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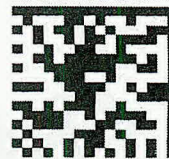
Report. HW. 704031. 2010. 03. 18. NAPL Barrier-Wall
Annual Report

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MAR 22 2010

Mr. Anthony Karwiel
Project Manager
New York State Department of Environmental Conservation
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Albany, NY 12233-7014

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Subject:
NAPL Monitoring Report
Passive Barrier Wall – Interim Remedial Measure
Binghamton Court Street, Former MGP
Site #7-04-031

ENVIRONMENTAL

Dear Mr. Karwiel:

On behalf of the New York State Electric & Gas Corporation (NYSEG), ARCADIS is pleased to present this letter report summarizing the monitoring data collected in accordance with the *NAPL Barrier Wall Interim Remedial Measure Engineering Certification Report* (ARCADIS, 2007; referred to hereafter as the "Engineering Certification Report"). The purpose of the passive NAPL barrier is to prevent nonaqueous phase liquids (NAPLs) from leaving the site. The term "passive" refers to the fact that the barrier operates without the pumping or treating groundwater. Construction of the passive NAPL barrier was substantially completed in November 2006; however, as discussed in the Engineering Certification Report, three NAPL-recovery wells (RW-20, RW-21, and RW-22) were not installed until January 2007. The formal monitoring program began in April 2007. In addition, one round of preliminary monitoring data was collected in January 2007, immediately after the final three NAPL-recovery wells were installed.

Date:
March 18, 2010

Contact:
Keith White

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Our ref:
B0013082.0001.00001
#2.04

The current monitoring program consists of the following:

- Quarterly monitoring of all 22 NAPL-recovery wells (identified as RW-1 through RW-22 on the attached Figure 1).
- Semiannual monitoring of a series of "sentinel" wells located between the barrier and the Susquehanna River (MW97-7S, NMW-2, PZ01-02, PZ03-01D, PZ03-02A, PZ03-02D, PZ03-03A, PZ03-03B, PZ03-03D, PZ03-04A, PZ03-04B, PZ03-04D, PZ03-05A, PZ03-05B, PZ03-05C, PZ03-05D, PZ03-06A, PZ03-06B, PZ03-06C, PZ03-06D, PZ03-07A, PZ03-07B, PZ03-07C, PZ03-07D, PZ03-08A, PZ03-08B, PZ03-08C, and PZ03-08D). The locations of these wells are shown on Figure 2.

During the quarterly and semiannual monitoring events, each location was monitored for depth to groundwater, depth to bottom, and, if present, the thickness of accumulated light

Imagine the result

NAPL (LNAPL) or dense NAPL (DNAPL). LNAPL thickness was measured using an oil-water interface probe and confirmed using a clear bailer. DNAPL presence was monitored using a weighted tape. If DNAPL was detected, the tape would also be used to determine its thickness.

Data collected during the recovery-well and sentinel-well monitoring events are contained in Tables 1 and 2, respectively. All monitoring was performed by ARCADIS staff, or by a combination of staff from ARCADIS and AES, Inc.

In accordance with the Engineering Certification Report, monthly monitoring of the barrier trench was conducted between April 2007 and August 2008. Although initially proposed at that frequency for one year, the monthly monitoring was extended an additional five months at the request of the New York State Department of Environmental Conservation (NYSDEC). The extension allowed the NYSDEC additional time to review the Engineering Certification Report and to monitor post redevelopment conditions at seven NAPL recovery wells in the barrier trench. These redevelopment activities were documented in a previous NAPL Monitoring Report dated, November 17, 2008. With the exception of RW-13, no significant sediment has accumulated at the bottom of the recovery wells that were redeveloped. RW-13 currently contains approximately one foot of accumulated sediment, but because it is intended for LNAPL monitoring (shallow recovery well), the sediment build-up should have no impact on the effectiveness of the well. As agreed upon with the NYSDEC, since no measurable NAPL was observed in any of the recovery wells during the monthly monitoring events, the frequency of barrier wall monitoring was reduced to quarterly following the August 2009 event.

To date, no measurable NAPL has accumulated in any of the barrier trench recovery wells. Only a trace amount of tar-like material was observed at recovery well location RW-13 during the February 2009 gauging event. No tar-like material has been detected in RW-13 since that event. A small amount of LNAPL has been detected at piezometers PZ01-02 (≤ 0.78 ft) and PZ-03-06B (≤ 1.62 ft), which are located downgradient of the barrier wall within Court Street. During the November 2009 monitoring event a trace amount of LNAPL was also noted at well location PZ03-06A (0.06 ft). A peristaltic pump was used to remove LNAPL from these wells. NAPL generated during pumping was contained in a drum and staged on-site for future disposal by NYSEG.

On July 14, 2009, in connection with the 66-inch Storm Sewer IRM monitoring program, also being implemented at the Court Street site, field personnel located and gauged three on-site monitoring wells (MW93-6S, MW93-6D and PZ01-05). The wells were gauged in response to the findings of DNAPL in the storm sewer during the fall 2008 inspection event (ARCADIS 2009). The results of the gauging indicated the presence of measurable DNAPL in monitoring well MW93-6D. NAPL was not observed in the remaining two wells gauged. DNAPL from well MW93-6D was subsequently removed and although on a more frequent schedule initially (weekly, bi-weekly), the monitoring of

MW93-6D is now coupled with the quarterly barrier trench monitoring. As of the end of 2009, approximately 0.68 gallon of DNAPL has been removed from the two inch monitoring well. Table 3 summarizes the monitoring events at MW93-6D. Due to the presence of DNAPL in well MW93-6D near the northwest corner of the site, six additional monitoring wells (MW97-10D, MW01-17D, TW97-01S, TW97-01D, TW97-02S and TW97-02D) were located and gauged in September 2009, at the site. NAPL was not observed in any of the six wells gauged. Well locations associated with the gauging above are presented on Figure 2.

