



Geotechnical
Environmental and
Water Resources
Engineering

**Quarterly Groundwater Monitoring Report
Second Quarter (Q2) 2011**

**Sag Harbor
Former MGP Site**

Village of Sag Harbor
Suffolk County, Long Island, New York
Site ID No. 1-52-159

Submitted to:
National Grid USA
175 East Old Country Road
Hicksville, NY 11801

Submitted by:
GEI Consultants, Inc.
110 Walt Whitman Road
Huntington Station, NY
11746
631-760-9300

August, 2011
Project 093190-2-1203

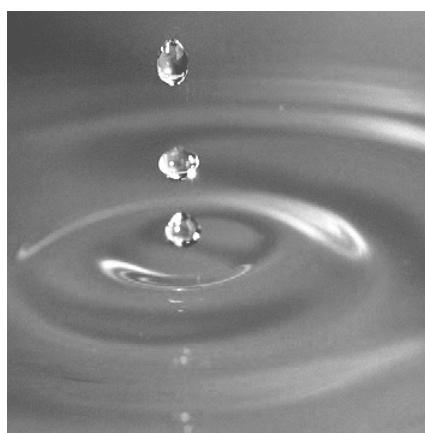


Table of Contents

<u>1. Sag Harbor Site and Adjacent Offsite Areas</u>	<u>1</u>
---	-----------------

Tables

- 1 Water Level Measurements and Calculated Water Elevations
- 2 Summary of Historical NAPL Observations
- 3 Summary of BTEX, MTBE and PAH Results
- 4 Summary of Historical BTEX Results
- 5 Summary of Historical Total PAH Results

Figures

- 1 Site Location Map
- 2 Monitoring Well Location Map
- 3 Shallow Groundwater Contours – High Tide
- 4 Shallow Groundwater Contours – Low Tide
- 5 Intermediate Groundwater Contours – High Tide
- 6 Intermediate Groundwater Contours – Low Tide

H:\WPROC\Project\KEYSPAN\Sag Harbor\Quarterly Monitoring\2011\Q2 2011\Text\Sag Harbor Q2 2011 GW Rpt Text_Final.docx

1. Sag Harbor Site and Adjacent Offsite Areas

Second Quarter (Q2) 2011 Groundwater Monitoring Event Summary

Event Date: June 20, 22 and 23, 2011

Site Phase: Quarterly groundwater monitoring

Location: The location of the Sag Harbor Former MGP site is depicted on Figure 1.

Monitoring Well Network

A total of 25 monitoring wells are currently located at or in the vicinity of the site (Figure 2). MW-05 was destroyed sometime between March and June 2007. Monitoring wells MW-01, MW-02, MW-03, MW-04, MW-06, SHMW-01S, SHMW-01I, SHMW-02I, SHMW-02D, SHMW-04S, SHMW-04I, SHMW-05S, SHMW-05I, SHMW-06S, and SHMW-06I were abandoned prior to the Q4 2008 sampling event due to the remediation activities being conducted at the site. Seven of the monitoring wells, including SHMW-01SR, SHMW-01IR, SHMW-02IR, SHMW-02DR, SHMW-04SR, SHMW-05SR and SHMW-05IR, were replaced as part of the replacement post remediation monitoring well installation program in Q4 2010.

Monitoring wells SHMW-02IR and SHMW-04SR were installed as larger diameter, potential dense non-aqueous phase liquid (DNAPL) recovery wells. In addition to the installation of the replacement monitoring wells listed above, new monitoring wells SHMW-01D and SHMW-02S were also installed as part of this program. Monitoring wells SHMW-07S and SHMW-07I, which were damaged presumably during the remedial activities, were abandoned during the replacement well installation program and reinstalled.

Monitoring well SHMW-02IR was damaged prior to the Q2 2011 sampling round, allowing debris to enter the well. As a result, neither a groundwater level measurement nor an analytical sample was collected from this well in Q2 2011.

Monitoring wells SHMW-07SR and SHMW-07IR, could not be located during the groundwater level measurement round. The wells were slightly buried, but were located and uncovered subsequent to the groundwater level measurement round, enabling collection of analytical samples.

Access to monitoring wells SHMW-09S and SHMW-09I could not be obtained for the Q2 2011 groundwater monitoring event.

Hydrological Data

Groundwater levels were measured on June 20, 2011 at 20 of the 25 monitoring wells, during low and high tide. Depth to groundwater and calculated groundwater elevations are provided in Table 1. Shallow and intermediate groundwater contours for high and low tidal conditions are depicted on Figures 3 through 6.

The groundwater flow direction was generally to the west towards Sag Harbor Cove. The ranges in depth to water and water table elevation data, as well as calculated hydraulic gradients for the shallow and intermediate portions of the aquifer in Q2 2011, are shown in the following table:

Depth Zone	High Tide			Low Tide		
	Range		Gradient ³	Range		Gradient ³
	DTW ¹	WLE ²		DTW ¹	WLE ²	
Shallow	0.08 – 4.44	0.88 – 3.29	0.0031	0.06 – 5.28	0.04 - 3.26	0.0040
Intermediate	0.15 – 3.37	1.63 – 2.42	0.0011	0.11 – 5.69	-0.06 – 1.88	0.0029

¹: Depth to water - Measured as feet below top of casing

²: Water level elevation - Calculated as feet above mean sea level

³: feet/foot

NAPL Thickness Data

Table 2 provides a summary of historical non-aqueous phase liquid (NAPL) data. In Q2 2011, 22 of the 23 accessible monitoring wells, excluding SHMW-02I which is damaged, were monitored for NAPL as part of the groundwater monitoring program. Trace amounts of light non-aqueous phase liquid (LNAPL) and trace amounts of DNAPL were found in monitoring wells SHMW-04SR and SHMW-07SR. There was no evidence of LNAPL or DNAPL in the remaining monitoring wells during Q2 2011.

Chemical Data

In Q2 2011, a total of 11 wells were sampled for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tert-butyl ether (MTBE) by Environmental Protection Agency (EPA) Method 8260, and for polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270. Well sampling was performed on June 22 and 23, 2011 and included all accessible shallow wells on the quarterly sampling list excluding SHMW-02I, which is damaged. The remaining intermediate and deep monitoring wells are sampled annually in the fourth quarter.

Chemical data for Q2 2011 (Table 3) indicate:

- BTEX concentrations ranged from below method detection limits (ND) in 4 of the 11 wells sampled to 1,172 micrograms per liter ($\mu\text{g}/\text{L}$) in SHMW-07SR.
- Total PAH concentrations ranged from below ND in 5 of the 11 wells sampled to 1,736 $\mu\text{g}/\text{L}$ in SHMW-07SR.
- MTBE concentrations ranged from ND in 9 of the 11 wells sampled to 3 $\mu\text{g}/\text{L}$ in SHMW-08S.

Data Trend Analysis

In general, BTEX and total PAH concentrations (see historical data in Tables 4 and 5) are decreasing in shallow groundwater on and adjacent to the site as indicated in the table below. However, increases in BTEX and total PAHs in Q2 2011 were noted in several monitoring wells in comparison to Q1 2011 concentrations.

Shallow Zone	Historical*		Q4 2010		Q1 2011		Q2 2011	
	Max	Average	Max	Average	Max	Average	Max	Average
BTEX	25,860	1,579	2,717	335	702	118	1,172	214
Total PAHs	7,211**	915	3,598	460	1,440	132	1,736	406

Concentrations in µg/L

*: Including data from existing wells only.

**: Historical maximum for all depth zones is 580,200 µg/L in SHMW-02I (3 µg/L in SHMW-02IR in Q1 2011).

Detectable concentrations of BTEX were identified in seven wells in Q2 2011. The concentrations in monitoring wells SHMW-02S (3 µg/L) and SHMW-08S (10 µg/L) slightly exceeded their respective historical means, but were within their respective historical concentration ranges. The Q2 2011 concentration in monitoring well SHMW-12S (672 µg/L) increased relative to recent sampling events and exceeded its historical mean concentration, but was within its historical concentration range.

