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**Groundwater Monitoring Report
March 2018 (Q1) Quarterly Sampling Event**

Glen Cove Former MGP Site

City of Glen Cove

Nassau County, New York

Order on Consent Index No. D1-001-98-11

Site No. 1-30-089P

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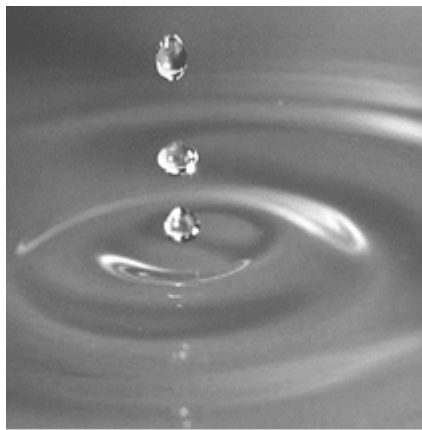
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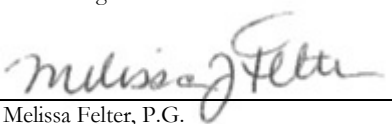

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1. Introduction and Site Background

This report presents the March 2018 quarterly groundwater monitoring results for the Glen Cove Former Manufactured Gas Plant (MGP) site located in Glen Cove, Nassau County, New York (the Site). The frequency of groundwater monitoring was modified to semiannual following the fourth quarter 2010 groundwater monitoring event, with New York State Department of Environmental Conservation (NYSDEC) approval and quarterly sampling resumed in the first quarter of 2018 following the completion of the Phase II field work. This report has been prepared in accordance with the requirements of Section 6 of *DER-10* (Division of Environmental Remediation) *Technical Guidance for Site Investigation and Remediation*; the Order on Consent, Index No. D1-0001-98-11 signed by National Grid Corporation (National Grid) and the NYSDEC, and the *Remedial Action Plan (RAP)*, *Glen Cove Former Manufactured Gas Plant, Town of Oyster Bay, Nassau County, New York* prepared by GEI Consultants, Inc. (GEI), dated March 2010.

The NYSDEC-approved remedy for the Site included two remedial phases. Phase I includes the excavation of shallow soil and offsite disposal of accessible MGP-related source material (or “hot spots”). Phase II includes groundwater treatment using oxygen injection technology and the installation of recovery wells to remove mobile non-aqueous phase liquids (NAPL). The current property owner, Long Island Power Authority (LIPA), conducted a facility upgrade which included the installation of underground utilities, foundation, pilings, and associated electric equipment. LIPA’s upgrade to this substation was in response to the growing energy demand in the Glen Cove region.

Phase I excavation activities were performed from May 5 through 21, 2011 and included the removal and proper disposal of 3,411 tons of material at depths of up to approximately 17 feet below ground surface (ft bgs). An oxygen injection pilot test was conducted on April 27, 2011. Additional excavation of surface soils along the property boundary in the southwest portion of the Site was conducted from July 15 through 18, 2011. Approximately 240 tons of polycyclic aromatic hydrocarbon (PAH)-impacted material was removed to a depth of approximately 2 feet and transported offsite for proper disposal. A summary report of the soil removal was submitted to the NYSDEC on September 12, 2011. Phase II remediation began in February 2012 with the installation of one recovery well. Two additional recovery wells were installed in May 2012. The oxygen injection treatment system was installed between June 2017 and August 2017. The system was tested from September 17, 2017-November 28, 2017 and several mechanical and power related issues were resolved. The oxygen system began continuous operation on November 28, 2017.

As part of the long-term monitoring of the remedy, National Grid began quarterly monitoring of the groundwater at the Site in Q1 2010. Groundwater sampling was suspended in 2015 during LIPA substation construction. Monitoring wells which were abandoned to accommodate the LIPA substation construction project were reinstalled following the completion of the majority of the LIPA construction work. Quarterly sampling resumed in the first quarter of 2018 following the completion of the Phase II field work.

1.1 Site Description and History

The Glen Cove Former MGP Site is an inverted L-shaped parcel of approximately 1.9 acres presently occupied by an active electrical substation which services Glen Cove and the surrounding area. Topographically, the Site is a flat depression bounded by approximately 20-foot high slopes to the north, south, and east.

To the west, the property slopes downward approximately 20 feet to Glen Cove Creek, a channelized stream, which eventually discharges to Hempstead Bay. Glen Cove Creek flows in a general south to north direction along the western site property line. The creek exits the property boundary at the northwest corner of the Site through a box culvert that directs flow beneath the Long Island Rail Road (LIRR) tracks. The creek eventually discharges to Mosquito Cove (Hempstead Bay). A site location map is included as **Figure 1**.

MGP operations at the Site began in 1905 under the ownership of the Sea Cliff and Glen Cove Gas Company. Facility structures were located on the northern section of the property, and consisted of a 60,000-cubic foot gas holder, boilers, purifiers, retorts, coal shed, engine room, tar and oil tank, and approximately eight gas tanks. In 1929, the Long Island Lighting Company (LILCO) terminated MGP operations and demolished the facility's surface structures sometime thereafter. Site activities following 1929 consisted solely of natural gas storage in a Hortonsphere gas holder through the 1950s. The Hortonsphere was decommissioned and demolished between 1959 and 1966. A major electrical substation was constructed on the Site in the mid-1960s. In 1998, Brooklyn Union Gas (BUG) and LILCO merged to form the KeySpan Corporation, at which time the ownership of the substation was transferred to LIPA. In 2007, National Grid acquired responsibility for the former MGP property through the acquisition of KeySpan. Currently, the Site is owned by LIPA and operated by PSEG-LI under contract to LIPA.

1.2 Geology

The shallow stratigraphy beneath the Site is comprised of heterogeneous fill and glacial outwash of Upper Pleistocene deposits. The stratigraphic sequence consists of outwash deposits overlain by heterogeneous fill. The heterogeneous fill across most of the Site ranges in thickness from approximately 10 feet throughout most of the former site to 30 feet in the offsite area just north of the Site boundary. The fill composition is primarily poorly sorted

and highly permeable sand and gravel with varying percentages of gravel, silt, clay, and coal fragments. The glacial outwash deposits consist mainly of inter-bedded layers of permeable sand and gravel, and less permeable silty sand. The top of the glacial unit was encountered from approximately 10 ft bgs on the central portion of the Site to approximately 32 ft bgs from the top of the railroad embankment. The ground surface elevation of the Site is significantly lower than the top of the railroad embankment, and when factoring in the ground surface elevation difference, the glacial deposits are encountered at similar elevations across the Site and beneath the railroad embankment.

Glen Cove Creek originally occupied a natural stream channel just to the west of the Site before it was channelized along its present route. The natural creek bed is indicated by the alluvial deposits consisting of reworked glacial outwash present along the western boundary of the Site. The alluvial deposits associated with the original stream channel consist of isolated sand and gravelly sand layers encountered in the upper 5 to 10 feet of soils at the western site boundary.

1.3 Hydrogeology

The groundwater beneath the Site is considered part of the regional Upper Glacial aquifer. Regionally, this aquifer is not used for drinking water. Drinking water for Long Island is provided by the deeper Magothy aquifer.

Groundwater elevations of site wells were similar for the shallow and intermediate wells ranging from about 45 to 52 feet above mean sea level (ft-msl). Groundwater elevation contours indicate a consistent groundwater flow direction to the west for the shallow zone wells and, historically, the west-northwest for the intermediate zone.

The water table surface of the shallow groundwater follows the general topography of the Site sloping from east to west. The hydraulic gradient is relatively steep (0.02 feet/foot) in the eastern and western portions of the Site and less steep (0.005 feet/foot) in the western portion of the Site. A uniform hydraulic gradient of about 0.005 feet/foot is present in the intermediate groundwater across the Site. The estimated groundwater seepage flow velocities, assuming an effective porosity of 20 percent, were calculated for the shallow and intermediate aquifer zones as 0.05 and 0.001 feet per day (ft/day), respectively. The potential vertical hydraulic gradients at the well clusters at the Site are less than 0.25 feet.

1.4 Historical Groundwater Monitoring Event Summary

Three groundwater monitoring events were conducted at the Site prior to 2010. Groundwater sample collection and analysis, and NAPL/groundwater measurements were conducted in 2004, 2005, and 2008. Quarterly groundwater sampling was conducted during 2010. Semiannual sampling began in July 2011 after completion of the Phase I remedial

excavation. Semiannual sampling was suspended during 2015 during the LIPA substation construction project. The baseline sampling was completed in the first quarter 2016 and quarterly sampling resumed in the first quarter of 2018 following the completion of the Phase II field work.