Based on the findings of the 2009 monitoring program, specifically the lack of measureable NAPL in any of the barrier wall recovery wells, NYSEG recommends changing the monitoring frequency of the barrier wall to semiannual. NYSEG proposes to continue with the current semiannual monitoring of the Court Street road wells listed in Table 2. Monitoring of well MW93-6D will be coupled with the semiannual barrier wall monitoring. NYSEG will again prepare an annual report summarizing the findings of the semi-annual monitoring events following the 2010 calendar year. The report will include updated versions of the two tables contained in this report. The report will also include recommendations for modifying the monitoring program, if necessary.

Sincerely,

ARCADIS



Keith A. White, C.P.G.
Principal-in-Charge

DAC/plf
Attachments

Copies:

David A. Cornell, ARCADIS

References

ARCADIS BBL, 2007. *NAPL Barrier Wall Interim Remedial Measure Engineering Certification Report*. Prepared for New York State Electric & Gas Corporation. March 2007.

ARCADIS, 2009. *Report for 66-Inch Storm Sewer Liner Annual Monitoring, Court Street Site, Binghamton, New York*. Prepared for New York State Electric & Gas Corporation. February 3, 2009.

ARCADIS

TABLES

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-1													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	16:45	7.59	834.72	52.83	789.48	1.37	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
04/25/07	NR	7.22	835.09	52.50	789.81	1.70	--	--	--	--	--	--	Coal-tar-like odor.
05/30/07	NR	9.76	832.55	52.54	789.77	1.66	--	--	--	--	--	--	Trace yellow NAPL on top of probe, coal-tar-like odor.
06/27/07	8:48	10.73	831.58	52.85	789.46	1.35	--	--	--	--	--	--	Silt on the last 1" of probe.
07/24/07	10:01	10.41	831.90	52.60	789.71	1.60	--	--	--	--	--	--	Coal-tar-like odor.
08/28/07	10:00	10.87	831.44	52.71	789.60	1.49	--	--	--	--	--	--	Soft bottom, Silt on probe, VOC = 0.7ppm.
09/20/07	9:30	10.86	831.45	52.65	789.66	1.55	--	--	--	--	--	--	Able to penetrate sediment in well 0.25', coal-tar-like odor, coal-tar-like material on probe.
10/31/07	8:30	9.33	832.98	52.50	789.81	1.70	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor, VOCs = 0.0 ppm.
11/20/07	8:51	9.00	833.31	52.53	789.78	1.67	--	--	--	--	--	--	Coal-tar-like odor.
12/18/07	8:52	8.79	833.52	52.51	789.80	1.69	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:25	9.18	833.13	52.45	789.86	1.75	--	--	--	--	--	--	Soft bottom.
02/21/08	15:02	7.96	834.35	52.71	789.60	1.49	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
03/18/08	13:10	7.86	834.45	52.74	789.57	1.46	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
05/12/08	8:50	9.98	832.33	52.91	789.40	1.29	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
06/05/08	11:35	10.62	831.69	53.35	788.96	0.85	--	--	--	--	--	--	Trace sheen, soft bottom.
07/08/08	8:20	10.89	831.42	52.62	789.69	1.58	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
08/06/08	8:31	10.42	831.89	52.70	789.61	1.50	--	--	--	--	--	--	Soft bottom.
11/19/08	8:20	9.91	832.40	53.41	788.90	0.79	--	--	--	--	--	--	
02/06/09	8:53	10.36	831.95	52.69	789.62	1.51	--	--	--	--	--	--	
05/29/09	9:35	NR	NR	NR	NR	NR	--	--	--	--	--	--	Did not take fluid level. Curb box lid fractured. Riser no longer plumb, leaning toward the west.
08/11/09	9:28	8.36	833.95	53.50	788.81	0.70	--	--	--	--	--	--	Very Soft bottom, slight odor.
11/09/09	11:01	9.39	832.92	53.65	788.66	0.55	--	--	--	--	--	--	Soft bottom.

Top of Casing (FAMSL) = 842.31
 Well bottom elev. (installed; FAMSL) = 788.11
 Installed Well Depth (ft) = 54.20