Elevated BTEX concentrations in the remaining shallow wells in Q2 2011 were limited to SHMW-04SR, and SHMW-07SR. The concentrations in SHMW-04SR (469 µg/L) have decreased since the well was re-installed in Q4 2010. The Q2 2011 concentration in this well remains well below the historical mean concentration (10,776 µg/L) and was the lowest concentration detected during the historical monitoring period. The concentration in SHMW-07SR (1,172 µg/L) has increased relative to the prior two sampling events, but remains below the historical mean concentration (1,630 µg/L).

The concentrations in the remaining two wells (SHMW-03 and SHMW-05SR) with BTEX detections in Q2 2011 were relatively low and remained lower than the respective historical mean concentrations.

Six shallow wells had detectable total PAH concentrations in Q2 2011, with one of the six detections being near detection levels (7 µg/L in SHMW-03S). The total PAH concentrations in Q2 2011 in SHMW-05SR (167 µg/L), SHMW-07SR (1,736 µg/L), SHMW-08S (185 µg/L) and SHMW-12S (584 µg/L) all increased from Q1 2011 levels and were above their respective historical mean concentrations (excluding SHMW-07SR), but remain within their respective historical concentration ranges. Total PAH concentrations in SHMW-04SR (978 µg/L) have continued to decrease since the well was re-installed in Q4 2010 and have remained significantly below the historical mean concentration of 3,703 µg/L.

Variable dissolved constituent concentrations detected in shallow groundwater over the past sampling events are likely due, in part, to the rise and fall of the water table resulting in periods of both decreased and increased dissolution of adsorbed BTEX and PAH trapped beneath the groundwater/air interface.

The historical NAPL data (Table 2) indicates that measurable quantities of NAPL have primarily been found in two onsite shallow monitoring wells (MW-02 and MW-05), one onsite

intermediate well (SHMW-02I), and one offsite shallow well (SHMW-04S/04SR). Historically, trace amounts of NAPL have been found in two onsite shallow wells, MW-03 and MW-04, and two offsite shallow wells, SHMW-06S and SHMW-02IR, and intermittently in SHMW-07S and SHMW-07SR. Excluding SHMW-07S and SHMW-07SR, all of the wells identified above in which NAPL has been historically detected were either destroyed or abandoned prior to the start of remedial activities. Monitoring well SHMW-07S was damaged presumably during remedial activities and subsequently replaced.

Consistent with historical results, trace amounts of LNAPL and DNAPL were found in monitoring wells SHMW-04SR and SHMW-07SR in Q2 2011. There was no evidence of NAPL in the remaining monitoring wells during Q2 2011.

Future Plans

Continue quarterly groundwater and NAPL monitoring at site monitoring wells.

Tables

Table 1
Water Level Measurements and Calculated Water Elevations
Sag Harbor Former MGP Site
Groundwater Monitoring Program - Q2 2011

Well ID	Top of Casing Elevation (ft)*	Tide	Time	6/20/2011		Notes
				Depth to Water (ft)	Groundwater Elevation (ft)	
MW-01	5.09	High	--	--	--	Well abandoned
		Low	--	--	--	
MW-02	4.48	High	--	--	--	Well abandoned
		Low	--	--	--	
MW-03	4.59	High	--	--	--	Well abandoned
		Low	--	--	--	
MW-04	4.13	High	--	--	--	Well abandoned
		Low	--	--	--	
MW-05	5.07	High	--	--	--	Well destroyed
		Low	--	--	--	
MW-06	5.38	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-01SR	3.71	High	1413	2.05	1.66	Well replaced in Q4 2010
		Low	0817	2.01	1.70	
SHMW-01IR	3.81	High	1413	2.09	1.72	Well replaced in Q4 2010
		Low	0817	2.44	1.37	
SHMW-01D	3.67	High	1414	1.31	2.36	Well installed in Q4 2010
		Low	0818	2.12	1.55	
SHMW-02S	3.95	High	1410	2.17	1.78	Well installed in Q4 2010
		Low	0815	2.14	1.81	
SHMW-02IR	3.92	High	--	NM	--	Well Damaged
		Low	--	NM	--	
SHMW-02DR	3.66	High	1416	1.69	1.97	Well replaced in Q4 2010
		Low	0815	2.47	1.19	
SHMW-03S	3.83	High	1432	2.69	1.14	
		Low	0824	2.87	0.96	
SHMW-03I	3.85	High	1432	1.88	1.97	
		Low	0824	2.75	1.10	
SHMW-04SR	3.90	High	1417	2.72	1.18	Well replaced in Q4 2010
		Low	0820	2.67	1.23	
SHMW-04I	5.71	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-05SR	5.03	High	1426	3.48	1.55	Well replaced in Q4 2010
		Low	0821	3.43	1.60	
SHMW-05IR	4.96	High	1426	3.33	1.63	Well replaced in Q4 2010
		Low	0822	3.65	1.31	
SHMW-06S	4.44	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-06I	4.43	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-07SR	3.48	High	--	NM	--	Could not locate
		Low	--	NM	--	
SHMW-07IR	3.38	High	--	NM	--	Could not locate
		Low	--	NM	--	
SHMW-08S	3.69	High	1456	0.40	3.29	
		Low	0839	0.43	3.26	
SHMW-08I	3.79	High	1457	1.44	2.35	
		Low	0840	2.17	1.62	
SHMW-09S	3.06	High	--	NM	--	Access not provided
		Low	--	NM	--	
SHMW-09I	2.82	High	--	NM	--	Access not provided
		Low	--	NM	--	
SHMW-10S	4.75	High	1436	3.76	0.99	
		Low	0826	4.30	0.45	
SHMW-10I	4.75	High	1436	3.02	1.73	
		Low	0827	4.70	0.05	
SHMW-11S	5.32	High	1440	4.44	0.88	
		Low	0829	5.28	0.04	
SHMW-11I	5.63	High	1441	3.37	2.26	
		Low	0830	5.69	-0.06	
SHMW-12S	1.98	High	1445	0.08	1.90	
		Low	0832	0.06	1.92	
SHMW-12I	1.99	High	1446	0.15	1.84	
		Low	0833	0.11	1.88	
SHMW-13S	3.36	High	1453	0.40	2.96	
		Low	0837	0.39	2.97	
SHMW-13I	3.50	High	1454	1.08	2.42	
		Low	0837	1.63	1.87	

* Elevations were re-surveyed in November 2010.

