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

July 14, 2017

Joshua Rodriguez
Chief, Inspection and Enforcement Branch
District Department of Energy & Environment
Water Quality Division
1200 First St., NE 5th Floor
Washington, DC 20002

Re: Groundwater Monitoring Status Report – First Semiannual 2017
NRG Potomac River Generating Station LLC
1400 North Royal Street
Alexandria, VA 22314

Dear Mr. Rodriguez:

Attached please find the above-referenced groundwater monitoring report prepared on behalf of NRG Potomac River LLC (NRG) for the former Potomac River Generating Station (PRGS) located at 1400 North Royal Street, Alexandria, VA. The above referenced report is being submitted to the Department of Energy & Environment (DOEE) in accordance with the DOEE directive letter dated 5 June 2014, requiring quarterly monitoring and sampling

If you have any questions regarding this letter, please do not hesitate to contact me at (301)843-4439 or by email at Mark.Nitz@nrg.com or you can contact the technical consultants from Geosyntec directly.

Sincerely,

Mark Nitz
Environmental Specialist, NRG

cc: Mr. Mark Johnson – Geosyntec
Mr. Steve Slatnick – GES
Mr. Alex Wardle – VDEQ
Mr. Khoa Tran – City of Alexandria
Mr. Peter McCallum –NPS

Geosyntec consultants

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14 July 2017

Joshua Rodriguez
Chief, Inspection and Enforcement Branch,
Water Quality Division
Department of Energy & Environment
1200 First Street NE, 5th Floor
Washington, D.C. 20002

Subject: Groundwater Monitoring Status Report – First Semi-Annual Event 2017
NRG Potomac River Generating Station LLC
Alexandria, Virginia

Dear Mr. Rodriguez:

On behalf of NRG Potomac River Generating Station LLC (PRGS), Geosyntec Consultants (Geosyntec) has prepared this letter report to present the results of the First 2017 Semi-Annual Groundwater Monitoring Event ("First Semi-Annual Event") at the former Potomac River Generating Station (the Site). The site location is shown on **Figure 1**, and the site features are shown on **Figure 2**. The First Semi-Annual Event was performed from 22 May to 23 May 2017.

The remainder of this report includes a summary of: (i) the project background and objectives; (ii) a summary and discussion of the results of the water level measurements, and (iii) a summary and discussion of the results from laboratory analysis of samples collected in May 2017. More specifically, this report presents the results and findings from the collection and analysis of groundwater samples from monitoring wells located along and in the vicinity of the property boundary where the Site meets the National Park Service trail and the Potomac River.

BACKGROUND

Ongoing investigation and remediation work at the Site is being coordinated between multiple parties including the Virginia Department of Environmental Quality (VDEQ), the National Park Service (NPS), and the District Department of Environment and Energy[1] (DOEE). On 5 June 2014, the DOEE issued a Compliance Directive letter (Directive) requesting supplemental activities to evaluate potential releases to the Potomac River from the PRGS Site. In that Directive, DOEE issued four Directives to PRGS. Subsequently, PRGS provided responses to the DOEE Directives 1 and 2 in *Work Plan I – Former Potomac River Generating Station*, dated 24 June 2014. In a letter dated 18 July 2014, PRGS provided responses to the DOEE Directives 3

[1] Formerly known as the District Department of the Environment (DDOE)

and 4 in the document titled *Supplemental Work Plan – Former Potomac River Generating Station*.

The field activities completed pursuant to these two work plans were summarized in a report to DOEE titled *Assessment of Groundwater Discharges to the Potomac River*, dated 5 January 2015. On 12 May 2015, the DOEE provided comments to the *Assessment of Groundwater Discharges to the Potomac River* report. In the May 2015 correspondence, DOEE requested that PRGS: 1) prepare a work plan to complete additional shoreline characterization work, and 2) develop a quarterly groundwater sampling and analysis plan. On 21 July 2015, PRGS provided DOEE with the documents titled: *Additional Characterization of Shoreline Work Plan* and the *Sampling and Analysis Plan* (SAP). Comments to these plans were prepared by DOEE and provided to PRGS in a letter dated 2 September 2015, and on 24 September 2015, revised documents were submitted to the DOEE including: *Additional Characterization of Shoreline Work Plan*, *Sampling and Analysis Plan*, *Quality Assurance Project Plan*, and a *Health and Safety Plan*.

From May 2015 to November 2016, PRGS completed quarterly groundwater monitoring events in accordance with the work plans approved in September 2015. On 16 January 2017, PRGS submitted the monitoring report titled: *Groundwater Monitoring Status Report – Fourth Quarter 2016* ("Fourth Quarter 2016 Report") in which PRGS recommended and requested approval to adjust from quarterly to semi-annual monitoring of the Site wells. On 9 February 2017, the DOEE provided a response letter to PRGS regarding recommendations made in the Fourth Quarter 2016 Report. The DOEE response letter approved the reduction of the sampling frequency from quarterly to semi-annual and a reduction in the analyte list. The comment letter removed polychlorinated biphenyls (PCBs) from the analyte list, and after the first 2017 semi-annual event, metals were removed from the analyte list. The DOEE comment letter is provided as **Attachment A**.

SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Since the submittal of the *Assessment of Groundwater Discharges to the Potomac River*, dated January 2015, PRGS has completed quarterly groundwater monitoring at the Site consistent with the DOEE Directives and in conjunction with groundwater monitoring activities required by the VDEQ. Groundwater and Environmental Services, Inc. (GES) completed four quarterly monitoring events in accordance with the requirements of the Corrective Action Plan (CAP) approved by the VDEQ. As part of the CAP-required monitoring, GES collected groundwater samples from the shoreline wells (identified as the "TW" series wells) for the laboratory analysis of total petroleum hydrocarbons (TPH) diesel range organics (DRO). Geosyntec, in coordination with GES, collected samples from the TW wells for the analysis of additional parameters that were previously requested by DOEE in their correspondence dated 5 June 2014. The additional requested analyses included:

- A short list of volatile organic compounds (VOCs) consisting of:
    - Benzene, toluene, ethylbenzene, and xylenes (collectively BTEX);
    - Methyl tert butyl ether (MTBE);
    - 1,2-Dibromoethane (EDB) and 1,2-Dichloromethane (EDC);
- Polynuclear aromatic hydrocarbons (PAHs) with Selective Ion Monitoring (SIM);
- Oil and grease;
- Total Petroleum Hydrocarbons (TPH), Gasoline Range Organics (GRO);
- Metals (on an annual basis only);
- Hardness (on an annual basis only); and
- Polychlorinated biphenyls (PCBs) (on an annual basis only).

Geosyntec conducted groundwater monitoring, in accordance with the SAP, of the TW wells at the Site beginning in the third quarter 2015 which included the additional analytes noted above. Geosyntec and GES completed the quarterly monitoring events concurrently for the VDEQ and DOEE requirements. Results of previous investigations were provided to the DOEE.

In April 2016, PRGS conducted additional shoreline characterization activities on NPS property on the north and south side of the screen house. The investigation addressed DOEE concerns that petroleum constituents were migrating vertically under the sheet pile wall and horizontally outside of the current monitoring well network. The report concluded that petroleum constituents are not migrating vertically or horizontally at concentrations that affect surface water quality of the Potomac River. In a letter dated 25 August 2016, the DOEE accepted the results and conclusions provided in the shoreline characterization report.

In January 2017, PRGS provided a cumulative analysis of the groundwater data collected. The analysis focused primarily of TPH-DRO, because it was the only constituent consistently detected at the Site. The analysis of the data showed that TPH-DRO has steadily decreased in concentration since the commencement of interim remedial measures (e.g. vacuum extraction events and gauge and bail events) to start-up of the treatment system. Additionally, the data analysis showed that the TPH-DRO concentrations in groundwater are relatively stable. In a letter dated 9 February 2017, the DOEE accepted the conclusions, results, and recommendations of the report. As mentioned above, the DOEE letter provides for the modification of the sampling frequency and analyte list at the PRGS Site.

FIRST SEMI-ANNUAL EVENT – 2017

Beginning on 22 May 2017, Geosyntec conducted the first semi-annual groundwater monitoring of the TW wells at the Site in accordance with the approved SAP dated September 2015, as modified by the DOEE comment letter dated 9 February 2017. The following monitoring wells were gauged and sampled[2]:

- TW-02, TW-03, TW-04, TW-05, TW-06, TW-07, and TW-14.

Water level data obtained during May 2017 groundwater sampling event were used in conjunction with the surveyed top of casing elevation data to estimate potentiometric surfaces for both the shallow and the deep groundwater zone. Groundwater level measurements are summarized in **Table 1** and potentiometric surface maps for the shallow and deep groundwater zones are provided on **Figure 3** and **Figure 4**, respectively. Field sampling forms completed at the time of the monitoring event in May 2017 are included as **Attachment B**.

As shown on **Figure 3**, shallow groundwater in the TW series wells was encountered at an elevation of 8.45 feet above mean sea-level (ft-msl) in well TW-14. Based on comparison to other site wells monitored as part of the VDEQ program[3], shallow zone groundwater flow in the general vicinity of the USTs was interpreted to flow toward the center of the Site and shallow zone groundwater south of the pump house was interpreted to flow to the southeast. This is likely due to the groundwater recovery operations, which started in early March 2016. As shown on **Figure 4**, deep groundwater in the TW series wells was encountered at elevations ranging from 4.17 ft-msl (TW-06) to 1.81 ft-msl (TW-02). Based on comparison to other site wells monitored as part of the VDEQ program, deep zone groundwater flow appeared to be toward the center of the Site, in the general vicinity of the USTs and towards the east-northeast on the north side of the pump house. This apparent radial flow is likely caused by groundwater recovery operations, which commenced in March 2016.

Following collection of the water level information, the wells were sampled according to the low-flow/low-stress monitoring guidelines presented in the SAP. Samples were collected for the following analytical parameters:

- Select VOCs consisting of: BTEX, MTBE, EDB, and EDC;
- PAHs with SIM;

[2] Data for additional Site wells that were monitored at the Site as required by VDEQ were reported to VDEQ by GES in January 2017

[3] Potentiometric surface data for all Site monitoring wells was collected by GES in May 2017 and provided to Geosyntec for use in the subject interpretation

- Oil and grease; and
- TPH-GRO and TPH-DRO;
- Metals; and
- Hardness.

The results of the laboratory analyses were provided to Geosyntec in one laboratory report dated 19 June 2017, included as **Attachment C**[4]. In addition to the analyses mentioned above, GES analyzed groundwater samples for bio-stimulation parameters from TW-02, TW-03, TW-04, TW-05, TW-06, TW-07, and TW-14. The field parameters and analytical bio-stimulation data were tabulated by GES and are presented as **Attachment D**.

Geosyntec tabulated the detected analytes and compared them to DOEE Risked Based Corrective Action (RBCA) groundwater quality standards (GWQS) and surface water quality standards (SWQS)[5]. The data are compared to the groundwater standards for comparative purposes only. The data are compared to the surface water standards to evaluate the potential for the groundwater to discharge into the Potomac River. **Table 2a** presents a summary of the detected VOC and TPH constituents while a summary of detected PAH constituents is provided in **Table 2b**. Results for the analysis of total metals are tabulated on **Table 2c**. The SWQS criteria for certain metals corrected for hardness are presented on **Table 2d**.

The following conclusions are drawn from the First Semi-Annual Event completed in May 2017:

- VOCs, Oil and Grease, and PAHs were not detected at concentrations above their respective SWQS in any of the samples collected;
- TPH-DRO and TPH-GRO were not detected above their respective GWQS in any of the samples collected; and
- Iron was detected above SWQS in all TW wells, except TW-14, with concentrations ranging from 3.33 milligrams per Liter (mg/L) in TW-02 to 127 mg/L in TW-04, respectively. Iron concentrations detected in the TW wells were evaluated with methods

[4] Additional laboratory reports which included the results of the analyses of samples collected by GES was reported to GES by Eurofins Lancaster Laboratories on 6 June, 7 June, 8 June, and 13 June 2017.

[5] Groundwater Quality Standards - 21 DCMR 1100 DDOE - 1155.3 Numerical criteria for Class G1 groundwater; Surface Water Quality Standards - 21 DCMR 1100 DDOE - 1104 Table 2 Numeric Criteria

consistent with those outlined in the District of Columbia Risk Based Corrective Action Technical Guidance (DDOE, 2011). Those methods were used to calculate the maximum allowable groundwater concentration at the point of discharge for iron. Based on that evaluation, the highest iron concentration measured in the TW wells during the First Semi-Annual Event, was below the maximum allowable concentration at the point of discharge. The calculation of allowable groundwater discharge concentration to surface water is provided as **Attachment E**.

CUMULATIVE DATA EVALUATION

Geosyntec conducted an evaluation of the cumulative data collected for the shorelines wells since their installation in December 2013. Of the parameters collected and analyzed for, only TPH-DRO has consistently been detected. Geosyntec developed time-trend series plots for the shoreline TW series wells as depicted in **Attachment F**.

As shown in **Attachment F**, concentrations of TPH-DRO in groundwater are either stable or decreasing, which suggests groundwater quality at the edge of the Site is improving. Data also suggests that groundwater recovery operations through vacuum recovery events as well as through the installation, startup and operation of the longer term active recovery and remediation systems, under the VDEQ program have been effective in recovering dissolved phase hydrocarbons from the groundwater and soil at the shoreline.

CONCLUSIONS

Geosyntec conducted a semi-annual monitoring event for the shoreline wells (TW series) at the former Potomac River Generating Station. The following conclusions are based on the data compiled during this semi-annual monitoring event as compared to prior data:

- Groundwater recovery operations have caused groundwater in the general vicinity of the USTs to flow towards the center of the Site, suggesting that hydraulic control is occurring for the shallow and deep groundwater in the vicinity of the USTs;

- Localized flow along the shoreline is away from the pump house/screen house indicating a potential mounding effect of water that is perched in between the pump house and sheet wall along the shore, likely due to the operation of the biosparging system;

- No VOCs, PAHs, or TPH were detected above DOEE surface water criteria; and

- Iron was the only metal detected above SWQS in all wells except TW-14. Although above the SWQS, these detections were below the calculated maximum allowable concentration at the point of discharge. The calculation of allowable groundwater discharge concentration to surface water is provided as **Attachment D**.

- Groundwater concentrations of VOC's, TPH-DRO, TPH-GRO, oil and grease, PAH's, and metals were either not detected or were below the DOEE SWQS either at the sampling point or at the point of discharge. Calculations provided in **Attachment D** indicate that the highest concentrations of iron measured at the Site are below the maximum allowable concentration determined for the site.

- Groundwater data collected from the TW wells suggest groundwater discharging to the Potomac River is not affecting the surface water quality of the river.

CLOSING

Geosyntec appreciates the opportunity to provide this information to you. Should you have any questions or require additional information, please contact either of the undersigned at (410) 381-4333.

Sincerely,

Mark Bauer, P.G.
Geologist

Mark A. Johnson
Principal

Attachments:
Table 1: Summary of Water Level Measurements
Table 2a: Summary of Groundwater Analytical Results – Volatile Organic Compounds, Total Petroleum Hydrocarbons, and Oil & Grease
Table 2b: Summary of Groundwater Analytical Results – Polynuclear Aromatic Hydrocarbons
Table 2c: Summary of Groundwater Analytical Results – Total Metals
Table 2d: Summary of Groundwater Analytical Results – Hardness Dependent Metals
Figure 1: Site Location Map
Figure 2: Site Layout Map
Figure 3: Potentiometric Surface Map – Shallow Zone
Figure 4: Potentiometric Surface Map – Deep Zone
Attachment A: DOEE Comment Letter
Attachment B: Field Sampling Forms
Attachment C: Laboratory Analytical Reports – First Semi-Annual 2017
Attachment D: Bio-Stimulation Parameters
Attachment E: Allowable Groundwater Concentration Calculation
Attachment F: TPH-DRO Time Series Charts

Copy to:
Mr. Mark Nitz – NRG
Mr. Steve Slatnick – GES
Mr. Alex Wardle – VDEQ
Mr. Khoa Tran – City of Alexandria
Mr. Peter McCallum – NPS

TABLES

Table 1
Summary of Water Level Measurements
Potomac River Generating Station, Alexandria, Virginia

Well Location	Date	Top of Casing (ft-msl)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-msl)	Time	Comments
** See notes at end of table*						
TW-02	12/18/2013	20.60	15.52	5.08	-	
	01/08/2014	20.60	15.08	5.52	-	
	03/07/2014	20.60	14.81	5.79	-	
	03/13/2014	20.60	14.22	6.38	-	
	03/20/2014	20.60	13.39	7.21	-	
	03/27/2014	20.60	14.31	6.29	-	
	04/03/2014	20.60	13.25	7.35	-	
	04/08/2014	20.60	13.74	6.86	-	
	04/17/2014	20.60	13.70	6.90	-	
	04/22/2014	20.60	13.62	6.98	-	
	04/29/2014	20.60	13.96	6.64	-	
	05/05/2014	20.60	13.55	7.05	-	
	05/12/2014	20.60	14.25	6.35	-	
	05/19/2014	20.60	13.63	6.97	-	
	05/27/2014	20.60	14.31	6.29	-	
	06/02/2014	20.60	14.34	6.26	-	
	06/09/2014	20.60	14.71	5.89	-	
	06/16/2014	20.60	14.30	6.30	-	
	06/23/2014	20.60	14.48	6.12	-	
	07/02/2014	20.60	14.77	5.83	-	
	07/07/2014	20.60	15.08	5.52	-	
	07/14/2014	20.60	15.02	5.58	-	
	07/31/2014	20.60	15.40	5.20	-	
	08/08/2014	20.60	15.40	5.20	-	
	08/11/2014	20.60	15.28	5.32	-	
	08/15/2014	20.60	14.84	5.76	-	
	08/18/2014	20.60	15.06	5.54	-	
	08/25/2014	NR	14.71	-	-	
	09/02/2014	NR	15.18	-	-	
	09/15/2014	NR	14.90	-	-	
	09/22/2014	NR	15.00	-	-	
	10/01/2014	NR	15.22	-	-	
	10/13/2014	NR	14.92	-	-	
	10/20/2014	NR	15.10	-	-	
	02/24/2015	16.11	14.34	1.77	15:01	
	05/11/2015	16.11	14.38	1.73	15:18	
	08/04/2015	16.11	15.08	1.03	12:15	

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Summary of Water Level Measurements
Potomac River Generating Station, Alexandria, Virginia

Well Location	Date	Top of Casing (ft-msl)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-msl)	Time	Comments
** See notes at end of table*						
TW-02 (cont.)	12/01/2015	16.11	15.08	1.03	13:28	
	03/14/2016	16.11	14.32	1.79	9:40	
	05/23/2016	16.11	13.26	2.85	10:37	
	08/24/2016	16.11	14.83	1.28	10:50	
	11/28/2016	16.11	15.50	0.61	8:47	
	5/22/2017	16.11	14.30	1.81	8:49	
TW-03	12/18/2013	14.87	9.08	5.79	-	
	01/08/2014	14.87	9.42	5.45	-	
	03/07/2014	14.87	7.66	7.21	-	
	03/13/2014	14.87	8.09	6.78	-	
	03/20/2014	14.87	7.50	7.37	-	
	03/27/2014	14.87	8.47	6.40	-	
	04/03/2014	14.87	6.99	7.88	-	
	04/08/2014	14.87	7.64	7.23	-	
	04/17/2014	14.87	7.33	7.54	-	
	04/22/2014	14.87	7.64	7.23	-	
	04/29/2014	14.87	7.36	7.51	-	
	05/05/2014	14.87	7.58	7.29	-	
	05/12/2014	14.87	7.93	6.94	-	
	05/19/2014	14.87	8.42	6.45	-	
	05/27/2014	14.87	7.69	7.18	-	
	06/02/2014	14.87	8.00	6.87	-	
	06/09/2014	14.87	7.77	7.10	-	
	06/16/2014	14.87	7.60	7.27	-	
	06/23/2014	14.87	7.68	7.19	-	
	07/02/2014	14.87	7.97	6.90	-	
	07/07/2014	14.87	8.31	6.56	-	
	07/14/2014	14.87	7.55	7.32	-	
	07/25/2014	14.87	8.45	6.42	-	
	07/31/2014	14.87	8.14	6.73	-	
	08/08/2014	14.87	8.39	6.48	-	
	08/11/2014	14.87	8.12	6.75	-	
	08/15/2014	14.87	8.10	6.77	-	
	08/18/2014	14.87	8.25	6.62	-	
	08/25/2014	10.40	7.85	2.55	-	
	09/02/2014	10.40	8.52	1.88	-	
	09/15/2014	10.40	8.33	2.07	-	
	09/22/2014	10.40	8.26	2.14	-	

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Summary of Water Level Measurements
Potomac River Generating Station, Alexandria, Virginia

Well Location	Date	Top of Casing (ft-msl)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-msl)	Time	Comments
** See notes at end of table*						
TW-03 (cont.)	10/01/2014	10.40	8.35	2.05	-	
	10/13/2014	10.40	8.18	2.22	-	
	10/20/2014	10.40	8.50	1.90	-	
	02/24/2015	10.40	8.57	1.83	14:49	
	05/11/2015	10.40	7.74	2.66	15:23	
	08/04/2015	10.40	7.82	2.58	12:13	
	12/01/2015	10.40	7.64	2.76	13:26	
	03/14/2016	10.40	7.95	2.45	9:45	
	05/23/2016	10.40	8.68	1.72	9:00	
	08/25/2016	10.40	8.09	2.31	-	
	11/28/2016	10.40	8.83	1.57	8:46	
	05/22/2017	10.40	7.92	2.48	12:59	
TW-04	12/18/2013	13.26	6.25	7.01	-	
	01/08/2014	13.26	6.71	6.55	-	
	03/07/2014	13.26	6.06	7.20	-	
	03/13/2014	13.26	6.26	7.00	-	
	03/20/2014	13.26	6.17	7.09	-	
	03/27/2014	13.26	6.55	6.71	-	
	04/03/2014	13.26	4.64	8.62	-	
	04/08/2014	13.26	5.38	7.88	-	
	04/17/2014	13.26	5.60	7.66	-	
	04/22/2014	13.26	5.56	7.70	-	
	04/29/2014	13.26	5.91	7.35	-	
	05/05/2014	13.26	5.06	8.20	-	
	05/12/2014	13.26	5.82	7.44	-	
	05/19/2014	13.26	4.61	8.65	-	
	05/27/2014	13.26	5.66	7.60	-	
	06/02/2014	13.26	5.83	7.43	-	
	06/09/2014	13.26	5.87	7.39	-	
	06/16/2014	13.26	5.21	8.05	-	
	06/23/2014	13.26	5.68	7.58	-	
	07/02/2014	13.26	5.96	7.30	-	
	07/07/2014	13.26	6.18	7.08	-	
	07/14/2014	13.26	5.80	7.46	-	
	07/25/2014	13.26	6.20	7.06	-	
	07/31/2014	13.26	6.08	7.18	-	
	08/08/2014	13.26	6.21	7.05	-	
	08/11/2014	13.26	6.19	7.07	-	
	08/15/2014	13.26	5.99	7.27	-	

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Potomac River Generating Station, Alexandria, Virginia

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** See notes at end of table*						
TW-04 (cont.)	08/18/2014	13.26	5.92	7.34	-	
	08/25/2014	9.49	5.87	3.62	-	
	09/02/2014	9.49	6.25	3.24	-	
	09/15/2014	9.49	6.17	3.32	-	
	09/22/2014	9.49	6.20	3.29	-	
	10/01/2014	9.49	6.23	3.26	-	
	10/10/2014	9.49	6.18	3.31	-	
	10/13/2014	9.49	6.19	3.30	-	
	10/20/2014	9.49	6.28	3.21	-	
	10/27/2014	9.49	6.04	3.45	-	
	11/07/2014	9.49	6.27	3.22	-	
	11/12/2014	9.49	6.19	3.30	-	
	11/21/2014	9.49	6.78	2.71	-	
	11/26/2014	9.49	6.33	3.16	-	
	12/05/2014	9.49	5.75	3.74	-	
	12/11/2014	9.49	5.60	3.89	-	
	12/16/2014	9.49	5.83	3.66	-	
	12/23/2014	9.49	5.82	3.67	-	
	12/30/2014	9.49	5.73	3.76	-	
	01/09/2015	9.49	6.06	3.43	-	
	01/16/2015	9.49	5.64	3.85	-	
	01/19/2015	9.49	5.37	4.12	-	
	01/26/2015	9.49	4.78	4.71	-	
	02/03/2015	9.49	6.06	3.43	-	
	02/09/2015	9.49	6.08	3.41	-	
	02/18/2015	9.49	6.19	3.30	-	
	02/24/2015	9.49	6.21	3.28	15:00	
	03/04/2015	9.49	6.11	3.38	11:45	
	03/11/2015	9.49	3.93	5.56	12:00	
	03/18/2015	9.49	5.40	4.09	10:23	
	03/26/2015	9.49	5.75	3.74	12:21	
	04/02/2015	9.49	5.85	3.64	10:28	
	04/08/2015	9.49	6.20	3.29	10:00	
	04/13/2015	9.49	6.28	3.21	9:55	
	04/23/2015	9.49	5.44	4.05	10:43	
	04/29/2015	9.49	5.85	3.64	13:15	
	05/04/2015	9.49	5.75	3.74	10:50	
	05/11/2015	9.49	5.83	3.66	15:33	

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Well Location	Date	Top of Casing (ft-msl)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-msl)	Time	Comments
** See notes at end of table*						
TW-04 (cont.)	05/21/2015	9.49	5.89	3.60	13:05	
	05/28/2015	9.49	6.28	3.21	10:55	
	06/02/2015	9.49	5.01	4.48	12:15	
	06/09/2015	9.49	5.17	4.32	9:45	
	06/16/2015	9.49	5.67	3.82	10:35	
	06/26/2015	9.49	4.98	4.51	8:45	
	07/01/2015	9.49	3.57	5.92	11:35	
	07/08/2015	9.49	4.57	4.92	10:20	
	07/13/2015	9.49	4.28	5.21	8:53	
	07/20/2015	9.49	5.32	4.17	8:40	
	08/04/2015	9.49	5.62	3.87	12:02	
	08/18/2015	9.49	5.88	3.61	9:20	
	08/24/2015	9.49	5.76	3.73	9:40	
	09/02/2015	9.49	5.92	3.57	11:36	
	09/09/2015	9.49	6.06	3.43	14:09	
	09/17/2015	9.49	6.11	3.38	11:48	
	09/23/2015	9.49	6.08	3.41	10:00	
	09/28/2015	9.49	5.61	3.88	10:36	
	10/05/2015	9.49	5.22	4.27	10:20	
	11/10/2015	9.49	5.92	3.57	12:29	
	12/01/2015	9.49	5.78	3.71	13:20	
	03/14/2016	9.49	5.93	3.56	9:55	
	05/23/2016	9.49	4.83	4.66	10:49	
	08/24/2016	9.49	6.35	3.14	9:44	
	11/28/2016	9.49	6.69	2.80	8:35	
	05/22/2017	9.49	5.44	4.05	13:07	
TW-05	12/18/2013	13.73	6.45	7.28	-	
	01/08/2014	13.73	6.98	6.75	-	
	03/07/2014	13.73	6.34	7.39	-	
	03/13/2014	13.73	6.49	7.24	-	
	03/20/2014	13.73	6.04	7.69	-	
	03/27/2014	13.73	6.68	7.05	-	
	04/03/2014	13.73	4.29	9.44	-	
	04/08/2014	13.73	5.36	8.37	-	
	04/17/2014	13.73	5.33	8.40	-	
	04/22/2014	13.73	5.65	8.08	-	
	04/29/2014	13.73	6.06	7.67	-	
	05/05/2014	13.73	4.91	8.82	-	
	05/12/2014	13.73	6.01	7.72	-	

Table 1
Summary of Water Level Measurements
Potomac River Generating Station, Alexandria, Virginia

Well Location	Date	Top of Casing (ft-msl)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-msl)	Time	Comments
** See notes at end of table*						
TW-05 (cont.)	05/19/2014	13.73	4.65	9.08	-	
	05/27/2014	13.73	5.91	7.82	-	
	06/02/2014	13.73	6.07	7.66	-	
	06/09/2014	13.73	6.11	7.62	-	
	06/16/2014	13.73	5.28	8.45	-	
	06/23/2014	13.73	5.95	7.78	-	
	07/02/2014	13.73	6.28	7.45	-	
	07/07/2014	13.73	6.49	7.24	-	
	07/14/2014	13.73	6.06	7.67	-	
	07/25/2014	13.73	5.43	8.30	-	
	07/31/2014	13.73	6.50	7.23	-	
	08/08/2014	13.73	6.56	7.17	-	
	08/11/2014	13.73	6.51	7.22	-	
	08/15/2014	13.73	5.91	7.82	-	
	08/18/2014	13.73	6.14	7.59	-	
	08/25/2014	9.64	6.13	3.51	-	
	09/02/2014	9.64	6.59	3.05	-	
	09/15/2014	9.64	6.57	3.07	-	
	09/22/2014	9.64	6.58	3.06	-	
	10/01/2014	9.64	6.63	3.01	-	
	10/10/2014	9.64	6.52	3.12	-	
	10/13/2014	9.64	6.58	3.06	-	
	10/20/2014	9.64	6.60	3.04	-	
	10/27/2014	9.64	6.23	3.41	-	
	11/07/2014	9.64	6.58	3.06	-	
	11/12/2014	9.64	6.56	3.08	-	
	11/21/2014	9.64	7.07	2.57	-	
	11/26/2014	9.64	6.67	2.97	-	
	12/05/2014	9.64	5.57	4.07	-	
	12/11/2014	9.64	5.38	4.26	-	
	12/16/2014	9.64	5.86	3.78	-	
	12/23/2014	9.64	6.08	3.56	-	
	12/30/2014	9.64	5.50	4.14	-	
	01/09/2015	9.64	6.27	3.37	-	
	01/16/2015	9.64	5.48	4.16	-	
	01/19/2015	9.64	5.08	4.56	-	
	01/26/2015	9.64	4.30	5.34	-	
	02/03/2015	9.64	6.20	3.44	-	

Table 1
Summary of Water Level Measurements
Potomac River Generating Station, Alexandria, Virginia

Well Location	Date	Top of Casing (ft-msl)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-msl)	Time	Comments
** See notes at end of table*						
TW-05 (cont.)	02/09/2015	9.64	6.38	3.26	-	
	02/18/2015	9.64	6.64	3.00	-	
	02/24/2015	9.64	6.61	3.03	14:57	
	03/04/2015	9.64	6.27	3.37	12:15	
	03/11/2015	9.64	3.15	6.49	12:03	
	03/18/2015	9.64	4.61	5.03	10:26	
	03/26/2015	9.64	5.94	3.70	12:25	
	04/02/2015	9.64	6.00	3.64	10:30	
	04/08/2015	9.64	6.41	3.23	10:05	
	04/13/2015	9.64	6.53	3.11	9:58	
	04/23/2015	9.64	5.48	4.16	10:45	
	04/29/2015	9.64	5.99	3.65	13:17	
	05/04/2015	9.64	5.94	3.70	10:53	
	05/11/2015	9.64	6.12	3.52	15:39	
	05/21/2015	9.64	6.15	3.49	13:07	
	05/28/2015	9.64	6.56	3.08	10:57	
	06/02/2015	9.64	4.05	5.59	12:18	
	06/09/2015	9.64	4.63	5.01	9:48	
	06/16/2015	9.64	5.99	3.65	10:38	
	06/26/2015	9.64	4.52	5.12	8:47	
	07/01/2015	9.64	1.82	7.82	11:38	
	07/08/2015	9.64	4.22	5.42	10:23	
	07/13/2015	9.64	4.24	5.40	8:55	
	07/20/2015	9.64	5.64	4.00	8:43	
	07/28/2015	9.64	6.01	3.63	13:15	
	08/04/2015	9.64	6.07	3.57	12:05	
	08/11/2015	9.64	5.56	4.08	12:30	
	08/18/2015	9.64	6.28	3.36	9:23	
	08/24/2015	9.64	6.23	3.41	9:43	
	09/02/2015	9.64	6.32	3.32	11:33	
	09/09/2015	9.64	6.73	2.91	14:06	
	09/17/2015	9.64	6.54	3.10	11:45	
	09/23/2015	9.64	6.41	3.23	10:03	
	09/28/2015	9.64	6.01	3.63	10:38	
	10/05/2015	9.64	5.43	4.21	10:17	
	11/10/2015	9.64	6.31	3.33	12:31	
	12/01/2015	9.64	5.99	3.65	13:10	
	03/14/2016	9.64	6.22	3.42	10:00	
	05/23/2016	9.64	5.46	4.18	10:55	
	08/25/2016	9.64	6.20	3.44	-	
	11/28/2016	9.64	7.07	2.57	8:44	
	05/22/2017	9.64	5.61	4.03	13:15	

Table 1
Summary of Water Level Measurements
Potomac River Generating Station, Alexandria, Virginia

Well Location	Date	Top of Casing (ft-msl)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-msl)	Time	Comments
** See notes at end of table*						
TW-06	12/18/2013	13.97	6.21	7.76	-	
	01/08/2014	13.97	6.98	6.99	-	
	03/07/2014	13.97	6.40	7.57	-	
	03/13/2014	13.97	6.62	7.35	-	
	03/20/2014	13.97	6.26	7.71	-	
	03/27/2014	13.97	6.88	7.09	-	
	04/03/2014	13.97	4.81	9.16	-	
	04/08/2014	13.97	5.82	8.15	-	
	04/17/2014	13.97	5.41	8.56	-	
	04/22/2014	13.97	5.90	8.07	-	
	04/29/2014	13.97	6.30	7.67	-	
	05/05/2014	13.97	4.98	8.99	-	
	05/12/2014	13.97	6.18	7.79	-	
	05/19/2014	13.97	4.63	9.34	-	
	05/27/2014	13.97	6.79	7.18	-	
	06/02/2014	13.97	6.24	7.73	-	
	06/09/2014	13.97	6.31	7.66	-	
	06/16/2014	13.97	5.33	8.64	-	
	06/23/2014	13.97	6.12	7.85	-	
	07/02/2014	13.97	6.52	7.45	-	
	07/07/2014	13.97	6.70	7.27	-	
	07/14/2014	13.97	6.24	7.73	-	
	07/25/2014	13.97	6.65	7.32	-	
	08/08/2014	13.97	6.81	7.16	-	
	08/11/2014	13.97	6.71	7.26	-	
	08/15/2014	13.97	6.01	7.96	-	
	08/18/2014	13.97	6.33	7.64	-	
	08/25/2014	9.86	6.37	3.49	-	
	09/02/2014	9.86	6.80	3.06	-	
	09/15/2014	9.86	6.79	3.07	-	
	09/22/2014	9.86	6.77	3.09	-	
	10/01/2014	9.86	6.88	2.98	-	
	10/10/2014	9.86	6.77	3.09	-	
	10/13/2014	9.86	6.85	3.01	-	
	10/20/2014	9.86	6.76	3.10	-	

Table 1
Summary of Water Level Measurements
Potomac River Generating Station, Alexandria, Virginia

Well Location	Date	Top of Casing (ft-msl)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-msl)	Time	Comments
** See notes at end of table*						
TW-06 (cont.)	10/27/2014	9.86	6.39	3.47	-	
	11/07/2014	9.86	6.83	3.03	-	
	11/12/2014	9.86	6.85	3.01	-	
	11/21/2014	9.86	7.28	2.58	-	
	11/26/2014	9.86	7.02	2.84	-	
	12/05/2014	9.86	5.85	4.01	-	
	12/11/2014	9.86	5.75	4.11	-	
	12/16/2014	9.86	6.18	3.68	-	
	12/23/2014	9.86	6.36	3.50	-	
	12/30/2014	9.86	5.85	4.01	-	
	01/09/2015	9.86	6.52	3.34	-	
	01/16/2015	9.86	5.77	4.09	-	
	01/19/2015	9.86	5.46	4.40	-	
	01/26/2015	9.86	4.69	5.17	-	
	02/03/2015	9.86	6.39	3.47	-	
	02/09/2015	9.86	6.62	3.24	-	
	02/18/2015	9.86	6.89	2.97	-	
	02/24/2015	9.86	6.90	2.96	14:54	
	03/04/2015	9.86	6.43	3.43	13:00	
	03/11/2015	9.86	4.47	5.39	12:06	
	03/18/2015	9.86	5.33	4.53	10:29	
	03/26/2015	9.86	6.13	3.73	12:27	
	04/02/2015	9.86	6.20	3.66	10:32	
	04/08/2015	9.86	6.66	3.20	10:15	
	04/13/2015	9.86	6.76	3.10	10:01	
	04/23/2015	9.86	5.62	4.24	10:47	
	04/29/2015	9.86	6.22	3.64	13:19	
	05/04/2015	9.86	6.14	3.72	10:56	
	05/11/2015	9.86	6.38	3.48	15:40	
	05/21/2015	9.86	6.24	3.62	13:09	
	05/28/2015	9.86	6.79	3.07	10:59	
	06/02/2015	9.86	4.41	5.45	12:21	
	06/09/2015	9.86	5.28	4.58	9:51	
	06/16/2015	9.86	6.24	3.62	10:41	
	06/26/2015	9.86	5.08	4.78	8:49	
	07/01/2015	9.86	3.55	6.31	11:41	
	07/08/2015	9.86	4.88	4.98	10:26	
	07/13/2015	9.86	4.78	5.08	8:55	

Table 1
Summary of Water Level Measurements
Potomac River Generating Station, Alexandria, Virginia

Well Location	Date	Top of Casing (ft-msl)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-msl)	Time	Comments
** See notes at end of table*						
TW-06 (cont.)	07/20/2015	9.86	5.93	3.93	8:46	
	07/28/2015	9.86	6.31	3.55	12:55	
	08/04/2015	9.86	6.34	3.52	12:07	
	08/11/2015	9.86	6.15	3.71	12:35	
	08/18/2015	9.86	6.58	3.28	9:26	
	08/24/2015	9.86	6.51	3.35	9:46	
	09/02/2015	9.86	6.65	3.21	11:30	
	09/09/2015	9.86	6.02	3.84	14:03	
	09/17/2015	9.86	6.85	3.01	11:40	
	09/23/2015	9.86	6.69	3.17	10:06	
	09/28/2015	9.86	6.27	3.59	10:41	
	10/05/2015	9.86	5.70	4.16	10:13	
	11/10/2015	9.86	6.65	3.21	12:32	
	12/01/2015	9.86	6.55	3.31	13:22	
	03/14/2016	9.86	6.57	3.29	10:05	
	5/23/2016 [2]	9.99	4.77	5.22	11:00	
	08/25/2016	9.99	6.13	3.86	-	
	11/28/2016	9.99	7.42	2.57	8:43	
	05/22/2017	9.99	5.82	4.17	13:11	
TW-07	12/18/2013	14.00	7.56	6.44	-	
	01/08/2014	14.00	7.91	6.09	-	
	03/07/2014	14.00	6.91	7.09	-	
	03/13/2014	14.00	7.40	6.60	-	
	03/20/2014	14.00	6.78	7.22	-	
	03/27/2014	14.00	7.56	6.44	-	
	04/03/2014	14.00	5.67	8.33	-	
	04/08/2014	14.00	6.77	7.23	-	
	04/17/2014	14.00	5.51	8.49	-	
	04/22/2014	14.00	6.75	7.25	-	
	04/29/2014	14.00	6.60	7.40	-	
	05/05/2014	14.00	5.41	8.59	-	
	05/12/2014	14.00	6.89	7.11	-	
	05/19/2014	14.00	6.16	7.84	-	
	05/27/2014	14.00	6.70	7.30	-	
	06/02/2014	14.00	6.94	7.06	-	
	06/09/2014	14.00	7.81	6.19	-	
	06/16/2014	14.00	6.47	7.53	-	
	06/23/2014	14.00	6.69	7.31	-	
	07/02/2014	14.00	7.00	7.00	-	

Table 1
Summary of Water Level Measurements
Potomac River Generating Station, Alexandria, Virginia

Well Location	Date	Top of Casing (ft-msl)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-msl)	Time	Comments
** See notes at end of table*						
TW-07 (cont.)	07/07/2014	14.00	7.27	6.73	-	
	07/14/2014	14.00	6.70	7.30	-	
	07/25/2014	14.00	7.33	6.67	-	
	07/31/2014	14.00	7.22	6.78	-	
	08/08/2014	14.00	7.39	6.61	-	
	08/11/2014	14.00	7.17	6.83	-	
	08/15/2014	14.00	7.05	6.95	-	
	08/18/2014	14.00	7.14	6.86	-	
	08/25/2014	9.88	6.87	3.01	-	
	09/02/2014	9.88	7.43	2.45	-	
	09/15/2014	9.88	7.33	2.55	-	
	09/22/2014	9.88	7.28	2.60	-	
	10/01/2014	9.88	7.38	2.50	-	
	10/13/2014	9.88	7.30	2.58	-	
	10/20/2014	9.88	7.49	2.39	-	
	02/24/2015	9.88	7.45	2.43	14:52	
	05/11/2015	9.88	6.92	2.96	15:27	
	08/04/2015	9.88	6.88	3.00	12:10	
	12/01/2015	9.88	5.97	3.91	13:24	
	03/14/2016	9.88	7.13	2.75	9:50	
	05/23/2016	9.88	5.13	4.75	10:46	
	08/25/2016	9.88	7.19	2.69	-	
	11/28/2016	9.88	7.87	2.01	8:44	
	05/22/2017	9.88	6.68	3.20	13:03	
TW-14	01/17/2014	15.55	2.48	13.07	-	
	03/07/2014	15.55	2.29	13.26	-	
	03/13/2014	15.55	2.55	13.00	-	
	03/20/2014	15.55	2.25	13.30	-	
	03/27/2014	15.55	2.42	13.13	-	
	04/03/2014	15.55	2.31	13.24	-	
	04/08/2014	15.55	2.27	13.28	-	
	04/17/2014	15.55	2.26	13.29	-	
	04/22/2014	15.55	2.48	13.07	-	
	04/29/2014	15.55	2.66	12.89	-	
	05/05/2014	15.55	2.56	12.99	-	
	05/12/2014	15.55	2.58	12.97	-	
	05/19/2014	15.55	2.38	13.17	-	
	06/02/2014	15.55	2.52	13.03	-	
	06/09/2014	15.55	2.50	13.05	-	

Table 1
Summary of Water Level Measurements
Potomac River Generating Station, Alexandria, Virginia

Well Location	Date	Top of Casing (ft-msl)	Depth to Water (ft-btoc)	Groundwater Elevation (ft-msl)	Time	Comments
** See notes at end of table*						
TW-14 (cont.)	06/16/2014	15.55	2.31	13.24	-	
	06/23/2014	15.55	2.44	13.11	-	
	07/02/2014	15.55	4.63	10.92	-	
	07/07/2014	15.55	4.65	10.90	-	
	07/14/2014	15.55	4.40	11.15	-	
	07/24/2014	15.55	4.46	11.09	-	
	07/31/2014	15.55	4.63	10.92	-	
	08/08/2014	15.55	4.43	11.12	-	
	08/11/2014	15.55	4.57	10.98	-	
	08/15/2014	15.55	4.36	11.19	-	
	08/18/2014	15.55	4.49	11.06	-	
	08/25/2014	11.61	3.01	8.60	-	
	09/02/2014	11.61	3.03	8.58	-	
	09/15/2014	11.61	3.19	8.42	-	
	09/22/2014	11.61	3.38	8.23	-	
	10/01/2014	11.61	3.50	8.11	-	
	10/10/2014	11.61	3.67	7.94	-	
	10/20/2014	11.61	3.02	8.59	-	
	02/24/2015	11.61	2.67	8.94	15:29	
	02/26/2015	11.61	2.68	8.93	12:00	
	05/11/2015	11.61	3.28	8.33	10:30	
	08/04/2015	11.61	3.37	8.24	10:31	
	08/11/2015	11.61	3.65	7.96	12:00	
	08/18/2015	11.61	3.83	7.78	9:15	
	12/01/2015	11.61	2.76	8.85	9:15	
	03/14/2016	11.61	2.80	8.81	10:11	
	05/23/2016	11.61	2.71	8.90	11:24	
	08/24/2016	11.61	3.05	8.56	-	
	11/28/2016	11.61	4.07	7.54	11:24	
	11/28/2016	11.61	4.07	7.54	11:24	
	05/22/2017	11.61	3.16	8.45	9:45	

Notes:

ft-msl feet above mean sea level

ft-btoc feet below top of casing

\- Not recorded/calculated

NS Not surveyed (TW-02 was resurveyed in October 2014)

[1] In August 2014 site monitoring wells were resurveyed by Dewberry, Inc. after certain wells were adapted from stick-up to flush mount

[2] Monitoring well TW-06 was resurveyed in May 2016, after construction activities disturbed the top of case elevation

Table 2a
Summary of Groundwater Analytical Results
Volatile Organic Compounds, Total Petroleum Hydrocarbons, and Oil & Grease
Potomac River Generating Station, Alexandria, Virginia

Sample Location	Date	Volatile Organic Compounds (µg/L)								Total Petroleum Hydrocarbons (µg/L)		
		Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butylether	Tertbutyl alcohol	1,2-Dichloroethane	1,2-Dibromoethane	TPH-GRO	TPH-DRO	Oil and Grease
	GWQS [1]	5	1,000	700	10,000	22	1,410	5	0.0118	34,500	34,500	31,800
	SWQS [2]	51	600	40	NA	NA	NA	37	NA	NA	NA	10,000
TW-02	12/16/2013	<0.5	<0.5	<0.5	<0.5	0.791	NS	NS	NS	NS	584	NS
	7/7/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1,160	NS
	8/15/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	<600	NS
	10/23/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	60	NS
	3/4/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	<45	2,000 J
	5/13/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	<45	2,300 J
	8/5/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	<45	<1,400
	12/3/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	81J	<1,400
	3/16/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	<45	<1,400 J-
	5/25/2016	<0.5 J-	<0.5	<0.5	<0.5	<0.5	<2 J-	<0.5	<0.5	<20	<45 J+	<1,400 J+
	8/24/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	<45	3,700 J
	11/28/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	<45	<1,400
	11/28/2016 [6]	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	<45	<1,400
	5/23/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	<45	2,700 J
TW-03	12/16/2013	<0.5	<0.5	<0.5	<0.5	<0.5	NS	NS	NS	NS	351	NS
	7/7/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1,160	NS
	8/15/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	<1,500	NS
	10/23/2014	0.7	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	49 J	NS
	3/4/2015	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	180	3,100 J
	5/13/2015	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	21 J	200	<1,400
	8/5/2015	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	150	<1,400
	12/2/2015	0.7J	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	56	<1,400
	3/16/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	32 J	150	<1,400 J-
	5/23/2016 [4]	1 J-	<0.5	<0.5	<0.5	<0.5	<2 J-	<0.5	<0.5	31 J	190 J+	<1,400 J+
	5/23/2016 [5]	1 J-	<0.5	<0.5	<0.5	<0.5	<2 J-	<0.5	<0.5	27 J	180 J+	<1,400 J+
	8/25/2016	0.7 J	<0.5	<0.5	<0.5	<0.5	<2 J	<0.5	<0.5	<20	100	<1,400
	11/28/2016 [5]	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	54 J	2,900 J
	11/29/2016 [4]	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	55 J	1,700 J
	5/23/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	75 J	<1,400
TW-04	12/16/2013	2.2	<0.5	3.45	7.11	<0.5	NS	NS	NS	NS	2000	NS
	7/7/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	1270	NS
	8/15/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	1610	NS
	10/23/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	160	NS
	3/4/2015	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	27 J	940	3,800 J
	5/13/2015	1 J	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	33 J	700	3,500 J
	8/6/2015	0.6 J	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	38 J	1000	1,700 J
	12/2/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	22 J	280	<1,400
	3/14/2016	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	31 J	980	<1,400
	5/24/2016	1 J-	<0.5	<0.5	<0.5	<0.5	<2 J-	<0.5	<0.5	50 J	1100 J+	<1,400 J+
	8/24/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	30 J	430	<1,400
	8/24/2016 [6]	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	27 J	430	<1,400
	11/29/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	220	1,600 J
	5/22/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	27 J	770	2,200 J

Notes:

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µg/L micrograms per liter
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+/- Symbols added to J qualification indicate if the value presented is biased high or low
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Table 2a
Summary of Groundwater Analytical Results
Volatile Organic Compounds, Total Petroleum Hydrocarbons, and Oil & Grease
Potomac River Generating Station, Alexandria, Virginia

