-	-	0.54	6.46	17.97	743.0	153	1,540
MW-27	2/24/2015	21.1	2.3	12.2	13.6	-	-	-	-	-	-
MW-27	2/25/2015	-	-	-	-	0.06	6.61	15.83	-85.6	1,228	-
MW-27	5/11/2015	127.3	8.1	7.9	0.0	0.08	6.54	14.84	-110.0	1,300	-
MW-27	8/4/2015	28.5	1.3	13.2	16.6	0.03	6.68	15.93	-49.3	1,260	-
MW-27	12/1/2015	67.4	2.2	16.9	31.9	0.06	6.57	17.28	-51.5	1,190	-
MW-27	3/14/2016	70.8	1.0	15.5	0.6	0.08	6.54	14.77	-142.5	1,390	-
MW-27	4/21/2016	123.2	20.3	1.0	0.3	10.15	6.80	14.65	90.9	740	-
MW-27	5/23/2016	11.4	20.7	0.3	0.0	4.96	6.79	14.39	30.5	780	-
MW-27	8/24/2016	0.8	20.5	0.4	0.0	7.37	6.46	16.42	46.7	1,220	-
MW-27	11/28/2016	0.1	20.9	0.4	0.0	6.38	6.70	18.04	11.3	719	-
MW/RW-31	10/10/2014	120.5	6.2	-	-	0.39	6.97	18.62	-119.7	899	-
MW/RW-31	10/15/2014	62.5	15.0	-	-	0.59	6.83	19.04	-119.9	848	-
MW/RW-31	10/15/2014	0.0	20.9	-	-	0.90	6.61	19.57	-47.6	541	-
MW/RW-31	10/20/2014	11.8	17.4	1.1	0.3	-	-	-	-	-	-
MW/RW-31	10/23/2014	-	-	-	-	0.41	6.98	18.69	-15.9	791	728
MW/RW-31	2/24/2015	179.0	2.1	0.2	0.3	0.02	7.08	14.47	-164.3	927	-
MW/RW-31	5/11/2015	36.9	5.8	4.1	0.1	0.00	7.06	12.74	-129.3	1,010	-

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MW/RW-31	8/4/2015	41.3	3.9	5.4	1.7	0.02	7.18	15.92	-13.7	1,010	-
MW/RW-31	5/23/2016	-	-	-	-	7.34	6.69	15.56	82.4	620	-
MW-33	10/10/2014	1.4	9.7	-	-	0.68	5.81	17.97	157.4	654	-
MW-33	10/15/2014	0.5	19.0	-	-	0.09	5.84	18.30	64.9	633	-
MW-33	10/15/2014	0.0	20.9	-	-	0.42	5.86	18.30	92.6	658	-
MW-33	10/20/2014	1.0	12.0	5.4	0.0	-	-	-	-	-	-
MW-33	10/23/2014	-	-	-	-	2.37	6.05	18.24	186.7	698	1,120
MW-33	2/24/2015	0.0	20.6	0.1	0.1	2.35	5.51	15.51	88.7	648	-
MW-33	5/11/2015	21.4	19.0	1.0	0.0	0.47	5.69	14.03	88.0	720	-
MW-33	8/4/2015	1.4	3.3	8.6	0.0	0.05	6.29	15.84	48.5	780	-
MW-51S	10/13/2014	23.0	5.7	-	-	0.64	6.72	18.32	-120.0	1,457	-
MW-51S	10/13/2014	1.0	-	-	-	0.75	6.65	18.35	-78.8	1,000	-
MW-51S	10/14/2014	-	-	-	-	0.33	6.64	18.46	-71.8	1,047	-
MW-51S	10/15/2014	1.2	20.0	-	-	1.62	6.60	18.43	1.5	566	-
MW-51S	10/15/2014	-	-	-	-	0.74	6.62	18.45	-84.6	1,122	-
MW-51S	10/20/2014	22.3	10.6	6.3	1.5	-	-	-	-	-	-
MW-51S	10/22/2014	-	-	-	-	0.81	6.67	18.47	-93.7	1,153	-
MW-51S	2/24/2015	9.9	0.9	13.5	27.2	-	-	-	-	-	-
MW-51S	2/25/2015	-	-	-	-	0.08	6.70	16.75	-110.9	1,968	-
MW-51S	5/11/2015	40.8	1.2	12.1	28.3	0.02	6.74	16.21	-113.3	1,830	-
MW-51S	8/4/2015	15.2	0.7	13.2	27.5	0.04	6.82	16.33	-96.0	1,440	-
MW-51S	3/14/2016	62.4	4.8	10.6	0.6	0.27	6.63	16.10	-129.3	2,250	-
MW-51S	4/21/2016	12.4	13.2	1.6	0.3	0.06	6.65	16.57	-79.9	1,760	-
MW-51S	5/23/2016	0.0	20.9	0.0	0.0	0.59	6.83	16.74	-96.6	2,290	-
MW-51S	8/24/2016	1.1	-	-	-	0.70	6.74	18.60	-113.7	2,390	-

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1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
MW-51S	8/30/2016	153.7	21.7	0.1	0.0	-	-	-	-	-	-
MW-51S	11/28/2016	-	-	-	-	2.26	7.14	19.36	-131.0	1,448	-
MW-51S	12/8/2016	0.2	20.9	0.0	0.0	-	-	-	-	-	-
MW/RW-51	10/13/2014	135.0	18.0	-	-	-	-	-	-	-	-
MW/RW-51	10/15/2014	100.8	14.0	-	-	0.33	6.60	18.57	-86.9	1,014	-
MW/RW-51	10/20/2014	31.5	11.6	4.9	3.2	-	-	-	-	-	-
MW/RW-51	2/24/2015	35.1	4.7	11.4	6.0	-	-	-	-	-	-
MW/RW-51	5/11/2015	100.3	1.2	12.6	5.1	-	-	-	-	-	-
MW/RW-51	8/4/2015	104.3	19.6	1.0	1.6	-	-	-	-	-	-
MW/RW-51	12/1/2015	18.5	17.8	2.4	1.2	-	-	-	-	-	-
MW/RW-51	3/14/2016	30.0	19.0	1.7	0.2	-	-	-	-	-	-
MW/RW-51	4/21/2016	59.9	20.9	0.3	0.2	5.13	6.43	16.38	46.7	740	-
MW/RW-51	5/23/2016	33.1	20.6	0.3	0.0	5.43	6.57	17.44	19.6	700	-
MW/RW-51	8/24/2016	47.0	-	-	-	2.22	6.69	18.70	-44.8	650	-
MW/RW-51	8/30/2016	74.9	21.1	0.0	0.0	-	-	-	-	-	-
MW/RW-51	11/28/2016	0.0	20.9	0.3	0.0	12.39	6.80	15.87	-47.0	715	-
MW-52	10/10/2014	5.4	16.3	-	-	1.15	5.87	17.51	45.9	465	-
MW-70	10/10/2014	0.3	16.2	-	-	2.12	5.76	17.30	98.7	843	-
MW-70	2/24/2015	0.0	17.8	1.3	0.2	1.02	5.53	16.71	-36.2	900	-
MW-70	5/11/2015	-	-	-	-	0.40	5.49	16.51	120.7	790	-
MW-70	8/4/2015	-	-	-	-	0.46	5.72	16.24	77.5	820	-
MW/RW-72S	10/10/2014	21.7	5.8	-	-	0.55	6.42	18.41	-98.2	1,331	-
MW/RW-72S	10/15/2014	14.5	14.0	-	-	0.04	6.40	18.56	-85.4	1,340	-
MW/RW-72S	10/15/2014	-	-	-	-	1.70	6.47	18.70	-53.0	1,246	-
MW/RW-72S	10/16/2014	95.0	7.8	-	-	-	-	-	-	-	-

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
MW/RW-72S	10/20/2014	38.8	9.3	7.4	4.2	-	-	-	-	-	-
MW/RW-72S	10/22/2014	-	-	-	-	1.92	6.39	17.99	-21.2	904	-
MW/RW-72S	2/24/2015	30.6	5.4	11.5	1.6	0.09	6.54	16.13	-101.9	1,325	-
MW/RW-72S	5/11/2015	65.0	6.5	9.4	3.3	0.02	6.49	14.58	-110.6	1,340	-
MW/RW-72S	8/4/2015	8.0	8.2	6.9	0.4	0.11	6.71	16.20	-56.9	1,710	-
MW/RW-72S	3/14/2016	21.4	15.6	4.1	0.1	2.16	6.59	15.02	-101.1	1,960	-
MW/RW-72S	5/23/2016	0.0	20.9	0.2	0.0	NO MEASUREMENTS - BAILER CAUGHT IN WELL (RELEASED NEXT SAMPLE DAY)					
MW/RW-72S	8/24/2016	28.2	-	-	-	-	-	-	-	-	-
MW/RW-72S	8/30/2016	13.8	20.8	0.1	0.0	3.09	4.48	25.13	250.70	1,600	-
MW/RW-72S	11/28/2016	0.2	20.9	0.0	0.0	DRY					
MW/RW-72	10/10/2014	12.2	6.6	-	-	0.48	5.47	17.86	32.6	743	-
MW/RW-72	10/15/2014	14.8	16.8	-	-	0.14	5.41	18.04	110.3	733	-
MW/RW-72	10/15/2014	-	-	-	-	2.99	5.75	18.09	108.9	739	-
MW/RW-72	10/16/2014	6.9	5.2	-	-	-	-	-	-	-	-
MW/RW-72	10/20/2014	10.5	2.0	16.8	13.0	-	-	-	-	-	-
MW/RW-72	10/22/2014	-	-	-	-	1.77	5.86	17.73	146.2	533	29,800
MW/RW-72	2/24/2015	13.3	14.2	6.9	0.1	0.58	5.48	17.43	82.8	877	-
MW/RW-72	5/11/2015	64.5	20.6	0.2	0.0	0.03	5.82	15.99	-21.9	1,080	-
MW/RW-72	8/4/2015	6.9	12.7	5.0	3.2	0.02	6.68	16.31	-57.3	1,880	-
MW/RW-72	3/14/2016	42.8	19.8	1.0	0.1	0.04	6.62	16.93	-121.3	1,970	-
MW/RW-72	4/21/2016	79.2	20.7	0.6	0.2	10.41	5.98	16.45	143.7	660	-
MW/RW-72	5/23/2016	0.0	20.9	0.0	0.0	7.92	6.42	16.99	112.8	710	-
MW/RW-72	8/24/2016	0.9	20.9	0.1	0.0	4.85	6.63	16.86	72.9	830	-
MW/RW-72	11/28/2016	0.0	20.9	0.0	0.0	8.07	5.36	17.27	103.7	848	-

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
MW-100S	10/10/2014	6.5	6.8	-	-	0.40	5.62	18.36	11.8	915	-
MW-100S	2/24/2015	0.0	17.2	3.5	0.2	4.78	5.79	16.07	25.5	160	-
MW-100S	11/28/2016	0.7	8.5	3.9	0.1	0.44	6.24	18.03	-14.6	1,116	-
MW-100	10/10/2014	0.3	20.4	-	-	2.23	5.38	17.60	148.8	531	-
MW-100	2/24/2015	0.0	20.4	0.6	0.2	1.02	5.53	16.80	27.5	309	-
MW-100	11/28/2016	0.2	19.0	2.5	0.0	2.26	5.74	16.96	49.6	262	-
MW-102	10/10/2014	0.6	17.7	-	-	2.44	6.10	17.15	68.2	295	-
MW-103	10/10/2014	8.5	19.4	-	-	1.72	6.41	19.90	71.6	610	-
MW-103	10/23/2014	-	-	-	-	7.32	6.15	19.14	149.3	598	-
MW-103	2/24/2015	0.0	19.5	2.4	0.3	-	-	-	-	-	-
MW-103	2/25/2015	-	-	-	-	5.27	6.17	5.08	85.9	720	-
MW-103	5/11/2015	-	-	-	-	0.13	5.95	12.40	82.3	680	-
MW-104	10/10/2014	5.8	18.9	-	-	1.98	6.90	19.47	6.1	452	-
MW-104	10/21/2014	-	-	-	-	2.17	6.93	18.83	102.6	526	3,250
MW-104	2/24/2015	0.0	15.1	1.1	0.3	-	-	-	-	-	-
MW-104	2/25/2015	-	-	-	-	3.75	7.07	9.30	50.4	496	-
MW-104	5/11/2015	-	-	-	-	1.24	6.89	12.25	54.8	740	-
MW-105	10/10/2014	11.5	19.0	-	-	3.96	6.90	19.03	56.8	427	-
MW-105	10/21/2014	-	-	-	-	4.47	6.89	19.20	155.1	393	2,520
MW-105	5/11/2015	-	-	-	-	0.42	5.38	11.11	98.1	27,900	-
MW-106	10/10/2014	9.2	17.1	-	-	1.20	4.66	18.99	122.5	2,231	-
MW-106	10/14/2014	4.3	18.3	-	-	-	-	-	-	-	-
MW-106	10/20/2014	0.2	15.5	3.8	0.0	-	-	-	-	-	-
MW-106	10/23/2014	-	-	-	-	1.29	5.20	18.35	97.7	1,529	-
MW-106	2/24/2015	0.0	7.1	5.4	0.1	1.03	4.63	9.81	62.0	2,156	-

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
MW-106	5/11/2015	0.7	0.2	7.6	0.2	0.03	5.00	11.73	100.8	2,010	-
MW-106	8/4/2015	1.0	12.6	4.5	0.0	0.09	5.66	17.62	31.8	2,080	-
MW-106	3/14/2016	0.5	19.2	0.7	0.0	0.06	4.76	10.70	113.8	1,740	-
MW-106	4/21/2016	24.7	0.1	8.8	2.9	0.06	6.05	12.10	34.8	1,830	-
MW-106	5/23/2016	120.4	19.2	0.7	0.3	1.29	3.88	13.24	319.2	1,430	-
MW-106	8/24/2016	430.0	20.2	0.2	0.0	5.38	3.93	19.45	192.5	1,680	-
MW-106	11/28/2016	38.3	20.9	0.1	0.0	9.19	4.42	16.70	150.5	2,259	-
MW-107	10/10/2014	10.5	11.8	-	-	0.62	3.51	18.90	348.4	2,063	-
MW-107	10/15/2014	7.3	13.7	-	-	1.51	3.63	19.54	393.0	1,047	-
MW-107	10/15/2014	-	-	-	-	2.52	3.76	19.36	428.9	1,117	-
MW-107	10/20/2014	0.3	7.3	9.4	0.0	-	-	-	-	-	-
MW-107	10/23/2014	-	-	-	-	3.40	2.90	19.05	480.1	1,462	-
MW-107	2/24/2015	0.0	19.3	1.5	0.1	7.33	3.01	11.73	338.5	15,400	-
MW-107	5/11/2015	0.8	9.1	6.7	0.0	0.40	3.36	12.51	425.7	2,010	-
MW-107	8/4/2015	0.5	7.9	8.2	0.0	0.31	3.69	18.19	347.8	2,360	-
MW-108	10/10/2014	9.5	11.6	-	-	-	-	-	-	-	-
MW-109S	10/10/2014	50.0	11.3	-	-	1.43	6.35	18.20	-83.5	827	-
MW-109S	10/20/2014	13.8	3.9	13.2	0.0	-	-	-	-	-	-
MW-109S	10/21/2014	-	-	-	-	0.35	6.03	18.29	59.2	769	-
MW-109S	2/24/2015	12.9	1.3	14.9	0.3	-	-	-	-	-	-
MW-109S	2/25/2015	-	-	-	-	1.35	6.19	13.93	36.7	607	-
MW-109S	5/11/2015	4.0	13.8	4.8	0.0	0.33	5.96	12.89	124.7	460	-
MW-109	10/10/2014	11.8	19.1	-	-	1.65	6.03	17.98	35.0	247	-
MW-109	10/20/2014	0.2	20.8	0.6	0.0	-	-	-	-	-	-
MW-109	10/21/2014	-	-	-	-	0.86	5.81	18.04	133.5	261	-

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
MW-109	2/24/2015	6.2	18.5	3.2	0.3	-	-	-	-	-	-
MW-109	2/25/2015	-	-	-	-	0.71	5.74	15.75	137.9	248	-
MW-110S	10/10/2014	9.9	14.4	-	-	0.50	6.32	18.38	-87.8	651	-
MW-110S	2/24/2015	12.7	4.3	12.8	0.3	-	-	-	-	-	-
MW-110S	2/25/2015	-	-	-	-	1.65	6.39	13.79	-19.5	849	-
MW-110	10/10/2014	13.1	16.4	-	-	1.30	5.39	17.98	117.8	215	-
MW-110	2/24/2015	5.8	19.4	1.0	0.4	-	-	-	-	-	-
MW-110	2/25/2015	-	-	-	-	1.70	5.48	15.49	168.1	245	-
MW-111	10/10/2014	7.3	16.9	-	-	1.70	5.82	17.98	75.9	247	-
MW-111	2/24/2015	0.0	18.7	1.7	0.2	-	-	-	-	-	-
MW-111	2/25/2015	-	-	-	-	1.21	6.05	15.24	122.6	368	-
MW-112S	10/10/2014	25.0	14.7	-	-	1.95	5.46	18.26	148.5	369	-
MW-112S	10/20/2014	0.0	12.0	7.9	0.0	-	-	-	-	-	-
MW-112S	10/21/2014	-	-	-	-	2.50	5.38	18.27	172.9	333	-
MW-112S	2/24/2015	16.8	6.6	9.7	0.3	-	-	-	-	-	-
MW-112S	2/25/2015	-	-	-	-	3.92	5.41	13.06	207.5	347	-
MW-112S	5/11/2015	2.1	16.3	3.3	0.0	3.37	5.21	13.22	197.2	360	-
MW-112	10/10/2014	14.8	16.3	-	-	2.14	5.56	17.93	157.3	162	-
MW-112	2/24/2015	12.3	19.2	1.3	0.3	-	-	-	-	-	-
MW-112	2/25/2015	-	-	-	-	4.34	5.54	15.13	203.8	171	-
MW-113	10/10/2014	6.3	19.2	-	-	6.17	6.35	17.97	83.2	352	-
MW-113	2/24/2015	0.0	19.9	1.6	0.2	-	-	-	-	-	-
MW-113	2/25/2015	-	-	-	-	5.96	6.73	14.72	73.5	428	-
MW-114	10/10/2014	9.0	6.3	-	-	1.50	5.83	17.65	78.0	310	-
MW-114	10/20/2014	0.1	16.0	2.1	0.1	-	-	-	-	-	-

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
MW-114	10/21/2014	-	-	-	-	1.23	6.04	17.81	154.1	262	-
MW-114	2/24/2015	0.0	20.6	0.3	0.3	-	-	-	-	-	-
MW-114	2/25/2015	-	-	-	-	8.72	6.10	12.05	113.7	326	-
MW-114	5/11/2015	0.0	19.4	1.0	0.0	3.99	5.99	15.33	199.7	300	-
MW-121	8/4/2015	-	-	-	-	0.02	7.00	17.04	-13.1	890	-
MW-121	12/1/2015	14.8	14.8	3.6	15.2	0.04	6.72	17.44	-91.7	880	-
MW-121	3/14/2016	7.0	13.0	4.5	17.6	0.02	6.84	17.13	-159.0	850	-
MW-121	5/23/2016	251.2	17.6	4.4	0.7	1.54	6.77	17.35	-50.8	1,230	-
MW-121	8/24/2016	1,070.0	2.6	14.6	0.6	0.49	6.80	17.89	-126.4	1,300	-
MW-121	11/28/2016	378.4	5.0	10.0	0.1	0.26	6.72	18.08	-106.2	1,298	-
MW-122	8/4/2015	-	-	-	-	0.06	7.04	16.73	-6.3	1,020	-
MW-122	12/1/2015	2.2	11.2	4.8	4.8	0.27	6.81	17.06	-86.8	1,130	-
MW-122	3/14/2016	5.7	16.2	2.7	1.1	0.11	7.04	16.50	-127.1	1,000	-
MW-122	5/23/2016	8.4	20.9	0.1	0.0	0.97	6.81	16.84	-77.1	1,090	-
MW-122	8/24/2016	0.4	20.9	0.0	0.0	0.53	6.89	16.99	-127.7	1,040	-
MW-122	11/28/2016	4.5	20.9	4.6	0.0	0.12	6.80	17.29	-105.9	1,090	-
MW/RW-123S	8/4/2015	-	-	-	-	2.66	12.52	16.99	-53.2	15,080	-
MW/RW-123S	12/1/2015	0.2	17.8	2.0	10.5	0.13	6.63	17.68	-46.3	810	-
MW/RW-123S	3/14/2016	73.7	16.8	2.9	3.1	0.86	6.50	15.31	-69.7	770	-
MW/RW-123S	4/21/2016	247.0	16.9	2.5	0.3	7.78	7.21	15.96	21.5	480	-
MW/RW-123S	5/23/2016	0.5	19.9	0.5	0.2	6.87	7.28	16.23	65.1	520	-
MW/RW-123S	8/24/2016	56.2	-	-	-	-	-	-	-	-	-
MW/RW-123S	8/30/2016	167.5	21.6	0.0	0.1	5.25	7.39	20.83	0.6	590	-
MW/RW-123S	11/28/2016	-	-	-	-	1.67	8.21	13.95	-7.7	584	-
MW/RW-123S	12/8/2016	54.4	20.9	0.3	0.0	-	-	-	-	-	-

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
RW-1	10/13/2014	130.0	19.0	-	-	1.34	6.92	18.45	136.4	495	-
RW-1	10/13/2014	79.0	18.9	-	-	3.41	6.41	18.31	158.0	473	-
RW-1	10/14/2014	55.0	18.9	-	-	0.53	6.49	18.46	129.6	475	-
RW-1	10/15/2014	80.7	19.3	-	-	1.99	6.29	18.43	60.4	292	-
RW-1	10/15/2014	-	-	-	-	1.06	6.31	18.49	96.9	314	-
RW-1	10/20/2014	29.2	16.4	3.2	2.4	-	-	-	-	-	-
RW-1	10/22/2014	-	-	-	-	2.14	6.50	18.07	85.5	311	-
RW-1	2/24/2015	178.0	3.2	4.2	0.2	-	-	-	-	-	-
RW-1	2/25/2015	-	-	-	-	0.03	6.76	17.88	-86.4	900	-
RW-1	12/1/2015	6.9	3.1	8.5	9.5	0.07	6.68	17.28	-57.6	760	-
RW-1	3/14/2016	0.1	15.3	3.8	0.0	0.16	6.50	17.06	-89.0	730	-
RW-1	4/21/2016	197.4	20.7	0.3	0.2	4.04	6.08	16.83	134.6	240	-
RW-1	5/23/2016	0.0	20.9	0.0	0.0	2.36	6.35	17.17	56.0	230	-
RW-1	8/24/2016	2.4	20.9	0.1	0.0	2.60	6.38	17.35	28.8	220	-
RW-1	11/28/2016	-	-	-	-	0.13	6.37	17.76	19.6	209	-
RW-1	12/8/2016	1.8	20.9	0.1	0.0	-	-	-	-	-	-
RW-05S	8/4/2015	-	-	-	-	0.00	8.88	15.65	-469.6	1,960	-
RW-05S	12/1/2015	193.7	19.2	1.3	3.5	0.04	6.59	17.01	-89.7	1,560	-
RW-05S	3/14/2016	44.2	20.3	0.6	0.3	1.78	6.63	14.38	-98.0	1,260	-
RW-05S	4/21/2016	264.4	19.6	1.2	0.3	6.62	7.09	14.94	-27.4	500	-
RW-05S	5/23/2016	46.1	20.9	0.2	0.0	3.75	6.11	14.74	39.9	710	-
RW-05S	8/24/2016	48.8	-	-	-	-	-	-	-	-	-
RW-05S	8/30/2016	11.2	21.3	0.1	0.1	3.47	6.16	21.27	60.9	940	-
RW-05S	11/28/2016	0.3	20.9	0.0	0.0	DRY					
RW-25S	8/4/2015	3.9	2.1	14.7	59.9	DRY					

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
RW-25S	12/1/2015	111.1	13.1	6.5	9.7	-	-	-	-	-	-
RW-25S	3/14/2016	55.5	18.8	1.4	0.5	-	-	-	-	-	-
RW-25S	4/21/2016	117.1	13.3	2.8	0.8	-	-	-	-	-	-
RW-25S	5/23/2016	72.1	20.9	0.3	0.0	-	-	-	-	-	-
RW-25S	8/24/2016	66.5	-	-	-	-	-	-	-	-	-
RW-25S	8/30/2016	399.2	19.3	1.2	0.1	2.02	6.70	21.67	-52.6	1,310	-
RW-25S	11/28/2016	-	-	-	-	0.15	7.54	15.77	-141.8	847	-
RW-25S	12/8/2016	37.3	20.9	0.1	0.0	-	-	-	-	-	-
RW-28S	8/4/2015	48.5	13.8	1.4	0.3	0.17	6.22	16.59	-12.0	1,610	-
RW-28S	12/1/2015	31.8	17.6	1.6	0.1	0.24	6.50	17.31	-48.20	1,590	-
RW-28S	3/14/2016	68.8	17.6	2.1	0.2	2.25	6.75	12.79	-86.50	1,330	-
RW-28S	4/21/2016	9.6	20.8	0.1	0.1	8.47	7.12	15.50	92.30	1,450	-
RW-28S	5/23/2016	7.4	20.9	0.1	0.0	6.93	7.18	15.77	85.4	1,360	-
RW-28S	8/24/2016	13.6	-	-	-	-	-	-	-	-	-
RW-28S	8/30/2016	20.1	21.8	0.0	0.1	5.80	7.10	21.31	45.0	1,400	-
RW-28S	11/28/2016	-	-	-	-	7.37	7.62	13.91	32.4	1,793	-
RW-28S	12/8/2016	0.4	20.9	0.0	0.0	-	-	-	-	-	-
RW-30S	10/10/2014	6.8	7.6	-	-	0.31	6.64	18.50	-59.9	1,155	-
RW-30S	10/15/2014	15.5	17.2	-	-	-	6.69	19.02	-114.8	1,084	-
RW-30S	10/15/2014	74.4	10.5	-	-	0.69	6.61	19.43	-60.0	1,030	-
RW-30S	10/20/2014	2.8	11.5	4.0	0.0	-	-	-	-	-	-
RW-30S	2/24/2015	16.5	12.8	0.3	0.2	0.40	6.74	14.15	-51.7	742	-
RW-30S	5/11/2015	49.6	13.4	2.9	0.0	0.81	6.7	13.04	7.0	680	-
RW-30S	8/4/2015	18.3	16.0	0.5	1.1	1.96	7.12	16.90	-93.7	780	-
RW-30S	12/1/2015	32.1	15.7	2.6	0.1	0.27	6.75	17.86	-68.4	1,040	-

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
RW-30S	3/14/2016	16.4	18.4	2.1	0.3			DRY			
RW-30S	4/21/2016	122.4	20.2	0.6	0.2	-	-	-	-	-	-
RW-30S	5/23/2016	36.4	20.6	0.4	0.0			DRY			
RW-30S	8/24/2016	86.5	-	-	-	-	-	-	-	-	-
RW-30S	8/30/2016	134.3	21.2	0.3	0.0			DRY			
RW-30S	11/28/2016	-	-	-	-	7.59	8.02	14.77	-22.00	875	-
RW-30S	12/8/2016	0.3	20.9	0.0	0.0	-	-	-	-	-	-
RW-116S	8/4/2015	3.8	13.8	3.9	0.6	0.07	6.68	16.35	-77.4	1,710	-
RW-116S	12/1/2015	50.7	18.8	0.6	1.2	0.06	6.62	16.97	-78.7	1,350	-
RW-116S	3/14/2016	25.1	20.2	0.8	0.2	0.65	6.59	14.49	-92.3	1,150	-
RW-116S	4/21/2016	157.5	17.9	1.6	0.3	6.24	6.71	14.11	18.4	700	-
RW-116S	5/23/2016	29.5	20.9	0.1	0.0	7.89	6.56	14.51	55.8	620	-
RW-116S	8/24/2016	45.7	-	-	-	6.47	3.15	19.33	427.7	1,560	-
RW-116S	8/30/2016	110.3	22.0	0.0	0.0	-	-	-	-	-	-
RW-116S	11/28/2016	-	-	-	-	8.59	3.09	13.74	212.4	1,157	-
RW-116S	12/8/2016	12.2	20.9	0.1	0.0	-	-	-	-	-	-
RW-117S	8/4/2015	3.2	20.5	0.0	0.0	0.27	6.92	16.29	-76.5	1,740	-
RW-117S	12/1/2015	422.3	17.3	3.1	2.1	0.06	6.64	17.06	-100.6	1,420	-
RW-117S	3/14/2016	84.0	19.6	1.2	0.2			DRY			
RW-117S	4/21/2016	74.5	20.8	0.1	0.2			DRY			
RW-117S	5/23/2016	54.0	20.9	0.2	0.0			DRY			
RW-117S	8/24/2016	52.0	-	-	-			DRY			
RW-117S	8/30/2016	290.6	21.2	0.3	0.0	6.21	5.62	21.90	131.90	1,320	-
RW-117S	11/28/2016	-	-	-	-	2.83	7.19	15.87	-59.60	1,124	-
RW-117S	12/8/2016	16.9	20.9	0.1	0.0	-	-	-	-	-	-

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
RW-118S	8/4/2015	19.6	6.4	7.3	0.1	0.14	6.78	16.32	-59.8	1,350	-
RW-119S	8/4/2015	2.4	12.8	3.4	2.1	0.03	6.69	16.60	-15.9	1,020	-
TW-02	10/13/2014	0.3	17.4	-	-	1.01	6.43	18.32	-	523	-
TW-02	10/23/2014	-	-	-	-	0.65	6.70	17.24	-63.8	1,189	-
TW-02	2/24/2015	0.0	19.9	0.3	0.3	-	-	-	-	-	-
TW-02	2/25/2015	-	-	-	-	1.56	6.24	8.82	96.2	991	-
TW-02	5/11/2015	-	-	-	-	1.62	6.60	21.64	-49.5	1,230	-
TW-02	8/5/2015	-	-	-	-	0.27	6.82	18.28	-68.9	792	31.9
TW-02	8/24/2016	-	-	-	-	0.34	7.10	17.85	-133.2	849	4.0
TW-03	10/13/2014	0.3	19.5	-	-	1.86	5.73	19.23	-	503	-
TW-03	10/23/2014	-	-	-	-	0.71	6.12	18.54	38.1	489	-
TW-03	2/24/2015	0.0	3.1	10.4	0.3	-	-	-	-	-	-
TW-03	2/25/2015	-	-	-	-	0.75	6.21	8.92	64.8	609	-
TW-03	5/11/2015	0.0	8.5	10.2	0.0	2.03	5.77	20.61	110.5	480	-
TW-03	8/4/2015	0.0	7.8	14.3	0.0	0.26	5.40	21.76	80.4	602	70.6
TW-03	3/14/2016	0.0	9.2	8.0	0.1	-	-	-	-	-	-
TW-03	5/23/2016	WELL OPEN & BEING SAMPLED UPON ARRIVAL & NEVER RECEIVED LOW-FLOW SAMPLING DATA									
TW-03	8/24/2016	164.4	-	-	-	-	-	-	-	-	-
TW-03	8/25/2016	-	-	-	-	0.24	5.33	22.34	92.4	762	5.87
TW-03	8/30/2016	132.6	21.8	0.1	0.0	-	-	-	-	-	-
TW-03	11/28/2016	5.7	19.0	1.8	0.0	0.93	5.68	18.07	98.1	629	4.42
TW-04	10/13/2014	2.0	19.2	-	-	1.67	5.73	19.08	-	1,344	-
TW-04	10/23/2014	-	-	-	-	0.70	5.76	18.95	35.0	1,232	-
TW-04	2/24/2015	1.2	15.7	4.4	0.3	-	-	-	-	-	-
TW-04	2/25/2015	-	-	-	-	2.36	5.86	6.96	65.1	1,862	-

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
TW-04	5/11/2015	-	-	-	-	1.92	6.19	19.77	-22.7	1,390	-
TW-04	8/4/2015	-	-	-	-	0.16	6.23	19.04	-35.7	1,203	210
TW-04	8/24/2016	-	-	-	-	0.75	6.17	20.20	-23.4	1,534	6.96
TW-04	8/30/2016	77.1	21.6	0.0	0.0	-	-	-	-	-	-
TW-05	10/13/2014	129.3	17.0	-	-	1.26	5.23	18.64	61.2	1,204	-
TW-05	10/15/2014	8.7	20.5	-	-	-	-	-	-	-	-
TW-05	10/20/2014	16.0	20.6	0.1	0.0	-	-	-	-	-	-
TW-05	10/23/2014	-	-	-	-	0.85	5.73	19.04	49.2	1,121	-
TW-05	2/24/2015	16.0	11.1	8.6	0.7	-	-	-	-	-	-
TW-05	2/25/2015	-	-	-	-	0.85	6.19	7.42	37.1	992	-
TW-05	5/11/2015	22.1	4.6	12.9	0.0	0.15	5.60	18.61	54.0	800	-
TW-05	8/4/2015	8.2	7.2	13.3	0.0	0.38	5.86	19.61	21.5	901	87.0
TW-05	3/14/2016	0.3	12.3	6.5	0.0	-	-	-	-	-	-
TW-05	5/23/2016	31.7	20.8	0.2	0.0	DID NOT RECEIVE LOW-FLOW SAMPLING DATA					
TW-05	8/25/2016	21.2	20.1	0.3	0.0	6.97	6.15	22.25	-1.1	1,303	171
TW-05	11/28/2016	0.8	20.9	0.0	0.0	-	-	-	-	-	-
TW-05	11/29/2016	-	-	-	-	5.11	6.06	17.85	21.0	1,076	36.5
TW-06	10/13/2014	39.8	14.4	-	-	1.31	6.42	18.99	-	983	-
TW-06	10/15/2014	78.9	11.0	-	-	1.33	6.54	21.65	-65.0	873	-
TW-06	10/15/2014	-	-	-	-	0.31	6.28	19.79	-46.8	986	-
TW-06	10/20/2014	0.8	5.4	12.0	0.0	-	-	-	-	-	-
TW-06	10/23/2014	-	-	-	-	0.84	6.51	18.95	-68.8	823	-
TW-06	2/24/2015	0.7	5.0	8.9	0.3	-	-	-	-	-	-
TW-06	2/25/2015	-	-	-	-	0.84	6.75	7.20	-32.9	882	-
TW-06	5/11/2015	-	-	-	-	1.33	6.49	18.61	-69.1	710	-

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
TW-06	8/4/2015	-	-	-	-	0.22	6.17	19.07	-36.8	975	30.5
TW-06	12/1/2015	4.7	1.1	14.5	0.0	-	-	-	-	-	-
TW-06	3/14/2016	0.0	11.6	4.1	0.1	-	-	-	-	-	-
TW-06	4/21/2016	0.6	10.3	5.6	0.2	1.45	6.32	16.91	-24.4	620	-
TW-06	5/23/2016	0.0	20.8	0.1	0.0	-	-	-	-	-	-
TW-06	5/24/2016	-	-	-	-	0.08	6.62	15.82	-17.3	921	-
TW-06	8/24/2016	0.5	16.8	2.4	0.0	-	-	-	-	-	-
TW-06	8/25/2016	-	-	-	-	0.17	6.02	21.24	-51.9	1,713	6.70
TW-06	11/28/2016	29.5	16.7	1.3	0.1	-	-	-	-	-	-
TW-06	11/29/2016	-	-	-	-	0.86	5.81	18.29	-13.5	1,708	3.21
TW-07	10/13/2014	33.5	16.4	-	-	1.40	4.96	19.08	-	580	-
TW-07	10/15/2014	15.6	15.4	-	-	0.40	4.94	20.81	97.9	569	-
TW-07	10/20/2014	0.0	14.6	5.0	0.0	-	-	-	-	-	-
TW-07	10/23/2014	-	-	-	-	0.41	4.99	19.04	139.5	415	-
TW-07	2/24/2015	0.0	14.4	7.2	0.3	-	-	-	-	-	-
TW-07	2/25/2015	-	-	-	-	1.53	5.07	7.15	244.8	640	-
TW-07	5/11/2015	0.0	9.0	11.0	0.0	2.02	4.70	20.64	202.2	660	-
TW-07	8/4/2015	0.0	7.2	16.9	0.0	0.20	4.39	22.88	150.0	629	65.8
TW-07	3/14/2016	0.0	18.8	2.3	0.1	-	-	-	-	-	-
TW-07	5/23/2016	2.3	19.9	0.7	0.0	-	-	-	-	-	-
TW-07	5/24/2016	-	-	-	-	0.90	4.85	15.88	206.9	653	-
TW-07	8/24/2016	1.6	-	-	-	-	-	-	-	-	-
TW-07	8/25/2016	-	-	-	-	6.99	4.58	24.52	223.9	722	45
TW-07	8/30/2016	98.2	21.7	0.0	0.0	-	-	-	-	-	-
TW-07	11/28/2016	0.5	20.9	1.0	0.0	-	-	-	-	-	-

Table 4

HISTORICAL GROUNDWATER FIELD PARAMETERS DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Head Space Photo Ionization Detector (ppm)	Head Space Oxygen (%)	Head Space Carbon Dioxide (%)	Head Space Methane (%)	Dissolved Oxygen (mg/L)	Well pH	Well Temperature (deg C)	ORP (mV)	Specific Conductance (µS/cm)	Turbidity (NTU)
TW-07	11/30/2016	-	-	-	-	6.66	4.60	15.79	172.6	524	3.92
TW-12S	10/10/2014	0.8	18.5	-	-	-	-	-	-	-	-
TW-12S	2/24/2015	0.0	15.0	2.8	0.3	-	-	-	-	-	-
TW-14	10/10/2014	2.3	19.5	-	-	-	-	-	-	-	-
TW-14	10/20/2014	0.0	20.0	0.7	0.0	-	-	-	-	-	-
TW-14	10/23/2014	-	-	-	-	1.99	7.48	19.13	-47.2	562	-
TW-14	2/24/2015	0.0	20.3	0.3	0.3	-	-	-	-	-	-
TW-14	2/25/2015	-	-	-	-	3.80	7.18	3.96	-6.1	465	-
TW-14	5/11/2015	-	-	-	-	1.16	7.14	22.53	-114.6	760	-
TW-14	8/6/2015	-	-	-	-	0.73	6.88	24.20	-107.8	828	-
TW-14	8/24/2016	-	-	-	-	1.20	7.20	24.48	-58.7	517	1.17

Notes:

- = Not available
% = Percent
µS/cm = Microsiemens per centimeter
deg C = Degrees Celsius
mg/L = Milligrams per liter
(cont.) = continued

mV = Millivolts
ORP = Oxidation-Reduction Potential
ppm = Parts per million
NTU = Nephelometric Turbidity Unit
DRY = Not enough water in well to take measurements.
PRODUCT = No measurements taken due to product in the well.

Table 5

HISTORICAL GROUNDWATER BIOSTIMULATION ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Methane (µg/L)	Sulfate as SO ₄ (mg/L)	Nitrate Nitrogen (mg/L)	Nitrite Nitrogen (mg/L)	Alkalinity, Carbonate (mg/L as CaCO ₃)	Ferrous Iron (mg/L)	Manganese (mg/L)
MW-01S	10/22/2014	4,200	130	0.044 J	0.037 J	306	31.4	-
MW-01S	3/16/2016	4,500	27.9	<0.040	0.017 J	367	9.3	14.5
MW-01S	8/25/2016	1,200	257	<0.040	<0.015	226	15.1	10.4
MW/RW-10S	10/22/2014	1,100	33.1	<0.040	0.037 J	461	62.8	-
MW/RW-10S	3/14/2016	1,800	193	<0.040	0.088	427	129	4.04
MW/RW-10S	5/24/2016	11	716	<0.040	<0.015	0.7 J	31.2	4.85
MW/RW-10S	8/25/2016	<3.0	824	0.076 J	<0.015	25.5	5.1	3.6
MW/RW-10S	11/29/2016	<3.0	488	0.21	<0.015	128	206	2.83
MW-11	10/22/2014	120	71.9	<0.040	<0.015	55	0.059	-
MW-11	2/26/2015	200	79.8	<0.040	<0.015	39	0.37	1.64
MW-11	5/12/2015	280	70.5	<0.040	<0.015	40.8	0.75	1.73
MW-11	8/6/2015	450	118	<0.040	0.049 J	356	21.9	5.67
MW/RW-14	2/25/2015	230	51.4	0.7	<0.015	63	2.5	8.66
MW/RW-14	5/12/2015	660	44.3	0.6	0.023 J	76.8	6.3	8.54
MW/RW-14	8/6/2015	1,800	45.9	0.15	0.11	304	18	15.1
MW/RW-14	3/15/2016	5,800	23.8	<0.040	0.050 J	171	22.2	6.81
MW/RW-14	8/25/2016	<3.0	42.5	1.8	<0.015	10.9	0.12	0.485
MW/RW-14	11/29/2016	<3.0	37.9	1.60	<0.015	8.8	0.029 J	0.107
MW-27	12/3/2015	2,500	112	<0.040	<0.015	424	33.4	10.9
MW-27	3/15/2016	6,100	214	<0.040	0.022 J	439	34	10.3
MW-27	5/25/2016	<3.0	452	<0.040	<0.015	44.3	4.4	6.85
MW-27	8/25/2016	<3.0	604	<0.040	<0.015	16.3	1.3	12.4
MW-27	11/29/2016	<3.0	293	0.16	<0.015	33.4	0.8	5.84
MW/RW-31	10/23/2014	4,300	57.2	<0.040	<0.015	416	2.6	-
MW/RW-31	2/25/2015	5,000	69.7	<0.040	<0.015	487	9.3	9.84
MW/RW-31	5/13/2015	5,700	70.1	<0.040	<0.015	510	15.4	10.8
MW/RW-31	8/5/2015	5,400	85.3	<0.040	<0.015	482	10	5.52
MW-33	10/23/2014	43	253	1.9	<0.015	119	0.068	-
MW-33	2/25/2015	9.8	235	2.5	<0.015	55.6	0.030 J	1.23
MW-33	5/13/2015	7.3	254	2	<0.015	81.7	0.075	0.975
MW-33	8/5/2015	17	253	1.8	<0.015	97.7	<0.010	0.605
MW-51S	10/22/2014	7,100	36.3	0.047 J	<0.015	564	28.7	-
MW-51S	2/26/2015	8,900	6.2	<0.040	0.12	518	82.4	4.49
MW-51S	5/13/2015	11,000	<1.5	<0.040	0.2	676	77.3	1.74
MW-51S	8/6/2015	10,000	26.1	<0.040	0.046	480	48.3	1.03
MW-51S	3/15/2016	13,000	535	<0.040	0.049 J	585	69	4.64
MW-51S	5/24/2016	3,800	884	<0.040	0.039 J	335	32	3.46
MW-51S	8/25/2016	1,700	895	<0.040	0.11	354	22	10.3



Table 5

HISTORICAL GROUNDWATER BIOSTIMULATION ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Methane (µg/L)	Sulfate as SO4 (mg/L)	Nitrate Nitrogen (mg/L)	Nitrite Nitrogen (mg/L)	Alkalinity, Carbonate (mg/L as CaCO3)	Ferrous Iron (mg/L)	Manganese (mg/L)
MW-51S	11/29/2016	4,800	138	<0.040	0.039 J	617	6.5	2.11
MW-70	2/26/2015	<3.0	361	0.71	<0.015	35.1	0.048 J	2.62
MW-70	5/12/2015	3.4 J	357	0.7	<0.015	40.7	<0.50	6.13
MW-70	8/6/2015	<3.0	365	0.73	<0.015	29.6	0.089	1.29
MW/RW-72S	10/22/2014	4,400	80.3	0.093 J	0.019 J	328	9.1	-
MW/RW-72S	2/25/2015	3,600	64.5	<0.040	<0.015	615	16.7	8.49
MW/RW-72S	5/13/2015	4,100	130	<0.040	0.097	597	24.6	8.46
MW/RW-72S	8/5/2015	2,300	207	<0.040	0.067	697	30.7	11.7
MW/RW-72S	3/14/2016	310	508	<0.040	0.054	543	71.4	16.7
MW/RW-72S	5/25/2016	20	1,500	<0.040	<0.015	<0.7	51.9	34.8
MW/RW-72S	8/25/2016	15	982	<0.040	<0.015	<1.7	78.9	24.5
MW/RW-72	10/22/2014	2,200	389	<0.040	<0.015	65.5	0.33	-
MW/RW-72	2/25/2015	490	396	<0.040	<0.015	72.7	4.8	18.8
MW/RW-72	5/13/2015	540	434	<0.040	0.057	101	10.8	17.5
MW/RW-72	8/5/2015	1,400	393	<0.040	<0.015	548	14.3	13.5
MW/RW-72	5/24/2016	<3.0	246	0.25	<0.015	24	0.073	1.72
MW/RW-72	8/25/2016	<3.0	351	0.12	<0.015	25.1	0.085	3.6
MW/RW-72	11/29/2016	<3.0	438	0.14	0.025 J	4 J	0.5	14.6
MW-100S	11/29/2016	25	353	<0.040	0.20 J	37.5	71.6	11.5
MW-100	11/29/2016	12	56.3	2.60	0.061	29.2	0.19	0.902
MW-106	2/25/2015	260	1600	<0.040	0.021 J	<7.0	122	2.23
MW-106	5/12/2015	960	1160	<0.040	0.15	<0.70	50.1	1.49
MW-106	8/5/2015	2,100	1,010	<0.040	<0.015	35.1	32.7	1.38
MW-106	3/15/2016	1,600	1,250	<0.040	0.016 J	<0.70	25.1	1.67
MW-106	5/24/2016	3 J	1,310	<0.040	<0.015	<0.7	4.4	2.69
MW-106	8/25/2016	<3.0	1,270	<0.040	<0.015	<1.7	3.3	1.42
MW-106	11/29/2016	6.9	1,410	<0.040	<0.015	<1.7	9.6	1.55
MW-109S	10/20/2014	1,000	18.8	<0.040	0.037 J	368	8	-
MW-109S	2/26/2015	140	55.4	<0.040	<0.015	196	3.1	2.64
MW-109S	5/12/2015	11	62.7	<0.040	<0.015	126	0.5	2.34
MW-112S	10/20/2014	4.1 J	99	0.71	<0.015	25	0.13	-
MW-112S	2/26/2015	<3.0	86.7	2.3	<0.015	13.3	0.029 J	0.649
MW-112S	5/12/2015	<3.0	98.9	2.5	<0.015	13.8	<0.010	0.597
MW-114	10/20/2014	16	40.5	1.5	0.16	66.7	0.066	-
MW-114	2/26/2015	<3.0	42.7	1.7	<0.015	68	0.016 J	0.102
MW-114	5/12/2015	<3.0	42.4	1.7	<0.015	68.2	0.035 J	0.0465
MW-121	12/2/2015	12,000	38.7	<0.040	0.033 J	353	66.7	28
MW-121	5/25/2016	3,300	115	<0.040	<0.015	374	81.4	22

Table 5

HISTORICAL GROUNDWATER BIOSTIMULATION ANALYTICAL DATA SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Sample Date	Methane (µg/L)	Sulfate as SO ₄ (mg/L)	Nitrate Nitrogen (mg/L)	Nitrite Nitrogen (mg/L)	Alkalinity, Carbonate (mg/L as CaCO ₃)	Ferrous Iron (mg/L)	Manganese (mg/L)
MW-121	8/25/2016	100	186	<0.040	<0.015	331	14.5	12.6
MW-121	11/29/2016	1,500	227	<0.040	<0.015	302	24.7	10.3
MW-122	12/2/2015	1,000	94.3	<0.040	<0.015	451	7.2	13.1
MW-122	5/25/2016	450	188	0.048 J	<0.015	300	90.8	16.3
MW-122	8/25/2016	280	182	<0.040	<0.015	272	9.1	4.12
MW-122	11/29/2016	450	180	<0.040	<0.015	284	11.1	3.64
TW-03	3/4/2015	2,500	269	<0.040	0.083	49.7	29.7	5.24
TW-03	5/13/2015	2,200	298	<0.040	0.13	39	24.6	4.32
TW-03	8/6/2015	1,800	289	<0.040	0.07	<0.70	32.3	4.61
TW-03	3/16/2016	1,600	345	<0.040	0.029 J	24.7	21.9	4.99
TW-03	5/23/2016	410	365	<0.040	0.043 J	31.2	29.1	7.88
TW-03	8/25/2016	220	276	<0.040	<0.015	16.7	40.7	6.86
TW-03	11/29/2016	130	269	<0.040	0.015 J	41.2	38	7.19
TW-05	3/4/2015	2,800	367	<0.040	0.13	89.4	72.6	5.28
TW-05	5/13/2015	1,300	463	0.052 J	0.18	66.2	58.6	4.77
TW-05	8/6/2015	3,000	388	-	-	-	-	-
TW-05	8/13/2015	-	-	<0.040	0.091	16.1	84.5	3.55
TW-05	3/14/2016	460	410	0.12	0.042 J	114	41.5	3.05
TW-05	8/25/2016	NA	515	<0.040	<0.015	68.7	54.5	4.91
TW-05	11/29/2016	400	524	<0.040	0.020 J	105	90.5	7.04
TW-06	12/2/2015	7,000	279	<0.040	0.027 J	194	58.4	1.93
TW-06	3/15/2016	3,600	224	<0.040	0.039 J	128	53.9	1.46
TW-06	5/24/2016	3,400	402	<0.040	0.036 J	72	46	2.1
TW-06	8/25/2016	NA	931	<0.040	0.017 J	36	144	6.32
TW-06	11/29/2016	1,100	1,160	<0.040	0.041 J	27.1	249	8.28
TW-07	3/4/2015	1,300	258	<0.040	0.034 J	1.6 J	14.1	4.3
TW-07	5/13/2015	800	323	<0.040	0.046 J	1.1 J	9.5	5.62
TW-07	8/6/2015	2,700	304	<0.040	0.018 J	2.7	8.7	4.51

Notes:

J = Detected between the Method Detection Limit and the Reporting Limit; therefore, the result is an estimated value.