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-2													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	17:05	8.10	834.02	49.53	792.59	2.77	--	--	--	--	--	--	Soft Bottom.
04/25/07	NR	7.40	834.72	49.15	792.97	3.15	--	--	--	--	--	--	Sheen on probe.
05/30/07	NR	10.32	831.80	49.20	792.92	3.10	--	--	--	--	--	--	Trace Silt on probe.
06/27/07	9:24	11.25	830.87	49.52	792.60	2.78	--	--	--	--	--	--	Black material on probe, tape and floating on the surface of the water.
07/24/07	10:25	10.73	831.39	49.78	792.34	2.52	--	--	--	--	--	--	Able to penetrate sediment in well 0.15', faint organic-like odor.
08/28/07	10:22	11.38	830.74	49.27	792.85	3.03	--	--	--	--	--	--	Soft bottom.
09/20/07	9:50	11.42	830.70	49.04	793.08	3.26	--	--	--	--	--	--	Able to penetrate sediment in well 0.3', slight coal-tar-like odor.
10/31/07	8:59	9.93	832.19	49.17	792.95	3.13	--	--	--	--	--	--	Able to penetrate sediment in well 0.2', strong coal-tar-like odor, manure-like odor, VOCs = 1.5 ppm.
11/20/07	9:16	9.60	832.52	49.30	792.82	3.00	--	--	--	--	--	--	Mild coal-tar-like odor.
12/18/07	9:25	9.42	832.70	49.10	793.02	3.20	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:19	9.69	832.43	49.28	792.84	3.02	--	--	--	--	--	--	Soft Bottom.
02/21/08	15:20	8.53	833.59	49.81	792.31	2.49	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
03/18/08	12:45	8.37	833.75	49.25	792.87	3.05	--	--	--	--	--	--	Soft bottom, sediment on probe. Vault lid will not close flush to the vault frame work, may be due to plowing or vehicles driving over the vault.
05/12/08	8:40	10.45	831.67	49.57	792.55	2.73	--	--	--	--	--	--	Soft bottom, coal-tar-like odor, sediment on probe.
06/05/08	11:58	11.19	830.93	52.27	789.85	0.03	--	--	--	--	--	--	Foam on the surface of the water.
07/08/08	8:36	11.44	830.68	52.18	789.94	0.12	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor.
08/06/08	8:46	11.00	831.12	52.02	790.10	0.28	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor.
11/19/08	8:44	10.39	831.73	52.17	789.95	0.13	--	--	--	--	--	--	Firm bottom, steel casing has moved - well is no longer plumb.
02/06/09	9:25	10.50	831.62	52.15	789.97	0.15	--	--	--	--	--	--	
05/29/09	11:48	9.49	832.63	52.15	789.97	0.15	--	--	--	--	--	--	Firm bottom, riser leaning toward the east.
08/11/09	9:50	8.99	833.13	52.15	789.97	0.15	--	--	--	--	--	--	Firm bottom.
11/09/09	11:18	9.98	832.14	52.22	789.90	0.08	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 842.12
 Well bottom elev. (installed; FAMSL) = 789.82
 Installed Well Depth (ft) = 52.30

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.
5. Well redeveloped on June 5th 2008

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-3													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	16:55	8.13	833.70	16.31	825.52	0.44	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	7.90	833.93	16.50	825.33	0.25	--	--	--	--	--	--	
05/30/07	NR	10.33	831.50	16.39	825.44	0.36	--	--	--	--	--	--	Firm bottom, little dark gray sediment on probe.
06/27/07	9:30	11.26	830.57	16.15	825.68	0.60	--	--	--	--	--	--	Silt on the last 4" of probe.
07/24/07	10:28	10.72	831.11	16.70	825.13	0.05	--	--	--	--	--	--	Able to penetrate sediment in well 0.5', faint organic-like odor.
08/28/07	10:22	11.38	830.45	16.20	825.63	0.55	--	--	--	--	--	--	Soft bottom.
09/20/07	9:54	11.42	830.41	16.25	825.58	0.50	--	--	--	--	--	--	Able to penetrate sediment in well 0.2', slight coal-tar-like odor.
10/31/07	9:03	9.92	831.91	16.48	825.35	0.27	--	--	--	--	--	--	Able to penetrate sediment in well 0.2', slight coal-tar-like odor, manure-like odor, VOCs = 4.7 ppm.
11/20/07	9:23	9.59	832.24	16.26	825.57	0.49	--	--	--	--	--	--	Mild coal-tar-like odor.
12/18/07	9:29	9.43	832.40	16.25	825.58	0.50	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:18	9.66	832.17	16.17	825.66	0.58	--	--	--	--	--	--	
02/21/08	15:25	8.51	833.32	16.59	825.24	0.16	--	--	--	--	--	--	Soft bottom.
03/18/08	12:48	8.35	833.48	16.49	825.34	0.26	--	--	--	--	--	--	Soft bottom, coal-tar-like odor. Vault lid will not close flush to the vault frame work, may be due to plowing or vehicles driving over the vault.
05/12/08	8:41	10.45	831.38	16.59	825.24	0.16	--	--	--	--	--	--	Soft bottom, sediment on probe.
06/05/08	11:59	11.16	830.67	16.65	825.18	0.10	--	--	--	--	--	--	Approximately 0.25' of gray sediment in well.
07/08/08	8:40	11.44	830.39	16.51	825.32	0.24	--	--	--	--	--	--	Firm bottom.
08/06/08	8:47	10.99	830.84	16.29	825.54	0.46	--	--	--	--	--	--	Coal-tar-like odor.
11/19/08	8:45	10.45	831.38	16.73	825.10	0.02	--	--	--	--	--	--	Firm bottom, steel casing has moved - wells no longer plumb.
02/06/09	9:27	10.84	830.99	16.61	825.22	0.14	--	--	--	--	--	--	
05/29/09	11:50	9.49	832.34	16.61	825.22	0.14	--	--	--	--	--	--	Firm bottom, riser leaning slightly.
08/11/09	9:56	8.99	832.84	16.40	825.43	0.35	--	--	--	--	--	--	Very soft, slight odor, 3.5 inches of dark gray sediment on probe.
11/09/09	11:18	9.98	831.85	16.70	825.13	0.05	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.

Top of Casing (FAMSL) = 841.83
 Well bottom elev. (installed; FAMSL) = 825.08
 Installed Well Depth (ft) = 16.75