Sample Location	Date	Volatile Organic Compounds (µg/L)								Total Petroleum Hydrocarbons (µg/L)		
		Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butylether	Tertbutyl alcohol	1,2-Dichloroethane	1,2-Dibromoethane	TPH-GRO	TPH-DRO	Oil and Grease
	GWQS [1]	5	1,000	700	10,000	22	1,410	5	0.0118	34,500	34,500	31,800
	SWQS [2]	51	600	40	NA	NA	NA	37	NA	NA	NA	10,000
TW-05	12/16/2013	**7.68**	<0.5	**62.8**	40.3	<0.5	NS	NS	NS	NS	**136,000**	NS
	7/7/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	**66,300**	NS
	8/15/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	**271,000**	NS
	10/23/2014	4	<0.5	14	<0.5	<0.5	<2	<0.5	<0.5	140	29,000	NS
	3/4/2015	2	<0.5	1	<0.5	<0.5	<2	<0.5	<0.5	130	2,200	2,800 J
	5/13/2015	3	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	44 J	1,100	<1,400
	8/6/2015	2	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	37 J	790	1,500 J
	12/1/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	30 J	330	<1,400
	3/14/2016	1	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	960	1,500 J+
	5/24/2016	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/25/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	36 J	890	2,700 J
	11/29/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	20 J	430	1,400 J
	5/22/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	30 J	650	2,200 J
	5/22/2017 [6]	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	30 J	590	<1,400
TW-06	12/16/2013	1.09	<0.5	20.3	7.86	<0.5	NS	NS	NS	NS	**47,000**	NS
	7/7/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	**113,000**	NS
	8/15/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	**147,000**	NS
	10/23/2014	0.8	<0.5	11	1	<0.5	<2	<0.5	<0.5	230	16,000	NS
	3/4/2015	2	<0.5	6	<0.5	<0.5	<2	<0.5	<0.5	170	2,200	1,900 J
	5/13/2015	2	<0.5	4	<0.5	<0.5	<2	<0.5	<0.5	130	2,300	2,800 J
	8/6/2015	2	<0.5	1	<0.5	<0.5	<2	<0.5	<0.5	81	1,400	<1,400
	12/2/2015	0.8	<0.5	1	<0.5	<0.5	<2	<0.5	<0.5	92	1,300	<1,400
	3/15/2016	0.8 J	<0.5	3	<0.5	<0.5	<2	<0.5	<0.5	110	**43,000**	<1,400 J-
	5/24/2016	<0.5	<0.5	4	<0.5	<0.5	<2	<0.5	<0.5	120	1,800 J+	<1,400 J+
	5/24/2016 [6]	<0.5 J-	<0.5	4	<0.5	<0.5	<2 J-	<0.5	<0.5	120	NS	1,700 J+
	8/25/2016	0.6 J	<0.5	0.5 J	<0.5	<0.5	<2	<0.5	<0.5	73	1,500	2,000 J
	11/29/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	57	1,200	1,900 J
	5/23/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	57	1,500	<1,400
TW-07	12/16/2013	2.38	<0.5	0.969	<0.5	<0.5	NS	NS	NS	NS	3,290	NS
	7/7/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	**41,500**	NS
	8/15/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	19,600	NS
	10/23/2014	2	<0.5	0.6 J	<0.5	<0.5	<2	<0.5	<0.5	29 J	4,700	NS
	3/4/2015	**9**	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	46 J	670	3,300 J
	5/13/2015	**10**	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	36 J	320	<1,400
	8/5/2015	**7**	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	57	220	<1,400
	12/2/2015	3	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	110	<1,400
	3/15/2016	3	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20 J	160	<1,400 J-
	5/24/2016	3 J-	<0.5	<0.5	<0.5	<0.5	<2 J-	<0.5	<0.5	20 J	160 J+/<45 [7]	<1,400 J+
	8/25/2016	1	<0.5	<0.5	<0.5	<0.5	<2 J	<0.5	<0.5	<20	340	1,400 J
	11/30/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2 J	<0.5	<0.5	<20	59 J	<1,400
	5/23/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	86 J	1,800 J

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Table 2a
Summary of Groundwater Analytical Results
Volatile Organic Compounds, Total Petroleum Hydrocarbons, and Oil & Grease
Potomac River Generating Station, Alexandria, Virginia

Sample Location	Date	Volatile Organic Compounds (µg/L)								Total Petroleum Hydrocarbons (µg/L)		
		Benzene	Toluene	Ethylbenzene	Xylene	Methyl tert-butylether	Tertbutyl alcohol	1,2-Dichloroethane	1,2-Dibromoethane	TPH-GRO	TPH-DRO	Oil and Grease
	GWQS [1]	5	1,000	700	10,000	22	1,410	5	0.0118	34,500	34,500	31,800
	SWQS [2]	51	600	40	NA	NA	NA	37	NA	NA	NA	10,000
TW-14	1/17/2014	<0.5	<0.5	<0.5	<0.5	0.536	NS	NS	NS	NS	2,290	NS
	7/7/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	16,000	NS
	8/15/2014	NS	NS	NS	NS	NS	NS	NS	NS	NS	3,900	NS
	10/21/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	100	670	NS
	2/26/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	73	120	1,800 J
	5/12/2015	1	<0.5	<0.5	<0.5	<0.5	7.00	<0.5	<0.5	220	2,000	NS
	8/11/2015 [3]	1	<0.5	<0.5	<0.5	<0.5	9	<0.5	<0.5	130	3,700	1,600 J
	12/1/2015	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	<45	1,800J
	3/14/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	54 J	<1,400
	5/23/2016	<0.5 J-	<0.5	<0.5	<0.5	<0.5	<2 J-	<0.5	<0.5	22 J	<45 J+	<1,400 J+
	8/24/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	<45	<1,400
	12/1/2016	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	480	2,100 J
	5/22/2017	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<20	<45	1,900 J

Notes:

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Table 2b

Summary of Groundwater Analytical Results
Polynuclear Aromatic Hydrocarbons
Potomac River Generating Station, Alexandria, Virginia

Sample Location	Date/ Standards	Polycyclic Aromatic Hydrocarbons (PAHs) (µg/l)							
		1-Methylnaph-thalene	2-Methylnaph-thalene	Acenaph-thene	Ace-naphthylene	Anthracene	Benzo(b) fluoranthene	Benzo[a] anthracene	Benzo[a] pyrene
	GWQS [1,2]	NA	NA	939	NA	4,690	0.0529	0.0529	NA
	SWQS [3]	NA	NA	50,000	NA	40,000	18	18	18
TW-02	3/4/2015	0.045 J	0.043 J	0.17	<0.010	0.038 J	0.014 J	0.018 J	0.011 J
	5/13/2015	0.093	0.11	0.20	0.085	0.13	0.70	0.51	0.56
	8/5/2015	0.04 J	0.03 J	0.20	<0.02	0.04 J	<0.02	<0.02	<0.02
	12/3/2015	0.03 J	0.02 J	0.20 J-	<0.02 J-	0.05 J-	<0.02	<0.02	<0.02
	3/16/2016	<0.08	<0.08	0.1 J	<0.08	<0.08	<0.08 J-	<0.08 J-	<0.08 J-
	5/25/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	8/24/2016	<0.08	<0.08	0.2 J	<0.08	<0.08	<0.08	<0.08	<0.08
	11/28/2016	<0.08	<0.08	0.20	<0.08	<0.08	<0.08	<0.08	<0.08
	11/28/2016 [7]	<0.08	<0.08	0.20	<0.08	<0.08	<0.08	<0.08	<0.08
	5/23/2017	<0.09	<0.09	0.2 J	<0.09	<0.09	<0.09	<0.09	<0.09
TW-03	3/4/2015	0.14	0.049 J	0.18	<0.010	0.028 J	0.021 J	0.019 J	0.016 J
	5/13/2015	0.071	0.037 J	0.26	0.028 J	0.068	0.21	0.17	0.18
	8/5/2015	0.200	0.05	0.20	<0.02	0.05 J	<0.02	<0.02	<0.02
	12/2/2015	<0.04	<0.04	0.06 J-	<0.04 J-	<0.04 J-	<0.04	<0.04	<0.04
	3/16/2016	<0.08	<0.08	0.1 J	<0.08	<0.08	<0.08 J-	<0.08 J-	<0.08 J-
	5/23/2016 [5]	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
	5/23/2016 [6]	0.1 J	<0.08	0.1 J	<0.08	<0.08	<0.08	<0.08	<0.08
	8/25/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	11/28/2016 [6]	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	11/29/2016 [5]	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
	5/23/2017	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
TW-04	12/16/2013	NS	NS	NS	NS	NS	NS	NS	NS
	10/23/2014	0.9	0.2	1	0.03 J	0.4	0.2	0.1	0.08
	3/4/2015	2.2	0.15	1.3	<0.010	0.37	0.017 J	0.018 J	<0.010
	5/13/2015	2.7	0.076	0.74	<0.010	0.10	0.070	0.049 J	0.042 J
	8/6/2015	3.0	0.070	0.50	<0.02	0.07	<0.02	0.02	<0.02
	12/2/2015	0.09 J	<0.04	0.4 J-	<0.04 J-	<0.04 J-	<0.04	<0.04	<0.04
	3/14/2016	1	<0.08	0.5	<0.08	<0.08	<0.08 J-	0.1 J	0.1 J
	5/24/2016	0.4	<0.08	0.9	<0.08	0.1 J	<0.08 J	<0.08	<0.08
	8/24/2016	<0.08	<0.08	0.5	<0.08	<0.08	<0.08	<0.08	<0.08
	8/24/2016 [7]	<0.08	<0.08	0.5	<0.08	<0.08	<0.08	<0.08	<0.08
	11/29/2016	<0.08	<0.08	0.3	<0.08	<0.08	<0.08	<0.08	<0.08
	5/22/2017	2	0.2 J	8	<0.08	0.7	<0.08	<0.08	<0.08
TW-05	12/16/2013	NS	NS	NS	NS	NS	NS	NS	NS
	7/7/2014	NS	NS	NS	NS	NS	NS	NS	NS
	8/15/2014	NS	NS	NS	NS	NS	NS	NS	NS
	10/23/2014	33	15	3	0.9	2	0.4 J	0.5 J	0.2 J
	3/4/2015	5.3	0.65	0.63	<0.010	0.23	0.024 J	0.034 J	0.017 J
	5/13/2015	0.81	0.19	0.41	<0.010	0.071	0.048 J	0.046 J	0.031 J
	8/6/2015	1	0.20	0.70	<0.02	0.060	<0.02	<0.02	<0.02
	12/1/2015	0.2	<0.04	0.5 J-	<0.04 J-	<0.04 J-	<0.04	<0.04	<0.04
	3/14/2016	1	<0.08	0.4	<0.08	<0.08	<0.08 J	<0.08	<0.08
	8/25/2016	<0.1	<0.1	0.7	<0.1	<0.1	<0.1	<0.1	<0.1
	11/29/2016	0.4	0.1 J	0.2 J	<0.08	<0.08	<0.08	<0.08	<0.08
	5/22/2017	0.4	<0.08	0.2 J	<0.08	0.1 J	<0.08	<0.08	<0.08
	5/22/2017 [7]	0.4	<0.08	0.2 J	<0.08	0.1 J	<0.08	<0.08	<0.08

Notes:

NS Not Sampled
NA No applicable surface water standard
µg/L micrograms per liter
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[4] Sample collected over several days due to a limited volume of water in the monitoring well
[5] Sample collected at high tide
[6] Sample collected at low tide
[7] Duplicate sample results
Bold indicates an exceedance, for comparative purpose, of one or more standards (groundwater and/or surface water)

Table 2b
Summary of Groundwater Analytical Results
Polynuclear Aromatic Hydrocarbons
Potomac River Generating Station, Alexandria, Virginia

Sample Location	Date/ Standards	Polycyclic Aromatic Hydrocarbons (PAHs) (µg/l)							
		1-Methylnaph-thalene	2-Methylnaph-thalene	Acenaph-thene	Ace-naphthylene	Anthracene	Benzo(b) fluoranthene	Benzo[a] anthracene	Benzo[a] pyrene
	GWQS [1,2]	NA	NA	939	NA	4,690	0.0529	0.0529	NA
	SWQS [3]	NA	NA	50,000	NA	40,000	18	18	18
TW-06	12/16/2013	NS	NS	NS	NS	NS	NS	NS	NS
	10/23/2014	59	<0.2	4	1	1	0.6	0.6	0.4 J
	3/4/2015	28	<0.010	3.1	<0.010	0.32	<0.010	0.011 J	<0.010
	5/13/2015	16	0.087	1.6	<0.010	0.18	<0.010	0.015 J	<0.010
	8/6/2015	10	0.200	2.0	0.2	0.10	0.02	<0.02	<0.02
	12/2/2015	5	<0.04	2 J-	0.2 J-	0.2 J-	<0.04	<0.04	<0.04
	3/15/2016	22	<0.08	2	0.3	0.1 J	<0.08 J-	<0.08 J-	<0.08 J-
	5/24/2016	2	0.2 J	2	<0.08	0.09 J	<0.08	<0.08	<0.08
	5/24/16 [7]	4	0.2	2	0.1 J	0.1 J	<0.08	<0.08	<0.08
	8/25/2016	0.8	<0.08	1	<0.08	0.1 J	<0.08	<0.08	<0.08
	11/29/2016	1	0.2 J	2	0.2	0.3	<0.08	<0.08	<0.08
	5/23/2017	2	<0.08	2	0.2 J	0.2 J	<0.08	<0.08	<0.08
TW-07	12/16/2013	NS	NS	NS	NS	NS	NS	NS	NS
	10/23/2014	6	7	0.4	<0.02	0.04 J	0.06	0.04 J	0.04 J
	3/4/2015	0.43	0.38	0.056	<0.010	0.015 J	<0.010	<0.010	<0.010
	5/13/2015	0.33	0.25	<0.010	<0.010	<0.010	0.053	0.034 J	0.041 J
	8/5/2015	0.20	0.20	0.1	0.02 J	0.02 J	0.070	0.05 J	0.06
	12/2/2015	0.1	0.2	<0.04 J-	<0.04 J-	<0.04 J-	<0.04	<0.04	<0.04
	3/15/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08 J-	<0.08 J-	<0.08 J-
	5/24/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	8/25/2016	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
	11/30/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/23/2017	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
TW-14	1/17/2014	NS	NS	NS	NS	NS	NS	NS	NS
	2/26/2015	0.011 J	<0.010	0.012 J	0.013 J	<0.010	<0.010	<0.010	<0.010
	5/12/2015	NS	NS	NS	NS	NS	NS	NS	NS
	8/13/2015	0.2 J	0.4	<0.08	4	<0.08	<0.08	<0.08	<0.08
	12/1/2015	<0.04	<0.04	<0.04 J-	<0.04 J-	<0.04 J-	<0.04	<0.04	<0.04
	3/14/2016	<0.08	<0.08	<0.08	0.2 J	<0.08	<0.08 J-	<0.08	<0.08
	5/23/2016	<0.08	<0.08	<0.08	0.09 J	<0.08	<0.08	<0.08	<0.08
	8/24/2016	<0.08	<0.08	<0.08	0.09 J	<0.08	<0.08	<0.08	<0.08
	12/1/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/22/2017	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Notes:

NS Not Sampled

NA No applicable surface water standard

µg/L micrograms per liter

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[3] Surface Water Quality Standards - Department Of Energy & Environment (DOEE) Risk Based Corrective Action (RBCA) Surface Water Standards - Table 5-6 Groundwater and Surface Water Standards at the Point of Exposure and 21 DCMR 1100 DDOE

[4] Sample collected over several days due to a limited volume of water in the monitoring well

[5] Sample collected at high tide

[6] Sample collected at low tide

[7] Duplicate sample results

Bold indicates an exceedance, for comparative purpose, of one or more standards (groundwater and/or surface water)

Table 2b

Summary of Groundwater Analytical Results
Polynuclear Aromatic Hydrocarbons
Potomac River Generating Station, Alexandria, Virginia

Sample Location	Date/ Standards	Polycyclic Aromatic Hydrocarbons (PAHs) (µg/l)							
		Benzo [g,h,i] perylene	**Benzo [k] fluoranthene**	**Benzo (e) pyrene**	**Biphenyl**	**Chrysene**	**Dibenz[a,h]-anthracene**	**Dibenzo-furan**	**Dibenzo-thiophene**
	GWQS [1,2]	469	0.0785	NA	NA	0.785	NA	NA	NA
	SWQS [3]	NA	18	NA	NA	18	18	NA	NA
TW-02	3/4/2015	0.011 J	<0.010	NS	NS	0.015 J	<0.010	NS	NS
	5/13/2015	0.47	0.27	NS	NS	0.59	0.13	NS	NS
	8/5/2015	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04 J	<0.02
	12/3/2015	<0.02	<0.02	<0.02	0.03 J	<0.02 J-	<0.02	0.05 J-	0.02 J
	3/16/2016	<0.08	<0.08 J-	<0.08	<0.08	<0.08 J-	<0.08	<0.08	<0.08 J-
	5/25/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	8/24/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	11/28/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	11/28/2016 [7]	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/23/2017	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
TW-03	3/4/2015	0.013 J	<0.010	NS	NS	0.016 J	<0.010	NS	NS
	5/13/2015	0.12	0.088	NS	NS	0.17	0.032 J	NS	NS
	8/5/2015	<0.02	<0.02	<0.02	0.70	<0.02	<0.02	0.20	0.07
	12/2/2015	<0.04	<0.04	<0.04	0.20	<0.04 J-	<0.04	0.05 J-	<0.04
	3/16/2016	<0.08	<0.08 J-	<0.08	0.6	<0.08 J-	<0.08	0.2 J	0.09 J-
	5/23/2016 [5]	<0.09	<0.09	<0.09	0.3	<0.09	<0.09	0.2 J	0.1 J
	5/23/2016 [6]	<0.08	<0.08	<0.08	0.3	<0.08	<0.08	0.2 J	0.1 J
	8/25/2016	<0.08	<0.08	<0.08	0.1 J	<0.08	<0.08	0.1 J	0.09 J
	11/28/2016 [6]	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.08 J	<0.08
	11/29/2016 [5]	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/23/2017	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
TW-04	12/16/2013	NS	NS	NS	NS	NS	NS	NS	NS
	10/23/2014	0.05	0.1	NS	NS	0.2	<0.02	NS	NS
	3/4/2015	<0.010	<0.010	NS	NS	0.021 J	<0.010	NS	NS
	5/13/2015	0.034 J	0.029 J	NS	NS	0.069	<0.010	NS	NS
	8/6/2015	<0.02	<0.02	<0.02	2	<0.02	<0.02	0.1	<0.02
	12/2/2015	<0.04	<0.04	<0.04	0.05 J	<0.04 J-	<0.04	0.1 J-	<0.04
	3/14/2016	0.5	0.2 J-	<0.08	0.8 J+	0.2 J	0.2	0.1 J	<0.08
	5/24/2016	<0.08	<0.08	<0.08	0.4	<0.08	<0.08	0.2	<0.08
	8/24/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.1 J	<0.08
	8/24/2016 [7]	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.2 J	<0.08
	11/29/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.1 J	<0.08
	5/22/2017	<0.08	<0.08	<0.08	0.3	<0.08	<0.08	2	0.3
TW-05	12/16/2013	NS	NS	NS	NS	NS	NS	NS	NS
	7/7/2014	NS	NS	NS	NS	NS	NS	NS	NS
	8/15/2014	NS	NS	NS	NS	NS	NS	NS	NS
	10/23/2014	0.2 J	0.2 J	NS	NS	0.7	<0.2	NS	NS
	3/4/2015	0.014 J	<0.010	NS	NS	0.050 J	<0.010	NS	NS
	5/13/2015	0.028 J	0.015 J	NS	NS	0.071	<0.010	NS	NS
	8/6/2015	<0.02	<0.02	<0.02	2.0	<0.02	<0.02	0.2	0.1
	12/1/2015	<0.04	<0.04	<0.04	0.1	<0.04 J-	<0.04	0.3 J-	0.07 J
	3/14/2016	<0.08	<0.08 J	<0.08	1 J	<0.08	<0.08	0.2 J	<0.08
	8/25/2016	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	0.3	<0.1
	11/29/2016	<0.08	<0.08	<0.08	0.2 J	<0.08	<0.08	0.4	0.1 J
	5/22/2017	<0.08	<0.08	<0.08	0.2	<0.08	<0.08	0.3	0.1 J
	5/22/2017 [7]	<0.08	<0.08	<0.08	0.2	<0.08	<0.08	0.3	0.1 J

Notes:

NS Not Sampled
NA No applicable surface water standard
µg/L micrograms per liter
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[6] Sample collected at low tide
[7] Duplicate sample results
Bold indicates an exceedance, for comparative purpose, of one or more standards (groundwater and/or surface water)

Table 2b

Summary of Groundwater Analytical Results
Polynuclear Aromatic Hydrocarbons
Potomac River Generating Station, Alexandria, Virginia

Sample Location	Date/ Standards	Polycyclic Aromatic Hydrocarbons (PAHs) (µg/l)							
		Benzo [g,h,i] perylene	**Benzo [k] fluoranthene**	**Benzo (e) pyrene**	**Biphenyl**	**Chrysene**	**Dibenz[a,h]-anthracene**	**Dibenzo-furan**	**Dibenzo-thiophene**
	GWQS [1,2]	469	0.0785	NA	NA	0.785	NA	NA	NA
	SWQS [3]	NA	18	NA	NA	18	18	NA	NA
TW-06	12/16/2013	NS	NS	NS	NS	NS	NS	NS	NS
	10/23/2014	0.3 J	0.3 J	NS	NS	**0.8**	<0.2	NS	NS
	3/4/2015	<0.010	<0.010	NS	NS	<0.010	<0.010	NS	NS
	5/13/2015	<0.010	<0.010	NS	NS	0.023 J	<0.010	NS	NS
	8/6/2015	<0.02	<0.02	<0.02	6.00	<0.02	<0.02	0.70	0.40
	12/2/2015	<0.04	<0.04	<0.04	4	<0.04 J-	<0.04	0.8 J-	0.4
	3/15/2016	<0.08	<0.08 J-	<0.08	7	<0.08 J-	<0.08	1	0.5 J-
	5/24/2016	<0.08	<0.08	<0.08	0.7	<0.08	<0.08	0.6	0.1 J
	5/24/16 [7]	<0.08	<0.08	<0.08	2	<0.08	<0.08	0.8	0.2
	8/25/2016	<0.08	<0.08	<0.08	0.5	<0.08	<0.08	0.3	0.1 J
	11/29/2016	<0.08	<0.08	<0.08	3	<0.08	<0.08	0.8	0.5
	5/23/2017	<0.08	<0.08	<0.08	2	<0.08	<0.08	0.7	0.3
TW-07	12/16/2013	NS	NS	NS	NS	NS	NS	NS	NS
	10/23/2014	0.03 J	0.04 J	NS	NS	0.08	<0.02	NS	NS
	3/4/2015	<0.010	<0.010	NS	NS	0.014 J	<0.010	NS	NS
	5/13/2015	0.036 J	0.021 J	NS	NS	0.045 J	<0.010	NS	NS
	8/5/2015	0.05	0.05	0.06	0.40	0.06	<0.02	<0.02	<0.02
	12/2/2015	<0.04	<0.04	<0.04	0.5	<0.04J-	<0.04	<0.04 J-	<0.04
	3/15/2016	<0.08	<0.08 J-	<0.08	0.4	<0.08 J-	<0.08	<0.08	<0.08 J-
	5/24/2016	<0.08	<0.08	<0.08	0.2 J	<0.08	<0.08	<0.08	<0.08
	8/25/2016	<0.09	<0.09	<0.09	0.5	<0.09	<0.09	<0.09	<0.09
	11/30/2016	<0.08	<0.08	<0.08	0.5	<0.08	<0.08	<0.08	<0.08
	5/23/2017	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
TW-14	1/17/2014	NS	NS	NS	NS	NS	NS	NS	NS
	2/26/2015	<0.010	<0.010	NS	NS	<0.010	<0.010	NS	NS
	5/12/2015	NS	NS	NS	NS	NS	NS	NS	NS
	8/13/2015	<0.08	<0.08	<0.08	0.09 J	<0.08	<0.08	<0.08	<0.08
	12/1/2015	<0.04	<0.04	<0.04	<0.04	<0.04 J-	<0.04	<0.04 J-	<0.04
	3/14/2016	<0.08	<0.08 J-	<0.08	<0.08 J+	<0.08	<0.08	<0.08	<0.08
	5/23/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	8/24/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	12/1/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/22/2017	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Notes:

NS Not Sampled

NA No applicable surface water standard

µg/L micrograms per liter

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[7] Duplicate sample results

Bold indicates an exceedance, for comparative purpose, of one or more standards (groundwater and/or surface water)

Table 2b

Summary of Groundwater Analytical Results
Polynuclear Aromatic Hydrocarbons
Potomac River Generating Station, Alexandria, Virginia

Sample Location	Date/ Standards	Polycyclic Aromatic Hydrocarbons (PAHs) (µg/l)							
		Fluor-anthene	Fluorene	Indeno-[1,2,3-cd] pyrene	Naptha-lene	Naphtho-benzo-thiophene	Perylene	Phenan-threne	Pyrene
	GWQS [1,2]	626	626	NA	0.268	NA	NA	469	469
	SWQS [3]	140	5,300	0.018	600	NA	NA	NA	4,000
TW-02	3/4/2015	0.15	0.065	<0.010	0.20	NS	NS	0.14	0.13
	5/13/2015	1	0.12	**0.40**	<1	NS	NS	0.64	1
	8/5/2015	0.1	0.07	**<0.02**	0.20	<0.02	<0.02	0.10	0.1
	12/3/2015	0.2 J-	0.09 J-	<0.02	0.07	<0.02	<0.02	0.1 J-	0.20
	3/16/2016	0.1 J	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/25/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	8/24/2016	0.2	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.2
	11/28/2016	0.3	0.09 J	<0.08	<0.08	<0.08	<0.08	<0.08	0.3
	11/28/2016 [7]	0.3	0.09 J	<0.08	<0.08	<0.08	<0.08	<0.08	0.2
	5/23/2017	0.2 J	0.1 J	<0.09	<0.09	<0.09	<0.09	<0.09	0.2 J
TW-03	3/4/2015	0.037 J	0.36	0.011 J	<0.030	NS	NS	0.14	0.047 J
	5/13/2015	0.25	0.43	**0.12**	<1	NS	NS	0.27	0.23
	8/5/2015	0.03 J	0.40	**<0.02**	0.20	<0.02	<0.02	0.3	0.05 J
	12/2/2015	<0.04 J-	0.1 J-	<0.04	<0.04	<0.04	<0.04	0.04 J-	<0.04
	3/16/2016	<0.08	0.5	<0.08	0.1 J	<0.08	<0.08	0.1 J-	<0.08
	5/23/2016 [5]	<0.09	<0.09	<0.09	0.1 J	<0.09	<0.09	0.2 J	<0.09
	5/23/2016 [6]	<0.08	0.4	<0.08	0.1 J	<0.08	<0.08	0.2 J	<0.08
	8/25/2016	<0.08	0.2	<0.08	<0.08	<0.08	<0.08	0.1 J	<0.08
	11/28/2016 [6]	<0.08	0.1 J	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	11/29/2016 [5]	<0.08	0.1 J	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/23/2017	<0.09	0.2 J	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
TW-04	12/16/2013	NS	NS	NS	27.7	NS	NS	NS	NS
	10/23/2014	1	1	**0.05**	0.3	NS	NS	3	0.7
	3/4/2015	0.66	0.53	<0.010	1	NS	NS	1.2	0.24
	5/13/2015	0.28	0.37	**0.033 J**	<1	NS	NS	0.21	0.21
	8/6/2015	0.1	0.4	**<0.02**	0.6	<0.02	<0.02	0.04 J	0.04 J
	12/2/2015	<0.04 J-	0.4 J-	<0.04	<0.04	<0.04	<0.04	<0.04 J-	<0.04
	3/14/2016	<0.08	0.3	**0.1 J**	0.2	<0.08	<0.08	<0.08	<0.08
	5/24/2016	0.1 J	0.6	<0.08	0.5	<0.08	<0.08	0.2 J	0.09 J
	8/24/2016	<0.08	0.4	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	8/24/2016 [7]	<0.08	0.5	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	11/29/2016	0.1 J	0.3	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/22/2017	0.7	4	<0.08	0.9	<0.08	<0.08	2	0.4
TW-05	12/16/2013	NS	NS	NS	240	NS	NS	NS	NS
	7/7/2014	NS	NS	NS	NS	NS	NS	NS	NS
	8/15/2014	NS	NS	NS	NS	NS	NS	NS	NS
	10/23/2014	1	5	**<0.2**	21	NS	NS	10	5
	3/4/2015	0.11	0.65	<0.010	3.0	NS	NS	0.52	0.29
	5/13/2015	0.099	0.42	**0.022 J**	1 J	NS	NS	0.084	0.36
	8/6/2015	0.050	0.30	**<0.02**	0.8	<0.02	<0.02	0.2	0.07
	12/1/2015	<0.04 J-	0.3 J-	<0.04	<0.04	<0.04	<0.04	0.08 J-	0.07 J
	3/14/2016	<0.08	0.3	<0.08	0.3	<0.08	<0.08	<0.08	<0.08
	8/25/2016	<0.1	0.2 J	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	11/29/2016	<0.08	0.3	<0.08	0.2	<0.08	<0.08	<0.08	<0.08
	5/22/2017	<0.08	0.5	<0.08	0.09 J	<0.08	<0.08	0.1 J	<0.08
	5/22/2017 [7]	<0.08	0.5	<0.08	<0.08	<0.08	<0.08	0.1 J	<0.08

Notes:

NS Not Sampled

NA No applicable surface water standard

µg/L micrograms per liter

J Constituent detected below reportable quantitation limit, or result is an estimated value

+/- Symbols added to J qualification indicate if the value presented is biased high or low

< Indicates the sample results were not detected above the listed the method detection limit

[1] Groundwater Quality Standards - Department Of Energy & Environment (DOEE) Risk Based Corrective Action (RBCA) Ground Water Standards - Table 5-8 Risk-Based Levels for a Resident Child - Domestic Use of Water (ingestion and Inhalation)

[2] Groundwater Quality Standards - 21 DCMR 1155 Groundwater Standards. Criteria used when no applicable criteria published in RBCA Table 5-8

[3] Surface Water Quality Standards - Department Of Energy & Environment (DOEE) Risk Based Corrective Action (RBCA) Surface Water Standards - Table 5-6 Groundwater and Surface Water Standards at the Point of Exposure and 21 DCMR 1100 DDOE

[4] Sample collected over several days due to a limited volume of water in the monitoring well

[5] Sample collected at high tide

[6] Sample collected at low tide

[7] Duplicate sample results

Bold indicates an exceedance, for comparative purpose, of one or more standards (groundwater and/or surface water)

Table 2b

Summary of Groundwater Analytical Results
Polynuclear Aromatic Hydrocarbons
Potomac River Generating Station, Alexandria, Virginia

Sample Location	Date/ Standards	Polycyclic Aromatic Hydrocarbons (PAHs) (µg/l)							
		Fluor-anthene	Fluorene	Indeno-[1,2,3-cd] pyrene	Naptha-lene	Naphtho-benzo-thiophene	Perylene	Phenan-threne	Pyrene
	GWQS [1,2]	626	626	NA	0.268	NA	NA	469	469
	SWQS [3]	140	5,300	0.018	600	NA	NA	NA	4,000
TW-06	12/16/2013	NS	NS	NS	174	NS	NS	NS	NS
	10/23/2014	2	8	**0.2 J**	5	NS	NS	16	6
	3/4/2015	0.094	4.5	<0.010	<0.030	NS	NS	2.8	0.18
	5/13/2015	0.074	<0.010	<0.010	4	NS	NS	1	0.24
	8/6/2015	0.080	3	**<0.02**	2	<0.02	<0.02	1	0.2
	12/2/2015	0.07 J-	2 J-	<0.04	0.8	<0.04	<0.04	0.5 J-	0.2
	3/15/2016	<0.08	3	<0.08	1	<0.08	<0.08	0.9	0.1 J
	5/24/2016	<0.08	2	<0.08	1	<0.08	<0.08	<0.08	0.2 J
	5/24/16 [7]	0.08	2	<0.08	1	<0.08	<0.08	0.09 J	0.2 J
	8/25/2016	<0.08	1	<0.08	0.7	<0.08	<0.08	<0.08	0.2 J
	11/29/2016	0.08 J	3	<0.08	0.6	<0.08	<0.08	0.1 J	0.2 J
	5/23/2017	<0.08	2	<0.08	0.7	<0.08	<0.08	0.09 J	0.1 J
TW-07	12/16/2013	NS	NS	NS	34	NS	NS	NS	NS
	10/23/2014	0.1	0.4	**0.03 J**	6	NS	NS	0.5	0.6
	3/4/2015	0.028 J	0.053	<0.010	2.2	NS	NS	0.060 J	0.077
	5/13/2015	0.054	0.058	**0.032 J**	3 J	NS	NS	<0.030	0.15
	8/5/2015	0.070	0.04 J	**0.06**	2	<0.02	<0.02	0.03 J	0.2
	12/2/2015	<0.04 J-	<0.04 J-	<0.04	1	<0.04	<0.04	<0.04 J-	<0.04
	3/15/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/24/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	8/25/2016	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
	11/30/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/23/2017	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
TW-14	1/17/2014	NS	NS	NS	<0.02	NS	NS	NS	NS
	2/26/2015	0.022 J	0.014 J	<0.010	<0.030	NS	NS	<0.010	0.022 J
	5/12/2015	NS	NS	NS	<1	NS	NS	NS	NS
	8/13/2015	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	0.09 J	<0.08
	12/1/2015	<0.04 J-	<0.04 J-	<0.04	<0.04	<0.04	<0.04	<0.04 J-	<0.04
	3/14/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/23/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	8/24/2016	<0.08	<0.08	<0.08	0.09 J	<0.08	<0.08	<0.08	<0.08
	12/1/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
	5/22/2017	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Notes:

NS Not Sampled

NA No applicable surface water standard

µg/L micrograms per liter

J Constituent detected below reportable quantitation limit, or result is an estimated value

+/- Symbols added to J qualification indicate if the value presented is biased high or low

< Indicates the sample results were not detected above the listed the method detection limit

[1] Groundwater Quality Standards - Department Of Energy & Environment (DOEE) Risk Based Corrective Action (RBCA) Ground Water Standards - Table 5-8 Risk-Based Levels for a Resident Child - Domestic Use of Water (ingestion and Inhalation)

[2] Groundwater Quality Standards - 21 DCMR 1155 Groundwater Standards. Criteria used when no applicable criteria published in RBCA Table 5-8

[3] Surface Water Quality Standards - Department Of Energy & Environment (DOEE) Risk Based Corrective Action (RBCA) Surface Water Standards - Table 5-6 Groundwater and Surface Water Standards at the Point of Exposure and 21 DCMR 1100 DDOE

[4] Sample collected over several days due to a limited volume of water in the monitoring well

[5] Sample collected at high tide

[6] Sample collected at low tide

[7] Duplicate sample results

Bold indicates an exceedance, for comparative purpose, of one or more standards (groundwater and/or surface water)

Table 2c
Summary of Groundwater Analytical Results
Metals
Potomac River Generating Station, Alexandria, Virginia

Sample Location	Date	Metals (mg/L)													
		Aluminum	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Boron**	**Cadmium**	**Calcium**	**Chromium**	**Cobalt**	**Copper**	**Iron**	**Lead**	**Lithium**
	GWQS [1]	NA	NA	0.05	1.0	NA	NA	0.005	NA	0.1	NA	1.0	0.3	0.05	NA
	SWQS [2]	NA	0.640	0.340	NA	NA	NA	[3]	NA	[3]	NA	[3]	1	[3]	NA
TW-02	8/5/2015	0.0364 J	<0.00033	0.0014 J	0.0862	<0.000071	0.163	<0.00023	88.5	<0.00070	<0.00090	<0.00040	**7.99**	0.00064 J	0.238 [4]
	8/24/2016	0.0767 J	<0.00048	0.0014 J	0.0723	<0.00011	0.187	<0.00019	60.7	<0.00059	<0.0019	0.00051 J	**6.06**	0.0016	0.0164 J
	5/23/2017	0.0313 J	<0.00048	0.00095 J	0.0540	<0.00011	0.178	<0.00019	66.2	<0.00059	<0.0019	<0.00034	**3.33**	0.00070 J	0.0170 J
TW-03	8/5/2015	1.05	<0.00033	0.0094	0.0490	0.0012	0.0628	0.00035 J	55.2	0.0011 J	0.0814	0.0050	**30.4**	0.0091	0.0187J [4]
	5/23/2016 [5]	1.46	<0.00033	0.0085	0.0287	0.0015	0.0477 J	0.00061	70.1	0.00084 J	0.165	0.0082	**26.5**	0.0068	0.0109 J
	5/23/2016 [6]	1.43	<0.00033	0.0079	0.0284	0.0015	0.04747 J	0.00063	67.0	0.00072 J	0.161	0.0067	**26.9**	0.0066	0.0099 J
	8/25/2016	0.961	<0.00048	0.0098	0.0440	0.0015	0.0561	0.00043 J	49.9	0.00063 J	0.117	0.0046	**31.3**	0.0087	0.0122 J
	11/28/2016 [6]	0.841	<0.00048	0.0119	0.0532	0.0012	0.0443 J	0.00047 J	50.6	0.0010 J	0.131	0.0030	**36.1**	0.0098	0.0066 J
	11/29/2016 [5]	0.724	<0.00048	0.0108	0.0500	0.0011	0.0446 J	0.00046 J	50.1	0.00079 J	0.129	0.0026	**34.9**	0.0081	0.0067 J
	5/23/2017	0.791	<0.00048	0.0084	0.0326	0.0011	0.0447 J	0.00036 J	85.6	<0.00059	0.106	0.0053	**36.8**	0.0049	0.0140 J
TW-04	8/6/2015	2.41	<0.00033	0.0134	0.312	0.00023 J	0.0780	<0.00023	225	0.0067	0.0168	0.0074	**98.4**	0.0084	0.0132 J
	8/24/2016	0.0846 J	<0.00048	0.0105	0.0554	<0.00011	0.0356 J	<0.00019	207	<0.00059	0.0283	0.00062 J	**87**	0.0018	0.0106 J
	8/24/2016 [7]	0.707	<0.00048	0.0093	0.0549	0.00014 J	0.0335 J	<0.00019	202	0.0010 J	0.0309	0.0040	**88.3**	0.0142	0.0118 J
	5/22/2017	0.190	<0.00048	0.0090	0.0241	<0.00011	0.0368 J	<0.00019	336	0.00066 J	0.0485	0.0012 J	**127**	0.0029	0.0197 J
TW-05	8/6/2015	0.412	<0.00033	0.0068	0.187	0.00020 J	0.0852	<0.00023	127	<0.00070	0.0596	0.0022	**68.7**	0.0062	0.0117 J
	8/25/2016 [8]	<0.0231	<0.00048	<0.00040	0.0362	<0.00011	0.0475 J	<0.00019	180	<0.00059	0.046	0.00068 J	**3.59**	<0.000090	0.0081 J
	8/25/2016	1.64	<0.00048	0.0034	0.0473	0.00051	0.0474 J	0.00039 J	178	0.0014 J	0.0472	0.0068	**52.9**	0.0156	0.0099 J
	5/22/2017	0.735	<0.00048	0.0022	0.0491	0.00030 J	0.0565	<0.00019	253	<0.00059	0.101	0.0024	**65.4**	0.0020	0.0240
	5/22/2017 [7]	0.678	<0.00048	0.0023	0.0498	0.00029 J	0.0558	<0.00019	254	<0.00059	0.103	0.0020	**67.0**	0.0021	0.0236
TW-06	8/6/2015	0.0285 J	<0.00033	0.0043	0.0882	<0.000071	0.127	<0.00023	149	<0.00070	0.0121	0.00087 J	**73.2**	0.0019	0.0284
	8/25/2016	0.108	<0.00048	0.0051	0.0865	<0.00011	0.104	<0.00019	233	<0.00059	0.0163	0.0030	**132**	0.0022	0.0416
	5/23/2017	0.0429 J	<0.00048	0.0043	0.0368	<0.00011	0.102	<0.00019	154	<0.00059	0.0176	0.00064 J	**88.9**	0.00034 J	0.0285
TW-07	8/5/2015	2.60	<0.00033	0.005	0.0288	0.0025	0.0598	0.00075	53.1	0.0014 J	0.117	0.0036	**7.91**	0.0328	0.0161 J [4]
	8/25/2016	6.71	<0.00048	0.0083	0.0581	0.0038	0.0466 J	0.0017	44.2	0.0084	0.139	0.0241	**14.5**	0.0695	0.0120 J
	5/23/2017	0.965	<0.00048	0.0017 J	0.0860	0.0011	0.0466 J	0.00039 J	61.6	0.00073 J	0.0789	0.0142	**22.7**	0.0131	0.0082 J
TW-14	8/13/2015	18.9	0.00049 J	0.0149	0.275	0.0011	0.232	0.00031 J	129	0.0259	0.0202	0.0438	**38.6**	0.0458	0.0136 J
	8/24/2016	0.0287 J	<0.00048	0.0010 J	0.0597	<0.00011	0.116	<0.00019	81.5	<0.00059	<0.0019	0.0012 J	**1.01**	0.00013 J	<0.0048
	5/22/2017	<0.0231	<0.00048	<0.00040	0.0526	<0.00011	0.0761	<0.00019	90.4	<0.00059	<0.0019	0.0023	0.162	0.00048 J	<0.0048

Notes:

NR Not reported

mg/L milligrams per liter

J Constituent detected below reportable quantitation limit, or result is an estimated value

< Indicates the sample results were not detected above the listed the method detection limit

[1] Groundwater Quality Standards - 21 DCMR 1100 DDOE - 1155.3 Numerical criteria for Class G1 groundwater

[2] Surface Water Quality Standards - 21 DCMR 1100 DDOE - 1104 Table 2 Numeric Criteria - 30-Day Avg used if CMC criteria does not exist

[3] SWQS are hardness dependent, criterion are calculated on Table 2d

[4] The initial calibration blank for lithium was out of specification, reading 0.0079 mg/L (MDL is 0.0080 mg/L); the data was accepted as is taking into account the blank result

[5] Groundwater sample was collected at high tide.

[6] Groundwater sample was collected at low tide

[7] Duplicate sample results.

[8] Results are dissolved concentrations.

Bolded results exceed SWQS

Table 2c
Summary of Groundwater Analytical Results
Metals
Potomac River Generating Station, Alexandria, Virginia

Sample Location	Date	Metals (mg/L)											
		Magnesium	**Manganese**	**Mercury**	**Moly-bdenum**	**Nickel**	**Potassium**	**Sodium**	**Selenium**	**Silver**	**Thallium**	**Vanadium**	**Zinc**
	GWQS [1]	NA	0.05	0.002	NA	NA	NA	NA	0.05	0.05	NA	NA	5.0
	SWQS [2]	NA	NA	0.0014	NA	[3]	NA	NA	0.020	[3]	0.00047	NA	[3]
TW-02	8/5/2015	36.2	2.93	<0.000050	<0.0017	0.0012 J	15.0	51.8	<0.00050	<0.00011	<0.00015	<0.0014	0.0100 J
	8/24/2016	26.7	2.28	<0.000050	0.0058 J	0.00076 J	13.9	45.4	<0.00044	<0.00012	<0.00016	<0.0016	0.0055 J
	5/23/2017	19.9	1.17	<0.000050	0.0022 J	0.0021	12.8	50.7	<0.00044	<0.00012	<0.00016	<0.0016	0.0057 J
TW-03	8/5/2015	18.8	4.69	<0.000050	<0.0017	0.0388	8.57	37.7	<0.00050	<0.00011	<0.00015	0.0018 J	0.141
	5/23/2016 [5]	23.3	8.11	<0.000050	<0.0021	0.0766	8.70	36.4	<0.00050	<0.00011	<0.00015	<0.0023	0.164
	5/23/2016 [6]	23.6	7.88	<0.000050	<0.0021	0.0732	8.49	35.4	<0.00050	<0.00011	<0.00015	<0.0023	0.161
	8/25/2016	18.6	6.47	<0.000050	<0.0017	0.0504	9.20	32.5	<0.00044	<0.00012	<0.00016	<0.0016	0.153
	11/28/2016 [6]	21.1	7.48	<0.000050	<0.0017	0.0499	8.75	31.0	<0.00044	<0.00012	<0.00016	0.0020 J	0.132
	11/29/2016 [5]	21.5	7.37	<0.000050	<0.0017	0.0510	8.79	31.1	<0.00044	<0.00012	<0.00016	<0.0016	0.132
	5/23/2017	21.9	5.78	<0.000050	<0.0017	0.0543	9.73	35.4	<0.00044	<0.00012	<0.00016	0.0017 J	0.141
TW-04	8/6/2015	18.0	4.11	<0.000050	0.0020 J	0.0213	20.1	23.6	0.00062 J	<0.00011	0.00031 J	0.0061	0.0971
	8/24/2016	31.4	8.08	<0.000050	<0.0017	0.0217	12.1	23.3	<0.00044	<0.00012	<0.00016	<0.0016	0.0515
	8/24/2016 [7]	33.5	7.96	<0.000050	<0.0017	0.0234	12.2	23.2	<0.00044	<0.00012	<0.00016	0.0019 J	0.0683
	5/22/2017	37.1	10.6	<0.000050	<0.0017	0.0409	10.9	25.8	0.00050 J	<0.00012	<0.00016	0.0023 J	0.0591
TW-05	8/6/2015	16.2	3.25	<0.000050	<0.0017	0.0352	22.7	24.4	0.00067 J	<0.00011	0.00019 J	<0.0014	0.155
	8/25/2016 [8]	21.4	4.73	<0.000050	<0.0017	0.0283	19.2	24.7	<0.00044	<0.00012	<0.00016	<0.0016	0.109
	8/25/2016	20.1	4.71	<0.000050	<0.0017	0.0287	19.6	24.4	<0.00044	<0.00012	0.00020 J	0.0036 J	0.176
	5/22/2017	19.1	9.11	<0.000050	<0.0017	0.0222	22.5	31.7	0.00054 J	<0.00012	<0.00016	<0.0016	0.0704
	5/22/2017 [7]	19.2	9.02	<0.000050	<0.0017	0.0229	22.6	32.0	0.00055 J	<0.00012	<0.00016	0.0016 J	0.0743
TW-06	8/6/2015	10.1	2.73	<0.000050	0.0059 J	0.0076	14.7	39.2	<0.00050	<0.00011	<0.00015	<0.0014	<0.0074
	8/25/2016	16.7	6.10	<0.000050	<0.0017	0.0104	16.8	37.4	<0.00044	<0.00012	<0.00016	0.0023 J	0.0133 J
	5/23/2017	11.4	4.55	<0.000050	<0.0017	0.0114	13.1	29.3	0.00058 J	<0.00012	<0.00016	0.0018 J	0.0255
TW-07	8/5/2015	19.5	4.55	<0.000050	<0.0017	0.0556	7.44	38.6	0.00056 J	<0.00011	<0.00015	<0.0014	0.138
	8/25/2016	23.9	5.77	<0.000050	<0.0017	0.0693	8.80	29.6	0.00054 J	<0.00012	<0.00016	0.0093	0.426
	5/23/2017	16.8	4.10	<0.000050	<0.0017	0.0380	7.28	31.0	0.00059 J	<0.00012	<0.00016	0.0024 J	0.0917
TW-14	8/13/2015	31.4	2.75	0.00015 J	0.0019 J	0.0372	6.30	37.1	0.0011 J	<0.00011	0.00030 J	0.0383	0.184
	8/24/2016	7.62	0.136	<0.000050	0.0046 J	0.00077 J	4.08	9.02	0.0016 J	<0.00012	<0.00016	<0.0016	<0.0035
	5/22/2017	9.10	0.107	<0.000050	<0.0017	0.0011 J	3.22	4.23	0.0011 J	<0.00012	<0.00016	<0.0016	0.0098 J

Notes:

NR Not reported
mg/L milligrams per liter
J Constituent detected below reportable quantitation limit, or result is an estimated value
< Indicates the sample results were not detected above the listed the method detection limit
[1] Groundwater Quality Standards - 21 DCMR 1100 DDOE - 1155.3 Numerical criteria for Class G1 groundwater
[2] Surface Water Quality Standards - 21 DCMR 1100 DDOE - 1104 Table 2 Numeric Criteria - 30-Day Avg used if CMC criteria does not exist
[3] SWQS are hardness dependent, criterion are calculated on Table 2d
[4] The initial calibration blank for lithium was out of specification, reading 0.0079 mg/L (MDL is 0.0080 mg/L); the data was accepted as is taking into account the blank result
[5] Groundwater sample was collected at high tide.
[6] Groundwater sample was collected at low tide
[7] Duplicate sample results.
[8] Results are dissolved concentrations.
Bolded results exceed SWQS

Table 2d
Summary of Groundwater Analytical Results
Hardness Dependent Metals
Potomac River Generating Station, Alexandria, Virginia

Analyte: [1,2]		Hardness (µg/L)	Cadmium (µg/L)			Chromium (µg/L)			Copper (µg/L)		
Station [3]	**Date**		**Criterion Maximum Concentration** [3]	**Criterion Continuous Concentration** [3]	**Dissolved Result**	**Criterion Maximum Concentration** [3,4]	**Criterion Continuous Concentration** [3,4]	**Dissolved Result**	**Criterion Maximum Concentration** [3]	**Criterion Continuous Concentration** [3]	**Dissolved Result**
TW-02	8/5/2015	370	7.17	0.61	<0.23	1663.61	216.40	<0.70	46.10	27.39	<0.40
	8/24/2016	264	5.17	0.47	<0.19	1261.79	164.13	<0.59	33.54	20.53	0.51 J
	5/23/2017	253	4.96	0.46	<0.19	1218.57	158.51	<0.59	32.22	19.80	<0.34
TW-03	8/5/2015	215	4.24	0.41	0.35 J	1066.50	138.73	1.1J	27.64	17.23	5.0
	5/23/2016 [5]	275	5.17	0.47	0.61	1261.79	164.13	0.84 J	33.54	20.53	8.2
	5/23/2016 [6]	264	5.38	0.49	0.63	1304.69	169.71	0.72 J	34.86	21.26	6.7
	8/25/2016	209	4.12	0.40	0.43 J	1042.06	135.55	0.63 J	26.92	16.81	4.6
	11/28/2016 [6]	215	4.24	0.41	0.47 J	1066.50	138.73	1.0 J	27.64	17.23	3.0
	11/29/2016 [5]	213	4.20	0.40	0.46 J	1058.37	137.67	0.79 J	27.40	17.09	2.6
	5/23/2017	307	5.99	0.53	0.36 J	1427.78	185.72	<0.59	38.67	23.35	5.3
TW-04	8/6/2015	639	12.18	0.91	<0.23	2602.55	338.54	6.7	77.15	43.69	7.4
	8/24/2016	658	12.53	0.93	<0.19	2665.76	346.76	<0.59	79.31	44.80	0.62 J
	5/22/2017	1,000	18.79	1.27	<0.19	3755.73	488.54	0.66 J	117.64	64.06	1.2 J
TW-05	8/6/2015	382	7.40	0.62	<0.23	1707.67	222.13	<0.70.	47.51	28.15	2.2
	8/25/2016 [8]	530	10.16	0.80	<0.19	2232.94	290.46	<0.59	64.68	37.24	0.68 J
	8/25/2016	530	10.16	0.80	0.39 J	2232.94	290.46	1.4 J	64.68	37.24	6.8
	5/22/2017	717	13.62	0.99	<0.19	2859.99	372.03	<0.59	85.99	48.21	2.4
TW-06	8/6/2015	417	8.05	0.67	<0.23	1834.79	238.67	<0.70	51.60	30.34	0.87 J
	8/25/2016	654	12.46	0.93	<0.19	2652.48	345.03	<0.59	78.85	44.57	3.0
	5/23/2017	434	8.37	0.69	<0.19	1895.83	246.61	<0.59	53.58	31.39	0.64 J
TW-07	8/5/2015	213	4.20	0.40	0.75	1058.37	137.67	1.4 J	27.40	17.09	3.6
	8/25/2016	206	4.06	0.39	1.7	1029.80	133.96	8.4	26.55	16.61	24.1
	5/23/2017	228	4.48	0.43	0.39 J	1119.03	145.56	0.73 J	29.22	18.11	14.2
TW-14	8/13/2015	456	8.78	0.71	0.31 J	1974.18	256.80	25.9	56.14	32.75	43.8
	8/24/2016	235	4.62	0.44	<0.19	1147.09	149.21	<0.59	30.06	18.59	1.2 J
	5/22/2017	264	5.17	0.47	<0.19	1261.79	164.13	<0.59	33.54	20.53	2.3

Notes:

mg/L milligrams per liter

J Constituent detected below the reportable quantitation limit, or result is an estimated value

< Indicates the sample results were not detected above the listed the method detection limit

[1] All samples were filtered.