- = No Data

NA = Not Analyzed

<# = Less than the method detection limit of #

µg/L = Micrograms per liter

mg/L = Milligrams per liter



Table 6

TOTAL PHASE EXTRACTION OPERATIONAL SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

DATE	Operation			Vapor Recovery							Groundwater Recovery		
	Period (days)	Operating Days	Operating Hours	Applied Vacuum	Vapor Flow Rate	PID Reading	Influent C1-C10 Hydrocarbon Concentration	Hydrocarbon Recovery Per Day	Hydrocarbon Recovery Per Period	Cumulative Hydrocarbon Recovery	Average Groundwater Flow Rate	Monthly Groundwater Recovery	Cumulative Groundwater Recovery
				(in. Hg)	(scfm)	(ppm-v)	(mg/m ³)	(lbs/day)	(lbs)	(lbs)	(gpm)	(gal)	(gal)
March 14, 2016	-	-	-	15.8	325	-	830	-	-	-	-	2,572	539
March 15, 2016	0.1	0.1	2	14.5	340	-		25.4	2.1	2	0.7		627
March 16, 2016	0.3	0.3	10	14.0	340	150		25.4	8.5	11	0.5		875
March 17, 2016	0.4	0.4	19	13.7	360	313		26.9	10.1	21	0.2		993
March 21, 2016	1.3	1.3	49	15.1	320	189		23.9	29.8	50	0.2		1,358
March 24, 2016	3	2.5	108	-	-	-		-	-	-	0.2		1,920
March 30, 2016	6	5.4	238	15.1	360	210		26.9	212	262	0.1		2,572
Q1 2016	11	10		14.7	341	216			262		0.2	2,572	
April 7, 2016	8.0	7.8	426	14.7	350	120	135	4.2	33	295	0.1	4,671	4,207
April 13, 2016	6.0	5.9	568	13.7	380	71	-	21.7	129	424	0.1		5,375
April 20, 2016	7.0	6.3	718	14.7	360	63	-	18.0	113	537	0.1		6,431
April 27, 2016	7.0	5.5	851	15.1	330	59	-	15.7	87	624	0.1		7,243
May 5, 2016	8.0	7.7	1035	15.7	330	105	74	2.2	17	640	0.1	4,121	8,530
May 18, 2016	13.0	8.9	1248	14.4	350	48	-	13.4	119	759	0.1		10,084
May 25, 2016	7.0	4.8	1362	15.3	340	-	-	2.3	11	770	0.2		11,364
June 8, 2016	14.0	8.8	1573	16.5	340	37	0	0.0	0	770	0.2	5,196	13,273
June 21, 2016	13.0	12.6	1876	15.2	360	24.4	-	7.0	89	859	0.2		16,560
Q2 2016	83	68		15.0	349	66			597		0.1	13,988	
July 12, 2016	21.0	21.0	2379	15.8	350	44.0	<53	12.3	259	1118	0.2	9,218	23,064
July 21, 2016	9.0	8.8	2589	16.3	330	80.2	-	21.2	186	1303	0.2		25,778
August 4, 2016	14.0	14.0	2926	16.5	350	26.4	70	2.2	31	1334	0.3	10,131	31,745
August 15, 2016	11.0	7.4	3103	16.0	350	-	-	2.2	16	1350	0.4		35,795
August 17, 2016	2.0	0.2	3108	14.5	325	46.4	-	12.1	3	1353	0.4		35,909
September 1, 2016	15.0	10.7	3365	15.8	340	34.2	71	2.2	23	1376	0.2	11,516	39,684
September 22, 2016	21.0	20.8	3865	16.6	345	23.7	-	6.6	136	1513	0.2		45,749
September 30, 2016	8.0	8.0	4056	-	345	-	-	2.2	18	1530	0.1		47,425
Q3 2016	101	91		15.9	342	42			671		0.2	30,865	

Table 6

TOTAL PHASE EXTRACTION OPERATIONAL SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

DATE	Operation			Vapor Recovery							Groundwater Recovery		
	Period (days)	Operating Days	Operating Hours	Applied Vacuum	Vapor Flow Rate	PID Reading	Influent C1-C10 Hydrocarbon Concentration	Hydrocarbon Recovery Per Day	Hydrocarbon Recovery Per Period	Cumulative Hydrocarbon Recovery	Average Groundwater Flow Rate	Monthly Groundwater Recovery	Cumulative Groundwater Recovery
				(in. Hg)	(scfm)	(ppm-v)	(mg/m ³)	(lbs/day)	(lbs)	(lbs)	(gpm)	(gal)	(gal)
October 5, 2016	5.0	4.9	4173	16.9	360	13.2	<53	3.8	19	1549	0.2	4,062	48,699
October 20, 2016	15.0	13.8	4505	17.2	340	16.9	-	4.6	64	1612	0.1		51,487
November 3, 2016	14.0	13.0	4817	16.8	360	17.6	29	0.9	12	1625	0.1	4,897	53,850
November 22, 2016	19.0	19.0	5273	17.2	365	28.9	-	8.5	161	1785	0.1		56,384
December 7, 2016	15.0	14.8	5627	16.6	370	31.6	<53	9.4	138	1923	0.1	2,753	57,895
December 22, 2016	15.0	9.1	5845	16.6	345	42.7	-	11.8	107	2031	0.1		59,137
Q4 2016	83	75		16.9	357	25			500		0.1	11,712	

Notes:

PID - photoionization detector mg/m³ - milligrams per cubic meter
in. Hg - inches of mercury lbs - pounds
scfm - standard cubic feet per minute gal - gallons
ppm-v - parts per million by volume gpm - gallons per minute

Bold hydrocarbon recovery per day values indicate the result is from analytical results (sum of C1-C4 and >C4-C10 hydrocarbons). Other a PID reading is used.

Estimate of TPE vapor >C4-C10 hydrocarbon recovery using analytical results in units of mg/m³:

Pounds = Vapor Flow Rate (scfm) x Influent >C4-C10 Hydrocarbons (mg/m³) x Period (days) x c
c = conversion factors, 1440 min/day, 0.02832 m³/ft³, 2.2046E-6 lb/mg

Estimate of hydrocarbon recovery per day using PID reading:

Pounds = VOC concentration (ppm) x MW (g/mol) / MV (mol/L)] x vapor flow rate (scfm) x c
MW = molecular weight, assumed at 200 grams/mol for diesel
MV = molar volume, 22.4 at standard temperature and pressure (25 deg. Celsius, 1 atm)
c = conversion factors, 1440 min/day, 2.2E-6 lb/mg, 1 m³ /35.3 ft³

Estimate of recovery using analytical results in units of mg/L:

Pounds = Total Monthly Flow (gal) x Concentration (mg/L) x c
c = conversion factors, 3.7854 L/gal, 2.2046E-6 lb/mg

Table 7

PUMP AND TREAT OPERATIONAL SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

DATE	Operation			Groundwater Recovery			Recovery Wells											
	Period (days)	Operating Days	Operating Hours	Average Groundwater Flow Rate	Monthly Groundwater Recovery	Cumulative Groundwater Recovery	RW-05		RW-25		RW-31		RW-51		RW-72		RW-14	
				(gpm)	(gal)	(gal)	Cumulative Pump Cycles	Cycles per Minute	Cumulative Pump Cycles	Cycles per Minute	Cumulative Pump Cycles	Cycles per Minute	Cumulative Pump Cycles	Cycles per Minute	Cumulative Pump Cycles	Cycles per Minute	Cumulative Pump Cycles	Cycles per Minute
March 14, 2016	-	-	-	-	43,907	536	692	-	6,213	-	3,309	-	5,987	-	4,157	-		
March 15, 2016	0.2	0.2	6	0.5		729	1,120	1.8	10,090	16	9,063	24	10,880	20	7,307	13		
March 16, 2016	0.4	0.4	15	4.6		3,220	1,299	0.3	14,530	8	11,994	5	15,925	9	8,755	3		
March 17, 2016	0.3	0.3	22	3.3		4,595	1,436	0.3	21,226	16	16,785	11	23,056	17	9,825	3		
March 21, 2016	1.3	1.3	54	1.1		6,677	1,505	0.0	31,176	5	18,124	1	29,238	3	16,073	3		
March 24, 2016	3.0	2.3	108	1.8		12,539	1,625	0.0	-	-	-	-	-	-	-	-		
March 30, 2016	6.0	5.2	232	4.2		43,907	11,823	1.4	212,345	17	151,623	12	205,395	16	39,882	2		
Q1 2016	11	10		3.2	43,907		11,823	0.9	212,345	15	151,623	11	205,395	15	39,882	3		
April 7, 2016	8	7.8	418	3.3	117,175	81,177	17,696	0.5	430,776	20	244,598	8	431,044	20	51,551	1.0		
April 13, 2016	6	5.5	551	3.6		109,780	26,045	1.0	589,447	20	347,559	13	591,420	20	62,240	1.3		
April 20, 2016	7	6.3	701	3.1		137,844	34,325	0.9	773,123	20	355,229	1	775,119	20	69,772	0.8		
April 27, 2016	7	5.1	824	3.1		161,082	37,883	0.5	918,471	20	407,031	7	921,715	20	80,116	1.4		
May 5, 2016	8	7.5	1,005	3.0	87,572	193,885	39,826	0.2	1,138,059	20	471,149	6	1,136,789	20	90,455	1.0		
May 10, 2016	5	1.1	1,031	3.1		198,662	40,882	0.7	1,168,873	20	500,383	19	1,167,296	20	91,887	0.9		
May 18, 2016	8	7.2	1,204	2.7		226,298	60,355	1.9	1,387,605	21	525,551	2	1,381,275	21	97,943	0.6		
May 25, 2016	7	6.5	1,360	2.4		248,654	-	-	-	-	-	-	-	-	-	-		
June 2, 2016	8	5.5	1,493	2.1	61,464	265,336	90,911	1.8	1,760,840	22	777,780	15	1,743,745	21	112,951	0.0		
June 8, 2016	6	3.3	1,571	2.1		275,335	97,569	1.4	1,861,909	22	844,068	14	1,841,688	21	117,805	1.0		
June 14, 2016	6.0	6.0	1,714	1.9		291,227	110,555	1.5	2,069,338	24	948,955	12	2,035,824	23	127,548	1.1		
June 21, 2016	7.0	6.8	1,877	1.9		310,118	143,720	3.4	2,299,257	24	1,075,182	13	2,259,050	23	137,772	1.0		
Q2 2016	83	69		2.7	266,211		131,897	1.3	2,086,912	21	923,559	9	2,053,655	21	97,890	1		
July 12, 2016	21	21.0	2,380	2.2	90,967	375,524	621,945	15.8	3,046,598	25	1,501,331	14	2,963,874	23	163,265	0.8		
July 21, 2016	9	8.8	2,591	2.0		401,085	965,118	27.1	3,336,362	23	1,703,585	16	3,245,984	22	172,720	0.7		
August 4, 2016	14	14.0	2,927	2.0	66,632	441,884	1,504,724	26.8	3,784,552	22	2,035,460	16	3,692,700	22	188,936	0.8	188,936	-
August 15, 2016	11	8.0	3,118	2.2		466,850	1,780,380	24.1	3,986,072	18	2,200,705	14	3,916,870	20			274,167	7.4
August 17, 2016	2	0.2	3,123	2.9		467,717	1,784,800	14.7	3,991,637	19	2,204,352	12	3,922,639	19			276,953	9.3
September 1, 2016	15	12.3	3,418	1.8	97,504	499,541	2,110,116	18.4	4,141,750	8	2,252,093	3	4,205,454	16			456,696	10.2
September 22, 2016	21	21.0	3,921	1.6		547,172	2,402,720	9.7	4,809,103	22	2,252,895	0	4,833,693	21			700,754	8.1
September 30, 2016	8	7.8	4,108	1.6		565,221	2,404,744	0.2	-	-	2,253,087	0	-				-	-
Q3 2016	101	93		1.9	255,103		2,261,024	16.9	2,509,846	20	1,177,905	9	2,574,643	21	51,164	1	511,818	9
October 5, 2016	5	4.9	4,226	2.5	62,337	583,206	2,406,092	0.2	4,985,425	9.6	2,380,012	18	5,204,070	20			897,581	11
October 20, 2016	15	13.8	4,558	2.2		627,558	2,410,677	0.2	5,430,437	22.3	2,759,561	19	5,620,685	21			1,074,660	9
November 3, 2016	14	13.0	4,870	2.0	74,361	665,013	2,414,200	0.2	5,830,392	21.4	3,089,438	18	5,999,578	20			1,245,397	9
November 22, 2016	19	19.0	5,326	1.3		701,919	2,421,950	0.3	6,450,887	22.7	3,309,768	8	6,423,209	15			1,401,129	6
December 7, 2016	15	14.6	5,677	1.7	55,598	738,594	2,445,294	1.1	6,928,011	22.7	3,587,633	13	6,740,188	15			1,656,410	12
December 22, 2016	15	9.3	5,900	1.4		757,517	2,478,549	2.5	7,242,904	23.5	3,696,939	8	6,946,164	15			1,690,554	3
Q4 2016	83	75		1.8	192,296		73,805	0.7	2,433,801	22.6	1,443,852	13	2,112,471	20	0	0	989,800	9

Notes:

gal - gallons

gpm - gallons per minute

Pump Cycles - Cycle counters at each pneumatic well pump are used as relative measurements to estimate proportion of total flow and evaluate changes in flow rates over time.

Table 8

BIOSPARGE OPERATIONAL SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

DATE	Operation		Biosparge Injection Points														
	Period (days)	Operating Days	SP-01	SP-02	SP-03	SP-04	SP-05	SP-06	SP-07	SP-08	SP-09	SP-10	SP-11	SP-12	SP-13	SP-14	SP-15
			Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow	Flow
			(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)	(scfm)
March 15, 2016	0.0	0.0	0.8	0.7	0.6	0.8	0.8	0.6	0.8	0.7							
March 16, 2016	0.4	0.4	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7							
March 17, 2016	0.9	0.9	0.7	0.75	0.7	0.7	0.7	0.7	0.75	0.75							
March 21, 2016	1.3	1.3	1.0	1.0	1.0	1.0	1.2	1.1	1.0	1.0							
March 30, 2016	9.0	8.3	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8							
Q1 2016	12	11	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8							
April-16	28	27.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8							
May-16	28	23.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
June-16	27	22.7	0.8	0.75	0.8	0.8	0.8	0.75	0.75	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Q2 2016	83	73	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
July-16	30	30.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5
August-16	27	22.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
September-16	44	42.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0	0
Q3 2016	101	95	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.3	0.3
October-16	20	18.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0	0
November-16	33	32.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0	0
December-16	30	24.3	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0	0
Q4 2016	83	75	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.0	0.0

Notes:

scfm - standard cubic feet per minute

Table 9

HYDROCARBON RECOVERY SUMMARY

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

DATE	TPE			P&T			LNAPL		Cumulative Hydrocarbon Recovery					
	Monthly Groundwater Recovery	Dissolved-Phase TPH-DRO Concentration	Monthly TPH-DRO Recovery	Monthly Groundwater Recovery	Dissolved-Phase TPH-DRO Concentration	Monthly TPH-DRO Recovery	LNAPL Thickness in Drum ¹	Monthly Recovered LNAPL	Dissolved-Phase		Liquid-Phase	Vapor-Phase ²	Total	
									TPE	P&T				
									(lbs)	(lbs)			(lbs)	(gal)
	(gal)	(mg/L)	(lbs)	(gal)	(mg/L)	(lbs)	(ft)	(lbs)			(lbs)	(lbs)		
March-16	2,572	250	5.4	43,907	56	20.5	0.39	56.8	5	21	57	262	345	47
Q1 2016			5.4			20.5		56.8						
April-16	4,671	10	0.4	117,175	2.4	2.3	0.41	2.9	6	23	60	624	712	97
May-16	4,121	69	2.4	87,572	2.8	2.0	0.43	21.2	8	25	81	770	884	121
June-16	5,196	18	0.8	61,464	0.7	0.3	0.43	0.0	9	25	81	859	974	133
Q2 2016			3.5			4.7		24.1						
July-16	9,218	73	5.6	90,967	23	17.5	0.46	4.4	15	43	85	1303	1446	197
August-16	10,131	83	7.0	66,632	6.7	3.7	0.46	0.0	22	46	85	1353	1506	206
September-16	11,516	100	9.6	97,504	5.4	4.4	0.46	0.0	31	51	85	1530	1697	232
Q3 2016			22.2			25.6		4.4						
October-16	4,062	36	1.2	62,337	11	5.7	0.46	0.0	32	57	85	1612	1787	244
November-16	4,897	68	2.8	74,361	1.2	0.7	0.46	0.0	35	57	85	1785	1963	268
December-16	2,753	81	1.9	55,598	0.42	0.2	0.46	0.0	37	57	85	2031	2210	302
Q4 2016			5.9			6.7		0.0						

Notes:

TPE - total phase extraction

P&T - pump & treat

TPH-DRO - total petroleum hydrocarbons - diesel range organics

LNAPL - light non-aqueous phase liquid

gal - gallon

mg/L - milligrams per liter

lbs - pounds

¹ - LNAPL drum includes LNAPL bailed previously during well gauge and bail events² - Vapor-Phase recovery values are calculated withing the Total Phase Extraction Operational Summary Table*Italics* - May LNAPL recovery includes LNAPL removed from the oil/water separator during a cleaning event.Estimate of dissolved-phase recovery using analytical results in units of mg/L:

Pounds = Total Monthly Flow (gal) x Concentration (mg/L) x c

c = conversion factors, 3.7854 L/gal, 2.2046E-6 lb/mg

Estimate of recovered LNAPL in drum using product thickness in units of ft:Pounds = LNAPL Thickness (ft) x Drum Radius² (ft²) x π x LNAPL Density (lb/ft³)

drum diameter = 1.875 feet

Density of LNAPL (#2 fuel oil) is 54.81 lb/ft³ based on an average from LNAPL samples from MW-05 and MW-25Conversion of recovered hydrocarbons from pounds to gallons:Gallons = Total Hydrocarbons (lbs) / Density of LNAPL (54.8 lb/ft³) x 7.48 gal/ft³)

Table 10

REVISED GROUNDWATER MONITORING AND SAMPLING PLAN

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Aquifer Zone	Field Parameters								Laboratory Parameters								Sample Method	Comments
		pH	Specific Conductance	Temperature	Oxidation Reduction Potential	Dissolved Oxygen	Headspace CO ₂ concentration	Headspace VOC concentration	Headspace O ₂	TPH-DRO C10-C28 (SW-846 8015B)	Naphthalene (8260)	Alkalinity (SM 2320B)	Nitrate NO ₃ ⁻¹ & Nitrite NO ₂ ⁻² (EPA 353.2)	Manganese (Mn2+)	Ferrous Iron Fe ²⁺ (SM 3500-Fe B modified-1997)	Sulfate SO ₄ ²⁻ (EPA 300.0)	Methane (RSKSOP-175 modified)		
MW-01S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-05 / RW-05	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A							P&S	
MW-08S	Shallow									Q	A							P&S	
MW-10S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-11	Deep									A								P&S	
MW-14 / RW-14	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q		Q	Q	Q	Q	Q	Q	P&S	
MW-15S	Shallow									A								P&S	
MW-16S	Shallow																	NS	Gauge only
MW-16	Deep									Q	A							P&S	
MW-25S	Shallow									Q	A							P&S	
MW-25 / RW-25	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A							P&S	
MW-27	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-31 / RW-31	Deep									Q								P&S	
MW-33	Deep									A								P&S	
MW-51S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q		Q	Q	Q	Q	Q	Q	P&S	
MW-51 / RW-51	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A							P&S	
MW-52	Deep																	NS	Gauge only
MW-70	Deep																	NS	Gauge only
MW-72S / RW-72S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-72 / RW-72	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-100S	Shallow	A	A	A	A	A	A	A	A	A		A	A	A	A	A	A	P&S	
MW-100	Deep	A	A	A	A	A	A	A	A	A		A	A	A	A	A	A	P&S	

Table 10

REVISED GROUNDWATER MONITORING AND SAMPLING PLAN

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Aquifer Zone	Field Parameters								Laboratory Parameters								Sample Method	Comments
		pH	Specific Conductance	Temperature	Oxidation Reduction Potential	Dissolved Oxygen	Headspace CO2 concentration	Headspace VOC concentration	Headspace O2	TPH-DRO C10-C28 (SW-846 8015B)	Naphthalene (8260)	Alkalinity (SM 2320B)	Nitrate NO ₃ ⁻¹ & Nitrite NO ₂ ⁻² (EPA 353.2)	Manganese (Mn2+)	Ferrous Iron Fe ²⁺ (SM 3500-Fe B modified-1997)	Sulfate SO ₄ ²⁻ (EPA 300.0)	Methane (RSKSOP-175 modified)		
MW-102	Deep																	NS	Gauge only
MW-103	Shallow																	NS	Gauge only
MW-104	Shallow																	NS	Gauge only
MW-105	Shallow																	NS	Gauge only
MW-106	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-107	Deep									A								P&S	
MW-108	Deep									Q								P&S	Typically Dry
MW-109S	Shallow									A								P&S	basement wells
MW-109	Deep									A								P&S	
MW-110S	Shallow									A								P&S	
MW-110	Deep									A								P&S	
MW-111	Deep									A								P&S	
MW-112S	Shallow									A								P&S	
MW-112	Deep									A								P&S	
MW-113	Deep									A								P&S	
MW-114	Deep									A								P&S	
MW-121	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-122	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q	Q	P&S	
MW-123S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
TW-02	Deep																	NS	Gauge only
TW-03	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q		Q	Q	Q	Q	Q	Q	LF	Provide biostimulation bottleware to Geosyntec

Table 10

REVISED GROUNDWATER MONITORING AND SAMPLING PLAN

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Aquifer Zone	Field Parameters								Laboratory Parameters								Sample Method	Comments
		pH	Specific Conductance	Temperature	Oxidation Reduction Potential	Dissolved Oxygen	Headspace CO ₂ concentration	Headspace VOC concentration	Headspace O ₂	TPH-DRO C10-C28 (SW-846 8015B)	Naphthalene (8260)	Alkalinity (SM 2320B)	Nitrate NO ₃ ⁻¹ & Nitrite NO ₂ ⁻² (EPA 353.2)	Manganese (Mn2+)	Ferrous Iron Fe ²⁺ (SM 3500-Fe B modified-1997)	Sulfate SO ₄ ²⁻ (EPA 300.0)	Methane (RSKSOP-175 modified)		
TW-04	Deep									Q								LF	
TW-05	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q		Q	Q	Q	Q	Q	Q	LF	Provide biostimulation bottleware to Geosyntec
TW-06	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q		Q	Q	Q	Q	Q	Q	LF	Provide biostimulation bottleware to Geosyntec
TW-07	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q								LF	
TW-12S	Shallow									Q								P&S	
TW-14	Shallow									Q	A							LF	
RW-1	Deep	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-05S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-25S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q	A							P&S	
RW-28S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-30S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-116S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-117S	Shallow	Q	Q	Q	Q	Q	Q	Q	Q	Q								P&S	
RW-118S	Shallow									Q								P&S	
RW-119S	Shallow									Q								P&S	

Notes:

Select annual samples were collected during the 4th quarter of 2015. Moving forward, annual sampling to be completed in the 4th quarter of a year.

Q - Quarterly sampling frequency

A - Annual sampling frequency

P&S - Purge and Sample

LF - Low Flow Sampling

Table 10

REVISED GROUNDWATER MONITORING AND SAMPLING PLAN

Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Well ID	Aquifer Zone	Field Parameters								Laboratory Parameters								Sample Method	Comments
		pH	Specific Conductance	Temperature	Oxidation Reduction Potential	Dissolved Oxygen	Headspace CO2 concentration	Headspace VOC concentration	Headspace O2	TPH-DRO C10-C28 (SW-846 8015B)	Naphthalene (8260)	Alkalinity (SM 2320B)	Nitrate NO ₃ ⁻¹ & Nitrite NO ₂ ⁻² (EPA 353.2)	Manganese (Mn2+)	Ferrous Iron Fe ²⁺ (SM 3500-Fe B modified-1997)	Sulfate SO ₄ ²⁻ (EPA 300.0)	Methane (RSKSOP-175 modified)		

NS - No Sampling Planned



ATTACHMENT A

WASTE DOCUMENTATION

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

Page 1 of 1

STRAIGHT BILL OF LADING
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL331546

TRANSPORTER:

1 Triumvirate Environmental, Inc.
2

US EPA ID Number:

MAC300016672

Phone:

800-966-9282

GENERATOR:

NRG - Virginia
1400 North Royal Street
Alexandria, VA 22314

US EPA ID Number:

VAD000731588

Phone:

FACILITY:

Triumvirate Environmental - Baltimore, LLC
1500 Carbon Avenue
Baltimore, MD 21226

US EPA ID Number:

MDD093002384

Phone:

(410) 636-3700

Received:

(Print Name)

(Signature)

(Date)

HM	Description of Articles or Proper Shipping Name	Containers			Unit	
		No.	Size	Type	Weight	Wt/Vol.
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13920-20020A	001	x	Tanker	1200	G

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

GENERATOR:

NRG - Virginia

Print Name

Signature

Date

X MICHAEL KEARNEY X [Signature] 12.14.16

TRANSPORTER:

1 Triumvirate Environmental, Inc.
2

[Signature] [Signature] 12.14.16

ER #: (800) 966-9282

ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)



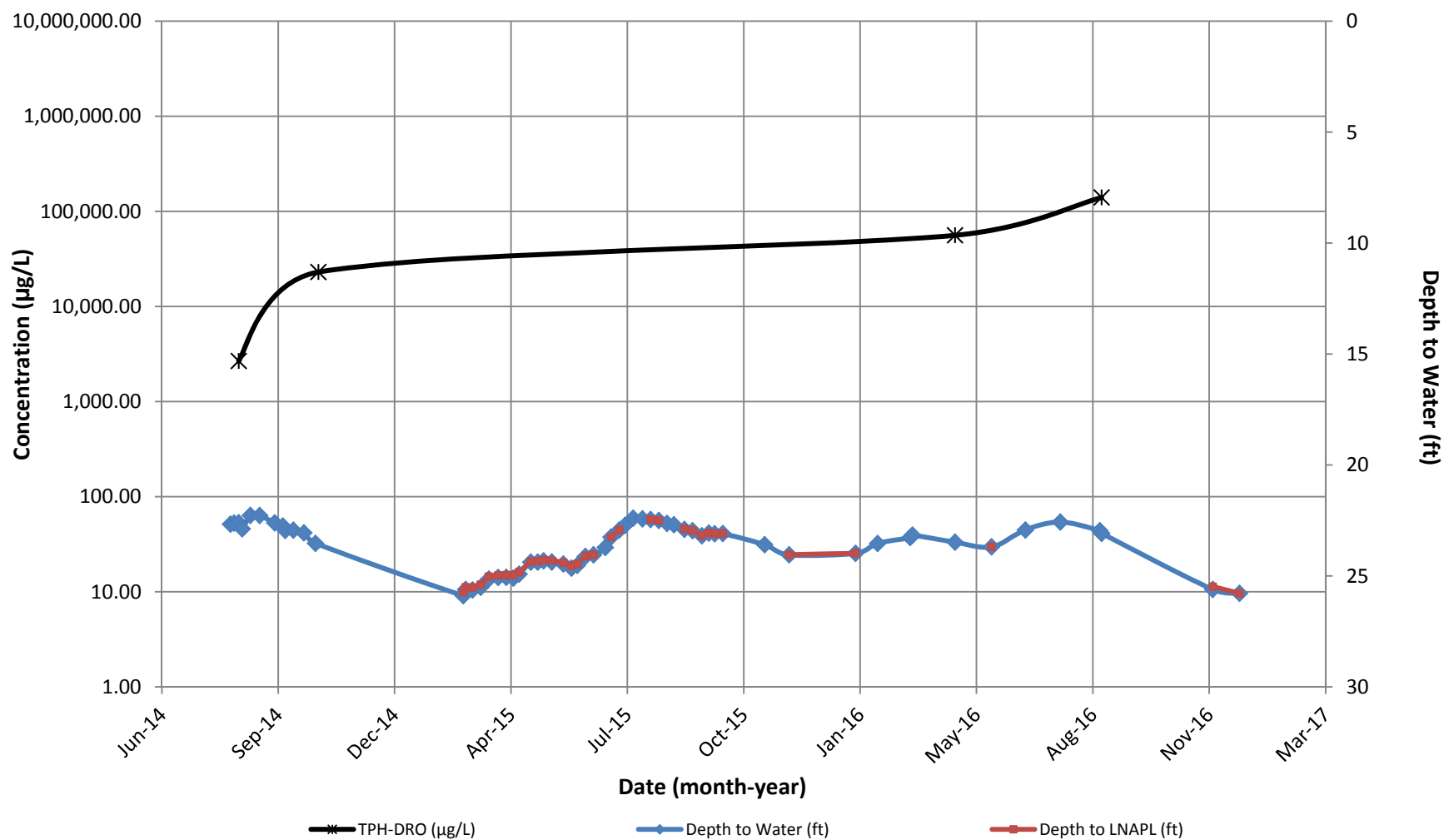
ATTACHMENT B

CONCENTRATION TREND GRAPHS

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW-01S

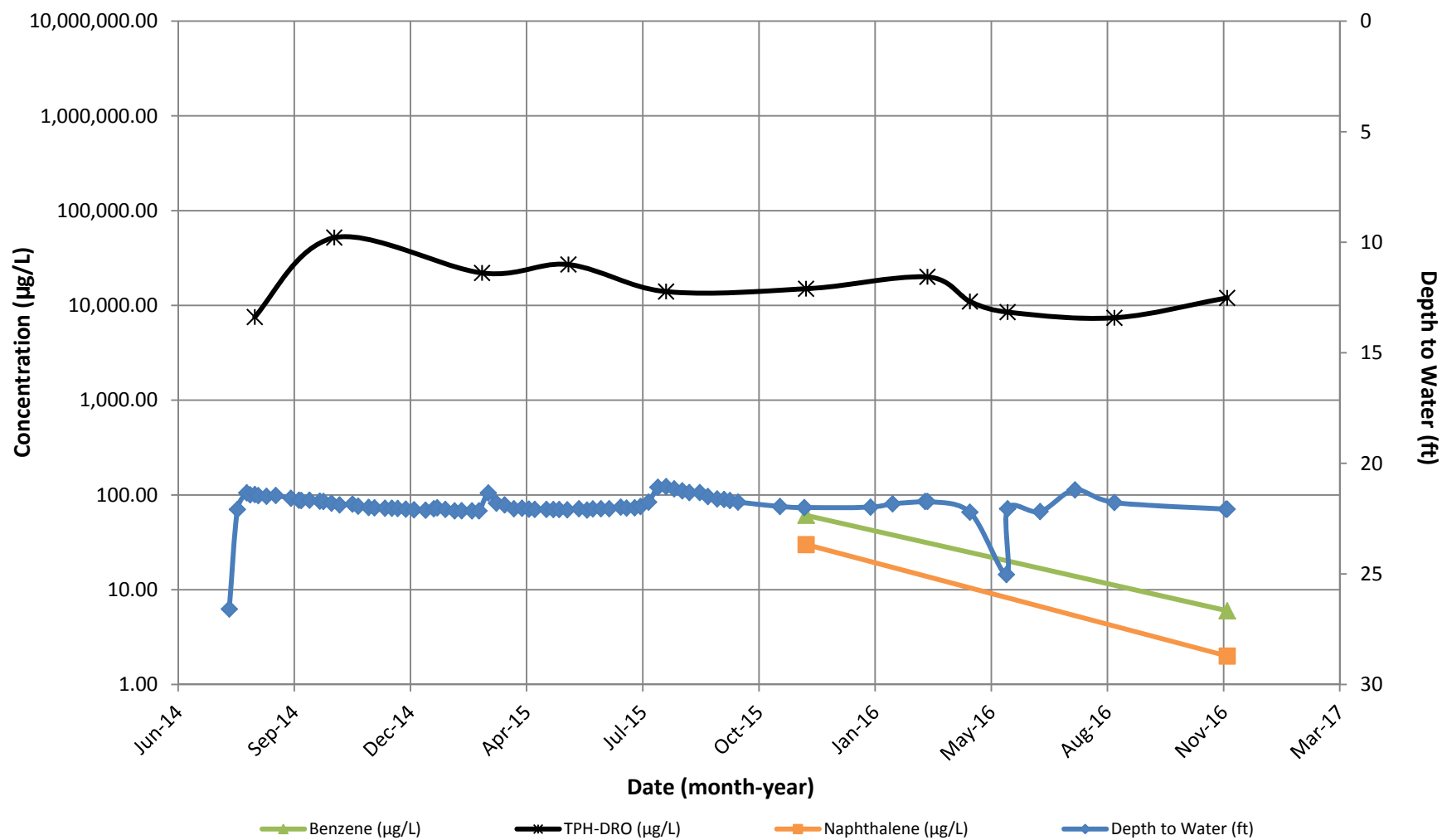


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 $\mu\text{g/L}$ is plotted for a TPH-DRO result of <45 $\mu\text{g/L}$).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW-08S