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-4													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	16:15	8.72	833.79	15.61	826.90	1.49	--	--	--	--	--	--	Soft Bottom.
04/25/07	NR	5.92	836.59	15.75	826.76	1.35	--	--	--	--	--	--	
05/30/07	NR	11.03	831.48	15.90	826.61	1.20	--	--	--	--	--	--	Soft bottom, little Silt on probe.
06/27/07	9:35	11.96	830.55	15.89	826.62	1.21	--	--	--	--	--	--	Mild coal-tar-like odor, black material on probe.
07/24/07	10:37	11.42	831.09	15.76	826.75	1.34	--	--	--	--	--	--	Hard bottom, organic-like odor.
08/28/07	10:33	12.11	830.40	15.75	826.76	1.35	--	--	--	--	--	--	Mild manure-like odor.
09/20/07	9:58	12.14	830.37	15.76	826.75	1.34	--	--	--	--	--	--	Firm bottom, slight coal-tar-like odor, manure-like odor.
10/31/07	9:10	10.65	831.86	15.72	826.79	1.38	--	--	--	--	--	--	Firm bottom, slight coal-tar-like odor, manure-like odor, VOCs = 0.9 ppm.
11/20/07	9:31	10.32	832.19	15.79	826.72	1.31	--	--	--	--	--	--	Firm bottom.
12/18/07	9:39	10.14	832.37	15.80	826.71	1.30	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:12	10.38	832.13	15.69	826.82	1.41	--	--	--	--	--	--	Soft bottom.
02/21/08	13:30	9.08	833.43	15.88	826.63	1.22	--	--	--	--	--	--	Firm bottom, coal-tar-like odor, manure-like odor.
03/18/08	12:43	9.07	833.44	15.96	826.55	1.14	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor.
05/12/08	8:37	11.17	831.34	15.99	826.52	1.11	--	--	--	--	--	--	Firm bottom.
06/05/08	12:12	11.88	830.63	16.02	826.49	1.08	--	--	--	--	--	--	
07/08/08	8:45	12.16	830.35	15.91	826.60	1.19	--	--	--	--	--	--	Firm bottom.
08/06/08	8:50	11.70	830.81	15.90	826.61	1.20	--	--	--	--	--	--	Firm bottom.
11/19/08	8:50	11.19	831.32	15.99	826.52	1.11	--	--	--	--	--	--	Hard bottom.
02/06/09	9:43	11.57	830.94	15.82	826.69	1.28	--	--	--	--	--	--	
05/29/09	11:53	10.22	832.29	15.95	826.56	1.15	--	--	--	--	--	--	Hard bottom, riser leaning to the south.
08/11/09	10:00	9.74	832.77	15.90	826.61	1.20	--	--	--	--	--	--	Firm bottom, slight odor.
11/09/09	11:25	10.71	831.80	15.90	826.61	1.20	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 842.51
 Well bottom elev. (installed; FAMSL) = 825.41
 Installed Well Depth (ft) = 17.10

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-5													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	16:19	8.76	833.72	39.95	802.53	8.65	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	5.58	836.90	40.10	802.38	8.50	--	--	--	--	--	--	Coal-tar-like odor.
05/30/07	NR	10.99	831.49	40.10	802.38	8.50	--	--	--	--	--	--	Soft bottom, trace Silt on probe, slight coal-tar-like odor.
06/27/07	9:41	11.94	830.54	40.22	802.26	8.38	--	--	--	--	--	--	Coal-tar-like odor, manure-like odor, Silt on the last 2" of probe.
07/24/07	10:40	11.41	831.07	40.07	802.41	8.53	--	--	--	--	--	--	Able to penetrate sediment in well 0.8'.
08/28/07	10:35	12.07	830.41	40.25	802.23	8.35	--	--	--	--	--	--	Silt on end of probe, manure-like odor.
09/20/07	10:04	12.09	830.39	40.11	802.37	8.49	--	--	--	--	--	--	Able to penetrate sediment in well 0.11', coal-tar-like odor, manure-like odor.
10/31/07	9:13	10.62	831.86	40.25	802.23	8.35	--	--	--	--	--	--	Able to penetrate sediment in well 0.2', manure-like odor, VOCs = 2.0 ppm.
11/20/07	9:39	10.28	832.20	40.09	802.39	8.51	--	--	--	--	--	--	Mild coal-tar-like odor.
12/18/07	9:43	10.11	832.37	40.17	802.31	8.43	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:10	10.34	832.14	40.04	802.44	8.56	--	--	--	--	--	--	Soft bottom.
02/21/08	13:41	9.11	833.37	40.90	801.58	7.70	--	--	--	--	--	--	Soft bottom, manure-like odor.
03/18/08	12:40	9.05	833.43	40.90	801.58	7.70	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
05/12/08	8:38	11.18	831.30	42.89	799.59	5.71	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
06/05/08	12:13	11.83	830.65	48.60	793.88	0.00	--	--	--	--	--	--	
07/08/08	8:46	12.11	830.37	48.59	793.89	0.01	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor.
08/06/08	8:52	11.69	830.79	48.60	793.88	0.00	--	--	--	--	--	--	Coal-tar-like odor.
11/19/08	8:51	11.08	831.40	48.56	793.92	0.04	--	--	--	--	--	--	Firm bottom.
02/06/09	9:45	11.60	830.88	48.68	793.80	-0.08	--	--	--	--	--	--	
05/29/09	11:55	10.19	832.29	48.59	793.89	0.01	--	--	--	--	--	--	Hard bottom.
08/11/09	10:05	9.71	832.77	48.55	793.93	0.05	--	--	--	--	--	--	Firm bottom.
11/09/09	11:26	10.67	831.81	48.61	793.87	-0.01	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 842.48
 Well bottom elev. (installed; FAMSL) = 793.88
 Installed Well Depth (ft) = 48.60

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.
5. Well redeveloped on June 5th 2008