2. Glen Cove Site and Adjacent Off-site Areas

2.1 Groundwater Monitoring Event Summary

Event Dates: March 28-30, 2018

Site Phase: Quarterly groundwater monitoring

Location: The location of the Glen Cove Former MGP Site is depicted in **Figure 1**.

2.2 Monitoring Program

2.2.1 Number of Wells

A total of 26 monitoring wells, piezometers, and recovery wells are currently located at or adjacent to the Site. Three recovery wells GCRW-01, GCRW-02 and GCRW-03 were installed in Q1 and Q2 2012. Piezometer PZ-03 is believed to have been destroyed in 2007. Monitoring wells GCMW-09S, GCMW-09I, GCMW-10S, GCMW-10I, GCMW-14S and GCMW-14I, as well as piezometers PZ-01A, PZ-02A, PZ-04 and PZ-07 were either destroyed or abandoned as part of the remedial activities conducted between March and May 2011. GCMW-09S-R, GCMW-09I-R, GCMW-10S-R, GCMW-10I-R, GCMW-14S-R, and GCMW-14I-R were reinstalled in summer 2014. Monitoring well GCMW-13S was destroyed during PSEG-LI construction activities in 2015. Monitoring well, recovery well and piezometer locations are depicted in **Figure 2**.

2.2.2 Hydrological Data

Groundwater levels were measured at 26 monitoring wells and piezometers on March 28, 29, and 30, 2018. Depth to groundwater and calculated groundwater elevations are provided in **Table 1**. Shallow and intermediate groundwater contours and elevations for the March 2018 sampling event are depicted in **Figures 3** and **4**, respectively. The groundwater flow direction was generally to the west towards Glen Cove Creek in the shallow zone (**Figure 3**). The groundwater flow direction in the intermediate zone is to the southwest (**Figure 4**). Previous water level measurements and analytical sampling results have indicated that the flow in this zone has been to the west historically. The depth to water and water table elevation data for the shallow and intermediate portions of the aquifer are presented below.

Shallow Groundwater Zone

Table 2a – Shallow Groundwater Measurements

Well ID	Depth to Water (feet)	Water Elevation (feet above MSL)
PZ-05	8.75	49.40
PZ-06	5.03	51.91
GCMW-08S	27.91	48.46
GCMW-09S-R	10.03	44.56
GCMW-10S-R	9.47	44.41
GCMW-11S	8.12	46.24
GCMW-12S	12.47	49.18
GCMW-14S-R	9.83	44.67
GCMW-15	6.18	NA*
GCMW-16	5.40	NA*
GCMW-20S	9.98	44.26
GCMW-21I	30.00	46.68
GCRW-01	10.11	44.67
GCRW-02	10.61	43.56
GCRW-03	10.41	44.11

*GCMW-15 and 16 have not been re-surveyed with the on-site well, so were not used to generate contours shown in **Figure 3**.

The average calculated shallow hydraulic gradient was 0.033 feet/foot.

Intermediate/Deep Groundwater Zone

Table 2b – Intermediate/Deep Groundwater Measurements

Well ID	Depth to Water (feet)	Water Elevation (feet above MSL)
GCMW-09I-R	9.63	44.77
GCMW-10I-R	9.32	44.68
GCMW-11I	8.57	46.88
GCMW-13I	10.21	45.30
GCMW-14I-R	9.82	44.58
GCMW-21I2	31.25	45.22
GCMW-22I	10.11	44.57

The calculated intermediate hydraulic gradient was 0.028 feet/foot.

2.2.3 NAPL Gauging

All of the existing wells in the groundwater monitoring network and the three newly installed recovery wells are gauged for the presence of non-aqueous phase liquid (NAPL) during each groundwater monitoring event. The three new recovery wells GCRW-01, GCRW-02 and GCRW-03, were installed in Q1 (GCRW-01) and Q2 2012, in the vicinity of the substation (**Figure 2**). The three new recovery wells are located downgradient of the substation (**Figure 2**). Recovery well GCRW-01 was installed in Q1 2012 and recovery wells GCRW-02 and GCRW-03 were installed in Q2 2012.

Historically, dense non-aqueous phase liquid (DNAPL) has only been present in MW-13S. DNAPL was measured in MW-13S at a thickness of 0.74 feet in June 2005 and had been steadily decreasing to the thickness of 0.3 feet, in July 2011, prior to the increasing in the two 2012 sampling events. The measured thicknesses during these events were 0.65 and 0.70 feet, respectively. The DNAPL thickness in MW-13S decreased during the January 2013 event to 0.40 feet and decreased again in the July 2013 event to 0.30 feet. Monitoring well GCMW-13S was destroyed during PSEG-LI construction activities in 2015. NAPL was not observed in any of the 26 existing wells during the February 2016 or March 2018 gauging events.

2.2.4 Groundwater Analytical Sampling

The 2018 groundwater sampling event was performed on March 28-30, and included all accessible wells on the quarterly sampling list. If monitoring wells with measurable thicknesses of NAPL were identified during a sampling event they would not be sampled. A total of 26 monitoring wells, recovery wells and piezometers were sampled for the following analytes:

- Volatile organic compounds (VOCs) and methyl tert-butyl ether (MTBE) via Environmental Protection Agency (EPA) Method 8260.
- Semi-volatile organic compounds (SVOCs) via EPA Method 8270.

In addition, 13 monitoring wells were also sampled for the following analytes:

- PCBs,
- TAL Metals, and
- Total Cyanide.

2.2.5 Analytical Results

The discussion below focuses on the analytical results from the current sampling event. A summary of historical groundwater monitoring results are included in **Figures 5 and 6**.

VOCs

VOC detections above the New York State Technical and Operational Guidance Series (TOGS), 1.1.1 – Ambient Water Quality Standards and Guidance Values (AWQS) for Class GA groundwater were generally limited to benzene, toluene, ethylbenzene and xylene (BTEX). Exceptions include detections of MTBE (18 micrograms per liter [µg/L]) and vinyl chloride (2.1 µg/L), in wells GCMW-11I and GCMW-15, respectively. Total BTEX concentrations ranged from less than method detection limits (ND) in 15 of the 26 wells sampled, to 456.2 µg/L in GCMW-11S. Individual BTEX compound concentrations above the AWQS were identified in six of the eleven wells with detections. The detections and exceedances of the AWQS are summarized in table below.

Table 2c – BTEX Detections Above NYS AWQS

Sample Name:	GCMW-08S	GCMW-09SR	GCMW-11S	GCMW-11I	GCMW-13I	GCRW-01
Sample Date:	3/29/18	3/30/18	3/28/18	3/28/18	3/28/18	3/28/18
Benzene	0.15 J	4.5	29	73	1.8 J	0.57 J
Toluene	13	3.9	7.2	5	5 U	2.2
Ethylbenzene	1 U	53	240	12	110	7.6
Xylene, total	2 U	41	180	49	150	13
Total BTEX	13.15	102.4	456.2	139	261.8	23.37

Notes:

BTEX - benzene, toluene, ethylbenzene, and xylenes (a subset of VOCs)

NYS AWQS - New York State Ambient Water Quality Standards and Guidance Values for GA groundwater

Bolding indicates a detected concentration

Shading and bolding indicates that the detected concentration is above the NYS AWQS

J - estimated value

U - not detected to the reporting limit

BTEX detections in the 2018 monitoring event generally remained relatively stable with the majority being at, or near, detections levels. Excluding GCMW-08S, where the BTEX concentration has increased from not detected to 13.15 µg/L, all the wells with detections above the AWQS remained within their respective historical concentration range, being similar to, or below their respective historical average.

SVOCs

SVOC detections above the AWQS were limited to PAHs. Total PAH concentrations ranged from ND in 13 of the 26 wells sampled to 3,181 µg/L in GCMW-13I. Historically, the highest detection of total PAHs has been detected in monitoring well GCMW-13S. GCMW-13S was destroyed and not sampled. The detections in wells with concentrations above the AWQS are summarized in the table on the following page.

