



Geotechnical
Environmental and
Water Resources
Engineering

**Groundwater Monitoring Report
January 2013 Semiannual Sampling Event**

**Glen Cove
Former MGP Site**

City of Glen Cove
Nassau County, New York
Site ID No. 1-30-089P

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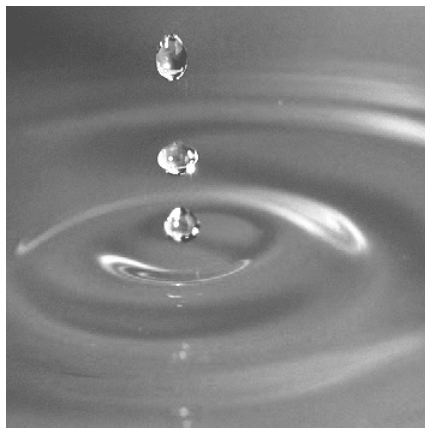


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1. Introduction and Site Background

This report presents the January 2013 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. 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), is conducting a facility upgrade which includes the installation of underground utilities, foundation, pilings, and associated electric equipment. LIPA’s upgrade to this substation is necessary to meet 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; the results of which will be incorporated into the Phase II portion of the remedy. 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. Remaining Phase II remedial activities will be completed at the completion of the ongoing LIPA substation construction.

As part of the long-term monitoring of the remedy, National Grid began quarterly monitoring of the groundwater at the Site in Q1 2010. This data, and the subsequent semiannual data, will provide a seasonal baseline of groundwater analytical results to compare against post-

remedy concentrations and evaluate the overall effectiveness of the remedial actions. Monitoring wells which have been abandoned to accommodate the ongoing LIPA substation construction project will be reinstalled during the remaining Phase II field work. Following completion of the Phase II portion of the remedy, quarterly groundwater monitoring will resume.

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 National Grid 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 53 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 through 2010. Semiannual sampling began in July 2011 after completion of the Phase I remedial excavation.

2. Glen Cove Site and Adjacent Offsite Areas

2.1 First Semiannual 2013 Groundwater Monitoring Event Summary

Event Dates: January 15, 16 and 18, 2013

Site Phase: Semiannual groundwater monitoring

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

2.2 Monitoring Program

2.2.1 Number of Wells

A total of 11 monitoring wells and piezometers 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. Monitoring well, recovery well and piezometer locations are depicted on **Figure 2**.

2.2.2 Hydrological Data

Groundwater levels were measured at 11 monitoring wells and piezometers on January 16, 2013. Depth to groundwater and calculated groundwater elevations are provided in **Table 1**. Shallow groundwater contours and intermediate groundwater elevations for the January 2013 semiannual sampling event are depicted on **Figures 3** and **4**, respectively. The groundwater flow direction was generally to the west towards Glen Cove Creek in the shallow zone. Currently, only two wells remain in the intermediate zone; the groundwater direction depicted on **Figure 4** is based on historical data from previous sampling events. The depth to water and water table elevation data for the shallow and intermediate/deep 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	9.10	53.78
PZ-06	5.44	53.08
GCMW-08S	27.45	51.14
GCMW-11S	9.59	47.93
GCMW-12S	12.85	53.78
GCMW-13S	9.75	47.98
GCMW-15	5.44	45.90
GCMW-16	5.04	46.25

The average calculated shallow hydraulic gradient was 0.031 feet/foot.

Intermediate/Deep Groundwater Zone

Table 2b – Intermediate/Deep Groundwater Measurements

Well ID	Depth to Water (feet)	Water Elevation (feet above MSL)
GCMW-08D	27.78	51.04
GCMW-11I	9.48	47.97
GCMW-13I	9.45	48.28

The calculated intermediate hydraulic gradient was 0.004 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 semiannual 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. Dense non-aqueous phase liquid (DNAPL) was present in one well during the January 2013 sampling event, MW-13S, at a thickness of 0.40 feet. Historically, measurable DNAPL has only been observed in this well. 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.

2.2.4 Groundwater Analytical Sampling

The first semiannual 2013 groundwater sampling event was performed on January 15 and 16, 2013 and included all accessible wells on the quarterly sampling list. A total of 14 monitoring wells, recovery wells and piezometers were sampled for the following analytes:

- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tert-butyl ether (MTBE) via Environmental Protection Agency (EPA) Method 8260.
- PAHs and semi-volatile organic compounds (SVOCs) via EPA Method 8270.

2.2.5 Analytical Results

The discussion below focuses on the analytical results from the current semiannual sampling event. A summary of historical groundwater monitoring results are included on **Figure 5**. More in-depth evaluation of the results will be conducted when the planned oxygen injection system is installed and becomes operational, following the completion of the ongoing LIPA substation construction.

BTEX

Total BTEX concentrations ranged from less than method detection limits (ND) in seven of the 14 wells sampled, to 922 micrograms per liter (µg/L) in GCMW-11S. BTEX concentrations above the New York State Ambient Water Quality Standards (AWQS) were identified in six of the seven wells with detections. The detections and exceedances of the AWQS are summarized in table below. Detections identified below the AWQS were also noted in GCMW-08D with a BTEX concentration of 3 µg/L.