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-6													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	16:05	9.52	834.05	32.90	810.67	16.20	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	9.12	834.45	32.80	810.77	16.30	--	--	--	--	--	--	Silty bottom, coal-tar-like odor, sheen on probe.
05/30/07	NR	11.54	832.03	32.90	810.67	16.20	--	--	--	--	--	--	Very soft bottom, Silt on the end of probe, strong coal-tar-like odor.
06/27/07	9:52	12.32	831.25	32.95	810.62	16.15	--	--	--	--	--	--	Coal-tar-like odor, Silt on the last 3" of probe, black material on the end of the probe and on the water surface
07/24/07	10:44	12.09	831.48	33.13	810.44	15.97	--	--	--	--	--	--	Trace sheen on sediment on probe, strong organic-like odor and manure-like odor, able to penetrate sediment in well 0.1', black material on probe.
08/28/07	10:39	12.50	831.07	32.95	810.62	16.15	--	--	--	--	--	--	Soft bottom, Silt on end of probe, manure-like odor.
09/20/07	10:09	12.87	830.70	32.95	810.62	16.15	--	--	--	--	--	--	Able to penetrate sediment in well 0.2', brown material at the water surface, manure-like odor.
10/31/07	9:19	11.20	832.37	32.98	810.59	16.12	--	--	--	--	--	--	Able to penetrate sediment in well 0.2', film on water surface, brown slurry material on the probe (from the surface of the water), coal-tar-like and manure-like odors, VOCs = 1.3 ppm.
11/20/07	9:46	10.92	832.65	33.05	810.52	16.05	--	--	--	--	--	--	Manure-like odor.
12/18/07	9:49	10.71	832.86	33.20	810.37	15.90	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:09	10.92	832.65	33.00	810.57	16.10	--	--	--	--	--	--	
02/21/08	13:57	9.72	833.85	32.96	810.61	16.14	--	--	--	--	--	--	Soft bottom, strong coal-tar-like odor, manure-like odor, sheen on water surface, sheen on sediment on probe.
03/18/08	12:36	9.46	834.11	32.85	810.72	16.25	--	--	--	--	--	--	Soft bottom, trace sheen on sediment on probe, no odor.
05/12/08	8:34	11.55	832.02	35.69	807.88	13.41	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
06/05/08	14:15	11.68	831.89	48.75	794.82	0.35	--	--	--	--	--	--	
07/08/08	8:48	12.57	831.00	48.50	795.07	0.60	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor.
08/06/08	8:58	12.12	831.45	48.42	795.15	0.68	--	--	--	--	--	--	Firm bottom.
11/19/08	8:54	11.68	831.89	48.44	795.13	0.66	--	--	--	--	--	--	Firm bottom.
02/06/09	10:12	11.98	831.59	48.60	794.97	0.50	--	--	--	--	--	--	
05/29/09	12:05	10.92	832.65	48.42	795.15	0.68	--	--	--	--	--	--	Hard bottom.
08/11/09	10:07	10.52	833.05	48.50	795.07	0.60	--	--	--	--	--	--	Firm bottom.
11/09/09	11:31	11.22	832.35	48.52	795.05	0.58	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 843.57
 Well bottom elev. (installed, FAMSL) = 794.47
 Installed Well Depth (ft) = 49.10

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.
5. Well redeveloped on June 5th 2008

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-7													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	16:08	9.58	834.00	18.75	824.83	0.04	--	--	--	--	--	--	Firm bottom.
04/25/07	NR	9.23	834.35	18.79	824.79	0.00	--	--	--	--	--	--	Coal-tar-like odor.
05/30/07	NR	11.55	832.03	18.87	824.71	-0.08	--	--	--	--	--	--	Trace Silt on probe.
06/27/07	9:57	12.40	831.18	18.85	824.73	-0.06	--	--	--	--	--	--	Mild coal-tar-like odor, black material on probe and on water surface.
07/24/07	10:49	12.04	831.54	18.72	824.86	0.07	--	--	--	--	--	--	Strong manure-like odor, firm bottom, trace sheen on sediment on probe.
08/28/07	10:43	12.59	830.99	18.78	824.80	0.01	--	--	--	--	--	--	Firm bottom, Silt on end of probe.
09/20/07	10:13	12.66	830.92	18.60	824.98	0.19	--	--	--	--	--	--	Firm bottom, trace sediment on probe, manure-like odor.
10/31/07	9:23	11.31	832.27	18.73	824.85	0.06	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, manure-like odor, VOCs = 6.3 ppm.
11/20/07	9:52	11.01	832.57	18.83	824.75	-0.04	--	--	--	--	--	--	Coal-tar-like odor, manure-like odor, sediment on probe.
12/18/07	9:53	10.76	832.82	18.95	824.63	-0.16	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:07	10.90	832.68	18.66	824.92	0.13	--	--	--	--	--	--	Soft bottom.
02/21/08	13:59	9.78	833.80	18.73	824.85	0.06	--	--	--	--	--	--	Firm bottom, coal-tar-like odor, manure-like odor.
03/18/08	12:34	9.55	834.03	18.80	824.78	-0.01	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, sediment on probe.
05/12/08	8:33	11.62	831.96	12.77	830.81	6.02	--	--	--	--	--	--	Firm bottom, coal-tar-like odor.
06/05/08	14:17	11.34	832.24	18.74	824.84	0.05	--	--	--	--	--	--	
07/08/08	8:49	12.62	830.96	18.73	824.85	0.06	--	--	--	--	--	--	Firm bottom, sediment on probe.
08/06/08	9:01	12.16	831.42	18.70	824.88	0.09	--	--	--	--	--	--	Firm bottom, coal-tar-like odor.
11/19/08	8:55	11.77	831.81	18.75	824.83	0.04	--	--	--	--	--	--	Firm bottom.
02/06/09	10:15	12.02	831.56	18.70	824.88	0.09	--	--	--	--	--	--	
05/29/09	12:07	10.92	832.66	18.77	824.81	0.02	--	--	--	--	--	--	Hard bottom.
08/11/09	10:09	10.57	833.01	18.72	824.86	0.07	--	--	--	--	--	--	Firm bottom, odor.
11/09/09	11:32	11.24	832.34	18.75	824.83	0.04	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 843.58
 Well bottom elev. (installed; FAMSL) = 824.79
 Installed Well Depth (ft) = 18.79