Table 2d – PAH Detections Above AWQS

Sample Name	GCMW-08S	GCMW-09SR	GCMW-11S	GCMW-11I	GCMW-13I
Sample Date	3/29/18	3/29/18	3/28/18	3/28/18	3/28/18
Acenaphthene	9.4 J	140	170	11 J	200 U
Acenaphthylene	4.9 J	50 U	5.3 J	9.7 J	200 U
Anthracene	7.4 J	9.3 J	6.9 J	50 U	200 U
Benzo(a)anthracene	1.4 J	5 U	1 U	5 U	20 U
Benzo(b)fluoranthene	2 U	10 U	2 U	10 U	40 U
Benzo(k)fluoranthene	1 U	5 U	1 U	5 U	20 U
Benzo(g,h,i)perylene	10 U	50 U	10 U	50 U	200 U
Benzo(a)pyrene	0.59 J	5 U	1 U	5 U	20 U
Chrysene	1.1 J	10 U	2 U	10 U	40 U
Dibenz(a,h)anthracene	1 U	5 U	1 U	5 UJ	20 UJ
Fluoranthene	8.2 J	5.2 J	3.3 J	50 U	200 U
Fluorene	10	66	50	50 U	200 U
Indeno(1,2,3-cd)pyrene	2 U	10 U	2 U	10 UJ	40 UJ
2-Methylnaphthalene	10 U	48 J	69	50 U	81 J
Naphthalene	10 U	610	14	560	3100
Phenanthrene	41	68	49	50 U	200 U
Pyrene	12	50 U	4.2 J	50 U	200 U
Total PAHs	95.99	946.5	371.7	580.7	3181

Sample Name	GCMW-20S	GCMW-20I	GCMW-21I	GCRW-01
Sample Date	3/30/18	3/30/18	3/29/18	3/28/18
Acenaphthene	6.4 J	10 U	36 J	33
Acenaphthylene	1.7 J	3.6 J	2.5 J	1.9 J
Anthracene	2.1 J	10 U	5.8 J	10 U
Benzo(a)anthracene	3.5 J	0.98 J	2.7 J	1 U
Benzo(b)fluoranthene	4	2 U	1.5 J	2 U
Benzo(k)fluoranthene	1.6	1 U	1 U	1 U
Benzo(g,h,i)perylene	4 J	10 U	10 U	10 U
Benzo(a)pyrene	3.3	0.96 J	1.8	1 U
Chrysene	4.2	2 U	2.1	2 U
Dibenz(a,h)anthracene	1 U	1 U	1 U	1 U
Fluoranthene	5.7 J	10 U	7.6 J	3.4 J
Fluorene	0.93 J	10 U	11	10 U
Indeno(1,2,3-cd)pyrene	3	2 U	2 U	2 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U
Naphthalene	10 U	1.3 J	10 U	10 U

Sample Name	GCMW-20S	GCMW-20I	GCMW-21I	GCRW-01
Phenanthrene	2.7 J	0.7 J	33	10 U
Pyrene	7 J	2 J	13	5.5 J
Total PAHs	50.13	9.54	117	43.8

Notes:

PAHs - polycyclic aromatic hydrocarbons

NYS AWQS - New York State Ambient Water Quality Standards and Guidance Values for GA groundwater

Bolding indicates a detected concentration

Shading and bolding indicates that the detected concentration is above the NYS AWQS

J - estimated value

U - not detected to the reporting limit

Concentrations of total PAHs were detected above the AWQS in 13 of the 26 wells. Total PAH concentrations in most of the monitoring wells and recovery wells remained within their respective historical concentration ranges. Total PAH concentrations in wells with detections above the AWQS decreased significantly in GCMW-11S, GCMW-09S-R, GCMW-09I-R, GCRW-01, GCRW-02, and GCRW-03 since sampling began, but increased in GCMW-13I.

The laboratory analytical results for the March 2018 sampling event are included in **Table 2**.

Other

PCBs, total metals, and total cyanide were analyzed in 13 of the 26 wells analyzed during the sampling event. Analyzing samples for PCBs, total metals, and total cyanide began during the baseline groundwater sampling event in 2016.

PCB concentrations were not detected in any sample. This is consistent with the 2016 baseline groundwater sampling results.

Total metals concentrations were detected above the AWQS for arsenic, barium, beryllium, chromium, copper, iron, lead, magnesium, manganese, mercury, nickel, sodium, and zinc, some of which are naturally occurring. Arsenic, barium, beryllium, copper, magnesium, mercury, nickel, and zinc were not detected at concentrations above the AWQSs during the baseline groundwater sampling event in 2016. Concentrations of these metals exceeded AWQS in three samples where turbidity was over 800 NTUs at the time of sample collection, GCMW-20S, GCMW-21I, and GCMW-21I2.

Total cyanide was detected in five samples at concentrations below the AWQS.

Concentrations of total cyanide were detected below the reporting limit at three sample locations. Total cyanide concentrations have increased from 47.9 µg/L to 133 µg/L and ND to 71.7 µg/L at GCMW-09SR and GCMW-20S, respectively.

2.3 Oxygen Injection System

2.3.1 Program Scope and Purpose

An oxygen injection system is currently in operation at the site. The oxygen injection system generates and injects oxygen into the subsurface to create an aerobic environment which facilitates the bioremediation of the dissolved MGP-related contaminants.

2.3.2 Current Monitoring Activities

The oxygen injection system monitoring activities are summarized in **Table 2e**, below.

Table 2e – Summary of Oxygen Injection System OM&M Activity

Current Activity	Description	Frequency
Oxygen System Monitoring	Routine inspection and maintenance of the system components, monitoring of operational parameters, and recording/adjusting of the injection flow rates.	Monthly
	Monitoring of oxygen purity.	Monthly
Performance Monitoring of Oxygen Injection Systems	Monitoring of total BTEX and total PAH concentrations in groundwater at upgradient and downgradient wells.	Quarterly
	Monitoring of groundwater chemistry parameters.	Quarterly

2.3.3 Oxygen Injection System OM&M Data

2.3.3.1 System Operational Data

The oxygen injection system experienced some downtime during the past quarter. The oxygen system shut down mainly due to local power outages or pressure related shutdowns. This system was operational approximately 95% of the quarter.

2.4 System Performance and Groundwater Trends

These data are the first data collected following the startup of the groundwater treatment system. The data are considered the baseline operational data for the system. Future reports will include a comparisons of system operation and groundwater impacts to identify trends that can be used to optimize the system operation.

Tables

Table 1. Water Level Measurements and Calculated Groundwater Elevations
Groundwater Monitoring Report - Q1 2018
Glen Cove Former MGP Site
Glen Cove, New York

Well ID	Date of Measurement	Screened Interval (feet bgs)	Time of Measurement	Well Casing Diameter (inches)	Well Elevation ¹ (feet above MSL)	Depth to Water (feet)	Water Elevation (feet above MSL)
PZ-05	3/28/2018	8-18	1030	2	58.15	8.75	49.40
PZ-06	3/28/2018	7-17	830	2	56.94	5.03	51.91
GCMW-08S	3/29/2018	26-36	1005	2	76.37	27.91	48.46
GCMW-08D	3/29/2018	60-70	950	2	76.59	29.80	46.79
GCMW-09S-R	3/28/2018	6-16	1100	2	54.59	10.03	44.56
GCMW-09I-R	3/29/2018	24-34	1545	2	54.40	9.63	44.77
GCMW-10S-R	3/28/2018	15-20	910	2	53.88	9.47	44.41
GCMW-10I-R	3/28/2018	20-30	1035	2	54.00	9.32	44.68
GCMW-11S	3/28/2018	8-20	1215	2	54.36	8.12	46.24
GCMW-11I	3/28/2018	23-28	1130	2	55.45	8.57	46.88
GCMW-12S	3/28/2018	14-24	925	2	61.65	12.47	49.18
GCMW-13S ²	NM	12-22	NM	2	NM	NM	NM
GCMW-13I	3/28/2018	25-30	1140	2	55.51	10.21	45.30
GCMW-14S-R	3/28/2018	10-20	1510	2	54.5	9.83	44.67
GCMW-14I-R	3/28/2018	23-28	1420	2	54.40	9.82	44.58
GCMW-15	3/29/2018	6-16	745	2	NM ³	6.18	NM ³
GCMW-16	3/29/2018	6-16	750	2	NM ³	5.40	NM ³
GCMW-20S	3/30/2018	9-19	1200	2	54.24	9.98	44.26
GCMW-20I	3/30/2018	35-45	1245	2	53.95	9.41	44.54
GCMW-20I2	3/30/2018	45-55	745	2	54.52	9.22	45.30
GCMW-21I	3/29/2018	25-35	1130	2	76.68	30.00	46.68
GCMW-21I2	3/29/2018	45-55	1100	2	76.47	31.25	45.22
GCMW-22I	3/29/2018	27-37	1445	2	54.68	10.11	44.57
GCMW-22I2	3/29/2018	47-57	1325	2	54.56	9.70	44.86
GCRW-01	3/28/2018	15-25	1310	2	54.78	10.11	44.67
GCRW-02	3/30/2018	15-25	1005	2	54.17	10.61	43.56
GCRW-03	3/30/2018	15-25	1105	2	54.52	10.41	44.11

Notes:

bgs - Below Ground Surface

¹ - Well Elevations Obtained From 2015 Site Survey

² - Destroyed

³ - Well elevation has not been surveyed

MSL - Mean Sea Level

NM - Not Measured

Table 2. Groundwater Analysis Results
Groundwater Monitoring Report - Q1 2018
Glen Cove Former MGP Site
Glen Cove, New York