Table 2c – BTEX Detections Above AWQS

Sample Name:	GCMW-11S	GCMW-11I	GCMW-13S	GCRW-01	GCRW-02	GCRW-03
Sample Date:	1/15/13	1/15/13	1/15/13	1/16/13	1/16/13	1/16/13
Benzene	120	4	1 U	1 U	1	1
Toluene	22	1 U	9	4	3	4
Ethylbenzene	410 D	1 U	180	35	13	13
Xylene, total	370	1 U	280	63	21	47
Total BTEX	922	4	469	102	38	65

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

D - results for dilution

U - not detected to the reporting limit

BTEX detections in the first semiannual 2013 monitoring event generally decreased with the majority being at, or near, detections levels. BTEX concentrations decreased in four of the five wells with detections above the AWQS. Excluding GCMW-08D (3 µg/L) and

GCRW-02 (38 µg/L), in which BTEX concentrations were relatively low (less than 50 µg/L), the January 2013 BTEX concentrations (in wells with detections) were lower than their historical averages.

SVOCs

Excluding two low-level exceedances of 4-methylphenol and phenol in the sample collected from recovery well GCRW-01, SVOC detections above the AWQS were limited to PAHs. Total PAH concentrations ranged from ND in five of the 14 wells sampled to 19,987 µg/L in GCMW-13S. The detections in wells with concentrations above the AWQS are summarized in the table below. Detections identified below the AWQS were also noted in GCMW-08S, GCMW-13I, GCMW-15, and GCRW-02 with concentrations of total PAHs of 59 µg/L, 19 µg/L, 3 µg/L, and 37 µg/L, respectively.

Table 2d – PAH Detections Above AWQS

Sample Name	GCMW-11S	GCMW-11I	GCMW-13S	GCRW-01	GCRW-03
Sample Date	1/15/13	1/15/13	1/15/13	1/16/13	1/16/13
Acenaphthene	340 DJ	3 J	260 DJ	66	15
Acenaphthylene	28	10 U	5 J	4 J	1 J
Anthracene	14	10 U	9 J	3 J	2 J
Benzo[g,h,i]perylene	10 U	10 U	10 U	10 U	1 J
Fluoranthene	6 J	10 U	4 J	2 J	2 J
Fluorene	80	10 U	51	22	9 J
2-Methylnaphthalene	390 DJ	5 J	1,600 DJ	310 DJ	16
Naphthalene	5,800 D	370 D	18,000 D	3,500 D	200 D
Phenanthrene	110 DJ	10 U	53	18	8 J
Pyrene	6 J	10 U	5 J	3 J	2 J
Benz[a]anthracene	10 U	10 U	10 U	10 U	10 U
Benzo[a]pyrene	10 U	10 U	10 U	10 U	2 J
Benzo[b]fluoranthene	10 U	10 U	10 U	10 U	2 J
Benzo[k]fluoranthene	10 U	10 U	10 U	10 U	2 J
Chrysene	10 U	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	10 U	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	10 U	10 U	10 U	10 U	10 U
Total PAHs	6,774	378	19,987	3,928	261

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

D - results for dilution

J - estimated value

U - not detected to the reporting limit

Concentrations of total PAHs were detected above the AWQS in three of the 11 monitoring wells sampled and in two of the three recovery wells. Excluding monitoring well GCMW-13S, the total PAH concentrations in all of the monitoring wells remained within their respective historical concentration ranges. Total PAH concentrations in wells with detections above the AWQS decreased in GCMW-11I, GCRW-01 and GCMW-03, but increased in GCMW-11S and GCMW-13S. Detections of total PAHs in the other monitoring wells with detections also decreased or remained stable. Total PAH concentrations recovery wells GCRW-02 and GCRW-03 decreased significantly from 1,576 µg/L and 2,274 µg/L to 37 µg/L and 261 µg/L, respectively. The laboratory analytical results for the January 2013 semiannual sampling event are included in **Table 2**.

2.3 Future Plans

- Design and construct an oxygen injection system as part of the Phase II remedy
- Install replacement and additional monitoring wells as part of the Phase II remedy
- Continue semiannual groundwater and NAPL monitoring, then quarterly after startup of the oxygen injection system.

Tables

Table 1
Water Level Measurements and Calculated Groundwater Elevations
Glen Cove Former MGP Site
Glen Cove, New York
Semiannual Groundwater Monitoring Report - Q1 2013