[2] Surface Water Quality Standards - 21 DCMR 1100 DDOE - 1104 Table 2 Numeric Criteria

[3] The calculations used to develop these criteria can be found at-Surface Water Quality Standards - 21 DCMR 1100 DDOE - 1104

[4] Criterion for chromium calculated using Chromium VI

[5] Criterion Continuous Concentration data not available

[6] Groundwater sample was collected at high tide

[7] Groundwater sample was collected at low tide.

[8] Results are dissolved concentrations.

Bolded results exceed Criterion Maximum Concentration

Table 2d
Summary of Groundwater Analytical Results
Hardness Dependent Metals
Potomac River Generating Station, Alexandria, Virginia

Analyte: [1,2]		**Hardness** (µg/L)	**Lead** (µg/L)			**Nickel** (µg/L)		
Station [3]	**Date**		**Criterion Maximum Concentration** [3]	**Criterion Continuous Concentration** [3]	**Dissolved Result**	**Criterion Maximum Concentration** [3]	**Criterion Continuous Concentration** [3]	**Dissolved Result**
TW-02	8/5/2015	370	259.22	10.10	<0.11	1416.33	157.31	1.2J
	8/24/2016	264	182.49	7.11	1.6	1064.49	118.23	0.76 J
	5/23/2017	253	174.52	6.80	<0.70 J	1026.84	114.05	2.1
TW-03	8/5/2015	215	146.99	5.73	<0.11	894.76	99.38	38.8
	5/23/2016 [5]	275	182.49	7.11	<0.11	1064.49	118.23	76.6
	5/23/2016 [6]	264	190.47	7.42	<0.11	1101.89	122.39	73.2
	8/25/2016	209	142.65	5.56	8.7	873.59	97.03	50.4
	11/28/2016 [6]	215	146.99	5.73	9.8	894.76	99.38	49.9
	11/29/2016 [5]	213	145.54	5.67	8.1	887.72	98.60	51.0
	5/23/2017	307	213.65	8.33	4.9	1209.44	134.33	54.3
TW-04	8/6/2015	639	450.77	17.57	<0.11	2248.63	249.75	21.3
	8/24/2016	658	464.07	18.08	0.0018	2305.07	256.02	21.7
	5/22/2017	1,000	697.28	27.17	2.9	3284.46	364.80	40.9
TW-05	8/6/2015	382	267.88	10.44	<0.11	1455.09	161.62	35.2
	8/25/2016 [8]	530	373.86	14.57	<0.09	1919.56	213.20	28.3
	8/25/2016	530	373.86	14.57	15.6	1919.56	213.20	28.7
	5/22/2017	717	505.13	19.68	2.0	2478.76	275.31	22.2
TW-06	8/6/2015	417	293.08	11.42	<0.11	1567.11	174.06	7.6
	8/25/2016	654	461.27	17.98	2.2	2293.21	254.70	10.4
	5/23/2017	434	305.29	11.90	0.34 J	1620.99	180.04	11.4
TW-07	8/5/2015	213	145.54	5.67	<0.11	887.72	98.60	55.6
	8/25/2016	206	140.48	5.47	69.5	862.97	95.85	69.3
	5/23/2017	228	156.40	6.09	13.1	940.32	104.44	38.0
TW-14	8/13/2015	456	321.07	12.51	<0.11	1690.24	187.73	37.2
	8/24/2016	235	161.47	6.29	0.13 J	964.69	107.15	0.77 J
	5/22/2017	264	182.49	7.11	0.48 J	1064.49	118.23	1.1 J

Notes:

mg/L milligrams per liter

J Constituent detected below the reportable quantitation limit, or result is an estimated value

< Indicates the sample results were not detected above the listed the method detection limit

[1] All samples were filtered.

[2] Surface Water Quality Standards - 21 DCMR 1100 DDOE - 1104 Table 2 Numeric Criteria

[3] The calculations used to develop these criteria can be found at-Surface Water Quality Standards - 21 DCMR 1100 DDOE - 1104

[4] Criterion for chromium calculated using Chromium VI

[5] Criterion Continuous Concentration data not available

[6] Groundwater sample was collected at high tide

[7] Groundwater sample was collected at low tide.

[8] Results are dissolved concentrations.

Bolded results exceed Criterion Maximum Concentration

Table 2d
Summary of Groundwater Analytical Results
Hardness Dependent Metals
Potomac River Generating Station, Alexandria, Virginia

Analyte: [1,2]		**Hardness** (µg/L)	**Silver** (µg/L)			**Zinc** (µg/L)		
Station [3]	**Date**		**Criterion Maximum Concentration** [3]	**Criterion Continuous Concentration** [5]	**Dissolved Result**	**Criterion Maximum Concentration** [3]	**Criterion Continuous Concentration** [3]	**Dissolved Result**
TW-02	8/5/2015	370	30.53	NA	<0.11	355.05	357.96	10.0 J
	8/24/2016	264	17.08	NA	<0.12	266.74	268.92	5.5 J
	5/23/2017	253	15.88	NA	<0.12	257.29	259.39	5.7 J
TW-03	8/5/2015	215	12.00	NA	<0.11	224.15	225.98	14.1
	5/23/2016 [5]	275	17.08	NA	<0.11	266.74	268.92	164
	5/23/2016 [6]	264	18.33	NA	<0.11	276.12	278.38	161
	8/25/2016	209	11.43	NA	<0.12	218.83	220.62	153
	11/28/2016 [6]	215	12.00	NA	<0.12	224.15	225.98	132
	11/29/2016 [5]	213	11.81	NA	<0.13	222.38	224.20	132
	5/23/2017	307	22.15	NA	<0.12	303.12	305.59	141
TW-04	8/6/2015	639	78.14	NA	<0.11	564.10	568.71	97.1
	8/24/2016	658	82.18	NA	<0.12	578.28	583.01	51.5
	5/22/2017	1,000	168.82	NA	<0.12	824.43	831.18	59.1
TW-05	8/6/2015	382	32.25	NA	<0.11	364.79	367.77	155
	8/25/2016 [8]	530	123.29	NA	<0.12	481.43	485.37	109
	8/25/2016	530	56.65	NA	<0.12	481.43	485.37	176
	5/22/2017	717	95.26	NA	<0.12	621.92	627.01	70.4
TW-06	8/6/2015	417	37.50	NA	<0.11	392.91	396.13	<7.4
	8/25/2016	654	81.32	NA	<0.12	575.30	580.01	13.3 J
	5/23/2017	434	40.17	NA	<0.12	406.44	409.77	25.5
TW-07	8/5/2015	213	11.81	NA	<0.11	222.38	224.20	138
	8/25/2016	206	11.15	NA	<0.12	216.17	217.94	**426**
	5/23/2017	228	13.28	NA	<0.12	235.58	237.50	91.7
TW-14	8/13/2015	456	43.74	NA	<0.11	423.83	427.30	184
	8/24/2016	235	13.98	NA	<0.12	241.69	243.67	<3.5
	5/22/2017	264	17.08	NA	<0.12	266.74	268.92	9.8 J

Notes:

mg/L milligrams per liter

J Constituent detected below the reportable quantitation limit, or result is an estimated value

< Indicates the sample results were not detected above the listed the method detection limit

[1] All samples were filtered.

[2] Surface Water Quality Standards - 21 DCMR 1100 DDOE - 1104 Table 2 Numeric Criteria

[3] The calculations used to develop these criteria can be found at-Surface Water Quality Standards - 21 DCMR 1100 DDOE - 1104

[4] Criterion for chromium calculated using Chromium VI

[5] Criterion Continuous Concentration data not available

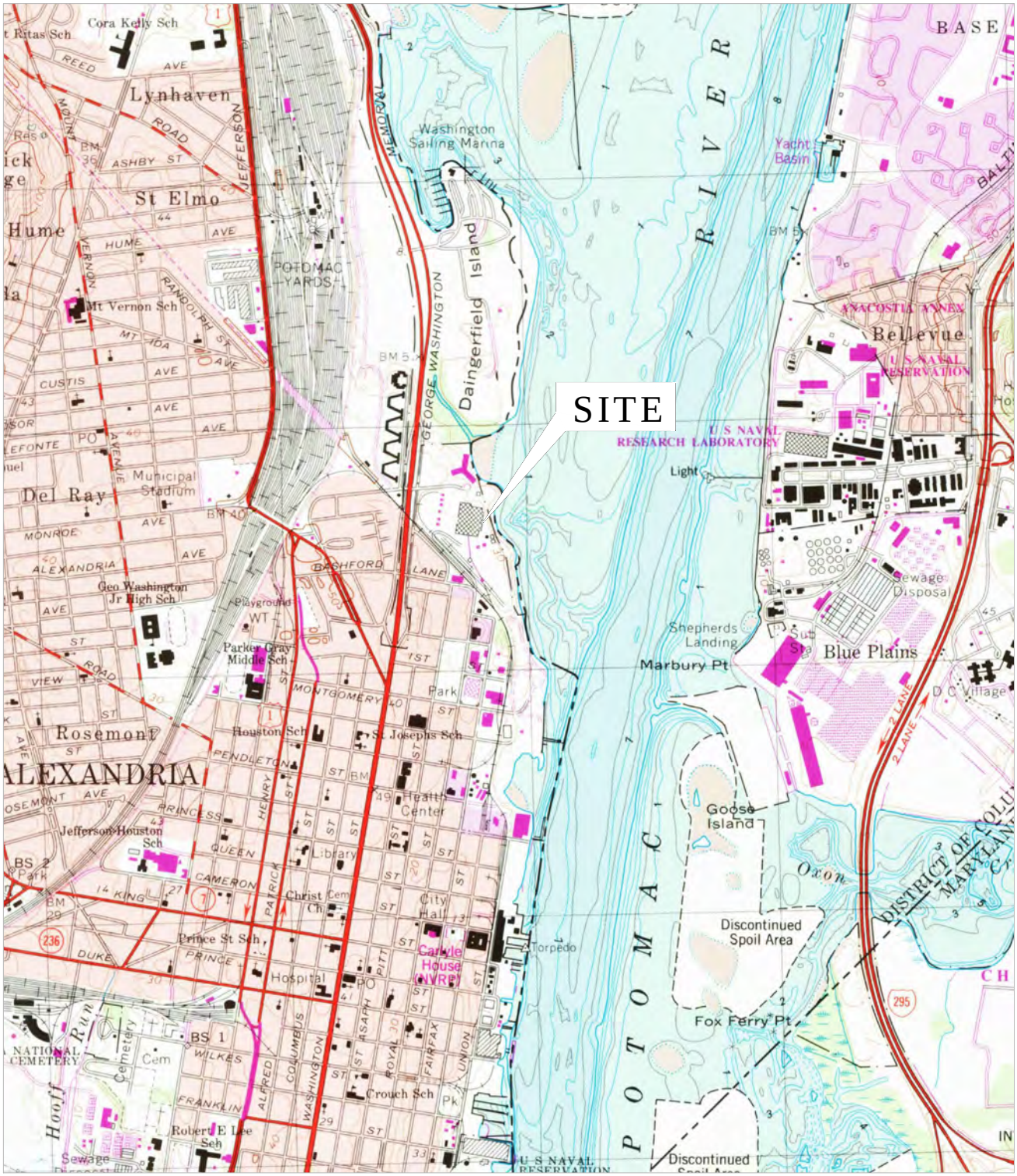
[6] Groundwater sample was collected at high tide

[7] Groundwater sample was collected at low tide.

[8] Results are dissolved concentrations.

Bolded results exceed Criterion Maximum Concentration

FIGURES



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

2000 1000 0 2000 Feet

SITE LOCATION MAP

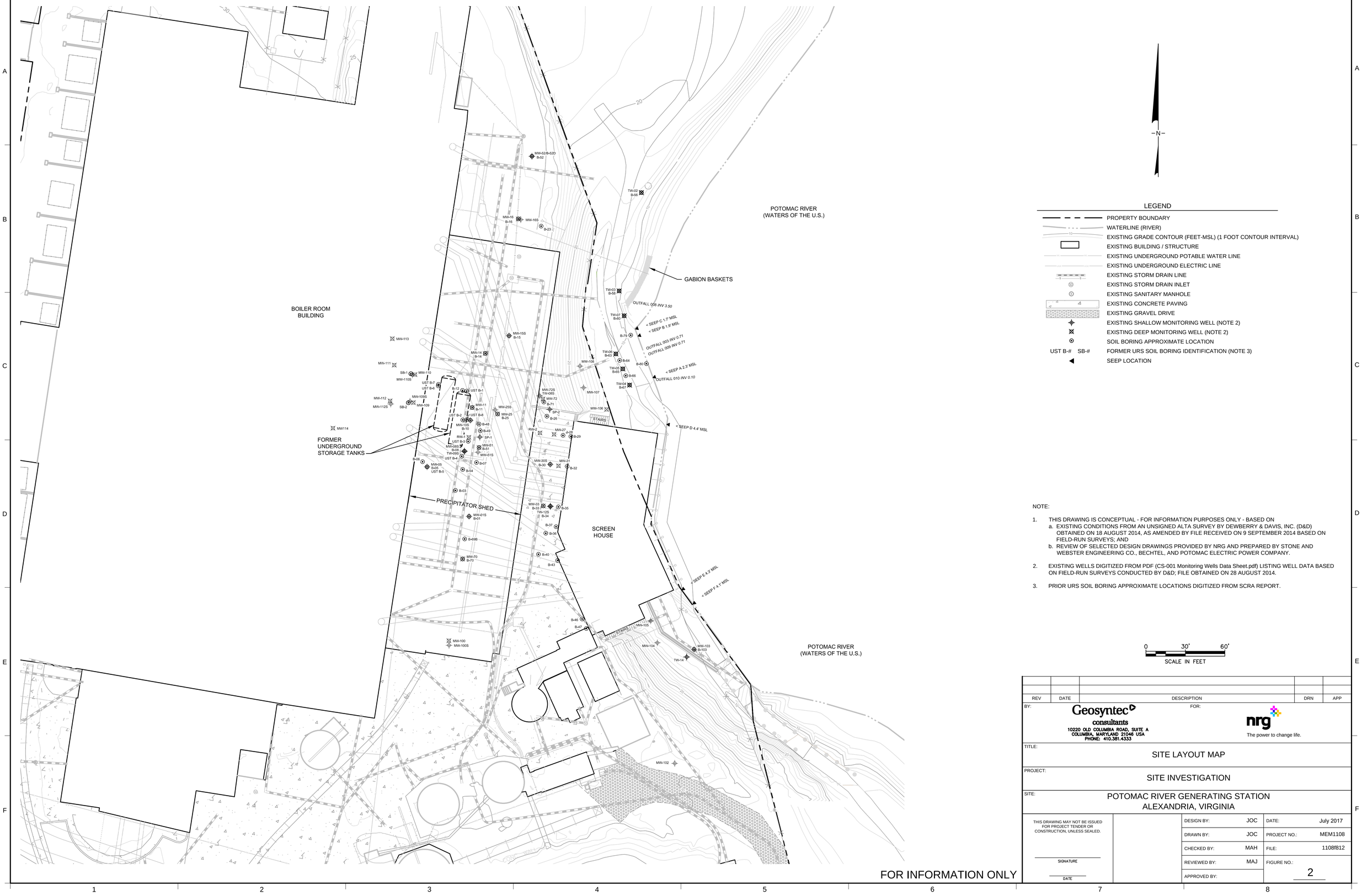
FORMER POTOMAC RIVER GENERATING STATION
ALEXANDRIA, VIRGINIA

QUADRANGLE LOCATION
NO SCALE

Geosyntec consultants
COLUMBIA, MARYLAND

DATE:	JULY 2017	DOCUMENT NO.	
PROJECT NO.	MEM1108	FIGURE NO.	1

P:\cadd\1108 potomac river-nrg\1108-800\1108811.dwg, 1, 1/16/2017 11:08:14 AM



NOTE:

1. THIS DRAWING IS CONCEPTUAL - FOR INFORMATION PURPOSES ONLY - BASED ON
   a. EXISTING CONDITIONS FROM AN UNSIGNED ALTA SURVEY BY DEWBERRY & DAVIS, INC. (D&D) OBTAINED ON 18 AUGUST 2014, AS AMENDED BY FILE RECEIVED ON 9 SEPTEMBER 2014 BASED ON FIELD-RUN SURVEYS; AND
   b. REVIEW OF SELECTED DESIGN DRAWINGS PROVIDED BY NRG AND PREPARED BY STONE AND WEBSTER ENGINEERING CO., BECHTEL, AND POTOMAC ELECTRIC POWER COMPANY.
2. EXISTING WELLS DIGITIZED FROM PDF (CS-001 Monitoring Wells Data Sheet.pdf) LISTING WELL DATA BASED ON FIELD-RUN SURVEYS CONDUCTED BY D&D; FILE OBTAINED ON 28 AUGUST 2014.
3. PRIOR URS SOIL BORING APPROXIMATE LOCATIONS DIGITIZED FROM SCRA REPORT.

REV	DATE	DESCRIPTION	DRN	APP

BY: Geosyntec consultants
10220 OLD COLUMBIA ROAD, SUITE A
COLUMBIA, MARYLAND 21046 USA
PHONE: 410.381.4333

FOR: nrg — The power to change life.

TITLE: SITE LAYOUT MAP

PROJECT: SITE INVESTIGATION

SITE: POTOMAC RIVER GENERATING STATION
ALEXANDRIA, VIRGINIA

THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION, UNLESS SEALED.

SIGNATURE

DATE

DESIGN BY:	JOC	DATE:	July 2017
DRAWN BY:	JOC	PROJECT NO.:	MEM1108
CHECKED BY:	MAH	FILE:	1108f812
REVIEWED BY:	MAJ	FIGURE NO.:	2
APPROVED BY:			

FOR INFORMATION ONLY

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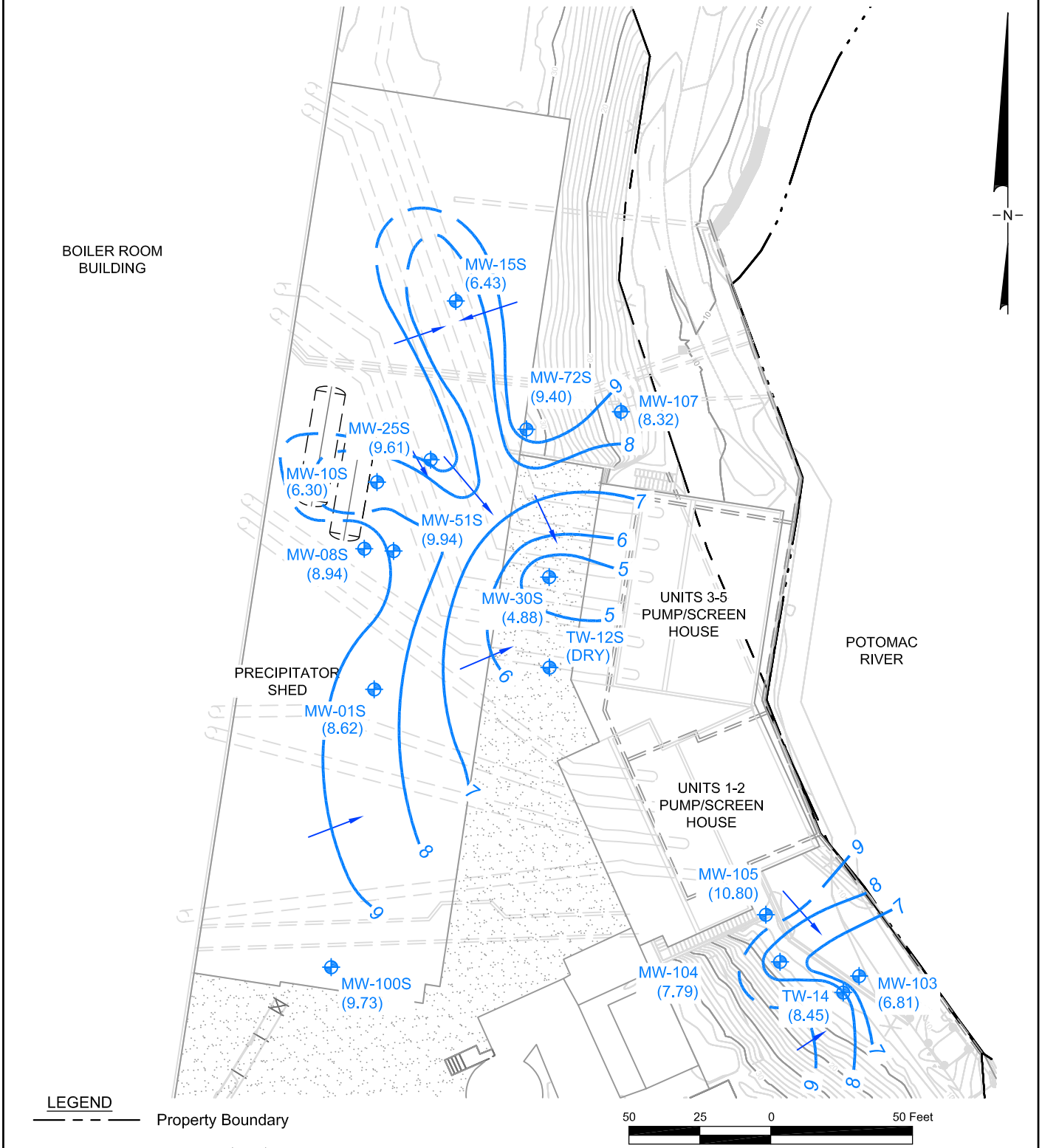


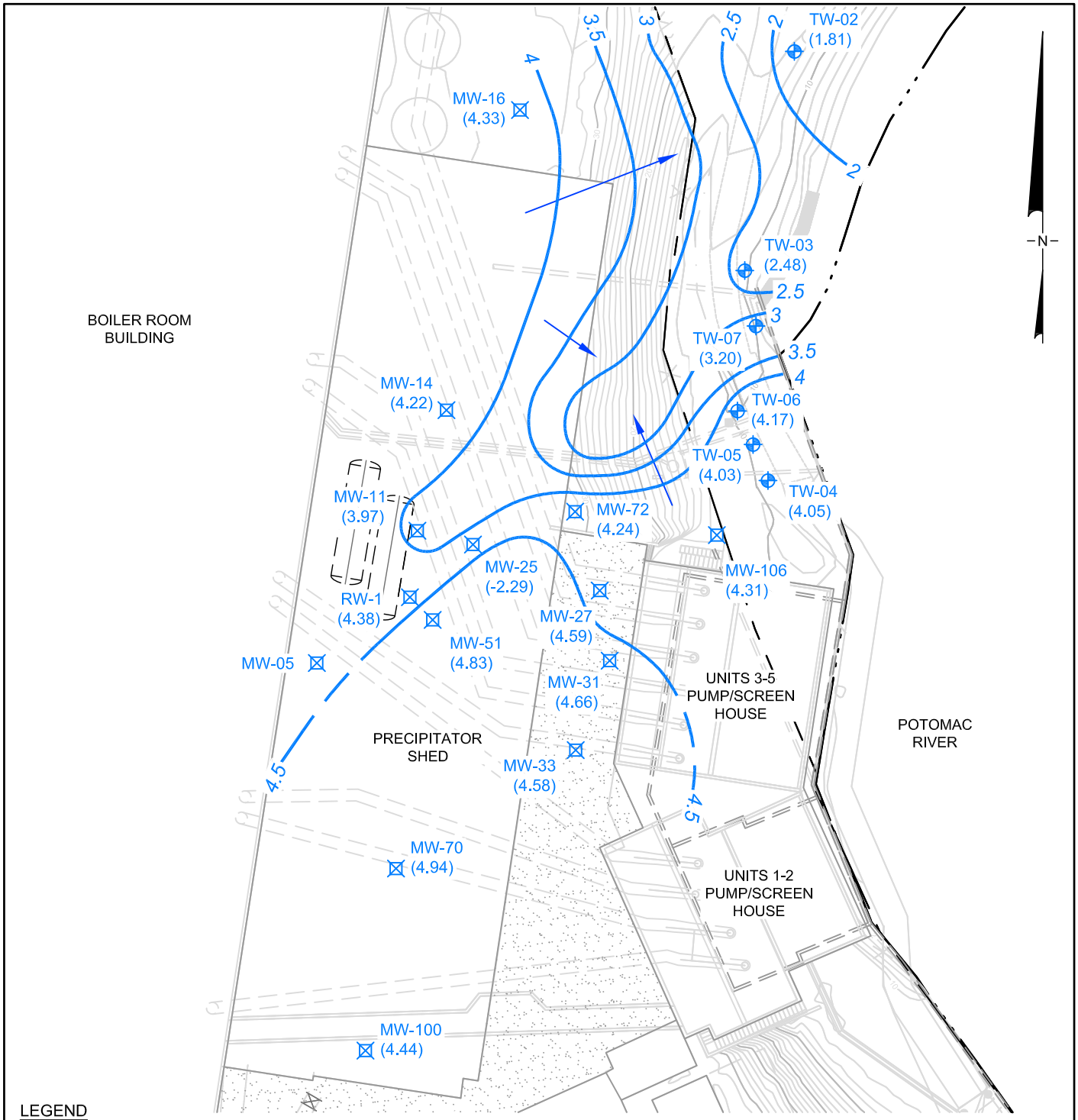
NOTES:
Data collected by Geosyntec and GES, 23 May 2017.

POTENTIOMETRIC SURFACE – SHALLOW ZONE

FORMER POTOMAC RIVER GENERATING STATION
ALEXANDRIA, VIRGINIA

Geosyntec consultants
COLUMBIA, MARYLAND

DATE:	JULY 2017	DOCUMENT NO.	
PROJECT NO.	MEM1108	FIGURE NO.	3



LEGEND

- Property Boundary
- Waterline (river)
- Monitoring Well Well ID (Water Elevation)
- Groundwater Flow Direction
- Potentiometric Contour
- Inferred Potentiometric Contour

NOTES:

1. Data collected by Geosyntec and GES, 23 May 2017.
2. MW-05 was not used to generate potentiometric surface.

POTENTIOMETRIC SURFACE – DEEP ZONE

FORMER POTOMAC RIVER GENERATING STATION
ALEXANDRIA, VIRGINIA

Geosyntec consultants
COLUMBIA, MARYLAND

DATE:	JULY 2017	DOCUMENT NO.	
PROJECT NO.	MEM1108	FIGURE NO.	4

ATTACHMENT A
DOEE COMMENT LETTER

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

Natural Resource Administration
Inspection and Enforcement Division

Via Electronic Mail

Mark Nitz, P.E.
Environmental Specialist, NRG
NRG Potomac River LLC
25100 Chalk Point Road
Aquasco, MD 20608

Re: Groundwater Monitoring Status Report – Fourth Quarter 2016
NRG Potomac River Generating Station LLC
1400 North Royal Street
Alexandria, VA 22314

Dear Mr. Nitz,

The Department of Energy and Environment (DOEE) has completed its review of the *Groundwater Monitoring Status Report – Fourth Quarter 2016*, prepared by Geosyntec on behalf of NRG Potomac River Generating Station, (PRGS) located at 1400 North Royal Street, Alexandria, VA. DOEE hereby **APPROVES** the request to reduce the groundwater monitoring frequency from quarterly to semi-annually provided the following conditions are met:

a) On a semi-annual basis monitoring wells TW-02, TW-03, TW-04, TW-05, TW-06, TW-07 and TW-14 shall be sampled and analyzed for VOC, PAH's, TPH-GRO/DRO and Oil and Grease,
   i) Any analytical result found above the District's Surface Water Quality Standards (SWQS) shall be immediately resampled and DOEE shall be notified. In the event re-sampling confirms the concentrations of contaminant above the SWQS, the quarterly groundwater monitoring schedule will be re-implemented and, if warranted, further corrective action may be required.
b) The first proposed semi-annual event, conducted during the second quarter of 2017, shall include the analysis of TAL Metals and hardness. Furthermore, since analytical results for PCBs have been found below laboratory detection limits, the analysis for PCBs is no longer required.
c) Semi-annual groundwater monitoring shall continue for the duration of the implementation of the PRGS Corrective Action Plan (CAP.) Following the completion of the CAP, a minimum of two consecutive rounds of groundwater monitoring exhibiting contaminant concentrations below DOEE SWQS shall be required to demonstrate that the Potomac River is no longer at risk of being impacted by contaminated groundwater.

DOEE shall be notified within 48 hours prior to commencing any field work in accordance with the approved work plan. If there are any questions or concerns, please contact me at (202) 535-2226 or David Pilat at (202) 281-3963.

Sincerely,

Joshua Rodriguez
Chief, Illicit Discharge and NPDES Branch
Inspection and Enforcement Division

ATTACHMENT B
FIELD SAMPLING FORMS

Geosyntec consultants

METER CALIBRATION FORM

10211 Wincopin Circle, 4th Floor
Columbia, Maryland 21044
Tel (410) 381-4333 Fax (410) 381-4499

Project Name:	PRGS	Date:	5-22-17
Project Number:	M&M1108	Initial Calibration Completed at:	900
Field Personnel:	S. Jones	Midday Calibration Completed at:	1230
Recorded By:	S. Jones	Final Calibration Completed at:	1615
Weather:	60's, raining, cloudy		

1. Specific Conductance Calibration *1413 µS/cm*

	Temp.	Initial	Cal. to
Initial	22.63	1413	1413
Midday	23.81	1411	1413
Final	24.62	1420	

2. pH Calibration

		Buffer Solution pH 7.0	pH 4.0	pH 10.0
Initial	Temp.	21.60	21.63	21.94
	Reading	7.00	4.00	10.00
	Cal. to	7.00	4.00	10.00
Midday	Temp.	21.83	21.71	21.62
	Reading	7.06	4.02	10.00
	Cal. to	7.00	4.00	10.00
Final	Temp.	21.80	21.78	21.39
	Reading	7.32	4.09	10.36

3. ORP Calibration *+240 mV Zobell*

	Temp.	Initial	Cal. to
Initial	22.33	236.1	240.0
Midday	22.61	231.3	240.0
Final	22.80	239.7	

4. Dissolved Oxygen Calibration

		Saturation 100%	0%
Initial	Barometer	760	760
	Temp.	23.19	24.02
	Reading mg/L	9.70	0.72
	Cal. to	9.22	
Midday	Barometer	760	760
	Temp	23.63	23.95
	Reading mg/L	9.11	0.41
	Cal. to	9.81	
Final	Barometer	760	760
	Temp	23.60	23.82
	Reading mg/L	9.86	0.56

5. Turbidity

		<0.1 NTU	20 NTU	100 NTU	800 NTU
Initial	Reading	0.12	29.4	107	847
	Cal. to	0	20	—	—
Midday	Reading	1.62	20.6	110	861
	Cal. to	0	20	—	—
Final	Reading	1.09	20.9	108	810

pH 7 Calibration Solution — Lot Number:	76A929	Expiration Date:	1-19
pH 4 Calibration Solution — Lot number:	66K498	Expiration Date:	11-18
pH 10 Calibration Solution — Lot Number:	66J351	Expiration Date:	10-18
Specific Conductance Calibration Solution — Lot Number:	66J415	Expiration Date:	10-17
ORP Calibration Solution — Lot number:	01647	Expiration Date:	10-21
0.1 NTU Calibration Solution — Lot Number:	A16204	Expiration Date:	10-17
20 NTU Calibration Solution — Lot Number:	A16231	Expiration Date:	11-17
100 NTU Calibration Solution — Lot Number:	A16228	Expiration Date:	11-17
800 NTU Calibration Solution — Lot Number:	A16228	Expiration Date:	11-17
Multiparameter Probe — Model: YSI 556MPS	Rental #: 028189	SN#:	15C103560
Turbidity Meter — Model: HACH 2100P	Rental #: 17262	SN#:	10090C040372

Comments (rental, condition, problems, etc.):

Geosyntec consultants

METER CALIBRATION FORM

10211 Wincopin Circle, 4th Floor
Columbia, Maryland 21044
Tel (410) 381-4333 Fax (410) 381-4499

Project Name:	PRES	Date:	5-23-17
Project Number:	MEM1108	Initial Calibration Completed at:	0745
Field Personnel:	S. Jones	Midday Calibration Completed at:	1130
Recorded By:	S. Jones	Final Calibration Completed at:	1500
Weather:	60s, humid, overcast		

1. Specific Conductance Calibration *1413 µS/cm*

	Temp.	Initial	Cal. to
Initial	22.27	1195	1413
Midday	24.68	1415	1413
Final	23.91	1498	

2. pH Calibration

		Buffer Solution pH 7.0	pH 4.0	pH 10.0
Initial	Temp.	22.07	21.83	21.95
	Reading	7.07	3.92	9.63
	Cal. to	7.00	4.00	10.00
Midday	Temp.	21.68	22.93	21.86
	Reading	7.12	4.04	10.06
	Cal. to	7.00	4.00	10.00
Final	Temp.	22.96	23.81	24.22
	Reading	7.09	4.11	10.02

3. ORP Calibration *+240 mV Zobell*

	Temp.	Initial	Cal. to
Initial	21.52	237.7	240.0
Midday	22.36	239.9	240.0
Final	21.90	239.8	

4. Dissolved Oxygen Calibration

		Saturation 100%	0%
Initial	Barometer	760	760
	Temp.	21.84	22.63
	Reading mg/L	0.126	9.42
	Cal. to	9.84	
Midday	Barometer	760	760
	Temp	22.34	23.69
	Reading mg/L	9.61	0.44
	Cal. to	9.72	
Final	Barometer	760	760
	Temp	23.22	23.88
	Reading mg/L	9.61	0.22

5. Turbidity

		<0.1 NTU	20 NTU	100 NTU	800 NTU
Initial	Reading	0.40	22.5	105	820
	Cal. to	0	20	—	—
Midday	Reading	0.82	236	101	811
	Cal. to	0	20	100	800
Final	Reading	0.84	21.7	102	800

pH 7 Calibration Solution — Lot Number:	7GA929	Expiration Date: 1-19
pH 4 Calibration Solution — Lot number:	6GK498	Expiration Date: 11-18
pH 10 Calibration Solution — Lot Number:	6GJ351	Expiration Date: 10-18
Specific Conductance Calibration Solution — Lot Number:	6GJ415	Expiration Date: 10-17
ORP Calibration Solution — Lot number:	0647	Expiration Date: 10-21
0.1 NTU Calibration Solution — Lot Number:	A6204	Expiration Date: 10-17
20 NTU Calibration Solution — Lot Number:	A6231	Expiration Date: 11-17
100 NTU Calibration Solution — Lot Number:	A6228	Expiration Date: 11-17
800 NTU Calibration Solution — Lot Number:	A6228	Expiration Date: 11-17
Multiparameter Probe — Model: YSI 556 MPS	Rental #: 028189	SN#: 15C103560
Turbidity Meter — Model: HACH 2100P	Rental #: 17262	SN#: 10090C040372

Comments (rental, condition, problems, etc.):

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GROUNDWATER SAMPLING LOG

Project Name: PRGS — Date: 05/23/17
Project Number: MEM1108 — Task: — Phase: 3
Location: Alexandria, VA — Personnel: S. Jones

Sample Type: Grab — Location Type: Flush — DTW (feet): 14.42
Location ID: TW-02 — Depth Measurement Location: TOIC — DTB (feet) from prior data: 21.22
Duplicate ID: — Screen Interval (ft): On File — Pump Setting (feet): ~19
Well Diameter (inches): 1

Purge Method: Low Flow — Rate (mL/min): See column — Time - Start: 1300 — Time-End: 1345

Time	Drawdown (ft)	pH (S.U.)	Conductivity (µS/cm)	Temp. (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	purge rate (mL/min)
1300	14.42	Began pumping & searching settings						
*1305	14.69	6.86	1275	15.74	360	79.9	5.01	190
*1310	14.83	6.24	1070	15.64	144	48.9	0.45	190
*1315	15.01	6.39	981	15.63	54.3	35.0	0.37	220
*1320	15.02	6.46	951	15.65	24.6	29.1	0.33	210
*1325	15.04	6.50	940	15.66	20.5	20.3	0.32	210
*1330	15.06	6.56	919	15.68	12.2	11.1	0.31	
*1335	15.08	6.58	911	15.69	8.63	5.6	0.32	210
*1340	15.10	6.52	910	15.63	9.11	6.3	0.32	200
*1345	15.11	6.50	907	15.82	8.42	10.0	0.33	210

Orange, cloudy, turbid but not orange clear

SM

Sample Method: Grab — Rate (mL/min): 210 — Date: 05/23/17 — Time: 1405

Final/Sample Field Parameters		Stabilization Guidance		
pH	6.50	0.1	met? Y / N	
Conductivity (uS)	907	3%	met? Y / N	
Temp. (oC)	15.82	none		
Turbidity (NTU)	8.42	(<10) 10%	met? Y / N	
ORP (mV)	6.0	10	met? Y / N	
DO (mg/L)	0.33	10%	met? Y / N	

NOTES: ~2.5 gallons purged & containerized. Clear

Constituent	Method	Container	Preservative	Filtered?
HEM (Oil & grease)	grab	2x1000 mL glass	HCL	No
Total Hardness as CaCO3	grab	1x250 mL poly	HNO3	No
TAL Metals	grab	1x250 mL poly	HNO3	No
TPH-GRO C6-C10	grab	3x40 mL vial	HCL	No
VOCs 8260B	grab	3x40 mL vial	HCL	No
DRO 8015 Micro Ext	grab	2x40 mL vial	HCL	No
PAHs 8270 SIM	grab	2x250 mL amber	None	No

COMMENTS: tubing left in well, missing 2 washers
* pump set @ lowest setting

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GROUNDWATER SAMPLING LOG

Project Name PRGS
Project Number MeM1108 Task
Location Alexandria, VA
Date 05/23/17
Phase 3
Personnel S. Jones

Sample Type Grab
Location ID TW-03
Duplicate ID —
Location Type Flush
Depth Measurement Location TOIC
Screen Interval (ft) On File
Well Diameter (inches) 1
DTW (feet) 7.84
DTB (feet) from prior data 12.98
Pump Setting (feet) ~11.5

Purge Method Low Flow Rate (mL/min) see column Time - Start 0930 Time-End 1030

Time	~~Drawdown~~ DTW (ft)	pH (S.U.)	Conductivity (µS/cm)	Temp. (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Purge rate (mL/min)
0930	7.84	Began pumping &	searching	settings				200
0935	8.41	5.50	863	15.98	61.3	88.9	1.06	190
0940	8.48	5.47	914	15.99	34.5	93.0	0.86	210
0945	8.49	5.45	941	15.99	23.0	96.3	0.71	240
0950	9.52	5.42	963	15.97	13.0	100.6	0.60	—
0955	9.47	5.41	966	15.34	12.6	101.3	0.58	—
1000	9.36	5.39	961	15.97	11.1	101.7	0.59	210
1005	9.40	5.43	968	15.98	10.8	104.1	0.56	210
1010	9.29	5.43	971	15.99	10.0	105.6	0.56	
	SW							

Orange tint
Clear

Sample Method Grab Rate (mL/min) 210 Date 05-23-17 Time 1030

Final/Sample Field Parameters		Stabilization Guidance	
pH	5.43	0.1	met? Y / N
Conductivity (uS)	971	3%	met? Y / N
Temp. (oC)	15.99	none	
Turbidity (NTU)	10.0	10%	met? Y / N
ORP (mV)	105.6	10	met? Y / N
DO (mg/L)	0.56	10%	met? Y / N

NOTES
~2.5 gallons purged & containerized
Clear

Constituent	Method	Container	Preservative	Filtered?
HEM (oil & grease)	grab	2x1000mL glass	HCL	No
Total Hardness as $CaCO_3$	grab	1x250mL poly	HNO_3	No
TAL Metals	grab	1x250mL poly	HNO_3	No
TPH-GRO C6-C10	grab	3x40mL Vial	HCL	No
VOCs 8260B	grab	3x40mL Vial	HCL	No
DRO 8015 MicroExt	grab	2x40mL Vial	HCL	No
PAHs 8270 SIM	grab	2x250mL amber	None	No

COMMENTS missing 2 washers, tubing left in well, collected samples for GES in bottleware they provided

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GROUNDWATER SAMPLING LOG

Project Name: PRGS
Project Number: MSM1108 Task:
Location: Alexandria, VA
Date: 5/22/17
Phase: 3
Personnel: S. Jones

Sample Type: Grab
Location ID: TW-04
Duplicate ID: TW-04MS/MSD
Location Type: Flush
Depth Measurement Location: TOC
Screen Interval (ft): on file
Well Diameter (inches): 1
DTW (feet): 5.54
DTB (feet) from prior data: 13.12
Pump Setting (feet): 11

Purge Method: low flow Rate (mL/min): See column Time - Start: 1330 Time-End: 1410

Time	Drawdown (ft)	pH (S.U.)	Conductivity (µS/cm)	Temp. (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Purge rate (mL/min)
1330	5.54	Began pumping &	searching for	settings				340
1335	6.51	5.89	2290	15.13	559	93.8	37.30	220
*1340	6.97	5.72	2073	14.95	82.2	55.6	2.65	240
*1345	7.11	5.79	1957	14.85	45.0	51.3	1.52	200
*1350	7.18	5.90	1953	14.72	36.5	45.0	0.92	200
*1355	6.97	5.97	1953	14.75	20.9	33.2	0.74	200
*1400	6.96	5.99	1950	14.76	13.9	27.6	0.60	200
*1405	6.92	6.00	1948	14.75	12.4	25.7	0.54	200
*1410	6.94	6.00	1973	14.81	12.7	25.2	0.51	
	SNJ							

orange tint
clear

Sample Method: grab Rate (mL/min): 200 Date: 05-22-17 Time: 1425

Final/Sample Field Parameters		Stabilization Guidance	
pH	6.00	0.1	met? Y / N
Conductivity (uS)	1973	3%	met? Y / N
Temp. (oC)	14.81	none	
Turbidity (NTU)	12.7	10%	met? Y / N
ORP (mV)	25.2	10	met? Y / N
DO (mg/L)	0.51	10%	met? Y / N

NOTES: ~3 gallons purged & containerized

clear

Constituent	Method	Container	Preservative	Filtered?
HEM (oil & grease)	grab	2x1000 glass	HCl	No
Total Hardness as $CaCO_3$	grab	1x250 mL poly	HNO_3	No
TAL Metals	grab	1x250 mL poly	HNO_3	No
TPH-GRO C6-C10	grab	3x40 mL vial	HCl	No
VOCs 8260B	grab	3x40 mL vial	HCl	No
DRO 8015, Micro Ext	grab	2x40 mL vial	HCl	No
PAHs 8270 SIM	grab	2x250 mL amber	None	No

COMMENTS: washer missing, tubing left in well
* pump set @ lowest setting

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GROUNDWATER SAMPLING LOG

SNJ

Project Name PRGS
Project Number NCM108 Task
Location Alexandria, VA

Date 03/17/05/22/17
Phase 3
Personnel S. Jones

Sample Type Grab
Location ID TW-05
Duplicate ID DUP20170522

Location Type Flush
Depth Measurement Location TOC
Screen Interval (ft) on file
Well Diameter (inches) 1

DTW (feet) 5.61
DTB (feet) from prior data 13.16
Pump Setting (feet) 11

Purge Method Rate (mL/min) Time - Start Time-End

Time	Drawdown (ft)	pH (S.U.)	Conductivity (µS/cm)	Temp. (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Purge rate (mL/min)
1055	5.61	Began pumping & searching for settings						490
1100	6.18	5.60	1438	15.36	735	49.6	2.75	240
*1105	6.69	5.56	1455	16.36	80.9	51.0	1.16	220
*1110	6.99	5.54	1447	15.43	44.6	54.0	0.86	240
*1115	7.02	5.89	1412	15.39	40.3	49.6	0.64	250
*1120	6.81	5.94	1411	15.38	50.2	47.6	0.58	220
*1125	6.89	6.05	1418	15.41	59.0	35.7	0.51	240
*1130	6.82	6.07	1419	15.37	52.7	32.4	0.48	
*1135	6.83	6.03	1420	15.34	51.9	36.8	0.49	
*1140	6.82	6.03	1423	15.39	50.8	32.1	0.47	

Brown

Clear

SNJ

Sample Method Grab Rate (mL/min) 240 Date 05-22-17 Time 1200

Final/Sample Field Parameters		Stabilization Guidance		NOTES
pH	6.82	0.1	met? Y / N	~2.5 gallons purged & contanained
SNJ Conductivity (uS)	0.1423	3%	met? Y / N	*Pump set @ lowest setting
Temp. (oC)	15.39	none		Clear
Turbidity (NTU)	50.8	10%	met? Y / N	
ORP (mV)	32.1	10	met? Y / N	
DO (mg/L)	0.47	10%	met? Y / N	

Constituent	Method	Container	Preservative	Filtered?
HEM (oil & grease)	grab	2x1000 glass	HCL	No
Total Hardness as CaCO3	Grab	1x250 Poly	HNO3	No
TAL Metals	grab	1x250mL Poly	HNO3	No
TPH-GRO C6-C10	grab	3x40mL Vial	~~HNO3~~ HCL	No
VOCs 8260B	Grab	3x40mL Vial	HCL	No
DRO 8015 Microext	Grab	2x40mL Vial	HCL	No
PAHs 8270	Grab	2x250mL amber	None	No

SNJ

COMMENTS collected samples for GES in bottleware provided by them, tubing left in well, Missing 1 bolt & washer 9/16"

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GROUNDWATER SAMPLING LOG

Project Name PRGS Date 5/23/17
Project Number MEM1108 Task — Phase 3
Location Alexandria, VA Personnel S. Jones

Sample Type Grab Location Type Flush DTW (feet) 9.84 (5.84 SNJ)
Location ID TW-06 Depth Measurement Location TOC DTB (feet) from prior data 12.50
Duplicate ID — Screen Interval (ft) on file Pump Setting (feet) ~11
Low Flow Well Diameter (inches) 1

Purge Method DTW Rate (mL/min) see column Time - Start 0815 Time-End 0915

Time	Drawdown (ft)	pH (S.U.)	Conductivity (µS/cm)	Temp. (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	purge rate (mL/min)
SNJ clear								
0815	9.84	Began pumping & searching settings						
0820	5.98	6.01	1335	15.77	189	-5.2	03.36	160
0825	6.00	6.02	1373	15.63	65.8	-7.6	1.11	180
0830	6.02	6.04	1390	15.69	28.9	-8.7	0.93	170
0835	6.02	6.05	1384	15.64	12.3	-7.8	0.66	200
0840	6.04	6.06	1392	15.66	6.19	-8.7	0.59	—
0845	6.03	6.07	1379	15.64	3.62	-10.1	0.51	—
0850	6.04	6.10	1383	15.77	1.97	-11.8	0.47	200
0855	6.04	6.13	1386	15.77	1.41	-12.6	0.45	200
SNJ								

Sample Method grab Rate (mL/min) 200 Date 05.23.17 Time 0915

Final/Sample Field Parameters		Stabilization Guidance		
pH	6.13	0.1	met? Y / N	(3)
Conductivity (uS)	1386	3%	met? Y / N	(3)
Temp. (oC)	15.77	none		
Turbidity (NTU)	1.41	<10 10%	met? Y / N	(3)
ORP (mV)	-12.6	10	met? Y / N	(3)
DO (mg/L)	0.45	10%	met? Y / N	

NOTES: ~2.5 gallons purged & containerized. clear

Constituent	Method	Container	Preservative	Filtered?
HEM (oil+grease)	grab	2x1000 mL glass	HCL	No
Total hardness as CaCO3	Grab	1x250 mL poly	HNO3	No
TAL Metals	Grab	1x250 mL poly	HNO3	No
TPH-GRO C6-C10	Grab	3x40mL vial	HCL	No
VOCs 8260B	Grab	3x40 mL vial	HCL	No
DRO 8015, MicroExt	Grab	2x40mL vial	HCL	No
PAHs 8270 SIM	grab	2x250mL amber	None	No

COMMENTS tubing left in well, Samples collected for GES in bottleware provided by them, missing 1 screw & washer

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GROUNDWATER SAMPLING LOG

Project Name PRGS
Project Number MEM1108 Task
Location Alexandria, VA
Date 05/23/17
Phase 3
Personnel S. Jones