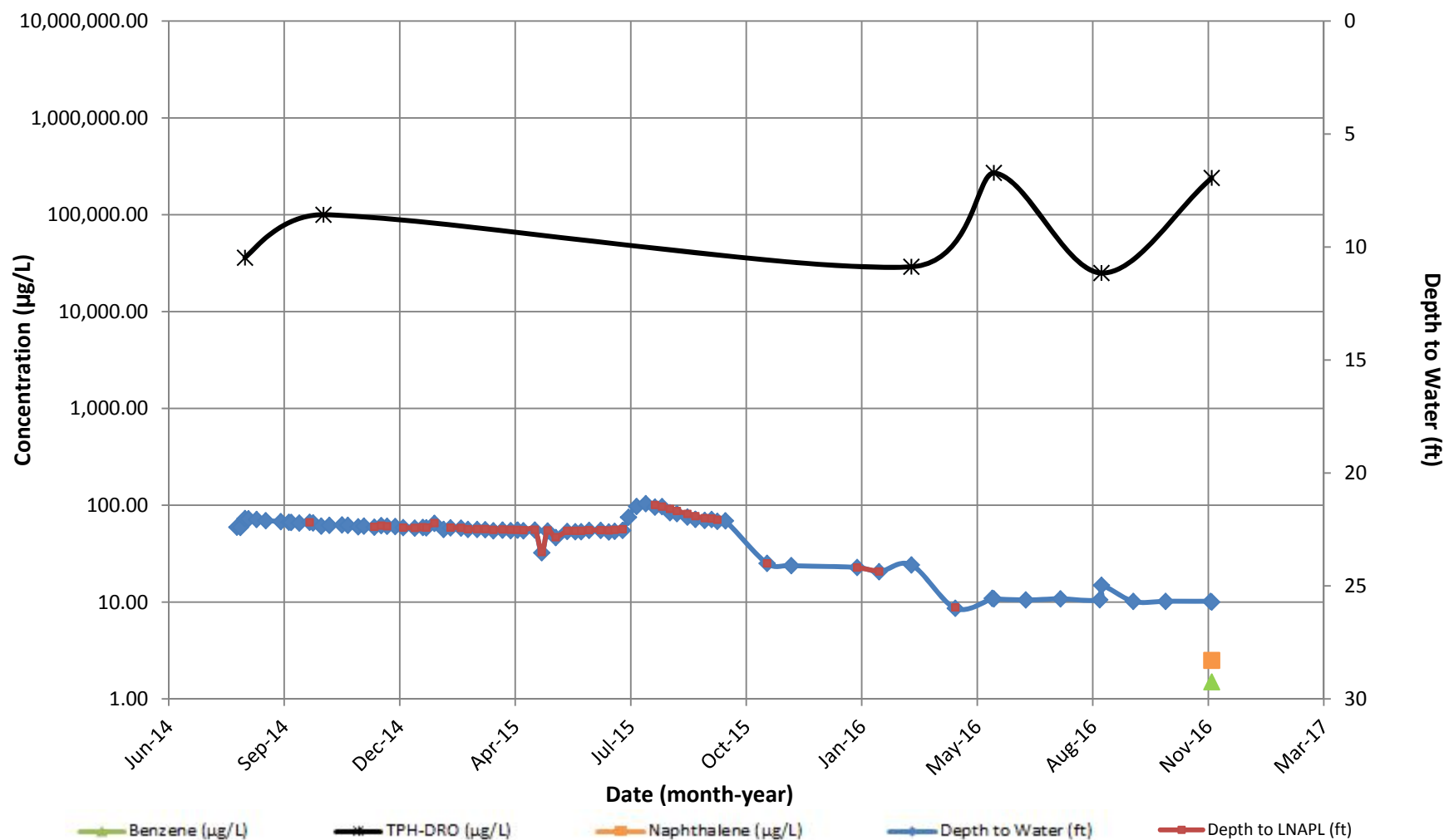


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW/RW-10S

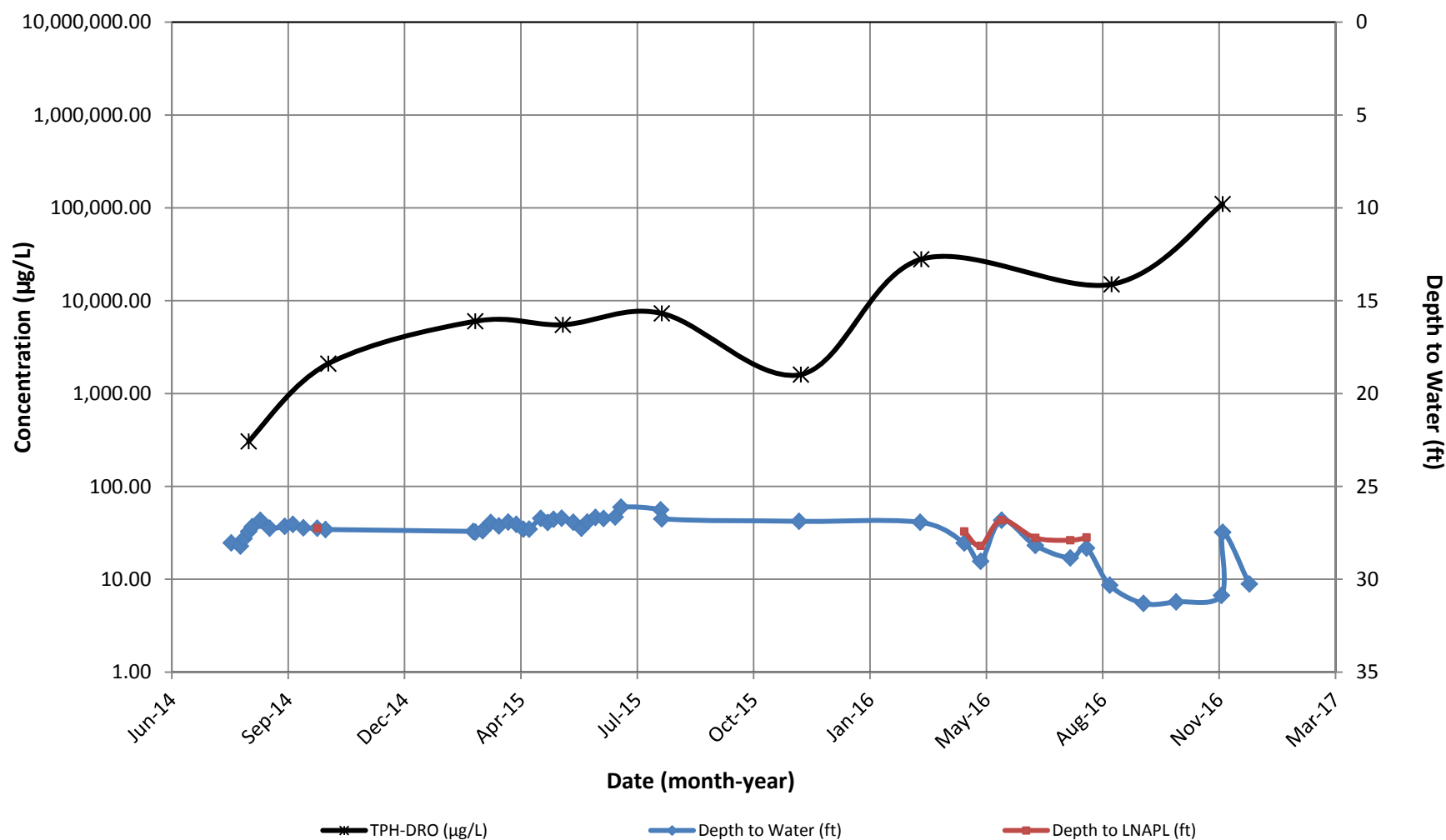


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW/RW-14

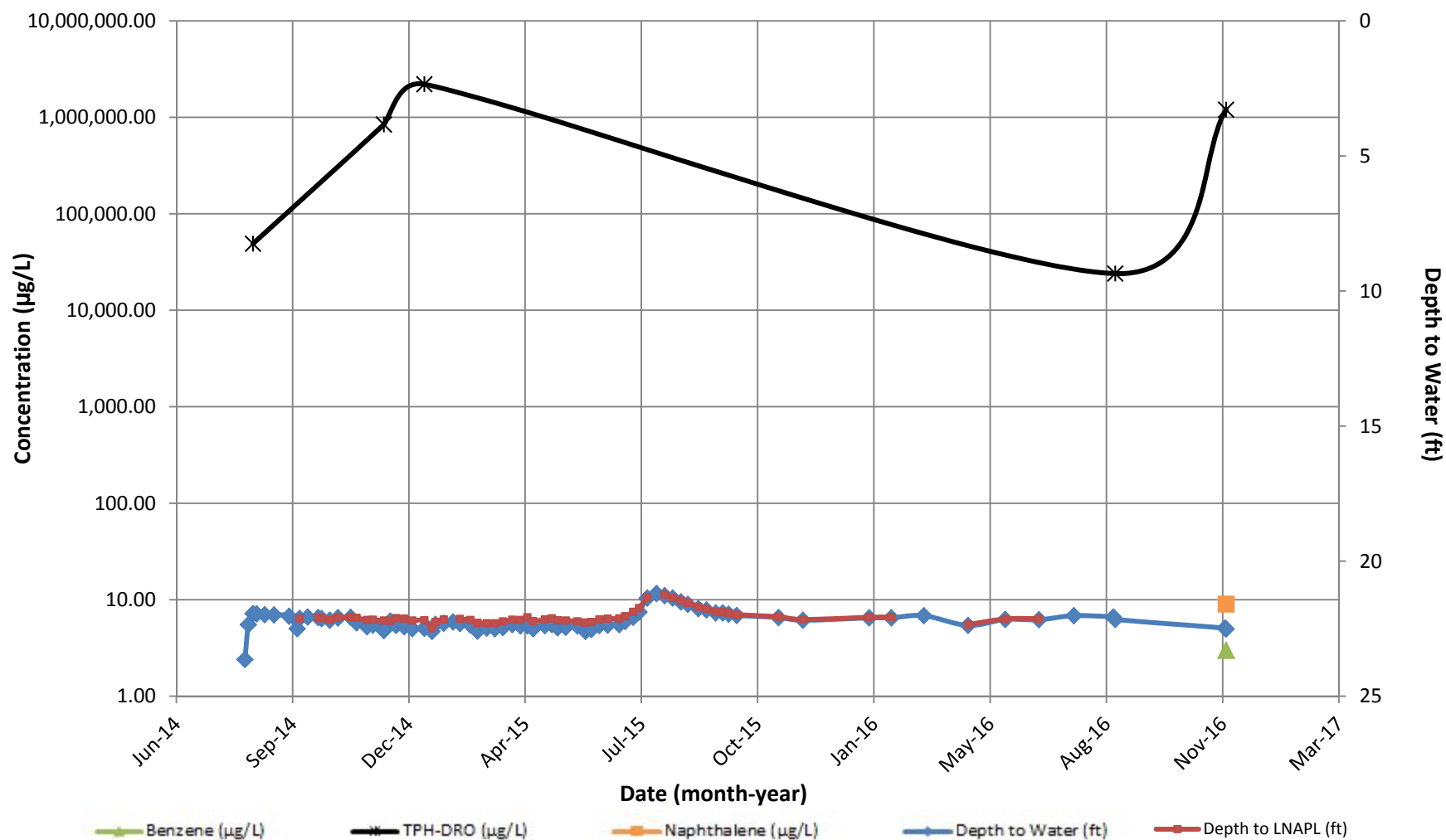


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW-25S

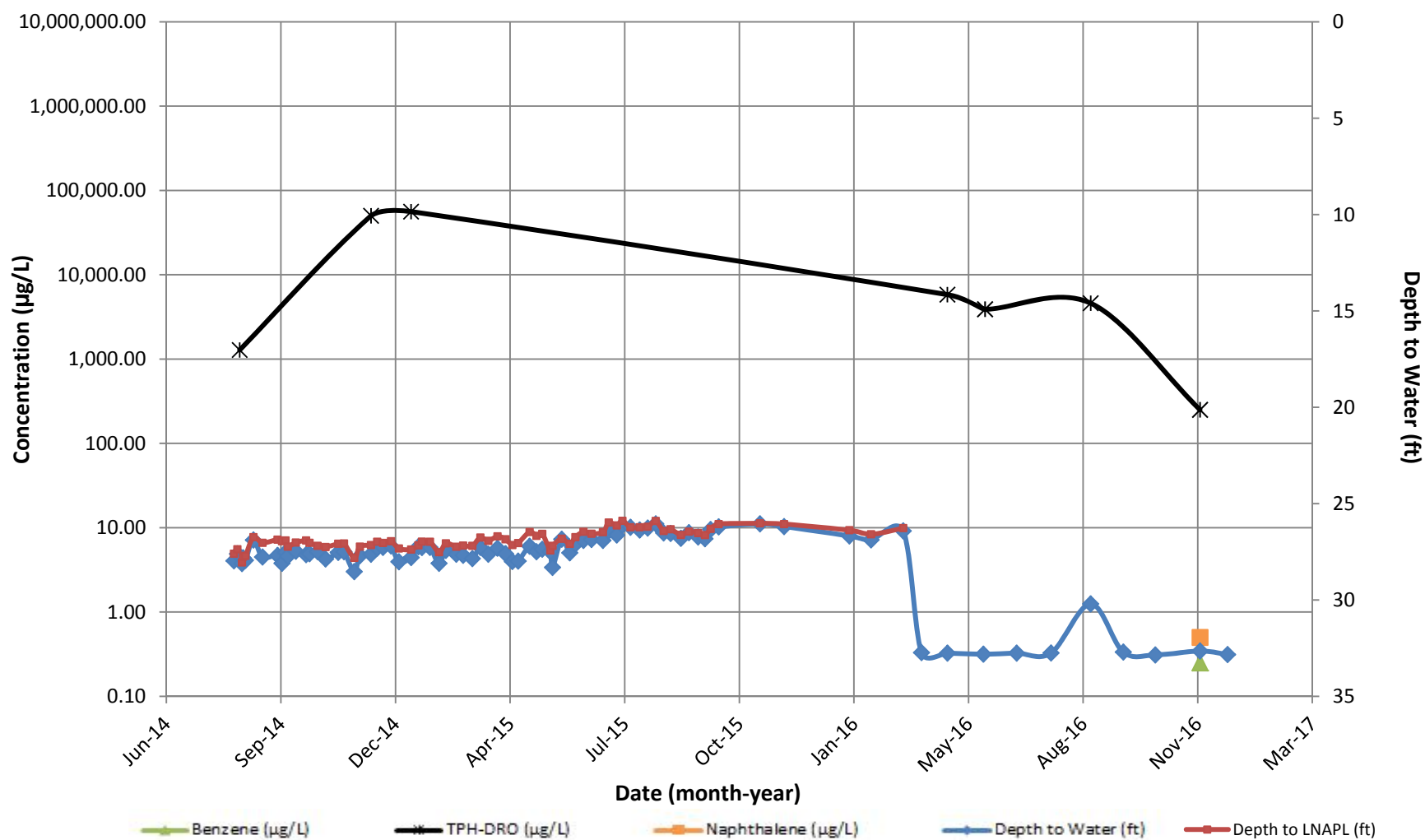


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW/RW-25

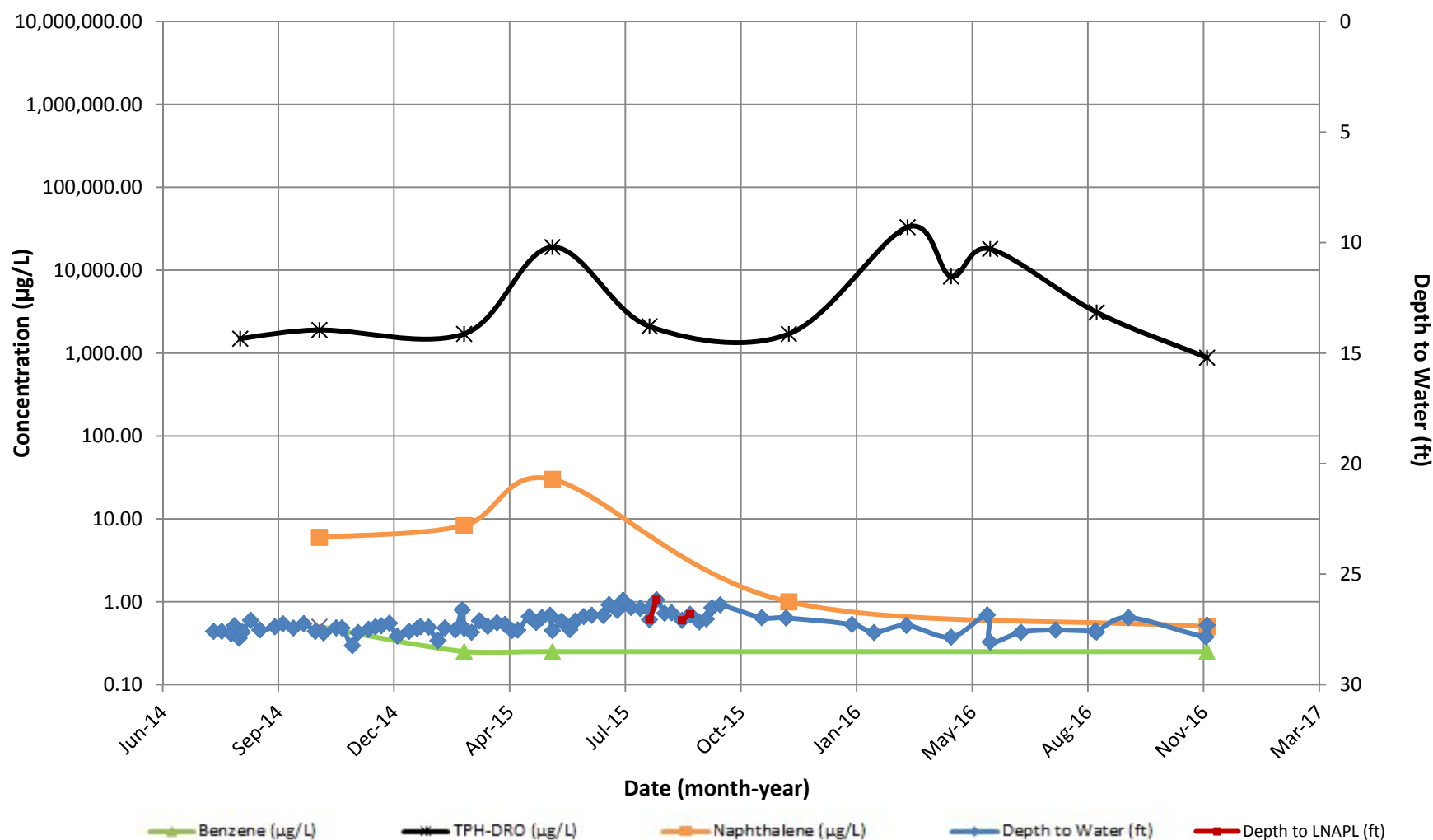


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW-27

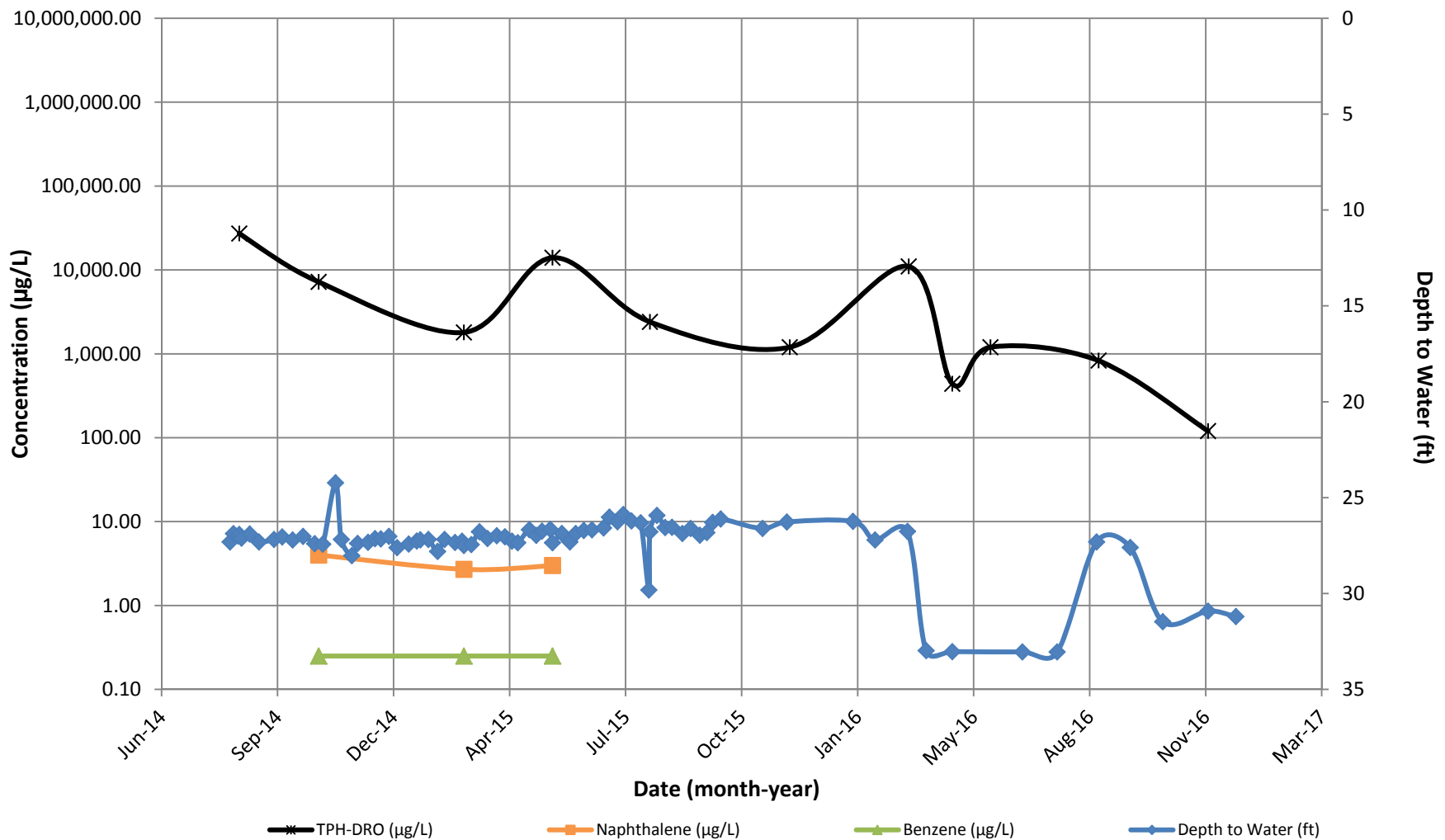


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 $\mu\text{g/L}$ is plotted for a TPH-DRO result of <45 $\mu\text{g/L}$).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW/RW-31

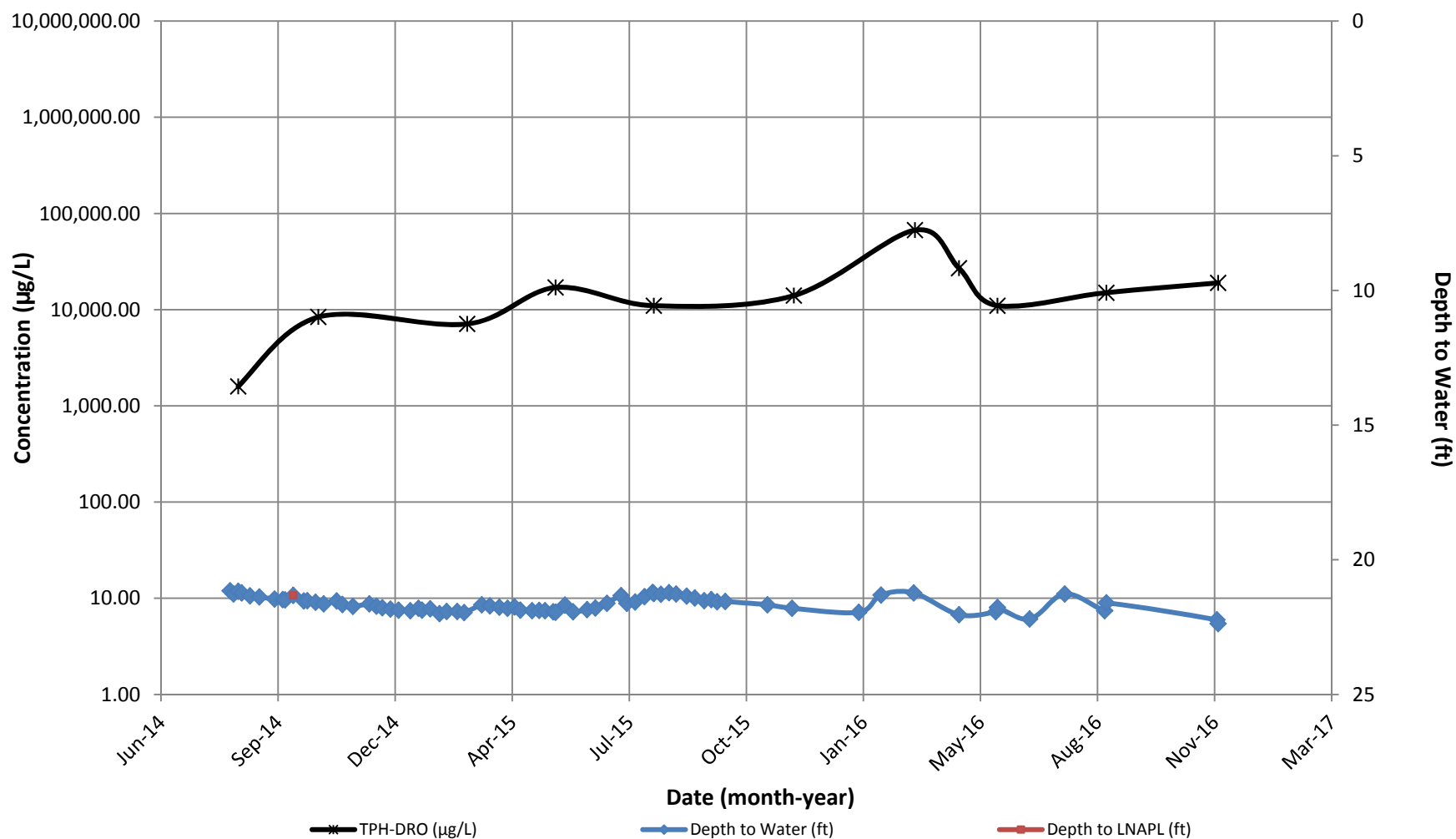


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW-51S

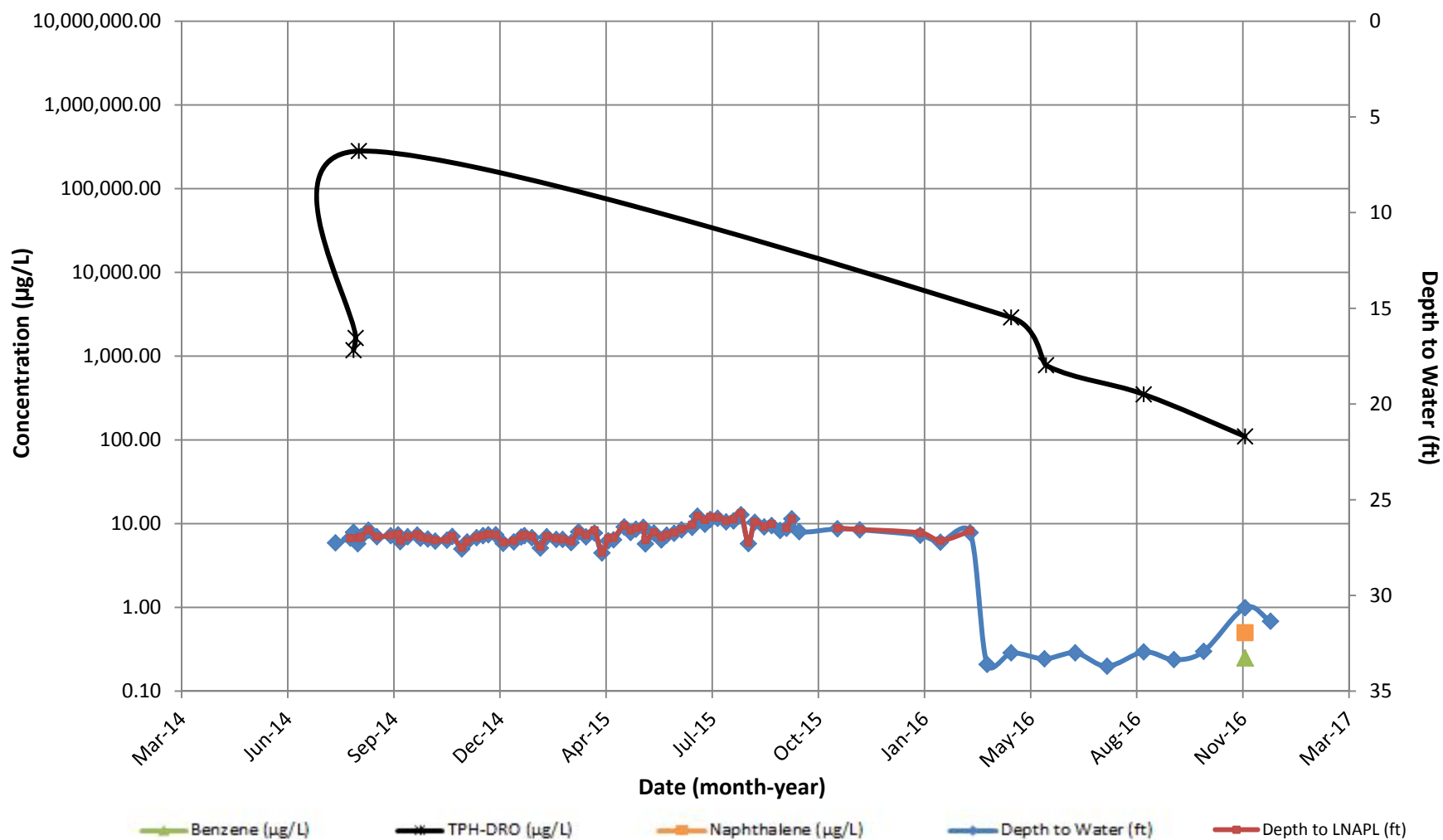


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW/RW-51

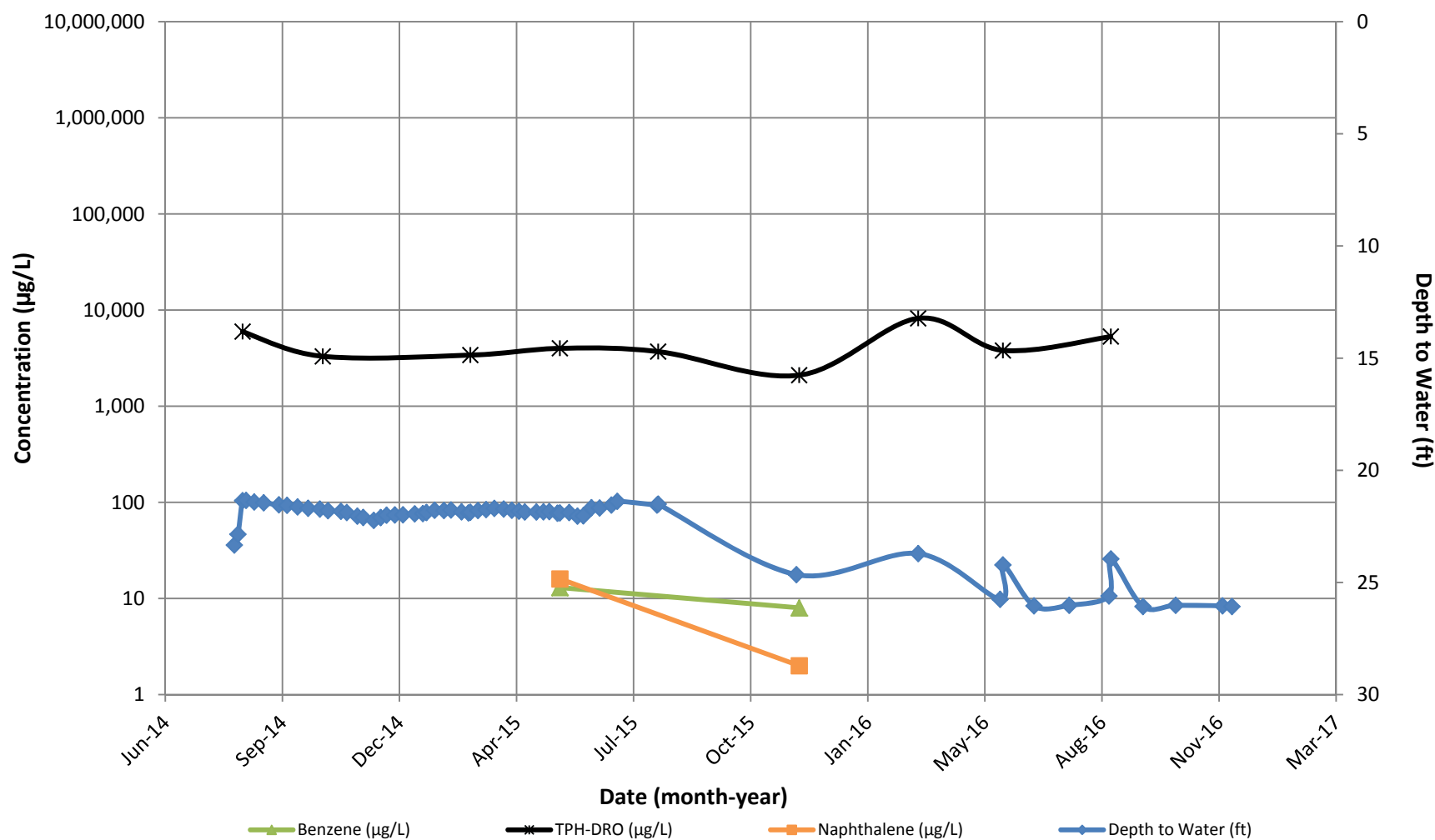


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW/RW-72S

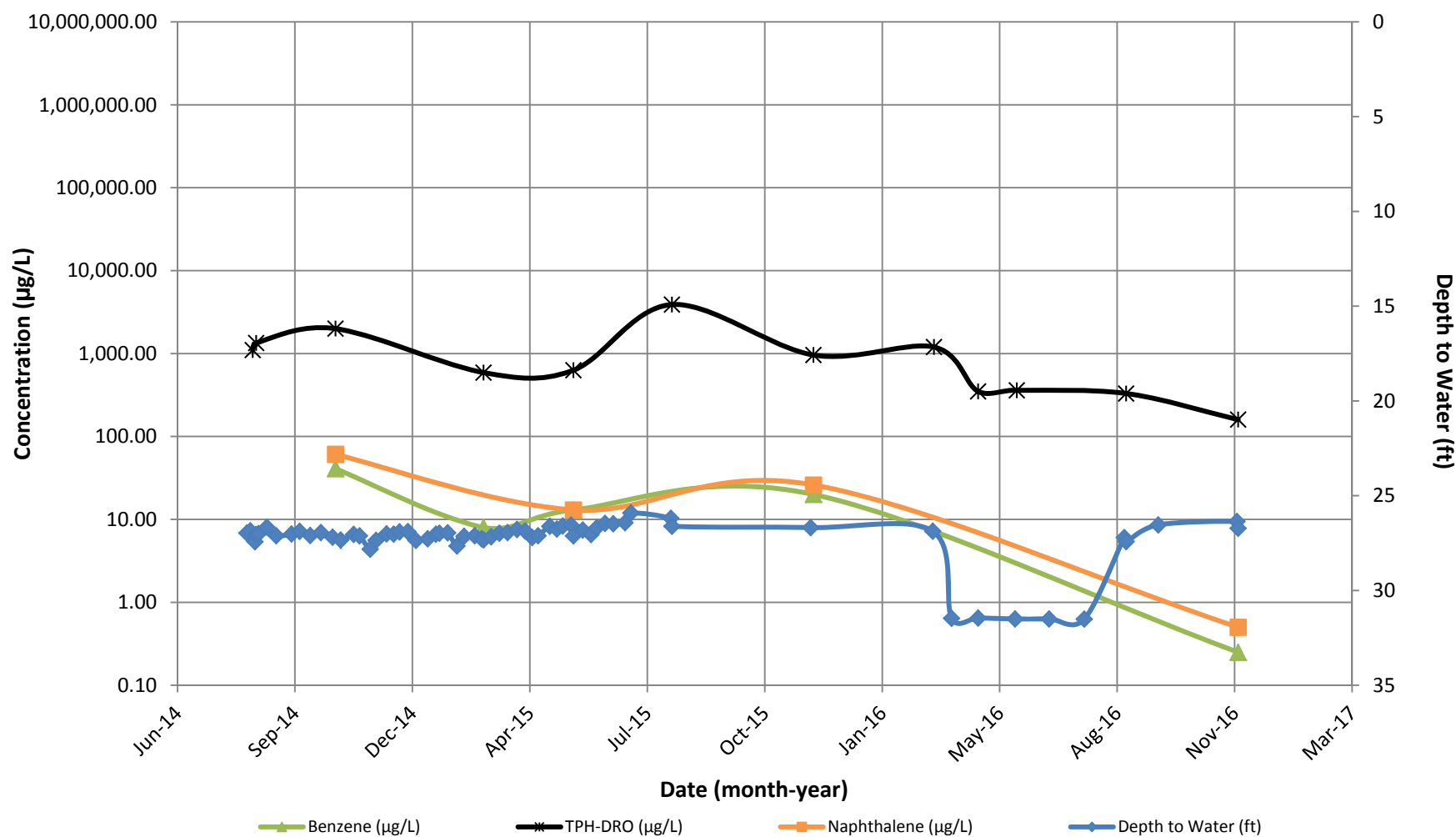


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW/RW-72

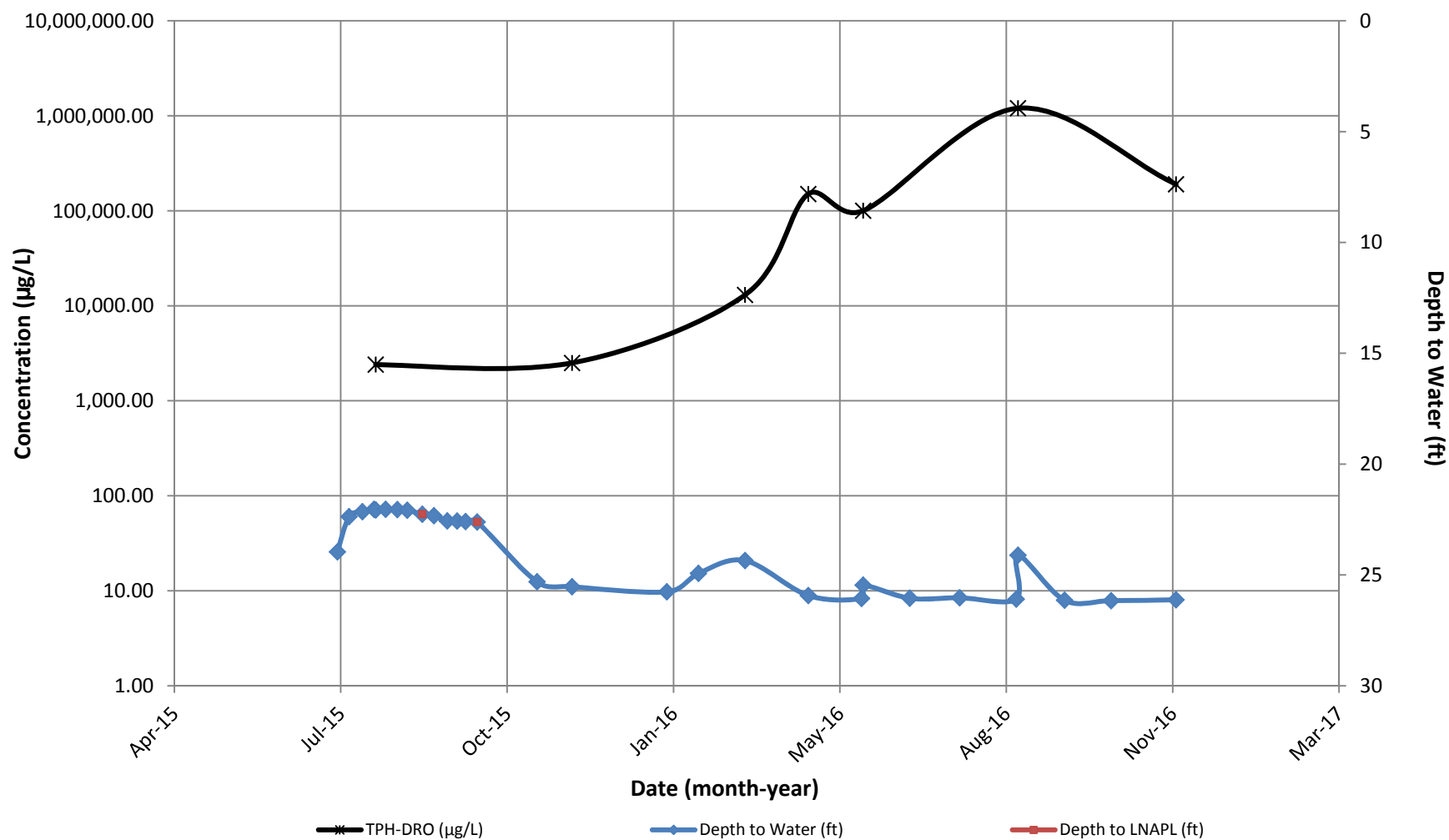


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW/RW-123S

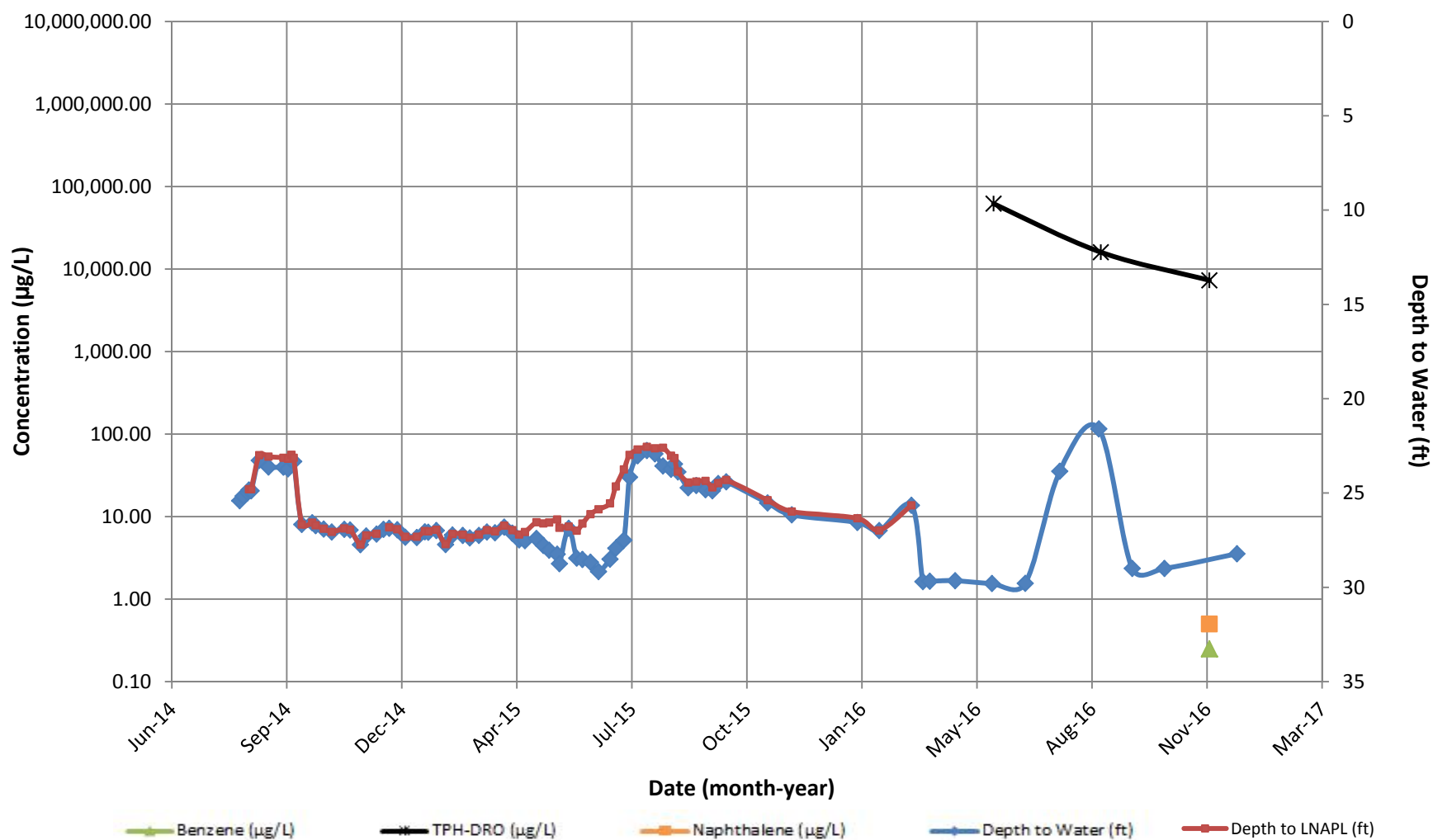


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 $\mu\text{g/L}$ is plotted for a TPH-DRO result of $<45 \mu\text{g/L}$).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