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)	Notes
PZ-01A*	NM	25 - 35	NM	2	57.11	NM	NM	
PZ-02A*	NM	18 - 21	NM	2	58.58	NM	NM	
PZ-03*	NM	14 - 19	NM	-	56.76	NM	NM	
PZ-04*	NM	16 - 19	NM	2	56.96	NM	NM	
PZ-05	1/16/2013	8 - 18	0743	2	62.88	9.10	53.78	
PZ-06	1/16/2013	7 - 17	0739	2	58.52	5.44	53.08	
PZ-07*	NM	3 - 10	NM	2	50.36	NM	NM	
GCMW-08S	1/16/2013	26 - 36	0700	2	78.59	27.45	51.14	
GCMW-08D	1/16/2013	60 - 70	0658	2	78.82	27.78	51.04	
GCMW-09S*	NM	8 - 18	NM	2	56.81	NM	NM	
GCMW-09I*	NM	26 - 36	NM	2	56.88	NM	NM	
GCMW-10S*	NM	11 - 16	NM	2	52.62	NM	NM	
GCMW-10I*	NM	16 - 26	NM	2	53.08	NM	NM	
GCMW-11S	1/16/2013	8 - 20	0759	2	57.52	9.59	47.93	
GCMW-11I	1/16/2013	23 - 28	0750	2	57.45	9.48	47.97	
GCMW-12S	1/16/2013	14 - 24	0742	2	66.63	12.85	53.78	
GCMW-13S	1/16/2013	12 - 22	0756	2	57.73	9.75	47.98	
GCMW-13I	1/16/2013	25 - 30	0754	2	57.73	9.45	48.28	
GCMW-14S*	NM	8 - 18	NM	2	58.74	NM	NM	
GCMW-14I*	NM	25 - 30	NM	2	58.75	NM	NM	
GCMW-15	1/16/2013	6 - 16	1005	2	51.34	5.44	45.90	
GCMW-16	1/16/2013	6 - 16	1000	2	51.29	5.04	46.25	

Notes:

bgs - Below Ground Surface

¹ - Well Elevations Obtained From 2008 RI

MSL - Mean Sea Level

* Destroyed

NM - Not Measured

Table 2
Summary of Groundwater Analytical Results
Glen Cove Former MGP Site
Glen Cove, New York
Semiannual Groundwater Monitoring Report - Q1 2013

Location Name			GCMW-08S	GCMW-08D	GCMW-11S	GCMW-11I	GCMW-12S	GCMW-12S	GCMW-13S	GCMW-13I	GCMW-15
Sample Name			GCMW-08S	GCMW-08D	GCMW-11S	GCMW-11I	GCMW-12S	DUP-01 GC	GCMW-13S	GCMW-13I	GCMW-15
Sample Date			1/16/2013	1/16/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/16/2013
Parent Sample Code								GCMW-12S			
Analyte	CAS no.	NYS AWQS									
BTEX (ug/L)											
Benzene	71-43-2	1	1 U	1 U	120	4	1 U	1 U	1 U	1 U	1 U
Toluene	108-88-3	5	1 U	3	22	1 U	1 U	1 U	9	1 U	1 U
Ethylbenzene	100-41-4	5	1 U	1 U	410 D	1 U	1 U	1 U	180	1 U	1 U
Total Xylene	1330-20-7	5	1 U	1 U	370	1 U	1 U	1 U	280	1 U	1 U
Total BTEX	TBTEX	NE	ND	3	922	4	ND	ND	469	ND	ND
Other VOCs (ug/L)											
Acetone	67-64-1	50*	2 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	75-27-4	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	75-25-2	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	74-83-9	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
2-Butanone (Methyl ethyl ketone)	78-93-3	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	75-15-0	60*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Carbon tetrachloride	56-23-5	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	75-00-3	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Chloroform	67-66-3	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	74-87-3	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ
Dibromochloromethane	124-48-1	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	5	1 U	1 U	2	1 U	1 U	1 U	1 U	1 U	2
1,2-Dichloroethane	107-06-2	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total 1,2-Dichloroethene	540-59-0	NE	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2
1,1-Dichloroethene	75-35-4	0.07	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	78-87-5	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	10061-01-5	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	10061-02-6	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether (MTBE)	1634-04-4	10*	10 U	10 U	4 J	48	10 U	10 U	1 J	10 U	10 U
4-Methyl-2-pentanone	108-10-1	NE	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	75-09-2	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Styrene	100-42-5	5	1 U	1 U	13	1 U	1 U	1 U	6	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	127-18-4	5	1 U	1 U	1 U	1	1 U	1 U	1 U	4	1 U

Table 2
Summary of Groundwater Analytical Results
Glen Cove Former MGP Site
Glen Cove, New York
Semiannual Groundwater Monitoring Report - Q1 2013