-- = Not Available

NM = Not Measured

Table 2
 Summary of Historical DNAPL Observations
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well ID	May 2002 Observations	May 2004 Observations	Aug 2004 Observations	Oct 2004 Observations	Nov 2004 Observations	Dec 2004 Observations	Jan 2005 Observations	Feb 2005 Observations	Mar 2005 Observations
MW-01	None Observed	Odor	None Observed	Not Checked	NR	NR	NR	NR	NR
MW-02	Approx. 0.16' of DNAPL, sheen on surface	Approx. 0.15' of DNAPL, sheen on surface	Approx. 0.29' of DNAPL	Approx. 0.2' of DNAPL	Approx. 0.01' of DNAPL, 1.0' intermittent DNAPL	Approx. 0.1' of DNAPL	Approx. 0.11' of DNAPL	Approx. 0.16' of DNAPL	Approx. 0.15' of DNAPL
MW-03	Intermittent DNAPL for 1.5'	Approx. 0.03' of DNAPL, naphthalene-like odor	NR	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape
MW-04	None Observed	Approx. 0.02' of DNAPL, naphthalene-like odor	NR	Trace DNAPL at bottom of tape	None Observed	None Observed	Trace DNAPL at bottom of tape	Not Checked (under snow pile)	None Observed
MW-05	Blebs of LNAPL	Approx. 1.0' of DNAPL, naphthalene-like odor	Approx. 0.75' of DNAPL	Approx. 4.5' of LNAPL/NAPL	Approx. 0.35' of DNAPL, 3.6' intermittent DNAPL	Trace DNAPL at bottom of tape, bubbles in WC	Trace DNAPL at bottom of tape	Approx. 0.6' of DNAPL, approx. 0.02' of LNAPL	Sporadic DNAPL, approx. 0.1' of LNAPL
MW-06	None Observed	Slight naphthalene-like odor	NR	NR	NR	NR	NR	NR	NR
SHMW-01S/01SR	None Observed	Slight naphthalene-like odor	NR	NR	NR	NR	NR	NR	NR
SHMW-01I/01IR	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR
SHMW-01D	NI	NI	NI	NI	NI	NI	NI	NI	NI
SHMW-02S	NI	NI	NI	NI	NI	NI	NI	NI	NI
SHMW-02I/02IR	None Observed	Approx. 4.9' of DNAPL, sheen	Approx. 4.7' of DNAPL	Approx. 4.9' of DNAPL	Approx. 1.0' of DNAPL, 3.0' intermittent DNAPL	Approx. 0.6' of DNAPL	Approx. 0.65' of DNAPL	Approx. 0.5' of DNAPL	Approx. 0.45' of DNAPL
SHMW-02D/02DR	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR
SHMW-03S	None Observed	Odor	NR	NR	NR	NR	NR	NR	NR
SHMW-03I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR
SHMW-04S/04SR	None Observed	Approx. 0.6' of DNAPL, naphthalene-like odor	NR	Approx. 0.7' of DNAPL, 2.3' intermittent DNAPL	Approx. 0.55' of DNAPL	Approx. 0.29' of DNAPL	Approx. 0.35' of DNAPL	Approx. 0.22' of DNAPL	Approx. 0.25' of DNAPL
SHMW-04I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR
SHMW-05S/05SR	None Observed	Blebs of DNAPL in purge water, odor	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-05I/05IR	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR

Table 2
 Summary of Historical NAPL Observations
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well ID	May 2002 Observations	May 2004 Observations	Aug 2004 Observations	Oct 2004 Observations	Nov 2004 Observations	Dec 2004 Observations	Jan 2005 Observations	Feb 2005 Observations	Mar 2005 Observations
SHMW-06S	Slight sheen and naphthalene-like odor	Naphthalene-like odor	NR						
SHMW-06I	None Observed	None Observed	NR						
SHMW-07S/07SR	Sheen and naphthalene-like odor	Slight odor	NR						
SHMW-07I/07IR	None Observed	None Observed	NR						
SHMW-08S	None Observed	None Observed	NR						
SHMW-08I	None Observed	None Observed	NR						
SHMW-09S	None Observed	Slight naphthalene-like odor	NR						
SHMW-09I	None Observed	None Observed	NR						
SHMW-10S	None Observed	None Observed	NR						
SHMW-10I	None Observed	None Observed	NR						
SHMW-11S	None Observed	None Observed	NR						
SHMW-11I	None Observed	None Observed	NR						
SHMW-12S	None Observed	Sheen, strong sulfur-like odor	NR						
SHMW-12I	None Observed	None Observed	NR						
SHMW-13S	None Observed	None Observed	NR						
SHMW-13I	None Observed	None Observed	NR						

Table 2
 Summary of Historical DNAPL Observations
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well ID	Apr/Q1 2005 Observations	Jun/Q2 2005 Observations	Sep/Q3 2005 Observations	Dec/Q4 2005 Observations	Mar/Q1 2006 Observations	Jun/Q2 2006 Observations	Sep/Q3 2006 Observations	Dec/Q4 2006 Observations	Mar/Q1 2007 Observations
MW-01	NR	NR	NR	NR	NR	NR	NR	NR	NR
MW-02	Approx. 0.15' of DNAPL	Trace DNAPL at bottom of tape	Approx. 0.13' of DNAPL	Approx. 0.09' DNAPL, naphthalene-like odor	Approx. 0.01' DNAPL	Approx. 0.12' of DNAPL	Approx. 0.15' DNAPL	Approx. 0.10' DNAPL	Approx. 0.20' DNAPL
MW-03	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	None, naphthalene-like odor	No DNAPL observed	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	No DNAPL observed	Trace DNAPL (coating on tubes)
MW-04	None Observed	None Observed	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL	Trace DNAPL	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)
MW-05	Sporadic DNAPL, approx. 0.1' of LNAPL.	Approx. 3.0' of DNAPL	Approx. 0.75' of DNAPL, approx. 0.12' of LNAPL	DNAPL blebs in purge H ₂ O, 0.5' DNAPL coating on tubes	Approx. 0.15' of DNAPL, approx. 0.1' of LNAPL	Approx. 0.22' DNAPL; 0.05' of LNAPL	Approx. 0.55' DNAPL; 0.06' of LNAPL	Trace LNAPL; DNAPL in purge water (not measurable)	Trace LNAPL; DNAPL in purge water (not measurable)
MW-06	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-01S/01SR	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-01I/01IR	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-01D	NI	NI	NI	NI	NI	NI	NI	NI	NI
SHMW-02S	NI	NI	NI	NI	NI	NI	NI	NI	NI
SHMW-02I/02IR	Approx. 1.1' of DNAPL	Approx. 0.75' of DNAPL	Approx. 0.4' of DNAPL	Approx. 1.3' of DNAPL, naphthalene-like odor	Approx. 0.35' of DNAPL	Approx. 0.43' of DNAPL	Approx. 0.5' of DNAPL	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)
SHMW-02D/02DR	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-03S	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-03I	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-04S/04SR	Approx. 0.25' of DNAPL	Approx. 0.90' of DNAPL	Approx. 0.26' of DNAPL	Approx. 0.5' DNAPL, naphthalene-like odor	Approx. 0.25' of DNAPL	Approx. 0.5' of DNAPL	Approx. 0.25' of DNAPL	Approx. 0.30' of DNAPL	Approx. 0.40' DNAPL
SHMW-04I	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-05S/05SR	None Observed	None Observed	None Observed	None Observed	No DNAPL observed	None Observed	None Observed	None Observed	None Observed
SHMW-05I/05IR	NR	NR	NR	NR	NR	NR	NR	NR	None Observed

Table 2
 Summary of Historical DNAPL Observations
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well ID	Apr/Q1 2005 Observations	Jun/Q2 2005 Observations	Sep/Q3 2005 Observations	Dec/Q4 2005 Observations	Mar/Q1 2006 Observations	Jun/Q2 2006 Observations	Sep/Q3 2006 Observations	Dec/Q4 2006 Observations	Mar/Q1 2007 Observations
SHMW-06S	NR	NR	Trace DNAPL at bottom of tape	Approx. 0.10' DNAPL, naphthalene-like odor	Trace DNAPL	Approx. 0.2' of DNAPL	Approx. 0.2' of DNAPL	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)
SHMW-06I	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-07S/07SR	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-07I/07IR	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-08S	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-08I	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-09S	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-09I	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-10S	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-10I	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-11S	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-11I	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-12S	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-12I	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-13S	NR	NR	NR	NR	NR	NR	NR	NR	None Observed
SHMW-13I	NR	NR	NR	NR	NR	NR	NR	NR	None Observed