MW/RW-05

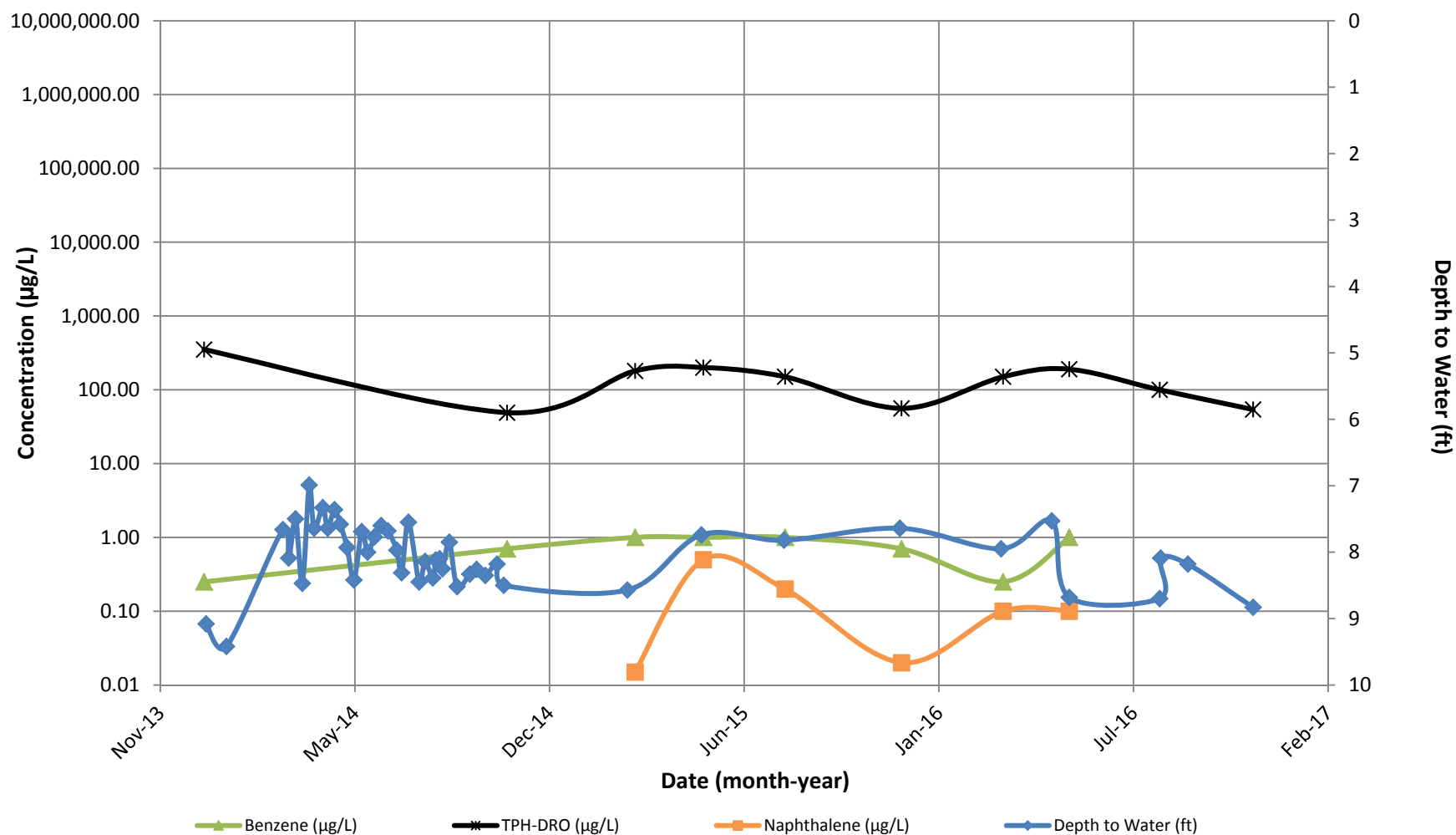


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

TW-03

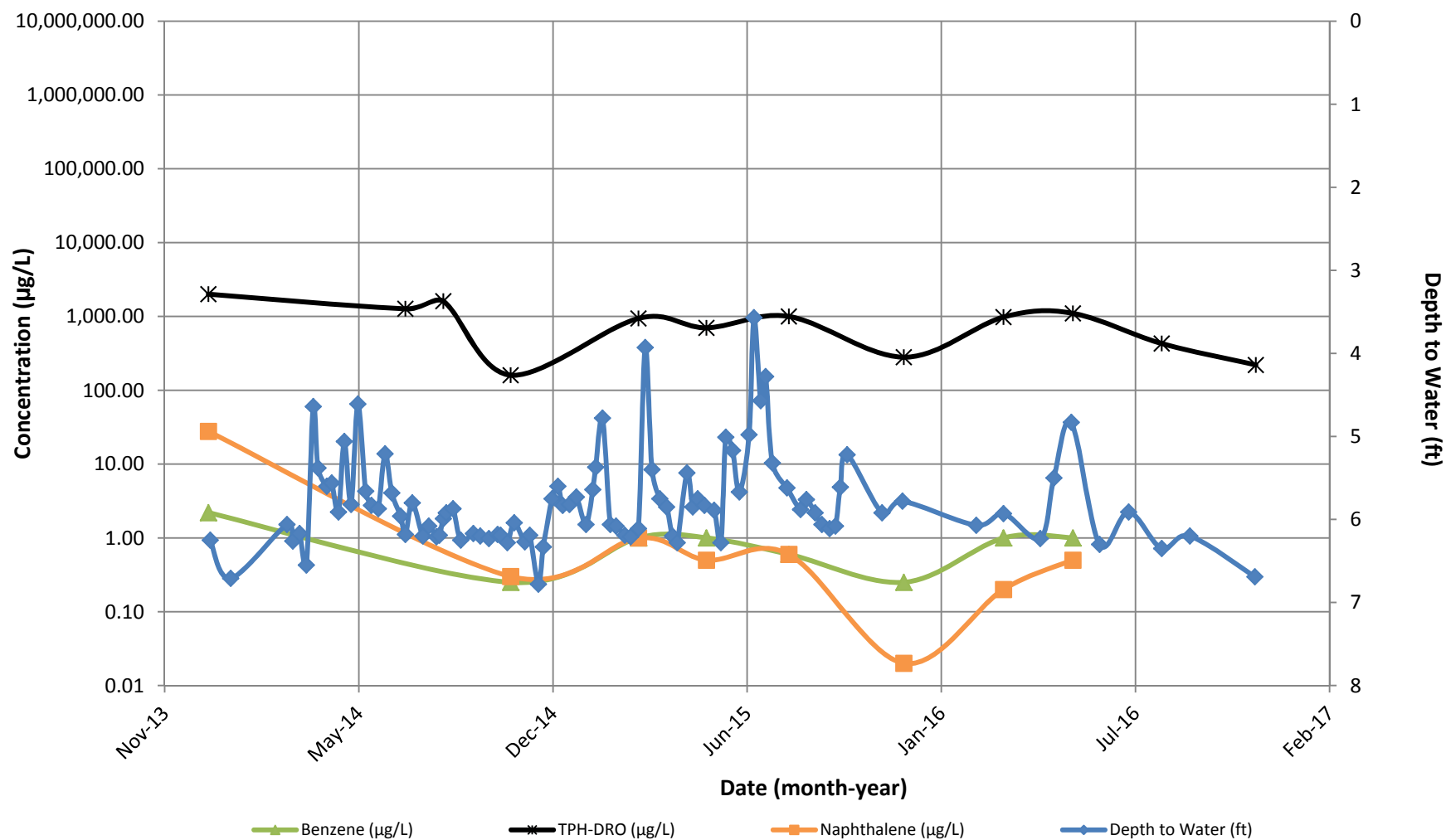


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

TW-04

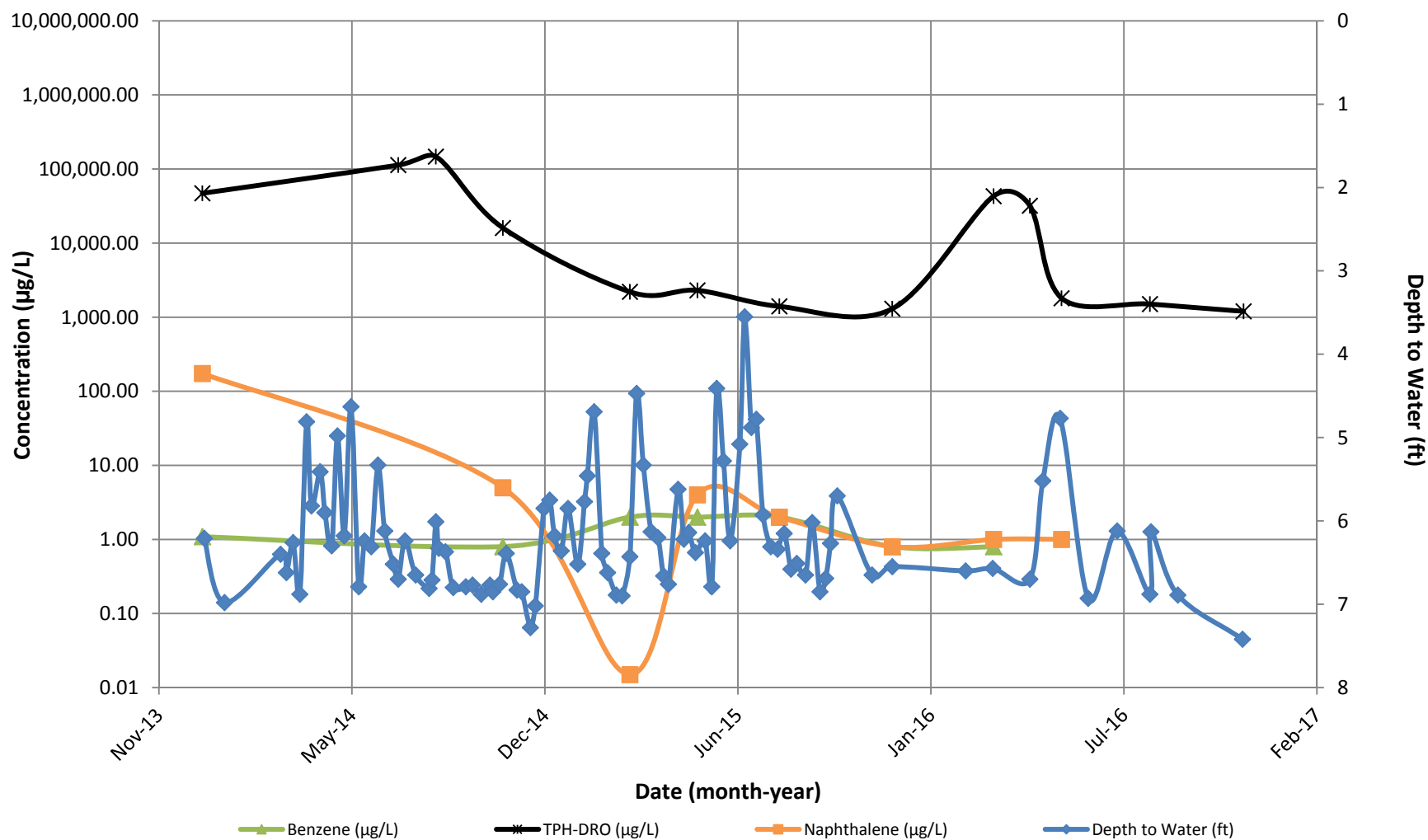


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

TW-06

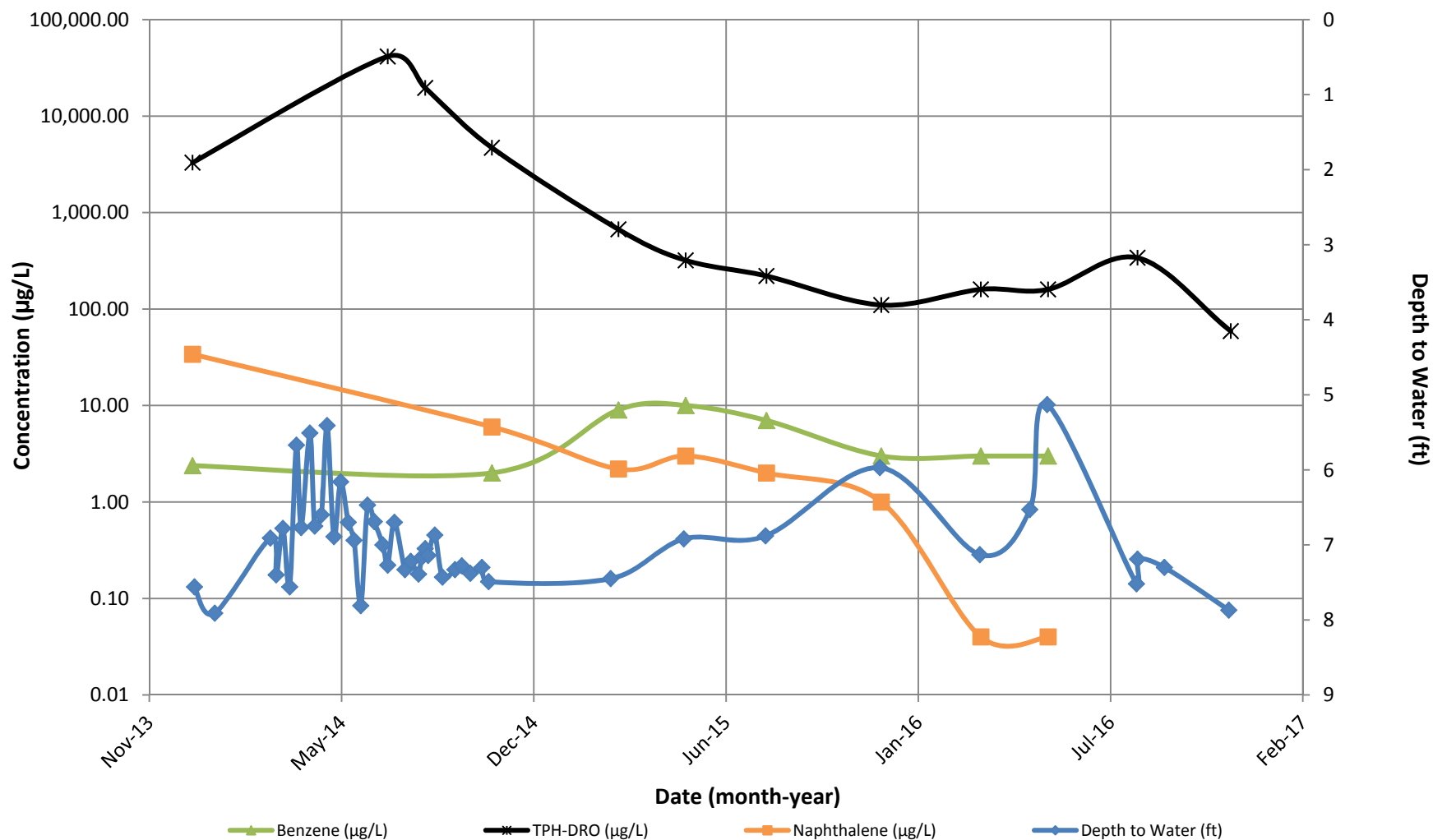


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

TW-07

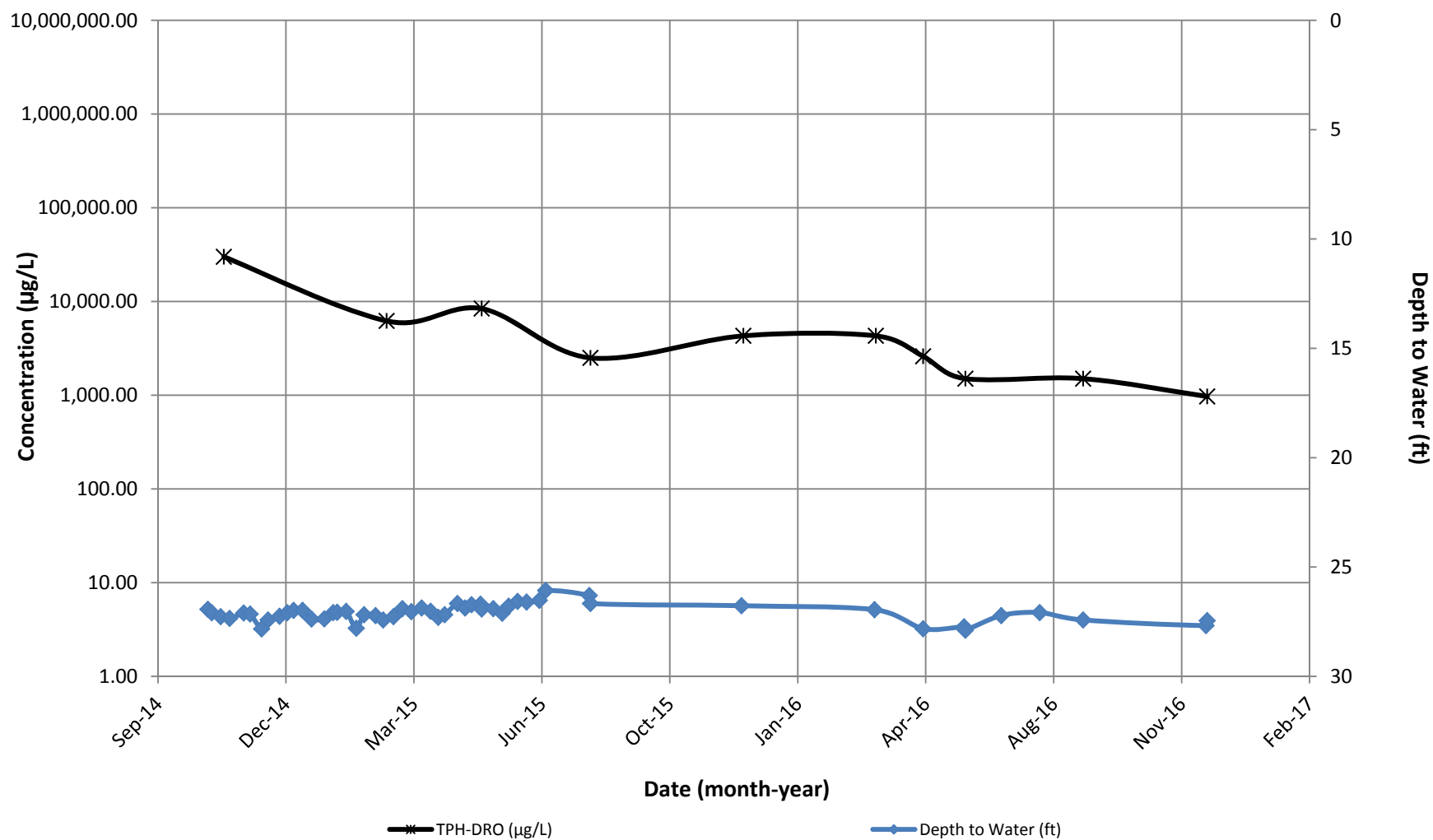


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

RW-1

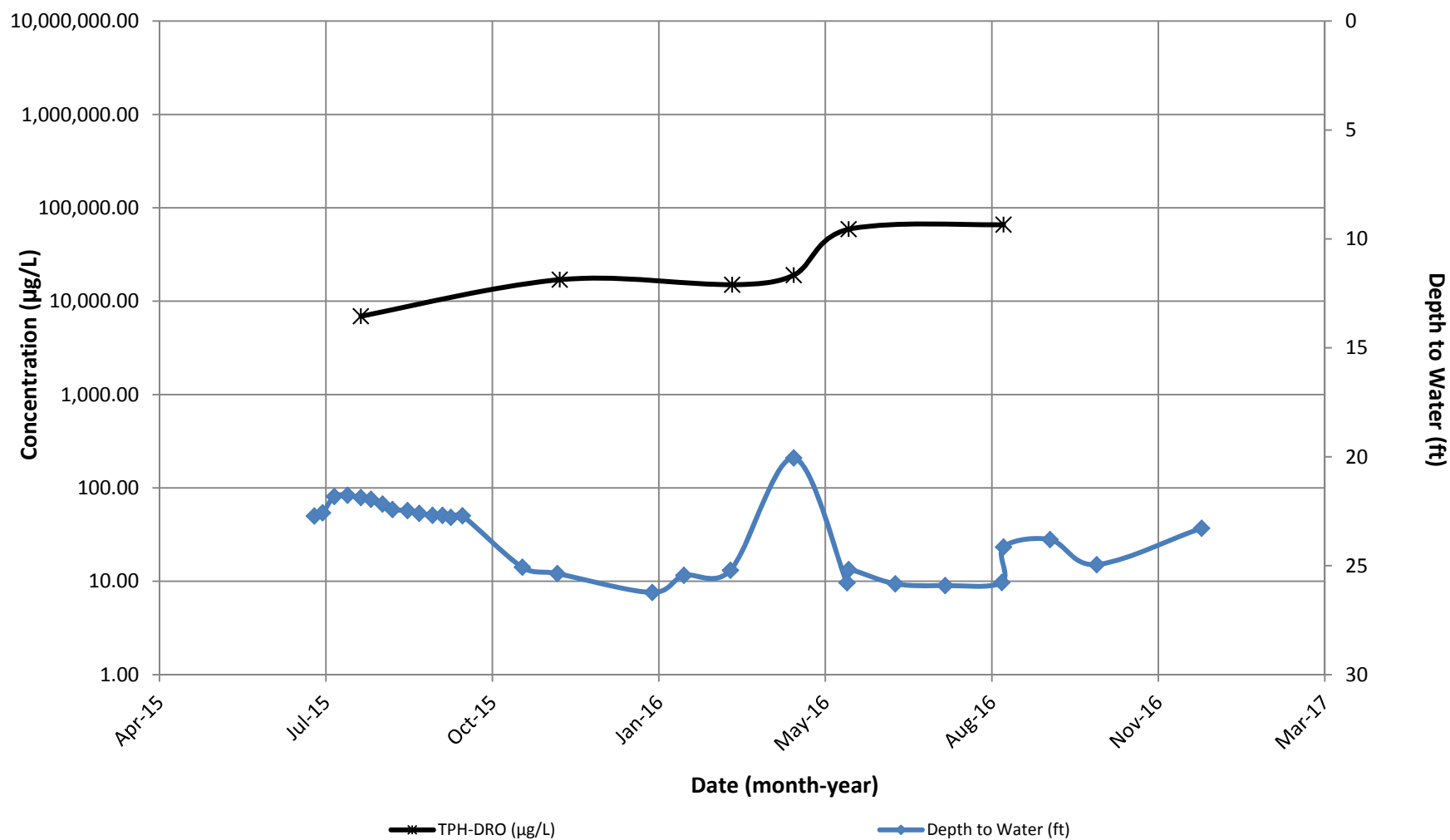


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

RW-05S

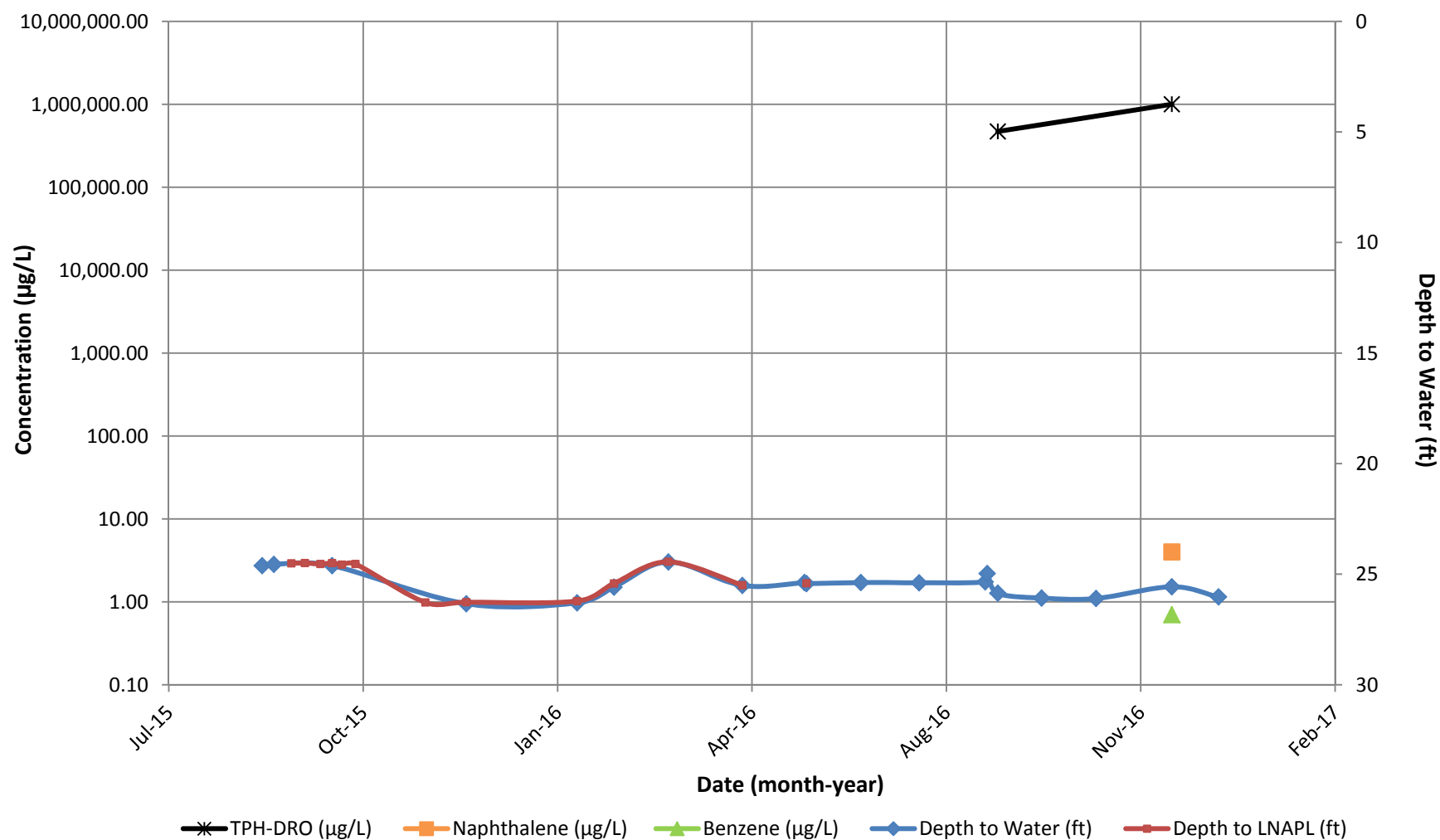


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

RW-25S

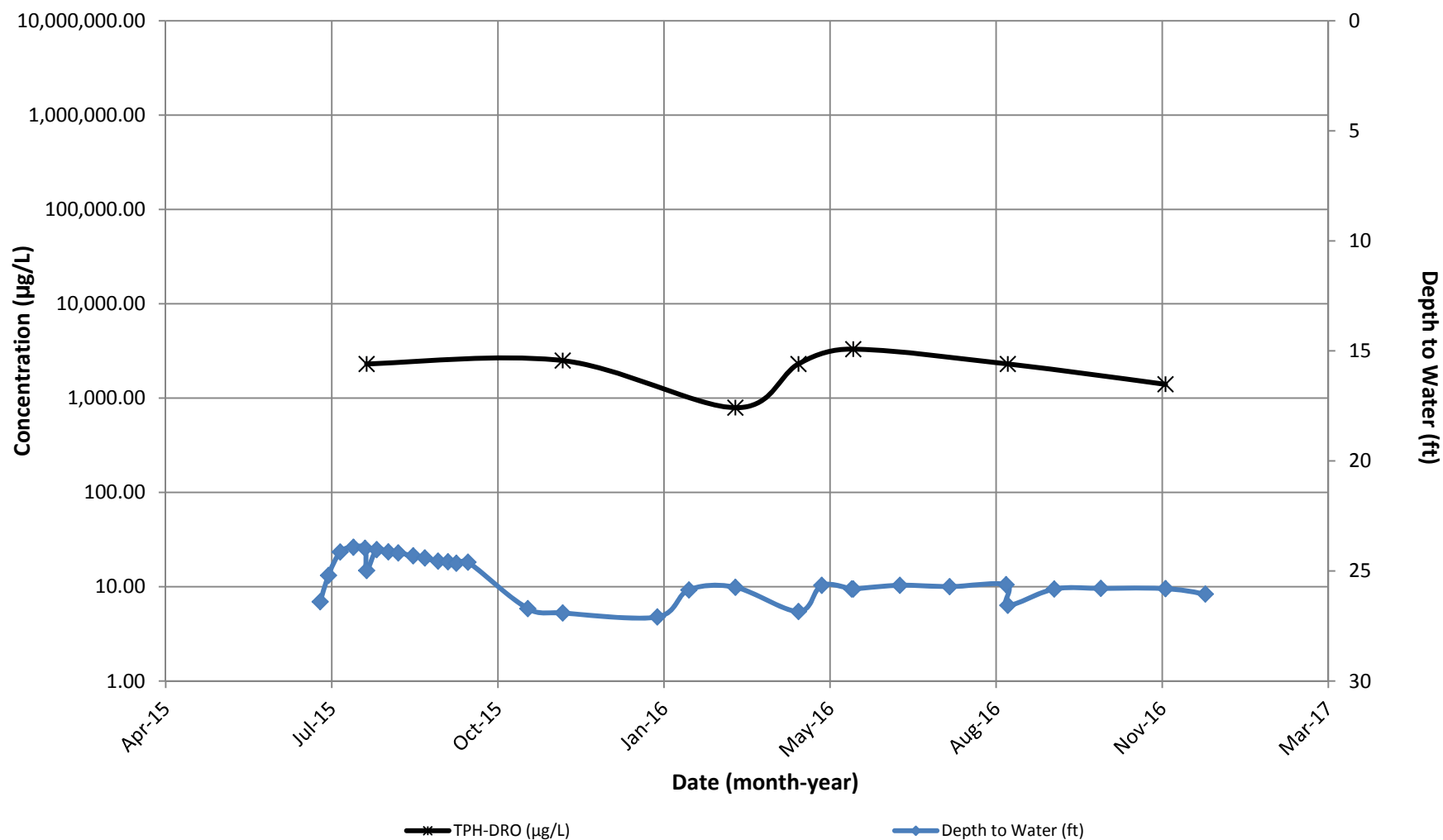


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 $\mu\text{g/L}$ is plotted for a TPH-DRO result of <45 $\mu\text{g/L}$).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

RW-28S

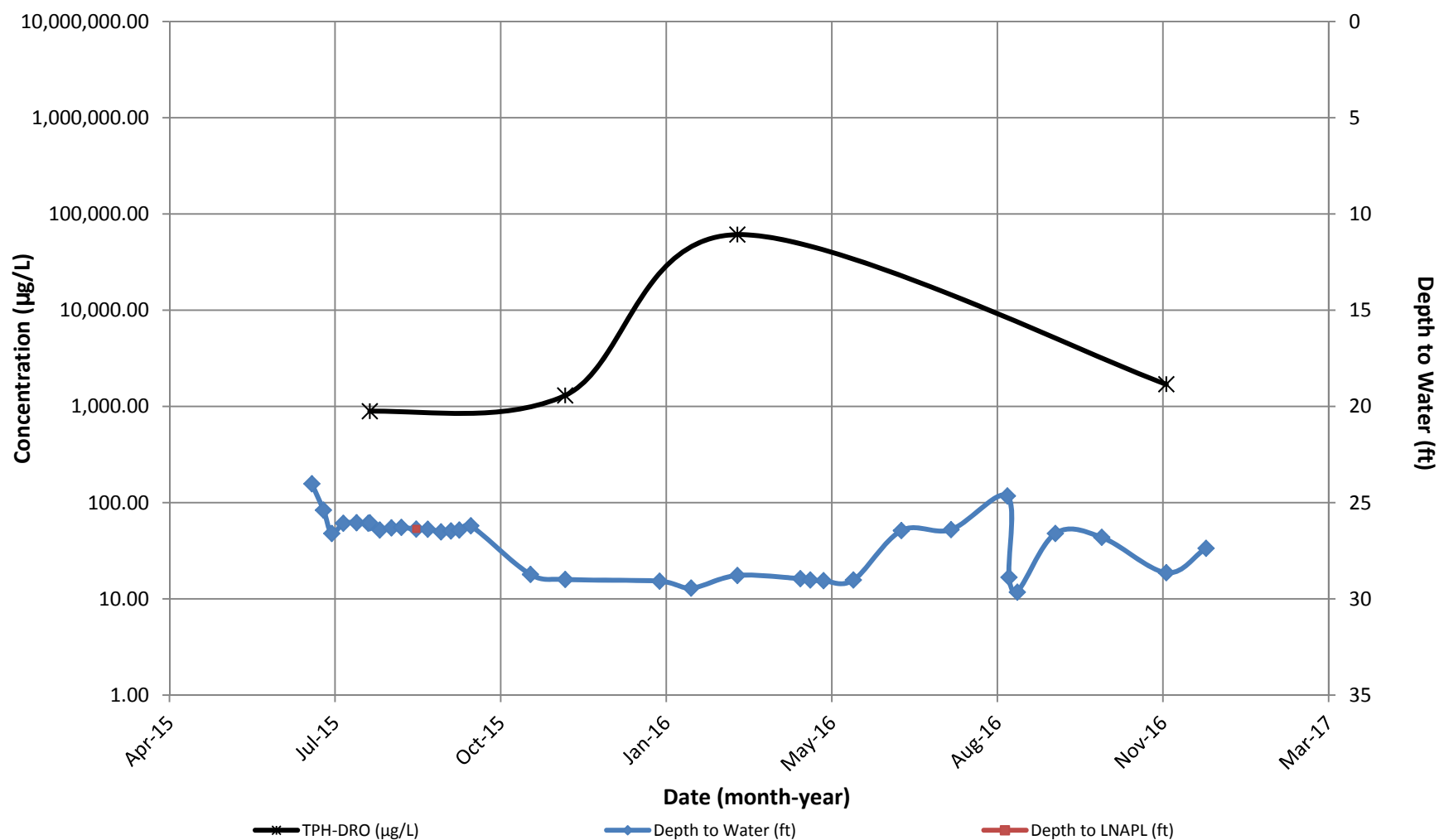


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

RW-30S

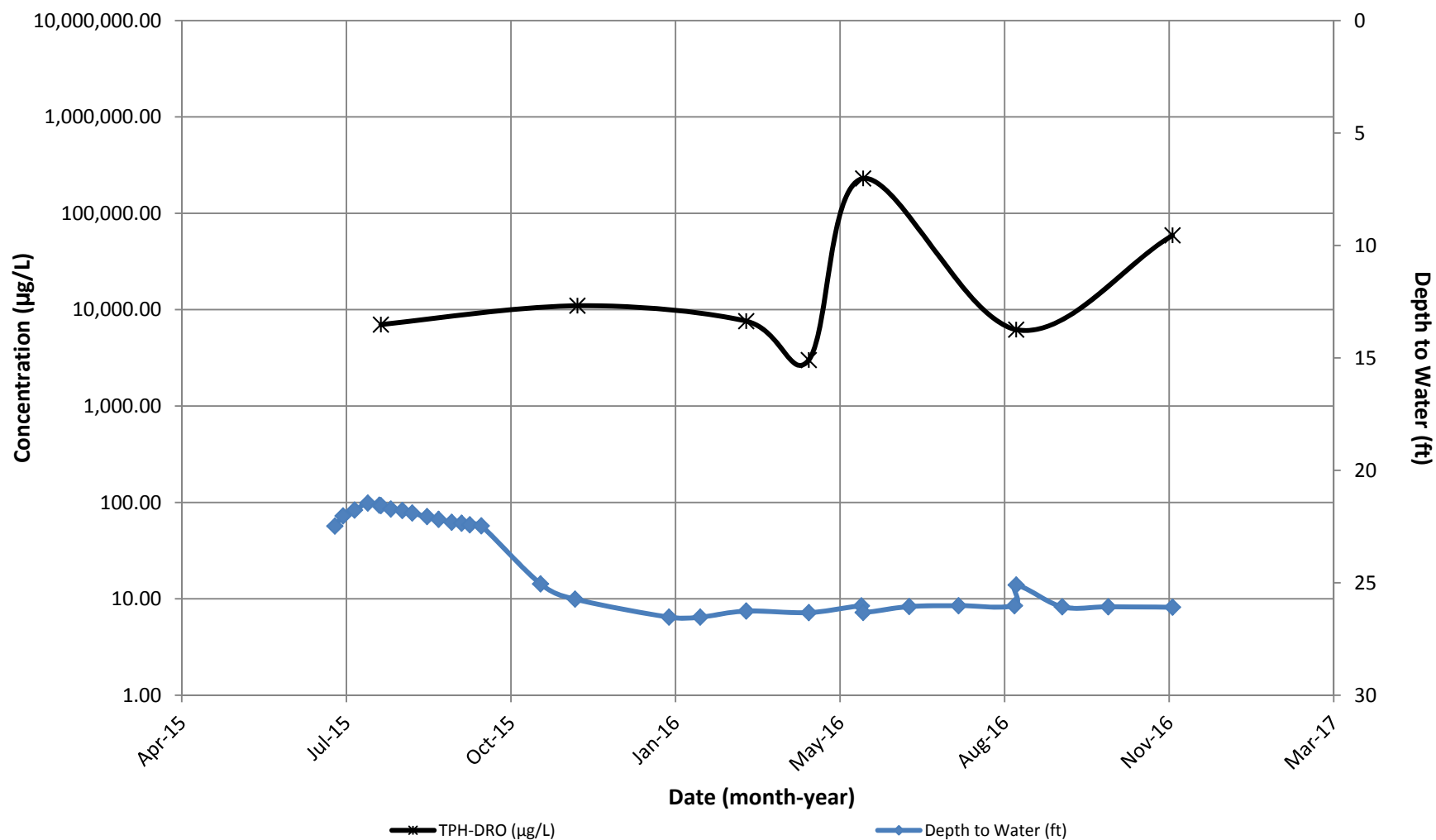


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

RW-116S

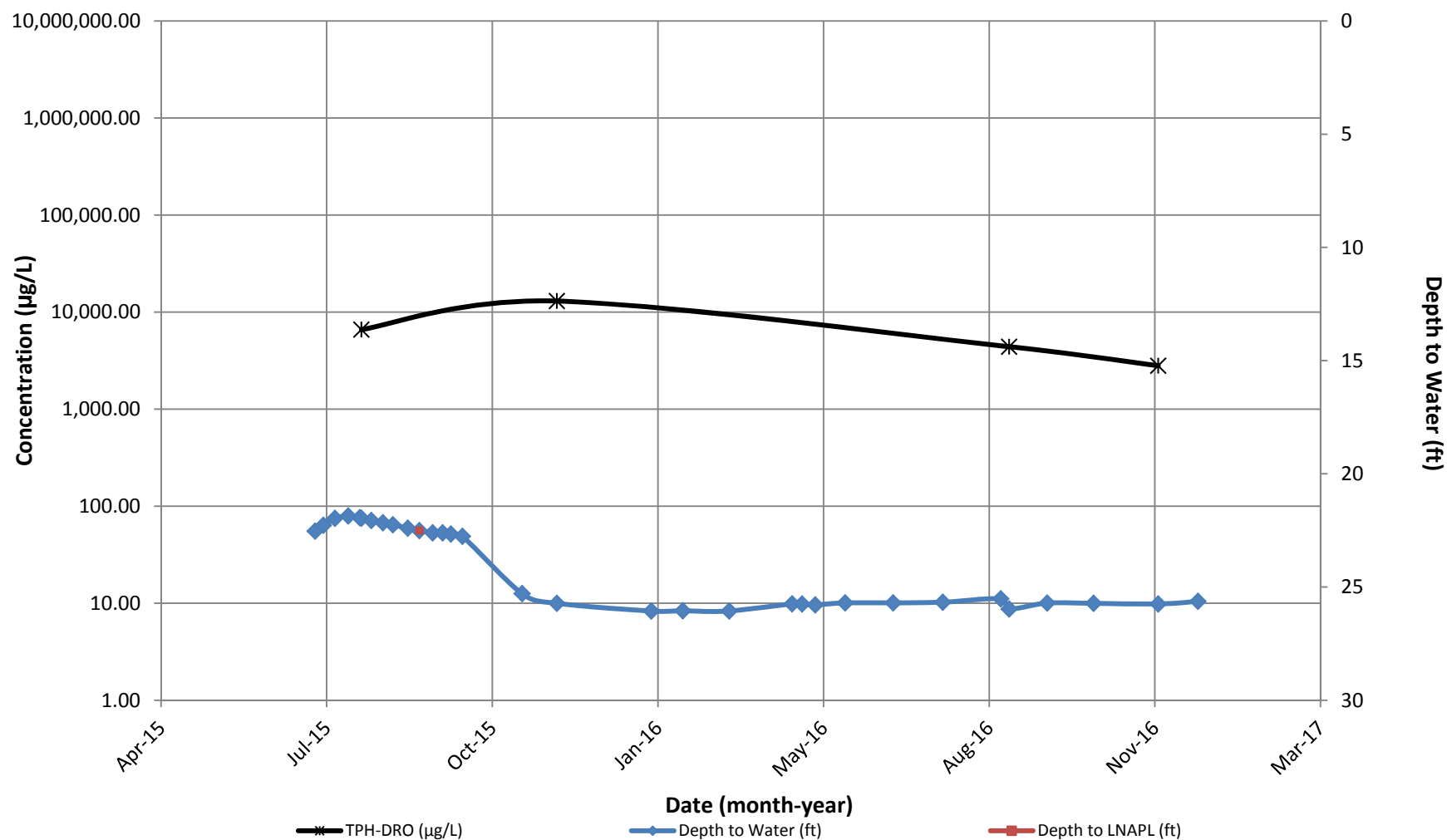


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

RW-117S

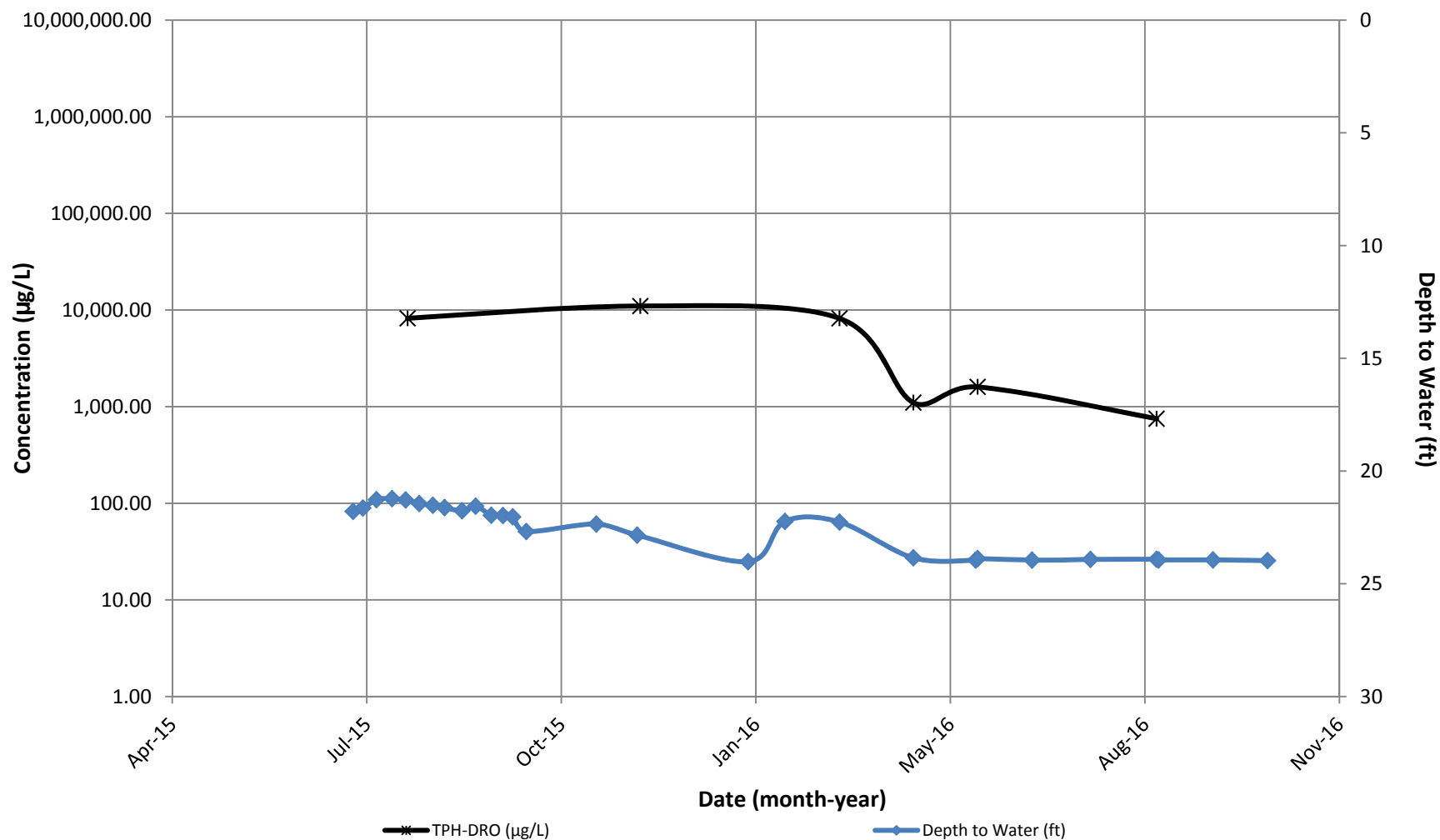


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 $\mu\text{g/L}$ is plotted for a TPH-DRO result of $<45 \mu\text{g/L}$).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

RW-118S

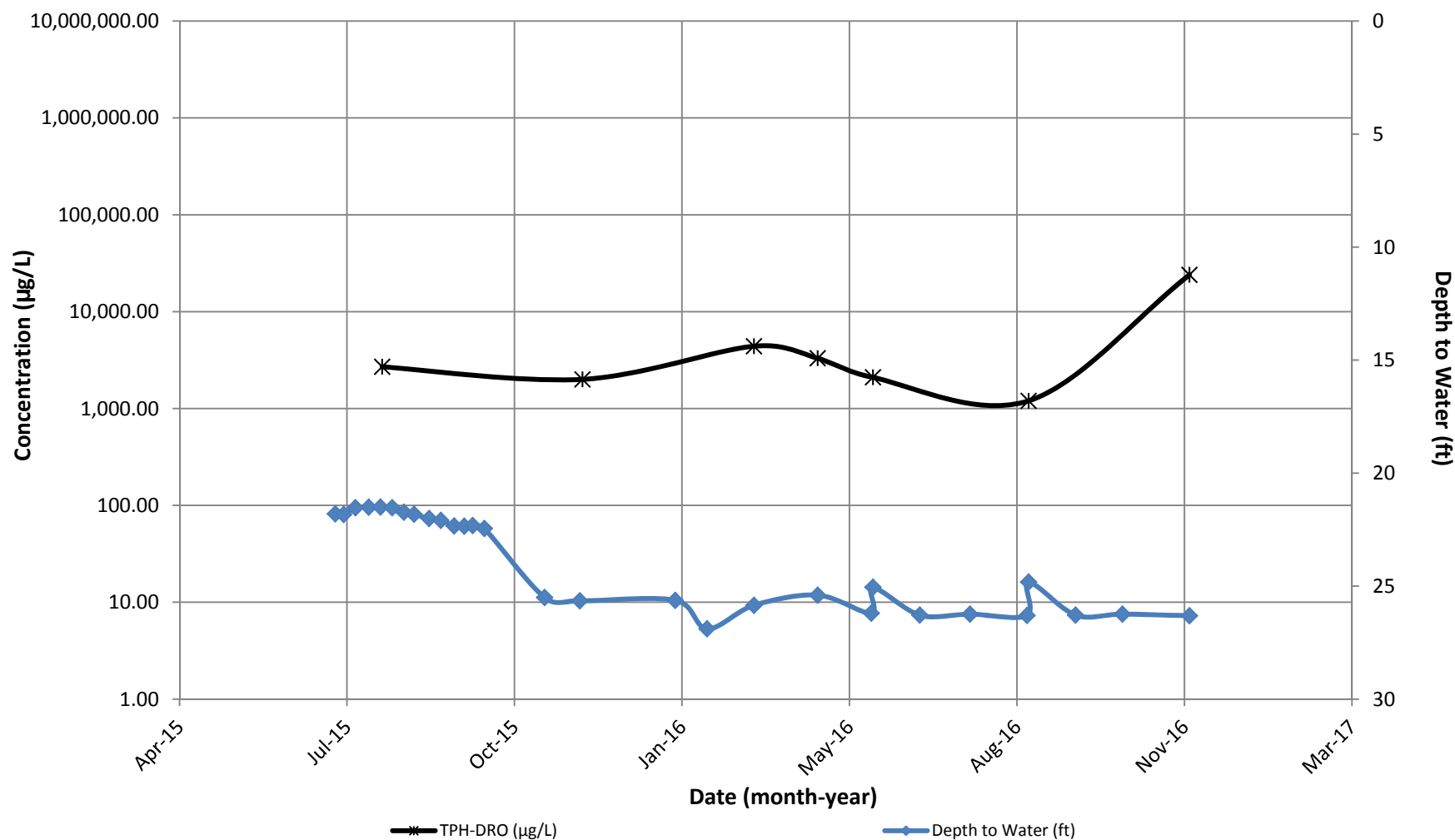


Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).

CONCENTRATION TREND GRAPHS

NRG PRGS
1400 North Royal Street
Alexandria, VA

RW-119S



Note: 1. Non-detect results are plotted at half the method detection limit (i.e. 22.5 µg/L is plotted for a TPH-DRO result of <45 µg/L).



ATTACHMENT C

**LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY DOCUMENTATION –
NOVEMBER 28-29 & DECEMBER 8, 2016 GROUNDWATER MONITORING EVENT**

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
440 Creamery Way, Suite 500
Exton PA 19341

Report Date: December 28, 2016

Project: NRG PRGSSubmittal Date: 11/29/2016
Group Number: 1737995
PO Number: 0402919-26-206
Release Number: ORG # 0404
State of Sample Origin: VAClient Sample DescriptionMW-109 Grab Groundwater
MW-109S Grab Groundwater
MW-110 Grab Groundwater
MW-110S Grab Groundwater
MW-111 Grab Groundwater
MW-112 Grab Groundwater
MW-112S Grab Groundwater
MW-113 Grab Groundwater
MW-114 Grab Groundwater
RW-05 Grab Groundwater
RW-31 Grab Groundwater
RW-25 Grab Groundwater
RW-51 Grab Groundwater

Lancaster Labs

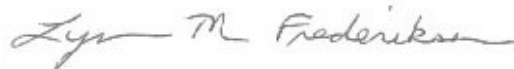
(LL) #8717361
8717362
8717363
8717364
8717365
8717366
8717367
8717368
8717369
8717370
8717371
8717372
8717373

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MDAttn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,



Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: MW-109 Grab Groundwater
NRG PRGS

LL Sample # WW 8717361
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 12:10 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

NG109

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858 DRO C10-C28		n.a.	N.D.	45	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370009A	12/08/2016 13:54	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370009A	12/03/2016 05:00	Maria Davenport	1

Sample Description: MW-109S Grab Groundwater
NRG PRGS

LL Sample # WW 8717362
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 12:20 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

N109S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858 DRO C10-C28		n.a.	2,300	45	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370009A	12/08/2016 14:18	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370009A	12/03/2016 05:00	Maria Davenport	1

Sample Description: MW-110 Grab Groundwater
NRG PRGS

LL Sample # WW 8717363
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 11:50 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

NG110

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858 DRO C10-C28		n.a.	N.D.	45	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370009A	12/08/2016 14:41	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370009A	12/03/2016 05:00	Maria Davenport	1

Sample Description: MW-110S Grab Groundwater
NRG PRGS

LL Sample # WW 8717364
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 12:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

N110S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858 DRO C10-C28		n.a.	5,900	45	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370009A	12/08/2016 15:05	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370009A	12/03/2016 05:00	Maria Davenport	1

Sample Description: MW-111 Grab Groundwater
NRG PRGS

LL Sample # WW 8717365
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 11:20 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

NG111

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858 DRO C10-C28		n.a.	N.D.	45	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370009A	12/08/2016 15:28	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370009A	12/03/2016 05:00	Maria Davenport	1

Sample Description: MW-112 Grab Groundwater
NRG PRGS

LL Sample # WW 8717366
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 11:30 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

NG112

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858 DRO C10-C28		n.a.	N.D.	45	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370009A	12/08/2016 15:52	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370009A	12/03/2016 05:00	Maria Davenport	1

Sample Description: MW-112S Grab Groundwater
NRG PRGS

LL Sample # WW 8717367
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 11:40 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

N112S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
	GC Petroleum Hydrocarbons	SW-846 8015B	ug/l	ug/l	
12858	DRO C10-C28	n.a.	73 J	45	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370009A	12/08/2016 16:16	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370009A	12/03/2016 05:00	Maria Davenport	1

Sample Description: MW-113 Grab Groundwater
NRG PRGS

LL Sample # WW 8717368
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 11:10 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

NG113

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	N.D.	45	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/07/2016 21:26	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Sample Description: MW-114 Grab Groundwater
NRG PRGS

LL Sample # WW 8717369
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

NG114

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	N.D.	45	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/07/2016 21:49	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Sample Description: RW-05 Grab Groundwater
NRG PRGS

LL Sample # WW 8717370
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 12:35 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

NGRW5

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

GC Petroleum	SW-846 8015B	ug/l	ug/l	
Hydrocarbons				
12858 DRO C10-C28	n.a.	7,300	45	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX,Naph	SW-846 8260B	1	F163372AA	12/02/2016 14:49	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F163372AA	12/02/2016 14:49	Daniel H Heller	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/07/2016 22:13	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Sample Description: RW-31 Grab Groundwater
NRG PRGS

LL Sample # WW 8717371
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 12:45 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

NGR31

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
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GC Petroleum

SW-846 8015B

ug/l

ug/l

Hydrocarbons

12858 DRO C10-C28

n.a.