Sample Type Grab
Location ID TW-07
Duplicate ID —
Location Type Flush
Depth Measurement Location TOC
Screen Interval (ft) on file
Well Diameter (inches) 1
DTW (feet) 6.79
DTB (feet) from prior data 13.43
Pump Setting (feet) ~12

Purge Method low flow Rate (mL/min) See column Time - Start 1150 Time-End 1250

Time	Drawdown (ft) DTW	pH (S.U.)	Conductivity (µS/cm)	Temp. (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Purge rate (mL/min)
1150	6.79	Began pumping & searching settings						
1155	9.76	5.33	543	16.96	208	79.9	2.05	280
*1200	9.69	5.18	602	16.94	139	90.3	2.16	190
*1205	9.70	5.07	681	16.88	132	112.1	2.09	190
*1210	9.63	4.98	1099	16.86	147	122.5	2.03	200
*1215	9.72	4.95	1094	16.94	70.0	129.2	1.75	—
*1220	9.47	4.91	764	17.00	41.7	140.1	1.21	210
*1225	9.26	4.90	780	17.03	20.9	147.0	0.92	—
*1230	9.52	4.89	786	17.02	20.2	148.5	0.89	210
*1235	9.47	4.89	788	17.01	20.0	149.0	0.87	220
	SNJ							

Orange tint
Clear

Sample Method grab Rate (mL/min) 210 Date 05/23/17 Time 1260

Final/Sample Field Parameters		Stabilization Guidance		
pH	4.89	0.1	met? Y / N	
Conductivity (uS)	786	3%	met? Y / N	
Temp. (oC)	17.01	none		
Turbidity (NTU)	20.0	10%	met? Y / N	
ORP (mV)	149.0	10	met? Y / N	
DO (mg/L)	0.87	10%	met? Y / N	

NOTES
~2.5 gallons purged & containerized
Clear

Constituent	Method	Container	Preservative	Filtered?
HEM (oil & grease)	grab	2x1000 mL glass	HCL	No
Total hardness as CaCO3	grab	1x250 mL poly	HNO3	No
TAL Metals	grab	1x250 mL poly	HNO3	No
TPH-GRO (C6-C10)	grab	3x40 mL vial	HCL	No
VOCs 8260B	grab	3x40 mL vial	HCL	No
DRO 8015 MicroExt	grab	2x40 mL vial	HCL	No
PAHs 8270 SIM	grab	2x250 mL amber	None	No

COMMENTS tubing left in well
*pump set @ lowest setting

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GROUNDWATER SAMPLING LOG

Project Name PRGS
Date 05/22/17
Project Number MEM1108 Task
Phase 3
Location PRGS, Alexandria VA
Personnel S. Jones

Sample Type Grab
Location Type Flush
DTW (feet) 3.16
Location ID TW-14
Depth Measurement Location TOC
DTB (feet) from prior data 5.78
Screen Interval (ft) on file
Pump Setting (feet) ~5
Duplicate ID
Well Diameter (inches) ~~2~~ 1 SNJ

Purge Method DTW Rate (mL/min) See column Time - Start 0930 Time-End 1045

Time	~~Drawdown~~ (ft)	pH (S.U.)	Conductivity (µS/cm)	Temp. (°C)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Purge Rate (mL/min)
0945	3.16	Began pumping & searching for settings						
0950	3.21	7.07	512	17.50	1.70	151.6	3.43	390
0955	3.22	7.05	501	17.52	0.65	38.6	1.69	390
1000	3.22	7.06	493	17.53	0.38	32.3	1.34	400
1005	3.23	7.07	490	17.54	0.30	28.9	1.16	410
1010	3.23	7.08	489	17.55	1.4	27.6	1.13	390
1015	3.22	7.09	489	17.54	0.29	26.6	1.10	390

clear

SNJ

Sample Method Grab Rate (mL/min) 390 Date 05.22.17 Time 1040

Final/Sample Field Parameters		Stabilization Guidance		NOTES
pH	7.09	0.1	met? Y / N	~4 gallons purged + contained
Conductivity (uS)	489	3%	met? Y / N	
Temp. (oC)	17.54	none		
Turbidity (NTU)	0.29	10% (<10)	met? Y / N	Clear
ORP (mV)	26.6	10	met? Y / N	
DO (mg/L)	1.10	10%	met? Y / N	

Constituent	Method	Container	Preservative	Filtered?	
HEM (oil + grease)	Grab	2x1000mL glass	HCL	N	✓
Total Hardness as CaCO3	Grab	1x250mL poly	HNO3	N	✓
TAL Metals	Grab	1x250mL poly	HNO3	N	✓
TPH-GRO C6-C10	Grab	3x40mL vial	HCL	N	✓
VOCs 8260B	Grab	3x40mL vial	HCL	N	✓
DRO 8015, Micro Ext	Grab	2x40mL vial	HCL	N	✓
PAHs 8270 SIM	Grab	2x250mL amber	None	N	✓

COMMENTS tubing left in well

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # _____ Group # _____ Sample # _____

COC # 527762

Client Information

Client: Geosyntec	Acct. #: SNJ
Project Name/#: NRG PRGS	PWSID #:
Project Manager: Mark Bauer	P.O. #: MEM1108
Sampler: Stephanie Jones	Quote #: SNJ
State where samples were collected: Virginia	For Compliance: Yes ☐ No ☒

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: DI water

For Lab Use Only
FSC: _____
SCR#: 206223

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 O=Other ice

Remarks
Samples shipped via lab courier

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	HEM (oil & grease)	Total Hardness as CaCO3	TAL Metals	TPH-GRO CU-CRO	VOCs 8260B	DRO 8015 Micro Ext	PAHs 8270 SIM				
EB20170522	05/22/17	1500	X		14	X	X	X	X	X	X	X				SNJ
TB17129	05/11/17	—			4				X	X						
TW-03	05/23/17	1030	X		14	X	X	X	X	X	X	X				lab provided trip blank
TW-06	05/23/17	0915	X		14	X	X	X	X	X	X	X				
DUP20170522	05/22/17	—	X		14	X	X	X	X	X	X	X				
TW-05	05/22/17	1200	X		14	X	X	X	X	X	X	X				
TW-14	05/22/17	1040	X		14	X	X	X	X	X	X	X				
TW-04 MS/MSD	05/22/17	1425	X		42	X	X	X	X	X	X	X				
TW-02	05/23/17	1405	X		14	X	X	X	X	X	X	X				
TW-07	05/23/17	1250	X		14	X	X	X	X	X	X	X				

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed: _____

E-mail address: Mbauer@geosyntec.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP)
Type III (Reduced non-CLP)
NYSDEC Category A or B
Type VI (Raw Data Only)
NJ DKQP
MA MCP
TX TRRP-13
CT RCP

Relinquished by	Date	Time	Received by	Date	Time
BottleStorage					
	05/24/17			5/24/17	10:2

EDD Required? Yes No
If yes, format: _____

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

ATTACHMENT C

LABORATORY ANALYTICAL REPORTS – FIRST SEMI-ANNUAL 2017

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

Report Date: June 19, 2017

Project: NRG PRGS

Submittal Date: 05/24/2017
Group Number: 1805673
SDG: PRG13
PO Number: MEM1108
State of Sample Origin: VA

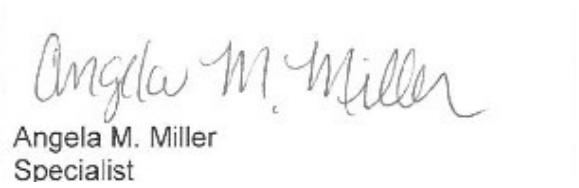
Client Sample Description	Lancaster Labs (LL) #
EB20170522 Grab Water	9013799
TB17129 Water	9013800
TW-03 Grab Groundwater	9013801
TW-06 Grab Groundwater	9013802
DUP20170522 Grab Groundwater	9013803
TW-05 Grab Groundwater	9013804
TW-14 Grab Groundwater	9013805
TW-04 Grab Groundwater	9013806
TW-04 MS Grab Groundwater	9013807
TW-04 MSD Grab Groundwater	9013808
TW-04 DUP Grab Groundwater	9013809
TW-02 Grab Groundwater	9013810
TW-07 Grab Groundwater	9013811

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	Geosyntec Consultants	Attn: Mark Bauer
Electronic Copy To	GeoSyntec Consultants	Attn: Mark Johnson

Respectfully Submitted,



Angela M. Miller
Specialist

(717) 556-7260

Sample Description: EB20170522 Grab Water
NRG PRGS

LL Sample # WW 9013799
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 15:00 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGEB SDG#: PRG13-01EB

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	t-Butyl alcohol	75-65-0	N.D.	2	5	1
10945	1,2-Dibromoethane	106-93-4	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**	**ug/l**	**ug/l**	
10262	Acenaphthene	83-32-9	N.D.	0.09	0.2	1
10262	Acenaphthylene	208-96-8	N.D.	0.09	0.2	1
10262	Anthracene	120-12-7	N.D.	0.09	0.2	1
10262	Benzo(a)anthracene	56-55-3	N.D.	0.09	0.2	1
10262	Benzo(a)pyrene	50-32-8	N.D.	0.09	0.2	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.	0.09	0.2	1
10262	Benzo(e)pyrene	192-97-2	N.D.	0.09	0.2	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.	0.09	0.2	1
10262	Benzo(k)fluoranthene	207-08-9	N.D.	0.09	0.2	1
10262	Biphenyl	92-52-4	N.D.	0.09	0.2	1
10262	Chrysene	218-01-9	N.D.	0.09	0.2	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.	0.09	0.2	1
10262	Dibenzofuran	132-64-9	N.D.	0.09	0.2	1
10262	Dibenzothiophene	132-65-0	N.D.	0.09	0.2	1
10262	Fluoranthene	206-44-0	N.D.	0.09	0.2	1
10262	Fluorene	86-73-7	N.D.	0.09	0.2	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.09	0.2	1
10262	1-Methylnaphthalene	90-12-0	N.D.	0.09	0.2	1
10262	2-Methylnaphthalene	91-57-6	N.D.	0.09	0.2	1
10262	Naphthalene	91-20-3	N.D.	0.09	0.2	1
10262	Naphthobenzothiophene	224-10-2	N.D.	0.09	0.2	1
10262	Perylene	198-55-0	N.D.	0.09	0.2	1
10262	Phenanthrene	85-01-8	N.D.	0.09	0.2	1
10262	Pyrene	129-00-0	N.D.	0.09	0.2	1
Reporting limits were raised due to limited sample volume.						
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	N.D.	20	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**ug/l**	**ug/l**	**ug/l**	
12858	DRO C10-C28	n.a.	N.D.	45	100	1
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07046	Barium	7440-39-3	N.D.	0.0011	0.0050	1
08014	Boron	7440-42-8	N.D.	0.0083	0.0500	1
01750	Calcium	7440-70-2	0.0948 J	0.0382	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: EB20170522 Grab Water
NRG PRGS

LL Sample # WW 9013799
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 15:00 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGEB SDG#: PRG13-01EB

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07052	Cobalt	7440-48-4	N.D.	0.0019	0.0050	1
01756	Lithium	7439-93-2	N.D.	0.0048	0.0200	1
01757	Magnesium	7439-95-4	N.D.	0.0190	0.100	1
07058	Manganese	7439-96-5	N.D.	0.0018	0.0050	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	0.0100	1
01767	Sodium	7440-23-5	N.D.	0.173	1.00	1
07071	Vanadium	7440-62-2	N.D.	0.0016	0.0050	1
	EPA 200.8 rev 5.4		**mg/l**	**mg/l**	**mg/l**	
06023	Aluminum	7429-90-5	N.D.	0.0231	0.100	1
06024	Antimony	7440-36-0	N.D.	0.00048	0.0010	1
06025	Arsenic	7440-38-2	N.D.	0.00040	0.0020	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.00050	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.00050	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0020	1
06033	Copper	7440-50-8	0.0016 J	0.00034	0.0020	1
06034	Iron	7439-89-6	N.D.	0.0337	0.100	1
06035	Lead	7439-92-1	N.D.	0.000090	0.0010	1
06036	Magnesium	7439-95-4	0.0198 J	0.0117	0.100	1
06039	Nickel	7440-02-0	N.D.	0.00036	0.0020	1
06040	Potassium	7440-09-7	N.D.	0.0669	0.200	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0020	1
06042	Silver	7440-22-4	N.D.	0.00012	0.00050	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.00050	1
06049	Zinc	7440-66-6	N.D.	0.0035	0.0150	1
	EPA 245.1 rev 3		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
	SM 2340 B-1997		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	0.24	0.038	0.20	1
Wet Chemistry	**EPA 1664B**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171521AA	06/01/2017 09:24	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Sample Description: EB20170522 Grab Water
NRG PRGS

LL Sample # WW 9013799
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 15:00 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGEB SDG#: PRG13-01EB

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	Z171521AA	06/01/2017 09:24	Anita M Dale	1
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	17147WAB026	05/30/2017 10:59	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	17147WAB026	05/29/2017 08:00	Osvaldo R Sanchez	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 15:39	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 15:39	Jeremy C Giffin	1
12858	DRO Microextraction Master	SW-846 8015B	1	171460017A	05/30/2017 18:41	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	171460017A	05/26/2017 21:00	Shawn J McMullen	1
07046	Barium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:09	Cindy M Gehman	1
08014	Boron	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:09	Cindy M Gehman	1
01750	Calcium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:09	Cindy M Gehman	1
07052	Cobalt	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:09	Cindy M Gehman	1
01756	Lithium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:09	Cindy M Gehman	1
01757	Magnesium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:09	Cindy M Gehman	1
07058	Manganese	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:09	Cindy M Gehman	1
07060	Molybdenum	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:09	Cindy M Gehman	1
01767	Sodium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:09	Cindy M Gehman	1
07071	Vanadium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:09	Cindy M Gehman	1
06023	Aluminum	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06024	Antimony	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06025	Arsenic	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06027	Beryllium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06028	Cadmium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06031	Chromium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06033	Copper	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06034	Iron	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06035	Lead	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06036	Magnesium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06039	Nickel	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:39	Sarah L Burt	1
06040	Potassium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06041	Selenium	EPA 200.8 rev 5.4	1	171460705001B	06/05/2017 16:28	Patrick J Engle	1
06042	Silver	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06045	Thallium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
06049	Zinc	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:28	Patrick J Engle	1
00259	Mercury	EPA 245.1 rev 3	1	171460571407	05/31/2017 16:04	Parker D Lindstrom	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	171536256001	06/02/2017 15:51	Tara L Snyder	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	171460571617	05/31/2017 05:55	James L Mertz	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	171460705001	05/27/2017 05:50	Lisa J Cooke	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	171460571407	05/31/2017 00:45	Denise L Trimby	1
08079	HEM (oil & grease)	EPA 1664B	1	17150807902A	05/30/2017 09:40	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result

Sample Description: TB17129 Water
NRG PRGS

LL Sample # WW 9013800
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/11/2017

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGTB SDG#: PRG13-02TB

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	t-Butyl alcohol	75-65-0	N.D.	2	5	1
10945	1,2-Dibromoethane	106-93-4	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	N.D.	20	50	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
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171521AA	06/01/2017 06:59	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z171521AA	06/01/2017 06:59	Anita M Dale	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 16:06	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 16:06	Jeremy C Giffin	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-03 Grab Groundwater
NRG PRGS

LL Sample # WW 9013801
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 10:30 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT3 SDG#: PRG13-03

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	t-Butyl alcohol	75-65-0	N.D.		2	5	1
10945	1,2-Dibromoethane	106-93-4	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**		**ug/l**	**ug/l**	
10262	Acenaphthene	83-32-9	N.D.		0.09	0.2	1
10262	Acenaphthylene	208-96-8	N.D.		0.09	0.2	1
10262	Anthracene	120-12-7	N.D.		0.09	0.2	1
10262	Benzo(a)anthracene	56-55-3	N.D.		0.09	0.2	1
10262	Benzo(a)pyrene	50-32-8	N.D.		0.09	0.2	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.		0.09	0.2	1
10262	Benzo(e)pyrene	192-97-2	N.D.		0.09	0.2	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.		0.09	0.2	1
10262	Benzo(k)fluoranthene	207-08-9	N.D.		0.09	0.2	1
10262	Biphenyl	92-52-4	N.D.		0.09	0.2	1
10262	Chrysene	218-01-9	N.D.		0.09	0.2	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.		0.09	0.2	1
10262	Dibenzofuran	132-64-9	N.D.		0.09	0.2	1
10262	Dibenzothiophene	132-65-0	N.D.		0.09	0.2	1
10262	Fluoranthene	206-44-0	N.D.		0.09	0.2	1
10262	Fluorene	86-73-7	0.2	J	0.09	0.2	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.09	0.2	1
10262	1-Methylnaphthalene	90-12-0	N.D.		0.09	0.2	1
10262	2-Methylnaphthalene	91-57-6	N.D.		0.09	0.2	1
10262	Naphthalene	91-20-3	N.D.		0.09	0.2	1
10262	Naphthobenzothiophene	224-10-2	N.D.		0.09	0.2	1
10262	Perylene	198-55-0	N.D.		0.09	0.2	1
10262	Phenanthrene	85-01-8	N.D.		0.09	0.2	1
10262	Pyrene	129-00-0	N.D.		0.09	0.2	1
Reporting limits were raised due to limited sample volume.							
GC Volatiles	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	N.D.		20	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
12858	DRO C10-C28	n.a.	75	J	45	100	1
Metals	**EPA 200.7 rev 4.4**		**mg/l**		**mg/l**	**mg/l**	
07046	Barium	7440-39-3	0.0326		0.0011	0.0050	1
08014	Boron	7440-42-8	0.0447	J	0.0083	0.0500	1
01750	Calcium	7440-70-2	85.6		0.0382	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-03 Grab Groundwater
NRG PRGS

LL Sample # WW 9013801
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 10:30 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT3 SDG#: PRG13-03

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07052	Cobalt	7440-48-4	0.106	0.0019	0.0050	1
01756	Lithium	7439-93-2	0.0140 J	0.0048	0.0200	1
01757	Magnesium	7439-95-4	22.8	0.0190	0.100	1
07058	Manganese	7439-96-5	5.78	0.0018	0.0050	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	0.0100	1
01767	Sodium	7440-23-5	35.4	0.173	1.00	1
07071	Vanadium	7440-62-2	0.0017 J	0.0016	0.0050	1
	EPA 200.8 rev 5.4		**mg/l**	**mg/l**	**mg/l**	
06023	Aluminum	7429-90-5	0.791	0.0231	0.100	1
06024	Antimony	7440-36-0	N.D.	0.00048	0.0010	1
06025	Arsenic	7440-38-2	0.0084	0.00040	0.0020	1
06027	Beryllium	7440-41-7	0.0011	0.00011	0.00050	1
06028	Cadmium	7440-43-9	0.00036 J	0.00019	0.00050	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0020	1
06033	Copper	7440-50-8	0.0053	0.00034	0.0020	1
06034	Iron	7439-89-6	36.8	0.0337	0.100	1
06035	Lead	7439-92-1	0.0049	0.000090	0.0010	1
06036	Magnesium	7439-95-4	21.9	0.0117	0.100	1
06039	Nickel	7440-02-0	0.0543	0.00036	0.0020	1
06040	Potassium	7440-09-7	9.73	0.0669	0.200	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0020	1
06042	Silver	7440-22-4	N.D.	0.00012	0.00050	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.00050	1
06049	Zinc	7440-66-6	0.141	0.0035	0.0150	1
	EPA 245.1 rev 3		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
	SM 2340 B-1997		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	307	0.038	0.20	1
Wet Chemistry	**EPA 1664B**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171521AA	06/01/2017 09:48	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-03 Grab Groundwater
NRG PRGS

LL Sample # WW 9013801
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 10:30 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT3 SDG#: PRG13-03

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	Z171521AA	06/01/2017 09:48	Anita M Dale	1
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	17147WAB026	05/30/2017 11:41	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	17147WAB026	05/29/2017 08:00	Osvaldo R Sanchez	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 20:43	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 20:43	Jeremy C Giffin	1
12858	DRO Microextraction Master	SW-846 8015B	1	171460017A	05/30/2017 19:04	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	171460017A	05/26/2017 21:00	Shawn J McMullen	1
07046	Barium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:12	Cindy M Gehman	1
08014	Boron	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:12	Cindy M Gehman	1
01750	Calcium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:12	Cindy M Gehman	1
07052	Cobalt	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:12	Cindy M Gehman	1
01756	Lithium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:12	Cindy M Gehman	1
01757	Magnesium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:12	Cindy M Gehman	1
07058	Manganese	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:12	Cindy M Gehman	1
07060	Molybdenum	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:12	Cindy M Gehman	1
01767	Sodium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:12	Cindy M Gehman	1
07071	Vanadium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:12	Cindy M Gehman	1
06023	Aluminum	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06024	Antimony	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06025	Arsenic	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:41	Sarah L Burt	1
06027	Beryllium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06028	Cadmium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06031	Chromium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06033	Copper	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06034	Iron	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06035	Lead	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06036	Magnesium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06039	Nickel	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:41	Sarah L Burt	1
06040	Potassium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06041	Selenium	EPA 200.8 rev 5.4	1	171460705001B	06/05/2017 16:31	Patrick J Engle	1
06042	Silver	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06045	Thallium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
06049	Zinc	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:31	Patrick J Engle	1
00259	Mercury	EPA 245.1 rev 3	1	171460571407	05/31/2017 16:06	Parker D Lindstrom	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	171536256001	06/02/2017 15:51	Tara L Snyder	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	171460571617	05/31/2017 05:55	James L Mertz	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	171460705001	05/27/2017 05:50	Lisa J Cooke	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	171460571407	05/31/2017 00:45	Denise L Trimby	1
08079	HEM (oil & grease)	EPA 1664B	1	17150807902A	05/30/2017 09:40	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-06 Grab Groundwater
NRG PRGS

LL Sample # WW 9013802
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 09:15 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT6 SDG#: PRG13-04

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	t-Butyl alcohol	75-65-0	N.D.		2	5	1
10945	1,2-Dibromoethane	106-93-4	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**		**ug/l**	**ug/l**	
10262	Acenaphthene	83-32-9	2		0.08	0.2	1
10262	Acenaphthylene	208-96-8	0.2	J	0.08	0.2	1
10262	Anthracene	120-12-7	0.2	J	0.08	0.2	1
10262	Benzo(a)anthracene	56-55-3	N.D.		0.08	0.2	1
10262	Benzo(a)pyrene	50-32-8	N.D.		0.08	0.2	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.		0.08	0.2	1
10262	Benzo(e)pyrene	192-97-2	N.D.		0.08	0.2	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.		0.08	0.2	1
10262	Benzo(k)fluoranthene	207-08-9	N.D.		0.08	0.2	1
10262	Biphenyl	92-52-4	2		0.08	0.2	1
10262	Chrysene	218-01-9	N.D.		0.08	0.2	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.		0.08	0.2	1
10262	Dibenzofuran	132-64-9	0.7		0.08	0.2	1
10262	Dibenzothiophene	132-65-0	0.3		0.08	0.2	1
10262	Fluoranthene	206-44-0	N.D.		0.08	0.2	1
10262	Fluorene	86-73-7	2		0.08	0.2	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.08	0.2	1
10262	1-Methylnaphthalene	90-12-0	2		0.08	0.2	1
10262	2-Methylnaphthalene	91-57-6	N.D.		0.08	0.2	1
10262	Naphthalene	91-20-3	0.7		0.08	0.2	1
10262	Naphthobenzothiophene	224-10-2	N.D.		0.08	0.2	1
10262	Perylene	198-55-0	N.D.		0.08	0.2	1
10262	Phenanthrene	85-01-8	0.09	J	0.08	0.2	1
10262	Pyrene	129-00-0	0.1	J	0.08	0.2	1
	Reporting limits were raised due to limited sample volume.						
GC Volatiles	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	57		20	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
12858	DRO C10-C28	n.a.	1,500		45	100	1
Metals	**EPA 200.7 rev 4.4**		**mg/l**		**mg/l**	**mg/l**	
07046	Barium	7440-39-3	0.0368		0.0011	0.0050	1
08014	Boron	7440-42-8	0.102		0.0083	0.0500	1
01750	Calcium	7440-70-2	154		0.0382	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-06 Grab Groundwater
NRG PRGS

LL Sample # WW 9013802
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 09:15 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT6 SDG#: PRG13-04

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07052	Cobalt	7440-48-4	0.0176	0.0019	0.0050	1
01756	Lithium	7439-93-2	0.0285	0.0048	0.0200	1
01757	Magnesium	7439-95-4	12.0	0.0190	0.100	1
07058	Manganese	7439-96-5	4.55	0.0018	0.0050	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	0.0100	1
01767	Sodium	7440-23-5	29.3	0.173	1.00	1
07071	Vanadium	7440-62-2	0.0018 J	0.0016	0.0050	1
	EPA 200.8 rev 5.4		**mg/l**	**mg/l**	**mg/l**	
06023	Aluminum	7429-90-5	0.0429 J	0.0231	0.100	1
06024	Antimony	7440-36-0	N.D.	0.00048	0.0010	1
06025	Arsenic	7440-38-2	0.0043	0.00040	0.0020	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.00050	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.00050	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0020	1
06033	Copper	7440-50-8	0.00064 J	0.00034	0.0020	1
06034	Iron	7439-89-6	88.9	0.0337	0.100	1
06035	Lead	7439-92-1	0.00034 J	0.000090	0.0010	1
06036	Magnesium	7439-95-4	11.4	0.0117	0.100	1
06039	Nickel	7440-02-0	0.0114	0.00036	0.0020	1
06040	Potassium	7440-09-7	13.1	0.0669	0.200	1
06041	Selenium	7782-49-2	0.00058 J	0.00044	0.0020	1
06042	Silver	7440-22-4	N.D.	0.00012	0.00050	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.00050	1
06049	Zinc	7440-66-6	0.0255	0.0035	0.0150	1
	EPA 245.1 rev 3		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
	SM 2340 B-1997		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	434	0.038	0.20	1
Wet Chemistry	**EPA 1664B**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171523AA	06/01/2017 19:58	Hu Yang	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-06 Grab Groundwater
NRG PRGS

LL Sample # WW 9013802
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 09:15 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT6 SDG#: PRG13-04

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	Z171523AA	06/01/2017 19:58	Hu Yang	1
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	17147WAB026	05/30/2017 12:23	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	17147WAB026	05/29/2017 08:00	Osvaldo R Sanchez	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 17:02	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 17:02	Jeremy C Giffin	1
12858	DRO Microextraction Master	SW-846 8015B	1	171460017A	05/30/2017 19:28	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	171460017A	05/26/2017 21:00	Shawn J McMullen	1
07046	Barium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:23	Cindy M Gehman	1
08014	Boron	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:23	Cindy M Gehman	1
01750	Calcium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:23	Cindy M Gehman	1
07052	Cobalt	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:23	Cindy M Gehman	1
01756	Lithium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:23	Cindy M Gehman	1
01757	Magnesium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:23	Cindy M Gehman	1
07058	Manganese	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:23	Cindy M Gehman	1
07060	Molybdenum	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:23	Cindy M Gehman	1
01767	Sodium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:23	Cindy M Gehman	1
07071	Vanadium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:23	Cindy M Gehman	1
06023	Aluminum	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06024	Antimony	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06025	Arsenic	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:43	Sarah L Burt	1
06027	Beryllium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06028	Cadmium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06031	Chromium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06033	Copper	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06034	Iron	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06035	Lead	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06036	Magnesium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06039	Nickel	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:43	Sarah L Burt	1
06040	Potassium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06041	Selenium	EPA 200.8 rev 5.4	1	171460705001B	06/05/2017 16:34	Patrick J Engle	1
06042	Silver	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06045	Thallium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
06049	Zinc	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:34	Patrick J Engle	1
00259	Mercury	EPA 245.1 rev 3	1	171460571407	05/31/2017 16:09	Parker D Lindstrom	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	171536256001	06/02/2017 15:51	Tara L Snyder	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	171460571617	05/31/2017 05:55	James L Mertz	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	171460705001	05/27/2017 05:50	Lisa J Cooke	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	171460571407	05/31/2017 00:45	Denise L Trimby	1
08079	HEM (oil & grease)	EPA 1664B	1	17150807902A	05/30/2017 09:40	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP20170522 Grab Groundwater
NRG PRGS

LL Sample # WW 9013803
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGDU SDG#: PRG13-05FD

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	t-Butyl alcohol	75-65-0	N.D.		2	5	1
10945	1,2-Dibromoethane	106-93-4	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**		**ug/l**	**ug/l**	
10262	Acenaphthene	83-32-9	0.2	J	0.08	0.2	1
10262	Acenaphthylene	208-96-8	N.D.		0.08	0.2	1
10262	Anthracene	120-12-7	0.1	J	0.08	0.2	1
10262	Benzo(a)anthracene	56-55-3	N.D.		0.08	0.2	1
10262	Benzo(a)pyrene	50-32-8	N.D.		0.08	0.2	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.		0.08	0.2	1
10262	Benzo(e)pyrene	192-97-2	N.D.		0.08	0.2	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.		0.08	0.2	1
10262	Benzo(k)fluoranthene	207-08-9	N.D.		0.08	0.2	1
10262	Biphenyl	92-52-4	0.2		0.08	0.2	1
10262	Chrysene	218-01-9	N.D.		0.08	0.2	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.		0.08	0.2	1
10262	Dibenzofuran	132-64-9	0.3		0.08	0.2	1
10262	Dibenzothiophene	132-65-0	0.1	J	0.08	0.2	1
10262	Fluoranthene	206-44-0	N.D.		0.08	0.2	1
10262	Fluorene	86-73-7	0.5		0.08	0.2	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.08	0.2	1
10262	1-Methylnaphthalene	90-12-0	0.4		0.08	0.2	1
10262	2-Methylnaphthalene	91-57-6	N.D.		0.08	0.2	1
10262	Naphthalene	91-20-3	N.D.		0.08	0.2	1
10262	Naphthobenzothiophene	224-10-2	N.D.		0.08	0.2	1
10262	Perylene	198-55-0	N.D.		0.08	0.2	1
10262	Phenanthrene	85-01-8	0.1	J	0.08	0.2	1
10262	Pyrene	129-00-0	N.D.		0.08	0.2	1
	Reporting limits were raised due to limited sample volume.						
GC Volatiles	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	30	J	20	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
12858	DRO C10-C28	n.a.	590		45	100	1
Metals	**EPA 200.7 rev 4.4**		**mg/l**		**mg/l**	**mg/l**	
07046	Barium	7440-39-3	0.0498		0.0011	0.0050	1
08014	Boron	7440-42-8	0.0558		0.0083	0.0500	1
01750	Calcium	7440-70-2	254		0.0382	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP20170522 Grab Groundwater
NRG PRGS

LL Sample # WW 9013803
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGDU SDG#: PRG13-05FD

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07052	Cobalt	7440-48-4	0.103	0.0019	0.0050	1
01756	Lithium	7439-93-2	0.0236	0.0048	0.0200	1
01757	Magnesium	7439-95-4	20.6	0.0190	0.100	1
07058	Manganese	7439-96-5	9.02	0.0018	0.0050	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	0.0100	1
01767	Sodium	7440-23-5	32.0	0.173	1.00	1
07071	Vanadium	7440-62-2	0.0016 J	0.0016	0.0050	1
	EPA 200.8 rev 5.4		**mg/l**	**mg/l**	**mg/l**	
06023	Aluminum	7429-90-5	0.678	0.0231	0.100	1
06024	Antimony	7440-36-0	N.D.	0.00048	0.0010	1
06025	Arsenic	7440-38-2	0.0023	0.00040	0.0020	1
06027	Beryllium	7440-41-7	0.00029 J	0.00011	0.00050	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.00050	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0020	1
06033	Copper	7440-50-8	0.0020	0.00034	0.0020	1
06034	Iron	7439-89-6	67.0	0.0337	0.100	1
06035	Lead	7439-92-1	0.0021	0.000090	0.0010	1
06036	Magnesium	7439-95-4	19.2	0.0117	0.100	1
06039	Nickel	7440-02-0	0.0229	0.00036	0.0020	1
06040	Potassium	7440-09-7	22.6	0.0669	0.200	1
06041	Selenium	7782-49-2	0.00055 J	0.00044	0.0020	1
06042	Silver	7440-22-4	N.D.	0.00012	0.00050	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.00050	1
06049	Zinc	7440-66-6	0.0743	0.0035	0.0150	1
	EPA 245.1 rev 3		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
	SM 2340 B-1997		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	718	0.038	0.20	1
Wet Chemistry	**EPA 1664B**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1.4	5.0	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
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171521AA	06/01/2017 10:36	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP20170522 Grab Groundwater
NRG PRGS

LL Sample # WW 9013803
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGDU SDG#: PRG13-05FD

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	Z171521AA	06/01/2017 10:36	Anita M Dale	1
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	17147WAB026	05/30/2017 13:06	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	17147WAB026	05/29/2017 08:00	Osvaldo R Sanchez	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 17:29	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 17:29	Jeremy C Giffin	1
12858	DRO Microextraction Master	SW-846 8015B	1	171460017A	05/30/2017 19:51	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	171460017A	05/26/2017 21:00	Shawn J McMullen	1
07046	Barium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:26	Cindy M Gehman	1
08014	Boron	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:26	Cindy M Gehman	1
01750	Calcium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:26	Cindy M Gehman	1
07052	Cobalt	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:26	Cindy M Gehman	1
01756	Lithium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:26	Cindy M Gehman	1
01757	Magnesium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:26	Cindy M Gehman	1
07058	Manganese	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:26	Cindy M Gehman	1
07060	Molybdenum	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:26	Cindy M Gehman	1
01767	Sodium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:26	Cindy M Gehman	1
07071	Vanadium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:26	Cindy M Gehman	1
06023	Aluminum	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06024	Antimony	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06025	Arsenic	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:48	Sarah L Burt	1
06027	Beryllium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06028	Cadmium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06031	Chromium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06033	Copper	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06034	Iron	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06035	Lead	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06036	Magnesium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06039	Nickel	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:48	Sarah L Burt	1
06040	Potassium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06041	Selenium	EPA 200.8 rev 5.4	1	171460705001B	06/05/2017 16:43	Patrick J Engle	1
06042	Silver	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06045	Thallium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
06049	Zinc	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:43	Patrick J Engle	1
00259	Mercury	EPA 245.1 rev 3	1	171460571407	05/31/2017 16:11	Parker D Lindstrom	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	171536256001	06/02/2017 15:51	Tara L Snyder	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	171460571617	05/31/2017 05:55	James L Mertz	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	171460705001	05/27/2017 05:50	Lisa J Cooke	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	171460571407	05/31/2017 00:45	Denise L Trimby	1
08079	HEM (oil & grease)	EPA 1664B	1	17150807902A	05/30/2017 09:40	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-05 Grab Groundwater
NRG PRGS

LL Sample # WW 9013804
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 12:00 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT5 SDG#: PRG13-06

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	t-Butyl alcohol	75-65-0	N.D.		2	5	1
10945	1,2-Dibromoethane	106-93-4	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**		**ug/l**	**ug/l**	
10262	Acenaphthene	83-32-9	0.2	J	0.08	0.2	1
10262	Acenaphthylene	208-96-8	N.D.		0.08	0.2	1
10262	Anthracene	120-12-7	0.1	J	0.08	0.2	1
10262	Benzo(a)anthracene	56-55-3	N.D.		0.08	0.2	1
10262	Benzo(a)pyrene	50-32-8	N.D.		0.08	0.2	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.		0.08	0.2	1
10262	Benzo(e)pyrene	192-97-2	N.D.		0.08	0.2	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.		0.08	0.2	1
10262	Benzo(k)fluoranthene	207-08-9	N.D.		0.08	0.2	1
10262	Biphenyl	92-52-4	0.2		0.08	0.2	1
10262	Chrysene	218-01-9	N.D.		0.08	0.2	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.		0.08	0.2	1
10262	Dibenzofuran	132-64-9	0.3		0.08	0.2	1
10262	Dibenzothiophene	132-65-0	0.1	J	0.08	0.2	1
10262	Fluoranthene	206-44-0	N.D.		0.08	0.2	1
10262	Fluorene	86-73-7	0.5		0.08	0.2	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.08	0.2	1
10262	1-Methylnaphthalene	90-12-0	0.4		0.08	0.2	1
10262	2-Methylnaphthalene	91-57-6	N.D.		0.08	0.2	1
10262	Naphthalene	91-20-3	0.09	J	0.08	0.2	1
10262	Naphthobenzothiophene	224-10-2	N.D.		0.08	0.2	1
10262	Perylene	198-55-0	N.D.		0.08	0.2	1
10262	Phenanthrene	85-01-8	0.1	J	0.08	0.2	1
10262	Pyrene	129-00-0	N.D.		0.08	0.2	1
Reporting limits were raised due to limited sample volume.							
GC Volatiles	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	30	J	20	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
12858	DRO C10-C28	n.a.	650		45	100	1
Metals	**EPA 200.7 rev 4.4**		**mg/l**		**mg/l**	**mg/l**	
07046	Barium	7440-39-3	0.0491		0.0011	0.0050	1
08014	Boron	7440-42-8	0.0565		0.0083	0.0500	1
01750	Calcium	7440-70-2	253		0.0382	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-05 Grab Groundwater
NRG PRGS

LL Sample # WW 9013804
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 12:00 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT5 SDG#: PRG13-06

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07052	Cobalt	7440-48-4	0.101	0.0019	0.0050	1
01756	Lithium	7439-93-2	0.0240	0.0048	0.0200	1
01757	Magnesium	7439-95-4	20.4	0.0190	0.100	1
07058	Manganese	7439-96-5	9.11	0.0018	0.0050	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	0.0100	1
01767	Sodium	7440-23-5	31.7	0.173	1.00	1
07071	Vanadium	7440-62-2	N.D.	0.0016	0.0050	1
	EPA 200.8 rev 5.4		**mg/l**	**mg/l**	**mg/l**	
06023	Aluminum	7429-90-5	0.735	0.0231	0.100	1
06024	Antimony	7440-36-0	N.D.	0.00048	0.0010	1
06025	Arsenic	7440-38-2	0.0022	0.00040	0.0020	1
06027	Beryllium	7440-41-7	0.00030 J	0.00011	0.00050	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.00050	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0020	1
06033	Copper	7440-50-8	0.0024	0.00034	0.0020	1
06034	Iron	7439-89-6	65.4	0.0337	0.100	1
06035	Lead	7439-92-1	0.0020	0.000090	0.0010	1
06036	Magnesium	7439-95-4	19.1	0.0117	0.100	1
06039	Nickel	7440-02-0	0.0222	0.00036	0.0020	1
06040	Potassium	7440-09-7	22.5	0.0669	0.200	1
06041	Selenium	7782-49-2	0.00054 J	0.00044	0.0020	1
06042	Silver	7440-22-4	N.D.	0.00012	0.00050	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.00050	1
06049	Zinc	7440-66-6	0.0704	0.0035	0.0150	1
	EPA 245.1 rev 3		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
	SM 2340 B-1997		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	717	0.038	0.20	1
Wet Chemistry	**EPA 1664B**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	2.2 J	1.4	5.0	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
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171521AA	06/01/2017 11:00	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-05 Grab Groundwater
NRG PRGS

LL Sample # WW 9013804
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 12:00 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT5 SDG#: PRG13-06

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	Z171521AA	06/01/2017 11:00	Anita M Dale	1
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	17147WAB026	05/30/2017 13:48	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	17147WAB026	05/29/2017 08:00	Osvaldo R Sanchez	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 17:57	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 17:57	Jeremy C Giffin	1
12858	DRO Microextraction Master	SW-846 8015B	1	171460017A	05/30/2017 20:15	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	171460017A	05/26/2017 21:00	Shawn J McMullen	1
07046	Barium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:30	Cindy M Gehman	1
08014	Boron	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:30	Cindy M Gehman	1
01750	Calcium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:30	Cindy M Gehman	1
07052	Cobalt	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:30	Cindy M Gehman	1
01756	Lithium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:30	Cindy M Gehman	1
01757	Magnesium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:30	Cindy M Gehman	1
07058	Manganese	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:30	Cindy M Gehman	1
07060	Molybdenum	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:30	Cindy M Gehman	1
01767	Sodium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:30	Cindy M Gehman	1
07071	Vanadium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:30	Cindy M Gehman	1
06023	Aluminum	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06024	Antimony	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06025	Arsenic	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:50	Sarah L Burt	1
06027	Beryllium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06028	Cadmium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06031	Chromium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06033	Copper	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06034	Iron	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06035	Lead	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06036	Magnesium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06039	Nickel	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:50	Sarah L Burt	1
06040	Potassium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06041	Selenium	EPA 200.8 rev 5.4	1	171460705001B	06/05/2017 16:46	Patrick J Engle	1
06042	Silver	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06045	Thallium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
06049	Zinc	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:46	Patrick J Engle	1
00259	Mercury	EPA 245.1 rev 3	1	171460571407	05/31/2017 16:14	Parker D Lindstrom	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	171536256001	06/02/2017 15:51	Tara L Snyder	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	171460571617	05/31/2017 05:55	James L Mertz	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	171460705001	05/27/2017 05:50	Lisa J Cooke	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	171460571407	05/31/2017 00:45	Denise L Trimby	1
08079	HEM (oil & grease)	EPA 1664B	1	17150807902A	05/30/2017 09:40	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-14 Grab Groundwater
NRG PRGS

LL Sample # WW 9013805
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 10:40 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRG14 SDG#: PRG13-07

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	t-Butyl alcohol	75-65-0	N.D.	2	5	1
10945	1,2-Dibromoethane	106-93-4	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**	**ug/l**	**ug/l**	
10262	Acenaphthene	83-32-9	N.D.	0.08	0.2	1
10262	Acenaphthylene	208-96-8	N.D.	0.08	0.2	1
10262	Anthracene	120-12-7	N.D.	0.08	0.2	1
10262	Benzo(a)anthracene	56-55-3	N.D.	0.08	0.2	1
10262	Benzo(a)pyrene	50-32-8	N.D.	0.08	0.2	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.	0.08	0.2	1
10262	Benzo(e)pyrene	192-97-2	N.D.	0.08	0.2	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.	0.08	0.2	1
10262	Benzo(k)fluoranthene	207-08-9	N.D.	0.08	0.2	1
10262	Biphenyl	92-52-4	N.D.	0.08	0.2	1
10262	Chrysene	218-01-9	N.D.	0.08	0.2	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.	0.08	0.2	1
10262	Dibenzofuran	132-64-9	N.D.	0.08	0.2	1
10262	Dibenzothiophene	132-65-0	N.D.	0.08	0.2	1
10262	Fluoranthene	206-44-0	N.D.	0.08	0.2	1
10262	Fluorene	86-73-7	N.D.	0.08	0.2	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.08	0.2	1
10262	1-Methylnaphthalene	90-12-0	N.D.	0.08	0.2	1
10262	2-Methylnaphthalene	91-57-6	N.D.	0.08	0.2	1
10262	Naphthalene	91-20-3	N.D.	0.08	0.2	1
10262	Naphthobenzothiophene	224-10-2	N.D.	0.08	0.2	1
10262	Perylene	198-55-0	N.D.	0.08	0.2	1
10262	Phenanthrene	85-01-8	N.D.	0.08	0.2	1
10262	Pyrene	129-00-0	N.D.	0.08	0.2	1
Reporting limits were raised due to limited sample volume.						
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	N.D.	20	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**ug/l**	**ug/l**	**ug/l**	
12858	DRO C10-C28	n.a.	N.D.	45	100	1
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07046	Barium	7440-39-3	0.0526	0.0011	0.0050	1
08014	Boron	7440-42-8	0.0761	0.0083	0.0500	1
01750	Calcium	7440-70-2	90.4	0.0382	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-14 Grab Groundwater
NRG PRGS

LL Sample # WW 9013805
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 10:40 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRG14 SDG#: PRG13-07

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07052	Cobalt	7440-48-4	N.D.	0.0019	0.0050	1
01756	Lithium	7439-93-2	N.D.	0.0048	0.0200	1
01757	Magnesium	7439-95-4	9.39	0.0190	0.100	1
07058	Manganese	7439-96-5	0.107	0.0018	0.0050	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	0.0100	1
01767	Sodium	7440-23-5	4.23	0.173	1.00	1
07071	Vanadium	7440-62-2	N.D.	0.0016	0.0050	1
	EPA 200.8 rev 5.4		**mg/l**	**mg/l**	**mg/l**	
06023	Aluminum	7429-90-5	N.D.	0.0231	0.100	1
06024	Antimony	7440-36-0	N.D.	0.00048	0.0010	1
06025	Arsenic	7440-38-2	N.D.	0.00040	0.0020	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.00050	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.00050	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0020	1
06033	Copper	7440-50-8	0.0023	0.00034	0.0020	1
06034	Iron	7439-89-6	0.162	0.0337	0.100	1
06035	Lead	7439-92-1	0.00048 J	0.000090	0.0010	1
06036	Magnesium	7439-95-4	9.10	0.0117	0.100	1
06039	Nickel	7440-02-0	0.0011 J	0.00036	0.0020	1
06040	Potassium	7440-09-7	3.22	0.0669	0.200	1
06041	Selenium	7782-49-2	0.0011 J	0.00044	0.0020	1
06042	Silver	7440-22-4	N.D.	0.00012	0.00050	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.00050	1
06049	Zinc	7440-66-6	0.0098 J	0.0035	0.0150	1
	EPA 245.1 rev 3		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
	SM 2340 B-1997		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	264	0.038	0.20	1
Wet Chemistry	**EPA 1664B**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	1.9 J	1.4	5.0	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
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171521AA	06/01/2017 11:24	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-14 Grab Groundwater
NRG PRGS

LL Sample # WW 9013805
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 10:40 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRG14 SDG#: PRG13-07

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	Z171521AA	06/01/2017 11:24	Anita M Dale	1
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	17147WAB026	05/30/2017 14:30	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	17147WAB026	05/29/2017 08:00	Osvaldo R Sanchez	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 18:24	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 18:24	Jeremy C Giffin	1
12858	DRO Microextraction Master	SW-846 8015B	1	171460017A	05/30/2017 20:39	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	171460017A	05/26/2017 21:00	Shawn J McMullen	1
07046	Barium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:34	Cindy M Gehman	1
08014	Boron	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:34	Cindy M Gehman	1
01750	Calcium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:34	Cindy M Gehman	1
07052	Cobalt	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:34	Cindy M Gehman	1
01756	Lithium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:34	Cindy M Gehman	1
01757	Magnesium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:34	Cindy M Gehman	1
07058	Manganese	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:34	Cindy M Gehman	1
07060	Molybdenum	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:34	Cindy M Gehman	1
01767	Sodium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:34	Cindy M Gehman	1
07071	Vanadium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:34	Cindy M Gehman	1
06023	Aluminum	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06024	Antimony	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06025	Arsenic	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06027	Beryllium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06028	Cadmium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06031	Chromium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06033	Copper	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06034	Iron	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06035	Lead	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06036	Magnesium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06039	Nickel	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:52	Sarah L Burt	1
06040	Potassium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06041	Selenium	EPA 200.8 rev 5.4	1	171460705001B	06/05/2017 16:49	Patrick J Engle	1
06042	Silver	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06045	Thallium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
06049	Zinc	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:49	Patrick J Engle	1
00259	Mercury	EPA 245.1 rev 3	1	171460571407	05/31/2017 16:22	Parker D Lindstrom	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	171536256001	06/02/2017 15:51	Tara L Snyder	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	171460571617	05/31/2017 05:55	James L Mertz	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	171460705001	05/27/2017 05:50	Lisa J Cooke	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	171460571407	05/31/2017 00:45	Denise L Trimby	1
08079	HEM (oil & grease)	EPA 1664B	1	17150807902A	05/30/2017 09:40	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-04 Grab Groundwater
NRG PRGS

LL Sample # WW 9013806
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 14:25 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT4 SDG#: PRG13-08BKG

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	t-Butyl alcohol	75-65-0	N.D.		2	5	1
10945	1,2-Dibromoethane	106-93-4	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**		**ug/l**	**ug/l**	
10262	Acenaphthene	83-32-9	8		0.08	0.2	1
10262	Acenaphthylene	208-96-8	N.D.		0.08	0.2	1
10262	Anthracene	120-12-7	0.7		0.08	0.2	1
10262	Benzo(a)anthracene	56-55-3	N.D.		0.08	0.2	1
10262	Benzo(a)pyrene	50-32-8	N.D.		0.08	0.2	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.		0.08	0.2	1
10262	Benzo(e)pyrene	192-97-2	N.D.		0.08	0.2	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.		0.08	0.2	1
10262	Benzo(k)fluoranthene	207-08-9	N.D.		0.08	0.2	1
10262	Biphenyl	92-52-4	0.3		0.08	0.2	1
10262	Chrysene	218-01-9	N.D.		0.08	0.2	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.		0.08	0.2	1
10262	Dibenzofuran	132-64-9	2		0.08	0.2	1
10262	Dibenzothiophene	132-65-0	0.3		0.08	0.2	1
10262	Fluoranthene	206-44-0	0.7		0.08	0.2	1
10262	Fluorene	86-73-7	4		0.08	0.2	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.08	0.2	1
10262	1-Methylnaphthalene	90-12-0	2		0.08	0.2	1
10262	2-Methylnaphthalene	91-57-6	0.2	J	0.08	0.2	1
10262	Naphthalene	91-20-3	0.9		0.08	0.2	1
10262	Naphthobenzothiophene	224-10-2	N.D.		0.08	0.2	1
10262	Perylene	198-55-0	N.D.		0.08	0.2	1
10262	Phenanthrene	85-01-8	2		0.08	0.2	1
10262	Pyrene	129-00-0	0.4		0.08	0.2	1
	Reporting limits were raised due to limited sample volume.						
GC Volatiles	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	27	J	20	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
12858	DRO C10-C28	n.a.	770		45	100	1
Metals	**EPA 200.7 rev 4.4**		**mg/l**		**mg/l**	**mg/l**	
07046	Barium	7440-39-3	0.0241		0.0011	0.0050	1
08014	Boron	7440-42-8	0.0368	J	0.0083	0.0500	1
01750	Calcium	7440-70-2	336		0.0382	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-04 Grab Groundwater
NRG PRGS