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevation is based on averaged measured well depth over time.
 The well bottom elevation was changed on 12/29/08 because sediment thickness values, using well bottom elevation from probing event on 1/13/08, were indicating negative sediment.
5. The well depth measurement collected on 5/12/08 is assumed to be an error.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-8													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	13:00	9.58	833.47	14.09	828.96	4.01	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	9.20	833.85	14.10	828.95	4.00	--	--	--	--	--	--	Very Silty, Silt on probe, trace sheen on sediment on probe.
05/30/07	NR	11.48	831.57	14.02	829.03	4.08	--	--	--	--	--	--	Silt on 2" of end of probe.
06/27/07	10:05	12.32	830.73	14.05	829.00	4.05	--	--	--	--	--	--	Coal-tar-like odor, Silt on the last 4" of probe, black material on probe and tape.
07/24/07	10:53	11.99	831.06	14.68	828.37	3.42	--	--	--	--	--	--	Able to penetrate sediment in well 0.9', trace coal-tar-like blebs and sheen in sediment, strong manure- like odor.
08/28/07	10:53	12.50	830.55	14.04	829.01	4.06	--	--	--	--	--	--	Soft bottom, approximately 3" of Silt on end of probe, mild manure-like odor.
09/20/07	10:26	12.58	830.47	13.90	829.15	4.20	--	--	--	--	--	--	Firm bottom, slight coal-tar-like odor.
10/31/07	9:34	11.31	831.74	14.39	828.66	3.71	--	--	--	--	--	--	Able to penetrate sediment in well 0.6', coal-tar-like odor, VOCs = 1.5 ppm. Vault lid is not closing flush to the surrounding vault frame work.
11/20/07	10:01	11.03	832.02	13.97	829.08	4.13	--	--	--	--	--	--	Manure-like odor, sediment on probe, slight coal-tar-like odor.
12/18/07	10:04	10.76	832.29	14.15	828.90	3.95	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:06	10.82	832.23	13.87	829.18	4.23	--	--	--	--	--	--	Soft bottom.
02/21/08	14:11	9.76	833.29	14.21	828.84	3.89	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
03/18/08	11:51	9.49	833.56	14.61	828.44	3.49	--	--	--	--	--	--	Soft bottom, coal-tar-like odor, trace brown/black oily coal-tar-like material on sediment on probe, sheen on sediment on probe.
05/12/08	8:28	11.50	831.55	14.84	828.21	3.26	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
06/05/08	12:46	12.10	830.95	18.03	825.02	0.07	--	--	--	--	--	--	
07/08/08	8:55	12.51	830.54	18.07	824.98	0.03	--	--	--	--	--	--	Firm bottom.
08/06/08	9:09	12.07	830.98	18.02	825.03	0.08	--	--	--	--	--	--	Firm bottom, coal-tar-like odor.
11/19/08	8:59	11.69	831.36	18.04	825.01	0.06	--	--	--	--	--	--	Firm bottom.
02/06/09	10:38	11.79	831.26	18.09	824.96	0.01	--	--	--	--	--	--	
05/29/09	12:13	10.93	832.12	18.05	825.00	0.05	--	--	--	--	--	--	Hard bottom; Vault has rotated: High tension power line poles being stored on site around vault. Vault may have been disturbed during placement of poles.
08/11/09	10:17	10.65	832.40	18.00	825.05	0.10	--	--	--	--	--	--	Firm bottom.
11/09/09	11:39	11.21	831.84	18.00	825.05	0.10	--	--	--	--	--	--	Hard bottom.

Top of Casing (FAMSL) = 843.05
 Well bottom elev. (installed; FAMSL) = 824.95
 Installed Well Depth (ft) = 18.10

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.
5. Well redeveloped on June 5th 2008

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-9													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	13:10	9.59	833.93	52.93	790.59	0.02	--	--	--	--	--	--	Firm bottom.
04/25/07	NR	9.20	834.32	53.10	790.42	-0.15	--	--	--	--	--	--	
05/30/07	NR	11.44	832.08	53.25	790.27	-0.30	--	--	--	--	--	--	Trace Silt on probe.
06/27/07	10:11	12.32	831.20	53.05	790.47	-0.10	--	--	--	--	--	--	Mild coal-tar-like odor.
07/24/07	10:58	12.00	831.52	52.92	790.60	0.03	--	--	--	--	--	--	Able to penetrate sediment in well 0.1'.
08/28/07	10:49	12.51	831.01	53.05	790.47	-0.10	--	--	--	--	--	--	Trace black material on end of probe, mild manure-like odor.
09/20/07	10:20	12.59	830.93	52.91	790.61	0.04	--	--	--	--	--	--	Bubbles on surface of water, able to penetrate sediment in well 0.1', other wise firm bottom.
10/31/07	9:31	11.33	832.19	52.90	790.62	0.05	--	--	--	--	--	--	Soft bottom, mild coal-tar-like odor, thin film on water surface, VOCs = 7.4 ppm. Vault lid is not closing flush to surrounding vault frame work.
11/20/07	10:08	11.03	832.49	53.31	790.21	-0.36	--	--	--	--	--	--	Manure-like odor.
12/18/07	9:59	10.77	832.75	53.30	790.22	-0.35	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:05	10.81	832.71	52.85	790.67	0.10	--	--	--	--	--	--	Soft bottom.
02/21/08	14:12	9.75	833.77	52.93	790.59	0.02	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
03/18/08	11:54	9.48	834.04	52.97	790.55	-0.02	--	--	--	--	--	--	Soft bottom.
05/12/08	8:28	11.49	832.03	53.01	790.51	-0.06	--	--	--	--	--	--	Soft bottom.
06/05/08	12:45	12.10	831.42	52.92	790.60	0.03	--	--	--	--	--	--	
07/08/08	8:54	12.50	831.02	52.92	790.60	0.03	--	--	--	--	--	--	Soft bottom, mild coal-tar-like odor.
08/06/08	9:06	12.07	831.45	52.92	790.60	0.03	--	--	--	--	--	--	Soft bottom, mild coal-tar-like odor.
11/19/08	8:58	11.73	831.79	52.96	790.56	-0.01	--	--	--	--	--	--	Firm bottom.
02/06/09	10:43	11.91	831.61	52.91	790.61	0.04	--	--	--	--	--	--	Firm bottom.
05/29/09	12:11	10.97	832.55	52.92	790.60	0.03	--	--	--	--	--	--	Firm bottom; Vault has rotated: High tension power line poles being stored on site around vault. Vault may have been disturbed during placement of poles.
08/11/09	10:18	10.66	832.86	52.92	790.60	0.03	--	--	--	--	--	--	Soft bottom.
11/09/09	11:38	11.21	832.31	52.94	790.58	0.01	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 843.52
 Well bottom elev. (installed; FAMSL) = 790.57
 Installed Well Depth (ft) = 52.95