Location Name			GCMW-08S	GCMW-08D	GCMW-11S	GCMW-11I	GCMW-12S	GCMW-12S	GCMW-13S	GCMW-13I	GCMW-15
Sample Name			GCMW-08S	GCMW-08D	GCMW-11S	GCMW-11I	GCMW-12S	DUP-01 GC	GCMW-13S	GCMW-13I	GCMW-15
Sample Date			1/16/2013	1/16/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/16/2013
Parent Sample Code								GCMW-12S			
Analyte	CAS no.	NYS AWQS									
1,1,1-Trichloroethane	71-55-6	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	79-01-6	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	75-01-4	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	6 J
Total VOCs	TVOC	NE	2	3	941	53	ND	ND	476	4	10
Non-carcinogenic PAHs (ug/L)											
Acenaphthene	83-32-9	20*	5 J	10 U	340 DJ	3 J	10 U	10 U	260 DJ	10 U	2 J
Acenaphthylene	208-96-8	NE	3 J	10 U	28	10 U	10 U	10 U	5 J	10 U	10 U
Anthracene	120-12-7	50*	5 J	10 U	14	10 U	10 U	10 U	9 J	3 J	10 U
Benzo[g,h,i]perylene	191-24-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	206-44-0	50*	7 J	10 U	6 J	10 U	10 U	10 U	4 J	6 J	10 U
Fluorene	86-73-7	50*	3 J	10 U	80	10 U	10 U	10 U	51	10 U	10 U
2-Methylnaphthalene	91-57-6	NE	10 U	10 U	390 DJ	5 J	10 U	10 U	1600 DJ	10 U	10 U
Naphthalene	91-20-3	10*	10 U	10 U	5800 D	370 D	10 U	10 U	18000 D	10 U	10 U
Phenanthrene	85-01-8	50*	26	10 U	110 DJ	10 U	10 U	10 U	53	3 J	1 J
Pyrene	129-00-0	50*	10	10 U	6 J	10 U	10 U	10 U	5 J	7 J	10 U
Carcinogenic PAHs (ug/L)											
Benz[a]anthracene	56-55-3	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[a]pyrene	50-32-8	ND	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[b]fluoranthene	205-99-2	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[k]fluoranthene	207-08-9	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	218-01-9	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	53-70-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	193-39-5	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total PAH 17	TPAH17	NE	59	ND	6774	378	ND	ND	19987	19	3
Other SVOCs (ug/L)											

Table 2
Summary of Groundwater Analytical Results
Glen Cove Former MGP Site
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Location Name			GCMW-08S	GCMW-08D	GCMW-11S	GCMW-11I	GCMW-12S	GCMW-12S	GCMW-13S	GCMW-13I	GCMW-15
Sample Name			GCMW-08S	GCMW-08D	GCMW-11S	GCMW-11I	GCMW-12S	DUP-01 GC	GCMW-13S	GCMW-13I	GCMW-15
Sample Date			1/16/2013	1/16/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/16/2013
Parent Sample Code								GCMW-12S			
Analyte	CAS no.	NYS AWQS									
Bis(chloroisopropyl)ether	108-60-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether	111-44-4	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethoxy)methane	111-91-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ
Bis(2-ethylhexyl)phthalate	117-81-7	5	10 U	2 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl phenyl ether	101-55-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	85-68-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	86-74-8	NE	10 U	10 U	26	10 U	10 U	10 U	9 J	10 U	10 UJ
4-Chloro-3-methylphenol	59-50-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	106-47-8	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ
2-Chloronaphthalene	91-58-7	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	95-57-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	7005-72-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	132-64-9	NE	2 J	10 U	15	10 U	10 U	10 U	12	10 U	10 U
1,2-Dichlorobenzene	95-50-1	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	541-73-1	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	106-46-7	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3-Dichlorobenzidine	91-94-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	R
2,4-Dichlorophenol	120-83-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl phthalate	84-66-2	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	131-11-3	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	105-67-9	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butyl phthalate	84-74-2	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	534-52-1	NE	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2,4-Dinitrophenol	51-28-5	10*	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2,4-Dinitrotoluene	121-14-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	606-20-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octyl phthalate	117-84-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	118-74-1	0.04	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	87-68-3	0.5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	77-47-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	67-72-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	78-59-1	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol (o-Cresol)	95-48-7	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol (p-Cresol)	106-44-5	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