LL Sample # WW 9013806
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 14:25 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT4 SDG#: PRG13-08BKG

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07052	Cobalt	7440-48-4	0.0485	0.0019	0.0050	1
01756	Lithium	7439-93-2	0.0197 J	0.0048	0.0200	1
01757	Magnesium	7439-95-4	39.7	0.0190	0.100	1
07058	Manganese	7439-96-5	10.6	0.0018	0.0050	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	0.0100	1
01767	Sodium	7440-23-5	25.8	0.173	1.00	1
07071	Vanadium	7440-62-2	0.0023 J	0.0016	0.0050	1
	EPA 200.8 rev 5.4		**mg/l**	**mg/l**	**mg/l**	
06023	Aluminum	7429-90-5	0.190	0.0231	0.100	1
06024	Antimony	7440-36-0	N.D.	0.00048	0.0010	1
06025	Arsenic	7440-38-2	0.0090	0.00040	0.0020	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.00050	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.00050	1
06031	Chromium	7440-47-3	0.00066 J	0.00059	0.0020	1
06033	Copper	7440-50-8	0.0012 J	0.00034	0.0020	1
06034	Iron	7439-89-6	127	0.0337	0.100	1
06035	Lead	7439-92-1	0.0029	0.000090	0.0010	1
06036	Magnesium	7439-95-4	37.1	0.0117	0.100	1
06039	Nickel	7440-02-0	0.0409	0.00036	0.0020	1
06040	Potassium	7440-09-7	10.9	0.0669	0.200	1
06041	Selenium	7782-49-2	0.00050 J	0.00044	0.0020	1
06042	Silver	7440-22-4	N.D.	0.00012	0.00050	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.00050	1
06049	Zinc	7440-66-6	0.0591	0.0035	0.0150	1
	EPA 245.1 rev 3		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
	SM 2340 B-1997		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	1,000	0.038	0.20	1
Wet Chemistry	**EPA 1664B**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	2.2 J	1.4	5.0	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
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171521AA	06/01/2017 07:23	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-04 Grab Groundwater
NRG PRGS

LL Sample # WW 9013806
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 14:25 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT4 SDG#: PRG13-08BKG

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	Z171521AA	06/01/2017 07:23	Anita M Dale	1
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	17147WAB026	05/30/2017 08:53	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	17147WAB026	05/29/2017 08:00	Osvaldo R Sanchez	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 18:52	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 18:52	Jeremy C Giffin	1
12858	DRO Microextraction Master	SW-846 8015B	1	171460017A	05/30/2017 21:49	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	171460017A	05/26/2017 21:00	Shawn J McMullen	1
07046	Barium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:47	Cindy M Gehman	1
08014	Boron	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:47	Cindy M Gehman	1
01750	Calcium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:47	Cindy M Gehman	1
07052	Cobalt	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:47	Cindy M Gehman	1
01756	Lithium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:47	Cindy M Gehman	1
01757	Magnesium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:47	Cindy M Gehman	1
07058	Manganese	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:47	Cindy M Gehman	1
07060	Molybdenum	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:47	Cindy M Gehman	1
01767	Sodium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:47	Cindy M Gehman	1
07071	Vanadium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:47	Cindy M Gehman	1
06023	Aluminum	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06024	Antimony	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06025	Arsenic	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:30	Sarah L Burt	1
06027	Beryllium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06028	Cadmium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06031	Chromium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06033	Copper	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06034	Iron	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06035	Lead	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06036	Magnesium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06039	Nickel	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:30	Sarah L Burt	1
06040	Potassium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06041	Selenium	EPA 200.8 rev 5.4	1	171460705001B	06/05/2017 16:12	Patrick J Engle	1
06042	Silver	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06045	Thallium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
06049	Zinc	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:12	Patrick J Engle	1
00259	Mercury	EPA 245.1 rev 3	1	171460571407	05/31/2017 15:54	Parker D Lindstrom	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	171536256001	06/02/2017 15:51	Tara L Snyder	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	171460571617	05/31/2017 05:55	James L Mertz	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	171460705001	05/27/2017 05:50	Lisa J Cooke	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	171460571407	05/31/2017 00:45	Denise L Trimby	1
08079	HEM (oil & grease)	EPA 1664B	1	17150807902A	05/30/2017 09:40	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-04 MS Grab Groundwater
NRG PRGS

LL Sample # WW 9013807
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 14:25 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT4 SDG#: PRG13-08MS

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	19	0.5	1	1
10945	t-Butyl alcohol	75-65-0	180	2	5	1
10945	1,2-Dibromoethane	106-93-4	17	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	20	0.5	1	1
10945	Ethylbenzene	100-41-4	19	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	17	0.5	1	1
10945	Toluene	108-88-3	20	0.5	1	1
10945	Xylene (Total)	1330-20-7	59	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**	**ug/l**	**ug/l**	
10262	Acenaphthene	83-32-9	8	0.08	0.2	1
10262	Acenaphthylene	208-96-8	0.9	0.08	0.2	1
10262	Anthracene	120-12-7	1	0.08	0.2	1
10262	Benzo(a)anthracene	56-55-3	1	0.08	0.2	1
10262	Benzo(a)pyrene	50-32-8	0.8	0.08	0.2	1
10262	Benzo(b)fluoranthene	205-99-2	0.9	0.08	0.2	1
10262	Benzo(e)pyrene	192-97-2	0.9	0.08	0.2	1
10262	Benzo(g,h,i)perylene	191-24-2	0.9	0.08	0.2	1
10262	Benzo(k)fluoranthene	207-08-9	0.8	0.08	0.2	1
10262	Biphenyl	92-52-4	1	0.08	0.2	1
10262	Chrysene	218-01-9	0.9	0.08	0.2	1
10262	Dibenz(a,h)anthracene	53-70-3	0.9	0.08	0.2	1
10262	Dibenzofuran	132-64-9	3	0.08	0.2	1
10262	Dibenzothiophene	132-65-0	1	0.08	0.2	1
10262	Fluoranthene	206-44-0	1	0.08	0.2	1
10262	Fluorene	86-73-7	4	0.08	0.2	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	1	0.08	0.2	1
10262	1-Methylnaphthalene	90-12-0	3	0.08	0.2	1
10262	2-Methylnaphthalene	91-57-6	0.8	0.08	0.2	1
10262	Naphthalene	91-20-3	1	0.08	0.2	1
10262	Naphthobenzothiophene	224-10-2	N.D.	0.08	0.2	1
10262	Perylene	198-55-0	9	0.08	0.2	1
10262	Phenanthrene	85-01-8	2	0.08	0.2	1
10262	Pyrene	129-00-0	1	0.08	0.2	1
	Reporting limits were raised due to limited sample volume.					
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	1,100	20	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**ug/l**	**ug/l**	**ug/l**	
12858	DRO C10-C28	n.a.	3,200	45	100	1
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07046	Barium	7440-39-3	2.03	0.0011	0.0050	1
08014	Boron	7440-42-8	1.93	0.0083	0.0500	1
01750	Calcium	7440-70-2	344	0.0382	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-04 MS Grab Groundwater
NRG PRGS

LL Sample # WW 9013807
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 14:25 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT4 SDG#: PRG13-08MS

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07052	Cobalt	7440-48-4	0.533	0.0019	0.0050	1
01756	Lithium	7439-93-2	1.05	0.0048	0.0200	1
01757	Magnesium	7439-95-4	40.7	0.0190	0.100	1
07058	Manganese	7439-96-5	11.1	0.0018	0.0050	1
07060	Molybdenum	7439-98-7	1.98	0.0017	0.0100	1
01767	Sodium	7440-23-5	37.0	0.173	1.00	1
07071	Vanadium	7440-62-2	0.512	0.0016	0.0050	1
	EPA 200.8 rev 5.4		**mg/l**	**mg/l**	**mg/l**	
06023	Aluminum	7429-90-5	2.01	0.0231	0.100	1
06024	Antimony	7440-36-0	0.0063	0.00048	0.0010	1
06025	Arsenic	7440-38-2	0.0188	0.00040	0.0020	1
06027	Beryllium	7440-41-7	0.0037	0.00011	0.00050	1
06028	Cadmium	7440-43-9	0.0044	0.00019	0.00050	1
06031	Chromium	7440-47-3	0.0495	0.00059	0.0020	1
06033	Copper	7440-50-8	0.0479	0.00034	0.0020	1
06034	Iron	7439-89-6	124	0.0337	0.100	1
06035	Lead	7439-92-1	0.0172	0.000090	0.0010	1
06036	Magnesium	7439-95-4	37.8	0.0117	0.100	1
06039	Nickel	7440-02-0	0.0844	0.00036	0.0020	1
06040	Potassium	7440-09-7	20.9	0.0669	0.200	1
06041	Selenium	7782-49-2	0.0091	0.00044	0.0020	1
06042	Silver	7440-22-4	0.0473	0.00012	0.00050	1
06045	Thallium	7440-28-0	0.0019	0.00016	0.00050	1
06049	Zinc	7440-66-6	0.454	0.0035	0.0150	1
	EPA 245.1 rev 3		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	0.00090	0.000050	0.00020	1
	SM 2340 B-1997		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	1,030	0.038	0.20	1
Wet Chemistry	**EPA 1664B**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	34.9	1.4	5.0	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
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171521AA	06/01/2017 07:47	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-04 MS Grab Groundwater
NRG PRGS

LL Sample # WW 9013807
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 14:25 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT4 SDG#: PRG13-08MS

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	Z171521AA	06/01/2017 07:47	Anita M Dale	1
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	17147WAB026	05/30/2017 09:35	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	17147WAB026	05/29/2017 08:00	Osvaldo R Sanchez	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 19:20	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 19:20	Jeremy C Giffin	1
12858	DRO Microextraction Master	SW-846 8015B	1	171460017A	05/30/2017 22:13	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	171460017A	05/26/2017 21:00	Shawn J McMullen	1
07046	Barium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:58	Cindy M Gehman	1
08014	Boron	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:58	Cindy M Gehman	1
01750	Calcium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:58	Cindy M Gehman	1
07052	Cobalt	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:58	Cindy M Gehman	1
01756	Lithium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:58	Cindy M Gehman	1
01757	Magnesium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:58	Cindy M Gehman	1
07058	Manganese	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:58	Cindy M Gehman	1
07060	Molybdenum	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:58	Cindy M Gehman	1
01767	Sodium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:58	Cindy M Gehman	1
07071	Vanadium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:58	Cindy M Gehman	1
06023	Aluminum	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
06024	Antimony	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:36	Sarah L Burt	1
06025	Arsenic	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:36	Sarah L Burt	1
06027	Beryllium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
06028	Cadmium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
06031	Chromium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
06033	Copper	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
06034	Iron	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
06035	Lead	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
06036	Magnesium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
06039	Nickel	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:36	Sarah L Burt	1
06040	Potassium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
06041	Selenium	EPA 200.8 rev 5.4	1	171460705001B	06/05/2017 16:21	Patrick J Engle	1
06042	Silver	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
06045	Thallium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
06049	Zinc	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:21	Patrick J Engle	1
00259	Mercury	EPA 245.1 rev 3	1	171460571407	05/31/2017 15:59	Parker D Lindstrom	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	171536256001	06/02/2017 15:51	Tara L Snyder	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	171460571617	05/31/2017 05:55	James L Mertz	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	171460705001	05/27/2017 05:50	Lisa J Cooke	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	171460571407	05/31/2017 00:45	Denise L Trimby	1
08079	HEM (oil & grease)	EPA 1664B	1	17150807902A	05/30/2017 09:40	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-04 MSD Grab Groundwater
NRG PRGS

LL Sample # WW 9013808
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 14:25 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT4 SDG#: PRG13-08MSD

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	19	0.5	1	1
10945	t-Butyl alcohol	75-65-0	180	2	5	1
10945	1,2-Dibromoethane	106-93-4	17	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	20	0.5	1	1
10945	Ethylbenzene	100-41-4	19	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	17	0.5	1	1
10945	Toluene	108-88-3	20	0.5	1	1
10945	Xylene (Total)	1330-20-7	59	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**	**ug/l**	**ug/l**	
10262	Acenaphthene	83-32-9	8	0.09	0.2	1
10262	Acenaphthylene	208-96-8	1	0.09	0.2	1
10262	Anthracene	120-12-7	2	0.09	0.2	1
10262	Benzo(a)anthracene	56-55-3	1	0.09	0.2	1
10262	Benzo(a)pyrene	50-32-8	0.9	0.09	0.2	1
10262	Benzo(b)fluoranthene	205-99-2	1	0.09	0.2	1
10262	Benzo(e)pyrene	192-97-2	1	0.09	0.2	1
10262	Benzo(g,h,i)perylene	191-24-2	1	0.09	0.2	1
10262	Benzo(k)fluoranthene	207-08-9	0.9	0.09	0.2	1
10262	Biphenyl	92-52-4	1	0.09	0.2	1
10262	Chrysene	218-01-9	1	0.09	0.2	1
10262	Dibenz(a,h)anthracene	53-70-3	1	0.09	0.2	1
10262	Dibenzofuran	132-64-9	3	0.09	0.2	1
10262	Dibenzothiophene	132-65-0	1	0.09	0.2	1
10262	Fluoranthene	206-44-0	1	0.09	0.2	1
10262	Fluorene	86-73-7	5	0.09	0.2	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	1	0.09	0.2	1
10262	1-Methylnaphthalene	90-12-0	3	0.09	0.2	1
10262	2-Methylnaphthalene	91-57-6	0.9	0.09	0.2	1
10262	Naphthalene	91-20-3	1	0.09	0.2	1
10262	Naphthobenzothiophene	224-10-2	N.D.	0.09	0.2	1
10262	Perylene	198-55-0	10	0.09	0.2	1
10262	Phenanthrene	85-01-8	2	0.09	0.2	1
10262	Pyrene	129-00-0	1	0.09	0.2	1
	Reporting limits were raised due to limited sample volume.					
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	1,100	20	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**ug/l**	**ug/l**	**ug/l**	
12858	DRO C10-C28	n.a.	3,000	45	100	1
Wet Chemistry	**EPA 1664B**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	41.3	1.4	5.0	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-04 MSD Grab Groundwater
NRG PRGS

LL Sample # WW 9013808
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 14:25 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT4 SDG#: PRG13-08MSD

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	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171521AA	06/01/2017 08:11	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z171521AA	06/01/2017 08:11	Anita M Dale	1
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	17147WAB026	05/30/2017 10:17	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	17147WAB026	05/29/2017 08:00	Osvaldo R Sanchez	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 19:47	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 19:47	Jeremy C Giffin	1
12858	DRO Microextraction Master	SW-846 8015B	1	171460017A	05/30/2017 22:36	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	171460017A	05/26/2017 21:00	Shawn J McMullen	1
08079	HEM (oil & grease)	EPA 1664B	1	17150807902A	05/30/2017 09:40	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-04 DUP Grab Groundwater
NRG PRGS

LL Sample # WW 9013809
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 14:25 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT4 SDG#: PRG13-08DUP

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**EPA 200.7 rev 4.4**		mg/l	mg/l	mg/l	
07046	Barium	7440-39-3	0.0253	0.0011	0.0050	1
08014	Boron	7440-42-8	0.0377 J	0.0083	0.0500	1
01750	Calcium	7440-70-2	342	0.0382	0.200	1
07052	Cobalt	7440-48-4	0.0464	0.0019	0.0050	1
01756	Lithium	7439-93-2	0.0195 J	0.0048	0.0200	1
01757	Magnesium	7439-95-4	39.5	0.0190	0.100	1
07058	Manganese	7439-96-5	10.9	0.0018	0.0050	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	0.0100	1
01767	Sodium	7440-23-5	27.4	0.173	1.00	1
07071	Vanadium	7440-62-2	0.0028 J	0.0016	0.0050	1
	EPA 200.8 rev 5.4		mg/l	mg/l	mg/l	
06023	Aluminum	7429-90-5	0.137	0.0231	0.100	1
06024	Antimony	7440-36-0	N.D.	0.00048	0.0010	1
06025	Arsenic	7440-38-2	0.0085	0.00040	0.0020	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.00050	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.00050	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0020	1
06033	Copper	7440-50-8	0.0010 J	0.00034	0.0020	1
06034	Iron	7439-89-6	121	0.0337	0.100	1
06035	Lead	7439-92-1	0.0021	0.000090	0.0010	1
06036	Magnesium	7439-95-4	35.6	0.0117	0.100	1
06039	Nickel	7440-02-0	0.0351	0.00036	0.0020	1
06040	Potassium	7440-09-7	10.8	0.0669	0.200	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0020	1
06042	Silver	7440-22-4	N.D.	0.00012	0.00050	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.00050	1
06049	Zinc	7440-66-6	0.0536	0.0035	0.0150	1
	EPA 245.1 rev 3		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
	SM 2340 B-1997		mg/l	mg/l	mg/l	
06256	Total Hardness as CaCO3	471-34-1	1,020	0.038	0.20	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
07046	Barium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:54	Cindy M Gehman	1
08014	Boron	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:54	Cindy M Gehman	1
01750	Calcium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:54	Cindy M Gehman	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-04 DUP Grab Groundwater
NRG PRGS

LL Sample # WW 9013809
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/22/2017 14:25 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT4 SDG#: PRG13-08DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07052	Cobalt	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:54	Cindy M Gehman	1
01756	Lithium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:54	Cindy M Gehman	1
01757	Magnesium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:54	Cindy M Gehman	1
07058	Manganese	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:54	Cindy M Gehman	1
07060	Molybdenum	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:54	Cindy M Gehman	1
01767	Sodium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:54	Cindy M Gehman	1
07071	Vanadium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 18:54	Cindy M Gehman	1
06023	Aluminum	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06024	Antimony	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06025	Arsenic	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:34	Sarah L Burt	1
06027	Beryllium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06028	Cadmium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06031	Chromium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06033	Copper	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06034	Iron	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06035	Lead	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06036	Magnesium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06039	Nickel	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:34	Sarah L Burt	1
06040	Potassium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06041	Selenium	EPA 200.8 rev 5.4	1	171460705001B	06/05/2017 16:18	Patrick J Engle	1
06042	Silver	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06045	Thallium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
06049	Zinc	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:18	Patrick J Engle	1
00259	Mercury	EPA 245.1 rev 3	1	171460571407	05/31/2017 15:56	Parker D Lindstrom	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	171536256001	06/02/2017 15:51	Tara L Snyder	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	171460571617	05/31/2017 05:55	James L Mertz	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	171460705001	05/27/2017 05:50	Lisa J Cooke	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	171460571407	05/31/2017 00:45	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-02 Grab Groundwater
NRG PRGS

LL Sample # WW 9013810
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 14:05 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT2 SDG#: PRG13-09

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.		0.5	1	1
10945	t-Butyl alcohol	75-65-0	N.D.		2	5	1
10945	1,2-Dibromoethane	106-93-4	N.D.		0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10945	Toluene	108-88-3	N.D.		0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.		0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**		**ug/l**	**ug/l**	
10262	Acenaphthene	83-32-9	0.2	J	0.09	0.2	1
10262	Acenaphthylene	208-96-8	N.D.		0.09	0.2	1
10262	Anthracene	120-12-7	N.D.		0.09	0.2	1
10262	Benzo(a)anthracene	56-55-3	N.D.		0.09	0.2	1
10262	Benzo(a)pyrene	50-32-8	N.D.		0.09	0.2	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.		0.09	0.2	1
10262	Benzo(e)pyrene	192-97-2	N.D.		0.09	0.2	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.		0.09	0.2	1
10262	Benzo(k)fluoranthene	207-08-9	N.D.		0.09	0.2	1
10262	Biphenyl	92-52-4	N.D.		0.09	0.2	1
10262	Chrysene	218-01-9	N.D.		0.09	0.2	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.		0.09	0.2	1
10262	Dibenzofuran	132-64-9	N.D.		0.09	0.2	1
10262	Dibenzothiophene	132-65-0	N.D.		0.09	0.2	1
10262	Fluoranthene	206-44-0	0.2	J	0.09	0.2	1
10262	Fluorene	86-73-7	0.1	J	0.09	0.2	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.09	0.2	1
10262	1-Methylnaphthalene	90-12-0	N.D.		0.09	0.2	1
10262	2-Methylnaphthalene	91-57-6	N.D.		0.09	0.2	1
10262	Naphthalene	91-20-3	N.D.		0.09	0.2	1
10262	Naphthobenzothiophene	224-10-2	N.D.		0.09	0.2	1
10262	Perylene	198-55-0	N.D.		0.09	0.2	1
10262	Phenanthrene	85-01-8	N.D.		0.09	0.2	1
10262	Pyrene	129-00-0	0.2	J	0.09	0.2	1
Reporting limits were raised due to limited sample volume.							
GC Volatiles	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	N.D.		20	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
12858	DRO C10-C28	n.a.	N.D.		45	100	1
Metals	**EPA 200.7 rev 4.4**		**mg/l**		**mg/l**	**mg/l**	
07046	Barium	7440-39-3	0.0540		0.0011	0.0050	1
08014	Boron	7440-42-8	0.178		0.0083	0.0500	1
01750	Calcium	7440-70-2	66.2		0.0382	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-02 Grab Groundwater
NRG PRGS

LL Sample # WW 9013810
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 14:05 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT2 SDG#: PRG13-09

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07052	Cobalt	7440-48-4	N.D.	0.0019	0.0050	1
01756	Lithium	7439-93-2	0.0170 J	0.0048	0.0200	1
01757	Magnesium	7439-95-4	21.3	0.0190	0.100	1
07058	Manganese	7439-96-5	1.17	0.0018	0.0050	1
07060	Molybdenum	7439-98-7	0.0022 J	0.0017	0.0100	1
01767	Sodium	7440-23-5	50.7	0.173	1.00	1
07071	Vanadium	7440-62-2	N.D.	0.0016	0.0050	1
	EPA 200.8 rev 5.4		**mg/l**	**mg/l**	**mg/l**	
06023	Aluminum	7429-90-5	0.0313 J	0.0231	0.100	1
06024	Antimony	7440-36-0	N.D.	0.00048	0.0010	1
06025	Arsenic	7440-38-2	0.00095 J	0.00040	0.0020	1
06027	Beryllium	7440-41-7	N.D.	0.00011	0.00050	1
06028	Cadmium	7440-43-9	N.D.	0.00019	0.00050	1
06031	Chromium	7440-47-3	N.D.	0.00059	0.0020	1
06033	Copper	7440-50-8	N.D.	0.00034	0.0020	1
06034	Iron	7439-89-6	3.33	0.0337	0.100	1
06035	Lead	7439-92-1	0.00070 J	0.000090	0.0010	1
06036	Magnesium	7439-95-4	19.9	0.0117	0.100	1
06039	Nickel	7440-02-0	0.0021	0.00036	0.0020	1
06040	Potassium	7440-09-7	12.8	0.0669	0.200	1
06041	Selenium	7782-49-2	N.D.	0.00044	0.0020	1
06042	Silver	7440-22-4	N.D.	0.00012	0.00050	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.00050	1
06049	Zinc	7440-66-6	0.0057 J	0.0035	0.0150	1
	EPA 245.1 rev 3		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
	SM 2340 B-1997		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	253	0.038	0.20	1
Wet Chemistry	**EPA 1664B**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	2.7 J	1.4	5.0	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
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171521AA	06/01/2017 08:36	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-02 Grab Groundwater
NRG PRGS

LL Sample # WW 9013810
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 14:05 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT2 SDG#: PRG13-09

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	Z171521AA	06/01/2017 08:36	Anita M Dale	1
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	17147WAB026	05/30/2017 15:12	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	17147WAB026	05/29/2017 08:00	Osvaldo R Sanchez	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 21:10	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 21:10	Jeremy C Giffin	1
12858	DRO Microextraction Master	SW-846 8015B	1	171460017A	05/30/2017 23:00	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	171460017A	05/26/2017 21:00	Shawn J McMullen	1
07046	Barium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:37	Cindy M Gehman	1
08014	Boron	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:37	Cindy M Gehman	1
01750	Calcium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:37	Cindy M Gehman	1
07052	Cobalt	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:37	Cindy M Gehman	1
01756	Lithium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:37	Cindy M Gehman	1
01757	Magnesium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:37	Cindy M Gehman	1
07058	Manganese	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:37	Cindy M Gehman	1
07060	Molybdenum	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:37	Cindy M Gehman	1
01767	Sodium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:37	Cindy M Gehman	1
07071	Vanadium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:37	Cindy M Gehman	1
06023	Aluminum	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06024	Antimony	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06025	Arsenic	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:53	Sarah L Burt	1
06027	Beryllium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06028	Cadmium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06031	Chromium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06033	Copper	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06034	Iron	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06035	Lead	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06036	Magnesium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06039	Nickel	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:53	Sarah L Burt	1
06040	Potassium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06041	Selenium	EPA 200.8 rev 5.4	1	171460705001B	06/05/2017 16:52	Patrick J Engle	1
06042	Silver	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06045	Thallium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
06049	Zinc	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:52	Patrick J Engle	1
00259	Mercury	EPA 245.1 rev 3	1	171460571407	05/31/2017 16:24	Parker D Lindstrom	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	171536256001	06/02/2017 15:51	Tara L Snyder	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	171460571617	05/31/2017 05:55	James L Mertz	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	171460705001	05/27/2017 05:50	Lisa J Cooke	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	171460571407	05/31/2017 00:45	Denise L Trimby	1
08079	HEM (oil & grease)	EPA 1664B	1	17150807902A	05/30/2017 09:40	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-07 Grab Groundwater
NRG PRGS

LL Sample # WW 9013811
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 12:50 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT7 SDG#: PRG13-10

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	t-Butyl alcohol	75-65-0	N.D.	2	5	1
10945	1,2-Dibromoethane	106-93-4	N.D.	0.5	1	1
10945	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC/MS Semivolatiles	**SW-846 8270C SIM Modified**		**ug/l**	**ug/l**	**ug/l**	
10262	Acenaphthene	83-32-9	N.D.	0.08	0.2	1
10262	Acenaphthylene	208-96-8	N.D.	0.08	0.2	1
10262	Anthracene	120-12-7	N.D.	0.08	0.2	1
10262	Benzo(a)anthracene	56-55-3	N.D.	0.08	0.2	1
10262	Benzo(a)pyrene	50-32-8	N.D.	0.08	0.2	1
10262	Benzo(b)fluoranthene	205-99-2	N.D.	0.08	0.2	1
10262	Benzo(e)pyrene	192-97-2	N.D.	0.08	0.2	1
10262	Benzo(g,h,i)perylene	191-24-2	N.D.	0.08	0.2	1
10262	Benzo(k)fluoranthene	207-08-9	N.D.	0.08	0.2	1
10262	Biphenyl	92-52-4	N.D.	0.08	0.2	1
10262	Chrysene	218-01-9	N.D.	0.08	0.2	1
10262	Dibenz(a,h)anthracene	53-70-3	N.D.	0.08	0.2	1
10262	Dibenzofuran	132-64-9	N.D.	0.08	0.2	1
10262	Dibenzothiophene	132-65-0	N.D.	0.08	0.2	1
10262	Fluoranthene	206-44-0	N.D.	0.08	0.2	1
10262	Fluorene	86-73-7	N.D.	0.08	0.2	1
10262	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.08	0.2	1
10262	1-Methylnaphthalene	90-12-0	N.D.	0.08	0.2	1
10262	2-Methylnaphthalene	91-57-6	N.D.	0.08	0.2	1
10262	Naphthalene	91-20-3	N.D.	0.08	0.2	1
10262	Naphthobenzothiophene	224-10-2	N.D.	0.08	0.2	1
10262	Perylene	198-55-0	N.D.	0.08	0.2	1
10262	Phenanthrene	85-01-8	N.D.	0.08	0.2	1
10262	Pyrene	129-00-0	N.D.	0.08	0.2	1
Reporting limits were raised due to limited sample volume.						
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	**ug/l**	
01635	TPH-GRO water C6-C10	n.a.	N.D.	20	50	1
GC Petroleum Hydrocarbons	**SW-846 8015B**		**ug/l**	**ug/l**	**ug/l**	
12858	DRO C10-C28	n.a.	86 J	45	100	1
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07046	Barium	7440-39-3	0.0860	0.0011	0.0050	1
08014	Boron	7440-42-8	0.0466 J	0.0083	0.0500	1
01750	Calcium	7440-70-2	61.6	0.0382	0.200	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-07 Grab Groundwater
NRG PRGS

LL Sample # WW 9013811
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 12:50 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT7 SDG#: PRG13-10

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
Metals	**EPA 200.7 rev 4.4**		**mg/l**	**mg/l**	**mg/l**	
07052	Cobalt	7440-48-4	0.0789	0.0019	0.0050	1
01756	Lithium	7439-93-2	0.0082 J	0.0048	0.0200	1
01757	Magnesium	7439-95-4	18.2	0.0190	0.100	1
07058	Manganese	7439-96-5	4.10	0.0018	0.0050	1
07060	Molybdenum	7439-98-7	N.D.	0.0017	0.0100	1
01767	Sodium	7440-23-5	31.0	0.173	1.00	1
07071	Vanadium	7440-62-2	0.0024 J	0.0016	0.0050	1
	EPA 200.8 rev 5.4		**mg/l**	**mg/l**	**mg/l**	
06023	Aluminum	7429-90-5	0.965	0.0231	0.100	1
06024	Antimony	7440-36-0	N.D.	0.00048	0.0010	1
06025	Arsenic	7440-38-2	0.0017 J	0.00040	0.0020	1
06027	Beryllium	7440-41-7	0.0011	0.00011	0.00050	1
06028	Cadmium	7440-43-9	0.00039 J	0.00019	0.00050	1
06031	Chromium	7440-47-3	0.00073 J	0.00059	0.0020	1
06033	Copper	7440-50-8	0.0142	0.00034	0.0020	1
06034	Iron	7439-89-6	22.7	0.0337	0.100	1
06035	Lead	7439-92-1	0.0131	0.000090	0.0010	1
06036	Magnesium	7439-95-4	16.8	0.0117	0.100	1
06039	Nickel	7440-02-0	0.0380	0.00036	0.0020	1
06040	Potassium	7440-09-7	7.28	0.0669	0.200	1
06041	Selenium	7782-49-2	0.00059 J	0.00044	0.0020	1
06042	Silver	7440-22-4	N.D.	0.00012	0.00050	1
06045	Thallium	7440-28-0	N.D.	0.00016	0.00050	1
06049	Zinc	7440-66-6	0.0917	0.0035	0.0150	1
	EPA 245.1 rev 3		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1
	SM 2340 B-1997		**mg/l**	**mg/l**	**mg/l**	
06256	Total Hardness as CaCO3	471-34-1	228	0.038	0.20	1
Wet Chemistry	**EPA 1664B**		**mg/l**	**mg/l**	**mg/l**	
08079	HEM (oil & grease)	n.a.	1.8 J	1.4	5.0	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
10945	VOCs- 5ml Water by 8260B UST	SW-846 8260B	1	Z171521AA	06/01/2017 09:00	Anita M Dale	1

*=This limit was used in the evaluation of the final result

Sample Description: TW-07 Grab Groundwater
NRG PRGS

LL Sample # WW 9013811
LL Group # 1805673
Account # 09811

Project Name: NRG PRGS

Collected: 05/23/2017 12:50 by SJ

Submitted: 05/24/2017 19:05
Reported: 06/19/2017 23:00

Geosyntec Consultants
4th Floor
10211 Wincopin Circle
Columbia MD 21044

NRGT7 SDG#: PRG13-10

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	Z171521AA	06/01/2017 09:00	Anita M Dale	1
10262	Alkyl PAHs in Water by GC/MS	SW-846 8270C SIM Modified	1	17147WAB026	05/30/2017 15:54	Joseph M Gambler	1
11012	Alkyl PAH Extract	SW-846 3510C	1	17147WAB026	05/29/2017 08:00	Osvaldo R Sanchez	1
01635	TPH-GRO water C6-C10	SW-846 8015B	1	17150C20A	05/30/2017 21:38	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17150C20A	05/30/2017 21:38	Jeremy C Giffin	1
12858	DRO Microextraction Master	SW-846 8015B	1	171460017A	05/30/2017 23:23	Amy Lehr	1
12059	Microextraction - DRO (waters)	SW-846 3511 Rev 1, July 2014	1	171460017A	05/26/2017 21:00	Shawn J McMullen	1
07046	Barium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:41	Cindy M Gehman	1
08014	Boron	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:41	Cindy M Gehman	1
01750	Calcium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:41	Cindy M Gehman	1
07052	Cobalt	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:41	Cindy M Gehman	1
01756	Lithium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:41	Cindy M Gehman	1
01757	Magnesium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:41	Cindy M Gehman	1
07058	Manganese	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:41	Cindy M Gehman	1
07060	Molybdenum	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:41	Cindy M Gehman	1
01767	Sodium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:41	Cindy M Gehman	1
07071	Vanadium	EPA 200.7 rev 4.4	1	171460571617	06/01/2017 19:41	Cindy M Gehman	1
06023	Aluminum	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06024	Antimony	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06025	Arsenic	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:55	Sarah L Burt	1
06027	Beryllium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06028	Cadmium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06031	Chromium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06033	Copper	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06034	Iron	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06035	Lead	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06036	Magnesium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06039	Nickel	EPA 200.8 rev 5.4	1	171460705001A	06/06/2017 02:55	Sarah L Burt	1
06040	Potassium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06041	Selenium	EPA 200.8 rev 5.4	1	171460705001B	06/05/2017 16:55	Patrick J Engle	1
06042	Silver	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06045	Thallium	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
06049	Zinc	EPA 200.8 rev 5.4	1	171460705001A	06/05/2017 16:55	Patrick J Engle	1
00259	Mercury	EPA 245.1 rev 3	1	171460571407	05/31/2017 16:27	Parker D Lindstrom	1
06256	Total Hardness as CaCO3	SM 2340 B-1997	1	171536256001	06/02/2017 15:51	Tara L Snyder	1
05716	EPA 600 ICP Digest (tot rec)	EPA 200.7 rev 4.4	1	171460571617	05/31/2017 05:55	James L Mertz	1
07050	ICP/MS EPA-600 Digest	EPA 200.8 rev 5.4	1	171460705001	05/27/2017 05:50	Lisa J Cooke	1
05714	PW/WW Hg Digest	EPA 245.1 rev 3	1	171460571407	05/31/2017 00:45	Denise L Trimby	1
08079	HEM (oil & grease)	EPA 1664B	1	17150807902A	05/30/2017 09:40	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Geosyntec Consultants Group Number: 1805673
Reported: 06/19/2017 23:00

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**	LOQ
	ug/l	ug/l	ug/l
Batch number: Z171521AA	Sample number(s): 9013799-9013801,9013803-9013808,9013810-9013811		
Benzene	N.D.	0.5	1
t-Butyl alcohol	N.D.	2	5
1,2-Dibromoethane	N.D.	0.5	1
1,2-Dichloroethane	N.D.	0.5	1
Ethylbenzene	N.D.	0.5	1
Methyl Tertiary Butyl Ether	N.D.	0.5	1
Toluene	N.D.	0.5	1
Xylene (Total)	N.D.	0.5	1
Batch number: Z171523AA	Sample number(s): 9013802		
Benzene	N.D.	0.5	1
t-Butyl alcohol	N.D.	2	5
1,2-Dibromoethane	N.D.	0.5	1
1,2-Dichloroethane	N.D.	0.5	1
Ethylbenzene	N.D.	0.5	1
Methyl Tertiary Butyl Ether	N.D.	0.5	1
Toluene	N.D.	0.5	1
Xylene (Total)	N.D.	0.5	1
Batch number: 17147WAB026	Sample number(s): 9013799,9013801-9013808,9013810-9013811		
Acenaphthene	N.D.	0.08	0.2
Acenaphthylene	N.D.	0.08	0.2
Anthracene	N.D.	0.08	0.2
Benzo(a)anthracene	N.D.	0.08	0.2
Benzo(a)pyrene	N.D.	0.08	0.2
Benzo(b)fluoranthene	N.D.	0.08	0.2
Benzo(e)pyrene	N.D.	0.08	0.2
Benzo(g,h,i)perylene	N.D.	0.08	0.2
Benzo(k)fluoranthene	N.D.	0.08	0.2
Biphenyl	N.D.	0.08	0.2
Chrysene	N.D.	0.08	0.2
Dibenz(a,h)anthracene	N.D.	0.08	0.2
Dibenzofuran	N.D.	0.08	0.2
Dibenzothiophene	N.D.	0.08	0.2
Fluoranthene	N.D.	0.08	0.2
Fluorene	N.D.	0.08	0.2
Indeno(1,2,3-cd)pyrene	N.D.	0.08	0.2
1-Methylnaphthalene	N.D.	0.08	0.2
2-Methylnaphthalene	N.D.	0.08	0.2
Naphthalene	N.D.	0.08	0.2
Naphthobenzothiophene	N.D.	0.08	0.2

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(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: Geosyntec Consultants
Reported: 06/19/2017 23:00

Group Number: 1805673

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Perylene	N.D.	0.08	0.2
Phenanthrene	N.D.	0.08	0.2
Pyrene	N.D.	0.08	0.2
Batch number: 17150C20A	Sample number(s): 9013799-9013808,9013810-9013811		
TPH-GRO water C6-C10	N.D.	20	50
Batch number: 171460017A	Sample number(s): 9013799,9013801-9013808,9013810-9013811		
DRO C10-C28	N.D.	45	100
	mg/l	mg/l	mg/l
Batch number: 171460571407	Sample number(s): 9013799,9013801-9013807,9013809-9013811		
Mercury	N.D.	0.000050	0.00020
Batch number: 171460571617	Sample number(s): 9013799,9013801-9013807,9013809-9013811		
Barium	N.D.	0.0011	0.0050
Boron	N.D.	0.0083	0.0500
Calcium	N.D.	0.0382	0.200
Cobalt	N.D.	0.0019	0.0050
Lithium	N.D.	0.0048	0.0200
Magnesium	0.0209 J	0.0190	0.100
Manganese	N.D.	0.0018	0.0050
Molybdenum	N.D.	0.0017	0.0100
Sodium	N.D.	0.173	1.00
Vanadium	N.D.	0.0016	0.0050
Batch number: 171460705001A	Sample number(s): 9013799,9013801-9013807,9013809-9013811		
Aluminum	N.D.	0.0231	0.100
Antimony	N.D.	0.00048	0.0010
Arsenic	N.D.	0.00040	0.0020
Beryllium	N.D.	0.00011	0.00050
Cadmium	N.D.	0.00019	0.00050
Chromium	N.D.	0.00059	0.0020
Copper	0.00096 J	0.00034	0.0020
Iron	0.0864 J	0.0337	0.100
Lead	N.D.	0.000090	0.0010
Magnesium	N.D.	0.0117	0.100
Nickel	0.00089 J	0.00036	0.0020
Potassium	N.D.	0.0669	0.200
Silver	N.D.	0.00012	0.00050
Thallium	N.D.	0.00016	0.00050
Zinc	0.0046 J	0.0035	0.0150
Batch number: 171460705001B	Sample number(s): 9013799,9013801-9013807,9013809-9013811		
Selenium	N.D.	0.00044	0.0020
Batch number: 17150807902A	Sample number(s): 9013799,9013801-9013808,9013810-9013811		
HEM (oil & grease)	N.D.	1.4	5.0

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(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: Geosyntec Consultants Group Number: 1805673
Reported: 06/19/2017 23:00

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: Z171521AA	Sample number(s): 9013799-9013801,9013803-9013808,9013810-9013811								
Benzene	20	18.15			91		78-120		
t-Butyl alcohol	200	186.83			93		68-122		
1,2-Dibromoethane	20	17.11			86		75-120		
1,2-Dichloroethane	20	20.05			100		66-128		
Ethylbenzene	20	18.1			90		78-120		
Methyl Tertiary Butyl Ether	20	17.6			88		75-120		
Toluene	20	19.32			97		80-120		
Xylene (Total)	60	57.18			95		80-120		
Batch number: Z171523AA	Sample number(s): 9013802								
Benzene	20	17.08			85		78-120		
t-Butyl alcohol	200	179.81			90		68-122		
1,2-Dibromoethane	20	16.6			83		75-120		
1,2-Dichloroethane	20	19.27			96		66-128		
Ethylbenzene	20	17.59			88		78-120		
Methyl Tertiary Butyl Ether	20	16.49			82		75-120		
Toluene	20	18.64			93		80-120		
Xylene (Total)	60	55.31			92		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 17147WAB026	Sample number(s): 9013799,9013801-9013808,9013810-9013811								
Acenaphthene	1.00	0.841	1.00	0.905	84	90	66-132	7	30
Acenaphthylene	1.00	0.842	1.00	0.908	84	91	60-110	8	30
Anthracene	1.00	0.888	1.00	0.947	89	95	59-119	6	30
Benzo(a)anthracene	1.00	1.03	1.00	1.10	103	110	58-130	7	30
Benzo(a)pyrene	1.00	0.850	1.00	0.896	85	90	60-124	5	30
Benzo(b)fluoranthene	1.00	0.919	1.00	0.945	92	95	64-128	3	30
Benzo(e)pyrene	1.00	0.922	1.00	0.947	92	95	69-109	3	30
Benzo(g,h,i)perylene	1.00	0.768	1.00	0.899	77	90	50-123	16	30
Benzo(k)fluoranthene	1.00	0.866	1.00	0.869	87	87	62-123	0	30
Biphenyl	1.00	0.846	1.00	0.930	85	93	74-101	9	30
Chrysene	1.00	0.846	1.00	0.887	85	89	68-113	5	30
Dibenz(a,h)anthracene	1.00	0.820	1.00	0.930	82	93	46-133	13	30
Dibenzofuran	1.00	0.872	1.00	0.942	87	94	55-119	8	30
Dibenzothiophene	1.00	0.857	1.00	0.933	86	93	76-111	9	30
Fluoranthene	1.00	0.897	1.00	0.947	90	95	69-112	5	30
Fluorene	1.00	0.926	1.00	1.04	93	104	66-110	12	30
Indeno(1,2,3-cd)pyrene	1.00	0.828	1.00	0.942	83	94	52-122	13	30
1-Methylnaphthalene	1.00	0.759	1.00	0.816	76	82	53-124	7	30
2-Methylnaphthalene	1.00	0.720	1.00	0.790	72	79	48-121	9	30
Naphthalene	1.00	0.726	1.00	0.775	73	78	48-115	7	30
Perylene	10	9.41	10	9.87	94	99	68-146	5	30
Phenanthrene	1.00	0.819	1.00	0.892	82	89	60-120	9	30
Pyrene	1.00	0.899	1.00	0.959	90	96	52-124	6	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 17150C20A	Sample number(s): 9013799-9013808,9013810-9013811								

*- Outside of specification
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Quality Control Summary

Client Name: Geosyntec Consultants Group Number: 1805673
Reported: 06/19/2017 23:00

LCS/LCSD (continued)

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					
TPH-GRO water C6-C10	1100	1142.56			104		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 171460017A	Sample number(s): 9013799,9013801-9013808,9013810-9013811								
DRO C10-C28	2630	1996.57	2610	2040.91	76	78	69-115	2	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 171460571407	Sample number(s): 9013799,9013801-9013807,9013809-9013811								
Mercury	0.00100	0.00102			102		85-115		
Batch number: 171460571617	Sample number(s): 9013799,9013801-9013807,9013809-9013811								
Barium	2.00	2.07			104		85-115		
Boron	2.00	1.90			95		85-115		
Calcium	4.00	4.13			103		85-115		
Cobalt	0.500	0.510			102		85-115		
Lithium	1.00	0.988			99		85-115		
Magnesium	2.00	2.10			105		85-115		
Manganese	0.500	0.516			103		85-115		
Molybdenum	2.00	1.99			100		85-115		
Sodium	10	10.04			100		85-115		
Vanadium	0.500	0.507			101		85-115		
Batch number: 171460705001A	Sample number(s): 9013799,9013801-9013807,9013809-9013811								
Aluminum	2.00	2.04			102		85-115		
Antimony	0.00600	0.00619			103		85-115		
Arsenic	0.0100	0.00990			99		85-115		
Beryllium	0.00400	0.00397			99		85-115		
Cadmium	0.00500	0.00524			105		85-115		
Chromium	0.0500	0.0499			100		85-115		
Copper	0.0500	0.0520			104		85-115		
Iron	1.00	1.01			101		85-115		
Lead	0.0150	0.0148			99		85-115		
Magnesium	2.00	2.03			101		85-115		
Nickel	0.0500	0.0510			102		85-115		
Potassium	10	10.27			103		85-115		
Silver	0.0500	0.0498			100		85-115		
Thallium	0.00200	0.00191			96		85-115		
Zinc	0.500	0.521			104		85-115		
Batch number: 171460705001B	Sample number(s): 9013799,9013801-9013807,9013809-9013811								
Selenium	0.0100	0.0102			102		85-115		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 17150807902A	Sample number(s): 9013799,9013801-9013808,9013810-9013811								
HEM (oil & grease)	40	37.8	40	37.5	95	94	78-114	1	13

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Quality Control Summary

Client Name: Geosyntec Consultants
Reported: 06/19/2017 23:00

Group Number: 1805673

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: Z171521AA	Sample number(s): 9013799-9013801,9013803-9013808,9013810-9013811 UNSPK: 9013806									
Benzene	N.D.	20	18.69	20	18.89	93	94	78-120	1	30
t-Butyl alcohol	N.D.	200	180.91	200	181.72	90	91	68-122	0	30
1,2-Dibromoethane	N.D.	20	17.4	20	17.27	87	86	75-120	1	30
1,2-Dichloroethane	N.D.	20	19.79	20	19.93	99	100	66-128	1	30
Ethylbenzene	N.D.	20	19.01	20	19.14	95	96	78-120	1	30
Methyl Tertiary Butyl Ether	N.D.	20	17.05	20	17.06	85	85	75-120	0	30
Toluene	N.D.	20	19.81	20	19.69	99	98	80-120	1	30
Xylene (Total)	N.D.	60	58.99	60	59.34	98	99	80-120	1	30
Batch number: Z171523AA	Sample number(s): 9013802 UNSPK: P015092									
Benzene	N.D.	20	17.91	20	17.79	90	89	78-120	1	30
t-Butyl alcohol	N.D.	200	176.31	200	172.08	88	86	68-122	2	30
1,2-Dibromoethane	N.D.	20	16.82	20	16.52	84	83	75-120	2	30
1,2-Dichloroethane	N.D.	20	19.7	20	19.14	99	96	66-128	3	30
Ethylbenzene	N.D.	20	18.24	20	18.02	91	90	78-120	1	30
Methyl Tertiary Butyl Ether	N.D.	20	16.18	20	16.13	81	81	75-120	0	30
Toluene	N.D.	20	19.32	20	19.12	97	96	80-120	1	30
Xylene (Total)	N.D.	60	57.5	60	57.02	96	95	80-120	1	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 17147WAB026	Sample number(s): 9013799,9013801-9013808,9013810-9013811 UNSPK: 9013806									
Acenaphthene	7.69	1.02	7.67	1.10	7.88	-1 (2)	17 (2)	66-132	3	30
Acenaphthylene	N.D.	1.02	0.916	1.10	0.983	90	89	60-110	7	30
Anthracene	0.747	1.02	1.42	1.10	1.51	66	69	59-119	6	30
Benzo(a)anthracene	N.D.	1.02	1.08	1.10	1.16	106	106	58-130	7	30
Benzo(a)pyrene	N.D.	1.02	0.839	1.10	0.913	82	83	60-124	9	30
Benzo(b)fluoranthene	N.D.	1.02	0.890	1.10	0.964	87	88	64-128	8	30
Benzo(e)pyrene	N.D.	1.02	0.899	1.10	0.964	88	87	69-109	7	30
Benzo(g,h,i)perylene	N.D.	1.02	0.935	1.10	1.04	92	94	50-123	10	30
Benzo(k)fluoranthene	N.D.	1.02	0.803	1.10	0.865	79	79	62-123	7	30
Biphenyl	0.340	1.02	1.12	1.10	1.17	76	76	74-101	5	30
Chrysene	N.D.	1.02	0.898	1.10	0.964	88	88	68-113	7	30
Dibenz(a,h)anthracene	N.D.	1.02	0.948	1.10	1.03	93	94	46-133	9	30
Dibenzofuran	2.09	1.02	2.71	1.10	2.83	60	67	55-119	4	30
Dibenzothiophene	0.338	1.02	1.39	1.10	1.46	103	102	76-111	5	30
Fluoranthene	0.750	1.02	1.46	1.10	1.48	70	67*	69-112	2	30
Fluorene	3.59	1.02	4.48	1.10	4.58	87	89	66-110	2	30
Indeno(1,2,3-cd)pyrene	N.D.	1.02	0.966	1.10	1.06	95	96	52-122	9	30
1-Methylnaphthalene	2.17	1.02	2.55	1.10	2.65	37*	44*	53-124	4	30
2-Methylnaphthalene	0.161	1.02	0.844	1.10	0.892	67	66	48-121	6	30
Naphthalene	0.884	1.02	1.26	1.10	1.35	36*	42*	48-115	7	30
Perylene	N.D.	10.2	9.41	11.01	10.29	92	93	68-146	9	30
Phenanthrene	1.59	1.02	2.28	1.10	2.44	67	78	60-120	7	30
Pyrene	0.372	1.02	1.12	1.10	1.22	73	77	52-124	8	30

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Quality Control Summary

Client Name: Geosyntec Consultants Group Number: 1805673
Reported: 06/19/2017 23:00

MS/MSD (continued)