Table 2
 Summary of Historical NAPL Observations
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well ID	Jun/Q2 2007 Observations	Sep/Q3 2007 Observations	Dec/Q4 2007 Observations	Mar/Q1 2008 Observations	Jun/Q2 2008 Observations	Sep/Q3 2008 Observations	Dec/Q4 2008 Observations	Mar/Q1 2009 Observations	Jun/Q2 2009 Observations
MW-01	NR	NR	None Observed	None Observed	Trace DNAPL	Trace DNAPL (at bottom of tubing)	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
MW-02	Approx.0.07' DNAPL	Approx. 0.11' DNAPL	Approx. ~0.08'	Trace DNAPL	Moderate DNAPL; not measurable	Trace DNAPL	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
MW-03	None Observed	Trace DNAPL (coating on tubes)	Trace	Trace DNAPL (On bottom 1.5' of tubes)	Trace DNAPL	Trace DNAPL (0.05' at bottom of tubing)	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
MW-04	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Approx. ~0.02'	NR	Trace DNAPL	Trace DNAPL (at bottom of tubing)	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
MW-05	Well Destroyed	Well Destroyed	Well Destroyed	Well Destroyed	Well Destroyed	Well Destroyed	Well Destroyed	Well Destroyed	Well Destroyed
MW-06	NR	NR	None Observed	None Observed	None Observed	None Observed	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
SHMW-01S/01SR	NR	NR	None Observed	None Observed	None Observed	None Observed	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
SHMW-01I/01IR	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
SHMW-01D	NI	NI	NI	NI	NI	NI	NI	NI	NI
SHMW-02S	NI	NI	NI	NI	NI	NI	NI	NI	NI
SHMW-02I/02IR	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Approx. ~0.60'	Approx. 3' DNAPL	Approx. 1.5' DNAPL	Approx. 4' DNAPL	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
SHMW-02D/02DR	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
SHMW-03S	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-03I	NR	NR	None Observed	NR	NR	NR	None Observed	NR	None Observed
SHMW-04S/04SR	Approx.0.50' DNAPL	Approx. 0.5' DNAPL	Approx. ~0.61'	Approx. 1.05' DNAPL	Approx.0.6' DNAPL	Approx.0.75' DNAPL	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
SHMW-04I	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
SHMW-05S/05SR	None Observed	NR	None Observed	None Observed	None Observed	None Observed	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
SHMW-05I/05IR	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned

Table 2
 Summary of Historical NAPL Observations
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well ID	Jun/Q2 2007 Observations	Sep/Q3 2007 Observations	Dec/Q4 2007 Observations	Mar/Q1 2008 Observations	Jun/Q2 2008 Observations	Sep/Q3 2008 Observations	Dec/Q4 2008 Observations	Mar/Q1 2009 Observations	Jun/Q2 2009 Observations
SHMW-06S	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Trace	Trace DNAPL (on tubing)	Trace DNAPL	Trace DNAPL (on tubing)	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
SHMW-06I	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Abandoned	Well Abandoned
SHMW-07S/07SR	NR	NR	Trace	NR	NR	Trace DNAPL (on side of tubing approx 1' off bottom)	Well Inaccessible or Abandoned	Well Inaccessible	None Observed
SHMW-07I/07IR	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Inaccessible	None Observed
SHMW-08S	NR	NR	None Observed	None Observed	None Observed	None Observed	Well Inaccessible or Abandoned	Well Inaccessible	None Observed
SHMW-08I	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Inaccessible	None Observed
SHMW-09S	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	Well Inaccessible	None Observed
SHMW-09I	NR	NR	None Observed	NR	NR	NR	NR	NR	NR
SHMW-10S	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-10I	NR	NR	None Observed	NR	NR	NR	NR	NR	NR
SHMW-11S	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-11I	NR	NR	None Observed	NR	NR	NR	NR	NR	NR
SHMW-12S	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-12I	NR	NR	None Observed	NR	NR	NR	NR	NR	NR
SHMW-13S	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-13I	NR	NR	None Observed	NR	NR	NR	NR	NR	NR

Table 2
 Summary of Historical NAPL Observations
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well ID	Sep/Q3 2009 Observations	Dec/Q4 2009 Observations	Mar/Q1 2010 Observations	Jun/Q2 2010 Observations	Sep/Q3 2010 Observations	Dec/Q4 2010 Observations	Mar/Q1 2011 Observations	June/Q2 2011 Observations
MW-01	Well Abandoned	Well Abandoned	Well Abandoned					
MW-02	Well Abandoned	Well Abandoned	Well Abandoned					
MW-03	Well Abandoned	Well Abandoned	Well Abandoned					
MW-04	Well Abandoned	Well Abandoned	Well Abandoned					
MW-05	Well Destroyed	Well Destroyed	Well Destroyed					
MW-06	Well Abandoned	Well Abandoned	Well Abandoned					
SHMW-01S/01SR	Well Abandoned	None Observed	None Observed	None Observed				
SHMW-01I/01IR	Well Abandoned	None Observed	None Observed	None Observed				
SHMW-01D	NI	NI	NI	NI	NI	None Observed	None Observed	None Observed
SHMW-02S	NI	NI	NI	NI	NI	None Observed	None Observed	None Observed
SHMW-02I/02IR	Well Abandoned	None Observed	Well Damaged	Well Damaged				
SHMW-02D/02DR	Well Abandoned	None Observed	None Observed	None Observed				
SHMW-03S	None Observed	None Observed	None Observed					
SHMW-03I	NR	None Observed	None Observed	None Observed				
SHMW-04S/04SR	Well Abandoned	Trace LNAPL - DNAPL observed on tubing	Trace LNAPL - DNAPL observed on tubing	Trace LNAPL - DNAPL observed on tubing				
SHMW-04I	Well Abandoned	Well Abandoned	Well Abandoned					
SHMW-05S/05SR	Well Abandoned	None Observed	None Observed	None Observed				
SHMW-05I/05IR	Well Abandoned	None Observed	None Observed	None Observed				

Table 2
 Summary of Historical NAPL Observations
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well ID	Sep/Q3 2009 Observations	Dec/Q4 2009 Observations	Mar/Q1 2010 Observations	Jun/Q2 2010 Observations	Sep/Q3 2010 Observations	Dec/Q4 2010 Observations	Mar/Q1 2011 Observations	June/Q2 2011 Observations
SHMW-06S	Well Abandoned	Well Abandoned	Well Abandoned	Well Abandoned	Well Abandoned	Well Abandoned	Well Abandoned	Well Abandoned
SHMW-06I	Well Abandoned	Well Abandoned	Well Abandoned	Well Abandoned	Well Abandoned	Well Abandoned	Well Abandoned	Well Abandoned
SHMW-07S/07SR	Trace DNAPL (on side of tubing)	None Observed	None Observed	Well Inaccessible	Well Inaccessible	Trace LNAPL - DNAPL observed on tubing	Trace LNAPL - DNAPL observed on tubing	Trace LNAPL - DNAPL observed on tubing
SHMW-07I/07IR	NR	None Observed (approximately 10 feet of sand present in well)	None Observed (approximately 10 feet of sand present in well)	Well Inaccessible	Well Inaccessible	None Observed	None Observed	None Observed
SHMW-08S	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-08I	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-09S	None Observed	None Observed	Well Inaccessible	None Observed	None Observed	No access	No access	No access
SHMW-09I	NR	None Observed	None Observed	None Observed	None Observed	No access	No access	No access
SHMW-10S	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-10I	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-11S	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-11I	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-12S	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-12I	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-13S	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-13I	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed

Notes:

DNAPL = Dense Non-aqueous Phase Liquid
 LNAPL = Light Non-aqueous Phase Liquid
 WC = Water Column
 NR = Gauging Not Required
 NI = Not Installed