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Location Name			GCMW-08S	GCMW-08D	GCMW-11S	GCMW-11I	GCMW-12S	GCMW-12S	GCMW-13S	GCMW-13I	GCMW-15
Sample Name			GCMW-08S	GCMW-08D	GCMW-11S	GCMW-11I	GCMW-12S	DUP-01 GC	GCMW-13S	GCMW-13I	GCMW-15
Sample Date			1/16/2013	1/16/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/16/2013
Parent Sample Code								GCMW-12S			
Analyte	CAS no.	NYS AWQS									
2-Nitroaniline	88-74-4	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 UJ
3-Nitroaniline	99-09-2	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 UJ
4-Nitroaniline	100-01-6	5	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 UJ
Nitrobenzene	98-95-3	0.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	88-75-5	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	100-02-7	NE	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodi-n-propylamine	621-64-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	86-30-6	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ
Pentachlorophenol	87-86-5	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenol	108-95-2	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	120-82-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	95-95-4	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	88-06-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total SVOC	TSVOC	NE	61	2	6815	378	ND	ND	20008	19	3
PCBs (ug/L)											
Aroclor 1016	12674-11-2	NE	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Aroclor 1221	11104-28-2	NE	NA	NA	NA	NA	NA	NA	NA	NA	2 U
Aroclor 1232	11141-16-5	NE	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Aroclor 1242	53469-21-9	NE	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Aroclor 1248	12672-29-6	NE	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Aroclor 1254	11097-69-1	NE	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Aroclor 1260	11096-82-5	NE	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Total PCBs	TPCB	0.09	NA	NA	NA	NA	NA	NA	NA	NA	ND
Total Metals (ug/L)											
Aluminum	7429-90-5	NE	NA	NA	NA	NA	NA	NA	NA	NA	5.1 UJ
Antimony	7440-36-0	3	NA	NA	NA	NA	NA	NA	NA	NA	2.2 J
Arsenic	7440-38-2	25	NA	NA	NA	NA	NA	NA	NA	NA	1.8 J
Barium	7440-39-3	1000	NA	NA	NA	NA	NA	NA	NA	NA	79.8 J
Beryllium	7440-41-7	3*	NA	NA	NA	NA	NA	NA	NA	NA	0.12 U
Cadmium	7440-43-9	5	NA	NA	NA	NA	NA	NA	NA	NA	0.087 U
Calcium	7440-70-2	NE	NA	NA	NA	NA	NA	NA	NA	NA	40100
Chromium	7440-47-3	50	NA	NA	NA	NA	NA	NA	NA	NA	0.34 UJ
Cobalt	7440-48-4	NE	NA	NA	NA	NA	NA	NA	NA	NA	0.28 U
Copper	7440-50-8	200	NA	NA	NA	NA	NA	NA	NA	NA	0.52 U
Iron	7439-89-6	300	NA	NA	NA	NA	NA	NA	NA	NA	17400
Lead	7439-92-1	25	NA	NA	NA	NA	NA	NA	NA	NA	3.4
Magnesium	7439-95-4	35000*	NA	NA	NA	NA	NA	NA	NA	NA	6340

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Location Name			GCMW-08S	GCMW-08D	GCMW-11S	GCMW-11I	GCMW-12S	GCMW-12S	GCMW-13S	GCMW-13I	GCMW-15
Sample Name			GCMW-08S	GCMW-08D	GCMW-11S	GCMW-11I	GCMW-12S	DUP-01 GC	GCMW-13S	GCMW-13I	GCMW-15
Sample Date			1/16/2013	1/16/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/15/2013	1/16/2013
Parent Sample Code								GCMW-12S			
Analyte	CAS no.	NYS AWQS									
Manganese	7439-96-5	300	NA	NA	NA	NA	NA	NA	NA	NA	1020
Mercury	7439-97-6	0.7	NA	NA	NA	NA	NA	NA	NA	NA	0.1 UJ
Nickel	7440-02-0	100	NA	NA	NA	NA	NA	NA	NA	NA	0.51 U
Potassium	7440-09-7	NE	NA	NA	NA	NA	NA	NA	NA	NA	8120
Selenium	7782-49-2	10	NA	NA	NA	NA	NA	NA	NA	NA	3.1 J
Silver	7440-22-4	50	NA	NA	NA	NA	NA	NA	NA	NA	0.29 U
Sodium	7440-23-5	20000	NA	NA	NA	NA	NA	NA	NA	NA	206000
Thallium	7440-28-0	0.5*	NA	NA	NA	NA	NA	NA	NA	NA	2.9 U
Vanadium	7440-62-2	NE	NA	NA	NA	NA	NA	NA	NA	NA	1 J
Zinc	7440-66-6	2000*	NA	NA	NA	NA	NA	NA	NA	NA	1 UJ
Cyanides (ug/L)											
Total Cyanide	57-12-5	200	NA	NA	NA	NA	NA	NA	NA	NA	10 U

Table 2
Summary of Groundwater Analytical Results
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Location Name			GCMW-16	GCMW-16	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
Sample Name			GCMW-16	DUP-02 GC	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
Sample Date			1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/15/2013	1/15/2013
Parent Sample Code				GCMW-16					
Analyte	CAS no.	NYS AWQS							
BTEX (ug/L)									
Benzene	71-43-2	1	1 U	1 U	1 U	1	1	1 U	1 U
Toluene	108-88-3	5	1 U	1 U	4	3	4	1 U	1 U
Ethylbenzene	100-41-4	5	1 U	1 U	35	13	13	1 U	1 U
Total Xylene	1330-20-7	5	1 U	1 U	63	21	47	1 U	1 U
Total BTEX	TBTEX	NE	ND	ND	102	38	65	ND	ND
Other VOCs (ug/L)									
Acetone	67-64-1	50*	5 U	5 U	18	12	3 J	5 U	5 U
Bromodichloromethane	75-27-4	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	75-25-2	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	74-83-9	5	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U
2-Butanone (Methyl ethyl ketone)	78-93-3	50*	5 U	5 U	11	16	1 J	5 U	5 U
Carbon disulfide	75-15-0	60*	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	56-23-5	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	108-90-7	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	75-00-3	5	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U
Chloroform	67-66-3	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	74-87-3	5	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	124-48-1	50*	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2	0.6	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total 1,2-Dichloroethene	540-59-0	NE	1	1	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	75-35-4	0.07	1 U	1	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	78-87-5	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	10061-01-5	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	10061-02-6	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	50*	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl tert-butyl ether (MTBE)	1634-04-4	10*	10 U	10 U	7 J	3 J	3 J	10 U	10 U
4-Methyl-2-pentanone	108-10-1	NE	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	75-09-2	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Styrene	100-42-5	5	1 U	1 U	1	1 U	2	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	127-18-4	5	2	2	1 U	1 U	1 U	1 U	1 U