120

45

1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/07/2016 22:36	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Sample Description: RW-25 Grab Groundwater
NRG PRGS

LL Sample # WW 8717372
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 12:55 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

NGR25

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

GC Petroleum	SW-846 8015B	ug/l	ug/l	
Hydrocarbons				
12858	DRO C10-C28	n.a.	250	45

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX,Naph	SW-846 8260B	1	F163382AA	12/03/2016 15:26	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F163382AA	12/03/2016 15:26	Anita M Dale	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/07/2016 22:59	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Sample Description: RW-51 Grab Groundwater
NRG PRGS

LL Sample # WW 8717373
LL Group # 1737995
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 13:05 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

NGR51

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

GC Petroleum	SW-846 8015B	ug/l	ug/l	
Hydrocarbons				
12858	DRO C10-C28	n.a.	110	45

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX,Naph	SW-846 8260B	1	F163391AA	12/04/2016 21:50	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F163391AA	12/04/2016 21:50	Hu Yang	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/07/2016 23:23	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:45

Group Number: 1737995

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F163372AA	Sample number(s): 8717370	
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5
Batch number: F163382AA	Sample number(s): 8717372	
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5
Batch number: F163391AA	Sample number(s): 8717373	
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5
Batch number: 163370009A	Sample number(s): 8717361-8717367	
DRO C10-C28	N.D.	45
Batch number: 163370010A	Sample number(s): 8717368-8717373	
DRO C10-C28	N.D.	45

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: F163372AA	Sample number(s): 8717370								
Benzene	20	18.59			93		78-120		
Ethylbenzene	20	19.03			95		78-120		
Naphthalene	20	20.42			102		59-120		
Toluene	20	19.11			96		80-120		
Xylene (Total)	60	56.94			95		80-120		
Batch number: F163382AA	Sample number(s): 8717372								

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:45

Group Number: 1737995

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzene	20	20.3	20	20.52	101	103	78-120	1	30
Ethylbenzene	20	20.2	20	20.06	101	100	78-120	1	30
Naphthalene	20	20.9	20	20.26	104	101	59-120	3	30
Toluene	20	20.59	20	20.75	103	104	80-120	1	30
Xylene (Total)	60	60.67	60	61	101	102	80-120	1	30
Batch number: F163391AA	Sample number(s): 8717373								
Benzene	20	18.19			91		78-120		
Ethylbenzene	20	17.95			90		78-120		
Naphthalene	20	18.14			91		59-120		
Toluene	20	18.23			91		80-120		
Xylene (Total)	60	54.19			90		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163370009A	Sample number(s): 8717361-8717367								
DRO C10-C28	2660	2009.5	2640	1887.1	76	71	69-115	6	20
Batch number: 163370010A	Sample number(s): 8717368-8717373								
DRO C10-C28	2670	1742.83	2610	1896.54	65*	73	69-115	8	20

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: F163372AA	Sample number(s): 8717370 UNSPK: P711079									
Benzene	N.D.	20	19.56	20	19.8	98	99	78-120	1	30
Ethylbenzene	N.D.	20	19.94	20	20.31	100	102	78-120	2	30
Naphthalene	N.D.	20	19.64	20	20.84	98	104	59-120	6	30
Toluene	N.D.	20	20.3	20	20.86	101	104	80-120	3	30
Xylene (Total)	N.D.	60	60.03	60	61.56	100	103	80-120	3	30
Batch number: F163391AA	Sample number(s): 8717373 UNSPK: P717389									
Benzene	N.D.	20	20.15	20	20.18	101	101	78-120	0	30
Ethylbenzene	N.D.	20	20.21	20	20.34	101	102	78-120	1	30
Naphthalene	N.D.	20	18.64	20	19.18	93	96	59-120	3	30
Toluene	N.D.	20	20.2	20	20.48	101	102	80-120	1	30
Xylene (Total)	N.D.	60	59.98	60	60.55	100	101	80-120	1	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:45

Group Number: 1737995

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX,Naph
Batch number: F163372AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8717370	96	100	100	95
Blank	98	100	100	96
LCS	98	101	100	97
MS	98	104	100	97
MSD	98	104	100	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX,Naph
Batch number: F163382AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8717372	95	100	99	95
Blank	97	97	100	94
LCS	98	102	100	97
LCSD	97	102	99	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX,Naph
Batch number: F163391AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8717373	96	96	99	94
Blank	97	98	99	95
LCS	95	98	99	98
MS	96	101	100	98
MSD	95	100	100	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: DRO micro-ext 8015B
Batch number: 163370009A

	Orthoterphenyl
8717361	121
8717362	103
8717363	97
8717364	97
8717365	83
8717366	92
8717367	93
Blank	82
LCS	91
LCSD	89

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:45

Group Number: 1737995

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: DRO micro-ext 8015B
Batch number: 163370009A

Limits: 42-160

Analysis Name: DRO micro-ext 8015B
Batch number: 163370010A

	Orthoterphenyl
8717368	88
8717369	90
8717370	44
8717371	84
8717372	90
8717373	96
Blank	96
LCS	87
LCSD	88

Limits: 42-160

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Environmental Analysis Request/Chain of Custody

Lancaster Laboratories
EnvironmentalAcct. # 8390 Group # 173795 Sample # 8717361-73

Client: Groundwater & Env. Services, Inc.				Matrix		Analyses Requested												For Lab Use Only											
Project Name/#: NRG PRGS		Site ID #: NRG PRGS		<input type="checkbox"/> Sediment <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface		Preservation Codes H H None S N H None H TPH-DRO C10-C28 (SW-846 8015B) BTEX, Naphthalene (SW-846 8260B) Alkalinity (SM 2320B) Nitrate NO3-1 & Nitrite NO2- (EPA 353.2) Manganese Mn2+ (EPA 6010B) Ferrous Iron Fe2+ (SM 3500-Fe B modified-1997) Sulfate SO42- (EPA 300.0) Methane (RSKSOP-175 modified)												SF #: _____											
Project Manager: Ashley Bell		P.O. #: 0402919-26-206		<input type="checkbox"/> Potable <input type="checkbox"/> NPDES														SCR #: _____											
Sampler: Jeff Plummer		Project #: 0402919-26-206		<input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Other:														Preservation Codes H = HCl T = Thiosulfate N = HNO3 B = NaOH S = H2SO4 P = H3PO4 O = Other											
Phone #: 800-220-3606 x 3704		Organization #: 0404																											
State where sample(s) were collected: 1400 North Royal St., Alexandria, VA																													
Sample Identification		Collection		Grab		Composite		Soil		Water		Other:		Total # of Containers														Remarks	
MW-109		11-28-16 12:10		X						X				2		X												Send invoice to:	
MW-109.5		12:20												2														ges-invoices@	
MW-110		11:50												2														gesonline.com &	
MW-110.5		12:00												2														include PO, Proj.,	
MW-111		11:20												2														& Org. #s	
MW-112		11:30												2															
MW-112.5		11:40												2															
MW-113		11:10												2															
MW-114		11:00												2															
RW-05		12:35												5		X													
RW-31		12:45												2															
RW-25		12:55		V										5		X													
RW-51		11-28-16 13:05		X				X						5		X													
Turnaround Time Requested (TAT) (please check): Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> (Rush TAT is subject to laboratory approval and surcharges.)				Relinquished by: <i>Jeff Plummer</i>				Date: <i>11-28-16</i>		Time: <i>13:15</i>		Received by: <i>Dennis Woodring</i>				Date: <i>11-28-16</i>		Time: <i>16:00</i>											
Date results are needed:				Relinquished by: <i>Dennis Woodring</i>				Date: <i>11/29/16</i>		Time: <i>12:20</i>		Received by: <i>K...</i>				Date: <i>11/29/16</i>		Time: <i>12:10</i>											
Rush results requested by (please check): E-Mail <input checked="" type="checkbox"/> Phone <input type="checkbox"/>				Relinquished by: <i>K...</i>				Date: <i>11/29/16</i>		Time: <i>17:20</i>		Received by: <i>K...</i>				Date: <i>11/29/16</i>		Time: <i>17:20</i>											
E-mail Address: <u>mdlabs@gesonline.com & ges@equisonline.com</u>				Relinquished by:				Date:		Time:		Received by:				Date:		Time:											
Phone: _____				Relinquished by:				Date:		Time:		Received by:				Date:		Time:											
Data Package Options (please check if required) Type I (Validation/non-CLP) <input type="checkbox"/> MA MCP <input type="checkbox"/> Type III (Reduced non-CLP) <input type="checkbox"/> CT RCP <input type="checkbox"/> Type VI (Raw Data Only) <input type="checkbox"/> TX TRRP-13 <input type="checkbox"/> NYSDEC Category <input type="checkbox"/> A or <input type="checkbox"/> B				Relinquished by:				Date:		Time:		Received by: <i>Heist</i>				Date: <i>11/29/16</i>		Time: <i>17:20</i>											
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format: <u>GES.EQEDD</u> EQEDD Name: <u>NRG PRGS.Lab report #.25800.EQEDD.zip</u>				Relinquished by Commercial Carrier:				Date:		Time:		Received by:				Date:		Time:											
UPS _____ FedEx _____ Other _____												Temperature upon receipt <u>35</u> °C																	

Client: GES**Delivery and Receipt Information**

Delivery Method:	<u>ELLE Courier</u>	Arrival Timestamp:	<u>11/29/2016 17:20</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>VA</u>		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace \geq 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Karen Diem (3060) at 17:42 on 11/29/2016***Samples Chilled Details***Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.*

<u>Cooler #</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	DT121	3.5	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...
- W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
440 Creamery Way, Suite 500
Exton PA 19341

Report Date: December 28, 2016

Project: NRG PRGSSubmittal Date: 11/29/2016
Group Number: 1737996
PO Number: 0402919-26-206
Release Number: ORG # 0404
State of Sample Origin: VAClient Sample DescriptionRW-116S Grab Groundwater
RW-117S Grab Groundwater
RW-123S Grab Groundwater
RW-25S Grab Groundwater
RW-28S Grab Groundwater
RW-30S Grab Groundwater

Lancaster Labs

(LL) #8717374
8717375
8717376
8717377
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8717379

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MDAttn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,

Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: RW-116S Grab Groundwater
NRG PRGS

LL Sample # WW 8717374
LL Group # 1737996
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 11:55 by BH

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

R116S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	59,000	45	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/07/2016 23:46	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Sample Description: RW-117S Grab Groundwater
NRG PRGS

LL Sample # WW 8717375
LL Group # 1737996
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 12:25 by BH

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

R117S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
	GC Petroleum Hydrocarbons	SW-846 8015B	ug/l	ug/l	
12858	DRO C10-C28	n.a.	2,800	45	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/08/2016 00:10	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Sample Description: RW-123S Grab Groundwater
NRG PRGS

LL Sample # WW 8717376
LL Group # 1737996
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 12:45 by BH

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

R123S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	190,000	450	10

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/08/2016 05:15	Amy Lehr	10
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Sample Description: RW-25S Grab Groundwater
NRG PRGS

LL Sample # WW 8717377
LL Group # 1737996
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 13:05 by BH

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

RW25S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles					
		SW-846 8260B	ug/l	ug/l	
10945	Benzene	71-43-2	0.7 J	0.5	1
10945	Ethylbenzene	100-41-4	2	0.5	1
10945	Naphthalene	91-20-3	4 J	1	1
10945	Toluene	108-88-3	1	0.5	1
10945	Xylene (Total)	1330-20-7	5	0.5	1

GC Petroleum Hydrocarbons					
		SW-846 8015B	ug/l	ug/l	
12858	DRO C10-C28	n.a.	1,000,000	900	20

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX,Naph	SW-846 8260B	1	F163391AA	12/04/2016 22:12	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F163391AA	12/04/2016 22:12	Hu Yang	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/08/2016 05:39	Amy Lehr	20
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Sample Description: RW-28S Grab Groundwater
NRG PRGS

LL Sample # WW 8717378
LL Group # 1737996
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 13:25 by BH

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

RW28S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	1,400	45	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/08/2016 00:33	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Sample Description: RW-30S Grab Groundwater
NRG PRGS

LL Sample # WW 8717379
LL Group # 1737996
Account # 08390

Project Name: NRG PRGS

Collected: 11/28/2016 13:45 by BH

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/29/2016 17:20

Exton PA 19341

Reported: 12/28/2016 14:45

RW30S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	1,700	45	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/08/2016 01:44	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:45

Group Number: 1737996

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: F163391AA	Sample number(s): 8717377	
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5
Batch number: 163370010A	Sample number(s): 8717374-8717379	
DRO C10-C28	N.D.	45

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: F163391AA	Sample number(s): 8717377								
Benzene	20	18.19			91		78-120		
Ethylbenzene	20	17.95			90		78-120		
Naphthalene	20	18.14			91		59-120		
Toluene	20	18.23			91		80-120		
Xylene (Total)	60	54.19			90		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163370010A	Sample number(s): 8717374-8717379								
DRO C10-C28	2670	1742.83	2610	1896.54	65*	73	69-115	8	20

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc	MS Spike Added	MS Conc	MSD Spike Added	MSD Conc	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: F163391AA	Sample number(s): 8717377 UNSPK: P717389									
Benzene	N.D.	20	20.15	20	20.18	101	101	78-120	0	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:45

Group Number: 1737996

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Ethylbenzene	N.D.	20	20.21	20	20.34	101	102	78-120	1	30
Naphthalene	N.D.	20	18.64	20	19.18	93	96	59-120	3	30
Toluene	N.D.	20	20.2	20	20.48	101	102	80-120	1	30
Xylene (Total)	N.D.	60	59.98	60	60.55	100	101	80-120	1	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX,Naph
Batch number: F163391AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8717377	97	101	98	96
Blank	97	98	99	95
LCS	95	98	99	98
MS	96	101	100	98
MSD	95	100	100	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: DRO micro-ext 8015B
Batch number: 163370010A

	Orthoterphenyl
8717374	113
8717375	52
8717376	137
8717377	1106*
8717378	54
8717379	47
Blank	96
LCS	87
LCSD	88
Limits:	42-160

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Acct. # 8390 Group # 1737996 Sample # 8717374-79

Environmental Analysis Request/Chain of Custody

[illegible]

Sample Administration
Receipt Documentation LogDoc Log ID: 169192
Group Number(s): 1737996Client: GES**Delivery and Receipt Information**

Delivery Method:	<u>ELLE Courier</u>	Arrival Timestamp:	<u>11/29/2016 17:20</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>VA</u>		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace \geq 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Karen Diem (3060) at 17:42 on 11/29/2016***Samples Chilled Details***Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.*

<u>Cooler #</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	DT121	3.5	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...
- W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
440 Creamery Way, Suite 500
Exton PA 19341

Report Date: December 28, 2016

Project: NRG PRGSSubmittal Date: 11/30/2016
Group Number: 1738576
PO Number: 0402919-26-206
Release Number: ORG # 0404
State of Sample Origin: VAClient Sample Description

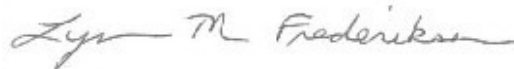
	Lancaster Labs (LL) #
MW-100S Grab Water	8719691
MW-100 Grab Water	8719692
MW-33 Grab Water	8719693
MW-122 Grab Water	8719694
RW-14 Grab Water	8719695
MW-27 Grab Water	8719696
TW-03 Grab Water	8719697
TW-05 Grab Water	8719698
TW-06 Grab Water	8719699

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MDAttn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,



Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: MW-100S Grab Water
NRG PRGS

LL Sample # WW 8719691
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 10:40 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

M100S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Miscellaneous	RSKSOP-175 modified		ug/l	ug/l	
07105	Methane	74-82-8	25	3.0	1
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	N.D.	45	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.					
Metals	SW-846 6010B		mg/l	mg/l	
07058	Manganese	7439-96-5	11.5	0.0018	1
Wet Chemistry	EPA 300.0		mg/l	mg/l	
00228	Sulfate	14808-79-8	353	30.0	100
	EPA 353.2		mg/l	mg/l	
00220	Nitrate Nitrogen	14797-55-8	N.D.	0.040	1
00219	Nitrite Nitrogen	14797-65-0	0.020 J	0.015	1
	SM 2320 B-1997		mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	37.5	1.7	1
	SM 3500-Fe B 1997		mg/l	mg/l	
08344	Ferrous Iron	n.a.	71.6	3.0	200

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07105	Methane	RSKSOP-175 modified	1	163360010A	12/01/2016 13:55	Johanna C Kennedy	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/08/2016 02:08	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1
07058	Manganese	SW-846 6010B	1	163371848006	12/06/2016 16:42	Cindy M Gehman	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163371848006	12/06/2016 06:48	James L Mertz	1

Sample Description: MW-100S Grab Water
NRG PRGS

LL Sample # WW 8719691
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 10:40 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

M100S

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00228	Sulfate	EPA 300.0	1	16348972601B	12/13/2016 16:36	Alexandria M Lanager	100
00220	Nitrate Nitrogen	EPA 353.2	1	16338106102A	12/03/2016 17:04	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	16336105107A	12/01/2016 05:31	Joseph E McKenzie	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16337002102A	12/03/2016 01:30	Brandon P Costik	1
08344	Ferrous Iron	SM 3500-Fe B 1997	1	16336834401A	12/01/2016 20:40	Daniel S Smith	200

Sample Description: MW-100 Grab Water
NRG PRGS

LL Sample # WW 8719692
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 10:45 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

MW100

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Miscellaneous	RSKSOP-175 modified		ug/l	ug/l	
07105	Methane	74-82-8	12	3.0	1
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	N.D.	45	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.					
Metals	SW-846 6010B		mg/l	mg/l	
07058	Manganese	7439-96-5	0.902	0.0018	1
Wet Chemistry	EPA 300.0		mg/l	mg/l	
00228	Sulfate	14808-79-8	56.3	1.5	5
	EPA 353.2		mg/l	mg/l	
00220	Nitrate Nitrogen	14797-55-8	2.6	0.040	1
00219	Nitrite Nitrogen	14797-65-0	0.061	0.015	1
	SM 2320 B-1997		mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	29.2	1.7	1
	SM 3500-Fe B 1997		mg/l	mg/l	
08344	Ferrous Iron	n.a.	0.19	0.015	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07105	Methane	RSKSOP-175 modified	1	163360010A	12/01/2016 14:30	Johanna C Kennedy	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/08/2016 02:31	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1
07058	Manganese	SW-846 6010B	1	163371848006	12/06/2016 16:46	Cindy M Gehman	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163371848006	12/06/2016 06:48	James L Mertz	1

Sample Description: MW-100 Grab Water
NRG PRGS

LL Sample # WW 8719692
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 10:45 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

MW100

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00228	Sulfate	EPA 300.0	1	16348972601B	12/13/2016 16:52	Alexandria M Lanager	5
00220	Nitrate Nitrogen	EPA 353.2	1	16338106102A	12/03/2016 17:05	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	16336105107A	12/01/2016 05:32	Joseph E McKenzie	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16337002101A	12/02/2016 22:05	Brandon P Costik	1
08344	Ferrous Iron	SM 3500-Fe B 1997	1	16336834401A	12/01/2016 20:40	Daniel S Smith	1

Sample Description: MW-33 Grab Water
NRG PRGS

LL Sample # WW 8719693
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 11:45 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

MW-33

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	N.D.	45	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/08/2016 02:54	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1

Sample Description: MW-122 Grab Water
NRG PRGS

LL Sample # WW 8719694
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 12:00 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

MW122

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles					
10945	Benzene	71-43-2	2	ug/l	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Miscellaneous					
07105	Methane	74-82-8	450	ug/l	1
GC Petroleum Hydrocarbons					
12858	DRO C10-C28	n.a.	1,300	ug/l	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.					
Metals					
07058	Manganese	7439-96-5	3.64	mg/l	1
Wet Chemistry					
00228	Sulfate	14808-79-8	180	mg/l	50
EPA 353.2					
00220	Nitrate Nitrogen	14797-55-8	N.D.	mg/l	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.040	1
SM 2320 B-1997					
12150	Total Alkalinity to pH 4.5	n.a.	284	mg/l as CaCO3	1
SM 3500-Fe B 1997					
08344	Ferrous Iron	n.a.	11.1	mg/l	100

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX & Naphthalene	8260B SW-846 8260B	1	D163401AA	12/05/2016 16:42	Daniel H Heller	1

Sample Description: MW-122 Grab Water
NRG PRGS

LL Sample # WW 8719694
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 12:00 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

MW122

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D163401AA	12/05/2016 16:42	Daniel H Heller	1
07105	Methane	RSKSOP-175 modified	1	163360010A	12/01/2016 14:48	Johanna C Kennedy	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/08/2016 03:18	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1
07058	Manganese	SW-846 6010B	1	163371848006	12/06/2016 16:49	Cindy M Gehman	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163371848006	12/06/2016 06:48	James L Mertz	1
00228	Sulfate	EPA 300.0	1	16348972601B	12/13/2016 17:39	Alexandria M Lanager	50
00220	Nitrate Nitrogen	EPA 353.2	1	16342106101A	12/07/2016 06:32	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	16336105107A	12/01/2016 05:34	Joseph E McKenzie	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16337002101A	12/02/2016 23:30	Brandon P Costik	1
08344	Ferrous Iron	SM 3500-Fe B 1997	1	16336834401A	12/01/2016 20:40	Daniel S Smith	100

Sample Description: RW-14 Grab Water
NRG PRGS

LL Sample # WW 8719695
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 12:40 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

RW-14

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Miscellaneous	RSKSOP-175 modified		ug/l	ug/l	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	110,000	230	5
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.					
Metals	SW-846 6010B		mg/l	mg/l	
07058	Manganese	7439-96-5	0.107	0.0018	1
Wet Chemistry	EPA 300.0		mg/l	mg/l	
00228	Sulfate	14808-79-8	37.9	1.5	5
	EPA 353.2		mg/l	mg/l	
00220	Nitrate Nitrogen	14797-55-8	1.6	0.040	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	1
	SM 2320 B-1997		mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	8.8	1.7	1
	SM 3500-Fe B 1997		mg/l	mg/l	
08344	Ferrous Iron	n.a.	0.029 J	0.015	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07105	Methane	RSKSOP-175 modified	1	163360010A	12/01/2016 15:05	Johanna C Kennedy	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/08/2016 04:52	Amy Lehr	5
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1
07058	Manganese	SW-846 6010B	1	163371848006	12/06/2016 16:52	Cindy M Gehman	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163371848006	12/06/2016 06:48	James L Mertz	1

Sample Description: RW-14 Grab Water
NRG PRGS

LL Sample # WW 8719695
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 12:40 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

RW-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00228	Sulfate	EPA 300.0	1	16348972601B	12/13/2016 15:49	Alexandria M Lanager	5
00220	Nitrate Nitrogen	EPA 353.2	1	16342106101A	12/07/2016 06:34	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	16336105107B	12/01/2016 05:47	Joseph E McKenzie	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16337002101A	12/02/2016 22:28	Brandon P Costik	1
08344	Ferrous Iron	SM 3500-Fe B 1997	1	16336834401A	12/01/2016 20:40	Daniel S Smith	1

Sample Description: MW-27 Grab Water
NRG PRGS

LL Sample # WW 8719696
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 13:40 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

MW-27

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles					
10945	Benzene	71-43-2	N.D.	ug/l 0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Miscellaneous					
07105	Methane	74-82-8	N.D.	ug/l 3.0	1
GC Petroleum Hydrocarbons					
12858	DRO C10-C28	n.a.	880	ug/l 45	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the LCS is again outside of the acceptance limits. The data is reported from the initial trial.					
Metals					
07058	Manganese	7439-96-5	mg/l 5.84	mg/l 0.0018	1
Wet Chemistry					
00228	Sulfate	14808-79-8	mg/l 293	mg/l 15.0	50
00220	Nitrate Nitrogen	14797-55-8	mg/l 0.16	mg/l 0.040	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	1
12150	Total Alkalinity to pH 4.5	n.a.	mg/l as CaCO3 33.4	mg/l as CaCO3 1.7	1
08344	Ferrous Iron	n.a.	mg/l 0.80	mg/l 0.030	2

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX & Naphthalene	8260B SW-846 8260B	1	D163401AA	12/05/2016 17:05	Daniel H Heller	1

Sample Description: MW-27 Grab Water
NRG PRGS

LL Sample # WW 8719696
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 13:40 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

MW-27

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D163401AA	12/05/2016 17:05	Daniel H Heller	1
07105	Methane	RSKSOP-175 modified	1	163360010A	12/01/2016 15:23	Johanna C Kennedy	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370010A	12/08/2016 03:41	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370010A	12/03/2016 05:05	Maria Davenport	1
07058	Manganese	SW-846 6010B	1	163371848006	12/06/2016 16:55	Cindy M Gehman	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163371848006	12/06/2016 06:48	James L Mertz	1
00228	Sulfate	EPA 300.0	1	16348972601B	12/13/2016 17:55	Alexandria M Lanager	50
00220	Nitrate Nitrogen	EPA 353.2	1	16342106101A	12/07/2016 06:36	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	16336105107B	12/01/2016 05:49	Joseph E McKenzie	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16337002102A	12/03/2016 02:05	Brandon P Costik	1
08344	Ferrous Iron	SM 3500-Fe B 1997	1	16336834401A	12/01/2016 20:40	Daniel S Smith	2

Sample Description: TW-03 Grab Water
NRG PRGS

LL Sample # WW 8719697
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 12:15 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

TW-03

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Miscellaneous					
07105	Methane	RSKSOP-175 modified 74-82-8	ug/l 130	ug/l 3.0	1
Metals					
07058	Manganese	SW-846 6010B 7439-96-5	mg/l 7.19	mg/l 0.0018	1
Wet Chemistry					
00228	Sulfate	EPA 300.0 14808-79-8	mg/l 269	mg/l 15.0	50
00220	Nitrate Nitrogen	EPA 353.2 14797-55-8	mg/l N.D.	mg/l 0.040	1
00219	Nitrite Nitrogen	14797-65-0	0.015 J	0.015	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997 n.a.	mg/l as CaCO3 41.2	mg/l as CaCO3 1.7	1
08344	Ferrous Iron	SM 3500-Fe B 1997 n.a.	mg/l 38.0	mg/l 1.5	100

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07105	Methane	RSKSOP-175 modified	1	163360010A	12/01/2016 15:40	Johanna C Kennedy	1
07058	Manganese	SW-846 6010B	1	163371848006	12/06/2016 16:59	Cindy M Gehman	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163371848006	12/06/2016 06:48	James L Mertz	1
00228	Sulfate	EPA 300.0	1	16348972601B	12/13/2016 18:10	Alexandria M Lanager	50
00220	Nitrate Nitrogen	EPA 353.2	1	16342106101A	12/07/2016 06:37	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	16336105107B	12/01/2016 05:51	Joseph E McKenzie	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16337002101A	12/02/2016 23:22	Brandon P Costik	1
08344	Ferrous Iron	SM 3500-Fe B 1997	1	16336834401A	12/01/2016 20:40	Daniel S Smith	100

Sample Description: TW-05 Grab Water
NRG PRGS

LL Sample # WW 8719698
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 13:00 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

TW-05

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Miscellaneous					
07105	Methane	RSKSOP-175 modified 74-82-8	ug/l 400	ug/l 3.0	1
Metals					
07058	Manganese	SW-846 6010B 7439-96-5	mg/l 7.04	mg/l 0.0018	1
Wet Chemistry					
00228	Sulfate	EPA 300.0 14808-79-8	mg/l 524	mg/l 30.0	100
00220	Nitrate Nitrogen	EPA 353.2 14797-55-8	mg/l N.D.	mg/l 0.040	1
00219	Nitrite Nitrogen	14797-65-0	0.020 J	0.015	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997 n.a.	mg/l as CaCO3 105	mg/l as CaCO3 1.7	1
08344	Ferrous Iron	SM 3500-Fe B 1997 n.a.	mg/l 90.5	mg/l 3.0	200

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07105	Methane	RSKSOP-175 modified	1	163360010A	12/01/2016 15:58	Johanna C Kennedy	1
07058	Manganese	SW-846 6010B	1	163371848006	12/06/2016 17:08	Cindy M Gehman	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163371848006	12/06/2016 06:48	James L Mertz	1
00228	Sulfate	EPA 300.0	1	16348972601B	12/13/2016 18:26	Alexandria M Lanager	100
00220	Nitrate Nitrogen	EPA 353.2	1	16342106101A	12/07/2016 06:43	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	16336105107B	12/01/2016 05:52	Joseph E McKenzie	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16337002101A	12/02/2016 21:58	Brandon P Costik	1
08344	Ferrous Iron	SM 3500-Fe B 1997	1	16336834401A	12/01/2016 20:40	Daniel S Smith	200

Sample Description: TW-06 Grab Water
NRG PRGS

LL Sample # WW 8719699
LL Group # 1738576
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 14:00 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 12/28/2016 14:46

TW-06

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Miscellaneous					
07105	Methane	RSKSOP-175 modified 74-82-8	ug/l 1,100	ug/l 30	10
Metals					
07058	Manganese	SW-846 6010B 7439-96-5	mg/l 8.28	mg/l 0.0018	1
Wet Chemistry					
00228	Sulfate	EPA 300.0 14808-79-8	mg/l 1,160	mg/l 30.0	100
00220	Nitrate Nitrogen	EPA 353.2 14797-55-8	mg/l N.D.	mg/l 0.040	1
00219	Nitrite Nitrogen	14797-65-0	0.041 J	0.015	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997 n.a.	mg/l as CaCO3 27.1	mg/l as CaCO3 1.7	1
08344	Ferrous Iron	SM 3500-Fe B 1997 n.a.	mg/l 249	mg/l 7.5	500

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07105	Methane	RSKSOP-175 modified	1	163360010A	12/02/2016 20:50	Johanna C Kennedy	10
07058	Manganese	SW-846 6010B	1	163361848002	12/06/2016 05:18	Joanne M Gates	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163361848002	12/01/2016 17:30	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	16348972601B	12/13/2016 18:42	Alexandria M Lanager	100
00220	Nitrate Nitrogen	EPA 353.2	1	16342106101A	12/07/2016 06:44	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	16336105107B	12/01/2016 05:54	Joseph E McKenzie	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16341007104A	12/07/2016 09:02	Brandon P Costik	1
08344	Ferrous Iron	SM 3500-Fe B 1997	1	16336834401A	12/01/2016 20:40	Daniel S Smith	500

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:46

Group Number: 1738576

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: D163401AA	Sample number(s): 8719694,8719696	
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5
Batch number: 163360010A	Sample number(s): 8719691-8719692,8719694-8719699	
Methane	N.D.	3.0
Batch number: 163370010A	Sample number(s): 8719691-8719696	
DRO C10-C28	N.D.	45
	mg/l	mg/l
Batch number: 163361848002	Sample number(s): 8719699	
Manganese	N.D.	0.0018
Batch number: 163371848006	Sample number(s): 8719691-8719692,8719694-8719698	
Manganese	N.D.	0.0018
Batch number: 16336105107A	Sample number(s): 8719691-8719692,8719694	
Nitrite Nitrogen	N.D.	0.015
Batch number: 16336105107B	Sample number(s): 8719695-8719699	
Nitrite Nitrogen	N.D.	0.015
Batch number: 16338106102A	Sample number(s): 8719691-8719692	
Nitrate Nitrogen	N.D.	0.040
Batch number: 16342106101A	Sample number(s): 8719694-8719699	
Nitrate Nitrogen	N.D.	0.040
Batch number: 16348972601B	Sample number(s): 8719691-8719692,8719694-8719699	
Sulfate	N.D.	0.30
Batch number: 16336834401A	Sample number(s): 8719691-8719692,8719694-8719699	
Ferrous Iron	N.D.	0.015
	mg/l as CaCO3	mg/l as CaCO3
Batch number: 16337002101A	Sample number(s): 8719692,8719694-8719695,8719697-8719698	
Total Alkalinity to pH 4.5	N.D.	1.7
Batch number: 16337002102A	Sample number(s): 8719691,8719696	
Total Alkalinity to pH 4.5	N.D.	1.7
Batch number: 16341007104A	Sample number(s): 8719699	

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:46

Group Number: 1738576

Method Blank (continued)

Analysis Name	Result	MDL
	mg/l as CaCO3	mg/l as CaCO3
Total Alkalinity to pH 4.5	N.D.	1.7

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D163401AA	Sample number(s): 8719694,8719696								
Benzene	20	19.51			98		78-120		
Ethylbenzene	20	19.74			99		78-120		
Naphthalene	20	17.03			85		59-120		
Toluene	20	19.28			96		80-120		
Xylene (Total)	60	59.1			99		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163360010A	Sample number(s): 8719691-8719692,8719694-8719699								
Methane	59.8	61.25			102		85-115		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163370010A	Sample number(s): 8719691-8719696								
DRO C10-C28	2670	1742.83	2610	1896.54	65*	73	69-115	8	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 163361848002	Sample number(s): 8719699								
Manganese	0.500	0.508			102		80-120		
Batch number: 163371848006	Sample number(s): 8719691-8719692,8719694-8719698								
Manganese	0.500	0.524			105		80-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16336105107A	Sample number(s): 8719691-8719692,8719694								
Nitrite Nitrogen	0.700	0.695	0.700	0.694	99	99	90-110	0	20
Batch number: 16336105107B	Sample number(s): 8719695-8719699								
Nitrite Nitrogen	0.700	0.695	0.700	0.694	99	99	90-110	0	20
Batch number: 16338106102A	Sample number(s): 8719691-8719692								
Nitrate Nitrogen	2.50	2.42	2.50	2.30	97	92	90-110	5	20
Batch number: 16342106101A	Sample number(s): 8719694-8719699								
Nitrate Nitrogen	2.50	2.58			103		90-110		
Batch number: 16348972601B	Sample number(s): 8719691-8719692,8719694-8719699								
Sulfate	7.50	7.41			99		90-110		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:46

Group Number: 1738576

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 16336834401A Ferrous Iron	Sample number(s): 8719691-8719692, 8719694-8719699 0.400	0.389			97		93-105		
	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3					
Batch number: 16337002101A Total Alkalinity to pH 4.5	Sample number(s): 8719692, 8719694-8719695, 8719697-8719698 188	190.32			101		84-110		
Batch number: 16337002102A Total Alkalinity to pH 4.5	Sample number(s): 8719691, 8719696 188	192.15			102		84-110		
Batch number: 16341007104A Total Alkalinity to pH 4.5	Sample number(s): 8719699 188	183.57			98		84-110		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D163401AA	Sample number(s): 8719694, 8719696	UNSPK: P717599								
Benzene	N.D.	20	21.38	20	21.51	107	108	78-120	1	30
Ethylbenzene	N.D.	20	21.31	20	21.46	107	107	78-120	1	30
Naphthalene	N.D.	20	17.25	20	18.18	86	91	59-120	5	30
Toluene	N.D.	20	20.82	20	21.27	104	106	80-120	2	30
Xylene (Total)	N.D.	60	63.36	60	64.42	106	107	80-120	2	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 163360010A	Sample number(s): 8719691-8719692, 8719694-8719699	UNSPK: P717900								
Methane	1500.87	59.8	1450.12	59.8	1445.79	-84 (2)	-91 (2)	73-125	0	30
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 163361848002	Sample number(s): 8719699	UNSPK: 8719699								
Manganese	8.28	0.500	9.08	0.500	8.92	160 (2)	128 (2)	75-125	2	20
Batch number: 163371848006	Sample number(s): 8719691-8719692, 8719694-8719698	UNSPK: P719650								
Manganese	0.560	0.500	1.49	0.500	0.906	185*	69*	75-125	49*	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16336105107A	Sample number(s): 8719691-8719692, 8719694	UNSPK: P718848								
Nitrite Nitrogen	N.D.	0.200	0.215			107		90-110		
Batch number: 16336105107B	Sample number(s): 8719695-8719699	UNSPK: P719782								
Nitrite Nitrogen	N.D.	0.200	0.195			98		90-110		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:46

Group Number: 1738576

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 16338106102A Nitrate Nitrogen	Sample number(s): 8719691-8719692 N.D.	1.00	1.04	UNSPK: P717589		104		90-110		
Batch number: 16342106101A Nitrate Nitrogen	Sample number(s): 8719694-8719699 0.630	1.00	1.66	UNSPK: P719782		103		90-110		
Batch number: 16348972601B Sulfate	Sample number(s): 8719691-8719692, 8719694-8719699 37.86	50	85.64	UNSPK: 8719695		96		90-110		
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16336834401A Ferrous Iron	Sample number(s): 8719691-8719692, 8719694-8719699 24.67	40	62.67	UNSPK: P719776		95	93	93-105	2	6
	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3					
Batch number: 16337002101A Total Alkalinity to pH 4.5	Sample number(s): 8719692, 8719694-8719695, 8719697-8719698 90.8	188	254.45	UNSPK: P719733		87		84-110		
Batch number: 16337002102A Total Alkalinity to pH 4.5	Sample number(s): 8719691, 8719696 301.77	188	461.08	UNSPK: P719776		85		84-110		
Batch number: 16341007104A Total Alkalinity to pH 4.5	Sample number(s): 8719699 N.D.	188	77.65	UNSPK: P725143		41*		84-110		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 163361848002 Manganese	Sample number(s): 8719699 8.28	BKG: 8719699 8.50	3	20
Batch number: 163371848006 Manganese	Sample number(s): 8719691-8719692, 8719694-8719698 0.560	BKG: P719650 0.557	1	20
	mg/l	mg/l		
Batch number: 16336105107A Nitrite Nitrogen	Sample number(s): 8719691-8719692, 8719694 N.D.	BKG: P718848 N.D.	0 (1)	20
Batch number: 16336105107B Nitrite Nitrogen	Sample number(s): 8719695-8719699 N.D.	BKG: P719782 N.D.	0 (1)	20

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:46

Group Number: 1738576

Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 16338106102A Nitrate Nitrogen	Sample number(s): 8719691-8719692 BKG: P717589 N.D.	N.D.	0 (1)	2
Batch number: 16342106101A Nitrate Nitrogen	Sample number(s): 8719694-8719699 BKG: P719782 0.630	0.629	0	2
Batch number: 16348972601B Sulfate	Sample number(s): 8719691-8719692, 8719694-8719699 BKG: 8719695 37.86	37.23	2	15
Batch number: 16336834401A Ferrous Iron	Sample number(s): 8719691-8719692, 8719694-8719699 BKG: P719776 24.67	24.67	0 (1)	5
Batch number: 16337002101A Total Alkalinity to pH 4.5	Sample number(s): 8719692, 8719694-8719695, 8719697-8719698 BKG: P719733 90.8	94.56	4	5
Batch number: 16337002102A Total Alkalinity to pH 4.5	Sample number(s): 8719691, 8719696 BKG: P719776 301.77	308.36	2	5
Batch number: 16341007104A Total Alkalinity to pH 4.5	Sample number(s): 8719699 BKG: P725143 N.D.	N.D.	0 (1)	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX & Naphthalene 8260B
Batch number: D163401AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8719694	101	98	98	99
8719696	102	95	100	97
Blank	100	97	99	98
LCS	99	99	99	100
MS	100	97	100	100
MSD	101	98	99	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: Methane
Batch number: 163360010A

	Propene
8719691	96
8719692	83

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/28/2016 14:46

Group Number: 1738576

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Methane
Batch number: 163360010A

	Propene
8719694	79
8719695	92
8719696	95
8719697	86
8719698	82
8719699	96
Blank	104
LCS	104
MS	89
MSD	90

Limits: 44-123

Analysis Name: DRO micro-ext 8015B
Batch number: 163370010A

	Orthoterphenyl
8719691	95
8719692	91
8719693	78
8719694	93
8719695	246*
8719696	80
Blank	96
LCS	87
LCSD	88

Limits: 42-160

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
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**Lancaster Laboratories
Environmental**

Acct. # 8390 Group # 1738576 Sample # 8719691-99

Environmental Analysis Request/Chain of Custody

[illegible]

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

7045 0614

see Attached Revised CDC received via email.
LF 12/2/16



Lancaster Laboratories
Environmental

Environmental Analysis Request/Chain of Custody

Accel. # 8390 Group # 1738576 Sample # 8719691-99

Client: Groundwater & Env. Services, Inc.				Project Name/#: NRG PRGS		Site ID #: NRG PRGS		Project Manager: Ashley Bell		P.O. #: 0402919-26-206		Sampler: Lindsay Keeney		Project #: 0402919-26-206		Phone #: 800-220-3606 x 3704		Organization #: 0404		State where sample(s) were collected: 1400 North Royal St., Alexandria, VA																																																																																																																																																																																													
Sample Identification <table border="1"> <thead> <tr> <th>Sample</th> <th>Date</th> <th>Time</th> <th>Grab</th> <th>Composite</th> </tr> </thead> <tbody> <tr><td>MW-100S</td><td>11-27-16</td><td>1040</td><td>X</td><td></td></tr> <tr><td>MW-100</td><td></td><td>1045</td><td></td><td></td></tr> <tr><td>MW-33</td><td></td><td>1145</td><td></td><td></td></tr> <tr><td>MW-122</td><td></td><td>1200</td><td></td><td></td></tr> <tr><td>RW-14</td><td></td><td>1240</td><td></td><td></td></tr> <tr><td>MW-27</td><td></td><td>1340</td><td></td><td></td></tr> <tr><td>TW-03</td><td></td><td>1215</td><td></td><td></td></tr> <tr><td>TW-05</td><td></td><td>1300</td><td></td><td></td></tr> <tr><td>TW-06</td><td></td><td>1400</td><td></td><td></td></tr> </tbody> </table>				Sample	Date	Time	Grab	Composite	MW-100S	11-27-16	1040	X		MW-100		1045			MW-33		1145			MW-122		1200			RW-14		1240			MW-27		1340			TW-03		1215			TW-05		1300			TW-06		1400			Matrix <input type="checkbox"/> Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Other:		Analyses Requested <table border="1"> <thead> <tr> <th colspan="14">Preservation Codes</th> </tr> <tr> <th>H</th><th>H</th><th>None</th><th>S</th><th>N</th><th>H</th><th>None</th><th>H</th><th></th><th></th><th></th><th></th><th></th><th></th> </tr> </thead> <tbody> <tr> <td>TPH-DRO C10-C28 (SW-846 8015B)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>BTEX, Naphthalene (SW-846 8260B)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Alkalinity (SM 2320B)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Nitrate NO3-1 & Nitrite NO2- (EPA 353.2)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Manganese Mn2+ (EPA 6010B)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Ferrous Iron Fe2+ (SM 3500-Fe B modified-1997)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Sulfate SO42- (EPA 300.0)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Methane (R/S/SOP-175 modified)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>														Preservation Codes														H	H	None	S	N	H	None	H							TPH-DRO C10-C28 (SW-846 8015B)														BTEX, Naphthalene (SW-846 8260B)														Alkalinity (SM 2320B)														Nitrate NO3-1 & Nitrite NO2- (EPA 353.2)														Manganese Mn2+ (EPA 6010B)														Ferrous Iron Fe2+ (SM 3500-Fe B modified-1997)														Sulfate SO42- (EPA 300.0)														Methane (R/S/SOP-175 modified)													
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Rush results requested by (please check): E-Mail <input checked="" type="checkbox"/> Phone <input type="checkbox"/> E-mail Address: <u>mdlabs@gesonline.com & ges@equisonline.com</u> Phone: _____				Relinquished by: _____ Date: _____ Time: _____				Received by: _____ Date: _____ Time: _____																																																																																																																																																																																																									
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EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format: <u>GES EQEDD</u> EQEDD Name: <u>NRG PRGS.Lab report #.25800.EQEDD.zip</u>				Relinquished by: _____ Date: _____ Time: _____				Received by: _____ Date: _____ Time: _____																																																																																																																																																																																																									
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Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

7045 0614

Client: Groundwater & Env. Services Inc**Delivery and Receipt Information**

Delivery Method:	<u>ELLE Courier</u>	Arrival Timestamp:	<u>11/30/2016 17:00</u>
Number of Packages:	<u>3</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>VA</u>		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace \geq 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		

*Unpacked by Cory Jeremiah (10469) at 18:36 on 11/30/2016***Samples Chilled Details***Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	2.2	DT	Wet	Y	Bagged	N
2	DT146	1.6	DT	Wet	Y	Bagged	N
3	DT146	1.6	DT	Wet	Y	Bagged	N

Container Quantity Discrepancy Details

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
MW-122	15	14	

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...
- W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
440 Creamery Way, Suite 500
Exton PA 19341

Report Date: January 04, 2017

Project: NRG PRGSSubmittal Date: 11/30/2016
Group Number: 1738591
PO Number: 0402919-26-206
Release Number: ORG # 0404
State of Sample Origin: VAClient Sample DescriptionMW-08S Grab Groundwater
MW-11 Grab Groundwater
MW-15S Grab Groundwater
RW-1 Grab Groundwater
MW-51S Grab Groundwater
MW-121 Grab Groundwater

Lancaster Labs

(LL) #8719771
8719772
8719773
8719774
8719775
8719776

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MDAttn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,

Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: MW-08S Grab Groundwater
NRG PRGS

LL Sample # WW 8719771
LL Group # 1738591
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 01/04/2017 07:34

MW08S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10945	Benzene	71-43-2	6	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	2 J	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	0.7 J	0.5	1

**GC Petroleum
Hydrocarbons**

SW-846 8015B

ug/l

ug/l

12858 DRO C10-C28 n.a. 12,000 45 1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX & Naphthalene	8260B	1	D163401AA	12/05/2016 19:22	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D163401AA	12/05/2016 19:22	Daniel H Heller	1
12858	DRO micro-ext	8015B	1	163370011A	12/09/2016 09:10	Thomas C Wildermuth	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370011A	12/06/2016 07:55	Maria Davenport	1

Sample Description: MW-11 Grab Groundwater
NRG PRGS

LL Sample # WW 8719772
LL Group # 1738591
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 11:15 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 01/04/2017 07:34

MW-11

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	770	45	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) and sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. All results are reported from the second trial per client request.					

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163550038A	12/22/2016 08:57	Thomas C Wildermuth	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	2	163550038A	12/21/2016 11:55	Maria Davenport	1

Sample Description: MW-15S Grab Groundwater
NRG PRGS

LL Sample # WW 8719773
LL Group # 1738591
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 11:25 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 01/04/2017 07:34

MW15S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	160	45	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370011A	12/09/2016 09:57	Thomas C Wildermuth	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370011A	12/06/2016 07:55	Maria Davenport	1

Sample Description: RW-1 Grab Groundwater
NRG PRGS

LL Sample # WW 8719774
LL Group # 1738591
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 11:35 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 01/04/2017 07:34

RW--1

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	970	45	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. The data is reported from the initial trial.