Table 3
 Summary of BTEX, MTBE and PAH Results
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Sample Name: Sample Date:	NYS AWQS	SHMW-01SR 6/22/2011	SHMW-02S 6/22/2011	SHMW-03S 6/23/2011	Duplicate of: SHMW-03S 6/23/2011	SHMW-04SR 6/23/2011	SHMW-05SR 6/23/2011	SHMW-07SR 6/22/2011	Duplicate of: SHMW-07SR 6/22/2011
BTEX (ug/L)									
Benzene	1	1 U	3	1	1	210 D	15	530 D	530 D
Toluene	5	1 U	1 U	1 U	1 U	9	1 U	12	12
Ethylbenzene	5	1 U	1 U	1	1	130	5	410 D	400 D
Xylene, total	5	1 U	1 U	1 U	1 U	120	5	220	220
Total BTEX	NE	ND	3	2	2	469	25	1172	1162
Other VOCs (ug/L)									
Methyl tert-butyl ether	10*	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U	10 U
Total VOCs	NE	ND	3	2	2	469	25	1172	1162
PAHs (ug/L)									
Acenaphthene	20*	10 U	10 U	4 J	4 J	130 D	31	77	63
Acenaphthylene	NE	10 U	10 U	10 U	10 U	2 J	10 U	4 J	3 J
Anthracene	50*	10 U	10 U	10 U	10 U	16	10 U	8 J	7 J
Benz[a]anthracene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[a]pyrene	ND	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[b]fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[g,h,i]perylene	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[k]fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	NE	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	10 U	10 U	10 U	8 J	10 U	7 J	6 J
Fluorene	50*	10 U	10 U	1 J	1 J	45	7 J	25	21
Indeno[1,2,3-cd]pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylnaphthalene,2-	NE	10 U	10 U	10 U	10 U	170 D	6 J	160 DJ	120 DJ
Naphthalene	10*	10 U	10 U	1 J	10 U	520 D	120 D	1400 D	1100 D
Phenanthrene	50*	10 U	10 U	1 J	1 J	77 DJ	3 J	47	41
Pyrene	50*	10 U	10 U	10 U	10 U	10	10 U	8 J	7 J
Total PAHs	NE	ND	ND	7	6	978	167	1736	1368

Table 3
 Summary of BTEX, MTBE and PAH Results
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Sample Name: Sample Date:	NYS AWQS	SHMW-08S 6/23/2011	SHMW-10S 6/22/2011	SHMW-11S 6/22/2011	SHMW-12S 6/22/2011	SHMW-13S 6/23/2011
BTEX (ug/L)						
Benzene	1	8	1 U	1 U	570 D	1 U
Toluene	5	1 U	1 U	1 U	2	1 U
Ethylbenzene	5	1 U	1 U	1 U	40	1 U
Xylene, total	5	2	1 U	1 U	60	1 U
Total BTEX	NE	10	ND	ND	672	ND
Other VOCs (ug/L)						
Methyl tert-butyl ether	10*	3 J	10 U	10 U	2 J	10 UJ
Total VOCs	NE	13	ND	ND	674	ND
PAHs (ug/L)						
Acenaphthene	20*	26	10 U	10 U	6 J	10 U
Acenaphthylene	NE	2 J	10 U	10 U	10 U	10 U
Anthracene	50*	4 J	10 U	10 U	10 U	10 U
Benz[a]anthracene	0.002*	10 U				
Benzo[a]pyrene	ND	10 U				
Benzo[b]fluoranthene	0.002*	10 U				
Benzo[g,h,i]perylene	NE	10 U				
Benzo[k]fluoranthene	0.002*	10 U				
Chrysene	0.002*	10 U				
Dibenz[a,h]anthracene	NE	10 U				
Fluoranthene	50*	4 J	10 U	10 U	10 U	10 U
Fluorene	50*	14	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	0.002*	10 U				
Methylnaphthalene,2-	NE	6	10 U	10 U	8 J	10 U
Naphthalene	10*	96	10 U	10 U	570 D	10 U
Phenanthrene	50*	29	10 U	10 U	10 U	10 U
Pyrene	50*	4 J	10 U	10 U	10 U	10 U
Total PAHs	NE	185	ND	ND	584	ND

Table 3
Summary of BTEX, MTBE and PAH Results
Sag Harbor Former MGP Site
Groundwater Monitoring Program - Q2 2011

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

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

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

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

U - indicates not detected to the reporting limit for organic analysis and the method detection limit for inorganic analysis

UJ - not detected at or above the reporting limit shown and the reporting limit is estimated

Table 4
 Summary of Historical BTEX Results
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well No.	Screen Interval (feet)	BTEX Concentrations (µg/L)																			
		Sampling Date																			
		1995	2000		2002	2004			2005				2006				2007				
		Nov	Mar	Apr	May	May	Aug	Mar/Apr	June	Sept	Dec	March	June	Sept	Dec	March	June	Sept	Dec		
MW-01	1.50 - 7.32	2,720	10	68	9	4	0	0	12	67	0	21	47	310	190	160	240	150	270		
MW-02	0.50 - 7.25	5,429	8,840	7,940	5,840	13,287	8,740	7,333	13,010	--	13,720	7,591	--	14,174	12,267	8,678	12,810	15,181	98		
MW-03	2.17 - 10.17	1,222	668	1,553	1,363	2,573	--	2,050	2,867	560	2,622	4,880	1,971	4,965	2,398	1,680	2,930	3,225	2,831		
MW-04	1.25 - 6.81	864	35	--	10	208	--	0	0	225	299	268	193	181	101	0	51	89	66		
MW-05	2.46 - 7.46	9,100	170	5	102	11,600	2,938	2,697	18,900	--	--	--	--	--	--	--	--	--	--		
MW-06	2.47 - 7.47	334	47	30	91	49	--	33	55	39	36	74	37	11	54	0	37	31	0		
SHMW-01S/01SR	1.0 - 6.0	--	--	1,413	874	2,102	--	1,367	1,810	406	1,313	2,562	2,085	5,183	2,915	691	2,460	2,600	1,684		
SHMW-01I	35.0 - 45.0	--	--	5	0	0	--	--	--	0	--	--	--	0	0	0	--	--	--		
SHMW-01D	65.0 - 75.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
SHMW-02S	1.0 - 6.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
SHMW-02I/02IR	35.0 - 45.0	--	--	26	0	1,179	16	20	20	19	25	0	0	0	0	0	0	11	12	15	
SHMW-02D	65.0 - 75.0	--	--	5	4	0	--	--	--	0	--	--	--	0	--	--	--	--	0		
SHMW-03S	2.0 - 12.0	--	--	63	0	110	--	48	53	46	75	131	67	97	13	122	80	12	50		
SHMW-03I	35.0 - 45.0	--	--	0	52	0	--	--	--	0	--	--	--	0	--	--	--	--	0		
SHMW-04S/04SR	2.0 - 12.0	--	--	7,940	3,154	12,180	--	9,369	17,730	8,960	21,920	25,860	9,361	18,398	10,489	6,883	20,488	16,120	10,378		
SHMW-04I	35.0 - 45.0	--	--	5	0	0	--	--	--	0	--	--	--	0	--	--	--	--	0		
SHMW-05S/05SR	2.0 - 12.0	--	--	37	69	83	--	107	282	2,960	115	202	45	43	26	35	458	676	98		
SHMW-05I	35.0 - 45.0	--	--	0	0	0	--	--	--	0	--	--	--	0	--	--	--	--	0		
SHMW-06S	2.0 - 6.0	--	--	2,392	2,463	3,057	--	2,630	1,950	--	2,910	2,622	1,702	4,289	2,196	1,475	2,285	2,162	1,565		
SHMW-06I	35.0 - 45.0	--	--	0	0	0	--	--	--	0	--	--	--	0	--	--	--	--	0		
SHMW-07S/07SR	1.0 - 11.0	--	--	2,011	1,562	414	--	1,482	3,340	2,458	1,722	1,400	1,060	--	1,137	185	--	2,139	726		
SHMW-07I	35.0 - 45.0	--	--	0	0	0	--	--	--	0	--	--	--	0	--	--	--	--	0		
SHMW-08S	1.0 - 7.0	--	--	5	2	9	--	0	14	0	15	11	0	19	0	0	0	0	0	12	
SHMW-08I	35.0 - 45.0	--	--	0	0	0	--	--	--	0	--	--	--	0	--	--	--	--	0		
SHMW-09S	2.0 - 12.0	--	--	1,024	506	1,100	--	500	1,000	--	920	1,130	770	768	500	418	1,240	178	600		
SHMW-09I	35.0 - 45.0	--	--	0	0	0	--	--	--	0	--	--	--	0	--	--	--	--	0		
SHMW-10S	5.0 - 15.0	--	--	0	0	0	--	0	0	0	0	0	0	0	0	0	0	0	0	0	
SHMW-10I	35.5 - 45.5	--	--	0	0	0	--	--	--	0	--	--	--	0	--	--	--	--	0		
SHMW-11S	3.5 - 13.5	--	--	0	0	0	--	0	0	0	0	0	0	0	0	0	0	0	0	0	
SHMW-11I	35.0 - 45.0	--	--	0	0	0	--	--	--	0	--	--	--	0	--	--	--	--	0		
SHMW-12S	1.5 - 6.5	--	--	--	0	344	--	142	930	69	290	140	463	581	182	85	623	81	0		
SHMW-12I	35.0 - 45.0	--	--	--	0	0	--	--	--	0	--	--	--	0	--	--	--	--	23		
SHMW-13S	1.5 - 6.5	--	--	--	0	0	--	0	0	0	0	0	0	0	0	0	0	0	0		
SHMW-13I	35.0 - 45.0	--	--	--	0	0	--	--	--	0	--	--	--	0	--	--	--	--	0		