Location Name Sample Name Sample Date Parent Sample		GCMW-08S GCMW-08S 3/29/2018	GCMW-08D GCMW-08D 3/29/2018	GCMW-09SR GCMW-09S-R 3/30/2018	GCMW-09IR GCMW-09IR 3/29/2018	GCMW-10SR GCMW-10S-R 3/28/2018	GCMW-10IR GCMW-10I-R 3/28/2018	GCMW-10IR DUP-01 3/28/2018 GCMW-10I-R	GCMW-11S GCMW-11S 3/28/2018	GCMW-11I GCMW-11I 3/28/2018	GCMW-12S GCMW-12S 3/28/2018	GCMW-12S DUP-02 Q1 3/28/2018 GCMW-12S	GCMW-13I GCMW-13I 3/28/2018	GCMW-14SR GCMW-14S-R 3/28/2018	GCMW-14IR GCMW-14I-R 3/28/2018
Analyte	NYS AWQS														
BTEX															
Benzene	1	0.15 J	1 U	4.5	1 U	1 U	1 U	1 U	29	73	1 U	1 U	1.8 J	1 U	1 U
Toluene	5	13	1 U	3.9	1 U	1 U	1 U	1 U	7.2	5	1 U	1 U	5 U	1 U	1 U
Ethylbenzene	5	1 U	1 U	53	1 U	1 U	1 U	1 U	240	12	1 U	1 U	110	1 U	1 U
Total Xylene	5	2 U	2 U	41	2 U	2 U	2 U	2 U	180	49	2 U	2 U	150	2 U	2 U
Total BTEX (ND=0)	NE	13.15	ND	102.4	ND	ND	ND	ND	456.2	139	ND	ND	261.8	ND	ND
Other VOCs															
Acetone	50*	5 U	6.7 U	5 U	5 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	25 U	5 U	5 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Bromoform	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Bromomethane	5	1 UJ	1 U	1 UJ	1 UJ	1 U	1 U	1 U	5 UJ	2 UJ	1 U	1 U	5 UJ	1 U	1 U
Carbon disulfide	60*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Carbon tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Chloroethane	5	1 UJ	1 U	1 UJ	1 UJ	1 U	1 U	1 U	5 UJ	2 UJ	1 U	1 U	5 UJ	1 U	1 U
Chloroform (Trichloromethane)	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Chloromethane	5	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 UJ	1 U
Dibromochloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
1,1-Dichloroethane	5	1.4	1 U	0.74 J	1 U	1 U	1 U	1 U	1.4 J	0.94 J	1 U	1 U	5 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
1,1-Dichloroethene	5	1 UJ	1 U	1 UJ	1 UJ	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Total 1,2-Dichloroethene	NE	2 U	2 U	2 U	2 U	2 U	2 U	2 U	10 U	4 U	2 U	2 U	10 U	2 U	2 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
trans-1,3-Dichloropropene	0.4	1 UJ	1 U	1 UJ	1 UJ	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
2-Hexanone	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	25 U	5 U	5 U
Methyl ethyl ketone (2-Butanone)	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	25 U	5 U	5 U
Methyl tert-butyl ether (MTBE)	10*	1 U	1.7	1 U	1 U	1 U	1 U	1 U	5 U	18	1 U	1 U	5 U	1 U	1 U
4-Methyl-2-pentanone (MIBK)	NE	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	10 U	5 U	5 U	25 U	5 U	5 U
Methylene chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2.8	1 U	1 U	5 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Tetrachloroethene (PCE)	5	1 U	0.4 J	1 U	3.6	1 U	0.77 J	0.76 J	5 U	2 U	1 U	1 U	1.1 J	0.21 J	0.55 J
1,1,1-Trichloroethane (TCA)	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Trichloroethene (TCE)	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Vinyl chloride	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	2 U	1 U	1 U	5 U	1 U	1 U
Total VOCs (ND=0)	NE	14.55	2.1	103.14	3.6	ND	0.77	0.76	457.6	160.74	ND	ND	262.9	0.21	0.55

Table 2. Groundwater Analysis Results
Groundwater Monitoring Report - Q1 2018
Glen Cove Former MGP Site
Glen Cove, New York

Location Name Sample Name Sample Date Parent Sample		GCMW-08S GCMW-08S 3/29/2018	GCMW-08D GCMW-08D 3/29/2018	GCMW-09SR GCMW-09S-R 3/30/2018	GCMW-09IR GCMW-09IR 3/29/2018	GCMW-10SR GCMW-10S-R 3/28/2018	GCMW-10IR GCMW-10I-R 3/28/2018	GCMW-10IR DUP-01 3/28/2018 GCMW-10I-R	GCMW-11S GCMW-11S 3/28/2018	GCMW-11I GCMW-11I 3/28/2018	GCMW-12S GCMW-12S 3/28/2018	GCMW-12S DUP-02 Q1 3/28/2018 GCMW-12S	GCMW-13I GCMW-13I 3/28/2018	GCMW-14SR GCMW-14S-R 3/28/2018	GCMW-14IR GCMW-14I-R 3/28/2018
Analyte	NYS AWQS														
NYSDEC PAH17															
Acenaphthene	20*	9.4 J	10 U	140	10 U	10 U	10 U	10 U	170	11 J	10 U	10 U	200 U	10 U	10 U
Acenaphthylene	NE	4.9 J	10 U	50 U	10 U	10 U	10 U	10 U	5.3 J	9.7 J	10 U	10 U	200 U	10 U	10 U
Anthracene	50*	7.4 J	10 U	9.3 J	10 U	10 U	10 U	10 U	6.9 J	50 U	10 U	10 U	200 U	10 U	10 U
Benzo(a)anthracene	0.002*	1.4 J	1 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	20 U	1 U	1 U
Benzo(b)fluoranthene	0.002*	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	40 U	2 U	2 U
Benzo(k)fluoranthene	0.002*	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	20 U	1 U	1 U
Benzo(g,h,i)perylene	NE	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Benzo(a)pyrene	ND	0.59 J	1 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	20 U	1 U	1 U
Chrysene	0.002*	1.1 J	2 U	10 U	2 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	40 U	2 U	2 U
Dibenz(a,h)anthracene	NE	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	5 UJ	1 U	1 U	20 UJ	1 U	1 U
Fluoranthene	50*	8.2 J	10 U	5.2 J	1.1 J	10 U	10 U	10 U	3.3 J	50 U	10 U	10 U	200 U	10 U	10 U
Fluorene	50*	10	10 U	66	10 U	10 U	10 U	10 U	50	50 U	10 U	10 U	200 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U	10 UJ	2 U	2 U	40 UJ	2 U	2 U
2-Methylnaphthalene	NE	10 U	10 U	48 J	10 U	10 U	10 U	10 U	69	50 U	10 U	10 U	81 J	10 U	10 U
Naphthalene	10*	10 U	10 U	610	10 U	10 U	2.3 J	10 U	14	560	10 U	10 U	3100	10 U	10 U
Phenanthrene	50*	41	10 U	68	10 U	10 U	10 U	10 U	49	50 U	10 U	10 U	200 U	10 U	10 U
Pyrene	50*	12	10 U	50 U	10 U	10 U	10 U	10 U	4.2 J	50 U	10 U	10 U	200 U	10 U	10 U
Total PAH (17) (ND=0)	NE	95.99	ND	946.5	1.1	ND	2.3	ND	371.7	580.7	ND	ND	3181	ND	ND
NYSDEC PAH17 Other SVOCs															
Bis(2-chloroethoxy)methane	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Bis(2-chloroethyl)ether	1	1 U	1 UJ	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	20 U	1 U	1 U
2,2-oxybis(1-Chloropropane)	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Bis(2-ethylhexyl)phthalate	5	2 U	2 U	10 U	2 U	5.7	2 U	2 U	2 U	10 U	2 U	2 U	40 U	2 U	2 U
4-Bromophenyl phenyl ether	NE	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Butyl benzyl phthalate	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Carbazole	NE	10 U	10 U	50 U	10 U	10 U	10 U	10 U	18	6.6 J	10 U	10 U	200 U	10 U	10 U
4-Chloro-3-methylphenol	NE	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
2-Chloronaphthalene	10*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
2-Chlorophenol	NE	10 U	10 UJ	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
4-Chlorophenyl phenyl ether	NE	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Dibenzofuran	NE	2.8 J	10 U	11 J	10 U	10 U	10 U	10 U	8.2 J	50 U	10 U	10 U	200 U	10 U	10 U
1,2-Dichlorobenzene (o-DCB)	3	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
1,3-Dichlorobenzene (m-DCB)	3	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
1,4-Dichlorobenzene (p-DCB)	3	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
3,3-Dichlorobenzidine	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
2,4-Dichlorophenol	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Diethyl phthalate	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Dimethyl phthalate	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
2,4-Dimethylphenol	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Di-n-butyl phthalate	50	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U