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Location Name			GCMW-16	GCMW-16	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
Sample Name			GCMW-16	DUP-02 GC	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
Sample Date			1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/15/2013	1/15/2013
Parent Sample Code				GCMW-16					
Analyte	CAS no.	NYS AWQS							
1,1,1-Trichloroethane	71-55-6	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	79-01-6	5	2	2	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	75-01-4	2	1 UJ	1 UJ	1 U	1 U	1 U	1 U	1 U
Total VOCs	TVOC	NE	5	6	139	69	74	ND	ND
Non-carcinogenic PAHs (ug/L)									
Acenaphthene	83-32-9	20*	10 U	10 U	66	11	15	10 U	10 U
Acenaphthylene	208-96-8	NE	10 U	10 U	4 J	3 J	1 J	10 U	10 U
Anthracene	120-12-7	50*	10 U	10 U	3 J	2 J	2 J	10 U	10 U
Benzo[g,h,i]perylene	191-24-2	NE	10 U	10 U	10 U	10 U	1 J	10 U	10 U
Fluoranthene	206-44-0	50*	10 U	10 U	2 J	1 J	2 J	10 U	10 U
Fluorene	86-73-7	50*	10 U	10 U	22	10	9 J	10 U	10 U
2-Methylnaphthalene	91-57-6	NE	10 U	10 U	310 DJ	10 U	16	10 U	10 U
Naphthalene	91-20-3	10*	10 U	10 U	3500 D	10 U	200 D	10 U	10 U
Phenanthrene	85-01-8	50*	10 U	10 U	18	9 J	8 J	10 U	10 U
Pyrene	129-00-0	50*	10 U	10 U	3 J	1 J	2 J	10 U	10 U
Carcinogenic PAHs (ug/L)									
Benz[a]anthracene	56-55-3	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[a]pyrene	50-32-8	ND	10 U	10 U	10 U	10 U	2 J	10 U	10 U
Benzo[b]fluoranthene	205-99-2	0.002*	10 U	10 U	10 U	10 U	2 J	10 U	10 U
Benzo[k]fluoranthene	207-08-9	0.002*	10 U	10 U	10 U	10 U	1 J	10 U	10 U
Chrysene	218-01-9	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	53-70-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	193-39-5	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total PAH 17	TPAH17	NE	ND	ND	3928	37	261	ND	ND
Other SVOCs (ug/L)									

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Glen Cove Former MGP Site
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Location Name			GCMW-16	GCMW-16	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
Sample Name			GCMW-16	DUP-02 GC	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
Sample Date			1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/15/2013	1/15/2013
Parent Sample Code				GCMW-16					
Analyte	CAS no.	NYS AWQS							
Bis(chloroisopropyl)ether	108-60-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethyl)ether	111-44-4	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bis(2-chloroethoxy)methane	111-91-1	5	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U
Bis(2-ethylhexyl)phthalate	117-81-7	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl phenyl ether	101-55-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butyl benzyl phthalate	85-68-7	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	86-74-8	NE	10 UJ	10 UJ	5 J	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	59-50-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	106-47-8	5	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U
2-Chloronaphthalene	91-58-7	10*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	95-57-8	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl phenyl ether	7005-72-3	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzofuran	132-64-9	NE	10 U	10 U	5 J	10 U	2 J	10 U	10 U
1,2-Dichlorobenzene	95-50-1	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	541-73-1	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	106-46-7	3	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3,3-Dichlorobenzidine	91-94-1	5	R	R	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	120-83-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethyl phthalate	84-66-2	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dimethyl phthalate	131-11-3	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	105-67-9	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butyl phthalate	84-74-2	50	10 U	10 U	10 U	10 U	10 U	2 J	10 U
4,6-Dinitro-2-methylphenol	534-52-1	NE	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2,4-Dinitrophenol	51-28-5	10*	25 U	25 U	25 U	25 U	25 U	25 U	25 U
2,4-Dinitrotoluene	121-14-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	606-20-2	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-octyl phthalate	117-84-0	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	118-74-1	0.04	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	87-68-3	0.5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	77-47-4	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	67-72-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	78-59-1	50*	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol (o-Cresol)	95-48-7	1	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol (p-Cresol)	106-44-5	1	10 U	10 U	12	10 U	10 U	10 U	10 U

Table 2
Summary of Groundwater Analytical Results
Glen Cove Former MGP Site
Glen Cove, New York
Semiannual Groundwater Monitoring Report - Q1 2013