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					
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 17150C20A	Sample number(s): 9013799-9013808,9013810-9013811 UNSPK: 9013806									
TPH-GRO water C6-C10	27.46	1100	1134.58	1100	1133.35	101	101	80-120	0	30
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 171460017A	Sample number(s): 9013799,9013801-9013808,9013810-9013811 UNSPK: 9013806									
DRO C10-C28	770.24	2690	3155.25	2690	2977.51	89	82	69-115	6	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 171460571407	Sample number(s): 9013799,9013801-9013807,9013809-9013811 UNSPK: 9013806									
Mercury	N.D.	0.00100	0.000902			90		80-120		
Batch number: 171460571617	Sample number(s): 9013799,9013801-9013807,9013809-9013811 UNSPK: 9013806									
Barium	0.0241	2.00	2.03			100		70-130		
Boron	0.0368	2.00	1.93			95		70-130		
Calcium	335.76	4.00	343.89			203 (2)		70-130		
Cobalt	0.0485	0.500	0.533			97		70-130		
Lithium	0.0197	1.00	1.05			103		70-130		
Magnesium	39.74	2.00	40.75			50 (2)		70-130		
Manganese	10.62	0.500	11.07			90 (2)		70-130		
Molybdenum	N.D.	2.00	1.98			99		70-130		
Sodium	25.81	10	37.01			112		70-130		
Vanadium	0.00230	0.500	0.512			102		70-130		
Batch number: 171460705001A	Sample number(s): 9013799,9013801-9013807,9013809-9013811 UNSPK: 9013806									
Aluminum	0.190	2.00	2.01			91		70-130		
Antimony	N.D.	0.00600	0.00628			105		70-130		
Arsenic	0.00902	0.0100	0.0188			97		70-130		
Beryllium	N.D.	0.00400	0.00375			94		70-130		
Cadmium	N.D.	0.00500	0.00444			89		70-130		
Chromium	0.000659	0.0500	0.0495			98		70-130		
Copper	0.00120	0.0500	0.0479			93		70-130		
Iron	126.9	1.00	124			-290 (2)		70-130		
Lead	0.00290	0.0150	0.0172			95		70-130		
Magnesium	37.09	2.00	37.82			36 (2)		70-130		
Nickel	0.0409	0.0500	0.0844			87		70-130		
Potassium	10.94	10	20.9			100		70-130		
Silver	N.D.	0.0500	0.0473			95		70-130		
Thallium	N.D.	0.00200	0.00195			97		70-130		
Zinc	0.0591	0.500	0.454			79		70-130		
Batch number: 171460705001B	Sample number(s): 9013799,9013801-9013807,9013809-9013811 UNSPK: 9013806									
Selenium	0.000496	0.0100	0.00907			86		70-130		

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Quality Control Summary

Client Name: Geosyntec Consultants Group Number: 1805673
Reported: 06/19/2017 23:00

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: 17150807902A	Sample number(s): 9013799,9013801-9013808,9013810-9013811 UNSPK: 9013806									
HEM (oil & grease)	2.24	44.9	34.94	46.5	41.28	73*	84	78-114	17	36

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: 171460571407	Sample number(s): 9013799,9013801-9013807,9013809-9013811 BKG: 9013806			
Mercury	N.D.	N.D.	0 (1)	20
Batch number: 171460571617	Sample number(s): 9013799,9013801-9013807,9013809-9013811 BKG: 9013806			
Barium	0.0241	0.0253	5 (1)	20
Boron	0.0368	0.0377	2 (1)	20
Calcium	335.76	341.76	2	20
Cobalt	0.0485	0.0464	4	20
Lithium	0.0197	0.0195	1 (1)	20
Magnesium	39.74	39.48	1	20
Manganese	10.62	10.86	2	20
Molybdenum	N.D.	N.D.	0 (1)	20
Sodium	25.81	27.44	6	20
Vanadium	0.00230	0.00282	20 (1)	20
Batch number: 171460705001A	Sample number(s): 9013799,9013801-9013807,9013809-9013811 BKG: 9013806			
Aluminum	0.190	0.137	32* (1)	20
Antimony	N.D.	N.D.	0 (1)	20
Arsenic	0.00902	0.00850	6 (1)	20
Beryllium	N.D.	N.D.	0 (1)	20
Cadmium	N.D.	N.D.	0 (1)	20
Chromium	0.000659	N.D.	200* (1)	20
Copper	0.00120	0.000998	18 (1)	20
Iron	126.9	121.1	5	20
Lead	0.00290	0.00206	34* (1)	20
Magnesium	37.09	35.64	4	20
Nickel	0.0409	0.0351	15	20
Potassium	10.94	10.78	1	20
Silver	N.D.	N.D.	0 (1)	20
Thallium	N.D.	N.D.	0 (1)	20
Zinc	0.0591	0.0536	10 (1)	20
Batch number: 171460705001B	Sample number(s): 9013799,9013801-9013807,9013809-9013811 BKG: 9013806			
Selenium	0.000496	N.D.	200* (1)	20

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Quality Control Summary

Client Name: Geosyntec Consultants Group Number: 1805673
Reported: 06/19/2017 23:00

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: VOCs- 5ml Water by 8260B UST
Batch number: Z171521AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9013799	103	99	99	93
9013800	103	99	99	93
9013801	104	101	99	95
9013803	103	99	99	96
9013804	102	100	99	95
9013805	103	99	99	93
9013806	103	103	99	96
9013807	101	99	100	100
9013808	100	100	100	99
9013810	102	98	98	92
9013811	104	99	98	93
Blank	102	100	99	93
LCS	100	100	100	100
MS	101	99	100	100
MSD	100	100	100	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: VOCs- 5ml Water by 8260B UST
Batch number: Z171523AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9013802	105	99	98	96
Blank	103	99	98	92
LCS	100	100	100	100
MS	101	100	100	99
MSD	100	99	100	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: Alkyl PAHs in Water by GC/MS
Batch number: 17147WAB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
9013799	86	86	78
9013801	87	81	64
9013802	83	84	111
9013803	91	86	63
9013804	83	86	69
9013805	85	81	62
9013806	88	80	90
9013807	87	89	92
9013808	88	90	95
9013810	90	79	69

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Quality Control Summary

Client Name: Geosyntec Consultants Group Number: 1805673
Reported: 06/19/2017 23:00

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: Alkyl PAHs in Water by GC/MS
Batch number: 17147WAB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
9013811	88	79	76
Blank	92	90	82
LCS	95	96	81
LCSD	99	99	84
MS	87	89	92
MSD	88	90	95
Limits:	51-135	29-140	45-119

Analysis Name: TPH-GRO water C6-C10
Batch number: 17150C20A

	Trifluorotoluene-F
9013799	89
9013800	85
9013801	90
9013802	90
9013803	88
9013804	90
9013805	90
9013806	81
9013807	97
9013808	95
9013810	89
9013811	90
Blank	89
LCS	98
MS	97
MSD	95
Limits:	63-135

Analysis Name: DRO Microextraction Master
Batch number: 171460017A

	Orthoterphenyl
9013799	95
9013801	96
9013802	98
9013803	95
9013804	97
9013805	97
9013806	98
9013807	95
9013808	94
9013810	97
9013811	98

*- Outside of specification
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Quality Control Summary

Client Name: Geosyntec Consultants Group Number: 1805673
Reported: 06/19/2017 23:00

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 Microextraction Master
Batch number: 171460017A

	Orthoterphenyl
Blank	95
LCS	95
LCSD	95
MS	95
MSD	94
Limits:	42-160

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Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 9811 Group # 180567 3 Sample # 9013799-811

COC # 527762

Client Information

Client: Geosyntec | Acct. #: SNJ

Project Name/#: NRG PRGS | PWSID #:

Project Manager: Mark Bauer | P.O. #: MEM1108

Sampler: Stephanie Jones | Quote #: SNJ

State where samples were collected: Virginia | For Compliance: Yes ☐ No ☒

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: DI Water

Analysis Requested

Preservation Codes: OH | ON | OV | OH | OH | OH | O

For Lab Use Only: FSC: | SCR#: 2060223

Preservation Codes: H=HCl, T=Thiosulfate, N=HNO_3, B=NaOH, S=H_2SO_4, O=Other ice

Remarks: Samples shipped via lab courier

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Potable	Ground	NPDES	Surface	Water	Other: DI Water	Total # of Containers	HEM (oil & grease)	Total Hardness as CaCO3	TAL Metals	TPH-GRO (C6-C10)	VOCs 8260B	DRO 8015 Micro Ext	PAHs 8270 SIM	SNJ			Remarks
EB20170522	05/22/17	1500	X						X					14	X	X	X	X	X	X	X				
TB17129	05/11/17	—											X	4				X	X						lab provided trip blank
TW-03	05/23/17	1030	X						X					14	X	X	X	X	X	X	X				
TW-06	05/23/17	0915	X						X					14	X	X	X	X	X	X	X				
DUP20170522	05/22/17	—	X						X					14	X	X	X	X	X	X	X				
TW-05	05/22/17	1200	X						X					14	X	X	X	X	X	X	X				
TW-14	05/22/17	1040	X						X					14	X	X	X	X	X	X	X				
TW-04 MS/MSD	05/22/17	1425	X						X					42	X	X	X	X	X	X	X				
TW-02	05/23/17	1405	X						X					14	X	X	X	X	X	X	X				
TW-07	05/23/17	1250	X						X					14	X	X	X	X	X	X	X				

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Date results are needed: —

E-mail address: Mbauer@geosyntec.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
Bottle Storage					
	05/24/17			5/24/17	10:00
	5/24/17	1901			
				5-24-17	1905

EDD Required? Yes No

If yes, format: —

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 0.4-1.2 °C

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 184600

Group Number(s): 1805673

Client: Geosyntec

Delivery and Receipt Information

Delivery Method:	ELLE Courier	Arrival Timestamp:	05/24/2017 19:05
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 ≥ 6mm:	No
Paperwork Enclosed:	Yes	Total Trip Blank Qty:	4
Samples Intact:	Yes	Trip Blank Type:	HCl
Missing Samples:	No	Air Quality Samples Present:	No
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah (10469) at 23:18 on 05/24/2017

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	1.2	DT	Wet	Y	Loose	N
2	DT146	0.4	DT	Wet	Y	Loose	N
3	DT146	0.9	DT	Wet	Y	Loose	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

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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 ≥ 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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Automated Report

Technical Report for

Groundwater & Environmental Services

NRG PRGS, 1400 North Royal Street, Alexandria, VA

0402919-51-206, ORG 0404

SGS Accutest Job Number: JC43919

Sampling Date: 05/22/17

Report to:

Groundwater & Environmental Services
1350 Blair Drive Suite A
Odenton, MD 21113
ABell@GesOnline.com; MDLabs@GesOnline.com;
GES@EquisOnline.com
ATTN: Ashely bell

Total number of pages in report: 17

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Marty Vitanza 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

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Sections: 1 2 3 4

Table of Contents

Section 1: Sample Summary **3**
Section 2: Summary of Hits **4**
Section 3: Sample Results **5**
3.1: JC43919-1: MW-08S 6
3.2: JC43919-2: RW-31 7
3.3: JC43919-3: RW-14 8
3.4: JC43919-4: TW-05 12
Section 4: Misc. Forms **15**
4.1: Chain of Custody 16

Sample Summary

Groundwater & Environmental Services

Job No: JC43919

NRG PRGS, 1400 North Royal Street, Alexandria, VA
Project No: 0402919-51-206, ORG 0404

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC43919-1	05/22/17	14:40	JP	05/23/17	AQ	Ground Water	MW-08S
JC43919-2	05/22/17	14:30	JP	05/23/17	AQ	Ground Water	RW-31
JC43919-3	05/22/17	14:50	JP	05/23/17	AQ	Ground Water	RW-14
JC43919-4	05/22/17	12:00	JP	05/23/17	AQ	Ground Water	TW-05

Summary of Hits

Job Number: JC43919
Account: Groundwater & Environmental Services
Project: NRG PRGS, 1400 North Royal Street, Alexandria, VA
Collected: 05/22/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC43919-1	**MW-08S**					
TPH-DRO (C10-C28)		15.3	0.083	0.064	mg/l	SW846 8015C
JC43919-2	**RW-31**					
TPH-DRO (C10-C28)		0.655	0.083	0.064	mg/l	SW846 8015C
JC43919-3	**RW-14**					
Methane		1.5	0.11	0.036	ug/l	RSK-175
TPH-DRO (C10-C28)		1.39	0.083	0.064	mg/l	SW846 8015C
Manganese		44.9	15		ug/l	SW846 6010C
Alkalinity, Total as CaCO3		8.8	5.0		mg/l	SM2320 B-11
Nitrogen, Nitrate [a]		1.8	0.11		mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite		1.8	0.10		mg/l	EPA 353.2/LACHAT
Sulfate		37.7	10		mg/l	EPA 300/SW846 9056A
JC43919-4	**TW-05**					
Methane		583	1.1	0.36	ug/l	RSK-175
Manganese		10200	30		ug/l	SW846 6010C
Alkalinity, Total as CaCO3		16.6	5.0		mg/l	SM2320 B-11
Iron, Ferrous [b]		63.8	5.0		mg/l	SM3500FE B-11
Sulfate		860	40		mg/l	EPA 300/SW846 9056A

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
(b) Field analysis required. Received out of hold time and analyzed by request.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-08S		
Lab Sample ID:	JC43919-1	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z62310.D	1	06/01/17 15:50	HC	05/28/17	OP3248	G2Z2341
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	15.3	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	55%		22-140%
16416-32-3	Tetracosane-d50	38%		13-139%
438-22-2	5a-Androstane	39%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-31		
Lab Sample ID:	JC43919-2	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z62311.D	1	06/01/17 16:24	HC	05/28/17	OP3248	G2Z2341
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.655	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	66%		22-140%
16416-32-3	Tetracosane-d50	66%		13-139%
438-22-2	5a-Androstane	68%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-14		
Lab Sample ID:	JC43919-3	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59542.D	1	05/26/17 14:04	HT	n/a	n/a	GAA1209
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	1.5	0.11	0.036	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-14		
Lab Sample ID:	JC43919-3	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z62312.D	1	06/01/17 16:59	HC	05/28/17	OP3248	G2Z2341
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	1.39	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	73%		22-140%
16416-32-3	Tetracosane-d50	74%		13-139%
438-22-2	5a-Androstane	81%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-14		
Lab Sample ID:	JC43919-3	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	44.9	15	ug/l	1	05/26/17	05/30/17	AB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42129
(2) Prep QC Batch: MP1081

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RW-14		
Lab Sample ID:	JC43919-3	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	8.8	5.0	mg/l	1	06/01/17 10:12	CD	SM2320 B-11
Iron, Ferrous [a]	< 0.20	0.20	mg/l	1	05/23/17 21:26	AT	SM3500FE B-11
Nitrogen, Nitrate [b]	1.8	0.11	mg/l	1	05/31/17 12:55	RP	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	1.8	0.10	mg/l	1	05/31/17 12:55	RP	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/23/17 22:14	AT	SM4500NO2 B-11
Sulfate	37.7	10	mg/l	1	05/27/17 16:53	YR	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TW-05		
Lab Sample ID:	JC43919-4	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59544.D	10	05/26/17 14:42	HT	n/a	n/a	GAA1209
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	583	1.1	0.36	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TW-05		
Lab Sample ID:	JC43919-4	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	10200	30	ug/l	2	05/26/17	05/31/17	AB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42137
(2) Prep QC Batch: MP1081

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TW-05		
Lab Sample ID:	JC43919-4	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	16.6	5.0	mg/l	1	06/01/17 10:12	CD	SM2320 B-11
Iron, Ferrous [a]	63.8	5.0	mg/l	25	05/23/17 21:26	AT	SM3500FE B-11
Nitrogen, Nitrate [b]	< 0.11	0.11	mg/l	1	05/31/17 12:58	RP	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	05/31/17 12:58	RP	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/23/17 22:14	AT	SM4500NO2 B-11
Sulfate	860	40	mg/l	4	05/28/17 15:29	YR	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

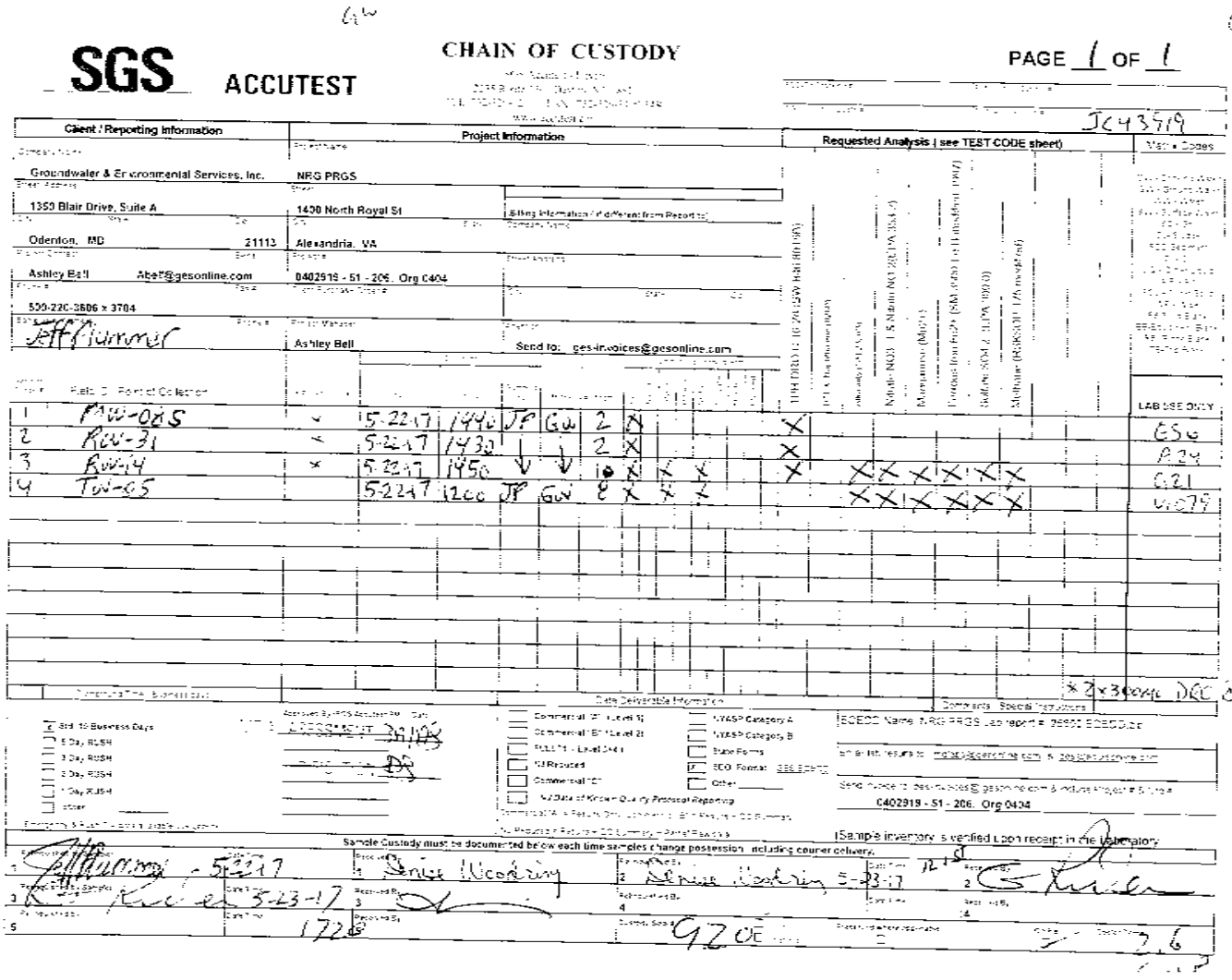
RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



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CHAIN OF CUSTODY

PAGE 1 OF 1

JC43919

Client / Reporting Information

Groundwater & Environmental Services, Inc.
1360 Blair Drive, Suite A
Odenton, MD 21113
Ashley Bell Abell@gesonline.com
500-220-3606 x 3704
Jeff Hummer

Project Information

NRG PRGS
1430 North Royal St
Alexandria, VA
0402919 - 51 - 206. Org 0404
Project Manager: Ashley Bell

Billing Information (If different from Report to):

Send to: ges-invoices@gesonline.com

Requested Analysis (see TEST CODE sheet)

Matrix Codes

	Field ID / Point of Collection		Date	Time	Sampled by	Matrix	# of bottles	
1	MW-02S		5-22-17	1440	JP	GW	2	N
2	RW-3I		5-22-17	1430			2	N
3	RW-4		5-22-17	1450			10	N
4	TW-05		5-22-17	1200	JP	GW	8	N

LAB USE ONLY

ESG
A24
021
V079

* 2x 3oz VOA DEC 0%

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day, RUSH
- [ ] 3 Day, RUSH
- [ ] 2 Day, RUSH
- [ ] 1 Day, RUSH
- [ ] other

Approved By (PM/Director): Date: ASSIGNMENT 36185

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULL T1 - (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ State of Known Quality Protocol Reporting

- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [x] EDD Format: GES EDD
- [ ] Other

Comments / Special Instructions

ESDED Name: NRG PRGS Lab Report #: 35552 ESDED.DLE

Send results to: ges-invoices@gesonline.com & ashley.bell@gesonline.com

0402919 - 51 - 206. Org 0404

Sample Custody must be documented below each time samples change possession, including courier delivery.

Sample Inventory is verified upon receipt in the laboratory

	Relinquished By	Date/Time	Received By	Date/Time
1		5-22-17	Denise Woodring	
2		5-23-17 1726		5-23-17 0926
3				
4				
5				

Temp: 2.6

SGS Accutest Sample Receipt Summary

Job Number: JC43919 **Client:** _____ **Project:** _____

Date / Time Received: 5/23/2017 5:20:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.6);

Cooler Temps (Corrected) °C: Cooler 1: (3.9);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

SM089-02
Rev. Date 12/1/16

JC43919: Chain of Custody
Page 2 of 2

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Automated Report

Technical Report for

Groundwater & Environmental Services

NRG PRGS, 1400 North Royal Street, Alexandria, VA

0402919-51-206, ORG 0404

SGS Accutest Job Number: JC43920

Sampling Date: 05/22/17

Report to:

Groundwater & Environmental Services
1350 Blair Drive Suite A
Odenton, MD 21113
ABell@GesOnline.com; MDLabs@GesOnline.com;
GES@EquisOnline.com
ATTN: Ashely bell

Total number of pages in report: **12**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Marty Vitanza 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

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Sections: 1 2 3 4

Table of Contents

Section 1: Sample Summary **3**
Section 2: Summary of Hits **4**
Section 3: Sample Results **5**
3.1: JC43920-1: MW-16 6
3.2: JC43920-2: RW-25 7
3.3: JC43920-3: MW/RW-51 8
3.4: JC43920-4: MW/RW-05 9
Section 4: Misc. Forms **10**
4.1: Chain of Custody 11

Sample Summary

Groundwater & Environmental Services

Job No: JC43920

NRG PRGS, 1400 North Royal Street, Alexandria, VA
Project No: 0402919-51-206, ORG 0404

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC43920-1	05/22/17	14:00	BH	05/23/17	AQ	Ground Water	MW-16
JC43920-2	05/22/17	14:15	BH	05/23/17	AQ	Ground Water	RW-25
JC43920-3	05/22/17	14:35	BH	05/23/17	AQ	Ground Water	MW/RW-51
JC43920-4	05/22/17	14:45	BH	05/23/17	AQ	Ground Water	MW/RW-05

Summary of Hits

Job Number: JC43920
Account: Groundwater & Environmental Services
Project: NRG PRGS, 1400 North Royal Street, Alexandria, VA
Collected: 05/22/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC43920-1	**MW-16**					
No hits reported in this sample.						
JC43920-2	**RW-25**					
TPH-DRO (C10-C28)		0.685	0.083	0.064	mg/l	SW846 8015C
JC43920-3	**MW/RW-51**					
TPH-DRO (C10-C28)		1.14	0.083	0.064	mg/l	SW846 8015C
JC43920-4	**MW/RW-05**					
TPH-DRO (C10-C28)		0.981	0.083	0.064	mg/l	SW846 8015C

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-16		
Lab Sample ID:	JC43920-1	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z62313.D	1	06/01/17 17:33	HC	05/28/17	OP3248	G2Z2341
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	60%		22-140%
16416-32-3	Tetracosane-d50	43%		13-139%
438-22-2	5a-Androstane	43%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-25		
Lab Sample ID:	JC43920-2	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z62314.D	1	06/01/17 18:08	HC	05/28/17	OP3248	G2Z2341
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.685	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	63%		22-140%
16416-32-3	Tetracosane-d50	60%		13-139%
438-22-2	5a-Androstane	64%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW/RW-51		
Lab Sample ID:	JC43920-3	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z62315.D	1	06/01/17 18:42	HC	05/28/17	OP3248	G2Z2341
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	1.14	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	67%		22-140%
16416-32-3	Tetracosane-d50	68%		13-139%
438-22-2	5a-Androstane	72%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW/RW-05		
Lab Sample ID:	JC43920-4	**Date Sampled:**	05/22/17
Matrix:	AQ - Ground Water	**Date Received:**	05/23/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Z62316.D	1	06/01/17 19:17	HC	05/28/17	OP3248	G2Z2341
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.981	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	63%		22-140%
16416-32-3	Tetracosane-d50	65%		13-139%
438-22-2	5a-Androstane	67%		10-135%

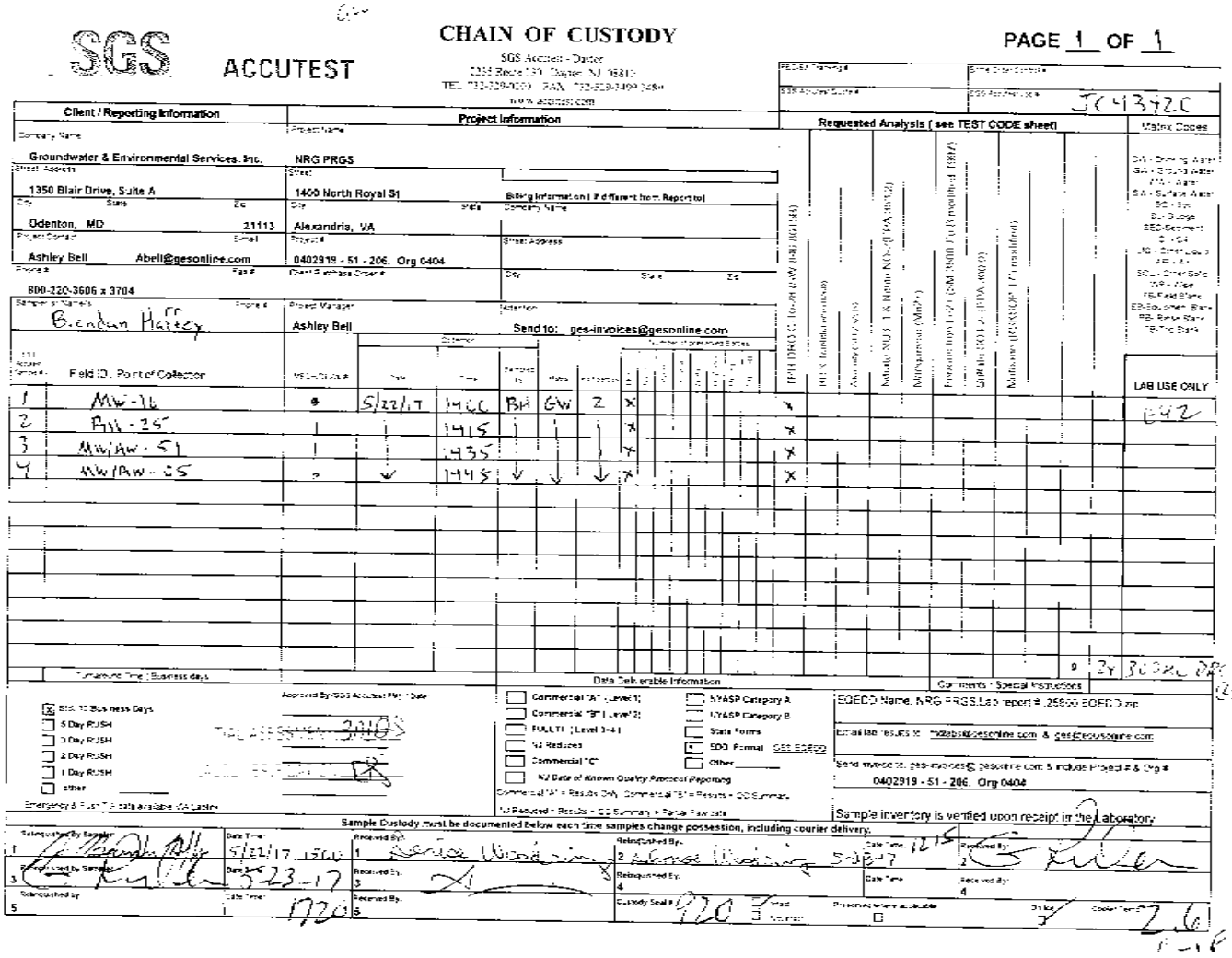
ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

SGS ACCUTEST

SGS Accutest - Dayton
2235 Route 130 Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499
www.accutest.com

PAGE 1 OF 1

JC43920

Client / Reporting Information

Company Name: Groundwater & Environmental Services, Inc.
Street Address: 1350 Blair Drive, Suite A
City: Odenton, State: MD, Zip: 21113
Project Contact: Ashley Bell, Email: Abell@gesonline.com
Phone #: 800-220-3606 x 3704, Fax #:

Project Information

Project Name: NRG PRGS
Street: 1400 North Royal St
City: Alexandria, State: VA
Project #: 0402919 - 51 - 206. Org 0404
Client Purchase Order #:

Billing Information (if different from Report to)

Company Name:
Street Address:
City: State: Zip:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

Sampler's Name: B. Cendan Mattey
Project Manager: Ashley Bell
Attention:
Send to: ges-invoices@gesonline.com

ACCUTEST Sample #	Field ID / Point of Collection	MEOH Vial #	Date	Time	Sampled by	Matrix	# of bottles										LAB USE ONLY
1	MW-16	a	5/22/17	1400	BM	GW	2	X									E42
2	PW-25	1		1415				X									
3	MW/PW-51	1		1435				X									
4	MW/PW-25	a	↓	1445	↓	↓	↓	X									

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Approved By (SGS Accutest PM) / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULL T1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [x] SDG Format GES EQEDD
- [ ] Other

Comments / Special Instructions

EQEDD Name: NRG PRGS Lab Report # 25800 EQEDD.zip

Email all results to: mbabb@gesonline.com & ges@accutestgane.com

Send invoice to: ges-invoices@gesonline.com & include Project # & Org #
0402919 - 51 - 206. Org 0404

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1		5/22/17 1500	1 Denise Woodrum	2 Denise Woodrum	5-23-17 1215	2
3	Received by Sampler	Date Time 5-23-17	3	Relinquished By 4	Date Time	Received By 4
5	Relinquished by	Date Time 1720	Received By 5	Custody Seal # 720	Preserved where applicable	On Ice 7 Cooler Temp 2.6

SGS Accutest Sample Receipt Summary

Job Number: JC43920 **Client:** _____ **Project:** _____

Date / Time Received: 5/23/2017 5:20:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.6);

Cooler Temps (Corrected) °C: Cooler 1: (3.9);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

SM089-02
Rev. Date 12/1/16

JC43920: Chain of Custody
Page 2 of 2

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Automated Report

Technical Report for

Groundwater & Environmental Services

NRG PRGS, 1400 North Royal Street, Alexandria, VA

0402919-51-206, ORG 0404

SGS Accutest Job Number: JC43960

Sampling Date: 05/23/17

Report to:

Groundwater & Environmental Services
1350 Blair Drive Suite A
Odenton, MD 21113
ABell@GesOnline.com; MDLabs@GesOnline.com;
GES@EquisOnline.com
ATTN: Ashely bell

Total number of pages in report: 27

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Marty Vitanza 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

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Sections: 1 2 3 4

Table of Contents

Section 1: Sample Summary **3**
Section 2: Summary of Hits **4**
Section 3: Sample Results **6**
3.1: JC43960-1: TW-06 7
3.2: JC43960-2: TW-03 10
3.3: JC43960-3: MW-72S 13
3.4: JC43960-4: MW-72 16
3.5: JC43960-5: MW-106 19
3.6: JC43960-6: MW-27 22
Section 4: Misc. Forms **25**
4.1: Chain of Custody 26

Sample Summary

Groundwater & Environmental Services

Job No: JC43960

NRG PRGS, 1400 North Royal Street, Alexandria, VA
Project No: 0402919-51-206, ORG 0404

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC43960-1	05/23/17	09:15	JP/BH	05/24/17	AQ	Ground Water	TW-06
JC43960-2	05/23/17	10:30	JP/BH	05/24/17	AQ	Ground Water	TW-03
JC43960-3	05/23/17	13:00	JP/BH	05/24/17	AQ	Ground Water	MW-72S
JC43960-4	05/23/17	13:30	JP/BH	05/24/17	AQ	Ground Water	MW-72
JC43960-5	05/23/17	14:00	JP/BH	05/24/17	AQ	Ground Water	MW-106
JC43960-6	05/23/17	14:20	JP/BH	05/24/17	AQ	Ground Water	MW-27

Summary of Hits

Job Number: JC43960
Account: Groundwater & Environmental Services
Project: NRG PRGS, 1400 North Royal Street, Alexandria, VA
Collected: 05/23/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC43960-1	**TW-06**					
Methane		372	0.55	0.18	ug/l	RSK-175
Manganese		4440	15		ug/l	SW846 6010C
Iron, Ferrous [a]		97.9	5.0		mg/l	SM3500FE B-11
Sulfate		535	30		mg/l	EPA 300/SW846 9056A
JC43960-2	**TW-03**					
Methane		87.1	0.11	0.036	ug/l	RSK-175
Manganese		6080	15		ug/l	SW846 6010C
Alkalinity, Total as CaCO3		7.7	5.0		mg/l	SM2320 B-11
Iron, Ferrous [a]		41.7	5.0		mg/l	SM3500FE B-11
Sulfate		402	20		mg/l	EPA 300/SW846 9056A
JC43960-3	**MW-72S**					
Methane		14.4	0.11	0.036	ug/l	RSK-175
Manganese		56600	150		ug/l	SW846 6010C
Iron, Ferrous [a]		238	10		mg/l	SM3500FE B-11
Sulfate		2320	100		mg/l	EPA 300/SW846 9056A
JC43960-4	**MW-72**					
Methane		0.90	0.11	0.036	ug/l	RSK-175
Manganese		34900	60		ug/l	SW846 6010C
Iron, Ferrous [a]		0.58	0.20		mg/l	SM3500FE B-11
Sulfate		1450	50		mg/l	EPA 300/SW846 9056A
JC43960-5	**MW-106**					
Methane		11.3	0.11	0.036	ug/l	RSK-175
Manganese [b]		4280	150		ug/l	SW846 6010C
Iron, Ferrous [a]		5.2	0.20		mg/l	SM3500FE B-11
Nitrogen, Nitrate [c]		0.38	0.11		mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite		0.39	0.10		mg/l	EPA 353.2/LACHAT
Nitrogen, Nitrite		0.013	0.010		mg/l	SM4500NO2 B-11
Sulfate		1690	100		mg/l	EPA 300/SW846 9056A
JC43960-6	**MW-27**					
Methane		1.4	0.11	0.036	ug/l	RSK-175
Manganese [b]		8120	75		ug/l	SW846 6010C
Alkalinity, Total as CaCO3		42.0	5.0		mg/l	SM2320 B-11
Iron, Ferrous [a]		0.61	0.20		mg/l	SM3500FE B-11

Summary of Hits

Job Number: JC43960
Account: Groundwater & Environmental Services
Project: NRG PRGS, 1400 North Royal Street, Alexandria, VA
Collected: 05/23/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Sulfate		352	10		mg/l	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Elevated sample detection limit due to difficult sample matrix.
(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TW-06		
Lab Sample ID:	JC43960-1	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59611.D	5	06/01/17 10:23	EC	n/a	n/a	GAA1212
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	372	0.55	0.18	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TW-06		
Lab Sample ID:	JC43960-1	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	4440	15	ug/l	1	05/31/17	05/31/17	AB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42137
(2) Prep QC Batch: MP1143

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TW-06		
Lab Sample ID:	JC43960-1	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	< 5.0	5.0	mg/l	1	06/01/17 12:01	CD	SM2320 B-11
Iron, Ferrous [a]	97.9	5.0	mg/l	25	05/25/17 17:36	YR	SM3500FE B-11
Nitrogen, Nitrate [b]	< 0.11	0.11	mg/l	1	05/31/17 16:45	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	05/31/17 16:45	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/24/17 20:10	AT	SM4500NO2 B-11
Sulfate	535	30	mg/l	3	05/31/17 08:51	TG	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TW-03		
Lab Sample ID:	JC43960-2	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59612.D	1	06/01/17 10:59	EC	n/a	n/a	GAA1212
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	87.1	0.11	0.036	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TW-03		
Lab Sample ID:	JC43960-2	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	6080	15	ug/l	1	05/31/17	05/31/17	AB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42137
(2) Prep QC Batch: MP1143

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TW-03		
Lab Sample ID:	JC43960-2	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	7.7	5.0	mg/l	1	06/01/17 12:18	CD	SM2320 B-11
Iron, Ferrous [a]	41.7	5.0	mg/l	25	05/25/17 17:36	YR	SM3500FE B-11
Nitrogen, Nitrate [b]	< 0.11	0.11	mg/l	1	05/31/17 16:46	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	05/31/17 16:46	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/24/17 20:18	AT	SM4500NO2 B-11
Sulfate	402	20	mg/l	2	05/31/17 09:15	TG	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-72S		
Lab Sample ID:	JC43960-3	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59616.D	1	06/01/17 11:58	EC	n/a	n/a	GAA1212
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	14.4	0.11	0.036	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-72S		
Lab Sample ID:	JC43960-3	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	56600	150	ug/l	2	05/31/17	06/01/17	AB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42146
(2) Prep QC Batch: MP1143

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-72S		
Lab Sample ID:	JC43960-3	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	< 5.0	5.0	mg/l	1	06/01/17 12:18	CD	SM2320 B-11
Iron, Ferrous [a]	238	10	mg/l	50	05/25/17 17:36	YR	SM3500FE B-11
Nitrogen, Nitrate [b]	< 0.11	0.11	mg/l	1	05/31/17 16:47	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	05/31/17 16:47	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/24/17 20:18	AT	SM4500NO2 B-11
Sulfate	2320	100	mg/l	10	05/31/17 09:39	TG	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-72		
Lab Sample ID:	JC43960-4	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59613.D	1	06/01/17 11:12	EC	n/a	n/a	GAA1212
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.90	0.11	0.036	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-72		
Lab Sample ID:	JC43960-4	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	34900	60	ug/l	2	05/31/17	06/01/17	AB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42146
(2) Prep QC Batch: MP1143

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-72		
Lab Sample ID:	JC43960-4	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	< 5.0	5.0	mg/l	1	06/01/17 12:18	CD	SM2320 B-11
Iron, Ferrous [a]	0.58	0.20	mg/l	1	05/25/17 17:33	YR	SM3500FE B-11
Nitrogen, Nitrate [b]	< 0.11	0.11	mg/l	1	05/31/17 16:51	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	05/31/17 16:51	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/24/17 20:18	AT	SM4500NO2 B-11
Sulfate	1450	50	mg/l	5	05/31/17 10:03	TG	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC43960-5	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59614.D	1	06/01/17 11:25	EC	n/a	n/a	GAA1212
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	11.3	0.11	0.036	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC43960-5	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese [a]	4280	150	ug/l	1	05/31/17	05/31/17	AB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42137
(2) Prep QC Batch: MP1143

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC43960-5	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	< 5.0	5.0	mg/l	1	06/01/17 12:18	CD	SM2320 B-11
Iron, Ferrous [a]	5.2	0.20	mg/l	1	05/25/17 17:33	YR	SM3500FE B-11
Nitrogen, Nitrate [b]	0.38	0.11	mg/l	1	05/31/17 16:52	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.39	0.10	mg/l	1	05/31/17 16:52	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	0.013	0.010	mg/l	1	05/24/17 20:18	AT	SM4500NO2 B-11
Sulfate	1690	100	mg/l	10	05/31/17 10:27	TG	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-27		
Lab Sample ID:	JC43960-6	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59615.D	1	06/01/17 11:38	EC	n/a	n/a	GAA1212
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	1.4	0.11	0.036	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-27		
Lab Sample ID:	JC43960-6	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese [a]	8120	75	ug/l	1	05/31/17	05/31/17	AB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42137
(2) Prep QC Batch: MP1143

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-27		
Lab Sample ID:	JC43960-6	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/24/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	42.0	5.0	mg/l	1	06/01/17 12:18	CD	SM2320 B-11
Iron, Ferrous [a]	0.61	0.20	mg/l	1	05/25/17 17:33	YR	SM3500FE B-11
Nitrogen, Nitrate [b]	< 0.11	0.11	mg/l	1	05/31/17 16:53	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	05/31/17 16:53	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/24/17 20:18	AT	SM4500NO2 B-11
Sulfate	352	10	mg/l	1	05/31/17 02:24	TG	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

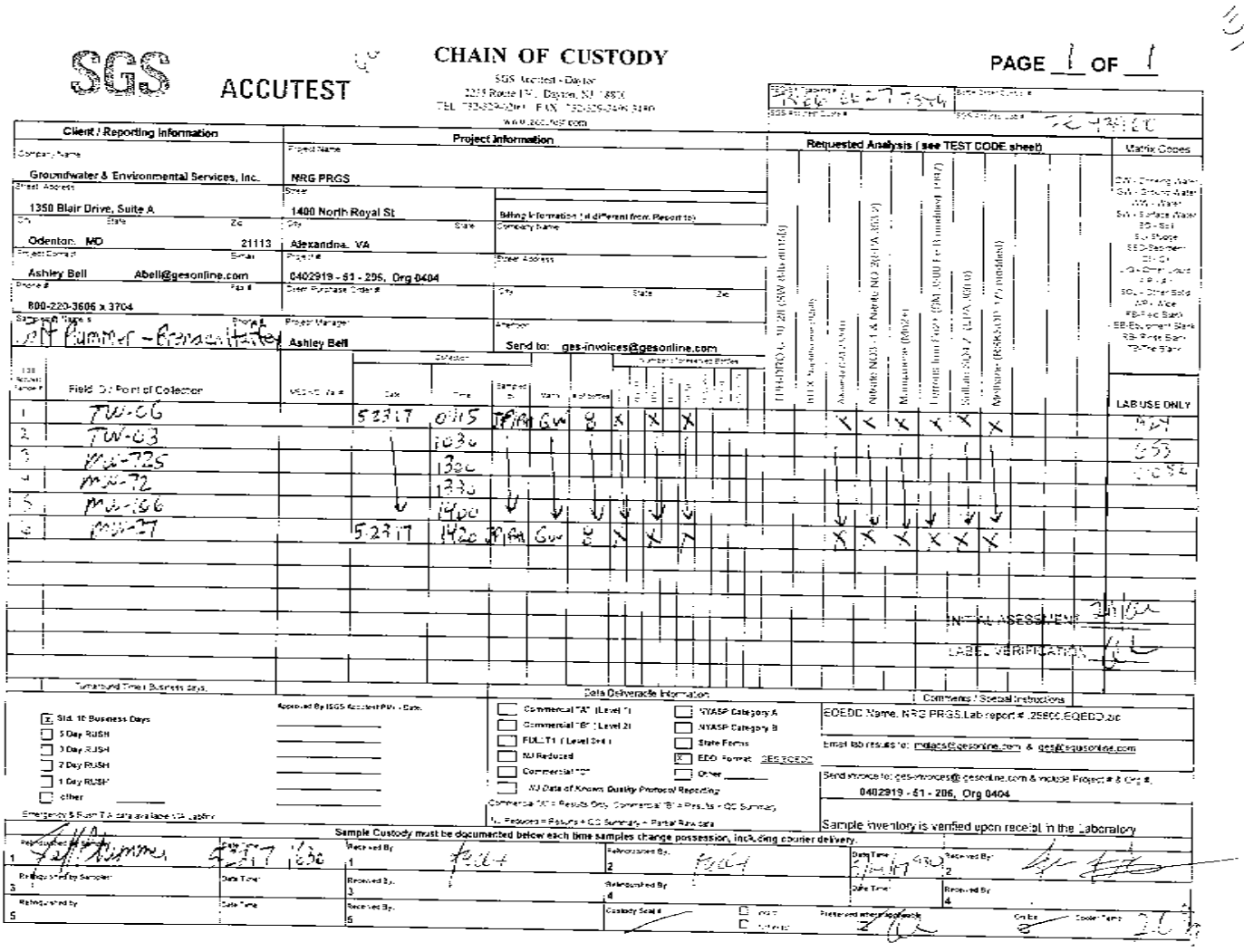
RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



SGS ACCUTEST

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499
www.accutest.com

PAGE 1 OF 1

SGS Quote #: NRG-SE-27754
SGS Work Order #: JC43960
Matrix Codes

Client / Reporting Information
Company Name: Groundwater & Environmental Services, Inc.
Street Address: 1350 Blair Drive, Suite A
City: Odenton State: MD Zip: 21113
Project Contact: Ashley Bell Email: Abell@gesonline.com
Phone #: 800-220-3606 x 3704 Fax #:
Sampler(s) Name(s): JM Plummer - Brandi Fahey Phone #:

Project Information
Project Name: NRG PRGS
Street: 1400 North Royal St
City: Alexandria State: VA
Project #: 0402919 - 61 - 206, Org 0404
Client Purchase Order #:
Project Manager: Ashley Bell

Billing Information (if different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:
Send to: ges-invoices@gesonline.com

Requested Analysis (see TEST CODE sheet)

#	Field ID / Point of Collector	MATRIX Code	Date	Time	Sampled by	Matrix	# of bottles	(1,4-DIOXANE, 8270D-SIM (SCAN-ID LIB))	(1,4-Dioxane, 8260C)	Arsenic (EPA 6010)	Nitrate NO3 + N & Nitrite NO2 + N (EPA 353.2)	Manganese (EPA 6010)	Chloride (EPA 300.0 For Rinsate Only)	Sulfate (EPA 300.0)	Methane (RSK-SOP-175 (modified))	LAB USE ONLY
1	TW-06		5/23/17	0915	TF/MA	GW	8	X	X	X	X	X	X	X	X	
2	TW-03			1036												
3	MW-22S			1326												
4	MW-22			1336												
5	MW-06			1400												
6	MW-27		5/23/17	1420	TF/MA	GW	8	X	X	X	X	X	X	X	X	

IN-LAB ASSESSMENT:
LABEL VERIFICATION:

Turnaround Time (Business days)
[X] Std. 10 Business Days
[ ] 5 Day RUSH
[ ] 3 Day RUSH
[ ] 2 Day RUSH
[ ] 1 Day RUSH
[ ] other
Emergency & Rush T/A data available VIA LabLink

Approved By (SGS Accutest PM) / Date:

Data Deliverable Information
[ ] Commercial "A" (Level 1)
[ ] Commercial "B" (Level 2)
[ ] FULLT1 (Level 3+4)
[ ] NJ Reduced
[ ] Commercial "C"
[ ] NJ Data of Known Quality Protocol Reporting
Commercial "A" = Results Only; Commercial "B" = Results + QC Summary
FULL = Results + QC Summary + Partial Raw data
[ ] NYASP Category A
[ ] NYASP Category B
[ ] State Forms
[X] EDD Format: GES EQEDD
[ ] Other

Comments / Special Instructions
EQEDD Name: NRG PRGS Lab report # :25800.EQEDD.zip
Email lab results to: mdavis@gesonline.com & ges@equisonline.com
Send invoice to: ges-invoices@gesonline.com & include Project # & Org #: 0402919 - 61 - 206, Org 0404
Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1	JM Plummer	5/23/17 1636	1	2	5/24/17 0900	2
3			3	4		4
5	Relinquished by	Date Time	Received By: 5	Custody Seal #	[ ] Intact [ ] Broken	Preserved where applicable	On Ice	Cooler Temp

SGS Accutest Sample Receipt Summary

Job Number: JC43960 **Client:** _____ **Project:** _____

Date / Time Received: 5/24/2017 9:30:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (2.0);

Cooler Temps (Corrected) °C: Cooler 1: (3.3);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

SM089-02
Rev. Date 12/1/16

JC43960: Chain of Custody
Page 2 of 2

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Automated Report

Technical Report for

Groundwater & Environmental Services

NRG PRGS, 1400 North Royal Street, Alexandria, VA

0402919-51-205, ORG 0404

SGS Accutest Job Number: JC44106

Sampling Date: 05/23/17

Report to:

Groundwater & Environmental Services
1350 Blair Drive Suite A
Odenton, MD 21113
ABell@GesOnline.com; MDLabs@GesOnline.com;
GES@EquisOnline.com
ATTN: Ashely bell

Total number of pages in report: **21**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Marty Vitanza 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

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Table of Contents

Section 1: Sample Summary **3**
Section 2: Summary of Hits **4**
Section 3: Sample Results **6**
3.1: JC44106-1: RW-05S 7
3.2: JC44106-2: RW-119S 8
3.3: JC44106-3: RW-123S 9
3.4: JC44106-4: RW-28S 10
3.5: JC44106-5: RW-25S 11
3.6: JC44106-6: RW-116S 12
3.7: JC44106-7: RW-10S 13
3.8: JC44106-8: MW-72S 14
3.9: JC44106-9: MW-25S 15
3.10: JC44106-10: MW-72 16
3.11: JC44106-11: MW-106 17
3.12: JC44106-12: MW-27 18
Section 4: Misc. Forms **19**
4.1: Chain of Custody 20

Sample Summary

Groundwater & Environmental Services

Job No: JC44106

NRG PRGS, 1400 North Royal Street, Alexandria, VA
Project No: 0402919-51-205, ORG 0404