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Location Name Sample Name Sample Date Parent Sample		GCMW-08S GCMW-08S 3/29/2018	GCMW-08D GCMW-08D 3/29/2018	GCMW-09SR GCMW-09S-R 3/30/2018	GCMW-09IR GCMW-09IR 3/29/2018	GCMW-10SR GCMW-10S-R 3/28/2018	GCMW-10IR GCMW-10I-R 3/28/2018	GCMW-10IR DUP-01 3/28/2018 GCMW-10I-R	GCMW-11S GCMW-11S 3/28/2018	GCMW-11I GCMW-11I 3/28/2018	GCMW-12S GCMW-12S 3/28/2018	GCMW-12S DUP-02 Q1 3/28/2018 GCMW-12S	GCMW-13I GCMW-13I 3/28/2018	GCMW-14SR GCMW-14S-R 3/28/2018	GCMW-14IR GCMW-14I-R 3/28/2018
Analyte	NYS AWQS														
4,6-Dinitro-2-methylphenol	NE	20 U	20 U	100 U	20 U	20 U	20 U	20 U	20 U	100 U	20 U	20 U	400 U	20 U	20 U
2,4-Dinitrophenol	10*	20 U	20 U	100 U	20 U	20 U	20 U	20 U	20 U	100 U	20 U	20 U	400 U	20 U	20 U
2,4-Dinitrotoluene	5	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	40 U	2 U	2 U
2,6-Dinitrotoluene	5	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	40 U	2 U	2 U
Di-n-octyl phthalate	50*	10 U	10 UJ	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Hexachlorobenzene	0.04	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	20 U	1 U	1 U
1,3-Hexachlorobutadiene (C-46)	0.5	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	20 U	1 U	1 U
Hexachlorocyclopentadiene	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Hexachloroethane	5	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	40 U	2 U	2 U
Isophorone	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
2-Methylnaphthalene	NE	10 U	10 U	48 J	10 U	10 U	10 U	10 U	69	50 U	10 U	10 U	81 J	10 U	10 U
2-Methylphenol (o-Cresol)	1	10 U	10 UJ	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
4-Methylphenol (p-Cresol)	1	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
2-Nitroaniline	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
3-Nitroaniline	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
4-Nitroaniline	5	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Nitrobenzene	0.4	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	20 U	1 U	1 U
2-Nitrophenol	NE	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
4-Nitrophenol	NE	20 U	20 U	100 U	20 U	20 U	20 U	20 U	20 U	100 U	20 U	20 U	400 U	20 U	20 U
N-Nitrosodiphenylamine (NDFA)	50*	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
N-Nitrosodi-n-propylamine (NDPA)	NE	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	20 U	1 U	1 U
Pentachlorophenol	1	20 U	20 U	100 U	20 U	20 U	20 U	20 U	20 U	100 U	20 U	20 U	400 U	20 U	20 U
Phenol	1	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
1,2,4-Trichlorobenzene	5	2 U	2 U	10 U	2 U	2 U	2 U	2 U	2 U	10 U	2 U	2 U	40 U	2 U	2 U
2,4,5-Trichlorophenol	NE	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
2,4,6-Trichlorophenol	NE	10 U	10 U	50 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	200 U	10 U	10 U
Total SVOCs (ND=0)	NE	98.79	ND	957.5	1.1	5.7	2.3	ND	397.9	587.3	ND	ND	3181	ND	ND
PCB Aroclors															
Aroclor 1016	NE	NA	NA	0.42 U	0.41 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1221	NE	NA	NA	0.42 U	0.41 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1232	NE	NA	NA	0.42 U	0.41 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1242	NE	NA	NA	0.42 U	0.41 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1248	NE	NA	NA	0.42 U	0.41 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1254	NE	NA	NA	0.42 U	0.41 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	NE	NA	NA	0.42 U	0.41 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1262	NE	NA	NA	0.42 U	0.41 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA
Aroclor 1268	NE	NA	NA	0.42 U	0.41 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA
Total PCBs (Lab calculated)	0.09	NA	NA	0.42 U	0.41 U	0.4 U	0.4 U	0.4 U	NA	NA	NA	NA	NA	NA	NA

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Location Name Sample Name Sample Date Parent Sample		GCMW-08S	GCMW-08D	GCMW-09SR	GCMW-09IR	GCMW-10SR	GCMW-10IR	GCMW-10IR	GCMW-11S	GCMW-11I	GCMW-12S	GCMW-12S	GCMW-13I	GCMW-14SR	GCMW-14IR
		GCMW-08S	GCMW-08D	GCMW-09S-R	GCMW-09IR	GCMW-10S-R	GCMW-10I-R	DUP-01 3/28/2018 GCMW-10I-R	GCMW-11S	GCMW-11I	GCMW-12S	DUP-02 Q1 3/28/2018 GCMW-12S	GCMW-13I	GCMW-14S-R	GCMW-14I-R
Analyte		NYS AWQS													
Total Metals															
Aluminum	NE	NA	NA	200 U	292	383	124 J	95 J	NA	NA	NA	NA	NA	NA	NA
Antimony	3	NA	NA	20 U	20 U	20 U	20 U	20 U	NA	NA	NA	NA	NA	NA	NA
Arsenic	25	NA	NA	5.3 J	15 U	15 U	15 U	15 U	NA	NA	NA	NA	NA	NA	NA
Barium	1000	NA	NA	104 J	102 J	78.6 J	120 J	117 J	NA	NA	NA	NA	NA	NA	NA
Beryllium	3*	NA	NA	2 U	2 U	2 U	2 U	2 U	NA	NA	NA	NA	NA	NA	NA
Cadmium	5	NA	NA	4 U	4 U	4 U	4 U	4 U	NA	NA	NA	NA	NA	NA	NA
Calcium	NE	NA	NA	61000	47300	107000	66300	65200	NA	NA	NA	NA	NA	NA	NA
Chromium	50	NA	NA	10 U	10 U	10 U	10 U	10 U	NA	NA	NA	NA	NA	NA	NA
Cobalt	NE	NA	NA	50 U	50 U	50 U	50 U	50 U	NA	NA	NA	NA	NA	NA	NA
Copper	200	NA	NA	25 U	25 U	25 U	25 U	25 U	NA	NA	NA	NA	NA	NA	NA
Iron	300	NA	NA	13800	1410	932	196	121 J	NA	NA	NA	NA	NA	NA	NA
Lead	25	NA	NA	10 U	10 U	10 U	10 U	10 U	NA	NA	NA	NA	NA	NA	NA
Magnesium	35000*	NA	NA	9800	23200	20300	24000	23700	NA	NA	NA	NA	NA	NA	NA
Manganese	300	NA	NA	4940	259	45.2	30.3	27.4	NA	NA	NA	NA	NA	NA	NA
Mercury	0.7	NA	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA
Nickel	100	NA	NA	40 U	40 U	40 U	40 U	40 U	NA	NA	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	3660 J	5060	7240	5990	5950	NA	NA	NA	NA	NA	NA	NA
Selenium	10	NA	NA	20 U	20 U	20 U	20 U	20 U	NA	NA	NA	NA	NA	NA	NA
Silver	50	NA	NA	10 U	10 U	10 U	10 U	10 U	NA	NA	NA	NA	NA	NA	NA
Sodium	20000	NA	NA	10200	33200	111000	83100	81500	NA	NA	NA	NA	NA	NA	NA
Thallium	0.5*	NA	NA	20 U	20 U	20 U	20 U	20 U	NA	NA	NA	NA	NA	NA	NA
Vanadium	NE	NA	NA	50 U	50 U	50 U	50 U	50 U	NA	NA	NA	NA	NA	NA	NA
Zinc	2000*	NA	NA	30 U	30 U	30 U	30 U	30 U	NA	NA	NA	NA	NA	NA	NA
Cyanides															
Total Cyanide	200	NA	NA	133 J	10 U	10 U	10 U	10 U	NA	NA	NA	NA	NA	NA	NA

Table 2. Groundwater Analysis Results
Groundwater Monitoring Report - Q1 2018
Glen Cove Former MGP Site
Glen Cove, New York