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370011A	12/09/2016 10:20	Thomas C Wildermuth	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370011A	12/06/2016 07:55	Maria Davenport	1

Sample Description: MW-51S Grab Groundwater
NRG PRGS

LL Sample # WW 8719775
LL Group # 1738591
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 12:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 01/04/2017 07:34

MW51S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Miscellaneous	RSKSOP-175 modified		ug/l	ug/l	
07105	Methane	74-82-8	4,800	60	20
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	19,000	45	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. The data is reported from the initial trial.					
Metals	SW-846 6010B		mg/l	mg/l	
07058	Manganese	7439-96-5	2.11	0.0018	1
Wet Chemistry	EPA 300.0		mg/l	mg/l	
00228	Sulfate	14808-79-8	138	6.0	20
	EPA 353.2		mg/l	mg/l	
00220	Nitrate Nitrogen	14797-55-8	0.093 J	0.040	1
00219	Nitrite Nitrogen	14797-65-0	0.039 J	0.015	1
	SM 2320 B-1997		mg/l as CaCO3	mg/l as CaCO3	
12150	Total Alkalinity to pH 4.5	n.a.	617	1.7	1
	SM 3500-Fe B 1997		mg/l	mg/l	
08344	Ferrous Iron	n.a.	6.5	0.30	20

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07105	Methane	RSKSOP-175 modified	1	163360010A	12/02/2016 21:25	Johanna C Kennedy	20
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370011A	12/09/2016 10:44	Thomas C Wildermuth	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370011A	12/06/2016 07:55	Maria Davenport	1
07058	Manganese	SW-846 6010B	1	163361848002	12/06/2016 05:56	Joanne M Gates	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163361848002	12/01/2016 17:30	JoElla L Rice	1

Sample Description: MW-51S Grab Groundwater
NRG PRGS

LL Sample # WW 8719775
LL Group # 1738591
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 12:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 01/04/2017 07:34

MW51S

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00228	Sulfate	EPA 300.0	1	16348972601A	12/15/2016 09:20	Clinton M Wilson	20
00220	Nitrate Nitrogen	EPA 353.2	1	16342106101B	12/07/2016 06:55	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	16336105108A	12/01/2016 06:02	Joseph E McKenzie	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16341007104A	12/07/2016 09:11	Brandon P Costik	1
08344	Ferrous Iron	SM 3500-Fe B 1997	1	16336834401A	12/01/2016 20:40	Daniel S Smith	20

Sample Description: MW-121 Grab Groundwater
NRG PRGS

LL Sample # WW 8719776
LL Group # 1738591
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 12:15 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 01/04/2017 07:34

MW121

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles					
10945	Benzene	71-43-2	N.D.	ug/l	1
10945	Ethylbenzene	100-41-4	0.9 J	0.5	1
10945	Naphthalene	91-20-3	11	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Miscellaneous					
07105	Methane	74-82-8	1,500	ug/l	10
GC Petroleum Hydrocarbons					
12858	DRO C10-C28	n.a.	3,400	ug/l	1
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the QC is again outside of the acceptance limits. The data is reported from the initial trial.					
Metals					
07058	Manganese	7439-96-5	10.3	mg/l	1
Wet Chemistry					
00228	Sulfate	14808-79-8	227	mg/l	20
EPA 353.2					
00220	Nitrate Nitrogen	14797-55-8	N.D.	mg/l	1
00219	Nitrite Nitrogen	14797-65-0	N.D.	0.015	1
SM 2320 B-1997					
12150	Total Alkalinity to pH 4.5	n.a.	302	mg/l as CaCO3	1
SM 3500-Fe B 1997					
08344	Ferrous Iron	n.a.	24.7	mg/l	100

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX & Naphthalene	8260B SW-846 8260B	1	D163401AA	12/05/2016 19:45	Daniel H Heller	1

Sample Description: MW-121 Grab Groundwater
NRG PRGS

LL Sample # WW 8719776
LL Group # 1738591
Account # 08390

Project Name: NRG PRGS

Collected: 11/29/2016 12:15 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/30/2016 17:00

Exton PA 19341

Reported: 01/04/2017 07:34

MW121

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D163401AA	12/05/2016 19:45	Daniel H Heller	1
07105	Methane	RSKSOP-175 modified	1	163360010A	12/02/2016 21:43	Johanna C Kennedy	10
12858	DRO micro-ext 8015B	SW-846 8015B	1	163370011A	12/09/2016 11:54	Thomas C Wildermuth	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163370011A	12/06/2016 07:55	Maria Davenport	1
07058	Manganese	SW-846 6010B	1	163361848002	12/06/2016 06:00	Joanne M Gates	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163361848002	12/01/2016 17:30	JoElla L Rice	1
00228	Sulfate	EPA 300.0	1	16348972601A	12/13/2016 15:33	Alexandria M Lanager	20
00220	Nitrate Nitrogen	EPA 353.2	1	16342106101B	12/07/2016 06:57	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	16336105108A	12/01/2016 06:11	Joseph E McKenzie	1
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	16337002102A	12/03/2016 00:09	Brandon P Costik	1
08344	Ferrous Iron	SM 3500-Fe B 1997	1	16336834401A	12/01/2016 20:40	Daniel S Smith	100

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/04/2017 07:34

Group Number: 1738591

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: D163401AA	Sample number(s): 8719771,8719776	
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5
Batch number: 163360010A	Sample number(s): 8719775-8719776	
Methane	N.D.	3.0
Batch number: 163370011A	Sample number(s): 8719771,8719773-8719776	
DRO C10-C28	N.D.	45
Batch number: 163550038A	Sample number(s): 8719772	
DRO C10-C28	N.D.	45
	mg/l	mg/l
Batch number: 163361848002	Sample number(s): 8719775-8719776	
Manganese	N.D.	0.0018
Batch number: 16336105108A	Sample number(s): 8719775-8719776	
Nitrite Nitrogen	N.D.	0.015
Batch number: 16342106101B	Sample number(s): 8719775-8719776	
Nitrate Nitrogen	N.D.	0.040
Batch number: 16348972601A	Sample number(s): 8719775-8719776	
Sulfate	N.D.	0.30
Batch number: 16336834401A	Sample number(s): 8719775-8719776	
Ferrous Iron	N.D.	0.015
	mg/l as CaCO3	mg/l as CaCO3
Batch number: 16337002102A	Sample number(s): 8719776	
Total Alkalinity to pH 4.5	N.D.	1.7
Batch number: 16341007104A	Sample number(s): 8719775	
Total Alkalinity to pH 4.5	N.D.	1.7

LCS/LCSD

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/04/2017 07:34

Group Number: 1738591

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D163401AA	Sample number(s): 8719771, 8719776								
Benzene	20	19.51			98		78-120		
Ethylbenzene	20	19.74			99		78-120		
Naphthalene	20	17.03			85		59-120		
Toluene	20	19.28			96		80-120		
Xylene (Total)	60	59.1			99		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163360010A	Sample number(s): 8719775-8719776								
Methane	59.8	61.25			102		85-115		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163370011A	Sample number(s): 8719771, 8719773-8719776								
DRO C10-C28	2700	1734	2670	1756.84	64*	66*	69-115	1	20
Batch number: 163350038A	Sample number(s): 8719772								
DRO C10-C28	2650	1746.91	2670	1707.77	66*	64*	69-115	2	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 163361848002	Sample number(s): 8719775-8719776								
Manganese	0.500	0.508			102		80-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16336105108A	Sample number(s): 8719775-8719776								
Nitrite Nitrogen	0.700	0.693			99		90-110		
Batch number: 16342106101B	Sample number(s): 8719775-8719776								
Nitrate Nitrogen	2.50	2.58			103		90-110		
Batch number: 16348972601A	Sample number(s): 8719775-8719776								
Sulfate	7.50	7.41			99		90-110		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16336834401A	Sample number(s): 8719775-8719776								
Ferrous Iron	0.400	0.389			97		93-105		
	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3					
Batch number: 16337002102A	Sample number(s): 8719776								
Total Alkalinity to pH 4.5	188	192.15			102		84-110		
Batch number: 16341007104A	Sample number(s): 8719775								
Total Alkalinity to pH 4.5	188	183.57			98		84-110		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/04/2017 07:34

Group Number: 1738591

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D163401AA	Sample number(s): 8719771,8719776 UNSPK: P717599									
Benzene	N.D.	20	21.38	20	21.51	107	108	78-120	1	30
Ethylbenzene	N.D.	20	21.31	20	21.46	107	107	78-120	1	30
Naphthalene	N.D.	20	17.25	20	18.18	86	91	59-120	5	30
Toluene	N.D.	20	20.82	20	21.27	104	106	80-120	2	30
Xylene (Total)	N.D.	60	63.36	60	64.42	106	107	80-120	2	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 163360010A	Sample number(s): 8719775-8719776 UNSPK: P717900									
Methane	1500.87	59.8	1450.12	59.8	1445.79	-84 (2)	-91 (2)	73-125	0	30
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 163361848002	Sample number(s): 8719775-8719776 UNSPK: P719699									
Manganese	8.28	0.500	9.08	0.500	8.92	160 (2)	128 (2)	75-125	2	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16336105108A	Sample number(s): 8719775-8719776 UNSPK: 8719775									
Nitrite Nitrogen	0.0394	0.200	0.214			87*		90-110		
Batch number: 16342106101B	Sample number(s): 8719775-8719776 UNSPK: P719745									
Nitrate Nitrogen	0.167	1.00	1.24			107		90-110		
Batch number: 16348972601A	Sample number(s): 8719775-8719776 UNSPK: P719385									
Sulfate	N.D.	50	48.56			97		90-110		
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16336834401A	Sample number(s): 8719775-8719776 UNSPK: 8719776									
Ferrous Iron	24.67	40	62.67	40	61.68	95	93	93-105	2	6
	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3	mg/l as CaCO3					
Batch number: 16337002102A	Sample number(s): 8719776 UNSPK: 8719776									
Total Alkalinity to pH 4.5	301.77	188	461.08			85		84-110		
Batch number: 16341007104A	Sample number(s): 8719775 UNSPK: P725143									
Total Alkalinity to pH 4.5	N.D.	188	77.65			41*		84-110		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
---------------	----------	----------	---------	-------------

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/04/2017 07:34

Group Number: 1738591

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 163361848002 Manganese	Sample number(s): 8719775-8719776 BKG: P719699 8.28	8.50	3	20
Batch number: 16336105108A Nitrite Nitrogen	Sample number(s): 8719775-8719776 BKG: 8719775 0.0394	0.0409	4 (1)	20
Batch number: 16342106101B Nitrate Nitrogen	Sample number(s): 8719775-8719776 BKG: P719745 0.167	0.166	1 (1)	2
Batch number: 16348972601A Sulfate	Sample number(s): 8719775-8719776 BKG: P719385 N.D.	N.D.	0 (1)	15
Batch number: 16336834401A Ferrous Iron	Sample number(s): 8719775-8719776 BKG: 8719776 24.67	24.67	0 (1)	5
Batch number: 16337002102A Total Alkalinity to pH 4.5	Sample number(s): 8719776 BKG: 8719776 301.77	308.36	2	5
Batch number: 16341007104A Total Alkalinity to pH 4.5	Sample number(s): 8719775 BKG: P725143 N.D.	N.D.	0 (1)	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX & Naphthalene 8260B
Batch number: D163401AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8719771	101	98	98	102
8719776	100	97	98	98
Blank	100	97	99	98
LCS	99	99	99	100
MS	100	97	100	100
MSD	101	98	99	100

Limits: 80-116 77-113 80-113 78-113

Analysis Name: Methane
Batch number: 163360010A

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/04/2017 07:34

Group Number: 1738591

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Methane
Batch number: 163360010A

Propene	
8719775	102
8719776	90
Blank	104
LCS	104
MS	89
MSD	90

Limits: 44-123

Analysis Name: DRO micro-ext 8015B
Batch number: 163370011A

Orthoterphenyl	
8719771	133
8719773	77
8719774	64
8719775	138
8719776	83
Blank	83
LCS	89
LCSD	86

Limits: 42-160

Analysis Name: DRO micro-ext 8015B
Batch number: 163550038A

Orthoterphenyl	
8719772	49
Blank	98
LCS	100
LCSD	94

Limits: 42-160

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



**Lancaster Laboratories
Environmental**

Environmental Analysis Request/Chain of Custody

Acct. # 8390 Group # 1738591 Sample # 8719771-76

[illegible]

Client: Groundwater & Env. Services Inc**Delivery and Receipt Information**

Delivery Method: ELLE Courier Arrival Timestamp: 11/30/2016 17:00
Number of Packages: 3 Number of Projects: 1
State/Province of Origin: VA

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace \geq 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	Yes		

*Unpacked by Cory Jeremiah (10469) at 18:36 on 11/30/2016***Samples Chilled Details**

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	2.2	DT	Wet	Y	Bagged	N
2	DT146	1.6	DT	Wet	Y	Bagged	N
3	DT146	1.6	DT	Wet	Y	Bagged	N

Container Quantity Discrepancy Details

Sample ID on COC	Container Qty. Received	Container Qty. on COC	Comments
MW-122	15	14	

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...
- W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
440 Creamery Way, Suite 500
Exton PA 19341

Report Date: December 13, 2016

Project: NRG PRGSSubmittal Date: 12/02/2016
Group Number: 1739789
PO Number: 0402919-26-206
Release Number: ORG # 0404
State of Sample Origin: VAClient Sample Description

TW-14 Grab Groundwater

Lancaster Labs

(LL) #

8725407

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MDAttn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,

Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: TW-14 Grab Groundwater
NRG PRGS

LL Sample # WW 8725407
LL Group # 1739789
Account # 08390

Project Name: NRG PRGS

Collected: 11/30/2016 13:00 by LK

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/02/2016 17:30

Exton PA 19341

Reported: 12/13/2016 13:39

TW-14

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	
10945	Benzene	71-43-2	0.6 J	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

Trip blank vials were not received by the laboratory for this sample group.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX,Naph	SW-846 8260B	1	D163412AA	12/06/2016 09:02	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D163412AA	12/06/2016 09:02	Anita M Dale	1

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/13/2016 13:39

Group Number: 1739789

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: D163412AA	Sample number(s): 8725407	
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	0.5
Xylene (Total)	N.D.	0.5

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: D163412AA	Sample number(s): 8725407								
Benzene	20	22.78			114		78-120		
Ethylbenzene	20	22.22			111		78-120		
Naphthalene	20	20.54			103		59-120		
Toluene	20	21.8			109		80-120		
Xylene (Total)	60	67.53			113		80-120		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc	MS Spike Added	MS Conc	MSD Spike Added	MSD Conc	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: D163412AA	Sample number(s): 8725407 UNSPK: P725513									
Benzene	N.D.	20	22.23	20	23.32	111	117	78-120	5	30
Ethylbenzene	N.D.	20	21.3	20	22.19	106	111	78-120	4	30
Naphthalene	N.D.	20	20.55	20	21.63	103	108	59-120	5	30
Toluene	N.D.	20	20.45	20	21.62	102	108	80-120	6	30
Xylene (Total)	N.D.	60	63.5	60	65.79	106	110	80-120	4	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/13/2016 13:39

Group Number: 1739789

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX,Naph

Batch number: D163412AA

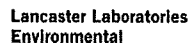
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8725407	100	100	98	99
Blank	99	98	99	98
LCS	98	99	98	100
MS	101	102	97	102
MSD	100	102	97	101
Limits:	80-116	77-113	80-113	78-113

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



Acct. # 8390 Group # 1739789 Sample # 8725407

[illegible]

Client: GES

Delivery and Receipt Information

Delivery Method:	<u>ELLE Courier</u>	Arrival Timestamp:	<u>12/02/2016 17:30</u>
Number of Packages:	<u>2</u>	Number of Projects:	<u>2</u>
State/Province of Origin:	<u>MD</u>		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace \geq 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Karen Diem (3060) at 19:03 on 12/02/2016

Samples Chilled Details*Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.*

<u>Cooler #</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	DT121	0.9	DT	Wet	Y	Bagged	N
2	DT121	2.4	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...
- W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
440 Creamery Way, Suite 500
Exton PA 19341

Report Date: January 18, 2017

Project: NRG PRGS

Submittal Date: 12/13/2016
Group Number: 1743867
PO Number: 0402919-26-206
Release Number: ORG # 0404
State of Sample Origin: VA

Client Sample Description

RW-05S Grab Groundwater

Lancaster Labs

(LL) #

8742151

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MD

Attn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,



Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: RW-05S Grab Groundwater
NRG PRGS

LL Sample # WW 8742151
LL Group # 1743867
Account # 08390

Project Name: NRG PRGS

Collected: 12/08/2016 12:20 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/13/2016 15:55

Exton PA 19341

Reported: 01/18/2017 16:04

RW05S

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	22,000	45	1
The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.					
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The client was contacted and the data reported.					

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163550036A	12/23/2016 10:47	Thomas C Wildermuth	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163550036A	12/21/2016 11:44	Maria Davenport	1

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/18/2017 16:04

Group Number: 1743867

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: 163550036A	Sample number(s): 8742151	
DRO C10-C28	N.D.	45

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163550036A	Sample number(s): 8742151								
DRO C10-C28	2640	1580.59			60*		69-115		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc	MS Spike Added	MS Conc	MSD Spike Added	MSD Conc	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 163550036A	Sample number(s): 8742151 UNSPK: P749853									
DRO C10-C28	561.14	2690	2214.92	2710	2187.87	61*	60*	69-115	1	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: DRO micro-ext 8015B
Batch number: 163550036A

	Orthoterphenyl
8742151	251*
Blank	91
LCS	96

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/18/2017 16:04

Group Number: 1743867

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: DRO micro-ext 8015B

Batch number: 163550036A

	Orthoterphenyl
MS	92
MSD	90
Limits:	42-160

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



**Lancaster Laboratories
Environmental**

Environmental Analysis Request/Chain of Custody

Acct. # 8390 Group # 1743867 Sample # 8742151

[illegible]

Sample Administration
Receipt Documentation LogDoc Log ID: 170618
Group Number(s): 1743867Client: GES**Delivery and Receipt Information**

Delivery Method:	<u>ELLE Courier</u>	Arrival Timestamp:	<u>12/13/2016 15:55</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>VA</u>		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace \geq 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Melvin Sanchez (8943) at 16:39 on 12/13/2016***Samples Chilled Details***Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.*

<u>Cooler #</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	DT131	2.4	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...
- W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



ATTACHMENT D

LABORATORY ANALYTICAL REPORTS AND CHAIN OF CUSTODY DOCUMENTATION – SYSTEM SAMPLING

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
440 Creamery Way, Suite 500
Exton PA 19341

Report Date: November 03, 2016

Project: NRG PRGSSubmittal Date: 10/06/2016
Group Number: 1717070
PO Number: 0402896
Release Number: ORG # 0404
State of Sample Origin: VAClient Sample DescriptionEffluent Grab Groundwater
Post OWS Grab Groundwater
P&T Influent Grab Groundwater
TPE Influent Grab Groundwater

Lancaster Labs

(LL) #
8626911
8626912
8626913
8626914

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MDAttn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,

Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8626911
LL Group # 1717070
Account # 08390

Project Name: NRG PRGS

Collected: 10/05/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 10/06/2016 21:40

Exton PA 19341

Reported: 11/03/2016 16:38

NRGEF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	EPA 624	ug/l	ug/l	
10371	Acrolein	107-02-8	N.D.	5	1
10371	Acrylonitrile	107-13-1	N.D.	0.5	1
10371	Benzene	71-43-2	N.D.	0.5	1
10371	Bromodichloromethane	75-27-4	N.D.	0.5	1
10371	Bromoform	75-25-2	N.D.	0.5	1
10371	Bromomethane	74-83-9	N.D.	0.5	1
10371	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10371	Chlorobenzene	108-90-7	N.D.	0.5	1
10371	Chloroethane	75-00-3	N.D.	0.5	1
10371	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	0.5	1
2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.					
10371	Chloroform	67-66-3	N.D.	0.5	1
10371	Chloromethane	74-87-3	N.D.	0.5	1
10371	Dibromochloromethane	124-48-1	N.D.	0.5	1
10371	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10371	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10371	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10371	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10371	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10371	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10371	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10371	Ethylbenzene	100-41-4	N.D.	0.5	1
10371	Methylene Chloride	75-09-2	N.D.	0.5	1
10371	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10371	Tetrachloroethene	127-18-4	2	0.5	1
10371	Toluene	108-88-3	N.D.	0.5	1
10371	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10371	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10371	Trichloroethene	79-01-6	0.9 J	0.5	1
10371	Vinyl Chloride	75-01-4	N.D.	0.5	1
GC/MS	Semivolatiles	EPA 625	ug/l	ug/l	
10334	Acenaphthene	83-32-9	N.D.	0.3	1
10334	Acenaphthylene	208-96-8	N.D.	0.3	1
10334	Anthracene	120-12-7	N.D.	0.2	1
10334	Benzidine	92-87-5	N.D.	19	1
10334	Benzo(a)anthracene	56-55-3	0.3 J	0.2	1
10334	Benzo(a)pyrene	50-32-8	N.D.	0.3	1
10334	Benzo(b)fluoranthene	205-99-2	N.D.	0.3	1
10334	Benzo(g,h,i)perylene	191-24-2	N.D.	0.2	1
10334	Benzo(k)fluoranthene	207-08-9	N.D.	0.3	1
10334	4-Bromophenyl-phenylether	101-55-3	N.D.	0.3	1
10334	Butylbenzylphthalate	85-68-7	N.D.	0.8	1
10334	Di-n-butylphthalate	84-74-2	N.D.	0.5	1
10334	4-Chloro-3-methylphenol	59-50-7	N.D.	0.3	1
10334	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.5	1
10334	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.4	1
10334	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.3	1

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8626911
LL Group # 1717070
Account # 08390

Project Name: NRG PRGS

Collected: 10/05/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 10/06/2016 21:40

Exton PA 19341

Reported: 11/03/2016 16:38

NRGEF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles EPA 625		ug/l	ug/l	
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
10334	2-Chloronaphthalene	91-58-7	N.D.	0.2	1
10334	2-Chlorophenol	95-57-8	N.D.	0.3	1
10334	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.3	1
10334	Chrysene	218-01-9	N.D.	0.2	1
10334	Dibenz(a,h)anthracene	53-70-3	N.D.	0.4	1
10334	1,2-Dichlorobenzene	95-50-1	N.D.	0.3	1
10334	1,3-Dichlorobenzene	541-73-1	N.D.	0.3	1
10334	1,4-Dichlorobenzene	106-46-7	N.D.	0.3	1
10334	3,3'-Dichlorobenzidine	91-94-1	N.D.	0.8	1
10334	2,4-Dichlorophenol	120-83-2	N.D.	0.3	1
10334	Diethylphthalate	84-66-2	N.D.	0.3	1
10334	2,4-Dimethylphenol	105-67-9	N.D.	0.3	1
10334	Dimethylphthalate	131-11-3	N.D.	1	1
10334	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	4	1
10334	2,4-Dinitrophenol	51-28-5	N.D.	10	1
10334	2,4-Dinitrotoluene	121-14-2	N.D.	0.4	1
10334	2,6-Dinitrotoluene	606-20-2	N.D.	0.3	1
10334	1,2-Diphenylhydrazine	122-66-7	N.D.	0.2	1
10334	bis(2-Ethylhexyl)phthalate	117-81-7	3 J	1	1
10334	Fluoranthene	206-44-0	0.3 J	0.3	1
10334	Fluorene	86-73-7	N.D.	0.3	1
10334	Hexachlorobenzene	118-74-1	N.D.	1	1
10334	Hexachlorobutadiene	87-68-3	N.D.	0.8	1
10334	Hexachlorocyclopentadiene	77-47-4	N.D.	2	1
10334	Hexachloroethane	67-72-1	N.D.	0.4	1
10334	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.3	1
10334	Isophorone	78-59-1	N.D.	0.3	1
10334	Naphthalene	91-20-3	N.D.	0.2	1
10334	Nitrobenzene	98-95-3	N.D.	0.5	1
10334	2-Nitrophenol	88-75-5	N.D.	0.4	1
10334	4-Nitrophenol	100-02-7	N.D.	5	1
10334	N-Nitrosodimethylamine	62-75-9	N.D.	2	1
10334	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.4	1
10334	N-Nitrosodiphenylamine	86-30-6	N.D.	0.3	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10334	Di-n-octylphthalate	117-84-0	N.D.	0.5	1
10334	Pentachlorophenol	87-86-5	N.D.	3	1
10334	Phenanthrene	85-01-8	N.D.	0.2	1
10334	Phenol	108-95-2	N.D.	0.4	1
10334	Pyrene	129-00-0	1 J	0.2	1
10334	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.3	1
10334	2,4,6-Trichlorophenol	88-06-2	N.D.	0.7	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8626911
LL Group # 1717070
Account # 08390

Project Name: NRG PRGS

Collected: 10/05/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 10/06/2016 21:40

Exton PA 19341

Reported: 11/03/2016 16:38

NRGEF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
---------	---------------	------------	--------	------------------------	-----------------

Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

Pesticides/PCBs		EPA 608	ug/l	ug/l	
07572	Aldrin	309-00-2	N.D.	0.0016	1
07572	Alpha BHC	319-84-6	0.0056 J	0.0026	1
07572	Beta BHC	319-85-7	N.D.	0.014	1
07572	Gamma BHC - Lindane	58-89-9	N.D.	0.0020	1
07572	Chlordane	57-74-9	N.D.	0.064	1
07572	p,p-DDD	72-54-8	0.0069 J	0.0043	1
07572	p,p-DDE	72-55-9	0.0057 J	0.0040	1
07572	p,p-DDT	50-29-3	0.0055 J	0.0042	1
07572	Delta BHC	319-86-8	N.D.	0.0050	1
07572	Dieldrin	60-57-1	0.013 J	0.0041	1
07572	Endosulfan I	959-98-8	N.D.	0.0041	1
07572	Endosulfan II	33213-65-9	N.D.	0.0088	1
07572	Endosulfan Sulfate	1031-07-8	N.D.	0.0040	1
07572	Endrin	72-20-8	0.0094 J	0.0056	1
07572	Endrin Aldehyde	7421-93-4	N.D.	0.016	1
07572	Heptachlor	76-44-8	N.D.	0.0021	1
07572	Heptachlor Epoxide	1024-57-3	N.D.	0.0021	1
06030	PCB-1016	12674-11-2	N.D.	0.080	1
06030	PCB-1221	11104-28-2	N.D.	0.080	1
06030	PCB-1232	11141-16-5	N.D.	0.080	1
06030	PCB-1242	53469-21-9	N.D.	0.080	1
06030	PCB-1248	12672-29-6	N.D.	0.080	1
06030	PCB-1254	11097-69-1	N.D.	0.080	1
06030	PCB-1260	11096-82-5	N.D.	0.12	1
06030	Total PCBs	1336-36-3	N.D.	0.080	1
07572	Toxaphene	8001-35-2	N.D.	0.24	1

Reporting limits were raised due to interference from the sample matrix.

GC Petroleum		SW-846 8015B	ug/l	ug/l	
Hydrocarbons					
12858	DRO C10-C28	n.a.	1,200	45	1

Metals		SW-846 6010B	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0097	1
07049	Cadmium	7440-43-9	0.00060 J	0.00049	1
07051	Chromium	7440-47-3	0.0018 J	0.0018	1
07053	Copper	7440-50-8	0.0179	0.0041	1
07055	Lead	7439-92-1	N.D.	0.0062	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	1
07061	Nickel	7440-02-0	0.0219	0.0028	1
07066	Silver	7440-22-4	N.D.	0.0019	1
07072	Zinc	7440-66-6	0.0432	0.0054	1

		SW-846 7470A	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	1

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8626911
LL Group # 1717070
Account # 08390

Project Name: NRG PRGS

Collected: 10/05/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 10/06/2016 21:40

Exton PA 19341

Reported: 11/03/2016 16:38

NRGEF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Wet Chemistry					
		EPA 335.4	mg/l	mg/l	
00237	Total Cyanide (water)	57-12-5	N.D.	0.0050	1
		EPA 1664A	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	1

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8626911
LL Group # 1717070
Account # 08390

Project Name: NRG PRGS

Collected: 10/05/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 10/06/2016 21:40

Exton PA 19341

Reported: 11/03/2016 16:38

NRGEF

CAT No.	Analysis Name	CAS Number	Result	EDL	Dilution Factor
Dioxins/Furans					
	EPA 1613B October 1994		pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.414 JQ	0.332	1
Labeled Compounds					
	%Rec	Windows			
13C12-2378-TCDD	92	25 - 164			

Dioxins/Furans Data Qualifiers:

<i>B</i>	<i>Detected in Method Blank</i>
<i>U</i>	<i>Undetected</i>
<i>J</i>	<i>Estimated concentration between Estimated Detection Limit and Minimum Reporting Level</i>
<i>E</i>	<i>Exceeds calibration range</i>
<i>C</i>	<i>Confirmed quantitation on secondary GC column</i>
<i>Q</i>	<i>EMPC - Estimated Maximum Possible Concentration</i>
<i>F</i>	<i>Interference is present</i>
<i>S</i>	<i>Saturation of detection signal</i>

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8626911
LL Group # 1717070
Account # 08390

Project Name: NRG PRGS

Collected: 10/05/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 10/06/2016 21:40

Exton PA 19341

Reported: 11/03/2016 16:38

NRGEF

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10371	TTO VOCs 624	EPA 624	1	M162802AA	10/07/2016 11:56	Hu Yang	1
10334	Method 625	EPA 625	1	16286WAE625	10/14/2016 02:35	William H Saadeh	1
08108	625 Water Extraction	EPA 625	1	16286WAE625	10/12/2016 17:00	Ryan A Schafran	1
06030	PCBs w/ OC Pests 608	EPA 608	1	162850026A	10/14/2016 19:39	Jessica L Miller	1
07572	Pests (Charged with PCBs 608)	EPA 608	1	162850025A	10/15/2016 02:43	Andrea L Jones	1
11960	Method 608 PCB Water Ext.	EPA 608	1	162850026A	10/11/2016 22:55	Karen L Beyer	1
10241	Method 608 Water Extraction	EPA 608	1	162850025A	10/11/2016 22:55	Karen L Beyer	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	162850008A	10/12/2016 20:42	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	162850008A	10/12/2016 09:03	Maria Davenport	1
10915	Dioxins/Furans in Water - 1613	EPA 1613B October 1994	1	16286001	10/13/2016 17:01	Michael A Ziegler	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	16286001	10/12/2016 08:20	Deborah M Zimmerman	1
07035	Arsenic	SW-846 6010B	1	162961848001	10/26/2016 11:24	Eric L Eby	1
07049	Cadmium	SW-846 6010B	1	162961848001	10/26/2016 11:24	Eric L Eby	1
07051	Chromium	SW-846 6010B	1	162961848001	10/26/2016 11:24	Eric L Eby	1
07053	Copper	SW-846 6010B	1	162961848001	10/26/2016 11:24	Eric L Eby	1
07055	Lead	SW-846 6010B	1	162961848001	10/26/2016 11:24	Eric L Eby	1
07060	Molybdenum	SW-846 6010B	1	162961848001	10/26/2016 11:24	Eric L Eby	1
07061	Nickel	SW-846 6010B	1	162961848001	10/26/2016 11:24	Eric L Eby	1
07066	Silver	SW-846 6010B	1	162961848001	10/26/2016 11:24	Eric L Eby	1
07072	Zinc	SW-846 6010B	1	162961848001	10/26/2016 11:24	Eric L Eby	1
00259	Mercury	SW-846 7470A	1	162965713002	10/25/2016 09:14	Damary Valentin	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	162961848001	10/24/2016 05:54	James L Mertz	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	162965713002	10/24/2016 08:44	James L Mertz	1
00237	Total Cyanide (water)	EPA 335.4	1	16291102102A	10/18/2016 11:39	Dein K Bernot	1
00492	Cyanide Water Distillation	EPA 335.4	1	16291102102A	10/17/2016 17:30	Barbara A Washington	1
08079	HEM (oil & grease)	EPA 1664A	1	16300807902A	10/26/2016 11:04	Yolunder Y Bunch	1

EDL = Estimated Detection Limit

Sample Description: Post OWS Grab Groundwater
NRG PRGS

LL Sample # WW 8626912
LL Group # 1717070
Account # 08390

Project Name: NRG PRGS

Collected: 10/05/2016 11:30 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 10/06/2016 21:40

Exton PA 19341

Reported: 11/03/2016 16:38

NRGPO

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
	GC Petroleum Hydrocarbons	SW-846 8015B	ug/l	ug/l	
12858	DRO C10-C28	n.a.	1,000	45	1
	Wet Chemistry	EPA 1664A	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	162850008A	10/12/2016 21:05	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	162850008A	10/12/2016 09:03	Maria Davenport	1
08079	HEM (oil & grease)	EPA 1664A	1	16300807902A	10/26/2016 11:04	Yolunder Y Bunch	1

Sample Description: P&T Influent Grab Groundwater
NRG PRGS

LL Sample # WW 8626913
LL Group # 1717070
Account # 08390

Project Name: NRG PRGS

Collected: 10/05/2016 11:45 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 10/06/2016 21:40

Exton PA 19341

Reported: 11/03/2016 16:38

NRGPI

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858 DRO C10-C28		n.a.	11,000	45	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	162850008A	10/12/2016 21:29	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	162850008A	10/12/2016 09:03	Maria Davenport	1

Sample Description: TPE Influent Grab Groundwater
NRG PRGS

LL Sample # WW 8626914
LL Group # 1717070
Account # 08390

Project Name: NRG PRGS

Collected: 10/05/2016 12:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 10/06/2016 21:40

Exton PA 19341

Reported: 11/03/2016 16:38

NRGTI

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858	DRO C10-C28	n.a.	36,000	45	1
The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.					

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	162850008A	10/12/2016 23:03	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	162850008A	10/12/2016 09:03	Maria Davenport	1

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/03/2016 16:38

Group Number: 1717070

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: M162802AA	Sample number(s): 8626911	
Acrolein	N.D.	5
Acrylonitrile	N.D.	0.5
Benzene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
Bromoform	N.D.	0.5
Bromomethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Chlorobenzene	N.D.	0.5
Chloroethane	N.D.	0.5
2-Chloroethyl Vinyl Ether	N.D.	0.5
Chloroform	N.D.	0.5
Chloromethane	N.D.	0.5
Dibromochloromethane	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
trans-1,2-Dichloroethene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
cis-1,3-Dichloropropene	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Methylene Chloride	N.D.	0.5
1,1,2,2-Tetrachloroethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Toluene	N.D.	0.5
1,1,1-Trichloroethane	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
Trichloroethene	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Batch number: 16286WAE625	Sample number(s): 8626911	
Acenaphthene	N.D.	0.3
Acenaphthylene	N.D.	0.3
Anthracene	N.D.	0.2
Benzidine	N.D.	20
Benzo(a)anthracene	N.D.	0.2
Benzo(a)pyrene	N.D.	0.3
Benzo(b)fluoranthene	N.D.	0.3
Benzo(g,h,i)perylene	N.D.	0.2
Benzo(k)fluoranthene	N.D.	0.3
4-Bromophenyl-phenylether	N.D.	0.3

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/03/2016 16:38

Group Number: 1717070

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Butylbenzylphthalate	N.D.	0.8
Di-n-butylphthalate	N.D.	0.5
4-Chloro-3-methylphenol	N.D.	0.3
bis(2-Chloroethoxy)methane	N.D.	0.5
bis(2-Chloroethyl)ether	N.D.	0.4
bis(2-Chloroisopropyl)ether	N.D.	0.3
2-Chloronaphthalene	N.D.	0.2
2-Chlorophenol	N.D.	0.3
4-Chlorophenyl-phenylether	N.D.	0.3
Chrysene	N.D.	0.2
Dibenz(a,h)anthracene	N.D.	0.4
1,2-Dichlorobenzene	N.D.	0.3
1,3-Dichlorobenzene	N.D.	0.3
1,4-Dichlorobenzene	N.D.	0.3
3,3'-Dichlorobenzidine	N.D.	0.8
2,4-Dichlorophenol	N.D.	0.3
Diethylphthalate	N.D.	0.3
2,4-Dimethylphenol	N.D.	0.3
Dimethylphthalate	N.D.	1
4,6-Dinitro-2-methylphenol	N.D.	4
2,4-Dinitrophenol	N.D.	10
2,4-Dinitrotoluene	N.D.	0.4
2,6-Dinitrotoluene	N.D.	0.3
1,2-Diphenylhydrazine	N.D.	0.2
bis(2-Ethylhexyl)phthalate	N.D.	1
Fluoranthene	N.D.	0.3
Fluorene	N.D.	0.3
Hexachlorobenzene	N.D.	1
Hexachlorobutadiene	N.D.	0.8
Hexachlorocyclopentadiene	N.D.	2
Hexachloroethane	N.D.	0.4
Indeno(1,2,3-cd)pyrene	N.D.	0.3
Isophorone	N.D.	0.3
Naphthalene	N.D.	0.2
Nitrobenzene	N.D.	0.5
2-Nitrophenol	N.D.	0.4
4-Nitrophenol	N.D.	5
N-Nitrosodimethylamine	N.D.	2
N-Nitroso-di-n-propylamine	N.D.	0.4
N-Nitrosodiphenylamine	N.D.	0.3
Di-n-octylphthalate	N.D.	0.5
Pentachlorophenol	N.D.	3
Phenanthrene	N.D.	0.2
Phenol	N.D.	0.4
Pyrene	N.D.	0.2
1,2,4-Trichlorobenzene	N.D.	0.3
2,4,6-Trichlorophenol	N.D.	0.7
Batch number: 162850025A	Sample number(s): 8626911	

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/03/2016 16:38

Group Number: 1717070

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Aldrin	N.D.	0.0016
Alpha BHC	N.D.	0.0026
Beta BHC	N.D.	0.0039
Gamma BHC - Lindane	N.D.	0.0020
Chlordane	N.D.	0.064
p,p-DDD	N.D.	0.0042
p,p-DDE	N.D.	0.0040
p,p-DDT	N.D.	0.0042
Delta BHC	N.D.	0.0030
Dieldrin	N.D.	0.0041
Endosulfan I	N.D.	0.0041
Endosulfan II	N.D.	0.0088
Endosulfan Sulfate	N.D.	0.0040
Endrin	N.D.	0.0056
Endrin Aldehyde	N.D.	0.016
Heptachlor	N.D.	0.0021
Heptachlor Epoxide	N.D.	0.0021
Toxaphene	N.D.	0.24
Batch number: 162850026A	Sample number(s): 8626911	
PCB-1016	N.D.	0.080
PCB-1221	N.D.	0.080
PCB-1232	N.D.	0.080
PCB-1242	N.D.	0.080
PCB-1248	N.D.	0.080
PCB-1254	N.D.	0.080
PCB-1260	N.D.	0.12
Total PCBs	N.D.	0.080
Batch number: 162850008A	Sample number(s): 8626911-8626914	
DRO C10-C28	74 J	45
	mg/l	mg/l
Batch number: 162961848001	Sample number(s): 8626911	
Arsenic	N.D.	0.0097
Cadmium	N.D.	0.00049
Chromium	0.0049 J	0.0018
Copper	N.D.	0.0041
Lead	N.D.	0.0062
Molybdenum	N.D.	0.0017
Nickel	N.D.	0.0028
Silver	N.D.	0.0019
Zinc	N.D.	0.0054
Batch number: 162965713002	Sample number(s): 8626911	
Mercury	N.D.	0.000050
Batch number: 16291102102A	Sample number(s): 8626911	
Total Cyanide (water)	N.D.	0.0050
Batch number: 16300807902A	Sample number(s): 8626911-8626912	

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/03/2016 16:38

Group Number: 1717070

Method Blank (continued)

Analysis Name	Result	MDL
	mg/l	mg/l
HEM (oil & grease)	N.D.	1.4
Analysis Name	Result	EDL
	pg/l	pg/l
Batch number: 16286001	Sample number(s): 8626911	
2378-TCDD	N.D.	0.398

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: M162802AA	Sample number(s): 8626911								
Acrolein	150	146.13	150	143.43	97	96	60-120	2	30
Acrylonitrile	100	94.43	100	93.16	94	93	61-120	1	30
Benzene	20	21.5	20	21.55	107	108	80-120	0	30
Bromodichloromethane	20	22.37	20	22.35	112	112	77-120	0	30
Bromoform	20	19.73	20	19.38	99	97	66-125	2	30
Bromomethane	20	22.45	20	22.82	112	114	69-120	2	30
Carbon Tetrachloride	20	21.88	20	21.83	109	109	72-128	0	30
Chlorobenzene	20	19.99	20	19.89	100	99	80-120	0	30
Chloroethane	20	24.03	20	24.31	120	122*	65-120	1	30
2-Chloroethyl Vinyl Ether	20	17.99	20	17.97	90	90	54-133	0	30
Chloroform	20	21.12	20	21.01	106	105	80-120	1	30
Chloromethane	20	21.65	20	21.58	108	108	64-120	0	30
Dibromochloromethane	20	20.24	20	20.44	101	102	78-120	1	30
1,1-Dichloroethane	20	23.59	20	23.25	118	116	75-123	1	30
1,2-Dichloroethane	20	21.01	20	20.91	105	105	74-120	0	30
1,1-Dichloroethene	20	23.89	20	24.62	119	123*	69-122	3	30
trans-1,2-Dichloroethene	20	22.9	20	23.85	115	119	80-125	4	30
1,2-Dichloropropane	20	21.97	20	21.95	110	110	80-120	0	30
cis-1,3-Dichloropropene	20	19.6	20	19.58	98	98	80-120	0	30
trans-1,3-Dichloropropene	20	19.76	20	19.36	99	97	80-120	2	30
Ethylbenzene	20	19.87	20	19.84	99	99	80-120	0	30
Methylene Chloride	20	22.39	20	22.24	112	111	75-120	1	30
1,1,2,2-Tetrachloroethane	20	19.89	20	20	99	100	80-120	1	30
Tetrachloroethene	20	20.55	20	20.3	103	102	77-122	1	30
Toluene	20	19.84	20	20.07	99	100	80-120	1	30
1,1,1-Trichloroethane	20	21.49	20	21.61	107	108	72-120	1	30
1,1,2-Trichloroethane	20	19.95	20	20.3	100	102	80-120	2	30
Trichloroethene	20	22.01	20	22.23	110	111	80-120	1	30
Vinyl Chloride	20	22.99	20	23.36	115	117	68-120	2	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 16286WAE625	Sample number(s): 8626911								

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/03/2016 16:38

Group Number: 1717070

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Acenaphthene	50	45.4	50	47.65	91	95	71-118	5	30
Acenaphthylene	50	41.38	50	43.46	83	87	70-121	5	30
Anthracene	50	45.56	50	47.18	91	94	80-114	3	30
Benzidine	250	119.11	250	112.32	48	45	21-107	6	30
Benzo(a)anthracene	50	45.95	50	48.36	92	97	76-117	5	30
Benzo(a)pyrene	50	44.77	50	47.61	90	95	76-112	6	30
Benzo(b)fluoranthene	50	44.84	50	50.3	90	101	80-120	11	30
Benzo(g,h,i)perylene	50	46.34	50	48.16	93	96	76-120	4	30
Benzo(k)fluoranthene	50	49.53	50	47.67	99	95	75-121	4	30
4-Bromophenyl-phenylether	50	46.52	50	47.86	93	96	75-118	3	30
Butylbenzylphthalate	50	46.77	50	48.11	94	96	80-125	3	30
Di-n-butylphthalate	50	48.15	50	48.88	96	98	77-116	2	30
4-Chloro-3-methylphenol	50	49.13	50	52.93	98	106	72-116	7	30
bis(2-Chloroethoxy)methane	50	46.24	50	48.83	92	98	67-122	5	30
bis(2-Chloroethyl)ether	50	44.07	50	46.17	88	92	74-111	5	30
bis(2-Chloroisopropyl)ether	50	42.74	50	46.39	85	93	74-116	8	30
2-Chloronaphthalene	50	48.92	50	51	98	102	60-118	4	30
2-Chlorophenol	50	47.17	50	51.57	94	103	68-117	9	30
4-Chlorophenyl-phenylether	50	44.2	50	47.13	88	94	76-115	6	30
Chrysene	50	47.33	50	50.04	95	100	81-118	6	30
Dibenz(a,h)anthracene	50	47.34	50	49.17	95	98	77-119	4	30
1,2-Dichlorobenzene	50	31.64	50	34.09	63	68	32-111	7	30
1,3-Dichlorobenzene	50	28.93	50	30.68	58	61	24-107	6	30
1,4-Dichlorobenzene	50	30.41	50	30.61	61	61	26-108	1	30
3,3'-Dichlorobenzidine	50	40.4	50	41.17	81	82	10-103	2	30
2,4-Dichlorophenol	50	48.06	50	51.83	96	104	79-114	8	30
Diethylphthalate	50	43.68	50	43.54	87	87	39-114	0	30
2,4-Dimethylphenol	50	36.09	50	37.81	72	76	72-110	5	30
Dimethylphthalate	50	38.11	50	32.47	76	65	33-112	16	30
4,6-Dinitro-2-methylphenol	50	42.38	50	47.25	85	95	74-120	11	30
2,4-Dinitrophenol	100	63.79	100	62.03	64	62	50-128	3	30
2,4-Dinitrotoluene	50	45.76	50	47.87	92	96	85-117	5	30
2,6-Dinitrotoluene	50	47.39	50	49.49	95	99	80-115	4	30
1,2-Diphenylhydrazine	50	49.6	50	51.24	99	102	73-119	3	30
bis(2-Ethylhexyl)phthalate	50	46.72	50	49.6	93	99	77-118	6	30
Fluoranthene	50	44.25	50	45.82	89	92	77-111	3	30
Fluorene	50	44.89	50	47.6	90	95	80-116	6	30
Hexachlorobenzene	50	44.33	50	44.83	89	90	75-116	1	30
Hexachlorobutadiene	50	24.37	50	25.39	49	51	11-113	4	30
Hexachlorocyclopentadiene	100	8.82	100	8.87	9*	9*	24-128	1	30
Hexachloroethane	50	23.38	50	23.5	47	47	11-105	1	30
Indeno(1,2,3-cd)pyrene	50	46.24	50	47.41	92	95	76-115	3	30
Isophorone	50	42.96	50	45.41	86	91	78-120	6	30
Naphthalene	50	40.43	50	41.84	81	84	52-115	3	30
Nitrobenzene	50	46.18	50	47.93	92	96	73-113	4	30
2-Nitrophenol	50	44.96	50	47.79	90	96	83-109	6	30
4-Nitrophenol	50	28.83	50	30.21	58	60	10-83	5	30
N-Nitrosodimethylamine	50	24.54	50	26.24	49	52	28-81	7	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/03/2016 16:38

Group Number: 1717070

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
N-Nitroso-di-n-propylamine	50	43.25	50	46.9	87	94	78-110	8	30
N-Nitrosodiphenylamine	50	48.59	50	50.44	97	101	77-116	4	30
Di-n-octylphthalate	50	49.11	50	52.04	98	104	79-125	6	30
Pentachlorophenol	50	35.88	50	37.58	72	75	57-116	5	30
Phenanthrene	50	46.7	50	48.07	93	96	78-112	3	30
Phenol	50	27.18	50	29.71	54	59	14-69	9	30
Pyrene	50	47.64	50	50.41	95	101	52-115	6	30
1,2,4-Trichlorobenzene	50	31.81	50	32.7	64	65	44-142	3	30
2,4,6-Trichlorophenol	50	47.67	50	49.54	95	99	83-120	4	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 162850025A	Sample number(s): 8626911								
Aldrin	0.102	0.0847	0.102	0.0775	83	76	28-119	9	30
Alpha BHC	0.100	0.0964	0.100	0.0850	96	85	47-132	13	30
Beta BHC	0.102	0.0945	0.102	0.0832	93	82	56-125	13	30
Gamma BHC - Lindane	0.100	0.0972	0.100	0.0866	97	87	51-132	11	30
p,p-DDD	0.198	0.182	0.198	0.161	92	81	53-131	12	30
p,p-DDE	0.204	0.188	0.204	0.169	92	83	51-129	11	30
p,p-DDT	0.198	0.189	0.198	0.170	96	86	42-136	11	30
Delta BHC	0.102	0.103	0.102	0.0915	101	90	57-131	12	30
Dieldrin	0.198	0.148	0.198	0.136	75	69	54-126	8	30
Endosulfan I	0.100	0.104	0.100	0.0913	104	91	51-118	13	30
Endosulfan II	0.203	0.161	0.203	0.143	79	71	54-124	11	30
Endosulfan Sulfate	0.201	0.175	0.201	0.160	87	80	41-133	9	30
Endrin	0.200	0.134	0.200	0.111	67	56	35-143	18	30
Endrin Aldehyde	0.207	0.149	0.207	0.131	72	63	40-135	13	30
Heptachlor	0.100	0.0896	0.100	0.0797	90	80	38-111	12	30
Heptachlor Epoxide	0.102	0.0973	0.102	0.0869	95	85	56-132	11	30
Batch number: 162850026A	Sample number(s): 8626911								
PCB-1016	5.05	4.63	5.05	4.62	92	91	60-117	0	30
PCB-1260	5.04	5.21	5.04	5.11	103	101	57-134	2	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 162850008A	Sample number(s): 8626911-8626914								
DRO C10-C28	2640	1905.74	2660	1851.93	72	70	69-115	3	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 162961848001	Sample number(s): 8626911								
Arsenic	0.150	0.157			105		80-120		
Cadmium	0.0500	0.0531			106		80-120		
Chromium	0.200	0.200			100		80-120		
Copper	0.250	0.261			105		80-120		
Lead	0.150	0.157			105		80-120		
Molybdenum	2.00	2.02			101		80-120		
Nickel	0.500	0.530			106		80-120		
Silver	0.0500	0.0544			109		80-120		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/03/2016 16:38

Group Number: 1717070

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Zinc	0.500	0.515			103		80-120		
Batch number: 162965713002	Sample number(s): 8626911								
Mercury	0.00100	0.000990			99		80-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16291102102A	Sample number(s): 8626911								
Total Cyanide (water)	0.200	0.187			94		90-110		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16300807902A	Sample number(s): 8626911-8626912								
HEM (oil & grease)	40	38.1	40	36.1	95	90	78-114	5	11
Analysis Name	OPR Spike Added pg/l	OPR Conc pg/l	OPRD Spike Added pg/l	OPRD Conc pg/l	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 16286001	Sample number(s): 8626911								
2378-TCDD	200	193.63			97		67-158		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 162961848001	Sample number(s): 8626911 UNSPK: P625700									
Arsenic	N.D.	0.150	0.170	0.150	0.164	113	109	75-125	3	20
Cadmium	N.D.	0.0500	0.0492	0.0500	0.0477	98	95	75-125	3	20
Chromium	0.00269	0.200	0.197	0.200	0.193	97	95	75-125	2	20
Copper	N.D.	0.250	0.269	0.250	0.262	108	105	75-125	3	20
Lead	N.D.	0.150	0.142	0.150	0.138	95	92	75-125	3	20
Molybdenum	0.00436	2.00	2.02	2.00	1.98	101	99	75-125	2	20
Nickel	N.D.	0.500	0.482	0.500	0.472	96	94	75-125	2	20
Silver	N.D.	0.0500	0.0591	0.0500	0.0575	118	115	75-125	3	20
Zinc	N.D.	0.500	0.533	0.500	0.521	107	104	75-125	2	20
Batch number: 162965713002	Sample number(s): 8626911 UNSPK: P625700									
Mercury	N.D.	0.00100	0.00106	0.00100	0.00102	106	102	80-120	4	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16291102102A	Sample number(s): 8626911 UNSPK: P625764									
Total Cyanide (water)	N.D.	0.200	0.184			92		90-110		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/03/2016 16:38

Group Number: 1717070

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 16300807902A HEM (oil & grease)	Sample number(s): 8626911-8626912 N.D.	42.6	38.19	UNSPK: 8626911		90		78-114		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 162961848001	Sample number(s): 8626911 BKG: P625700			
Arsenic	N.D.	N.D.	0 (1)	20
Cadmium	N.D.	N.D.	0 (1)	20
Chromium	0.00269	0.00264	2 (1)	20
Copper	N.D.	N.D.	0 (1)	20
Lead	N.D.	N.D.	0 (1)	20
Molybdenum	0.00436	0.00189	79* (1)	20
Nickel	N.D.	N.D.	0 (1)	20
Silver	N.D.	N.D.	0 (1)	20
Zinc	N.D.	N.D.	0 (1)	20
Batch number: 162965713002	Sample number(s): 8626911 BKG: P625700			
Mercury	N.D.	N.D.	0 (1)	20
Batch number: 16291102102A	Sample number(s): 8626911 BKG: P625764			
Total Cyanide (water)	N.D.	N.D.	0 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TTO VOCs 624
Batch number: M162802AA

	1,2-Dichloroethane-d4	Fluorobenzene	4-Bromofluorobenzene
8626911	101	100	91
Blank	102	100	92
LCS	103	102	93
LCSD	106	102	91

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/03/2016 16:38

Group Number: 1717070

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Limits: 78-118 88-107 80-118

Analysis Name: Method 625
Batch number: 16286WAE625

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol
8626911	90	89	79	15	17	59
Blank	95	88	92	41	63	101
LCS	91	86	95	55	73	96
LCSD	93	87	98	57	77	96
Limits:	60-119	62-116	55-124	10-75	10-105	11-154

Analysis Name: Pests (Charged with PCBs 608)
Batch number: 162850025A

	Tetrachloro-m-xylene	Decachlorobiphenyl
8626911	99	112
Blank	76	91
LCS	69	74
LCSD	63	61
Limits:	29-129	32-149

Analysis Name: PCBs w/ OC Pests 608
Batch number: 162850026A

	Tetrachloro-m-xylene	Decachlorobiphenyl
8626911	59	82
Blank	90	77
LCS	94	76
LCSD	106	98
Limits:	33-137	10-148

Analysis Name: DRO micro-ext 8015B
Batch number: 162850008A

	Orthoterphenyl
8626911	85
8626912	92
8626913	106
8626914	290*
Blank	82
LCS	88
LCSD	82
Limits:	42-160

Analysis Name: Dioxins/Furans in Water - 1613
Batch number: 16286001

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/03/2016 16:38

Group Number: 1717070

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

	13C12-2378-TCDD
8626911	92
Blank	101
OPR	94
Limits:	25-164

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



**Lancaster Laboratories
Environmental**

Environmental Analysis Request/Chain of Custody

Acct. # 8390 Group # 1717070 Sample # 8626911-14

[illegible]

Client: GES

Delivery and Receipt Information

Delivery Method:	<u>ELLE Courier</u>	Arrival Timestamp:	<u>10/06/2016 21:40</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>3</u>

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace \geq 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Karen Diem (3060) at 00:57 on 10/07/2016

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

<u>Cooler #</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	DT131	1.4	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...
- W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
Suite A
1350 Blair Dr
Odenton MD 21113

Report Date: October 11, 2016

Project: NRG PRGS

Submittal Date: 10/06/2016
Group Number: 1717076
PO Number: NRG PRGS
Release Number: 0402859
State of Sample Origin: VA

Client Sample Description

TPE Vapor Grab Air

Lancaster Labs

(LL) #

8626945

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MD

Attn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,



Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: TPE Vapor Grab Air
NRG PRGS - Alexandria, VA

LL Sample # AQ 8626945
LL Group # 1717076
Account # 08390

Project Name: NRG PRGS

Collected: 10/05/2016 12:30 by JP

GES, Inc.