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC44106-1	05/23/17	10:00	JP/BH	05/25/17	AQ	Ground Water	RW-05S
JC44106-2	05/23/17	10:20	JP/BH	05/25/17	AQ	Ground Water	RW-119S
JC44106-3	05/23/17	10:40	JP/BH	05/25/17	AQ	Ground Water	RW-123S
JC44106-4	05/23/17	11:20	JP/BH	05/25/17	AQ	Ground Water	RW-28S
JC44106-5	05/23/17	11:40	JP/BH	05/25/17	AQ	Ground Water	RW-25S
JC44106-6	05/23/17	12:10	JP/BH	05/25/17	AQ	Ground Water	RW-116S
JC44106-7	05/23/17	12:30	JP/BH	05/25/17	AQ	Ground Water	RW-10S
JC44106-8	05/23/17	13:00	JP/BH	05/25/17	AQ	Ground Water	MW-72S
JC44106-9	05/23/17	13:25	JP/BH	05/25/17	AQ	Ground Water	MW-25S
JC44106-10	05/23/17	13:30	JP/BH	05/25/17	AQ	Ground Water	MW-72
JC44106-11	05/23/17	14:00	JP/BH	05/25/17	AQ	Ground Water	MW-106
JC44106-12	05/23/17	14:20	JP/BH	05/25/17	AQ	Ground Water	MW-27

Summary of Hits

Job Number: JC44106
Account: Groundwater & Environmental Services
Project: NRG PRGS, 1400 North Royal Street, Alexandria, VA
Collected: 05/23/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC44106-1	**RW-05S**					
TPH-DRO (C10-C28)		497	0.83	0.64	mg/l	SW846 8015C
JC44106-2	**RW-119S**					
TPH-DRO (C10-C28)		18.5	0.083	0.064	mg/l	SW846 8015C
JC44106-3	**RW-123S**					
TPH-DRO (C10-C28)		50.8	0.083	0.064	mg/l	SW846 8015C
JC44106-4	**RW-28S**					
TPH-DRO (C10-C28)		24.4	0.083	0.064	mg/l	SW846 8015C
JC44106-5	**RW-25S**					
TPH-DRO (C10-C28)		147	0.083	0.064	mg/l	SW846 8015C
JC44106-6	**RW-116S**					
TPH-DRO (C10-C28)		323	0.83	0.64	mg/l	SW846 8015C
JC44106-7	**RW-10S**					
TPH-DRO (C10-C28) [a]		474	0.83	0.64	mg/l	SW846 8015C
JC44106-8	**MW-72S**					
TPH-DRO (C10-C28)		55.5	0.083	0.064	mg/l	SW846 8015C
JC44106-9	**MW-25S**					
TPH-DRO (C10-C28)		42.5	0.083	0.064	mg/l	SW846 8015C
JC44106-10	**MW-72**					
TPH-DRO (C10-C28)		2.41	0.083	0.064	mg/l	SW846 8015C
JC44106-11	**MW-106**					
TPH-DRO (C10-C28)		0.414	0.083	0.064	mg/l	SW846 8015C

Summary of Hits

Job Number: JC44106
Account: Groundwater & Environmental Services
Project: NRG PRGS, 1400 North Royal Street, Alexandria, VA
Collected: 05/23/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC44106-12	**MW-27**					
TPH-DRO (C10-C28)		3.13	0.083	0.064	mg/l	SW846 8015C

(a) Re-extracted for low surrogate recovery. originally prep date was within holding time.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	RW-05S		
Lab Sample ID:	JC44106-1	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7Y22119.D	1	06/01/17 13:25	HC	05/29/17	OP3285	G7Y868
Run #2	2Z62498.D	10	06/08/17 12:17	HC	05/29/17	OP3285	G2Z2348

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2	300 ml	1.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	497 [a]	0.83	0.64	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	34%	68%	22-140%
16416-32-3	Tetracosane-d50	42%	72%	13-139%
438-22-2	5a-Androstane	75%	178% [b]	10-135%

(a) Result is from Run# 2
(b) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-119S		
Lab Sample ID:	JC44106-2	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7Y22122.D	1	06/01/17 15:17	HC	05/29/17	OP3285	G7Y868
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	18.5	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	63%		22-140%
16416-32-3	Tetracosane-d50	55%		13-139%
438-22-2	5a-Androstane	56%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-123S		
Lab Sample ID:	JC44106-3	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7Y22127.D	1	06/01/17 18:11	HC	05/29/17	OP3285	G7Y868
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	50.8	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	65%		22-140%
16416-32-3	Tetracosane-d50	55%		13-139%
438-22-2	5a-Androstane	62%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-28S		
Lab Sample ID:	JC44106-4	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7Y22128.D	1	06/01/17 18:46	HC	05/29/17	OP3285	G7Y868
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	24.4	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	61%		22-140%
16416-32-3	Tetracosane-d50	32%		13-139%
438-22-2	5a-Androstane	36%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-25S		
Lab Sample ID:	JC44106-5	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7Y22129.D	1	06/01/17 19:21	HC	05/29/17	OP3285	G7Y868
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	147	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	120%		22-140%
16416-32-3	Tetracosane-d50	19%		13-139%
438-22-2	5a-Androstane	79%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-116S		
Lab Sample ID:	JC44106-6	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7Y22130.D	1	06/01/17 19:56	HC	05/29/17	OP3285	G7Y868
Run #2	2Z62499.D	10	06/08/17 12:51	HC	05/29/17	OP3285	G2Z2348

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2	300 ml	1.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	323 [a]	0.83	0.64	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	159% [b]	63%	22-140%
16416-32-3	Tetracosane-d50	25%	72%	13-139%
438-22-2	5a-Androstane	77%	43%	10-135%

(a) Result is from Run# 2
(b) Outside control limits due to matrix interference.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-10S		
Lab Sample ID:	JC44106-7	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	2Z62544.D	1	06/12/17 13:54	HC	06/11/17 11:20	OP3623	G2Z2350
Run #2 [a]	2Z62545.D	10	06/12/17 14:37	HC	06/11/17 11:20	OP3623	G2Z2350
Run #3 [b]	7Y22131.D	1	06/01/17 20:31	HC	05/29/17	OP3285	G7Y868

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2	300 ml	1.0 ml
Run #3	300 ml	1.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	474 [c]	0.83	0.64	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
84-15-1	o-Terphenyl	22%	462% [d]	116%	22-140%
16416-32-3	Tetracosane-d50	58%	41%	11% [e]	13-139%
438-22-2	5a-Androstane	44%	143% [d]	51%	10-135%

(a) Re-extracted for low surrogate recovery. originally prep date was within holding time.
(b) Confirmation run.
(c) Result is from Run# 2
(d) Outside control limits due to matrix interference.
(e) Outside of in house control limits, refer to re-extract.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-72S		
Lab Sample ID:	JC44106-8	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7Y22132.D	1	06/01/17 21:06	HC	05/29/17	OP3285	G7Y868
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	55.5	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	40%		22-140%
16416-32-3	Tetracosane-d50	43%		13-139%
438-22-2	5a-Androstane	44%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-25S		
Lab Sample ID:	JC44106-9	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7Y22133.D	1	06/01/17 21:40	HC	05/29/17	OP3285	G7Y868
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	42.5	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	56%		22-140%
16416-32-3	Tetracosane-d50	42%		13-139%
438-22-2	5a-Androstane	50%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-72		
Lab Sample ID:	JC44106-10	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7Y22134.D	1	06/01/17 22:15	HC	05/29/17	OP3285	G7Y868
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	2.41	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		22-140%
16416-32-3	Tetracosane-d50	49%		13-139%
438-22-2	5a-Androstane	47%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-106		
Lab Sample ID:	JC44106-11	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	7Y22135.D	1	06/01/17 22:50	HC	05/29/17	OP3285	G7Y868
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.414	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%		22-140%
16416-32-3	Tetracosane-d50	45%		13-139%
438-22-2	5a-Androstane	42%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-27		
Lab Sample ID:	JC44106-12	**Date Sampled:**	05/23/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Y84308.D	1	06/01/17 14:39	HC	05/30/17	OP3292	G2Y3227
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	3.13	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	40%		22-140%
16416-32-3	Tetracosane-d50	25%		13-139%
438-22-2	5a-Androstane	27%		10-135%

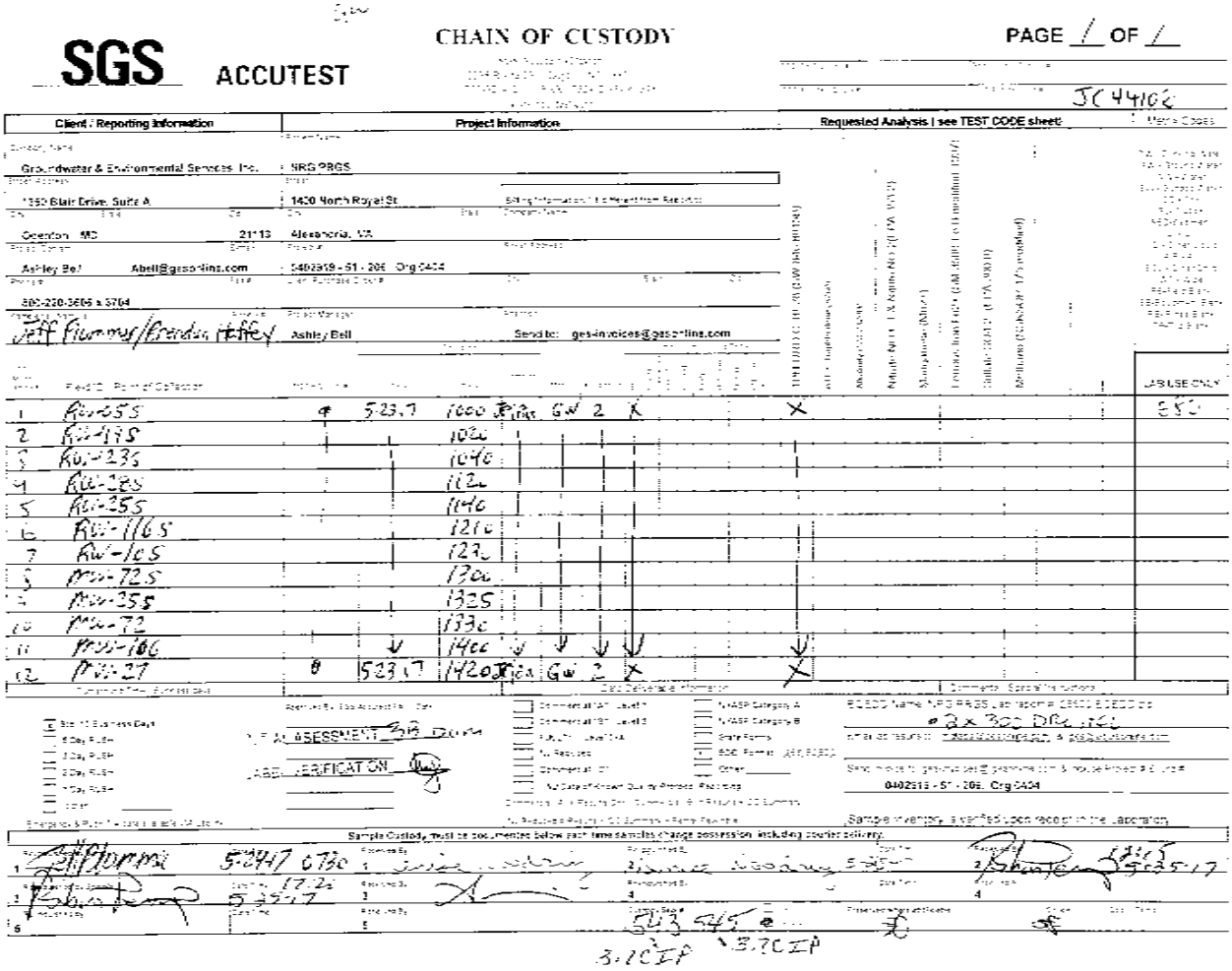
ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



SGS ACCUTEST

CHAIN OF CUSTODY

PAGE 1 OF 1

JC44106

Client / Reporting Information

Groundwater & Environmental Services Inc.
1360 Blair Drive, Suite A
Odenton MD 21113
Ashley Bell Abell@gesonline.com
301-220-3660 x 3704
Jeff Flummer/Brendan Heffey

Project Information

SRG PRGS
1420 North Royal St
Alexandria, VA
0402919 - 51 - 206 Org 0424
Ashley Bell

Send to: ges-invoices@gesonline.com

Requested Analysis | see TEST CODE sheet

| | Field ID / Point of Collection | Collected | | Sampled By | Matrix | # of bottles | | |

SGS Accutest Sample Receipt Summary

Job Number: JC44106 **Client:** _____ **Project:** _____

Date / Time Received: 5/25/2017 5:20:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.1); Cooler 2: (3.7);

Cooler Temps (Corrected) °C: Cooler 1: (4.4); Cooler 2: (5.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	2		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

SM089-02
Rev. Date 12/1/16

JC44106: Chain of Custody
Page 2 of 2

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Automated Report

Technical Report for

Groundwater & Environmental Services

NRG PRGS, 1400 North Royal Street, Alexandria, VA

0402919-51-206 ORG 0404

SGS Accutest Job Number: JC44119

Sampling Date: 05/24/17

Report to:

Groundwater & Environmental Services
1350 Blair Drive Suite A
Odenton, MD 21113
ABell@GesOnline.com; MDLabs@GesOnline.com;
GES@EquisOnline.com
ATTN: Ashely bell

Total number of pages in report: 27

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Marty Vitanza 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

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Sections: 1 2 3 4

Table of Contents

Section 1: Sample Summary **3**
Section 2: Summary of Hits **4**
Section 3: Sample Results **6**
3.1: JC44119-1: MW-01S 7
3.2: JC44119-2: RW-51S 11
3.3: JC44119-3: MW-121 15
3.4: JC44119-4: MW-122 20
3.5: JC44119-5: RW-1S 24
Section 4: Misc. Forms **25**
4.1: Chain of Custody 26

Sample Summary

Groundwater & Environmental Services

Job No: JC44119

NRG PRGS, 1400 North Royal Street, Alexandria, VA
Project No: 0402919-51-206 ORG 0404

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
JC44119-1	05/24/17	09:30	BH	05/25/17	AQ	Ground Water	MW-01S
JC44119-2	05/24/17	10:00	BH	05/25/17	AQ	Ground Water	RW-51S
JC44119-3	05/24/17	12:35	BH	05/25/17	AQ	Ground Water	MW-121
JC44119-4	05/24/17	11:20	BH	05/25/17	AQ	Ground Water	MW-122
JC44119-5	05/24/17	12:55	BH	05/25/17	AQ	Ground Water	RW-1S

Summary of Hits

Job Number: JC44119
Account: Groundwater & Environmental Services
Project: NRG PRGS, 1400 North Royal Street, Alexandria, VA
Collected: 05/24/17

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC44119-1	**MW-01S**					
Methane		528	1.1	0.36	ug/l	RSK-175
TPH-DRO (C10-C28)		72.6	0.083	0.064	mg/l	SW846 8015C
Manganese		7790	15		ug/l	SW846 6010C
Alkalinity, Total as CaCO3		221	5.0		mg/l	SM2320 B-11
Iron, Ferrous [a]		17.4	1.0		mg/l	SM3500FE B-11
Sulfate		174	10		mg/l	EPA 300/SW846 9056A
JC44119-2	**RW-51S**					
Methane		20.4	0.11	0.036	ug/l	RSK-175
TPH-DRO (C10-C28)		36.0	0.083	0.064	mg/l	SW846 8015C
Manganese		14100	30		ug/l	SW846 6010C
Alkalinity, Total as CaCO3		52.5	5.0		mg/l	SM2320 B-11
Iron, Ferrous [a]		80.8	10		mg/l	SM3500FE B-11
Nitrogen, Nitrate [b]		0.12	0.11		mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite		0.12	0.10		mg/l	EPA 353.2/LACHAT
Sulfate		1160	50		mg/l	EPA 300/SW846 9056A
JC44119-3	**MW-121**					
Benzene		0.38 J	0.50	0.14	ug/l	SW846 8260C
Ethylbenzene		0.81 J	1.0	0.20	ug/l	SW846 8260C
Naphthalene		12.5	5.0	1.0	ug/l	SW846 8260C
Methane		452	1.1	0.36	ug/l	RSK-175
TPH-DRO (C10-C28)		57.1	0.083	0.064	mg/l	SW846 8015C
Manganese		7060	15		ug/l	SW846 6010C
Alkalinity, Total as CaCO3		288	5.0		mg/l	SM2320 B-11
Iron, Ferrous [a]		3.2	0.20		mg/l	SM3500FE B-11
Sulfate		163	10		mg/l	EPA 300/SW846 9056A
JC44119-4	**MW-122**					
Methane		6.2	0.11	0.036	ug/l	RSK-175
TPH-DRO (C10-C28)		5.34	0.083	0.064	mg/l	SW846 8015C
Manganese [c]		3710	30		ug/l	SW846 6010C
Alkalinity, Total as CaCO3		257	5.0		mg/l	SM2320 B-11
Sulfate		239	10		mg/l	EPA 300/SW846 9056A
JC44119-5	**RW-1S**					
TPH-DRO (C10-C28)		36.1	0.083	0.064	mg/l	SW846 8015C

(a) Field analysis required. Received out of hold time and analyzed by request.

Summary of Hits

Job Number: JC44119
Account: Groundwater & Environmental Services
Project: NRG PRGS, 1400 North Royal Street, Alexandria, VA
Collected: 05/24/17

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)
(c) Elevated sample detection limit due to difficult sample matrix.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-01S		
Lab Sample ID:	JC44119-1	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59692.D	10	06/06/17 16:13	EC	n/a	n/a	GAA1214
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	528	1.1	0.36	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-01S		
Lab Sample ID:	JC44119-1	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Y84305.D	1	06/01/17 12:27	HC	05/30/17	OP3292	G2Y3227
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	72.6	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		22-140%
16416-32-3	Tetracosane-d50	53%		13-139%
438-22-2	5a-Androstane	97%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-01S		
Lab Sample ID:	JC44119-1	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	7790	15	ug/l	1	06/01/17	06/03/17	DE	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42153
(2) Prep QC Batch: MP1171

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-01S		
Lab Sample ID:	JC44119-1	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	221	5.0	mg/l	1	06/02/17 11:46	CD	SM2320 B-11
Iron, Ferrous [a]	17.4	1.0	mg/l	5	05/25/17 23:17	AT	SM3500FE B-11
Nitrogen, Nitrate [b]	< 0.11	0.11	mg/l	1	06/05/17 15:52	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	06/05/17 15:52	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/25/17 23:26	AT	SM4500NO2 B-11
Sulfate	174	10	mg/l	1	06/02/17 14:51	PO	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RW-51S		
Lab Sample ID:	JC44119-2	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59693.D	1	06/06/17 16:27	EC	n/a	n/a	GAA1214
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	20.4	0.11	0.036	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-51S		
Lab Sample ID:	JC44119-2	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Y84314.D	1	06/01/17 18:08	HC	05/30/17	OP3292	G2Y3227
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	36.0	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	68%		22-140%
16416-32-3	Tetracosane-d50	31%		13-139%
438-22-2	5a-Androstane	38%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW-51S		
Lab Sample ID:	JC44119-2	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	14100	30	ug/l	2	06/01/17	06/05/17	AB	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42167
(2) Prep QC Batch: MP1171

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RW-51S		
Lab Sample ID:	JC44119-2	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	52.5	5.0	mg/l	1	06/02/17 11:52	CD	SM2320 B-11
Iron, Ferrous [a]	80.8	10	mg/l	50	05/25/17 23:17	AT	SM3500FE B-11
Nitrogen, Nitrate [b]	0.12	0.11	mg/l	1	06/05/17 15:53	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	0.12	0.10	mg/l	1	06/05/17 15:53	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/25/17 23:26	AT	SM4500NO2 B-11
Sulfate	1160	50	mg/l	5	06/05/17 00:55	JN	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-121		
Lab Sample ID:	JC44119-3	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C150191.D	1	06/03/17 06:07	HT	n/a	n/a	V2C6668
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Naphthalene

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.38	0.50	0.14	ug/l	J
108-88-3	Toluene	ND	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	0.81	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	
91-20-3	Naphthalene	12.5	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	93%		84-119%
460-00-4	4-Bromofluorobenzene	94%		78-117%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-121		
Lab Sample ID:	JC44119-3	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59695.D	10	06/06/17 16:54	EC	n/a	n/a	GAA1214
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	452	1.1	0.36	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-121		
Lab Sample ID:	JC44119-3	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Y84315.D	1	06/01/17 18:42	HC	05/30/17	OP3292	G2Y3227
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	57.1	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		22-140%
16416-32-3	Tetracosane-d50	54%		13-139%
438-22-2	5a-Androstane	79%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-121		
Lab Sample ID:	JC44119-3	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese	7060	15	ug/l	1	06/01/17	06/03/17	DE	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42153
(2) Prep QC Batch: MP1171

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-121		
Lab Sample ID:	JC44119-3	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	288	5.0	mg/l	1	06/02/17 11:52	CD	SM2320 B-11
Iron, Ferrous [a]	3.2	0.20	mg/l	1	05/25/17 23:10	AT	SM3500FE B-11
Nitrogen, Nitrate [b]	< 0.11	0.11	mg/l	1	06/05/17 15:54	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	06/05/17 15:54	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/25/17 23:26	AT	SM4500NO2 B-11
Sulfate	163	10	mg/l	1	06/02/17 15:41	PO	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-122		
Lab Sample ID:	JC44119-4	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	RSK-175	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA59696.D	1	06/06/17 17:07	EC	n/a	n/a	GAA1214
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	6.2	0.11	0.036	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-122		
Lab Sample ID:	JC44119-4	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Y84316.D	1	06/01/17 19:17	HC	05/30/17	OP3292	G2Y3227
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	5.34	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	56%		22-140%
16416-32-3	Tetracosane-d50	22%		13-139%
438-22-2	5a-Androstane	25%		10-135%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-122		
Lab Sample ID:	JC44119-4	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Manganese [a]	3710	30	ug/l	1	06/01/17	06/03/17	DE	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA42153
(2) Prep QC Batch: MP1171

(a) Elevated sample detection limit due to difficult sample matrix.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-122		
Lab Sample ID:	JC44119-4	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
		Percent Solids:	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	257	5.0	mg/l	1	06/02/17 11:52	CD	SM2320 B-11
Iron, Ferrous [a]	< 0.20	0.20	mg/l	1	05/25/17 23:10	AT	SM3500FE B-11
Nitrogen, Nitrate [b]	< 0.11	0.11	mg/l	1	06/05/17 15:56	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	< 0.10	0.10	mg/l	1	06/05/17 15:56	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	05/25/17 23:32	AT	SM4500NO2 B-11
Sulfate	239	10	mg/l	1	06/02/17 16:05	PO	EPA 300/SW846 9056A

(a) Field analysis required. Received out of hold time and analyzed by request.
(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	RW-1S		
Lab Sample ID:	JC44119-5	**Date Sampled:**	05/24/17
Matrix:	AQ - Ground Water	**Date Received:**	05/25/17
Method:	SW846 8015C SW846 3510C	**Percent Solids:**	n/a
Project:	NRG PRGS, 1400 North Royal Street, Alexandria, VA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Y84317.D	1	06/01/17 19:51	HC	05/30/17	OP3292	G2Y3227
Run #2							

	Initial Volume	Final Volume
Run #1	300 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	36.1	0.083	0.064	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		22-140%
16416-32-3	Tetracosane-d50	67%		13-139%
438-22-2	5a-Androstane	91%		10-135%

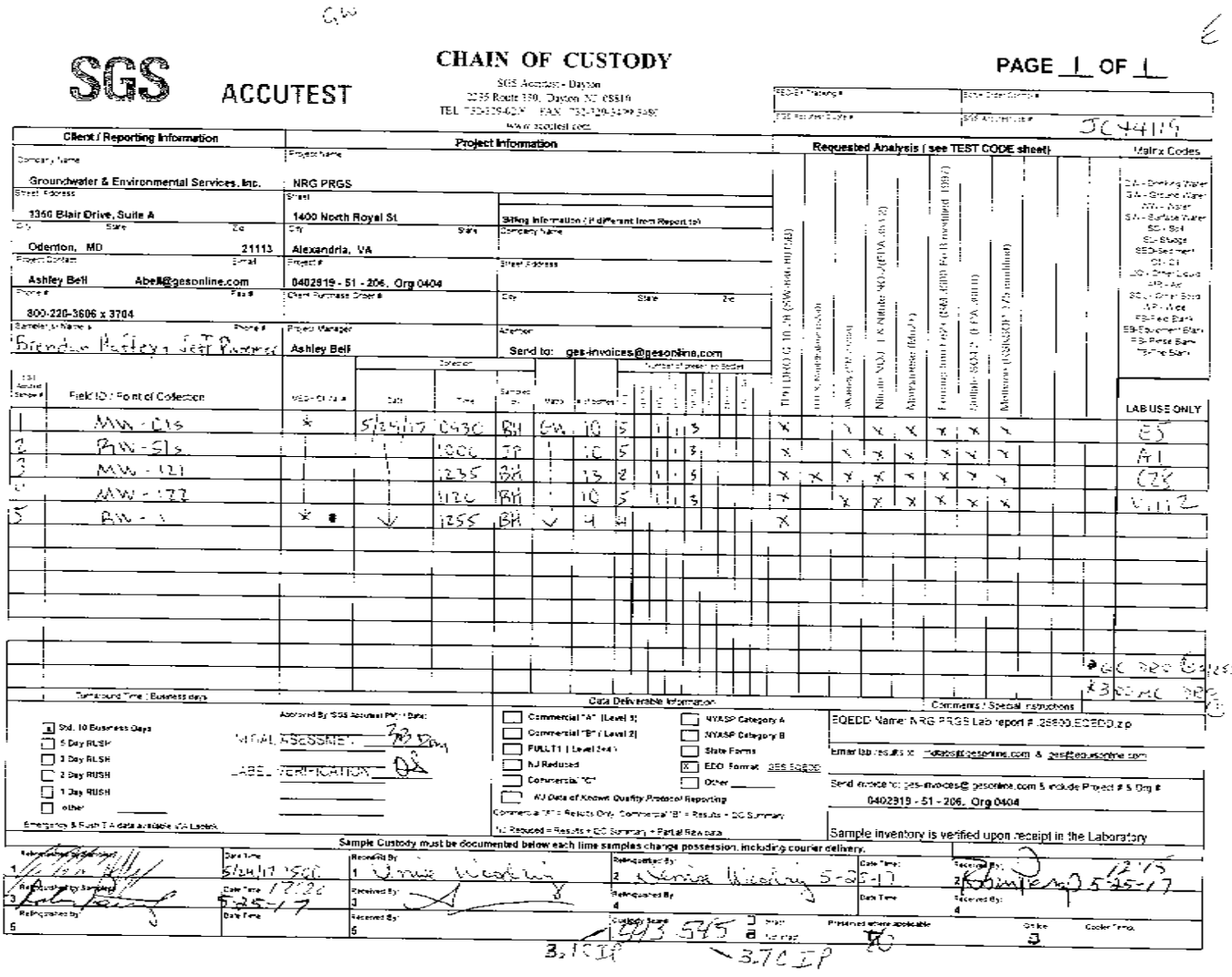
ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



SGS ACCUTEST

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton NJ 08810
TEL 732-329-0200 FAX 732-329-3499
www.accutest.com

PAGE 1 OF 1

JC44119

Client / Reporting Information

Company Name: Groundwater & Environmental Services, Inc.
Street Address: 1360 Blair Drive, Suite A
City: Odenton, State: MD, Zip: 21113
Project Contact: Ashley Bell, Email: AbellG@gesonline.com
Phone #: 800-220-3606 x 3704, Fax #:
Sampler's Name: Brendan Bailey, Jeff Powers, Phone #:

Project Information

Project Name: NRG PRGS
Street: 1400 North Royal St
City: Alexandria, State: VA
Project #: 0402819 - 51 - 206, Org 0404
Client Purchase Order #:
Project Manager: Ashley Bell

Billing Information (if different from Report to)

Company Name:
Street Address:
City, State, Zip:
Attention:
Send to: ges-invoices@gesonline.com

Requested Analysis (see TEST CODE sheet)

Matrix Codes

#	Field ID / Point of Collection	MS/MSD	Date	Time	Sampled by	Matrix	# of bottles	Preservation	Filtered	TPH DRO/GRO (SW-846 8015B)	1,4-Dioxane (SW-846 8270C)	Chromium, Total (SW-846 6010B)	Nitrate NO3 (EPA 353.2)	Manganese (SW-846 6010B)	Ferrous Iron (SM 3500-Fe B)	Sulfide (SM 4500-S2- D)	Methane (RSK-175)	LAB USE ONLY
1	MW-01S		5/24/17	0930	BH	GW	10	5	1	3	X		X	X	X	X	X	E5
2	MW-51S			1005	JP		10	5	1	3	X		X	X	X	X	X	A1
3	MW-12I			1235	BH		13	8	1	5	X	X	X	X	X	X	X	C2
4	MW-12Z			1120	BH		10	5	1	3	X		X	X	X	X	X	V112
5	BW-1			1255	BH		4	4			X							

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day RUSH
- [ ] other

Emergency & Rush T/A data available via Lablink

Approved By (SGS Accutest PM) / Date:
INITIAL ASSESMENT
LABEL VERIFICATION

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NJ Data of Known Quality Protocol Reporting

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [x] EDD Format: GES EQEDD
- [ ] Other

Comments / Special Instructions

EQEDD Name: NRG PRGS Lab report # 28600.EQEDD.zip

Email results to: mdata@gesonline.com & ges@eq.esonline.com

Send invoice to: ges-invoices@ gesonline.com & include Project # & Org #
0402819 - 51 - 206, Org 0404

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1	5/24/17 1500	1 Jamie Weeks	2 Jamie Weeks 5-25-17		2 [illegible] 5/25/17
3 Relinquished by	Date Time 5-25-17	3 Received By:	4 Relinquished By	Date Time	4 Received By:
5 Relinquished by	Date Time	5 Received By:	Custody Seals	Cooler Temp. 3.1C IR	Preservation where applicable	On Ice 3	Cooler Temp. 3.7C IP

SGS Accutest Sample Receipt Summary

Job Number: JC44119 **Client:** _____ **Project:** _____

Date / Time Received: 5/25/2017 5:20:00 PM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.1); Cooler 2: (3.7);

Cooler Temps (Corrected) °C: Cooler 1: (4.4); Cooler 2: (5.0);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	2		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

SM089-02
Rev. Date 12/1/16

JC44119: Chain of Custody
Page 2 of 2

ATTACHMENT D
BIO-STIMULATION PARAMETERS

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	02/24/2015	8.4	3.0	12.2	26.6	0.10	6.53	16.31	-172.6	724	-
MW-01S	05/11/2015	64.8	1.6	10.8	27.8	PRODUCT					
MW-01S	08/04/2015	11.4	8.9	7.2	9.2	PRODUCT					
MW-01S	03/14/2016	78.8	3.5	10.8	2.2	0.13	6.65	16.46	-104.0	860	-
MW-01S	04/21/2016	14.8	20.8	0.3	0.1	0.11	6.62	16.14	-57.6	970	-
MW-01S	05/23/2016	0.0	20.9	0.0	0.0	PRODUCT					
MW-01S	08/24/2016	1.8	-	-	-	0.76	6.61	16.50	-127.8	1,040	-
MW-01S	08/30/2016	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	12/08/2016	0.3	20.9	0.0	0.0	-	-	-	-	-	-
MW-01S	02/21/2017	1.2	20.9	0.9	0.0	0.12	6.70	17.36	-23.3	1,000	-
MW-01S	05/22/2017	1.7	20.9	0.0	0.0	4.25	6.85	16.69	-88.9	969.5	
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	02/24/2015	11.4	1.0	15.9	25.3	PRODUCT					
MW/RW-05	05/11/2015	90.2	5.8	11.1	19.6	PRODUCT					
MW/RW-05	08/04/2015	71.9	18.2	1.9	2.1	PRODUCT					
MW/RW-05	12/01/2015	12.8	2.6	15.1	26.6	PRODUCT					
MW/RW-05	03/14/2016	98.8	19.8	0.7	0.4	PRODUCT					
MW/RW-05	05/23/2016	0.2	20.8	0.0	0.0	8.46	3.48	16.03	385.0	3,150	-
MW/RW-05	08/24/2016	6.4	-	-	-	2.69	6.53	19.98	15.2	640	-
MW/RW-05	08/30/2016	47.4	21.6	0.1	10.0	-	-	-	-	-	-
MW/RW-05	11/28/2016	0.7	20.9	0.2	0.0		4.35	17.10	229.5	1,280	-
MW/RW-05	02/21/2017	1.3	20.9	0.0	0.0	11.84	5.34	13.18	60.0	950	-

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-05	05/22/2017	0.8	20.9	0.1	0.0	9.70	6.55	16.62	11.2	612.3	
MW-08S	10/13/2014	21.0	14.5	-	-	0.89	6.68	18.18	-123.6	1,488	-
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	02/24/2015	49.3	0.4	13.8	15.4	-	-	-	-	-	-
MW-08S	02/25/2015	-	-	-	-	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	02/24/2015	54.5	1.0	14.7	3.4	-	-	-	-	-	-
MW/RW-10S	05/11/2015	22.6	6.5	9.2	7.6	-	-	-	-	-	-
MW/RW-10S	08/04/2015	53.6	4.2	10.6	7.6	0.02	6.73	16.52	-90.0	1,440	-
MW/RW-10S	03/14/2016	134.2	19.4	1.2	0.4	0.14	6.59	15.38	-121.4	1,350	-
MW/RW-10S	04/21/2016	190.3	17.5	2.5	0.5	-	-	-	-	-	-
MW/RW-10S	05/23/2016	44.3	20.9	0.3	0.0	6.87	3.93	15.87	114.8	1,570	-
MW/RW-10S	08/24/2016	45.8	-	-	-	-	-	-	-	-	-
MW/RW-10S	08/30/2016	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	-

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-10S	02/21/2017	19.3	20.9	0.0	0.0	0.16	6.91	14.17	20.0	1,480	-
MW/RW-10S	05/22/2017	8.8	19.6	0.2	0.0	1.28	5.66	18.14	-4.9	1,667	-
MW-11	10/13/2014	5.4	19.0	-	-	2.30	6.27	18.16	56.2	324	-
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	02/24/2015	3.2	19.3	3.7	0.1	-	-	-	-	-	-
MW-11	02/25/2015	-	-	-	-	0.12	5.60	17.83	62.6	370	-
MW-11	05/11/2015	0.6	20.6	0.2	0.1	0.07	5.66	17.27	91.2	390	-
MW-11	08/04/2015	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	02/24/2015	188.0	14.4	0.9	0.4	-	-	-	-	-	-
MW/RW-14	02/25/2015	-	-	-	-	0.84	6.25	17.90	-98.6	460	-
MW/RW-14	05/11/2015	166.8	18.4	2.4	0.2	0.07	6.22	17.30	-69.6	420	-
MW/RW-14	08/04/2015	11.9	17.8	3.2	0.3	0.07	6.72	17.10	-69.4	1,100	-
MW/RW-14	03/14/2016	143.4	13.6	5.9	0.8	0.10	6.35	16.95	-84.7	490	-
MW/RW-14	04/21/2016	503.7	20.4	1.5	0.8	PRODUCT					
MW/RW-14	05/23/2016	132.0	20.8	0.3	0.2	PRODUCT					
MW/RW-14	08/24/2016	550.3	-	-	-	7.06	5.76	18.95	103.60	190	-
MW/RW-14	08/30/2016	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/RW-14	02/21/2017	61.3	20.9	0.0	0.0	11.32	6.02	15.48	41.6	190	-
MW/RW-14	05/22/2017	58.0	20.5	0.2	0.0	7.60	6.20	17.65	128.7	171	

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-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	-	-	-	-	-	-	-	-
MW-16S	02/24/2015	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	02/24/2015	0.0	20.9	0.3	0.1	2.62	5.92	17.57	101.8	1,010	-
MW-16	05/11/2015	-	-	-	-	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	02/24/2015	127.0	3.6	12.7	2.3	-	-	-	-	-	-
MW-25S	05/11/2015	51.8	6.5	8.3	6.4	-	-	-	-	-	-
MW-25S	08/04/2015	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	02/24/2015	121.0	15.4	5.5	1.3	-	-	-	-	-	-
MW/RW-25	05/11/2015	263.0	11.6	6.7	0.6	-	-	-	-	-	-
MW/RW-25	08/04/2015	118.4	15.8	3.7	0.4	-	-	-	-	-	-
MW/RW-25	12/01/2015	79.5	14.7	5.4	1.1	-	-	-	-	-	-
MW/RW-25	03/14/2016	6.2	10.9	8.9	3.2	-	-	-	-	-	-

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-25	04/21/2016	50.2	20.9	0.2	0.2	8.30	5.45	16.77	154.2	310	-
MW/RW-25	05/23/2016	23.1	20.7	0.1	0.0	6.45	5.54	17.26	142.1	340	-
MW/RW-25	08/24/2016	54.8	-	-	-	2.58	5.56	18.78	101.8	300	-
MW/RW-25	08/30/2016	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/RW-25	02/21/2017	19.4	20.9	0.0	0.0	11.89	5.96	15.66	48.6	330	-
MW/RW-25	05/22/2017	25.6	20.9	0.3	0.0	9.18	6.03	17.50	105.3	308	-
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	02/24/2015	21.1	2.3	12.2	13.6	-	-	-	-	-	-
MW-27	02/25/2015	-	-	-	-	0.06	6.61	15.83	-85.6	1,228	-
MW-27	05/11/2015	127.3	8.1	7.9	0.0	0.08	6.54	14.84	-110.0	1,300	-
MW-27	08/04/2015	28.5	1.3	13.2	16.6	0.03	6.68	15.93	-49.3	1,260	-
MW-27	12/01/2015	67.4	2.2	16.9	31.9	0.06	6.57	17.28	-51.5	1,190	-
MW-27	03/14/2016	70.8	1.0	15.5	0.6	0.08	6.54	14.77	-142.5	1,390	-
MW-27	04/21/2016	123.2	20.3	1.0	0.3	10.15	6.80	14.65	90.9	740	-
MW-27	05/23/2016	11.4	20.7	0.3	0.0	4.96	6.79	14.39	30.5	780	-
MW-27	08/24/2016	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-27	02/21/2017	1.6	20.9	0.0	0.0	10.14	7.37	16.19	22.0	790	-
MW-27	05/22/2017	6.6	20.9	0.3	0.0	1.35	6.10	16.00	88.1	643	-
MW/RW-31	10/10/2014	120.5	6.2	-	-	0.39	6.97	18.62	-119.7	899	-

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-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	02/24/2015	179.0	2.1	0.2	0.3	0.02	7.08	14.47	-164.3	927	-
MW/RW-31	05/11/2015	36.9	5.8	4.1	0.1	0.00	7.06	12.74	-129.3	1,010	-
MW/RW-31	08/04/2015	41.3	3.9	5.4	1.7	0.02	7.18	15.92	-13.7	1,010	-
MW/RW-31	05/23/2016	-	-	-	-	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	02/24/2015	0.0	20.6	0.1	0.1	2.35	5.51	15.51	88.7	648	-
MW-33	05/11/2015	21.4	19.0	1.0	0.0	0.47	5.69	14.03	88.0	720	-
MW-33	08/04/2015	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	02/24/2015	9.9	0.9	13.5	27.2	-	-	-	-	-	-
MW-51S	02/25/2015	-	-	-	-	0.08	6.70	16.75	-110.9	1,968	-
MW-51S	05/11/2015	40.8	1.2	12.1	28.3	0.02	6.74	16.21	-113.3	1,830	-

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-51S	08/04/2015	15.2	0.7	13.2	27.5	0.04	6.82	16.33	-96.0	1,440	-
MW-51S	03/14/2016	62.4	4.8	10.6	0.6	0.27	6.63	16.10	-129.3	2,250	-
MW-51S	04/21/2016	12.4	13.2	1.6	0.3	0.06	6.65	16.57	-79.9	1,760	-
MW-51S	05/23/2016	0.0	20.9	0.0	0.0	0.59	6.83	16.74	-96.6	2,290	-
MW-51S	08/24/2016	1.1	-	-	-	0.70	6.74	18.60	-113.7	2,390	-
MW-51S	08/30/2016	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	12/08/2016	0.2	20.9	0.0	0.0	-	-	-	-	-	-
MW-51S	02/21/2017	20.4	20.9	0.5	0.0	0.06	7.11	17.81	-23.3	1,870	-
MW-51S	05/22/2017	2.1	20.9	0.1	0.0	4.99	6.72	16.76	-40.0	2,207	-
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	02/24/2015	35.1	4.7	11.4	6.0	-	-	-	-	-	-
MW/RW-51	05/11/2015	100.3	1.2	12.6	5.1	-	-	-	-	-	-
MW/RW-51	08/04/2015	104.3	19.6	1.0	1.6	-	-	-	-	-	-
MW/RW-51	12/01/2015	18.5	17.8	2.4	1.2	-	-	-	-	-	-
MW/RW-51	03/14/2016	30.0	19.0	1.7	0.2	-	-	-	-	-	-
MW/RW-51	04/21/2016	59.9	20.9	0.3	0.2	5.13	6.43	16.38	46.7	740	-
MW/RW-51	05/23/2016	33.1	20.6	0.3	0.0	5.43	6.57	17.44	19.6	700	-
MW/RW-51	08/24/2016	47.0	-	-	-	2.22	6.69	18.70	-44.8	650	-
MW/RW-51	08/30/2016	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/RW-51	02/21/2017	26.4	20.9	0.7	0.0	9.58	6.53	15.86	47.6	790	-
MW/RW-51	05/22/2017	33.5	17.0	0.1	0.0	7.03	6.25	18.23	11.4	546	-
MW-52	10/10/2014	5.4	16.3	-	-	1.15	5.87	17.51	45.9	465	-

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-70	10/10/2014	0.3	16.2	-	-	2.12	5.76	17.30	98.7	843	-
MW-70	02/24/2015	0.0	17.8	1.3	0.2	1.02	5.53	16.71	-36.2	900	-
MW-70	05/11/2015	-	-	-	-	0.40	5.49	16.51	120.7	790	-
MW-70	08/04/2015	-	-	-	-	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	-	-	-	-	-	-	-	-
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	02/24/2015	30.6	5.4	11.5	1.6	0.09	6.54	16.13	-101.9	1,325	-
MW/RW-72S	05/11/2015	65.0	6.5	9.4	3.3	0.02	6.49	14.58	-110.6	1,340	-
MW/RW-72S	08/04/2015	8.0	8.2	6.9	0.4	0.11	6.71	16.20	-56.9	1,710	-
MW/RW-72S	03/14/2016	21.4	15.6	4.1	0.1	2.16	6.59	15.02	-101.1	1,960	-
MW/RW-72S	05/23/2016	0.0	20.9	0.2	0.0	NO MEASUREMENTS - BAILER CAUGHT IN WELL (RELEASED NEXT SAMPLE DAY)					
MW/RW-72S	08/24/2016	28.2	-	-	-	-	-	-	-	-	-
MW/RW-72S	08/30/2016	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-72S	02/21/2017	22.6	20.9	0.0	0.0	DRY					
MW/RW-72S	05/22/2017	4.4	20.2	0.7	0.0	2.96	4.79	15.87	291.50	2,088.9	-
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	-	-	-	-	-	-

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-72	10/22/2014	-	-	-	-	1.77	5.86	17.73	146.2	533	29,800
MW/RW-72	02/24/2015	13.3	14.2	6.9	0.1	0.58	5.48	17.43	82.8	877	-
MW/RW-72	05/11/2015	64.5	20.6	0.2	0.0	0.03	5.82	15.99	-21.9	1,080	-
MW/RW-72	08/04/2015	6.9	12.7	5.0	3.2	0.02	6.68	16.31	-57.3	1,880	-
MW/RW-72	03/14/2016	42.8	19.8	1.0	0.1	0.04	6.62	16.93	-121.3	1,970	-
MW/RW-72	04/21/2016	79.2	20.7	0.6	0.2	10.41	5.98	16.45	143.7	660	-
MW/RW-72	05/23/2016	0.0	20.9	0.0	0.0	7.92	6.42	16.99	112.8	710	-
MW/RW-72	08/24/2016	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	-
MW/RW-72	02/21/2017	57.9	20.9	0.0	0.0	9.05	5.61	16.21	55.6	850	-
MW/RW-72	05/22/2017	2.0	19.3	1.0	0.0	0.19	4.37	15.56	176.8	3,591	-
MW-100S	10/10/2014	6.5	6.8	-	-	0.40	5.62	18.36	11.8	915	-
MW-100S	02/24/2015	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	02/24/2015	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	02/24/2015	0.0	19.5	2.4	0.3	-	-	-	-	-	-
MW-103	02/25/2015	-	-	-	-	5.27	6.17	5.08	85.9	720	-
MW-103	05/11/2015	-	-	-	-	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	02/24/2015	0.0	15.1	1.1	0.3	-	-	-	-	-	-

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-104	02/25/2015	-	-	-	-	3.75	7.07	9.30	50.4	496	-
MW-104	05/11/2015	-	-	-	-	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	05/11/2015	-	-	-	-	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	02/24/2015	0.0	7.1	5.4	0.1	1.03	4.63	9.81	62.0	2,156	-
MW-106	05/11/2015	0.7	0.2	7.6	0.2	0.03	5.00	11.73	100.8	2,010	-
MW-106	08/04/2015	1.0	12.6	4.5	0.0	0.09	5.66	17.62	31.8	2,080	-
MW-106	03/14/2016	0.5	19.2	0.7	0.0	0.06	4.76	10.70	113.8	1,740	-
MW-106	04/21/2016	24.7	0.1	8.8	2.9	0.06	6.05	12.10	34.8	1,830	-
MW-106	05/23/2016	120.4	19.2	0.7	0.3	1.29	3.88	13.24	319.2	1,430	-
MW-106	08/24/2016	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-106	02/21/2017	35.8	20.9	0.0	0.0	4.40	4.08	12.30	68.0	1,480	-
MW-106	05/22/2017	8.3	20.7	0.6	0.0	3.23	3.27	14.92	383.1	2,334	-
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	02/24/2015	0.0	19.3	1.5	0.1	7.33	3.01	11.73	338.5	15,400	-
MW-107	05/11/2015	0.8	9.1	6.7	0.0	0.40	3.36	12.51	425.7	2,010	-

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-107	08/04/2015	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	02/24/2015	12.9	1.3	14.9	0.3	-	-	-	-	-	-
MW-109S	02/25/2015	-	-	-	-	1.35	6.19	13.93	36.7	607	-
MW-109S	05/11/2015	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	-
MW-109	02/24/2015	6.2	18.5	3.2	0.3	-	-	-	-	-	-
MW-109	02/25/2015	-	-	-	-	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	02/24/2015	12.7	4.3	12.8	0.3	-	-	-	-	-	-
MW-110S	02/25/2015	-	-	-	-	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	02/24/2015	5.8	19.4	1.0	0.4	-	-	-	-	-	-
MW-110	02/25/2015	-	-	-	-	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	02/24/2015	0.0	18.7	1.7	0.2	-	-	-	-	-	-
MW-111	02/25/2015	-	-	-	-	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	02/24/2015	16.8	6.6	9.7	0.3	-	-	-	-	-	-

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-112S	02/25/2015	-	-	-	-	3.92	5.41	13.06	207.5	347	-
MW-112S	05/11/2015	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	02/24/2015	12.3	19.2	1.3	0.3	-	-	-	-	-	-
MW-112	02/25/2015	-	-	-	-	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	02/24/2015	0.0	19.9	1.6	0.2	-	-	-	-	-	-
MW-113	02/25/2015	-	-	-	-	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	-	-	-	-	-	-
MW-114	10/21/2014	-	-	-	-	1.23	6.04	17.81	154.1	262	-
MW-114	02/24/2015	0.0	20.6	0.3	0.3	-	-	-	-	-	-
MW-114	02/25/2015	-	-	-	-	8.72	6.10	12.05	113.7	326	-
MW-114	05/11/2015	0.0	19.4	1.0	0.0	3.99	5.99	15.33	199.7	300	-
MW-121	08/04/2015	-	-	-	-	0.02	7.00	17.04	-13.1	890	-
MW-121	12/01/2015	14.8	14.8	3.6	15.2	0.04	6.72	17.44	-91.7	880	-
MW-121	03/14/2016	7.0	13.0	4.5	17.6	0.02	6.84	17.13	-159.0	850	-
MW-121	05/23/2016	251.2	17.6	4.4	0.7	1.54	6.77	17.35	-50.8	1,230	-
MW-121	08/24/2016	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-121	02/21/2017	238.3	15.5	3.5	0.0	0.32	6.72	18.03	-46.1	930	-
MW-121	05/22/2017	4.3	13.4	1.3	0.0	0.15	6.53	17.86	-105.7	1,291	-
MW-122	08/04/2015	-	-	-	-	0.06	7.04	16.73	-6.3	1,020	-
MW-122	12/01/2015	2.2	11.2	4.8	4.8	0.27	6.81	17.06	-86.8	1,130	-
MW-122	03/14/2016	5.7	16.2	2.7	1.1	0.11	7.04	16.50	-127.1	1,000	-
MW-122	05/23/2016	8.4	20.9	0.1	0.0	0.97	6.81	16.84	-77.1	1,090	-