Location Name Sample Name Sample Date Parent Sample		GCMW-15 GCMW-15 3/29/2018	GCMW-16 GCMW-16 3/29/2018	GCMW-20S GCMW-20S 3/30/2018	GCMW-20I GCMW-20I 3/30/2018	GCMW-20I2 GCMW-20I2 3/30/2018	GCMW-21I GCMW-21I 3/29/2018	GCMW-21I2 GCMW-21I2 3/29/2018	GCMW-22I GCMW-22I 3/29/2018	GCMW-22I2 GCMW-22I2 3/29/2018	GCRW-01 GCRW-01 3/28/2018	GCRW-02 GCRW-02 3/30/2018	GCRW-03 GCRW-03 3/30/2018	PZ-05 PZ-05 3/28/2018	PZ-06 PZ-06 3/28/2018
Analyte	NYS AWQS														
BTEX															
Benzene	1	0.37 J	1 U	0.72 J	1 U	1 U	1 U	1 U	1 U	1 U	0.57 J	1 U	1 U	1 U	1 U
Toluene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.2	1 U	1 U	1 U	1 U
Ethylbenzene	5	1 U	1 U	0.85 J	1 U	1 U	0.31 J	1 U	1 U	1 U	7.6	2.1	0.5 J	1 U	1 U
Total Xylene	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	13	2 U	2 U	2 U	2 U
Total BTEX (ND=0)	NE	0.37	ND	1.57	ND	ND	0.31	ND	ND	ND	23.37	2.1	0.5	ND	ND
Other VOCs															
Acetone	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U
Carbon disulfide	60*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U
Chloroform (Trichloromethane)	7	1 U	0.59 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	5	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	5	0.83 J	1 U	0.44 J	1 U	1 U	1 U	1 U	1 U	1 U	0.42 J	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	5	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 UJ	1 U	1 U
Total 1,2-Dichloroethene	NE	1.1 J	0.84 J	2 U	2 U	2 U	2 U	2 U	2 U	0.33 J	2 U	2 U	2 U	2 U	2 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	0.4	1 U	1 U	1 UJ	1 UJ	1 UJ	1 U	1 U	1 UJ	1 U	1 U	1 UJ	1 UJ	1 U	1 U
2-Hexanone	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl ethyl ketone (2-Butanone)	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether (MTBE)	10*	0.32 J	0.2 J	1 U	0.14 J	0.16 J	1 U	1.7	0.14 J	0.24 J	0.31 J	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone (MIBK)	NE	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene (PCE)	5	0.56 J	2.1	1 U	4.6	1.6	1 U	0.16 J	2.2	4.5	0.24 J	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane (TCA)	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene (TCE)	5	0.26 J	0.59 J	1 U	0.25 J	1 U	1 U	1 U	1 U	0.51 J	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	2	2.1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total VOCs (ND=0)	NE	5.54	4.32	2.01	4.99	1.76	0.31	1.86	2.34	5.58	24.34	2.1	0.5	ND	ND

Table 2. Groundwater Analysis Results
Groundwater Monitoring Report - Q1 2018
Glen Cove Former MGP Site
Glen Cove, New York

Location Name Sample Name Sample Date Parent Sample		GCMW-15 GCMW-15 3/29/2018	GCMW-16 GCMW-16 3/29/2018	GCMW-20S GCMW-20S 3/30/2018	GCMW-20I GCMW-20I 3/30/2018	GCMW-20I2 GCMW-20I2 3/30/2018	GCMW-21I GCMW-21I 3/29/2018	GCMW-21I2 GCMW-21I2 3/29/2018	GCMW-22I GCMW-22I 3/29/2018	GCMW-22I2 GCMW-22I2 3/29/2018	GCRW-01 GCRW-01 3/28/2018	GCRW-02 GCRW-02 3/30/2018	GCRW-03 GCRW-03 3/30/2018	PZ-05 PZ-05 3/28/2018	PZ-06 PZ-06 3/28/2018
Analyte	NYS AWQS														
NYSDEC PAH17															
Acenaphthene	20*	1.7 J	10 U	6.4 J	10 U	10 U	36 J	10 U	10 U	10 U	33	1.3 J	10 U	10 U	10 U
Acenaphthylene	NE	10 U	10 U	1.7 J	3.6 J	10 U	2.5 J	10 U	10 U	10 U	1.9 J	10 U	10 U	10 U	10 U
Anthracene	50*	10 U	10 U	2.1 J	10 U	10 U	5.8 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002*	1 U	1 U	3.5 J	0.98 J	1 U	2.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(b)fluoranthene	0.002*	2.1 U	2 U	4	2 U	2 U	1.5 J	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U
Benzo(k)fluoranthene	0.002*	1 U	1 U	1.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzo(g,h,i)perylene	NE	10 U	10 U	4 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	ND	1 U	1 U	3.3	0.96 J	1 U	1.8	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chrysene	0.002*	2.1 U	2 U	4.2	2 U	2 U	2.1	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U
Dibenz(a,h)anthracene	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Fluoranthene	50*	10 U	10 U	5.7 J	10 U	10 U	7.6 J	10 U	10 U	10 U	3.4 J	10 U	10 U	10 U	10 U
Fluorene	50*	0.96 J	10 U	0.93 J	10 U	10 U	11	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	0.002*	2.1 U	2 U	3	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U
2-Methylnaphthalene	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	10 U	10 U	10 U	1.3 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	50*	0.76 J	10 U	2.7 J	0.7 J	10 U	33	10 U	10 U	10 U	10 U	1.1 J	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	7 J	2 J	10 U	13	10 U	10 U	10 U	5.5 J	10 U	10 U	10 U	10 U
Total PAH (17) (ND=0)	NE	3.42	ND	50.13	9.54	ND	117	ND	ND	ND	43.8	2.4	ND	ND	ND
NYSDEC PAH17 Other SVOCs															
Bis(2-chloroethoxy)methane	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether	1	1 UJ	1 UJ	1 U	1 U	1 U	1 UJ	1 UJ	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U
2,2-oxybis(1-Chloropropane)	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-ethylhexyl)phthalate	5	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U
4-Bromophenyl phenyl ether	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	NE	10 UJ	10 UJ	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	NE	10 U	10 U	10 U	10 U	10 U	1.7 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene (o-DCB)	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene (m-DCB)	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene (p-DCB)	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3-Dichlorobenzidine	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl phthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butyl phthalate	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

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Groundwater Monitoring Report - Q1 2018
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Location Name Sample Name Sample Date Parent Sample		GCMW-15 GCMW-15 3/29/2018	GCMW-16 GCMW-16 3/29/2018	GCMW-20S GCMW-20S 3/30/2018	GCMW-20I GCMW-20I 3/30/2018	GCMW-20I2 GCMW-20I2 3/30/2018	GCMW-21I GCMW-21I 3/29/2018	GCMW-21I2 GCMW-21I2 3/29/2018	GCMW-22I GCMW-22I 3/29/2018	GCMW-22I2 GCMW-22I2 3/29/2018	GCRW-01 GCRW-01 3/28/2018	GCRW-02 GCRW-02 3/30/2018	GCRW-03 GCRW-03 3/30/2018	PZ-05 PZ-05 3/28/2018	PZ-06 PZ-06 3/28/2018
Analyte	NYS AWQS														
4,6-Dinitro-2-methylphenol	NE	21 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	21 U
2,4-Dinitrophenol	10*	21 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	21 U
2,4-Dinitrotoluene	5	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U
2,6-Dinitrotoluene	5	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U
Di-n-octyl phthalate	50*	10 UJ	10 UJ	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.04	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Hexachlorobutadiene (C-46)	0.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachlorocyclopentadiene	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	5	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U
Isophorone	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol (o-Cresol)	1	10 UJ	10 UJ	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U
4-Methylphenol (p-Cresol)	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3-Nitroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Nitrophenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	NE	21 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	21 U
N-Nitrosodiphenylamine (NDFA)	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine (NDPA)	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Pentachlorophenol	1	21 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	21 U
Phenol	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	5	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2.1 U
2,4,5-Trichlorophenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total SVOCs (ND=0)	NE	3.42	ND	50.13	9.54	ND	118.7	ND	ND	ND	43.8	2.4	ND	ND	ND
PCB Aroclors															
Aroclor 1016	NE	0.41 U	0.4 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.42 U	NA	NA	NA	NA	NA
Aroclor 1221	NE	0.41 U	0.4 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.42 U	NA	NA	NA	NA	NA
Aroclor 1232	NE	0.41 U	0.4 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.42 U	NA	NA	NA	NA	NA
Aroclor 1242	NE	0.41 U	0.4 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.42 U	NA	NA	NA	NA	NA
Aroclor 1248	NE	0.41 U	0.4 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.42 U	NA	NA	NA	NA	NA
Aroclor 1254	NE	0.41 U	0.4 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.42 U	NA	NA	NA	NA	NA
Aroclor 1260	NE	0.41 U	0.4 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.42 U	NA	NA	NA	NA	NA
Aroclor 1262	NE	0.41 U	0.4 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.42 U	NA	NA	NA	NA	NA
Aroclor 1268	NE	0.41 U	0.4 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.42 U	NA	NA	NA	NA	NA
Total PCBs (Lab calculated)	0.09	0.41 U	0.4 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.42 U	NA	NA	NA	NA	NA