Location Name			GCMW-16	GCMW-16	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
Sample Name			GCMW-16	DUP-02 GC	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
Sample Date			1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/15/2013	1/15/2013
Parent Sample Code				GCMW-16					
Analyte	CAS no.	NYS AWQS							
2-Nitroaniline	88-74-4	5	25 UJ	25 UJ	25 U	25 U	25 U	25 U	25 U
3-Nitroaniline	99-09-2	5	25 UJ	25 UJ	25 U	25 U	25 U	25 U	25 U
4-Nitroaniline	100-01-6	5	R	25 UJ	25 U	25 U	25 U	25 U	25 U
Nitrobenzene	98-95-3	0.4	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	88-75-5	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitrophenol	100-02-7	NE	25 U	25 U	25 U	25 U	25 U	25 U	25 U
N-Nitrosodi-n-propylamine	621-64-7	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitrosodiphenylamine	86-30-6	50*	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	87-86-5	1	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Phenol	108-95-2	1	10 U	10 U	2 J	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	120-82-1	5	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	95-95-4	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	88-06-2	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Total SVOC	TSVOC	NE	ND	ND	3952	37	263	2	ND
PCBs (ug/L)									
Aroclor 1016	12674-11-2	NE	1 U	1 U	NA	NA	NA	NA	NA
Aroclor 1221	11104-28-2	NE	2 U	2 U	NA	NA	NA	NA	NA
Aroclor 1232	11141-16-5	NE	1 U	1 U	NA	NA	NA	NA	NA
Aroclor 1242	53469-21-9	NE	1 U	1 U	NA	NA	NA	NA	NA
Aroclor 1248	12672-29-6	NE	1 U	1 U	NA	NA	NA	NA	NA
Aroclor 1254	11097-69-1	NE	1 U	1 U	NA	NA	NA	NA	NA
Aroclor 1260	11096-82-5	NE	1 U	1 U	NA	NA	NA	NA	NA
Total PCBs	TPCB	0.09	ND	ND	NA	NA	NA	NA	NA
Total Metals (ug/L)									
Aluminum	7429-90-5	NE	5.1 UJ	5.1 UJ	NA	NA	NA	NA	NA
Antimony	7440-36-0	3	5.2 J	5.2 J	NA	NA	NA	NA	NA
Arsenic	7440-38-2	25	1.5 U	1.5 U	NA	NA	NA	NA	NA
Barium	7440-39-3	1000	77.3 J	82.4 J	NA	NA	NA	NA	NA
Beryllium	7440-41-7	3*	0.12 U	0.12 U	NA	NA	NA	NA	NA
Cadmium	7440-43-9	5	0.087 U	0.087 U	NA	NA	NA	NA	NA
Calcium	7440-70-2	NE	37800	36700	NA	NA	NA	NA	NA
Chromium	7440-47-3	50	0.34 UJ	0.34 UJ	NA	NA	NA	NA	NA
Cobalt	7440-48-4	NE	0.28 U	0.28 U	NA	NA	NA	NA	NA
Copper	7440-50-8	200	0.52 U	0.52 U	NA	NA	NA	NA	NA
Iron	7439-89-6	300	83.8 J	111	NA	NA	NA	NA	NA
Lead	7439-92-1	25	9.1	8.6	NA	NA	NA	NA	NA
Magnesium	7439-95-4	35000*	15300	14500	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results
Glen Cove Former MGP Site
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Location Name			GCMW-16	GCMW-16	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
Sample Name			GCMW-16	DUP-02 GC	GCRW-01	GCRW-02	GCRW-03	PZ-05	PZ-06
Sample Date			1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/15/2013	1/15/2013
Parent Sample Code				GCMW-16					
Analyte	CAS no.	NYS AWQS							
Manganese	7439-96-5	300	3.7 J	2.9 J	NA	NA	NA	NA	NA
Mercury	7439-97-6	0.7	0.1 UJ	0.1 UJ	NA	NA	NA	NA	NA
Nickel	7440-02-0	100	0.9 J	1.5 J	NA	NA	NA	NA	NA
Potassium	7440-09-7	NE	3030 J	3000 J	NA	NA	NA	NA	NA
Selenium	7782-49-2	10	4.2 J	2.8 J	NA	NA	NA	NA	NA
Silver	7440-22-4	50	0.29 U	0.29 U	NA	NA	NA	NA	NA
Sodium	7440-23-5	20000	33000	32400	NA	NA	NA	NA	NA
Thallium	7440-28-0	0.5*	2.9 U	2.9 U	NA	NA	NA	NA	NA
Vanadium	7440-62-2	NE	0.18 UJ	0.18 UJ	NA	NA	NA	NA	NA
Zinc	7440-66-6	2000*	1 UJ	1 UJ	NA	NA	NA	NA	NA
Cyanides (ug/L)									
Total Cyanide	57-12-5	200	10 U	10 U	NA	NA	NA	NA	NA

Table 2
Summary of Groundwater Analytical Results
Glen Cove Former MGP Site
Glen Cove, New York
Semiannual Groundwater Monitoring Report - Q1 2013

Notes:

ug/L - micrograms per liter or parts per billion (ppb)
BTEX - benzene, toluene, ethylbenzene, and xylenes
VOCs - volatile organic compounds
PAHs - polycyclic aromatic hydrocarbons
PCBs - polychlorinated biphenyls
SVOCs - semivolatile organic compounds