Table 4
 Summary of Historical BTEX Results
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well No.	Screen Interval (feet)	BTEX Concentrations ($\mu\text{g/L}$)														Min	Max	Mean			
		Sampling Date				2008				2009				2010		2011					
		March	June	Sep	Dec	March	June	Sept	Dec	March	June	Sept	Dec	March	June						
MW-01	1.50 - 7.32	337	141	208	--	--	--	--	--	--	--	--	--	--	--	0	2,720	236			
MW-02	0.50 - 7.25	8,865	7,415	2,240	--	--	--	--	--	--	--	--	--	--	--	98	15,181	9,129			
MW-03	2.17 - 10.17	2,842	2,241	2,875	--	--	--	--	--	--	--	--	--	--	--	560	4,965	2,416			
MW-04	1.25 - 6.81	--	15	79	--	--	--	--	--	--	--	--	--	--	--	0	864	149			
MW-05	2.46 - 7.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	18,900	5,689			
MW-06	2.47 - 7.47	1	33	7	--	--	--	--	--	--	--	--	--	--	--	0	334	50			
SHMW-01S/01SR	1.0 - 6.0	1,595	306	243	--	--	--	--	--	--	--	--	--	0	1	0	0	5,183	1,505		
SHMW-01I	35.0 - 45.0	--	--	--	--	--	--	--	--	--	--	--	--	0	--	--	0	5	1		
SHMW-01D	65.0 - 75.0	--	--	--	--	--	--	--	--	--	--	--	--	0	--	--	0	0	0		
SHMW-02S	1.0 - 6.0	--	--	--	--	--	--	--	--	--	--	--	--	3	0	3	0	3	2		
SHMW-02I/02IR	35.0 - 45.0	18	41	29	--	--	--	--	--	--	--	--	--	4	0	--	0	1,179	72		
SHMW-02D	65.0 - 75.0	--	--	--	--	--	--	--	--	--	--	--	--	0	--	--	0	5	1		
SHMW-03S	2.0 - 12.0	3	0	5	13	111	24	4	9	40	5	0	9	24	2	0	131	42			
SHMW-03I	35.0 - 45.0	--	--	--	0	--	0	--	0	--	--	--	0	--	--	0	52	5			
SHMW-04S/04SR	2.0 - 12.0	7,567	8,059	7,561	--	--	--	--	--	--	--	--	--	2,717	702	469	469	25,860	10,776		
SHMW-04I	35.0 - 45.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	5	1		
SHMW-05S/05SR	2.0 - 12.0	77	83	64	--	--	--	--	--	--	--	--	--	20	22	25	20	2,960	263		
SHMW-05I	35.0 - 45.0	--	--	--	--	--	--	--	--	--	--	--	--	0	--	--	0	0	0		
SHMW-06S	2.0 - 6.0	1,296	1,343	1,298	--	--	--	--	--	--	--	--	--	--	--	--	1,296	4,289	2,214		
SHMW-06I	35.0 - 45.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0	0		
SHMW-07S/07SR	1.0 - 11.0	--	1,075	1,374	--	--	1,500	3,472	2,183	1,825	3,946	--	858	455	1,172	185	3,946	1,630			
SHMW-07I	35.0 - 45.0	--	--	--	--	--	--	--	--	--	--	--	--	0	--	--	0	0	0		
SHMW-08S	1.0 - 7.0	8	9	10	--	--	5	5	4	6	13	4	9	7	10	0	19	7			
SHMW-08I	35.0 - 45.0	--	--	--	--	--	0	--	0	--	--	--	0	--	--	0	0	0			
SHMW-09S	2.0 - 12.0	1,039	1,298	671	483	--	584	455	224	--	--	--	--	--	--	--	178	1,298	734		
SHMW-09I	35.0 - 45.0	--	--	--	0	--	0	--	0	--	--	--	--	--	--	--	0	0	0		
SHMW-10S	5.0 - 15.0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0		
SHMW-10I	35.5 - 45.5	--	--	--	0	--	0	--	0	--	--	--	--	0	--	--	0	0	0		
SHMW-11S	3.5 - 13.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SHMW-11I	35.0 - 45.0	--	--	--	0	--	0	--	0	--	--	--	0	--	--	0	0	0			
SHMW-12S	1.5 - 6.5	166	482	111	279	28	315	45	58	222	217	8	70	82	672	0	930	239			
SHMW-12I	35.0 - 45.0	--	--	--	0	--	--	--	2	--	--	--	0	--	--	0	23	3			
SHMW-13S	1.5 - 6.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
SHMW-13I	35.0 - 45.0	--	--	--	0	--	0	--	0	--	--	--	0	--	--	0	0	0			

NOTES:

-- = not analyzed or not applicable

$\mu\text{g/L}$ = micrograms per liter

BTEX = benzene, toluene, ethylbenzene, and xylene

Table 5
 Summary of Historical PAH Results
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well No.	Screen Interval (feet)	Total PAH Concentrations (µg/L)																		
		Sampling Date																		
		1995	2000		2002	2004			2005			2006				2007				
		Nov	Mar	Apr	May	May	Aug		Mar/Apr	June	Sept	Dec	March	June	Sept	Dec	March	June	Sept	Dec
MW-01	1.50 - 7.32	4,906	1,548	257	402	30	24	0	61	200	0	0	0	97	95	0	54	87	39	
MW-02	0.50 - 7.25	6,991	5,511	5,114	10,729	25,167	4,414	5,809	10,504	--	6,919	5,209	--	0	8,617	3,150	7,421	5,398	165	
MW-03	2.17 - 10.17	7,034	3,065	3,433	3,774	3,522	--	2,272	4,557	516	92	1,256	565	4,831	6,212	349	489	463	2,904	
MW-04	1.25 - 6.81	3,612	75	--	0	90	--	0	22	1,098	103	11	37	66	31	0	66	238	6	
MW-05	2.46 - 7.46	16,386	779	101	1,160	431,600	2,049	918	188,200	--	--	--	--	--	--	--	--	--	--	
MW-06	2.47 - 7.47	5,416	894	653	258	33	--	90	79	204	0	22	0	0	645	35	46	17	0	
SHMW-01S/01SR	1.0 - 6.0	--	--	4,147	2,663	2,424	--	1,989	2,185	840	0	42	115	3,989	3,874	0	1,058	1,691	42	
SHMW-01I	35.0 - 45.0	--	--	32	0	0	--	--	--	--	0	--	--	--	0	--	--	--	--	
SHMW-01D	65.0 - 75.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SHMW-02S	1.0 - 6.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SHMW-02I/02IR	35.0 - 45.0	--	--	266	0	580,200	41	185	124	271	30	74	32	91	89	0	10	175	32	
SHMW-02D	65.0 - 75.0	--	--	308	76	89	--	--	--	--	0	--	--	--	0	--	--	--	15	
SHMW-03S	2.0 - 12.0	--	--	422	0	295	--	79	130	117	339	0	0	147	118	430	191	12	154	
SHMW-03I	35.0 - 45.0	--	--	2	320	0	--	--	--	--	0	--	--	--	0	--	--	--	0	
SHMW-04S/04SR	2.0 - 12.0	--	--	4,275	5,107	5,965	--	3,959	6,669	4,684	5,879	2,364	3,572	4,196	6,250	2,632	3,999	4,693	4,305	
SHMW-04I	35.0 - 45.0	--	--	18	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	
SHMW-05S/05SR	2.0 - 12.0	--	--	13	170	94	--	82	91	26	53	17	11	11	110	0	0	0	14	
SHMW-05I	35.0 - 45.0	--	--	0	17	0	--	--	--	--	0	--	--	--	0	--	--	--	0	
SHMW-06S	2.0 - 6.0	--	--	4,130	4,694	3,024	--	3,162	2,366	--	4,157	120	201	3,900	4,062	1,703	3,574	4,368	380	
SHMW-06I	35.0 - 45.0	--	--	2	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	
SHMW-07S/07SR	1.0 - 11.0	--	--	7,211	6,585	2,708	--	3,224	4,604	6,187	3,507	2,004	3,119	--	3,721	0	--	3,902	4	
SHMW-07I	35.0 - 45.0	--	--	0	0	0	--	--	--	--	0	--	--	--	2,212	--	--	--	0	
SHMW-08S	1.0 - 7.0	--	--	110	71	94	--	25	70	33	83	112	57	77	99	13	90	10	13	
SHMW-08I	35.0 - 45.0	--	--	13	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	
SHMW-09S	2.0 - 12.0	--	--	1,787	2,472	1,697	--	1,463	1,600	--	2,609	94	1,935	1,138	2,737	48	206	2,246	130	
SHMW-09I	35.0 - 45.0	--	--	3	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	
SHMW-10S	5.0 - 15.0	--	--	--	22	6	--	0	0	0	0	0	0	0	0	0	0	0	1	
SHMW-10I	35.5 - 45.5	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	
SHMW-11S	3.5 - 13.5	--	--	--	0	3	--	173	0	0	0	0	0	0	0	0	0	0	0	
SHMW-11I	35.0 - 45.0	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	4	
SHMW-12S	1.5 - 6.5	--	--	--	60	218	--	71	600	230	260	110	470	310	280	15	560	0	155	
SHMW-12I	35.0 - 45.0	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	20	
SHMW-13S	1.5 - 6.5	--	--	--	0	0	--	0	0	0	0	0	0	0	0	0	0	0	0	
SHMW-13I	35.0 - 45.0	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	

Table 5
 Summary of Historical PAH Results
 Sag Harbor Former MGP Site
 Groundwater Monitoring Program - Q2 2011

Well No.	Screen Interval (feet)	Total PAH Concentrations ($\mu\text{g/L}$)														Min	Max	Mean			
		Sampling Date																			
		2008				2009				2010				2011							
		March	June	Sep	Dec	March	June	Sept	Dec	March	June	Sept	Dec	March	June						
MW-01	1.50 - 7.32	145	2	35	--	--	--	--	--	--	--	--	--	--	--	0	4,906	380			
MW-02	0.50 - 7.25	400	3,455	3,488	--	--	--	--	--	--	--	--	--	--	--	0	25,167	6,235			
MW-03	2.17 - 10.17	508	96	1,109	--	--	--	--	--	--	--	--	--	--	--	92	7,034	2,352			
MW-04	1.25 - 6.81	--	0	22	--	--	--	--	--	--	--	--	--	--	--	0	3,612	304			
MW-05	2.46 - 7.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	101	431,600	80,149			
MW-06	2.47 - 7.47	0	0	10	--	--	--	--	--	--	--	--	--	--	--	0	5,416	420			
SHMW-01S/01SR	1.0 - 6.0	0	0	0	--	--	--	--	--	--	--	--	0	0	0	0	4,147	1,193			
SHMW-01I	35.0 - 45.0	--	--	--	--	--	--	--	--	--	--	--	0	--	--	0	32	5			
SHMW-01D	65.0 - 75.0	--	--	--	--	--	--	--	--	--	--	--	0	--	--	0	0	0			
SHMW-02S	1.0 - 6.0	--	--	--	--	--	--	--	--	--	--	--	0	0	--	0	0	0			
SHMW-02I/02IR	35.0 - 45.0	8	42	209	--	--	--	--	--	--	--	--	9	3	--	0	580,200	27,709			
SHMW-02D	65.0 - 75.0	--	--	--	--	--	--	--	--	--	--	--	0	--	--	0	308	70			
SHMW-03S	2.0 - 12.0	0	0	17	29	0	20	0	0	0	22	0	0	2	7	0	430	90			
SHMW-03I	35.0 - 45.0	--	--	--	0	--	0	--	0	--	--	--	0	--	--	0	320	32			
SHMW-04S/04SR	2.0 - 12.0	0	1,328	1,868	--	--	--	--	--	--	--	--	3,598	1,440	978	0	6,669	3,703			
SHMW-04I	35.0 - 45.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	18	3			
SHMW-05S/05SR	2.0 - 12.0	2	0	31	--	--	--	--	--	--	--	--	0	4	167	0	170	43			
SHMW-05I	35.0 - 45.0	--	--	--	--	--	--	--	--	--	--	--	0	--	--	0	17	2			
SHMW-06S	2.0 - 6.0	0	44	5,848	--	--	--	--	--	--	--	--	--	--	--	0	5,848	2,690			
SHMW-06I	35.0 - 45.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	2	0			
SHMW-07S/07SR	1.0 - 11.0	--	54	3,252	--	--	2,919	4,722	5,286	3,410	4,547	--	1,456	0	1,736	0	7,211	3,224			
SHMW-07I	35.0 - 45.0	--	--	--	--	--	--	--	--	--	--	--	0	--	--	0	2,212	316			
SHMW-08S	1.0 - 7.0	14	21	55	--	--	59	60	112	129	201	34	3	11	185	3	201	68			
SHMW-08I	35.0 - 45.0	--	--	--	--	--	1	--	0	--	--	--	0	--	--	0	13	2			
SHMW-09S	2.0 - 12.0	0	92	485	503	--	68	39	389	--	--	--	--	--	--	0	2,737	1,035			
SHMW-09I	35.0 - 45.0	--	--	--	0	--	0	--	0	--	--	--	--	--	--	0	3	0			
SHMW-10S	5.0 - 15.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	1			
SHMW-10I	35.5 - 45.5	--	--	--	0	--	0	--	0	--	--	--	0	--	--	0	0	0			
SHMW-11S	3.5 - 13.5	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	173	6			
SHMW-11I	35.0 - 45.0	--	--	--	0	--	0	--	0	--	--	--	0	--	--	0	4	0			
SHMW-12S	1.5 - 6.5	9	137	259	280	0	332	4	216	177	585	3	0	0	584	0	600	212			
SHMW-12I	35.0 - 45.0	--	--	--	0	--	--	--	0	--	--	--	0	--	--	0	20	3			
SHMW-13S	1.5 - 6.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
SHMW-13I	35.0 - 45.0	--	--	--	0	--	0	--	0	--	--	--	0	--	--	0	0	0			

NOTES:

-- = not analyzed or not applicable

$\mu\text{g/L}$ = micrograms per liter

PAH = polycyclic aromatic hydrocarbons

Q2 2011 GROUNDWATER MONITORING REPORT
SAG HARBOR FORMER MGP SITE
NATIONAL GRID
AUGUST 2011

Figures



SAG HARBOR FORMER MGP SITE
SAG HARBOR, NEW YORK



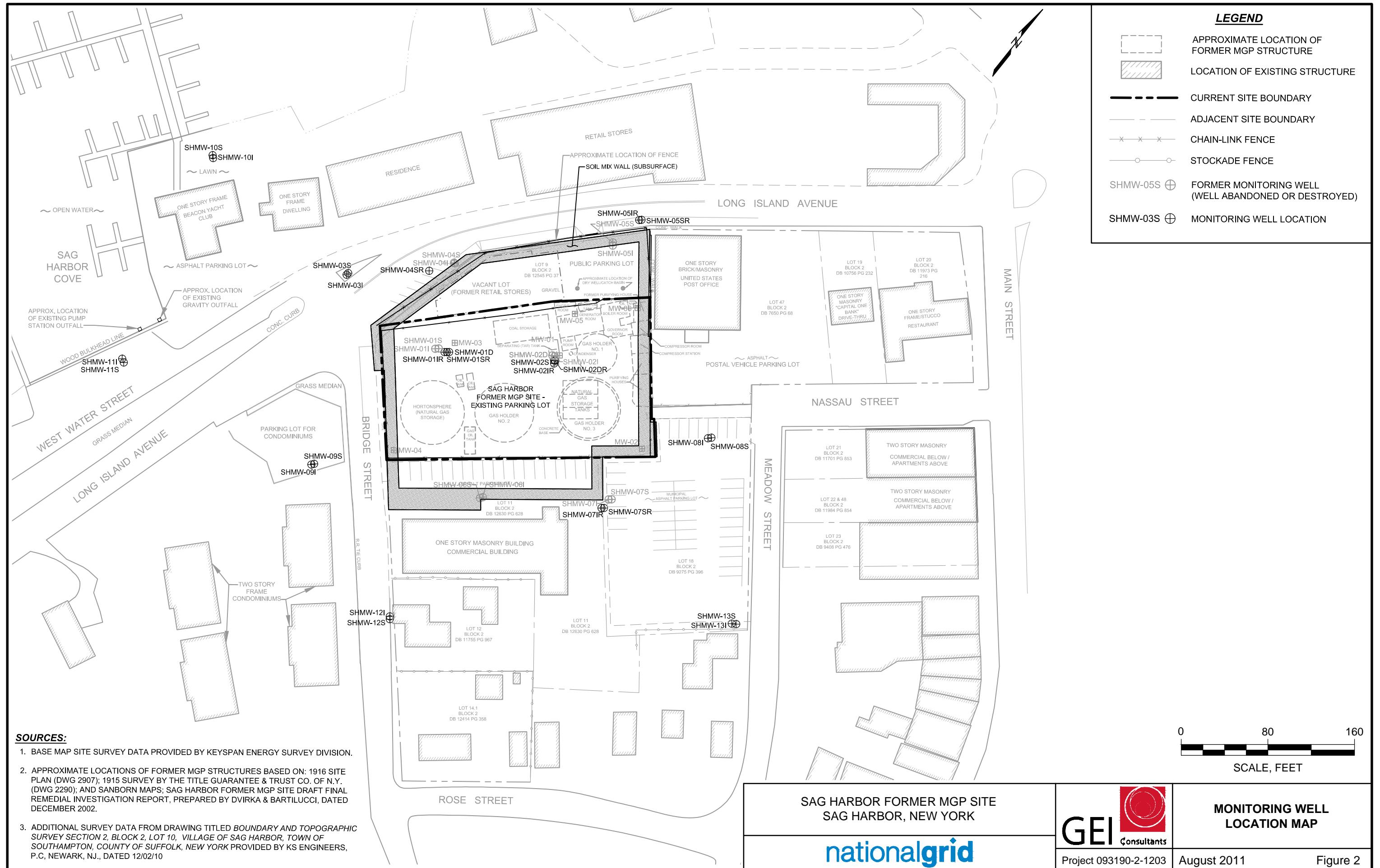
SITE LOCATION MAP

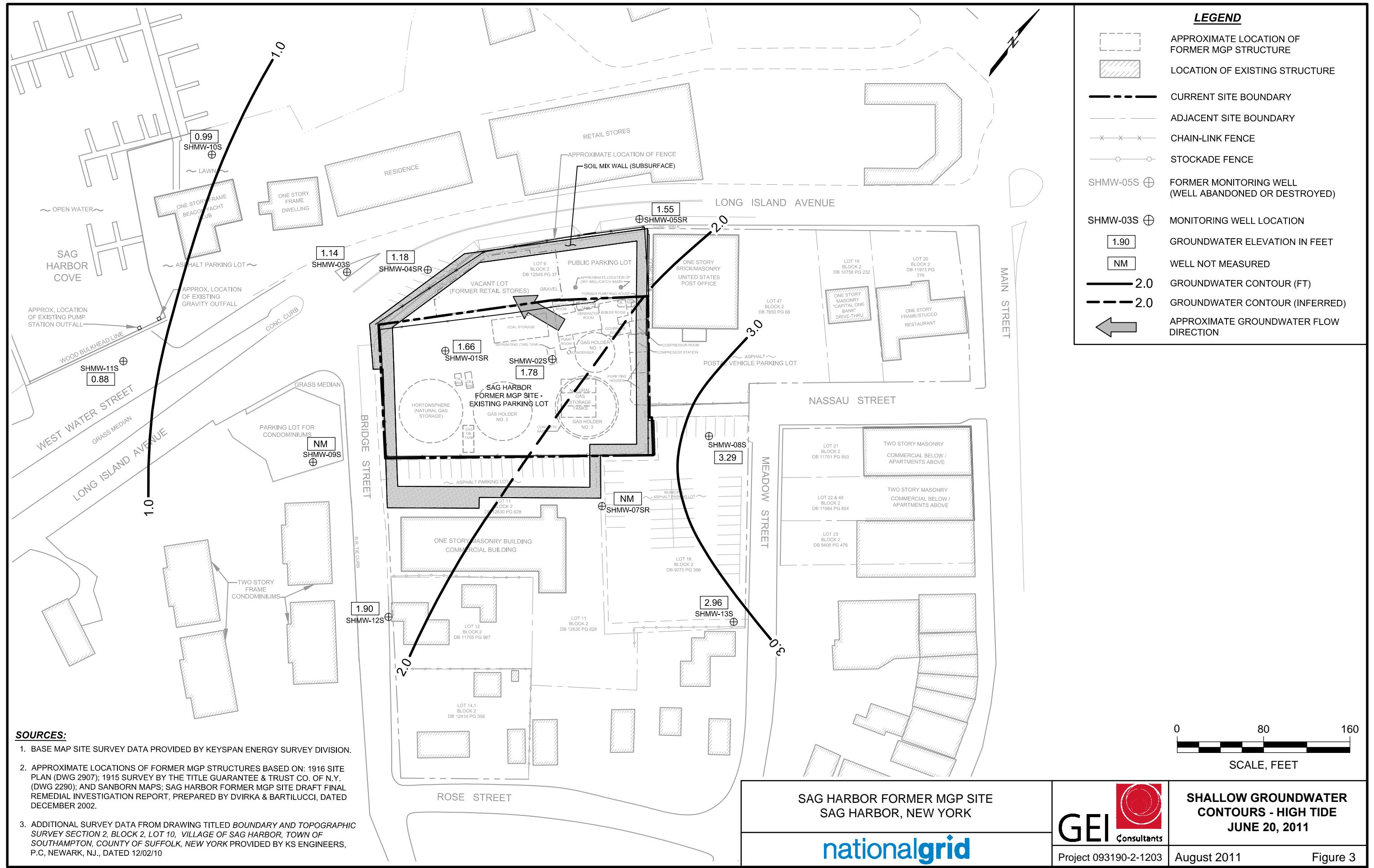
nationalgrid

Project 093190-2-1203

August 2011

Figure 1





I:\PROJECT\NATIONAL GRID\SAG HARBOR GROUNDWATER-QUARTERLY MONITORING\2011\FIGURES\SAG HARBOR-GW CONTOURS Q2-2011.DWG