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Analyte	NYS AWQS														
Total Metals															
Aluminum	NE	160 J	200 U	199000	268	406	147000	496000	1240	486	NA	NA	NA	NA	NA
Antimony	3	20 U	20 U	100 U	20 U	20 U	100 U	100 U	20 U	20 U	NA	NA	NA	NA	NA
Arsenic	25	15 U	15 U	94.4	15 U	15 U	68.3 J	176	15 U	15 U	NA	NA	NA	NA	NA
Barium	1000	290	100 J	2810	111 J	104 J	1100	5730	104 J	122 J	NA	NA	NA	NA	NA
Beryllium	3*	2 U	2 U	13.8	2 U	2 U	9.5 J	33.2	2 U	2 U	NA	NA	NA	NA	NA
Cadmium	5	4 U	4 U	20 U	4 U	4 U	20 U	20 U	4 U	4 U	NA	NA	NA	NA	NA
Calcium	NE	102000	38100	202000	43200	42300	73600	259000	69400	54000	NA	NA	NA	NA	NA
Chromium	50	10 U	10 U	558	10 U	10 U	526	2390	3.6 J	10 U	NA	NA	NA	NA	NA
Cobalt	NE	50 U	50 U	168 J	50 U	50 U	113 J	526	50 U	50 U	NA	NA	NA	NA	NA
Copper	200	25 U	25 U	743	25 U	25 U	291	1210	25 U	25 U	NA	NA	NA	NA	NA
Iron	300	75500	359	366000	431	651	423000	1480000	2330	761	NA	NA	NA	NA	NA
Lead	25	10 U	10 U	897	10 U	10 U	433	1520	10 U	10 U	NA	NA	NA	NA	NA
Magnesium	35000*	17600	15600	101000	20200	16700	47700	228000	29400	24300	NA	NA	NA	NA	NA
Manganese	300	2760	32.6	22400	48.6	15.9	6760	34300	1800	195	NA	NA	NA	NA	NA
Mercury	0.7	0.2 U	0.2 U	3.7	0.2 U	0.2 U	1.3	0.89	0.2 U	0.2 U	NA	NA	NA	NA	NA
Nickel	100	40 U	40 U	424	40 U	40 U	244	1030	9 J	40 U	NA	NA	NA	NA	NA
Potassium	NE	13300	3080 J	41700	4180 J	3880 J	25000	107000	6110	4400 J	NA	NA	NA	NA	NA
Selenium	10	20 U	20 U	100 U	20 U	20 U	100 U	100 U	20 U	20 U	NA	NA	NA	NA	NA
Silver	50	10 U	10 U	50 U	10 U	10 U	50 U	50 U	10 U	10 U	NA	NA	NA	NA	NA
Sodium	20000	501000	45900	23900 J	31500	42600	16800 J	51500	57200	47100	NA	NA	NA	NA	NA
Thallium	0.5*	20 U	20 U	100 U	20 U	20 U	100 U	100 U	20 U	20 U	NA	NA	NA	NA	NA
Vanadium	NE	50 U	50 U	500	50 U	50 U	418	1370	2.8 J	50 U	NA	NA	NA	NA	NA
Zinc	2000*	27.1 J	30 U	1870	30 U	30 U	511	2740	72.8	44.5	NA	NA	NA	NA	NA
Cyanides															
Total Cyanide	200	8.4 J	10 UJ	71.7 J	10 U	10 U	2.4 J	3.9 J	10 U	10 U	NA	NA	NA	NA	NA

Notes:

Analytes in blue are not detected in any sample

ug/L = micrograms per liter or parts per billion (ppb)

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

PAH = Polycyclic Aromatic Hydrocarbon

PCB = Polychlorinated Biphenyl

SVOC = Semi-Volatile Organic Compound

VOC = Volatile Organic Compound

Total BTEX, Total VOCs, Total PAHs, and Total SVOCs are calculated using detects only.

Total PAH16 is calculated using the EPA16 list of analytes: Acenaphthene, Acenaphthylene, Anthracene, Benzo[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[g,h,i]perylene, Benzo[k]fluoranthene, Chrysene, Dibenzo[a,h]anthracene, Fluoranthene, Fluorene, Indeno[1,2,3-cd]pyrene, Naphthalene, Phenanthrene, and Pyrene

Total PAH17 is calculated using the EPA16 list of analytes plus 2-Methylnaphthalene

NYS AWQS = New York State Ambient Water Quality Standards and Guidance Values for GA groundwater

* indicates the value is a guidance value and not a standard

CAS No. = Chemical Abstracts Service Number

MGP = Manufactured Gas Plant

ND = Not Detected

NE = Not Established

NYSDEC = New York State Department of Environmental Conservation

Bolding indicates a detected result concentration

Gray shading and boliding indicates that the detected result value exceeds the NYS AWQS

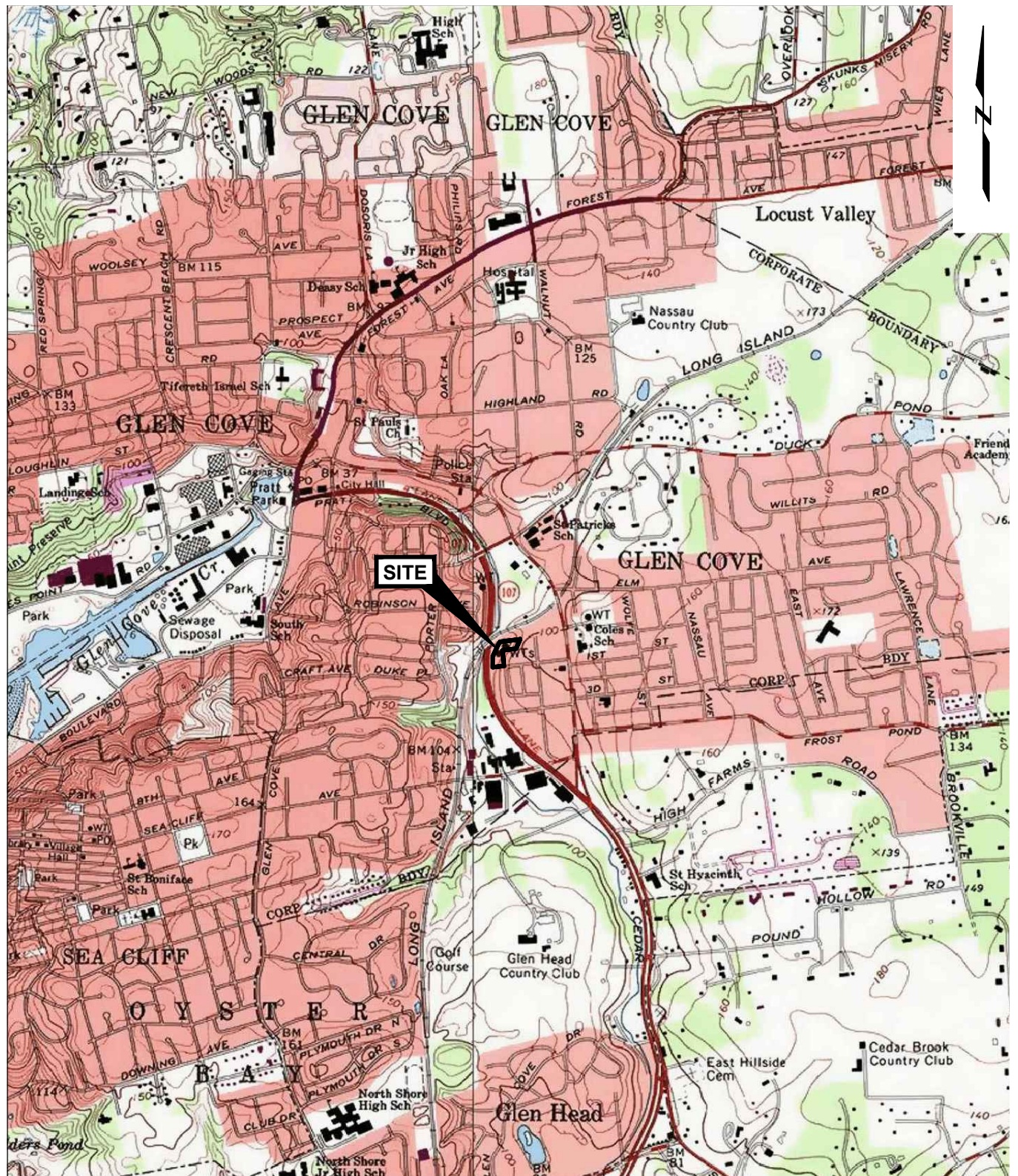
Validation Qualifiers:

J = The result is an estimated value.