Submitted: 10/06/2016 21:40

Suite A

Reported: 10/11/2016 15:01

1350 Blair Dr

Odenton MD 21113

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Volatiles in Air		EPA 18 mod/EPA 25 mod	mg/m3	mg/m3	
07090	Benzene	71-43-2	< 3	3	1
07090	C1-C4 Hydrocarbons as propane	n.a.	< 18	18	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	< 35	35	1
07090	Ethylbenzene	100-41-4	< 4	4	1
07090	Toluene	108-88-3	< 4	4	1
07090	Xylene (total)	1330-20-7	< 9	9	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/C1-C4/>C4-C10	EPA 18 mod/EPA 25 mod	1	M1628130AA	10/07/2016 17:39	Alexander D Sechrist	1

Quality Control Summary

Client Name: GES, Inc.
Reported: 10/11/2016 15:01

Group Number: 1717076

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ
	mg/m3	mg/m3
Batch number: M1628130AA	Sample number(s): 8626945	
Benzene	< 3	3
C1-C4 Hydrocarbons as propane	< 18	18
>C4-C10 Hydrocarbons hexane	< 35	35
Ethylbenzene	< 4	4
Toluene	< 4	4
Xylene (total)	< 9	9

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/m3	mg/m3	mg/m3	mg/m3					
Batch number: M1628130AA	Sample number(s): 8626945								
Benzene	31.95	33.22	31.95	32.25	104	101	71-116	3	30
Ethylbenzene	43.42	45.31	43.42	47.84	104	110	59-144	5	30
Toluene	37.69	49.84	37.69	49.65	132	132	77-143	0	30
Xylene (total)	130.27	142.23	130.27	144.49	109	111	58-148	2	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



**Lancaster Laboratories
Environmental**

Environmental Analysis Request/Chain of Custody

12/8/6

8390

Acct. #

Group #

1717076

Sample #

862C MS

[illegible]

Sample Administration
Receipt Documentation LogDoc Log ID: 164429
Group Number(s): 1717076Client: GES

Delivery and Receipt Information

Delivery Method:	<u>ELLE Courier</u>	Arrival Timestamp:	<u>10/06/2016 21:40</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	N/A	VOA Vial Headspace \geq 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	Yes
Missing Samples:	No	Air Quality Flow Controllers Present:	No
Extra Samples:	No	Air Quality Returns:	No
Discrepancy in Container Qty on COC:	No		

Unpacked by Karen Diem (3060) at 00:54 on 10/07/2016

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
440 Creamery Way, Suite 500
Exton PA 19341

Report Date: November 08, 2016

Project: NRG PRGS

Submittal Date: 11/04/2016
Group Number: 1729275
PO Number: 0402919-25-220
Release Number: ORG # 0404
State of Sample Origin: VA

Client Sample Description

TPE Vapor Grab Air

Lancaster Labs

(LL) #

8680188

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MD

Attn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,



Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: TPE Vapor Grab Air
NRG PRGS - Alexandria, VA

LL Sample # AQ 8680188
LL Group # 1729275
Account # 08390

Project Name: NRG PRGS

Collected: 11/03/2016 12:30 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/04/2016 15:46

Exton PA 19341

Reported: 11/08/2016 14:38

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Volatiles in Air		EPA 18 mod/EPA 25 mod	mg/m3	mg/m3	
07090	Benzene	71-43-2	< 3	3	1
07090	C1-C4 Hydrocarbons as propane	n.a.	29	18	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	< 35	35	1
07090	Ethylbenzene	100-41-4	< 4	4	1
07090	Toluene	108-88-3	< 4	4	1
07090	Xylene (total)	1330-20-7	< 9	9	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/C1-C4/>C4-C10	EPA 18 mod/EPA 25 mod	1	M1631230AA	11/07/2016 15:15	Alexander D Sechrist	1

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/08/2016 14:38

Group Number: 1729275

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ
	mg/m3	mg/m3
Batch number: M1631230AA	Sample number(s): 8680188	
Benzene	< 3	3
C1-C4 Hydrocarbons as propane	< 18	18
>C4-C10 Hydrocarbons hexane	< 35	35
Ethylbenzene	< 4	4
Toluene	< 4	4
Xylene (total)	< 9	9

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/m3	mg/m3	mg/m3	mg/m3					
Batch number: M1631230AA	Sample number(s): 8680188								
Benzene	31.95	32.16	31.95	32.42	101	101	71-116	1	30
Ethylbenzene	43.42	42.84	43.42	43.91	99	101	59-144	2	30
Toluene	37.69	49.3	37.69	48.43	131	129	77-143	2	30
Xylene (total)	130.27	125.9	130.27	127.4	97	98	58-148	1	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



**Lancaster Laboratories
Environmental**

Acct. # 8390 Group # 1729275 Sample # 8680/88

Environmental Analysis Request/Chain of Custody

[illegible]

Sample Administration
Receipt Documentation Log

Doc Log ID: 167353

Group Number(s): 1729275

Client: GES

Delivery and Receipt Information

Delivery Method:	<u>ELLE Courier</u>	Arrival Timestamp:	<u>11/04/2016 15:46</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>2</u>
State/Province of Origin:	<u>VA</u>		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	N/A	VOA Vial Headspace \geq 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	Yes
Missing Samples:	No	Air Quality Flow Controllers Present:	No
Extra Samples:	No	Air Quality Returns:	No
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah (10469) at 19:26 on 11/04/2016

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...
- W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
440 Creamery Way, Suite 500
Exton PA 19341

Report Date: November 29, 2016

Project: NRG PRGSSubmittal Date: 11/04/2016
Group Number: 1729282
PO Number: 0402919-25-220
Release Number: ORG # 0404
State of Sample Origin: VAClient Sample DescriptionEffluent Grab Groundwater
Post OWS Grab Groundwater
P&T Influent Grab Groundwater
TPE Influent Grab Groundwater

Lancaster Labs

(LL) #
8680209
8680210
8680211
8680212

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MDAttn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,

Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8680209
LL Group # 1729282
Account # 08390

Project Name: NRG PRGS

Collected: 11/03/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/04/2016 15:46

Exton PA 19341

Reported: 11/29/2016 15:08

NREFF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	EPA 624	ug/l	ug/l	
10371	Acrolein	107-02-8	N.D.	5	1
10371	Acrylonitrile	107-13-1	N.D.	0.5	1
10371	Benzene	71-43-2	N.D.	0.5	1
10371	Bromodichloromethane	75-27-4	N.D.	0.5	1
10371	Bromoform	75-25-2	N.D.	0.5	1
10371	Bromomethane	74-83-9	N.D.	0.5	1
10371	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10371	Chlorobenzene	108-90-7	N.D.	0.5	1
10371	Chloroethane	75-00-3	N.D.	0.5	1
10371	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	0.5	1
2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.					
10371	Chloroform	67-66-3	N.D.	0.5	1
10371	Chloromethane	74-87-3	N.D.	0.5	1
10371	Dibromochloromethane	124-48-1	N.D.	0.5	1
10371	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10371	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10371	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10371	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10371	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10371	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10371	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10371	Ethylbenzene	100-41-4	N.D.	0.5	1
10371	Methylene Chloride	75-09-2	N.D.	0.5	1
10371	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10371	Tetrachloroethene	127-18-4	2	0.5	1
10371	Toluene	108-88-3	N.D.	0.5	1
10371	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10371	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10371	Trichloroethene	79-01-6	0.8 J	0.5	1
10371	Vinyl Chloride	75-01-4	N.D.	0.5	1
GC/MS	Semivolatiles	EPA 625	ug/l	ug/l	
10334	Acenaphthene	83-32-9	N.D.	0.3	1
10334	Acenaphthylene	208-96-8	N.D.	0.3	1
10334	Anthracene	120-12-7	N.D.	0.2	1
10334	Benzidine	92-87-5	N.D.	19	1
10334	Benzo(a)anthracene	56-55-3	N.D.	0.2	1
10334	Benzo(a)pyrene	50-32-8	N.D.	0.3	1
10334	Benzo(b)fluoranthene	205-99-2	N.D.	0.3	1
10334	Benzo(g,h,i)perylene	191-24-2	N.D.	0.2	1
10334	Benzo(k)fluoranthene	207-08-9	N.D.	0.3	1
10334	4-Bromophenyl-phenylether	101-55-3	N.D.	0.3	1
10334	Butylbenzylphthalate	85-68-7	1 J	0.8	1
10334	Di-n-butylphthalate	84-74-2	N.D.	0.5	1
10334	4-Chloro-3-methylphenol	59-50-7	N.D.	0.3	1
10334	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.5	1
10334	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.4	1
10334	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.3	1

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8680209
LL Group # 1729282
Account # 08390

Project Name: NRG PRGS

Collected: 11/03/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/04/2016 15:46

Exton PA 19341

Reported: 11/29/2016 15:08

NREFF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles EPA 625		ug/l	ug/l	
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
10334	2-Chloronaphthalene	91-58-7	N.D.	0.2	1
10334	2-Chlorophenol	95-57-8	N.D.	0.3	1
10334	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.3	1
10334	Chrysene	218-01-9	N.D.	0.2	1
10334	Dibenz(a,h)anthracene	53-70-3	N.D.	0.4	1
10334	1,2-Dichlorobenzene	95-50-1	N.D.	0.3	1
10334	1,3-Dichlorobenzene	541-73-1	N.D.	0.3	1
10334	1,4-Dichlorobenzene	106-46-7	N.D.	0.3	1
10334	3,3'-Dichlorobenzidine	91-94-1	N.D.	0.8	1
10334	2,4-Dichlorophenol	120-83-2	N.D.	0.3	1
10334	Diethylphthalate	84-66-2	N.D.	0.3	1
10334	2,4-Dimethylphenol	105-67-9	N.D.	0.3	1
10334	Dimethylphthalate	131-11-3	N.D.	0.9	1
10334	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	4	1
10334	2,4-Dinitrophenol	51-28-5	N.D.	9	1
10334	2,4-Dinitrotoluene	121-14-2	N.D.	0.4	1
10334	2,6-Dinitrotoluene	606-20-2	N.D.	0.3	1
10334	1,2-Diphenylhydrazine	122-66-7	N.D.	0.2	1
10334	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	0.9	1
10334	Fluoranthene	206-44-0	N.D.	0.3	1
10334	Fluorene	86-73-7	N.D.	0.3	1
10334	Hexachlorobenzene	118-74-1	N.D.	0.9	1
10334	Hexachlorobutadiene	87-68-3	N.D.	0.8	1
10334	Hexachlorocyclopentadiene	77-47-4	N.D.	2	1
10334	Hexachloroethane	67-72-1	N.D.	0.4	1
10334	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.3	1
10334	Isophorone	78-59-1	N.D.	0.3	1
10334	Naphthalene	91-20-3	N.D.	0.2	1
10334	Nitrobenzene	98-95-3	N.D.	0.5	1
10334	2-Nitrophenol	88-75-5	N.D.	0.4	1
10334	4-Nitrophenol	100-02-7	N.D.	5	1
10334	N-Nitrosodimethylamine	62-75-9	N.D.	2	1
10334	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.4	1
10334	N-Nitrosodiphenylamine	86-30-6	N.D.	0.3	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10334	Di-n-octylphthalate	117-84-0	N.D.	0.5	1
10334	Pentachlorophenol	87-86-5	N.D.	3	1
10334	Phenanthrene	85-01-8	N.D.	0.2	1
10334	Phenol	108-95-2	N.D.	0.4	1
10334	Pyrene	129-00-0	0.4 J	0.2	1
10334	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.3	1
10334	2,4,6-Trichlorophenol	88-06-2	N.D.	0.7	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8680209
LL Group # 1729282
Account # 08390

Project Name: NRG PRGS

Collected: 11/03/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/04/2016 15:46

Exton PA 19341

Reported: 11/29/2016 15:08

NREFF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
---------	---------------	------------	--------	------------------------	-----------------

Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

Pesticides/PCBs		EPA 608	ug/l		ug/l
07572	Aldrin	309-00-2	0.0022 J	0.0016	1
07572	Alpha BHC	319-84-6	N.D.	0.0026	1
07572	Beta BHC	319-85-7	N.D.	0.0040	1
07572	Gamma BHC - Lindane	58-89-9	0.0045 J	0.0020	1
07572	Chlordane	57-74-9	N.D.	0.065	1
07572	p,p-DDD	72-54-8	N.D.	0.0043	1
07572	p,p-DDE	72-55-9	N.D.	0.0040	1
07572	p,p-DDT	50-29-3	N.D.	0.0042	1
07572	Delta BHC	319-86-8	N.D.	0.0031	1
07572	Dieldrin	60-57-1	N.D.	0.0041	1
07572	Endosulfan I	959-98-8	N.D.	0.0041	1
07572	Endosulfan II	33213-65-9	N.D.	0.0089	1
07572	Endosulfan Sulfate	1031-07-8	N.D.	0.0040	1
07572	Endrin	72-20-8	N.D.	0.0056	1
07572	Endrin Aldehyde	7421-93-4	N.D.	0.016	1
07572	Heptachlor	76-44-8	0.0039 J	0.0021	1
07572	Heptachlor Epoxide	1024-57-3	N.D.	0.0021	1
06030	PCB-1016	12674-11-2	N.D.	0.081	1
06030	PCB-1221	11104-28-2	N.D.	0.081	1
06030	PCB-1232	11141-16-5	N.D.	0.081	1
06030	PCB-1242	53469-21-9	N.D.	0.081	1
06030	PCB-1248	12672-29-6	N.D.	0.081	1
06030	PCB-1254	11097-69-1	N.D.	0.081	1
06030	PCB-1260	11096-82-5	N.D.	0.12	1
06030	Total PCBs	1336-36-3	N.D.	0.081	1
07572	Toxaphene	8001-35-2	N.D.	0.24	1

The recovery for the method blank surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

GC Petroleum Hydrocarbons		SW-846 8015B	ug/l		ug/l
12858	DRO C10-C28	n.a.	1,200	45	1

Metals		SW-846 6010B	mg/l		mg/l
07035	Arsenic	7440-38-2	N.D.	0.0097	1
07049	Cadmium	7440-43-9	N.D.	0.00049	1
07051	Chromium	7440-47-3	N.D.	0.0018	1
07053	Copper	7440-50-8	0.0127	0.0041	1
07055	Lead	7439-92-1	N.D.	0.0062	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	1
07061	Nickel	7440-02-0	0.0140	0.0028	1

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8680209
LL Group # 1729282
Account # 08390

Project Name: NRG PRGS

Collected: 11/03/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/04/2016 15:46

Exton PA 19341

Reported: 11/29/2016 15:08

NREFF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals					
	SW-846 6010B		mg/l	mg/l	
07066	Silver	7440-22-4	N.D.	0.0019	1
07072	Zinc	7440-66-6	0.0276	0.0054	1
	SW-846 7470A		mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	1
Wet Chemistry					
	EPA 335.4		mg/l	mg/l	
00237	Total Cyanide (water)	57-12-5	N.D.	0.0050	1
	EPA 1664A		mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	1

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8680209
LL Group # 1729282
Account # 08390

Project Name: NRG PRGS

Collected: 11/03/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/04/2016 15:46

Exton PA 19341

Reported: 11/29/2016 15:08

NREFF

CAT No.	Analysis Name	CAS Number	Result	EDL	Dilution Factor
Dioxins/Furans					
	EPA 1613B October 1994		pg/l	pg/l	
10915	2378-TCDD	1746-01-6	N.D.	0.189	1
Labeled Compounds					
	%Rec	Windows			
13C12-2378-TCDD	61	25 - 164			

Dioxins/Furans Data Qualifiers:

<i>B</i>	<i>Detected in Method Blank</i>
<i>U</i>	<i>Undetected</i>
<i>J</i>	<i>Estimated concentration between Estimated Detection Limit and Minimum Reporting Level</i>
<i>E</i>	<i>Exceeds calibration range</i>
<i>C</i>	<i>Confirmed quantitation on secondary GC column</i>
<i>Q</i>	<i>EMPC - Estimated Maximum Possible Concentration</i>
<i>F</i>	<i>Interference is present</i>
<i>S</i>	<i>Saturation of detection signal</i>

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8680209
LL Group # 1729282
Account # 08390

Project Name: NRG PRGS

Collected: 11/03/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/04/2016 15:46

Exton PA 19341

Reported: 11/29/2016 15:08

NREFF

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10371	TTO VOCs 624	EPA 624	1	M163111AA	11/06/2016 20:51	Hu Yang	1
10334	Method 625	EPA 625	1	16314WAC625	11/11/2016 03:23	William H Saadeh	1
08108	625 Water Extraction	EPA 625	1	16314WAC625	11/09/2016 16:30	Shawn J McMullen	1
06030	PCBs w/ OC Pests 608	EPA 608	1	163130014A	11/10/2016 00:26	Kirby B Turner	1
07572	Pests (Charged with PCBs 608)	EPA 608	1	163130013A	11/11/2016 02:14	Anita M Dale	1
11960	Method 608 PCB Water Ext.	EPA 608	1	163130014A	11/08/2016 23:45	Sherry L Morrow	1
10241	Method 608 Water Extraction	EPA 608	1	163130013A	11/08/2016 23:45	Sherry L Morrow	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	163130003A	11/11/2016 07:07	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163130003A	11/09/2016 06:55	Maria Davenport	1
10915	Dioxins/Furans in Water - 1613	EPA 1613B October 1994	1	16309001	11/09/2016 19:37	Michael A Ziegler	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	16309001	11/07/2016 09:00	Alex L Barton	1
07035	Arsenic	SW-846 6010B	1	163131848006	11/12/2016 02:57	Matthew R Machtinger	1
07049	Cadmium	SW-846 6010B	1	163131848006	11/12/2016 02:57	Matthew R Machtinger	1
07051	Chromium	SW-846 6010B	1	163131848006	11/12/2016 02:57	Matthew R Machtinger	1
07053	Copper	SW-846 6010B	1	163131848006	11/12/2016 02:57	Matthew R Machtinger	1
07055	Lead	SW-846 6010B	1	163131848006	11/16/2016 06:05	Joanne M Gates	1
07060	Molybdenum	SW-846 6010B	1	163131848006	11/12/2016 02:57	Matthew R Machtinger	1
07061	Nickel	SW-846 6010B	1	163131848006	11/12/2016 02:57	Matthew R Machtinger	1
07066	Silver	SW-846 6010B	1	163131848006	11/12/2016 02:57	Matthew R Machtinger	1
07072	Zinc	SW-846 6010B	1	163131848006	11/12/2016 02:57	Matthew R Machtinger	1
00259	Mercury	SW-846 7470A	1	163135713007	11/14/2016 12:39	Damary Valentin	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163131848006	11/09/2016 22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	163135713007	11/14/2016 08:15	Lisa J Cooke	1
00237	Total Cyanide (water)	EPA 335.4	1	16322102101A	11/17/2016 13:58	Dein K Bernot	1
00492	Cyanide Water Distillation	EPA 335.4	2	16322102101A	11/17/2016 11:05	Nancy J Shoop	1
08079	HEM (oil & grease)	EPA 1664A	1	16333807902A	11/28/2016 23:51	Cassandra N Morgan	1

EDL = Estimated Detection Limit

Sample Description: Post OWS Grab Groundwater
NRG PRGS

LL Sample # WW 8680210
LL Group # 1729282
Account # 08390

Project Name: NRG PRGS

Collected: 11/03/2016 11:30 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/04/2016 15:46

Exton PA 19341

Reported: 11/29/2016 15:08

NROWS

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
	GC Petroleum Hydrocarbons	SW-846 8015B	ug/l	ug/l	
12858	DRO C10-C28	n.a.	4,200	45	1
	Wet Chemistry	EPA 1664A	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163130003A	11/11/2016 07:30	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163130003A	11/09/2016 06:55	Maria Davenport	1
08079	HEM (oil & grease)	EPA 1664A	1	16333807902A	11/28/2016 23:51	Cassandra N Morgan	1

Sample Description: P&T Influent Grab Groundwater
NRG PRGS

LL Sample # WW 8680211
LL Group # 1729282
Account # 08390

Project Name: NRG PRGS

Collected: 11/03/2016 11:45 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/04/2016 15:46

Exton PA 19341

Reported: 11/29/2016 15:08

NRP-T

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858 DRO C10-C28		n.a.	1,200	45	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163130003A	11/11/2016 07:53	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163130003A	11/09/2016 06:55	Maria Davenport	1

Sample Description: TPE Influent Grab Groundwater
NRG PRGS

LL Sample # WW 8680212
LL Group # 1729282
Account # 08390

Project Name: NRG PRGS

Collected: 11/03/2016 12:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 11/04/2016 15:46

Exton PA 19341

Reported: 11/29/2016 15:08

NRTPE

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858 DRO C10-C28		n.a.	68,000	230	5

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163130003A	11/17/2016 04:52	Amy Lehr	5
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163130003A	11/09/2016 06:55	Maria Davenport	1

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/29/2016 15:08

Group Number: 1729282

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: M163111AA	Sample number(s): 8680209	
Acrolein	N.D.	5
Acrylonitrile	N.D.	0.5
Benzene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
Bromoform	N.D.	0.5
Bromomethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Chlorobenzene	N.D.	0.5
Chloroethane	N.D.	0.5
2-Chloroethyl Vinyl Ether	N.D.	0.5
Chloroform	N.D.	0.5
Chloromethane	N.D.	0.5
Dibromochloromethane	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
trans-1,2-Dichloroethene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
cis-1,3-Dichloropropene	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Methylene Chloride	N.D.	0.5
1,1,2,2-Tetrachloroethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Toluene	N.D.	0.5
1,1,1-Trichloroethane	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
Trichloroethene	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Batch number: 16314WAC625	Sample number(s): 8680209	
Acenaphthene	N.D.	0.3
Acenaphthylene	N.D.	0.3
Anthracene	N.D.	0.2
Benzidine	N.D.	20
Benzo(a)anthracene	N.D.	0.2
Benzo(a)pyrene	N.D.	0.3
Benzo(b)fluoranthene	N.D.	0.3
Benzo(g,h,i)perylene	N.D.	0.2
Benzo(k)fluoranthene	N.D.	0.3
4-Bromophenyl-phenylether	N.D.	0.3

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/29/2016 15:08

Group Number: 1729282

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Butylbenzylphthalate	N.D.	0.8
Di-n-butylphthalate	N.D.	0.5
4-Chloro-3-methylphenol	N.D.	0.3
bis(2-Chloroethoxy)methane	N.D.	0.5
bis(2-Chloroethyl)ether	N.D.	0.4
bis(2-Chloroisopropyl)ether	N.D.	0.3
2-Chloronaphthalene	N.D.	0.2
2-Chlorophenol	N.D.	0.3
4-Chlorophenyl-phenylether	N.D.	0.3
Chrysene	N.D.	0.2
Dibenz(a,h)anthracene	N.D.	0.4
1,2-Dichlorobenzene	N.D.	0.3
1,3-Dichlorobenzene	N.D.	0.3
1,4-Dichlorobenzene	N.D.	0.3
3,3'-Dichlorobenzidine	N.D.	0.8
2,4-Dichlorophenol	N.D.	0.3
Diethylphthalate	N.D.	0.3
2,4-Dimethylphenol	N.D.	0.3
Dimethylphthalate	N.D.	1
4,6-Dinitro-2-methylphenol	N.D.	4
2,4-Dinitrophenol	N.D.	10
2,4-Dinitrotoluene	N.D.	0.4
2,6-Dinitrotoluene	N.D.	0.3
1,2-Diphenylhydrazine	N.D.	0.2
bis(2-Ethylhexyl)phthalate	N.D.	1
Fluoranthene	N.D.	0.3
Fluorene	N.D.	0.3
Hexachlorobenzene	N.D.	1
Hexachlorobutadiene	N.D.	0.8
Hexachlorocyclopentadiene	N.D.	2
Hexachloroethane	N.D.	0.4
Indeno(1,2,3-cd)pyrene	N.D.	0.3
Isophorone	N.D.	0.3
Naphthalene	N.D.	0.2
Nitrobenzene	N.D.	0.5
2-Nitrophenol	N.D.	0.4
4-Nitrophenol	N.D.	5
N-Nitrosodimethylamine	N.D.	2
N-Nitroso-di-n-propylamine	N.D.	0.4
N-Nitrosodiphenylamine	N.D.	0.3
Di-n-octylphthalate	N.D.	0.5
Pentachlorophenol	N.D.	3
Phenanthrene	N.D.	0.2
Phenol	N.D.	0.4
Pyrene	N.D.	0.2
1,2,4-Trichlorobenzene	N.D.	0.3
2,4,6-Trichlorophenol	N.D.	0.7
Batch number: 163130013A	Sample number(s): 8680209	

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/29/2016 15:08

Group Number: 1729282

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Aldrin	N.D.	0.0016
Alpha BHC	N.D.	0.0026
Beta BHC	N.D.	0.0039
Gamma BHC - Lindane	N.D.	0.0020
Chlordane	N.D.	0.064
p,p-DDD	N.D.	0.0042
p,p-DDE	N.D.	0.0040
p,p-DDT	N.D.	0.0042
Delta BHC	N.D.	0.0030
Dieldrin	N.D.	0.0041
Endosulfan I	N.D.	0.0041
Endosulfan II	N.D.	0.0088
Endosulfan Sulfate	N.D.	0.0040
Endrin	N.D.	0.0056
Endrin Aldehyde	N.D.	0.016
Heptachlor	N.D.	0.0021
Heptachlor Epoxide	N.D.	0.0021
Toxaphene	N.D.	0.24
Batch number: 163130014A	Sample number(s): 8680209	
PCB-1016	N.D.	0.080
PCB-1221	N.D.	0.080
PCB-1232	N.D.	0.080
PCB-1242	N.D.	0.080
PCB-1248	N.D.	0.080
PCB-1254	N.D.	0.080
PCB-1260	N.D.	0.12
Total PCBs	N.D.	0.080
Batch number: 163130003A	Sample number(s): 8680209-8680212	
DRO C10-C28	N.D.	45
	mg/l	mg/l
Batch number: 163131848006	Sample number(s): 8680209	
Arsenic	N.D.	0.0097
Cadmium	N.D.	0.00049
Chromium	N.D.	0.0018
Copper	N.D.	0.0041
Lead	N.D.	0.0062
Molybdenum	N.D.	0.0017
Nickel	N.D.	0.0028
Silver	N.D.	0.0019
Zinc	N.D.	0.0054
Batch number: 163135713007	Sample number(s): 8680209	
Mercury	N.D.	0.000050
Batch number: 16322102101A	Sample number(s): 8680209	
Total Cyanide (water)	N.D.	0.0050
Batch number: 16333807902A	Sample number(s): 8680209-8680210	

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/29/2016 15:08

Group Number: 1729282

Method Blank (continued)

Analysis Name	Result	MDL
	mg/l	mg/l
HEM (oil & grease)	N.D.	1.4
Analysis Name	Result	EDL
	pg/l	pg/l
Batch number: 16309001	Sample number(s): 8680209	
2378-TCDD	0.371 J	0.245

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: M163111AA	Sample number(s): 8680209								
Acrolein	150	146.87			98		60-120		
Acrylonitrile	100	91.65			92		61-120		
Benzene	20	21.04			105		80-120		
Bromodichloromethane	20	21.22			106		77-120		
Bromoform	20	18.54			93		66-125		
Bromomethane	20	21.89			109		69-120		
Carbon Tetrachloride	20	19.76			99		72-128		
Chlorobenzene	20	18.54			93		80-120		
Chloroethane	20	22.65			113		65-120		
2-Chloroethyl Vinyl Ether	20	15.2			76		54-133		
Chloroform	20	19.99			100		80-120		
Chloromethane	20	20.25			101		64-120		
Dibromochloromethane	20	18.87			94		78-120		
1,1-Dichloroethane	20	21.56			108		75-123		
1,2-Dichloroethane	20	21.3			107		74-120		
1,1-Dichloroethene	20	18.99			95		69-122		
trans-1,2-Dichloroethene	20	19.82			99		80-125		
1,2-Dichloropropane	20	21			105		80-120		
cis-1,3-Dichloropropene	20	17.94			90		80-120		
trans-1,3-Dichloropropene	20	18.56			93		80-120		
Ethylbenzene	20	17.87			89		80-120		
Methylene Chloride	20	20.33			102		75-120		
1,1,2,2-Tetrachloroethane	20	19.54			98		80-120		
Tetrachloroethene	20	17.82			89		77-122		
Toluene	20	17.84			89		80-120		
1,1,1-Trichloroethane	20	19.08			95		72-120		
1,1,2-Trichloroethane	20	18.76			94		80-120		
Trichloroethene	20	20.78			104		80-120		
Vinyl Chloride	20	20.09			100		68-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 16314WAC625	Sample number(s): 8680209								

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/29/2016 15:08

Group Number: 1729282

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Acenaphthene	50	49.62	50	48.47	99	97	71-118	2	30
Acenaphthylene	50	46.93	50	46.47	94	93	70-121	1	30
Anthracene	50	48.21	50	47.85	96	96	80-114	1	30
Benzidine	250	103.83	250	106.72	42	43	21-107	3	30
Benzo(a)anthracene	50	50.6	50	49.11	101	98	76-117	3	30
Benzo(a)pyrene	50	36.67	50	36.5	73*	73*	76-112	0	30
Benzo(b)fluoranthene	50	37.25	50	37.82	74*	76*	80-120	2	30
Benzo(g,h,i)perylene	50	36.7	50	36.4	73*	73*	76-120	1	30
Benzo(k)fluoranthene	50	39.24	50	39.2	78	78	75-121	0	30
4-Bromophenyl-phenylether	50	48.76	50	48.82	98	98	75-118	0	30
Butylbenzylphthalate	50	51.97	50	50.38	104	101	80-125	3	30
Di-n-butylphthalate	50	49.5	50	48.94	99	98	77-116	1	30
4-Chloro-3-methylphenol	50	51.73	50	51.11	103	102	72-116	1	30
bis(2-Chloroethoxy)methane	50	51.77	50	50.13	104	100	67-122	3	30
bis(2-Chloroethyl)ether	50	49.32	50	46.66	99	93	74-111	6	30
bis(2-Chloroisopropyl)ether	50	49.03	50	47.41	98	95	74-116	3	30
2-Chloronaphthalene	50	59.22	50	60.12	118	120*	60-118	2	30
2-Chlorophenol	50	51.33	50	50.96	103	102	68-117	1	30
4-Chlorophenyl-phenylether	50	48.59	50	47.62	97	95	76-115	2	30
Chrysene	50	49.64	50	48.07	99	96	81-118	3	30
Dibenz(a,h)anthracene	50	37.95	50	37.06	76*	74*	77-119	2	30
1,2-Dichlorobenzene	50	40.43	50	37.84	81	76	32-111	7	30
1,3-Dichlorobenzene	50	37.15	50	35.88	74	72	24-107	3	30
1,4-Dichlorobenzene	50	38.73	50	35.76	77	72	26-108	8	30
3,3'-Dichlorobenzidine	50	38.52	50	38.24	77	76	10-103	1	30
2,4-Dichlorophenol	50	50.55	50	50.97	101	102	79-114	1	30
Diethylphthalate	50	48.75	50	48.26	97	97	39-114	1	30
2,4-Dimethylphenol	50	38.61	50	38.19	77	76	72-110	1	30
Dimethylphthalate	50	46.24	50	47.3	92	95	33-112	2	30
4,6-Dinitro-2-methylphenol	50	44.86	50	45.66	90	91	74-120	2	30
2,4-Dinitrophenol	100	96.95	100	96.33	97	96	50-128	1	30
2,4-Dinitrotoluene	50	50.29	50	50.29	101	101	85-117	0	30
2,6-Dinitrotoluene	50	50.41	50	49.86	101	100	80-115	1	30
1,2-Diphenylhydrazine	50	52.9	50	52.28	106	105	73-119	1	30
bis(2-Ethylhexyl)phthalate	50	51.14	50	50.12	102	100	77-118	2	30
Fluoranthene	50	45.41	50	45.61	91	91	77-111	0	30
Fluorene	50	49.4	50	48.74	99	97	80-116	1	30
Hexachlorobenzene	50	49.36	50	49.02	99	98	75-116	1	30
Hexachlorobutadiene	50	35.2	50	32.67	70	65	11-113	7	30
Hexachlorocyclopentadiene	100	23.41	100	17.7	23*	18*	24-128	28	30
Hexachloroethane	50	34.82	50	32.45	70	65	11-105	7	30
Indeno(1,2,3-cd)pyrene	50	36.08	50	36.61	72*	73*	76-115	1	30
Isophorone	50	47.67	50	47.59	95	95	78-120	0	30
Naphthalene	50	45.1	50	43.57	90	87	52-115	3	30
Nitrobenzene	50	48.09	50	47.83	96	96	73-113	1	30
2-Nitrophenol	50	49.98	50	48.81	100	98	83-109	2	30
4-Nitrophenol	50	28.05	50	26.69	56	53	10-83	5	30
N-Nitrosodimethylamine	50	27.04	50	25.25	54	50	28-81	7	30

*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/29/2016 15:08

Group Number: 1729282

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
N-Nitroso-di-n-propylamine	50	51.44	50	49.97	103	100	78-110	3	30
N-Nitrosodiphenylamine	50	49.81	50	49.26	100	99	77-116	1	30
Di-n-octylphthalate	50	40.91	50	41.33	82	83	79-125	1	30
Pentachlorophenol	50	40	50	37.69	80	75	57-116	6	30
Phenanthrene	50	48.63	50	48.43	97	97	78-112	0	30
Phenol	50	28.52	50	30.67	57	61	14-69	7	30
Pyrene	50	52.45	50	50.99	105	102	52-115	3	30
1,2,4-Trichlorobenzene	50	39.77	50	37.71	80	75	44-142	5	30
2,4,6-Trichlorophenol	50	50.05	50	50.17	100	100	83-120	0	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163130013A	Sample number(s): 8680209								
Aldrin	0.102	0.0866	0.102	0.0974	85	95	28-119	12	30
Alpha BHC	0.100	0.0944	0.100	0.104	94	104	47-132	10	30
Beta BHC	0.102	0.0913	0.102	0.0997	89	98	56-125	9	30
Gamma BHC - Lindane	0.100	0.0946	0.100	0.103	95	103	51-132	8	30
p,p-DDD	0.198	0.202	0.198	0.235	102	118	53-131	15	30
p,p-DDE	0.204	0.203	0.204	0.230	99	113	51-129	13	30
p,p-DDT	0.198	0.201	0.198	0.233	101	118	42-136	15	30
Delta BHC	0.102	0.0974	0.102	0.106	95	104	57-131	9	30
Dieldrin	0.198	0.186	0.198	0.208	94	105	54-126	11	30
Endosulfan I	0.100	0.0859	0.100	0.0957	86	96	51-118	11	30
Endosulfan II	0.203	0.176	0.203	0.197	87	97	54-124	11	30
Endosulfan Sulfate	0.201	0.185	0.201	0.206	92	103	41-133	11	30
Endrin	0.200	0.164	0.200	0.186	82	93	35-143	13	30
Endrin Aldehyde	0.207	0.185	0.207	0.198	89	95	40-135	6	30
Heptachlor	0.100	0.0898	0.100	0.0975	90	97	38-111	8	30
Heptachlor Epoxide	0.102	0.0927	0.102	0.104	91	102	56-132	11	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163130014A	Sample number(s): 8680209								
PCB-1016	5.04	3.59	5.04	4.49	71	89	60-117	22	30
PCB-1260	5.02	3.61	5.02	4.76	72	95	57-134	27	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163130003A	Sample number(s): 8680209-8680212								
DRO C10-C28	2650	1844.58			70		69-115		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 163131848006	Sample number(s): 8680209								
Arsenic	0.150	0.138			92		80-120		
Cadmium	0.0500	0.0482			96		80-120		
Chromium	0.200	0.198			99		80-120		
Copper	0.250	0.232			93		80-120		
Lead	0.150	0.149			99		80-120		
Molybdenum	2.00	1.97			98		80-120		
Nickel	0.500	0.487			97		80-120		
Silver	0.0500	0.0540			108		80-120		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/29/2016 15:08

Group Number: 1729282

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Zinc	0.500	0.471			94		80-120		
Batch number: 163135713007	Sample number(s): 8680209								
Mercury	0.00100	0.000949			95		80-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16322102101A	Sample number(s): 8680209								
Total Cyanide (water)	0.200	0.191			96		90-110		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16333807902A	Sample number(s): 8680209-8680210								
HEM (oil & grease)	40	37.7	40	37.8	94	95	78-114	0	11
Analysis Name	OPR Spike Added pg/l	OPR Conc pg/l	OPRD Spike Added pg/l	OPRD Conc pg/l	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 16309001	Sample number(s): 8680209								
2378-TCDD	200	193.48			97		67-158		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: M163111AA	Sample number(s): 8680209 UNSPK: P678246									
Acrolein	N.D.	150	133.17	150	139.26	89	93	60-120	4	30
Acrylonitrile	N.D.	100	90.68	100	88.03	91	88	61-120	3	30
Benzene	1.32	20	25.28	20	22.87	120	108	80-120	10	30
Bromodichloromethane	N.D.	20	22.25	20	21.49	111	107	77-120	3	30
Bromoform	N.D.	20	19.43	20	18.68	97	93	66-125	4	30
Bromomethane	N.D.	20	22.2	20	21.33	111	107	69-120	4	30
Carbon Tetrachloride	N.D.	20	22.53	20	20.42	113	102	72-128	10	30
Chlorobenzene	N.D.	20	20.02	20	19.32	100	97	80-120	4	30
Chloroethane	N.D.	20	23.23	20	22.71	116	114	65-120	2	30
2-Chloroethyl Vinyl Ether	N.D.	20	N.D.	20	N.D.	0*	0*	54-133	0	30
Chloroform	N.D.	20	22.03	20	20.21	110	101	80-120	9	30
Chloromethane	N.D.	20	21.41	20	20.48	107	102	64-120	4	30
Dibromochloromethane	N.D.	20	19.89	20	19.28	99	96	78-120	3	30
1,1-Dichloroethane	N.D.	20	23.92	20	21.99	120	110	75-123	8	30
1,2-Dichloroethane	N.D.	20	23.3	20	21.01	116	105	74-120	10	30
1,1-Dichloroethene	N.D.	20	21.84	20	20.82	109	104	69-122	5	30
trans-1,2-Dichloroethene	N.D.	20	22.04	20	21.27	110	106	80-125	4	30

*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: GES, Inc.
Reported: 11/29/2016 15:08

Group Number: 1729282

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
1,2-Dichloropropane	N.D.	20	21.95	20	21.08	110	105	80-120	4	30
cis-1,3-Dichloropropene	N.D.	20	17.93	20	17.48	90	87	80-120	3	30
trans-1,3-Dichloropropene	N.D.	20	18.84	20	18.4	94	92	80-120	2	30
Ethylbenzene	N.D.	20	19.57	20	18.95	98	95	80-120	3	30
Methylene Chloride	N.D.	20	21.16	20	20.15	106	101	75-120	5	30
1,1,2,2-Tetrachloroethane	N.D.	20	20.69	20	19.25	103	96	80-120	7	30
Tetrachloroethene	N.D.	20	19.87	20	19.09	99	95	77-122	4	30
Toluene	N.D.	20	19.5	20	18.69	97	93	80-120	4	30
1,1,1-Trichloroethane	N.D.	20	22.3	20	19.92	111	100	72-120	11	30
1,1,2-Trichloroethane	N.D.	20	19.79	20	18.74	99	94	80-120	5	30
Trichloroethene	N.D.	20	22.86	20	21.69	114	108	80-120	5	30
Vinyl Chloride	N.D.	20	22.52	20	22.14	113	111	68-120	2	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 163130003A	Sample number(s): 8680209-8680212 UNSPK: P678551									
DRO C10-C28	N.D.	2680	1730.78	2660	1740.33	65*	65*	69-115	1	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 163131848006	Sample number(s): 8680209 UNSPK: P679733									
Arsenic	0.0189	0.150	0.164	0.150	0.163	97	96	75-125	1	20
Cadmium	N.D.	0.0500	0.0474	0.0500	0.0467	95	93	75-125	2	20
Chromium	N.D.	0.200	0.198	0.200	0.198	99	99	75-125	0	20
Copper	N.D.	0.250	0.244	0.250	0.240	97	96	75-125	1	20
Lead	N.D.	0.150	0.150	0.150	0.151	100	101	75-125	1	20
Molybdenum	0.0107	2.00	2.04	2.00	2.01	101	100	75-125	1	20
Nickel	0.00595	0.500	0.474	0.500	0.470	94	93	75-125	1	20
Silver	N.D.	0.0500	0.0553	0.0500	0.0540	111	108	75-125	2	20
Zinc	N.D.	0.500	0.470	0.500	0.467	94	93	75-125	1	20
Batch number: 163135713007	Sample number(s): 8680209 UNSPK: P679734									
Mercury	N.D.	0.00100	0.000922	0.00100	0.000867	92	87	80-120	6	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16322102101A	Sample number(s): 8680209 UNSPK: P682255									
Total Cyanide (water)	N.D.	0.200	0.163			81*		90-110		
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16333807902A	Sample number(s): 8680209-8680210 UNSPK: 8680209									
HEM (oil & grease)	N.D.	41.2	35.05			85		78-114		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/29/2016 15:08

Group Number: 1729282

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 163131848006	Sample number(s): 8680209 BKG: P679733			
Arsenic	0.0189	0.0194	3 (1)	20
Cadmium	N.D.	N.D.	0 (1)	20
Chromium	N.D.	0.00187	200* (1)	20
Copper	N.D.	N.D.	0 (1)	20
Lead	N.D.	N.D.	0 (1)	20
Molybdenum	0.0107	0.00952	12 (1)	20
Nickel	0.00595	0.00582	2 (1)	20
Silver	N.D.	N.D.	0 (1)	20
Zinc	N.D.	N.D.	0 (1)	20
Batch number: 163135713007	Sample number(s): 8680209 BKG: P679734			
Mercury	N.D.	N.D.	0 (1)	20
	mg/l	mg/l		
Batch number: 16322102101A	Sample number(s): 8680209 BKG: P682255			
Total Cyanide (water)	N.D.	N.D.	0 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TTO VOCs 624
Batch number: M163111AA

	1,2-Dichloroethane-d4	Fluorobenzene	4-Bromofluorobenzene
8680209	101	97	86
Blank	104	98	84
LCS	100	103	90
MS	105	103	90
MSD	101	104	91
Limits:	78-118	88-107	80-118

Analysis Name: Method 625
Batch number: 16314WAC625

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol
8680209	87	85	79	36	53	78
Blank	91	81	90	46	63	96
LCS	93	90	101	55	70	94
LCSD	92	88	96	58	70	91
Limits:	60-119	62-116	55-124	10-75	10-105	11-154

*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 11/29/2016 15:08

Group Number: 1729282

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Pests (Charged with PCBs 608)
Batch number: 163130013A

	Tetrachloro-m-xylene	Decachlorobiphenyl
8680209	30	37
Blank	29	19*
LCS	61	49
LCSD	71	66
Limits:	29-129	32-149

Analysis Name: PCBs w/ OC Pests 608
Batch number: 163130014A

	Tetrachloro-m-xylene	Decachlorobiphenyl
8680209	75	91
Blank	89	43
LCS	75	23
LCSD	94	29
Limits:	33-137	10-148

Analysis Name: DRO micro-ext 8015B
Batch number: 163130003A

	Orthoterphenyl
8680209	103
8680210	101
8680211	110
8680212	271*
Blank	104
LCS	94
MS	99
MSD	99
Limits:	42-160

Analysis Name: Dioxins/Furans in Water - 1613
Batch number: 16309001

	13C12-2378-TCDD
8680209	61
Blank	68
OPR	57
Limits:	25-164

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



**Lancaster Laboratories
Environmental**

Acct. # 8390 Group # 1729282 Sample # 8680209-12

Environmental Analysis Request/Chain of Custody

[illegible]

Client: GES**Delivery and Receipt Information**

Delivery Method:	<u>ELLE Courier</u>	Arrival Timestamp:	<u>11/04/2016 15:46</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>2</u>
State/Province of Origin:	<u>VA</u>		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	Yes	VOA Vial Headspace \geq 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Cory Jeremiah (10469) at 19:26 on 11/04/2016***Samples Chilled Details***Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.*

<u>Cooler #</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	DT146	1.9	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...
- W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
440 Creamery Way, Suite 500
Exton PA 19341

Report Date: January 03, 2017

Project: NRG PRGSSubmittal Date: 12/08/2016
Group Number: 1742618
PO Number: 0402919-25-220
Release Number: ORG # 0404
State of Sample Origin: VAClient Sample DescriptionEffluent Grab Groundwater
Post OWS Grab Groundwater
P&T Influent Grab Groundwater
TPE Influent Grab Groundwater

Lancaster Labs

(LL) #

8736915
8736916
8736917
8736918

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MDAttn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,

Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8736915
LL Group # 1742618
Account # 08390

Project Name: NRG PRGS

Collected: 12/07/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/08/2016 16:48