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-122	08/24/2016	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-122	02/21/2017	3.5	20.6	1.7	0.0	0.84	7.00	17.62	-23.4	1,000	-
MW-122	05/22/2017	4.7	10.5	1.8	0.0	0.17	6.72	17.52	-61.3	988	-
MW/RW-123S	08/04/2015	-	-	-	-	2.66	12.52	16.99	-53.2	15,080	-
MW/RW-123S	12/01/2015	0.2	17.8	2.0	10.5	0.13	6.63	17.68	-46.3	810	-
MW/RW-123S	03/14/2016	73.7	16.8	2.9	3.1	0.86	6.50	15.31	-69.7	770	-
MW/RW-123S	04/21/2016	247.0	16.9	2.5	0.3	7.78	7.21	15.96	21.5	480	-
MW/RW-123S	05/23/2016	0.5	19.9	0.5	0.2	6.87	7.28	16.23	65.1	520	-
MW/RW-123S	08/24/2016	56.2	-	-	-	-	-	-	-	-	-
MW/RW-123S	08/30/2016	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	12/08/2016	54.4	20.9	0.3	0.0	-	-	-	-	-	-
MW/RW-123S	02/21/2017	19.4	20.9	0.0	0.0	0.64	7.34	12.50	40.2	550	-
MW/RW-123S	05/22/2017	0.1	20.9	0.0	0.0	4.08	6.97	16.72	-147.2	862	-
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	02/24/2015	178.0	3.2	4.2	0.2	-	-	-	-	-	-
RW-1	02/25/2015	-	-	-	-	0.03	6.76	17.88	-86.4	900	-
RW-1	12/01/2015	6.9	3.1	8.5	9.5	0.07	6.68	17.28	-57.6	760	-
RW-1	03/14/2016	0.1	15.3	3.8	0.0	0.16	6.50	17.06	-89.0	730	-

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	04/21/2016	197.4	20.7	0.3	0.2	4.04	6.08	16.83	134.6	240	-
RW-1	05/23/2016	0.0	20.9	0.0	0.0	2.36	6.35	17.17	56.0	230	-
RW-1	08/24/2016	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	12/08/2016	1.8	20.9	0.1	0.0	-	-	-	-	-	-
RW-1	02/21/2017	96.5	20.9	0.1	0.0	4.16	7.17	17.68	44.4	240	-
RW-1	05/22/2017	1.0	20.3	0.1	0.0	0.74	6.08	17.64	-17.3	211.8	-
RW-05S	08/04/2015	-	-	-	-	0.00	8.88	15.65	-469.6	1,960	-
RW-05S	12/01/2015	193.7	19.2	1.3	3.5	0.04	6.59	17.01	-89.7	1,560	-
RW-05S	03/14/2016	44.2	20.3	0.6	0.3	1.78	6.63	14.38	-98.0	1,260	-
RW-05S	04/21/2016	264.4	19.6	1.2	0.3	6.62	7.09	14.94	-27.4	500	-
RW-05S	05/23/2016	46.1	20.9	0.2	0.0	3.75	6.11	14.74	39.9	710	-
RW-05S	08/24/2016	48.8	-	-	-	-	-	-	-	-	-
RW-05S	08/30/2016	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-05S	02/21/2017	21.4	20.9	0.0	0.0	0.10	6.18	13.58	34.80	1,840	-
RW-05S	05/22/2017	0.0	20.9	0.1	0.0	1.70	2.71	15.46	422.80	4,568	-
RW-25S	08/04/2015	3.9	2.1	14.7	59.9	DRY					
RW-25S	12/01/2015	111.1	13.1	6.5	9.7	-	-	-	-	-	-
RW-25S	03/14/2016	55.5	18.8	1.4	0.5	-	-	-	-	-	-
RW-25S	04/21/2016	117.1	13.3	2.8	0.8	-	-	-	-	-	-
RW-25S	05/23/2016	72.1	20.9	0.3	0.0	DRY					
RW-25S	08/24/2016	66.5	-	-	-	-	-	-	-	-	-
RW-25S	08/30/2016	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	12/08/2016	37.3	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-25S	02/21/2017	17.6	20.9	0.0	0.0	DRY					
RW-25S	05/22/2017	1.8	20.9	0.2	0.0	2.30	6.46	16.30	-40.90	2,781.00	-
RW-28S	08/04/2015	48.5	13.8	1.4	0.3	0.17	6.22	16.59	-12.0	1,610	-
RW-28S	12/01/2015	31.8	17.6	1.6	0.1	0.24	6.50	17.31	-48.20	1,590	-
RW-28S	03/14/2016	68.8	17.6	2.1	0.2	2.25	6.75	12.79	-86.50	1,330	-
RW-28S	04/21/2016	9.6	20.8	0.1	0.1	8.47	7.12	15.50	92.30	1,450	-
RW-28S	05/23/2016	7.4	20.9	0.1	0.0	6.93	7.18	15.77	85.4	1,360	-
RW-28S	08/24/2016	13.6	-	-	-	-	-	-	-	-	-
RW-28S	08/30/2016	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	12/08/2016	0.4	20.9	0.0	0.0	-	-	-	-	-	-
RW-28S	02/21/2017	10.8	20.9	0.0	0.0	9.50	7.13	10.78	49.7	1,710	-
RW-28S	05/22/2017	7.6	20.8	0.2	0.0	0.33	6.21	14.56	-64.9	1,763	-
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	02/24/2015	16.5	12.8	0.3	0.2	0.40	6.74	14.15	-51.7	742	-
RW-30S	05/11/2015	49.6	13.4	2.9	0.0	0.81	6.7	13.04	7.0	680	-
RW-30S	08/04/2015	18.3	16.0	0.5	1.1	1.96	7.12	16.90	-93.7	780	-
RW-30S	12/01/2015	32.1	15.7	2.6	0.1	0.27	6.75	17.86	-68.4	1,040	-
RW-30S	03/14/2016	16.4	18.4	2.1	0.3	DRY					
RW-30S	04/21/2016	122.4	20.2	0.6	0.2	-	-	-	-	-	-
RW-30S	05/23/2016	36.4	20.6	0.4	0.0	DRY					
RW-30S	08/24/2016	86.5	-	-	-	-	-	-	-	-	-
RW-30S	08/30/2016	134.3	21.2	0.3	0.0	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-30S	11/28/2016	-	-	-	-	7.59	8.02	14.77	-22.00	875	-
RW-30S	12/08/2016	0.3	20.9	0.0	0.0	-	-	-	-	-	-
RW-30S	02/21/2017	13.4	20.9	0.0	0.0	8.68	7.90	11.57	50.5	1,140	-
RW-30S	05/22/2017	15.9	20.9	0.1	0.0	DRY					
RW-116S	08/04/2015	3.8	13.8	3.9	0.6	0.07	6.68	16.35	-77.4	1,710	-
RW-116S	12/01/2015	50.7	18.8	0.6	1.2	0.06	6.62	16.97	-78.7	1,350	-
RW-116S	03/14/2016	25.1	20.2	0.8	0.2	0.65	6.59	14.49	-92.3	1,150	-
RW-116S	04/21/2016	157.5	17.9	1.6	0.3	6.24	6.71	14.11	18.4	700	-
RW-116S	05/23/2016	29.5	20.9	0.1	0.0	7.89	6.56	14.51	55.8	620	-
RW-116S	08/24/2016	45.7	-	-	-	6.47	3.15	19.33	427.7	1,560	-
RW-116S	08/30/2016	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	12/08/2016	12.2	20.9	0.1	0.0	-	-	-	-	-	-
RW-116S	02/21/2017	8.5	20.9	0.0	0.0	4.30	6.57	12.84	31.8	680	-
RW-116S	05/22/2017	0.0	20.7	0.4	0.0	4.62	6.95	15.24	-6.3	603	-
RW-117S	08/04/2015	3.2	20.5	0.0	0.0	0.27	6.92	16.29	-76.5	1,740	-
RW-117S	12/01/2015	422.3	17.3	3.1	2.1	0.06	6.64	17.06	-100.6	1,420	-
RW-117S	03/14/2016	84.0	19.6	1.2	0.2	DRY					
RW-117S	04/21/2016	74.5	20.8	0.1	0.2	DRY					
RW-117S	05/23/2016	54.0	20.9	0.2	0.0	DRY					
RW-117S	08/24/2016	52.0	-	-	-	DRY					
RW-117S	08/30/2016	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	12/08/2016	16.9	20.9	0.1	0.0	-	-	-	-	-	-
RW-117S	02/21/2017	9.1	20.9	0.0	0.0	DRY					
RW-117S	05/22/2017	0.0	20.3	0.3	0.0	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-118S	08/04/2015	19.6	6.4	7.3	0.1	0.14	6.78	16.32	-59.8	1,350	-
RW-119S	08/04/2015	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	02/24/2015	0.0	19.9	0.3	0.3	-	-	-	-	-	-
TW-02	02/25/2015	-	-	-	-	1.56	6.24	8.82	96.2	991	-
TW-02	05/11/2015	-	-	-	-	1.62	6.60	21.64	-49.5	1,230	-
TW-02	08/05/2015	-	-	-	-	0.27	6.82	18.28	-68.9	792	31.9
TW-02	08/24/2016	-	-	-	-	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	02/24/2015	0.0	3.1	10.4	0.3	-	-	-	-	-	-
TW-03	02/25/2015	-	-	-	-	0.75	6.21	8.92	64.8	609	-
TW-03	05/11/2015	0.0	8.5	10.2	0.0	2.03	5.77	20.61	110.5	480	-
TW-03	08/04/2015	0.0	7.8	14.3	0.0	0.26	5.40	21.76	80.4	602	70.6
TW-03	03/14/2016	0.0	9.2	8.0	0.1	-	-	-	-	-	-
TW-03	05/23/2016	WELL OPEN & BEING SAMPLED UPON ARRIVAL & NEVER RECEIVED LOW-FLOW SAMPLING DATA									
TW-03	08/24/2016	164.4	-	-	-	-	-	-	-	-	-
TW-03	08/25/2016	-	-	-	-	0.24	5.33	22.34	92.4	762	5.87
TW-03	08/30/2016	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-03	02/21/2017	0.4	19.4	0.9	0.0	3.39	5.84	12.94	48.5	470	-
TW-03	05/22/2017	1.0	14.5	1.3	0.0						
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	02/24/2015	1.2	15.7	4.4	0.3	-	-	-	-	-	-

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	02/25/2015	-	-	-	-	2.36	5.86	6.96	65.1	1,862	-
TW-04	05/11/2015	-	-	-	-	1.92	6.19	19.77	-22.7	1,390	-
TW-04	08/04/2015	-	-	-	-	0.16	6.23	19.04	-35.7	1,203	210
TW-04	08/24/2016	-	-	-	-	0.75	6.17	20.20	-23.4	1,534	6.96
TW-04	08/30/2016	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	02/24/2015	16.0	11.1	8.6	0.7	-	-	-	-	-	-
TW-05	02/25/2015	-	-	-	-	0.85	6.19	7.42	37.1	992	-
TW-05	05/11/2015	22.1	4.6	12.9	0.0	0.15	5.60	18.61	54.0	800	-
TW-05	08/04/2015	8.2	7.2	13.3	0.0	0.38	5.86	19.61	21.5	901	87.0
TW-05	03/14/2016	0.3	12.3	6.5	0.0	-	-	-	-	-	-
TW-05	05/23/2016	31.7	20.8	0.2	0.0	DID NOT RECEIVE LOW-FLOW SAMPLING DATA					
TW-05	08/25/2016	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-05	02/21/2017	3.1	20.9	0.0	0.0	2.75	6.17	12.44	27.0	1,040	-
TW-05	05/22/2017	0.8	20.9	0.2	0.1						
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	02/24/2015	0.7	5.0	8.9	0.3	-	-	-	-	-	-

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	02/25/2015	-	-	-	-	0.84	6.75	7.20	-32.9	882	-
TW-06	05/11/2015	-	-	-	-	1.33	6.49	18.61	-69.1	710	-
TW-06	08/04/2015	-	-	-	-	0.22	6.17	19.07	-36.8	975	30.5
TW-06	12/01/2015	4.7	1.1	14.5	0.0	-	-	-	-	-	-
TW-06	03/14/2016	0.0	11.6	4.1	0.1	-	-	-	-	-	-
TW-06	04/21/2016	0.6	10.3	5.6	0.2	1.45	6.32	16.91	-24.4	620	-
TW-06	05/23/2016	0.0	20.8	0.1	0.0	-	-	-	-	-	-
TW-06	05/24/2016	-	-	-	-	0.08	6.62	15.82	-17.3	921	-
TW-06	08/24/2016	0.5	16.8	2.4	0.0	-	-	-	-	-	-
TW-06	08/25/2016	-	-	-	-	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-06	02/21/2017	1.5	19.8	0.6	0.0	1.69	6.48	12.81	18.0	1,320	-
TW-06	05/22/2017	1.7	19.4	0.3	0.0						
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	02/24/2015	0.0	14.4	7.2	0.3	-	-	-	-	-	-
TW-07	02/25/2015	-	-	-	-	1.53	5.07	7.15	244.8	640	-
TW-07	05/11/2015	0.0	9.0	11.0	0.0	2.02	4.70	20.64	202.2	660	-
TW-07	08/04/2015	0.0	7.2	16.9	0.0	0.20	4.39	22.88	150.0	629	65.8
TW-07	03/14/2016	0.0	18.8	2.3	0.1	-	-	-	-	-	-
TW-07	05/23/2016	2.3	19.9	0.7	0.0	-	-	-	-	-	-
TW-07	05/24/2016	-	-	-	-	0.90	4.85	15.88	206.9	653	-
TW-07	08/24/2016	1.6	-	-	-	-	-	-	-	-	-

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	08/25/2016	-	-	-	-	6.99	4.58	24.52	223.9	722	45
TW-07	08/30/2016	98.2	21.7	0.0	0.0	-	-	-	-	-	-
TW-07	11/28/2016	0.5	20.9	1.0	0.0	-	-	-	-	-	-
TW-07	11/30/2016	-	-	-	-	6.66	4.60	15.79	172.6	524	3.92
TW-07	02/21/2017	0.2	20.0	0.5	0.0	2.27	4.90	11.29	56.2	580	-
TW-07	05/22/2017	0.8	18.9	0.9	0.0						
TW-12S	10/10/2014	0.8	18.5	-	-	-	-	-	-	-	-
TW-12S	02/24/2015	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	02/24/2015	0.0	20.3	0.3	0.3	-	-	-	-	-	-
TW-14	02/25/2015	-	-	-	-	3.80	7.18	3.96	-6.1	465	-
TW-14	05/11/2015	-	-	-	-	1.16	7.14	22.53	-114.6	760	-
TW-14	08/06/2015	-	-	-	-	0.73	6.88	24.20	-107.8	828	-
TW-14	08/24/2016	-	-	-	-	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.
AU = Attenuation Unit. The light is measured at 180 degrees to incident beam, versus and unlike NTU, which is measured at 90 degrees to incident beam.

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-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-01S	2/22/2017	500	312	<0.040	0.030 J	138	33.5	8.49
MW-01S	5/24/2017	528	174	<0.11	<0.010	221	17.4	7.79
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/RW-14	2/22/2017	6	40.3	1.50	<0.015	9.1	0.20	0.190
MW/RW-14	5/22/2017	1.5	37.7	1.80	<0.010	8.8	<0.20	0.044
MW-27	12/3/2015	2,500	112	<0.040	<0.015	424	33.4	10.9
MW-27	3/15/2016		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-27	2/22/2017	<3.0	322	<0.040	<0.015	15.4	0.53	5.51
MW-27	5/23/2017	1.4	352	<0.11	<0.010	42.0	0.61	8.12
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

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	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
MW-51S	11/29/2016	4,800	138	<0.040	0.039 J	617	6.5	2.11
MW-51S	2/21/2017	2,400	60	<0.40	<0.15	477	2.4	4.08
MW-51S	5/24/2017	20.4	1,160	0.12	<0.010	52.5	80.8	14.1
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-72S	5/23/2017	14	2,320	<0.11	<0.010	<5.0	238	56.6
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/RW-72	2/22/2017	<3.0	372	0.42	<0.015	2.8 J	0.017 J	1.88
MW/RW-72	5/23/2017	0.90	1,450	<0.11	<0.010	<5.0	0.58	34.9
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-106	2/22/2017	4.3 J	1,310	<0.040	<0.015	<1.7	3.4	1.78
MW-106	5/23/2017	11.3	1,690	0.38	0.013	<5.0	5.2	4.28

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-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
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-121	2/22/2017	490	297	<0.040	0.045 J	262	15.9	12.5
MW-121	5/24/2017	452	163	<0.11	<0.010	288	3.2	7.06
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
MW-122	2/22/2017	350	190	<0.040	<0.015	291	2.8	4.87
MW-122	5/24/2017	6.2	239	<0.11	<0.010	257	<0.20	3.71
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-03	2/22/2017	75	255	<0.040	0.047 J	10.5	37.9	5.46
TW-03	5/23/2017	87	402	<0.11	<0.010	7.7	41.7	6.08
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-05	2/22/2017	2,100	631	<0.040	0.084	73.4	151	10.9
TW-05	5/22/2017	583	860	<0.11	<0.010	16.6	63.8	10.2

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)
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-06	2/22/2017	630	794	<0.040	0.059	<1.7	121	7.46
TW-06	5/23/2017	372	535	<0.11	<0.010	<5	97.9	4.44
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

ATTACHMENT E

ALLOWABLE GROUNDWATER CONCENTRATION CALCULATION

ATTACHMENT E

ALLOWABLE GROUNDWATER CONCENTRATION CALCULATION

Stream Protection: Allowable Groundwater Concentration at Point of Discharge

1.0 Governing Equation

The allowable groundwater concentration at the point of discharge that is protective of surface water was calculated for each of the chemicals of concern (COCs) detected above the groundwater screening levels. The calculations were performed using the following equation obtained from District Department of Environment's (DDOE) technical guidance document, *District of Columbia Risk-Based Corrective Action Technical Guidance* (*updated June 2011*).

$$C_{gw} = \frac{C_{sw}(Q_{gw}+Q_{sw})}{Q_{gw}} - C_{su}\left(\frac{Q_{sw}}{Q_{gw}}\right) \qquad \text{(Eq. 1)}$$

Where:

- C_{gw} = Calculated allowable concentration in groundwater at the point of discharge into the stream; (mg/L)
- C_{sw} = Allowable concentration at the downstream edge of the stream's mixing zone, (i.e., the applicable surface water quality criteria); (mg/L) (*Stipulated by applicable 21 DCMR Chapter 11 regulatory guidelines*)
- Q_{gw} = Volumetric groundwater discharge flux (ft^3/day) (*Calculated from Site specific parameters*)
- Q_{sw} = Stream flow upstream of the point of groundwater discharge (ft^3/day) (*a conservative estimate of 10 cfs or 864,000 ft^3/day*)[1]
- C_{su} = Specific parameter concentration upstream of the groundwater plume discharge (mg/L) (*Assumed to be 0.0 mg/L*)

With exception to Q_{gw}, the remaining three variables (i.e., C_{sw}, Q_{sw}, C_{su}) are defined from existing references to calculate C_{gw}. Derivation of the groundwater discharge volumetric flux is defined below. An example calculation is provided in Attachment 1; a tabulated summary of results is presented in the attached Table 1.

2.0 Derivation of Volumetric Groundwater Discharge, Q_{gw}

The volumetric groundwater discharge flux is calculated from Site specific parameters determined during Site characterization and assessment efforts. This flux is given by the following equation as per District Department of Environment's (DDOE) technical guidance document, *District of Columbia Risk-Based Corrective Action Technical Guidance* (*updated June 2011*).

[1] http://waterdata.usgs.gov/md/nwis/current?type=flow, Station Number 0653000 Cameron Run at Alexandria, VA

$$Q_{gw} = \left((Z + \sqrt{\alpha_z X_s}) \times \ (Y + 2\sqrt{\alpha_y X_s})\right) \times U_{gw} \qquad \text{(Eq. 2a)}$$

Where:

Y	=	Groundwater source dimension perpendicular to groundwater flow direction (ft) *(a conservative estimate of 112.5 ft - refer to Figure 1)*
Z	=	Groundwater source thickness (ft) *(a conservative estimate of 21.5 ft - refer to Figure 1)*
α_y	=	Lateral dispersivity (ft) *(a conservative assumption of 0 ft)*
α_z	=	Vertical dispersivity (ft) *(a conservative assumption of 0 ft)*
X_s	=	Distance from downgradient edge of the groundwater source to the stream (ft) *(not relevant in the conservative scenario)*
U_{gw}	=	Darcy velocity (ft/day)

The lateral and vertical dispersions are indirectly captured in the conservative estimates of Y and Z respectively. In Equation 2a, U_{gw} may also be calculated using Site-specific hydrogeologic properties as shown below.

$$U_{gw} = K\, i \qquad \text{(Eq. 2b)}$$

Where:

K	=	Hydraulic conductivity (ft/day) *(derived from bail down tests performed at the Site; average K estimated from bail down test data equals 1.22 ft/day[2], which is in the range for coarse to fine sand[3].*
i	=	Hydraulic gradient (ft/ft) *(a conservative estimate of 0.04 (ft/ft) – refer to Figure 1)*

Combine Equations 2a and 2b into the following and solve for Q_{gw} :

$$Q_{gw} = K\, i\, Y\, Z \qquad \text{(Eq. 2c)}$$

To calculate the final allowable groundwater concentration per COC (C_{gw}) substitute Q_{gw} into Equation 1 with the other known variables.

[2] Geosyntec Consultants and Groundwater & Environmental Services Inc., December 2014, "Corrective Action Plan – Part II."
[3] Driscoll, F.G., 1986, "Groundwater and Wells" Johnson Filtration Systems, Inc. 2nd edition, pp. 75.

Attachment E
Calculation of Allowable Groundwater Discharge Concentration to Surface Water

Equation 1 $$C_{gw} = \frac{C_{sw}\,(Q_{gw} + Q_{sw})}{Q_{gw}} - C_{su}\,\frac{(Q_{sw})}{(Q_{gw})}$$

Impacted groundwater discharge into the stream (cu.ft/day)	Q_{gw}	43
Stream flow upstream of the point of groundwater discharge (stream flow rate) (cu.ft/day)	Q_{sw}	864,000
Applicable stream water quality criteria (mg/L)	C_{sw}	
COC concentration upstream of the groundwater plume discharge (mg/L)	C_{su}	
Allowable concentration in groundwater at POD into the stream (mg/L)	C_{gw}	

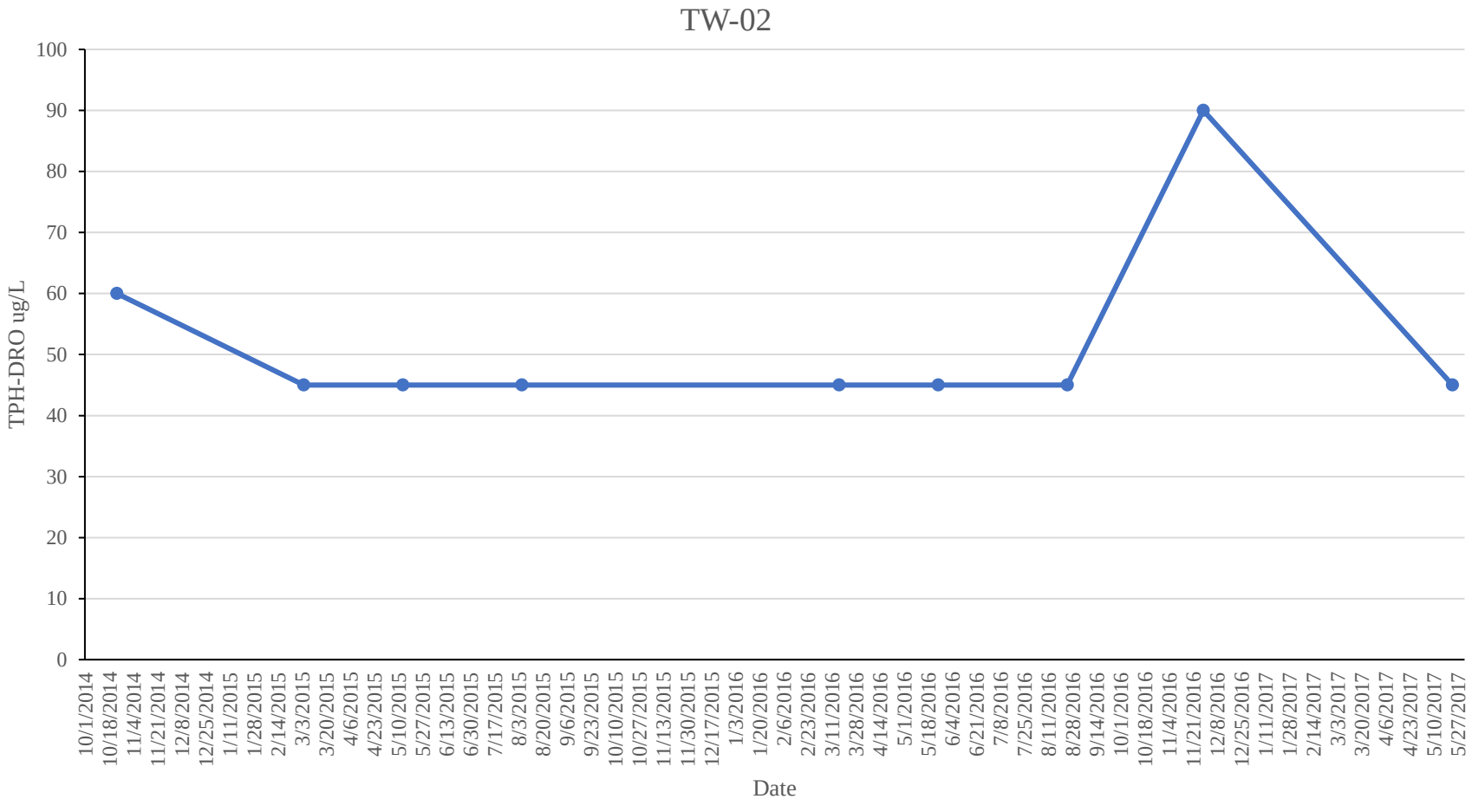
Analyte	**Unit**	**C_{sw}**	**C_{su}**	**C_{gw} (Max Measured Concentration)**	**C_{gw} (Calculated as per eq. 1)**
Iron	µg/L	34,500	0	43,000.0	**696,032,889**

Equation 2 $$Q_{gw} = U_{gw}\,A = K\,i\,Z\,Y$$

Darcy velocity (ft/d)	U_{gw}
Hydraulic gradient (ft/ft)	i
Groudwater source thinckness (ft)	Z
Groundwater source dimension perpendicular to GW flow direction (ft)	Y
Crossectional Area of groundwater flow (sq.ft)	A
Range of hydraulic conductivities estimated from baildown testing at site (ft/d)	K
Calculated groundwater discharge as per eq. 2 (cu.ft/day)	Q_{gw}

Z	21.5		Values for Z, Y, i, and A were determined using dimensions presented in **Figure E.1**			
Y	112.5					
i	0.04					
A	2,419					
K	**I**	**II**	**III**	**IV**	**V**	**Average**
	0.253	0.253	2.16	2.16	1.28	**1.2212**
Q_{gw}	24	24	64	64	38	**43**

ATTACHMENT F
TPH-DRO TIME SERIES CHARTS



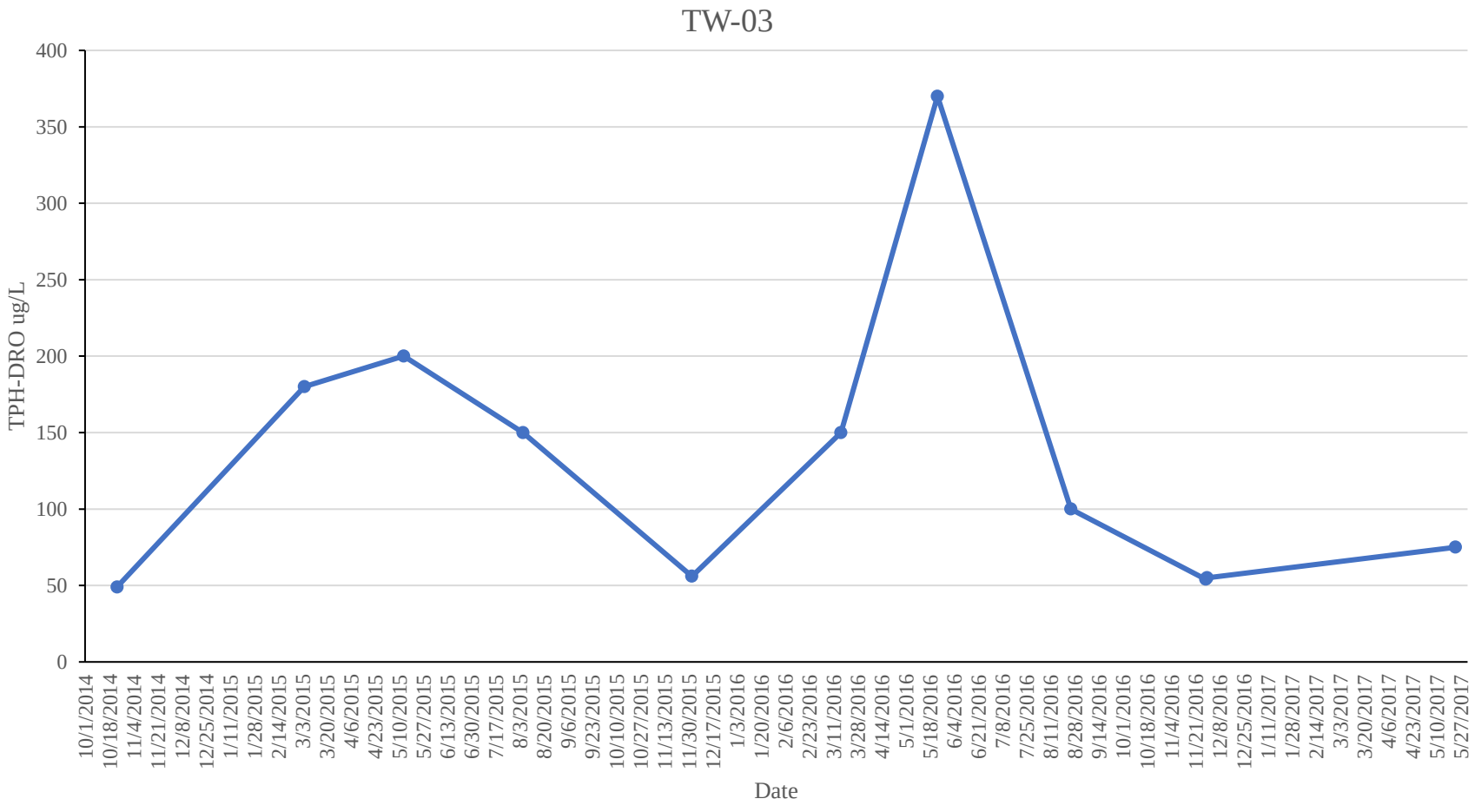
Notes:

TPH-DRO Concentration
Potomac River Generating Station
Alexandria, Virginia

Geosyntec consultants

Columbia, Maryland | July 2017

Figure 1



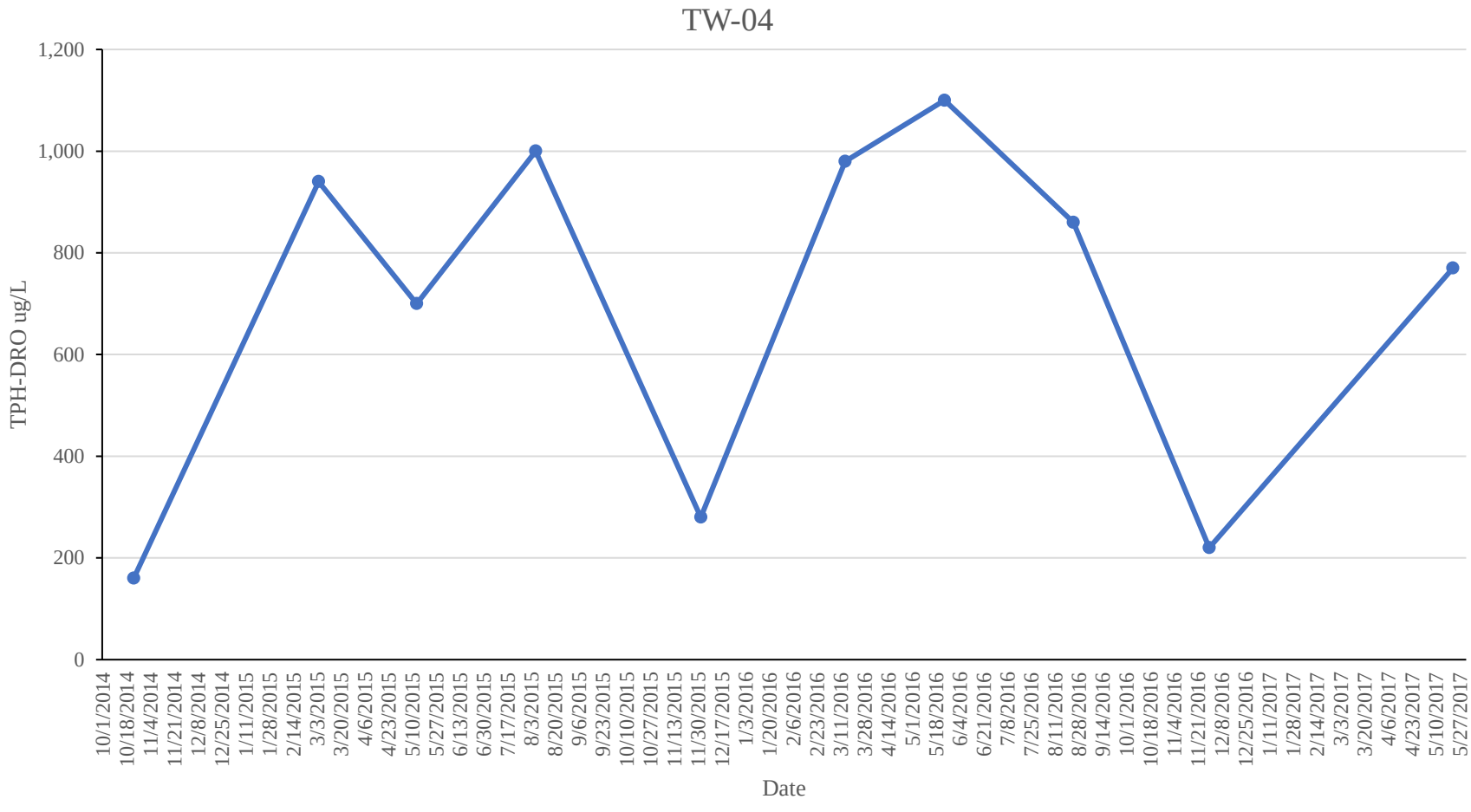
Notes:

TPH-DRO Concentration
Potomac River Generating Station
Alexandria, Virginia

Geosyntec consultants

Columbia, Maryland | July 2017

Figure 1



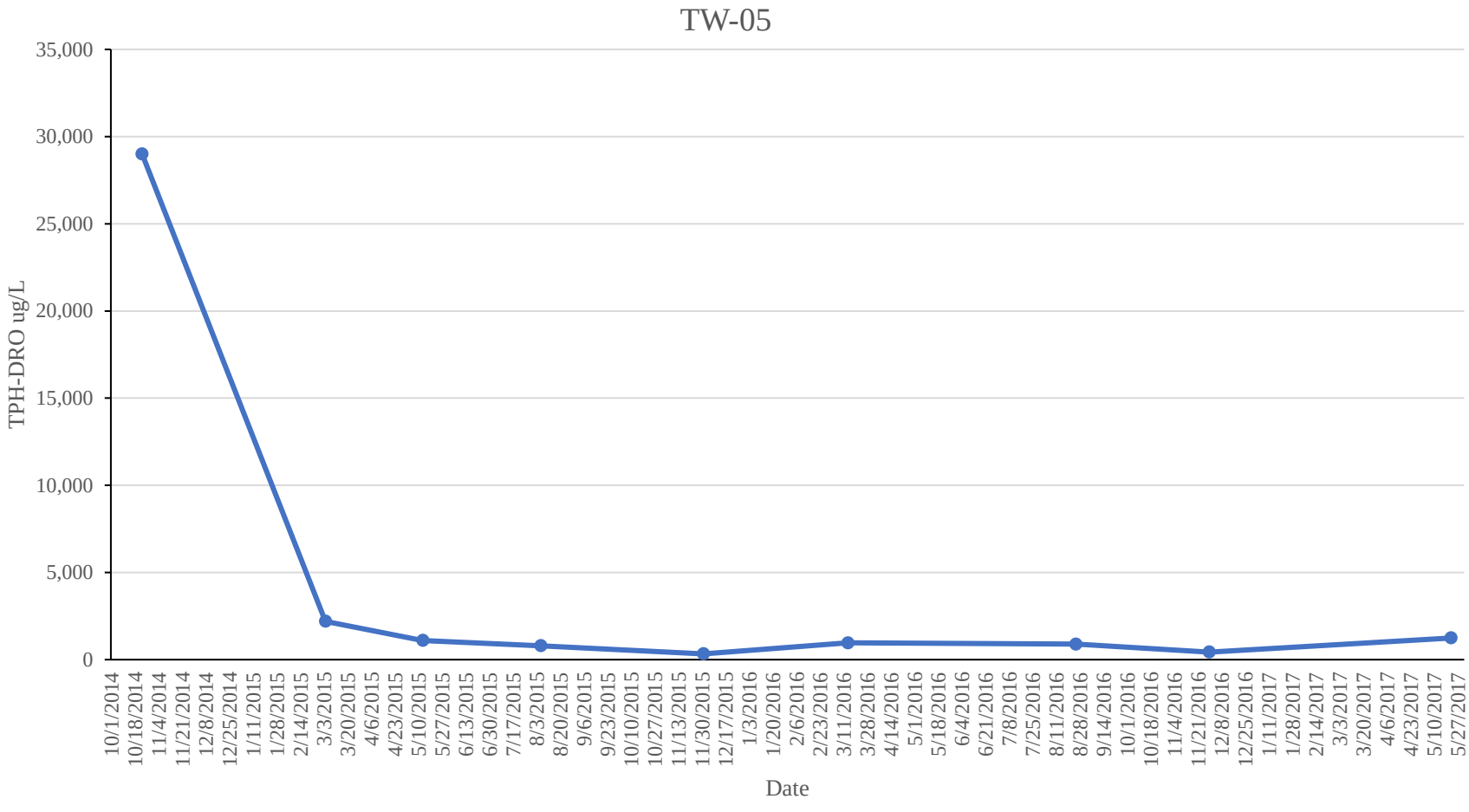
Notes:

TPH-DRO Concentration
Potomac River Generating Station
Alexandria, Virginia

Geosyntec consultants

Columbia, Maryland | July 2017

Figure 1



Notes:

TPH-DRO Concentration
Potomac River Generating Station
Alexandria, Virginia

Geosyntec consultants

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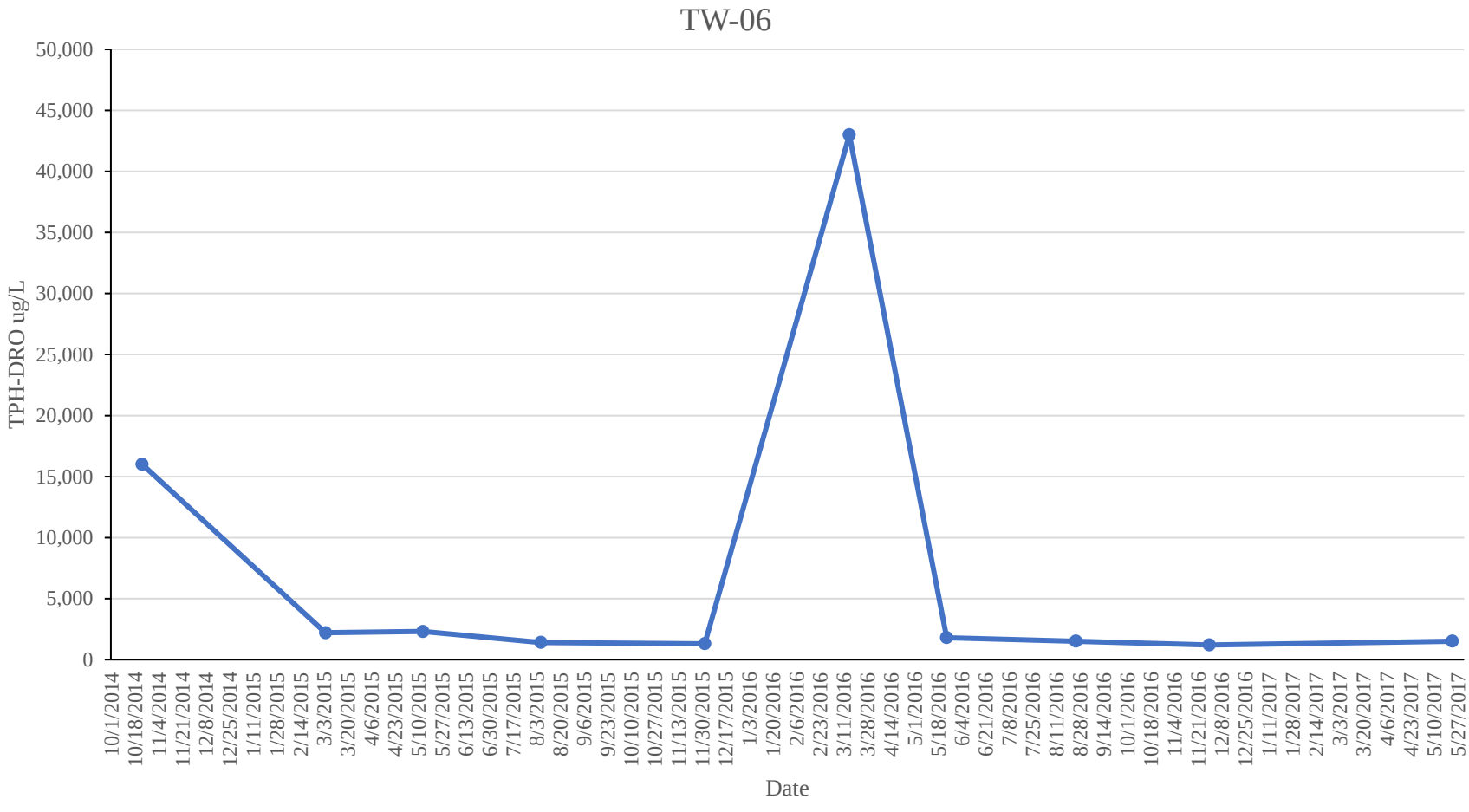
Figure 1



Notes:

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Alexandria, Virginia

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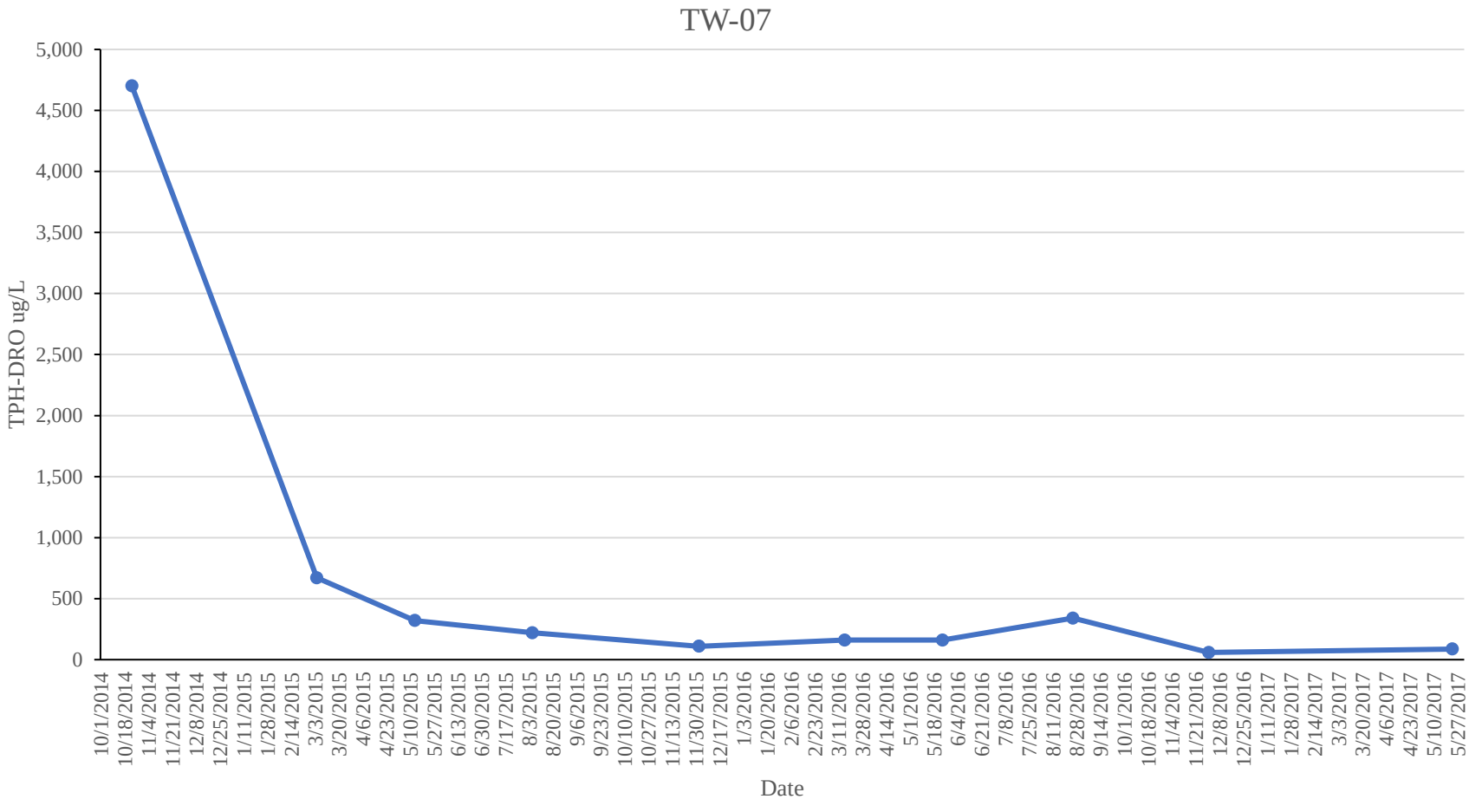
Figure 1



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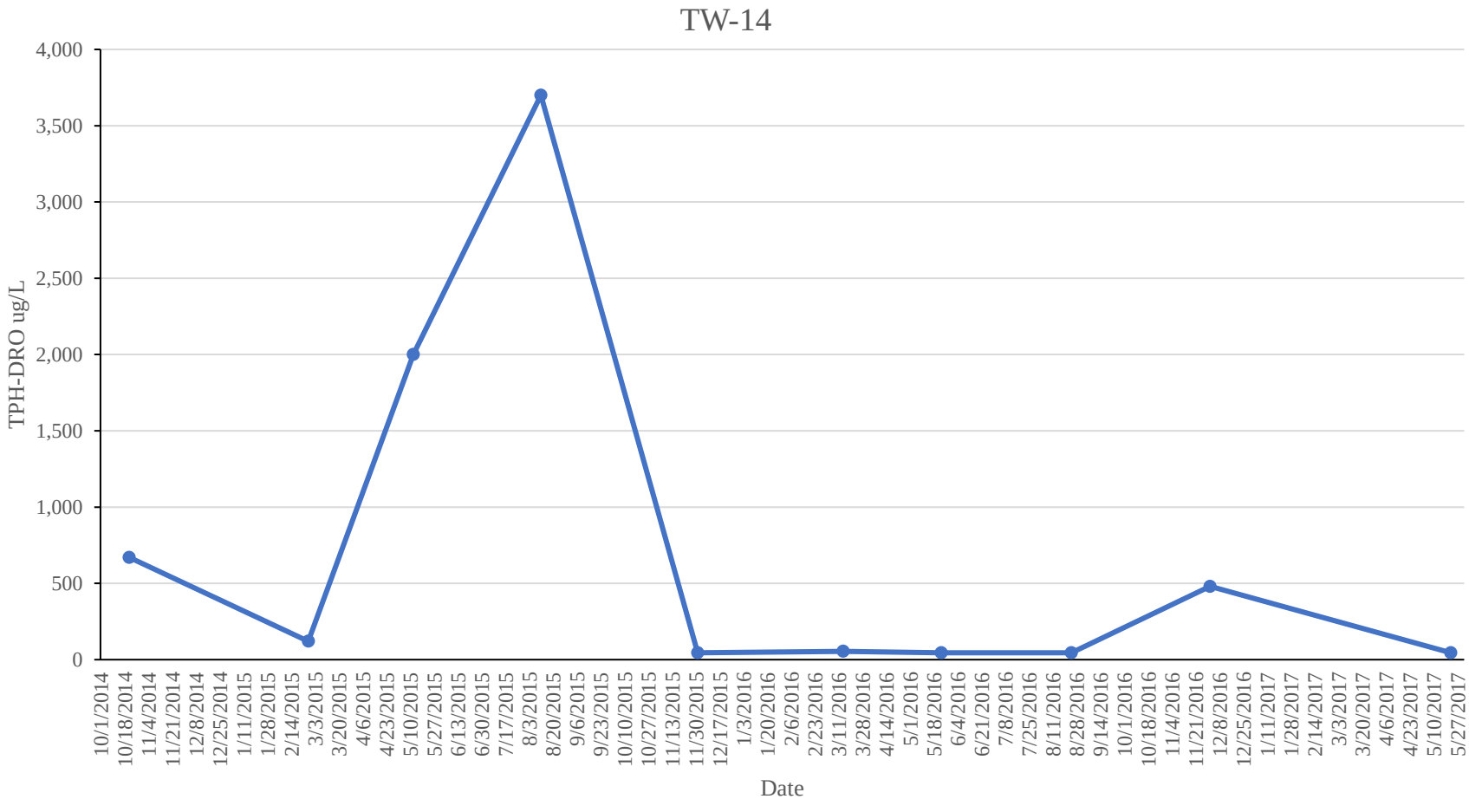

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