U = The result was not detected above the reporting limit.

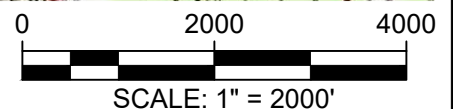
UJ = The results was not detected at or above the reporting limit shown and the reporting limit is estimated.

Figures



NOTES:

MAP CREATED WITH TOPOI™ ©2000
WILDFLOWER PRODUCTIONS (www.topo.com)



Glen Cove Former MGP Site
Glen Cove, New York

nationalgrid

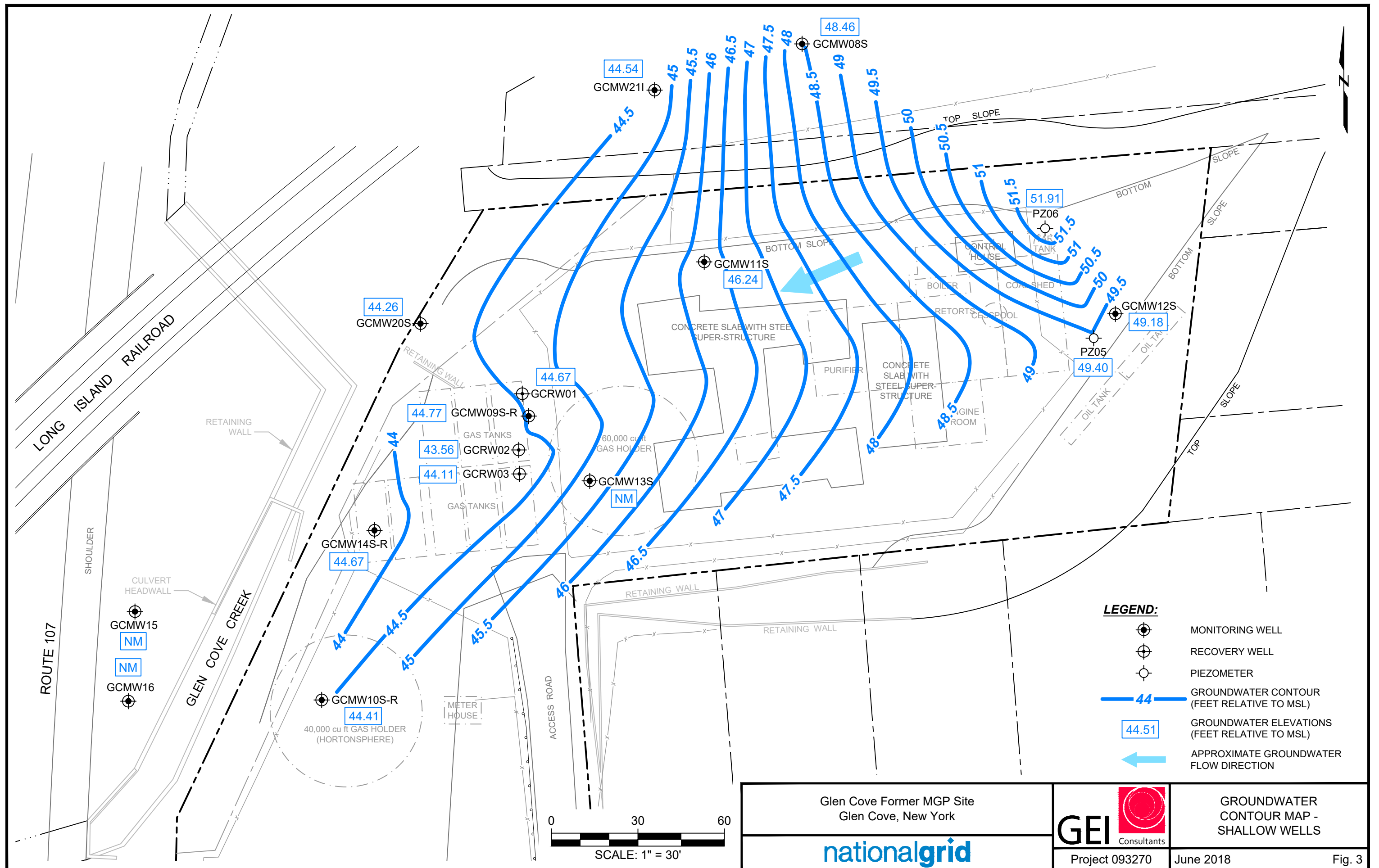


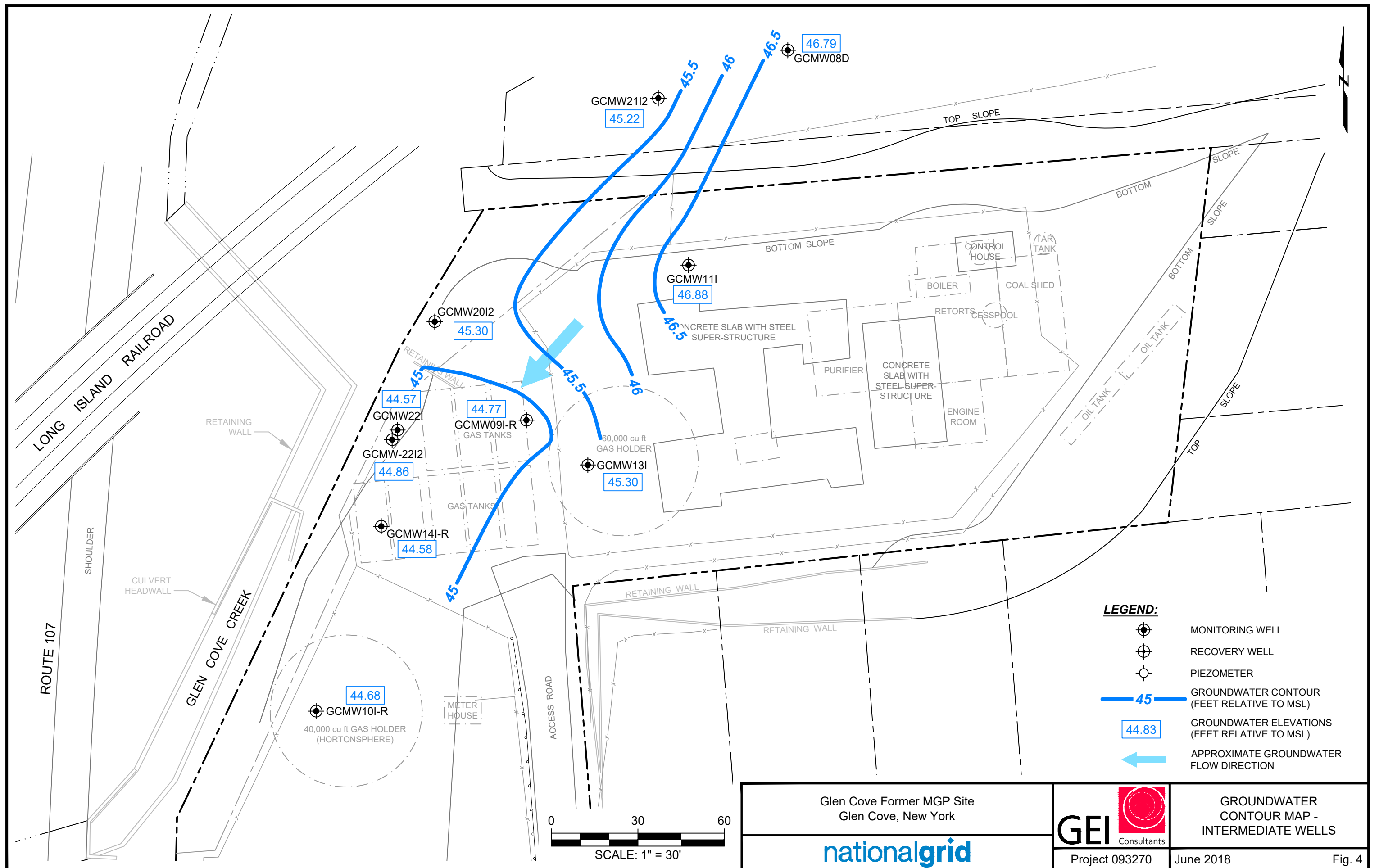
Project 093270

SITE LOCATION MAP

June 2018

Fig. 1





Glen Cove Former MGP Site Glen Cove, New York		 GEI Consultants	GROUNDWATER CONTOUR MAP - INTERMEDIATE WELLS	
			Project 093270	June 2018