Exton PA 19341

Reported: 01/03/2017 12:09

NRGEF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	EPA 624	ug/l	ug/l	
10371	Acrolein	107-02-8	N.D.	5	1
10371	Acrylonitrile	107-13-1	N.D.	0.5	1
10371	Benzene	71-43-2	N.D.	0.5	1
10371	Bromodichloromethane	75-27-4	N.D.	0.5	1
10371	Bromoform	75-25-2	N.D.	0.5	1
10371	Bromomethane	74-83-9	N.D.	0.5	1
10371	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10371	Chlorobenzene	108-90-7	N.D.	0.5	1
10371	Chloroethane	75-00-3	N.D.	0.5	1
10371	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	0.5	1
2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.					
10371	Chloroform	67-66-3	N.D.	0.5	1
10371	Chloromethane	74-87-3	N.D.	0.5	1
10371	Dibromochloromethane	124-48-1	N.D.	0.5	1
10371	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10371	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10371	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10371	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10371	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10371	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10371	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10371	Ethylbenzene	100-41-4	N.D.	0.5	1
10371	Methylene Chloride	75-09-2	N.D.	0.5	1
10371	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10371	Tetrachloroethene	127-18-4	2	0.5	1
10371	Toluene	108-88-3	N.D.	0.5	1
10371	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10371	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10371	Trichloroethene	79-01-6	0.9 J	0.5	1
10371	Vinyl Chloride	75-01-4	N.D.	0.5	1
GC/MS	Semivolatiles	EPA 625	ug/l	ug/l	
10334	Acenaphthene	83-32-9	N.D.	0.3	1
10334	Acenaphthylene	208-96-8	N.D.	0.3	1
10334	Anthracene	120-12-7	N.D.	0.2	1
10334	Benzidine	92-87-5	N.D.	19	1
10334	Benzo(a)anthracene	56-55-3	N.D.	0.2	1
10334	Benzo(a)pyrene	50-32-8	N.D.	0.3	1
10334	Benzo(b)fluoranthene	205-99-2	N.D.	0.3	1
10334	Benzo(g,h,i)perylene	191-24-2	N.D.	0.2	1
10334	Benzo(k)fluoranthene	207-08-9	N.D.	0.3	1
10334	4-Bromophenyl-phenylether	101-55-3	N.D.	0.3	1
10334	Butylbenzylphthalate	85-68-7	N.D.	0.8	1
10334	Di-n-butylphthalate	84-74-2	N.D.	0.5	1
10334	4-Chloro-3-methylphenol	59-50-7	N.D.	0.3	1
10334	bis(2-Chloroethoxy)methane	111-91-1	N.D.	0.5	1
10334	bis(2-Chloroethyl)ether	111-44-4	N.D.	0.4	1
10334	bis(2-Chloroisopropyl)ether	39638-32-9	N.D.	0.3	1

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8736915
LL Group # 1742618
Account # 08390

Project Name: NRG PRGS

Collected: 12/07/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/08/2016 16:48

Exton PA 19341

Reported: 01/03/2017 12:09

NRGEF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles EPA 625		ug/l	ug/l	
	Bis(2-chloroisopropyl) ether CAS #39638-32-9 and 2,2'-Oxybis(1-chloropropane) CAS #108-60-1 cannot be separated chromatographically. The reported result represents the combined total of both compounds.				
10334	2-Chloronaphthalene	91-58-7	N.D.	0.2	1
10334	2-Chlorophenol	95-57-8	N.D.	0.3	1
10334	4-Chlorophenyl-phenylether	7005-72-3	N.D.	0.3	1
10334	Chrysene	218-01-9	N.D.	0.2	1
10334	Dibenz(a,h)anthracene	53-70-3	N.D.	0.4	1
10334	1,2-Dichlorobenzene	95-50-1	N.D.	0.3	1
10334	1,3-Dichlorobenzene	541-73-1	N.D.	0.3	1
10334	1,4-Dichlorobenzene	106-46-7	N.D.	0.3	1
10334	3,3'-Dichlorobenzidine	91-94-1	N.D.	0.8	1
10334	2,4-Dichlorophenol	120-83-2	N.D.	0.3	1
10334	Diethylphthalate	84-66-2	N.D.	0.3	1
10334	2,4-Dimethylphenol	105-67-9	N.D.	0.3	1
10334	Dimethylphthalate	131-11-3	N.D.	1	1
10334	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	4	1
10334	2,4-Dinitrophenol	51-28-5	N.D.	10	1
10334	2,4-Dinitrotoluene	121-14-2	N.D.	0.4	1
10334	2,6-Dinitrotoluene	606-20-2	N.D.	0.3	1
10334	1,2-Diphenylhydrazine	122-66-7	N.D.	0.2	1
10334	bis(2-Ethylhexyl)phthalate	117-81-7	2 J	1	1
10334	Fluoranthene	206-44-0	N.D.	0.3	1
10334	Fluorene	86-73-7	N.D.	0.3	1
10334	Hexachlorobenzene	118-74-1	N.D.	1	1
10334	Hexachlorobutadiene	87-68-3	N.D.	0.8	1
10334	Hexachlorocyclopentadiene	77-47-4	N.D.	2	1
10334	Hexachloroethane	67-72-1	N.D.	0.4	1
10334	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.3	1
10334	Isophorone	78-59-1	N.D.	0.3	1
10334	Naphthalene	91-20-3	N.D.	0.2	1
10334	Nitrobenzene	98-95-3	N.D.	0.5	1
10334	2-Nitrophenol	88-75-5	N.D.	0.4	1
10334	4-Nitrophenol	100-02-7	N.D.	5	1
10334	N-Nitrosodimethylamine	62-75-9	N.D.	2	1
10334	N-Nitroso-di-n-propylamine	621-64-7	N.D.	0.4	1
10334	N-Nitrosodiphenylamine	86-30-6	N.D.	0.3	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
10334	Di-n-octylphthalate	117-84-0	N.D.	0.5	1
10334	Pentachlorophenol	87-86-5	N.D.	3	1
10334	Phenanthrene	85-01-8	N.D.	0.2	1
10334	Phenol	108-95-2	N.D.	0.4	1
10334	Pyrene	129-00-0	0.5 J	0.2	1
10334	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.3	1
10334	2,4,6-Trichlorophenol	88-06-2	N.D.	0.7	1

Pesticides/PCBs EPA 608

ug/l

ug/l

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8736915
LL Group # 1742618
Account # 08390

Project Name: NRG PRGS

Collected: 12/07/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/08/2016 16:48

Exton PA 19341

Reported: 01/03/2017 12:09

NRGEF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Pesticides/PCBs		EPA 608	ug/l	ug/l	
07572	Aldrin	309-00-2	N.D.	0.0016	1
07572	Alpha BHC	319-84-6	0.0034 J	0.0026	1
07572	Beta BHC	319-85-7	0.0046 J	0.0040	1
07572	Gamma BHC - Lindane	58-89-9	0.0050 J	0.0020	1
07572	Chlordane	57-74-9	N.D.	0.065	1
07572	p,p-DDD	72-54-8	N.D.	0.0043	1
07572	p,p-DDE	72-55-9	N.D.	0.0040	1
07572	p,p-DDT	50-29-3	N.D.	0.0042	1
07572	Delta BHC	319-86-8	N.D.	0.0031	1
07572	Dieldrin	60-57-1	N.D.	0.0041	1
07572	Endosulfan I	959-98-8	N.D.	0.0041	1
07572	Endosulfan II	33213-65-9	N.D.	0.0089	1
07572	Endosulfan Sulfate	1031-07-8	N.D.	0.0040	1
07572	Endrin	72-20-8	N.D.	0.0057	1
07572	Endrin Aldehyde	7421-93-4	N.D.	0.016	1
07572	Heptachlor	76-44-8	0.0034 J	0.0021	1
07572	Heptachlor Epoxide	1024-57-3	N.D.	0.0021	1
06030	PCB-1016	12674-11-2	N.D.	0.081	1
06030	PCB-1221	11104-28-2	N.D.	0.081	1
06030	PCB-1232	11141-16-5	N.D.	0.081	1
06030	PCB-1242	53469-21-9	N.D.	0.081	1
06030	PCB-1248	12672-29-6	N.D.	0.081	1
06030	PCB-1254	11097-69-1	N.D.	0.081	1
06030	PCB-1260	11096-82-5	N.D.	0.12	1
06030	Total PCBs	1336-36-3	N.D.	0.081	1
07572	Toxaphene	8001-35-2	N.D.	0.24	1

The recovery for the method blank surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

GC Petroleum		SW-846 8015B	ug/l	ug/l	
Hydrocarbons					
12858	DRO C10-C28	n.a.	700	45	1
Metals		SW-846 6010B	mg/l	mg/l	
07035	Arsenic	7440-38-2	N.D.	0.0097	1
07049	Cadmium	7440-43-9	N.D.	0.00049	1
07051	Chromium	7440-47-3	N.D.	0.0018	1
07053	Copper	7440-50-8	0.0155	0.0041	1
07055	Lead	7439-92-1	N.D.	0.0062	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	1
07061	Nickel	7440-02-0	0.0158	0.0028	1
07066	Silver	7440-22-4	N.D.	0.0019	1
07072	Zinc	7440-66-6	0.0239	0.0054	1
		SW-846 7470A	mg/l	mg/l	

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8736915
LL Group # 1742618
Account # 08390

Project Name: NRG PRGS

Collected: 12/07/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/08/2016 16:48

Exton PA 19341

Reported: 01/03/2017 12:09

NRGEF

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals					
00259	Mercury	SW-846 7470A 7439-97-6	mg/l N.D.	mg/l 0.000050	1
Wet Chemistry					
00237	Total Cyanide (water)	EPA 335.4 57-12-5	mg/l N.D.	mg/l 0.0050	1
08079	HEM (oil & grease)	EPA 1664A n.a.	mg/l N.D.	mg/l 1.4	1

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8736915
LL Group # 1742618
Account # 08390

Project Name: NRG PRGS

Collected: 12/07/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/08/2016 16:48

Exton PA 19341

Reported: 01/03/2017 12:09

NRGEF

CAT No.	Analysis Name	CAS Number	Result	EDL	Dilution Factor
Dioxins/Furans					
	EPA 1613B October 1994		pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.407 JBQ	0.120	1
Labeled Compounds					
	%Rec	Windows			
13C12-2378-TCDD	57	25 - 164			

Dioxins/Furans Data Qualifiers:

<i>B</i>	<i>Detected in Method Blank</i>
<i>U</i>	<i>Undetected</i>
<i>J</i>	<i>Estimated concentration between Estimated Detection Limit and Minimum Reporting Level</i>
<i>E</i>	<i>Exceeds calibration range</i>
<i>C</i>	<i>Confirmed quantitation on secondary GC column</i>
<i>Q</i>	<i>EMPC - Estimated Maximum Possible Concentration</i>
<i>F</i>	<i>Interference is present</i>
<i>S</i>	<i>Saturation of detection signal</i>

Sample Description: Effluent Grab Groundwater
NRG PRGS

LL Sample # WW 8736915
LL Group # 1742618
Account # 08390

Project Name: NRG PRGS

Collected: 12/07/2016 11:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/08/2016 16:48

Exton PA 19341

Reported: 01/03/2017 12:09

NRGEF

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10371	TTO VOCs 624	EPA 624	1	M163451AA	12/10/2016 11:41	Joshua S Hess	1
10334	Method 625	EPA 625	1	16349WAA625	12/15/2016 18:08	Linda M Hartenstine	1
08108	625 Water Extraction	EPA 625	1	16349WAA625	12/14/2016 17:00	Ryan J Dowdy	1
06030	PCBs w/ OC Pests 608	EPA 608	1	163490007A	12/15/2016 17:26	Jessica L Miller	1
07572	Pests (Charged with PCBs 608)	EPA 608	1	163490005A	12/15/2016 20:24	Andrea L Jones	1
11960	Method 608 PCB Water Ext.	EPA 608	1	163490007A	12/14/2016 23:15	Nicholas W Shroyer	1
10241	Method 608 Water Extraction	EPA 608	1	163490005A	12/14/2016 23:15	Nicholas W Shroyer	1
12858	DRO micro-ext 8015B	SW-846 8015B	1	163480037A	12/15/2016 14:55	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163480037A	12/14/2016 09:15	Maria Davenport	1
10915	Dioxins/Furans in Water - 1613	EPA 1613B October 1994	1	16345001	12/15/2016 19:01	Michael A Ziegler	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B October 1994	1	16345001	12/12/2016 09:00	Alex L Barton	1
07035	Arsenic	SW-846 6010B	1	163481848003	12/13/2016 23:39	Elaine F Stoltzfus	1
07049	Cadmium	SW-846 6010B	1	163481848003	12/13/2016 23:39	Elaine F Stoltzfus	1
07051	Chromium	SW-846 6010B	1	163481848003	12/13/2016 23:39	Elaine F Stoltzfus	1
07053	Copper	SW-846 6010B	1	163481848003	12/13/2016 23:39	Elaine F Stoltzfus	1
07055	Lead	SW-846 6010B	1	163481848003	12/13/2016 23:39	Elaine F Stoltzfus	1
07060	Molybdenum	SW-846 6010B	1	163481848003	12/13/2016 23:39	Elaine F Stoltzfus	1
07061	Nickel	SW-846 6010B	1	163481848003	12/13/2016 23:39	Elaine F Stoltzfus	1
07066	Silver	SW-846 6010B	1	163481848003	12/13/2016 23:39	Elaine F Stoltzfus	1
07072	Zinc	SW-846 6010B	1	163481848003	12/13/2016 23:39	Elaine F Stoltzfus	1
00259	Mercury	SW-846 7470A	1	163495713003	12/15/2016 11:10	Damary Valentin	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	163481848003	12/13/2016 16:30	JoElla L Rice	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	163495713003	12/15/2016 08:00	Lisa J Cooke	1
00237	Total Cyanide (water)	EPA 335.4	1	16354102101A	12/19/2016 14:51	Dein K Bernot	1
00492	Cyanide Water Distillation	EPA 335.4	1	16354102101A	12/19/2016 11:00	Dein K Bernot	1
08079	HEM (oil & grease)	EPA 1664A	1	16358807901A	12/23/2016 06:44	Yolunder Y Bunch	1

EDL = Estimated Detection Limit

Sample Description: Post OWS Grab Groundwater
NRG PRGS

LL Sample # WW 8736916
LL Group # 1742618
Account # 08390

Project Name: NRG PRGS

Collected: 12/07/2016 11:30 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/08/2016 16:48

Exton PA 19341

Reported: 01/03/2017 12:09

NRGPO

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
	GC Petroleum Hydrocarbons	SW-846 8015B	ug/l	ug/l	
12858	DRO C10-C28	n.a.	610	45	1
	Wet Chemistry	EPA 1664A	mg/l	mg/l	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163480037A	12/15/2016 15:18	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163480037A	12/14/2016 09:15	Maria Davenport	1
08079	HEM (oil & grease)	EPA 1664A	1	16358807901A	12/23/2016 06:44	Yolunder Y Bunch	1

Sample Description: P&T Influent Grab Groundwater
NRG PRGS

LL Sample # WW 8736917
LL Group # 1742618
Account # 08390

Project Name: NRG PRGS

Collected: 12/07/2016 11:45 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/08/2016 16:48

Exton PA 19341

Reported: 01/03/2017 12:09

NRGPT

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858 DRO C10-C28		n.a.	420	45	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163480037A	12/15/2016 15:41	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163480037A	12/14/2016 09:15	Maria Davenport	1

Sample Description: TPE Influent Grab Groundwater
NRG PRGS

LL Sample # WW 8736918
LL Group # 1742618
Account # 08390

Project Name: NRG PRGS

Collected: 12/07/2016 12:00 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/08/2016 16:48

Exton PA 19341

Reported: 01/03/2017 12:09

NRGTP

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	SW-846 8015B		ug/l	ug/l	
12858 DRO C10-C28		n.a.	81,000	45	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12858	DRO micro-ext 8015B	SW-846 8015B	1	163480037A	12/15/2016 16:05	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	163480037A	12/14/2016 09:15	Maria Davenport	1

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/03/2017 12:09

Group Number: 1742618

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: M163451AA	Sample number(s): 8736915	
Acrolein	N.D.	5
Acrylonitrile	N.D.	0.5
Benzene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
Bromoform	N.D.	0.5
Bromomethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Chlorobenzene	N.D.	0.5
Chloroethane	N.D.	0.5
2-Chloroethyl Vinyl Ether	N.D.	0.5
Chloroform	N.D.	0.5
Chloromethane	N.D.	0.5
Dibromochloromethane	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
trans-1,2-Dichloroethene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
cis-1,3-Dichloropropene	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Methylene Chloride	N.D.	0.5
1,1,2,2-Tetrachloroethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Toluene	N.D.	0.5
1,1,1-Trichloroethane	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
Trichloroethene	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Batch number: 16349WAA625	Sample number(s): 8736915	
Acenaphthene	N.D.	0.3
Acenaphthylene	N.D.	0.3
Anthracene	N.D.	0.2
Benzidine	N.D.	20
Benzo(a)anthracene	N.D.	0.2
Benzo(a)pyrene	N.D.	0.3
Benzo(b)fluoranthene	N.D.	0.3
Benzo(g,h,i)perylene	N.D.	0.2
Benzo(k)fluoranthene	N.D.	0.3
4-Bromophenyl-phenylether	N.D.	0.3

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/03/2017 12:09

Group Number: 1742618

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Butylbenzylphthalate	N.D.	0.8
Di-n-butylphthalate	N.D.	0.5
4-Chloro-3-methylphenol	N.D.	0.3
bis(2-Chloroethoxy)methane	N.D.	0.5
bis(2-Chloroethyl)ether	N.D.	0.4
bis(2-Chloroisopropyl)ether	N.D.	0.3
2-Chloronaphthalene	N.D.	0.2
2-Chlorophenol	N.D.	0.3
4-Chlorophenyl-phenylether	N.D.	0.3
Chrysene	N.D.	0.2
Dibenz(a,h)anthracene	N.D.	0.4
1,2-Dichlorobenzene	N.D.	0.3
1,3-Dichlorobenzene	N.D.	0.3
1,4-Dichlorobenzene	N.D.	0.3
3,3'-Dichlorobenzidine	N.D.	0.8
2,4-Dichlorophenol	N.D.	0.3
Diethylphthalate	N.D.	0.3
2,4-Dimethylphenol	N.D.	0.3
Dimethylphthalate	N.D.	1
4,6-Dinitro-2-methylphenol	N.D.	4
2,4-Dinitrophenol	N.D.	10
2,4-Dinitrotoluene	N.D.	0.4
2,6-Dinitrotoluene	N.D.	0.3
1,2-Diphenylhydrazine	N.D.	0.2
bis(2-Ethylhexyl)phthalate	N.D.	1
Fluoranthene	N.D.	0.3
Fluorene	N.D.	0.3
Hexachlorobenzene	N.D.	1
Hexachlorobutadiene	N.D.	0.8
Hexachlorocyclopentadiene	N.D.	2
Hexachloroethane	N.D.	0.4
Indeno(1,2,3-cd)pyrene	N.D.	0.3
Isophorone	N.D.	0.3
Naphthalene	N.D.	0.2
Nitrobenzene	N.D.	0.5
2-Nitrophenol	N.D.	0.4
4-Nitrophenol	N.D.	5
N-Nitrosodimethylamine	N.D.	2
N-Nitroso-di-n-propylamine	N.D.	0.4
N-Nitrosodiphenylamine	N.D.	0.3
Di-n-octylphthalate	N.D.	0.5
Pentachlorophenol	N.D.	3
Phenanthrene	N.D.	0.2
Phenol	N.D.	0.4
Pyrene	N.D.	0.2
1,2,4-Trichlorobenzene	N.D.	0.3
2,4,6-Trichlorophenol	N.D.	0.7
Batch number: 163490005A	Sample number(s): 8736915	

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/03/2017 12:09

Group Number: 1742618

Method Blank (continued)

Analysis Name	Result	MDL
	ug/l	ug/l
Aldrin	N.D.	0.0016
Alpha BHC	N.D.	0.0026
Beta BHC	N.D.	0.0039
Gamma BHC - Lindane	N.D.	0.0020
Chlordane	N.D.	0.064
p,p-DDD	N.D.	0.0042
p,p-DDE	N.D.	0.0040
p,p-DDT	N.D.	0.0042
Delta BHC	N.D.	0.0030
Dieldrin	N.D.	0.0041
Endosulfan I	N.D.	0.0041
Endosulfan II	N.D.	0.0088
Endosulfan Sulfate	N.D.	0.0040
Endrin	N.D.	0.0056
Endrin Aldehyde	N.D.	0.016
Heptachlor	N.D.	0.0021
Heptachlor Epoxide	N.D.	0.0021
Toxaphene	N.D.	0.24
Batch number: 163490007A	Sample number(s): 8736915	
PCB-1016	N.D.	0.080
PCB-1221	N.D.	0.080
PCB-1232	N.D.	0.080
PCB-1242	N.D.	0.080
PCB-1248	N.D.	0.080
PCB-1254	N.D.	0.080
PCB-1260	N.D.	0.12
Total PCBs	N.D.	0.080
Batch number: 163480037A	Sample number(s): 8736915-8736918	
DRO C10-C28	N.D.	45
	mg/l	mg/l
Batch number: 163481848003	Sample number(s): 8736915	
Arsenic	N.D.	0.0097
Cadmium	N.D.	0.00049
Chromium	N.D.	0.0018
Copper	N.D.	0.0041
Lead	N.D.	0.0062
Molybdenum	N.D.	0.0017
Nickel	N.D.	0.0028
Silver	N.D.	0.0019
Zinc	N.D.	0.0054
Batch number: 163495713003	Sample number(s): 8736915	
Mercury	N.D.	0.000050
Batch number: 16354102101A	Sample number(s): 8736915	
Total Cyanide (water)	N.D.	0.0050
Batch number: 16358807901A	Sample number(s): 8736915-8736916	

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/03/2017 12:09

Group Number: 1742618

Method Blank (continued)

Analysis Name	Result	MDL
	mg/l	mg/l
HEM (oil & grease)	N.D.	1.4
Analysis Name	Result	EDL
	pg/l	pg/l
Batch number: 16345001	Sample number(s): 8736915	
2378-TCDD	0.278 J	0.248

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/l	ug/l					
Batch number: M163451AA	Sample number(s): 8736915								
Acrolein	150	127.94			85		60-120		
Acrylonitrile	100	81.84			82		61-120		
Benzene	20	19.87			99		80-120		
Bromodichloromethane	20	18.68			93		77-120		
Bromoform	20	19.87			99		66-125		
Bromomethane	20	19.26			96		69-120		
Carbon Tetrachloride	20	19.74			99		72-128		
Chlorobenzene	20	20.04			100		80-120		
Chloroethane	20	18.68			93		65-120		
2-Chloroethyl Vinyl Ether	20	16.66			83		54-133		
Chloroform	20	18.59			93		80-120		
Chloromethane	20	16.48			82		64-120		
Dibromochloromethane	20	19.14			96		78-120		
1,1-Dichloroethane	20	17.6			88		75-123		
1,2-Dichloroethane	20	19.36			97		74-120		
1,1-Dichloroethene	20	17.42			87		69-122		
trans-1,2-Dichloroethene	20	18.21			91		80-125		
1,2-Dichloropropane	20	19.82			99		80-120		
cis-1,3-Dichloropropene	20	18.64			93		80-120		
trans-1,3-Dichloropropene	20	19.02			95		80-120		
Ethylbenzene	20	19.5			97		80-120		
Methylene Chloride	20	17.62			88		75-120		
1,1,2,2-Tetrachloroethane	20	19.5			97		80-120		
Tetrachloroethene	20	20.71			104		77-122		
Toluene	20	19.43			97		80-120		
1,1,1-Trichloroethane	20	17.92			90		72-120		
1,1,2-Trichloroethane	20	19.13			96		80-120		
Trichloroethene	20	19.93			100		80-120		
Vinyl Chloride	20	18.27			91		68-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 16349WAA625	Sample number(s): 8736915								

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/03/2017 12:09

Group Number: 1742618

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Acenaphthene	50	50.32	50	50.81	101	102	71-118	1	30
Acenaphthylene	50	45.89	50	46.99	92	94	70-121	2	30
Anthracene	50	48.98	50	49.59	98	99	80-114	1	30
Benzidine	250	137.62	250	104.64	55	42	21-107	27	30
Benzo(a)anthracene	50	49.08	50	50.09	98	100	76-117	2	30
Benzo(a)pyrene	50	48.14	50	49.88	96	100	76-112	4	30
Benzo(b)fluoranthene	50	48.95	50	49.53	98	99	80-120	1	30
Benzo(g,h,i)perylene	50	49.05	50	51.59	98	103	76-120	5	30
Benzo(k)fluoranthene	50	49.81	50	52.04	100	104	75-121	4	30
4-Bromophenyl-phenylether	50	50.03	50	50.54	100	101	75-118	1	30
Butylbenzylphthalate	50	50.99	50	53.13	102	106	80-125	4	30
Di-n-butylphthalate	50	50.58	50	51.33	101	103	77-116	1	30
4-Chloro-3-methylphenol	50	48.91	50	49.7	98	99	72-116	2	30
bis(2-Chloroethoxy)methane	50	50.28	50	50.39	101	101	67-122	0	30
bis(2-Chloroethyl)ether	50	48.45	50	48.63	97	97	74-111	0	30
bis(2-Chloroisopropyl)ether	50	48.69	50	49.1	97	98	74-116	1	30
2-Chloronaphthalene	50	57.91	50	58.73	116	117	60-118	1	30
2-Chlorophenol	50	49.52	50	50.35	99	101	68-117	2	30
4-Chlorophenyl-phenylether	50	48.24	50	48.38	96	97	76-115	0	30
Chrysene	50	52.12	50	52.05	104	104	81-118	0	30
Dibenz(a,h)anthracene	50	51.23	50	52.93	102	106	77-119	3	30
1,2-Dichlorobenzene	50	39.89	50	42.1	80	84	32-111	5	30
1,3-Dichlorobenzene	50	37.22	50	40.3	74	81	24-107	8	30
1,4-Dichlorobenzene	50	38.58	50	41.12	77	82	26-108	6	30
3,3'-Dichlorobenzidine	50	40.24	50	39.79	80	80	10-103	1	30
2,4-Dichlorophenol	50	52.17	50	50.86	104	102	79-114	3	30
Diethylphthalate	50	47.95	50	48.44	96	97	39-114	1	30
2,4-Dimethylphenol	50	37.49	50	39.38	75	79	72-110	5	30
Dimethylphthalate	50	49.18	50	49.18	98	98	33-112	0	30
4,6-Dinitro-2-methylphenol	50	46.39	50	49.96	93	100	74-120	7	30
2,4-Dinitrophenol	100	109.45	100	119.76	109	120	50-128	9	30
2,4-Dinitrotoluene	50	48.79	50	49.05	98	98	85-117	1	30
2,6-Dinitrotoluene	50	50.92	50	49.54	102	99	80-115	3	30
1,2-Diphenylhydrazine	50	53.09	50	53.85	106	108	73-119	1	30
bis(2-Ethylhexyl)phthalate	50	50.78	50	52.21	102	104	77-118	3	30
Fluoranthene	50	47.8	50	47.77	96	96	77-111	0	30
Fluorene	50	48.72	50	49.38	97	99	80-116	1	30
Hexachlorobenzene	50	49.05	50	49.63	98	99	75-116	1	30
Hexachlorobutadiene	50	35.7	50	38.89	71	78	11-113	9	30
Hexachlorocyclopentadiene	100	32.72	100	29.85	33	30	24-128	9	30
Hexachloroethane	50	32.31	50	36.3	65	73	11-105	12	30
Indeno(1,2,3-cd)pyrene	50	50.33	50	52.73	101	105	76-115	5	30
Isophorone	50	46.18	50	46.68	92	93	78-120	1	30
Naphthalene	50	45.81	50	45.94	92	92	52-115	0	30
Nitrobenzene	50	49.27	50	49.45	99	99	73-113	0	30
2-Nitrophenol	50	51.16	50	51.37	102	103	83-109	0	30
4-Nitrophenol	50	26.25	50	27.14	53	54	10-83	3	30
N-Nitrosodimethylamine	50	24.07	50	25.95	48	52	28-81	8	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/03/2017 12:09

Group Number: 1742618

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
N-Nitroso-di-n-propylamine	50	47.91	50	48.44	96	97	78-110	1	30
N-Nitrosodiphenylamine	50	49.36	50	50.69	99	101	77-116	3	30
Di-n-octylphthalate	50	50.1	50	53.82	100	108	79-125	7	30
Pentachlorophenol	50	67.23	50	70.78	134*	142*	57-116	5	30
Phenanthrene	50	48.04	50	49.24	96	98	78-112	2	30
Phenol	50	27.32	50	27.1	55	54	14-69	1	30
Pyrene	50	49.5	50	50.18	99	100	52-115	1	30
1,2,4-Trichlorobenzene	50	41.15	50	42.91	82	86	44-142	4	30
2,4,6-Trichlorophenol	50	52.62	50	53.31	105	107	83-120	1	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163490005A	Sample number(s): 8736915								
Aldrin	0.102	0.0840	0.102	0.0688	82	67	28-119	20	30
Alpha BHC	0.100	0.0890	0.100	0.0882	89	88	47-132	1	30
Beta BHC	0.102	0.0922	0.102	0.0927	90	91	56-125	1	30
Gamma BHC - Lindane	0.100	0.0888	0.100	0.0886	89	89	51-132	0	30
p,p-DDD	0.198	0.192	0.198	0.194	97	98	53-131	1	30
p,p-DDE	0.204	0.185	0.204	0.181	91	89	51-129	2	30
p,p-DDT	0.198	0.165	0.198	0.169	83	86	42-136	3	30
Delta BHC	0.102	0.0906	0.102	0.0930	89	91	57-131	3	30
Dieldrin	0.198	0.177	0.198	0.177	90	89	54-126	0	30
Endosulfan I	0.100	0.0856	0.100	0.0858	86	86	51-118	0	30
Endosulfan II	0.203	0.172	0.203	0.173	85	85	54-124	1	30
Endosulfan Sulfate	0.201	0.166	0.201	0.164	83	82	41-133	1	30
Endrin	0.200	0.184	0.200	0.186	92	93	35-143	1	30
Endrin Aldehyde	0.207	0.167	0.207	0.165	81	80	40-135	1	30
Heptachlor	0.100	0.0857	0.100	0.0790	86	79	38-111	8	30
Heptachlor Epoxide	0.102	0.0912	0.102	0.0899	89	88	56-132	1	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163490007A	Sample number(s): 8736915								
PCB-1016	5.04	4.60	5.04	4.68	91	93	60-117	2	30
PCB-1260	5.02	4.32	5.02	4.28	86	85	57-134	1	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 163480037A	Sample number(s): 8736915-8736918								
DRO C10-C28	2660	2184.53	2670	2074.06	82	78	69-115	5	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 163481848003	Sample number(s): 8736915								
Arsenic	0.150	0.151			101		80-120		
Cadmium	0.0500	0.0515			103		80-120		
Chromium	0.200	0.197			99		80-120		
Copper	0.250	0.254			102		80-120		
Lead	0.150	0.147			98		80-120		
Molybdenum	2.00	2.01			100		80-120		
Nickel	0.500	0.515			103		80-120		
Silver	0.0500	0.0541			108		80-120		

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/03/2017 12:09

Group Number: 1742618

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Zinc	0.500	0.496			99		80-120		
Batch number: 163495713003	Sample number(s): 8736915								
Mercury	0.00100	0.000875			88		80-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16354102101A	Sample number(s): 8736915								
Total Cyanide (water)	0.200	0.197			98		90-110		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 16358807901A	Sample number(s): 8736915-8736916								
HEM (oil & grease)	40	31.1	40	31.3	78	78	78-114	1	11
Analysis Name	OPR Spike Added pg/l	OPR Conc pg/l	OPRD Spike Added pg/l	OPRD Conc pg/l	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 16345001	Sample number(s): 8736915								
2378-TCDD	200	165.34			83		67-158		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: M163451AA	Sample number(s): 8736915 UNSPK: P735467									
Acrolein	N.D.	150	131.25	150	126.39	88	84	60-120	4	30
Acrylonitrile	N.D.	100	81.08	100	80.33	81	80	61-120	1	30
Benzene	N.D.	20	21.32	20	20.6	107	103	80-120	3	30
Bromodichloromethane	N.D.	20	19.63	20	18.98	98	95	77-120	3	30
Bromoform	N.D.	20	19.6	20	19.38	98	97	66-125	1	30
Bromomethane	N.D.	20	19.85	20	19.89	99	99	69-120	0	30
Carbon Tetrachloride	N.D.	20	20.88	20	20.53	104	103	72-128	2	30
Chlorobenzene	N.D.	20	20.43	20	20.61	102	103	80-120	1	30
Chloroethane	N.D.	20	19.84	20	19.43	99	97	65-120	2	30
2-Chloroethyl Vinyl Ether	N.D.	20	1.99	20	N.D.	10*	0*	54-133	200*	30
Chloroform	N.D.	20	20.03	20	19.69	100	98	80-120	2	30
Chloromethane	N.D.	20	16.88	20	17.01	84	85	64-120	1	30
Dibromochloromethane	N.D.	20	19.12	20	19.33	96	97	78-120	1	30
1,1-Dichloroethane	N.D.	20	18.79	20	18.38	94	92	75-123	2	30
1,2-Dichloroethane	N.D.	20	19.88	20	19.64	99	98	74-120	1	30
1,1-Dichloroethene	N.D.	20	19.35	20	19.08	97	95	69-122	1	30
trans-1,2-Dichloroethene	N.D.	20	19.7	20	19.53	98	98	80-125	1	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/03/2017 12:09

Group Number: 1742618

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
1,2-Dichloropropane	N.D.	20	20.51	20	20	103	100	80-120	3	30
cis-1,3-Dichloropropene	N.D.	20	18.37	20	18.68	92	93	80-120	2	30
trans-1,3-Dichloropropene	N.D.	20	19.02	20	18.99	95	95	80-120	0	30
Ethylbenzene	N.D.	20	20.38	20	20.43	102	102	80-120	0	30
Methylene Chloride	N.D.	20	18.48	20	18.27	92	91	75-120	1	30
1,1,2,2-Tetrachloroethane	N.D.	20	19.71	20	19.47	99	97	80-120	1	30
Tetrachloroethene	N.D.	20	21.39	20	22.07	107	110	77-122	3	30
Toluene	N.D.	20	20.23	20	20.35	101	102	80-120	1	30
1,1,1-Trichloroethane	N.D.	20	19.62	20	19.23	98	96	72-120	2	30
1,1,2-Trichloroethane	N.D.	20	19.34	20	19.37	97	97	80-120	0	30
Trichloroethene	N.D.	20	21.01	20	20.63	105	103	80-120	2	30
Vinyl Chloride	N.D.	20	19.13	20	19.34	96	97	68-120	1	30
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 163481848003	Sample number(s): 8736915 UNSPK: P739295									
Arsenic	N.D.	0.150	0.168	0.150	0.169	112	113	75-125	1	20
Cadmium	N.D.	0.0500	0.0502	0.0500	0.0505	100	101	75-125	1	20
Chromium	N.D.	0.200	0.200	0.200	0.200	100	100	75-125	0	20
Copper	N.D.	0.250	0.261	0.250	0.260	104	104	75-125	0	20
Lead	N.D.	0.150	0.145	0.150	0.146	97	97	75-125	1	20
Molybdenum	0.00261	2.00	2.07	2.00	2.09	103	105	75-125	1	20
Nickel	0.00739	0.500	0.501	0.500	0.502	99	99	75-125	0	20
Silver	N.D.	0.0500	0.0552	0.0500	0.0555	110	111	75-125	1	20
Zinc	N.D.	0.500	0.497	0.500	0.501	99	100	75-125	1	20
Batch number: 163495713003	Sample number(s): 8736915 UNSPK: P737754									
Mercury	0.00376	0.00100	0.00420	0.00100	0.00430	44*	55*	80-120	3	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16354102101A	Sample number(s): 8736915 UNSPK: P738541									
Total Cyanide (water)	N.D.	0.200	0.198			99		90-110		
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 16358807901A	Sample number(s): 8736915-8736916 UNSPK: P735006									
HEM (oil & grease)	N.D.	43.5	2.28			5*		78-114		

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
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*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/03/2017 12:09

Group Number: 1742618

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 163481848003	Sample number(s): 8736915 BKG: P739295			
Arsenic	N.D.	N.D.	0 (1)	20
Cadmium	N.D.	N.D.	0 (1)	20
Chromium	N.D.	N.D.	0 (1)	20
Copper	N.D.	N.D.	0 (1)	20
Lead	N.D.	N.D.	0 (1)	20
Molybdenum	0.00261	0.00204	25* (1)	20
Nickel	0.00739	0.00673	9 (1)	20
Silver	N.D.	N.D.	0 (1)	20
Zinc	N.D.	N.D.	0 (1)	20
Batch number: 163495713003	Sample number(s): 8736915 BKG: P737754			
Mercury	0.00376	0.00368	2	20
	mg/l	mg/l		
Batch number: 16354102101A	Sample number(s): 8736915 BKG: P738541			
Total Cyanide (water)	N.D.	N.D.	0 (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TTO VOCs 624
Batch number: M163451AA

	1,2-Dichloroethane-d4	Fluorobenzene	4-Bromofluorobenzene
8736915	102	99	97
Blank	100	100	96
LCS	102	101	97
MS	97	101	95
MSD	102	101	95
Limits:	78-118	88-107	80-118

Analysis Name: Method 625
Batch number: 16349WAA625

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol
8736915	91	94	86	41	60	79
Blank	91	90	91	45	59	96
LCS	94	93	93	50	65	91
LCSD	96	94	95	50	69	91
Limits:	60-119	62-116	55-124	10-75	10-105	11-154

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: GES, Inc.
Reported: 01/03/2017 12:09

Group Number: 1742618

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Pests (Charged with PCBs 608)

Batch number: 163490005A

	Tetrachloro-m-xylene	Decachlorobiphenyl
8736915	32	42
Blank	23*	22*
LCS	61	24*
LCSD	53	32
Limits:	29-129	32-149

Analysis Name: PCBs w/ OC Pests 608

Batch number: 163490007A

	Tetrachloro-m-xylene	Decachlorobiphenyl
8736915	67	76
Blank	78	41
LCS	82	28
LCSD	81	28
Limits:	33-137	10-148

Analysis Name: DRO micro-ext 8015B

Batch number: 163480037A

	Orthoterphenyl
8736915	98
8736916	102
8736917	102
8736918	140
Blank	108
LCS	110
LCSD	107
Limits:	42-160

Analysis Name: Dioxins/Furans in Water - 1613

Batch number: 16345001

	13C12-2378-TCDD
8736915	57
Blank	57
OPR	52
Limits:	25-164

*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



**Lancaster Laboratories
Environmental**

Acct. # 8390 Group # 1742618 Sample # 8736915-18

Environmental Analysis Request/Chain of Custody

[illegible]

Client: Groundwater & Env. Services**Delivery and Receipt Information**

Delivery Method:	<u>ELLE Courier</u>	Arrival Timestamp:	<u>12/08/2016 16:48</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>2</u>
State/Province of Origin:	<u>VA</u>		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace \geq 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

*Unpacked by Krista Abel (3058) at 07:24 on 12/09/2016***Samples Chilled Details***Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.*

<u>Cooler #</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	DT146	4.2	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...
- W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

GES, Inc.
440 Creamery Way, Suite 500
Exton PA 19341

Report Date: December 20, 2016

Project: NRG PRGS

Submittal Date: 12/08/2016
Group Number: 1742619
PO Number: 0402919-25-220
Release Number: ORG # 0404
State of Sample Origin: VA

Client Sample Description

TPE Vapor Grab Air

Lancaster Labs

(LL) #

8736919

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GES, Inc.-MD
Electronic Copy To GES, Inc.-MD

Attn: Anne Ashley Bell
Attn: Data Distribution

Respectfully Submitted,



Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: TPE Vapor Grab Air
NRG PRGS - Alexandria, VA

LL Sample # AQ 8736919
LL Group # 1742619
Account # 08390

Project Name: NRG PRGS

Collected: 12/07/2016 10:40 by JP

GES, Inc.

440 Creamery Way, Suite 500

Submitted: 12/08/2016 16:48

Exton PA 19341

Reported: 12/20/2016 11:03

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Volatiles in Air		EPA 18 mod/EPA 25 mod	mg/m3	mg/m3	
07090	Benzene	71-43-2	< 3	3	1
07090	C1-C4 Hydrocarbons as propane	n.a.	< 18	18	1
07090	>C4-C10 Hydrocarbons hexane	n.a.	< 35	35	1
07090	Ethylbenzene	100-41-4	< 4	4	1
07090	Toluene	108-88-3	< 4	4	1
07090	Xylene (total)	1330-20-7	< 9	9	1

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07090	BTEX/C1-C4/>C4-C10	EPA 18 mod/EPA 25 mod	1	M1634930AA	12/14/2016 18:16	Alexander D Sechrist	1

Quality Control Summary

Client Name: GES, Inc.
Reported: 12/20/2016 11:03

Group Number: 1742619

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ
	mg/m3	mg/m3
Batch number: M1634930AA	Sample number(s): 8736919	
Benzene	< 3	3
C1-C4 Hydrocarbons as propane	< 18	18
>C4-C10 Hydrocarbons hexane	< 35	35
Ethylbenzene	< 4	4
Toluene	< 4	4
Xylene (total)	< 9	9

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/m3	mg/m3	mg/m3	mg/m3					
Batch number: M1634930AA	Sample number(s): 8736919								
Benzene	31.95	29.67	31.95	28.9	93	90	71-116	3	30
Ethylbenzene	43.42	42.17	43.42	42.64	97	98	59-144	1	30
Toluene	37.69	44.91	37.69	44.9	119	119	77-143	0	30
Xylene (total)	130.27	133.48	130.27	133.79	102	103	58-148	0	30

*- Outside of specification

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



**Lancaster Laboratories
Environmental**

Acct. # 8340 Group # 1742619 Sample # 8736919

Environmental Analysis Request/Chain of Custody

[illegible]

Sample Administration
Receipt Documentation LogDoc Log ID: 170283
Group Number(s): 1742619Client: Groundwater & Env. Services

Delivery and Receipt Information

Delivery Method:	<u>ELLE Courier</u>	Arrival Timestamp:	<u>12/08/2016 16:48</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>2</u>
State/Province of Origin:	<u>VA</u>		

Arrival Condition Summary

Shipping Container Sealed:	No	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	No	Sample Date/Times match COC:	Yes
Samples Chilled:	N/A	VOA Vial Headspace \geq 6mm:	N/A
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	0
Samples Intact:	Yes	Air Quality Samples Present:	Yes
Missing Samples:	No	Air Quality Flow Controllers Present:	No
Extra Samples:	No	Air Quality Returns:	No
Discrepancy in Container Qty on COC:	No		

Unpacked by Wesley Miller (2308) at 14:44 on 12/09/2016

Explanation of Symbols and Abbreviations

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IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
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m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
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ppb	parts per billion		
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Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
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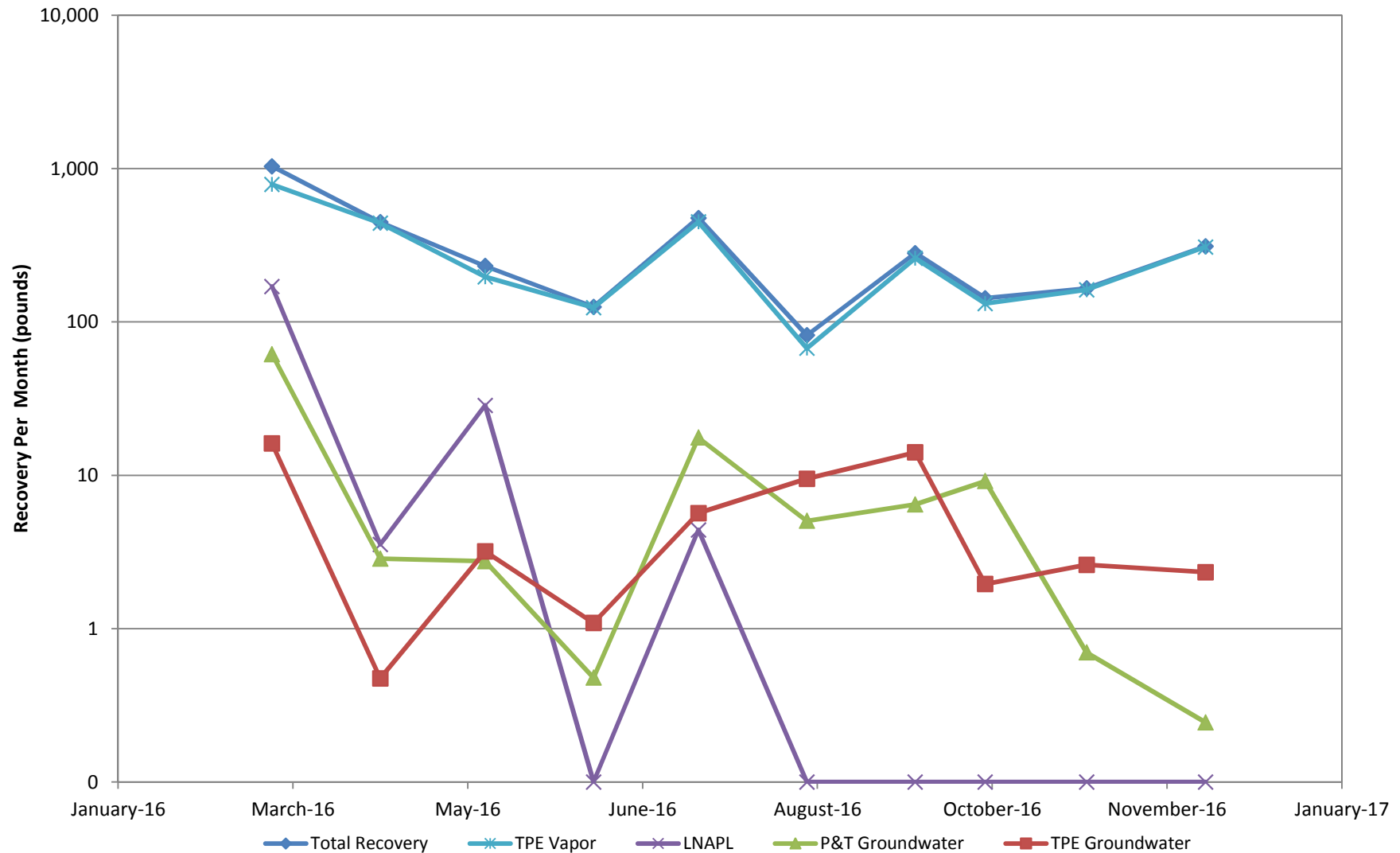


ATTACHMENT E

REMEDIATION SYSTEM PERFORMANCE GRAPHS

REMEDIATION SYSTEM PERFORMANCE GRAPHS

NRG Potomac River Generating Station
1400 North Royal St
Alexandria, VA

Hydrocarbon Recovery Rate

Note: The recovery rate is normalized to a 30 day monthly operation period.

REMEDIATION SYSTEM PERFORMANCE GRAPHS

NRG Potomac River Generating Station
1400 North Royal St
Alexandria, VA