Total BTEX, Total VOCs, Total PAHs, Total SVOCs, and Total PCBs are calculated using detects only.
Total PAH16 is calculated using the EPA16 list of analytes: Acenaphthene, Acenaphthylene, Anthracene, Benz[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

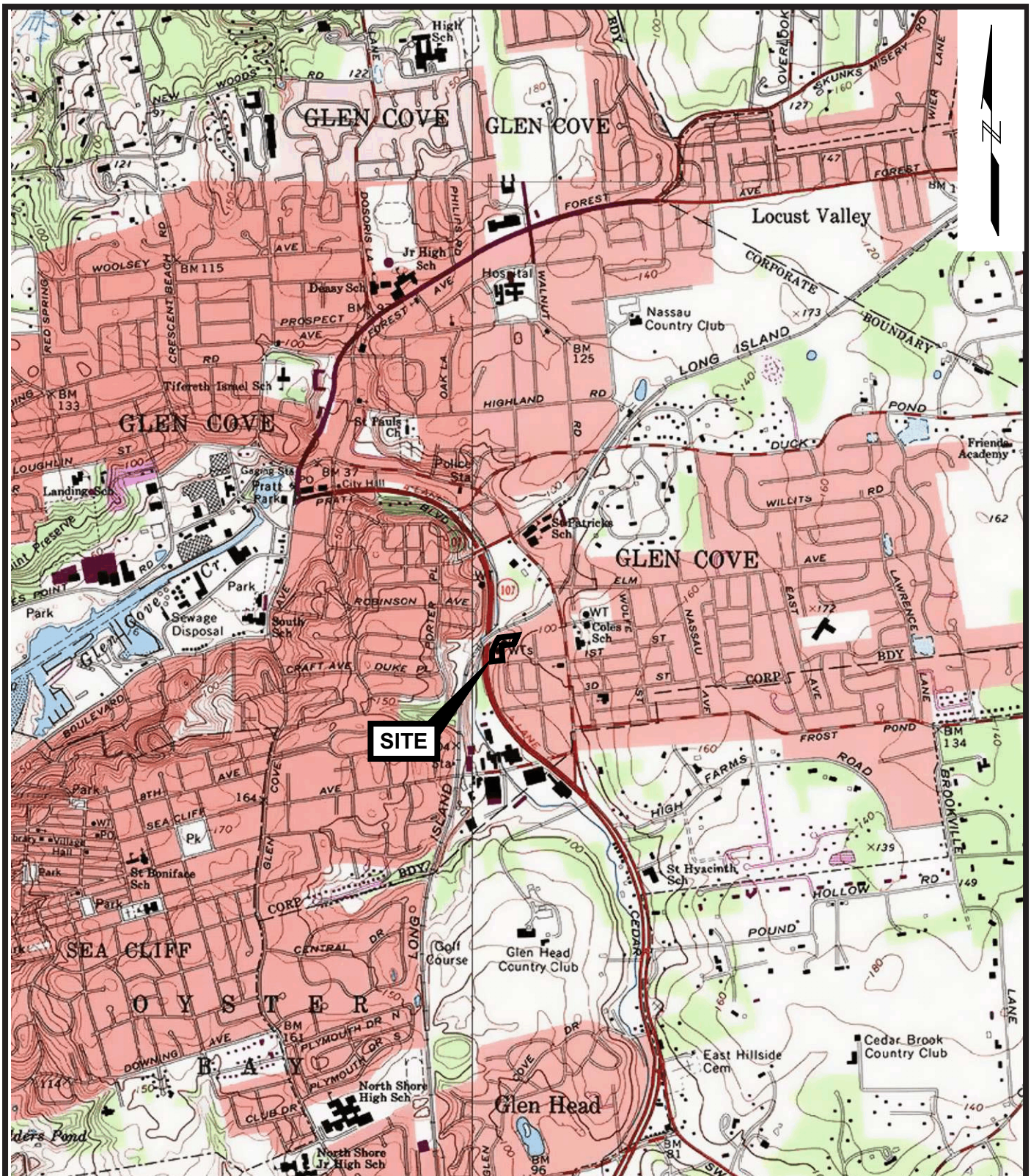
NE - not established
NA - not analyzed
ND - not detected; total concentration is listed as ND because no compounds were detected in the group

Bolding indicates a detected concentration
Gray shading indicates that the detected result value exceeds NYS AWQS

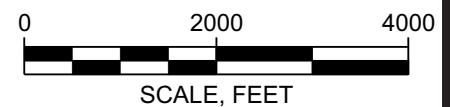
Data Qualifiers:

D - Results for dilution
J - estimated value
R - rejected
U - indicates not detected to the reporting limit
UJ - not detected at or above the reporting limit shown and the reporting limit is estimated

Figures



SOURCE: MAP CREATED WITH TOPO!™ ©2000 WILDFLOWER PRODUCTIONS (www.topo.com)



GLEN COVE FORMER MGP SITE
GLEN COVE, NEW YORK

nationalgrid



Project 093270-5-1504

SITE LOCATION MAP

March 2013

Figure 1