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-10													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	13:20	9.99	833.92	16.44	827.47	0.16	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	9.60	834.31	16.20	827.71	0.40	--	--	--	--	--	--	Soft bottom, trace sheen on probe.
05/30/07	NR	11.89	832.02	16.31	827.60	0.29	--	--	--	--	--	--	
06/27/07	10:16	12.40	831.51	16.05	827.86	0.55	--	--	--	--	--	--	Mild coal-tar-like odor, Silt on the last 2" of probe, trace sheen on probe.
07/24/07	11:01	12.41	831.50	16.78	827.13	-0.18	--	--	--	--	--	--	Able to penetrate sediment in well 0.6', black material on probe, trace coal-tar-like blebs on probe.
08/28/07	10:56	12.90	831.01	16.07	827.84	0.53	--	--	--	--	--	--	Soft bottom, approximately 3" Silt on end of probe, mild manure-like odor.
09/20/07	10:33	12.99	830.92	16.26	827.65	0.34	--	--	--	--	--	--	Brown material on probe (from water surface), bubbles on water surface, able to penetrate sediment in well 0.2', coal-tar-like odor and coal-tar-like material on probe.
10/31/07	9:43	11.73	832.18	16.31	827.60	0.29	--	--	--	--	--	--	Able to penetrate sediment in well 0.3', VOCs = 2.2 ppm.
11/20/07	10:15	11.46	832.45	16.16	827.75	0.44	--	--	--	--	--	--	Sediment on probe, strong coal-tar-like odor.
12/18/07	10:18	11.16	832.75	16.22	827.69	0.38	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:02	11.24	832.67	16.00	827.91	0.60	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
02/21/08	14:23	10.18	833.73	16.34	827.57	0.26	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
03/18/08	11:57	9.89	834.02	16.26	827.65	0.34	--	--	--	--	--	--	Soft bottom, coal-tar-like odor, sheen on sediment on probe.
05/12/08	8:25	11.39	832.52	16.37	827.54	0.23	--	--	--	--	--	--	Sediment on probe, coal-tar-like odor.
06/05/08	12:49	12.51	831.40	16.79	827.12	-0.19	--	--	--	--	--	--	Soft, approximately 0.6' of gray sediment, trace sheen.
07/08/08	9:02	12.42	831.49	16.25	827.66	0.35	--	--	--	--	--	--	Soft bottom, coal-tar-like odor, sediment on probe.
08/06/08	9:12	12.48	831.43	16.34	827.57	0.26	--	--	--	--	--	--	Coal-tar-like odor.
11/19/08	9:01	12.09	831.82	16.80	827.11	-0.20	--	--	--	--	--	--	Firm bottom.
02/06/09	11:06	12.15	831.76	16.59	827.32	0.01	--	--	--	--	--	--	
05/29/09	12:16	11.16	832.75	16.43	827.48	0.17	--	--	--	--	--	--	Firm bottom, soil around vault has settled.
08/11/09	10:22	11.09	832.82	16.49	827.42	0.11	--	--	--	--	--	--	Soft bottom, 4" of sediment on probe.
11/09/09	11:44	11.62	832.29	16.39	827.52	0.21	--	--	--	--	--	--	Soft bottom, 2" of sediment on probe.

Top of Casing (FAMSL) = 843.91
 Well bottom elev. (installed; FAMSL) = 827.31
 Installed Well Depth (ft) = 16.60

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.

TOC = Top of Casing.

-- = NAPL not present.

NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-11													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	13:23	9.97	833.87	49.51	794.33	0.19	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	9.60	834.24	49.50	794.34	0.20	--	--	--	--	--	--	Soft bottom, mothball-like odor.
05/30/07	NR	11.87	831.97	49.80	794.04	-0.10	--	--	--	--	--	--	Trace Silt on probe.
06/27/07	10:23	12.40	831.44	49.52	794.32	0.18	--	--	--	--	--	--	Mild coal-tar-like odor, trace Silt on probe, black material on probe and tape.
07/24/07	11:06	12.39	831.45	49.49	794.35	0.21	--	--	--	--	--	--	Able to penetrate sediment in well 0.3', black material on probe.
08/28/07	10:59	12.90	830.94	49.50	794.34	0.20	--	--	--	--	--	--	Soft bottom, manure-like odor.
09/20/07	10:40	12.97	830.87	49.39	794.45	0.31	--	--	--	--	--	--	Brown material on probe (from water surface), bubbles on water surface, firm bottom.
10/31/07	9:46	11.71	832.13	49.36	794.48	0.34	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, VOCs = 4.5 ppm.
11/20/07	10:20	11.41	832.43	49.39	794.45	0.31	--	--	--	--	--	--	Coal-tar-like odor.
12/18/07	10:23	11.13	832.71	49.75	794.09	-0.05	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:00	11.21	832.63	49.37	794.47	0.33	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
02/21/08	14:25	10.17	833.67	49.40	794.44	0.30	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
03/18/08	11:59	9.86	833.98	49.37	794.47	0.33	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
05/12/08	8:26	11.39	832.45	49.38	794.46	0.32	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
06/05/08	12:50	12.50	831.34	49.36	794.48	0.34	--	--	--	--	--	--	
07/08/08	9:07	12.58	831.26	49.38	794.46	0.32	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor.
08/06/08	9:15	12.47	831.37	49.45	794.39	0.25	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor.
11/19/08	9:03	12.05	831.79	49.40	794.44	0.30	--	--	--	--	--	--	Firm bottom.
02/06/09	11:09	12.14	831.70	49.25	794.59	0.45	--	--	--	--	--	--	
05/29/09	12:17	11.36	832.48	49.39	794.45	0.31	--	--	--	--	--	--	Firm bottom, soil around vault has settled.
08/11/09	10:26	11.07	832.77	49.30	794.54	0.40	--	--	--	--	--	--	Firm bottom.
11/09/09	11:45	11.62	832.22	49.41	794.43	0.29	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 843.84
 Well bottom elev. (installed; FAMSL) = 794.14
 Installed Well Depth (ft) = 49.70

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-12													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	13:39	11.09	833.56	47.92	796.73	0.04	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	10.53	834.12	47.95	796.70	0.01	--	--	--	--	--	--	Vault has been damaged, sides of vault have been pushed in, j-plugs cannot be placed in wells because the vault has settled and cannot close properly with j-plugs in place. This may have been caused by heavy equipment driving near vault and compacting sediment around vault (there are long plastic pipes stacked next to vault).
05/30/07	NR	12.68	831.97	48.00	796.65	0.04	--	--	--	--	--	--	
06/27/07	10:32	13.42	831.23	48.05	796.60	-0.09	--	--	--	--	--	--	Mild coal-tar-like odor, trace Silt on probe.
07/24/07	11:12	13.28	831.37	47.88	796.77	0.08	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', sediment at water surface, no apparent odor.
08/28/07	11:03	13.68	830.97	48.00	796.65	-0.04	--	--	--	--	--	--	Soft bottom. Vault lid was difficult to close, appears that vault has had more damage done since the last time fluid levels were measured.
09/20/07	10:47	13.77	830.88	47.90	796.75	0.06	--	--	--	--	--	--	Soft bottom, slight coal-tar-like odor, drain material in vault has settled approximately 2.0'.
10/31/07	9:53	12.69	831.96	47.87	796.78	0.09	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, VOCs = 1.8 ppm.
11/20/07	10:24	12.47	832.18	48.00	796.65	0.04	--	--	--	--	--	--	Mild coal-tar-like odor.
12/18/07	10:11	12.02	832.63	47.92	796.73	0.04	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	10:58	12.01	832.64	47.83	796.82	0.13	--	--	--	--	--	--	Soft bottom.
02/21/08	14:35	11.08	833.57	47.93	796.72	0.03	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
03/18/08	12:08	10.62	834.03	47.90	796.75	0.06	--	--	--	--	--	--	Soft bottom.
05/12/08	8:19	12.60	832.05	47.90	796.75	0.06	--	--	--	--	--	--	Soft bottom.
06/05/08	13:36	13.29	831.36	47.90	796.75	0.06	--	--	--	--	--	--	
07/08/08	9:12	13.69	830.96	47.95	796.70	0.01	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
08/06/08	9:18	13.24	831.41	47.95	796.70	0.01	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
11/19/08	9:11	13.13	831.52	47.93	796.72	0.03	--	--	--	--	--	--	
02/06/09	11:27	13.06	831.59	47.88	796.77	0.08	--	--	--	--	--	--	
05/29/09	12:19	12.72	831.93	47.90	796.75	0.06	--	--	--	--	--	--	Soil around the outside and on the inside of the vault has settled.
08/11/09	10:30	12.32	832.33	47.92	796.73	0.04	--	--	--	--	--	--	Soft bottom.
11/09/09	11:50	12.51	832.14	47.92	796.73	0.04	--	--	--	--	--	--	Soft bottom.

Top of Casing (FAMSL) = 844.65
 Well bottom elev. (installed; FAMSL) = 796.69
 Installed Well Depth (ft) = 47.96

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-13													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	13:33	11.03	833.72	14.99	829.76	3.71	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
04/25/07	NR	10.52	834.23	14.89	829.86	3.81	--	--	--	--	--	--	Vault has been damaged, sides of vault have been pushed in, j-plugs cannot be placed in wells because the vault has settled and cannot close properly with j-plugs in place. This may have been caused by heavy equipment driving near vault and compacting sediment around vault (there are long plastic pipes stacked next to vault).
05/30/07	NR	12.70	832.05	14.95	829.80	3.75	--	--	--	--	--	--	
06/27/07	10:36	13.35	831.40	13.50	831.25	5.20	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, Silt on the last 2" of probe.
07/24/07	11:16	13.11	831.64	13.48	831.27	5.22	--	--	--	--	--	--	Able to penetrate sediment in well 0.5', organic-like odor, brown sediment at water surface.
08/28/07	11:06	13.30	831.45	13.30	831.45	5.40	--	--	--	--	--	--	Meter sounded at the bottom of well (saturated sediment in well bottom), approximately 1.5" of Silt on end of probe. Vault lid was difficult to close, appears that vault has had more damage done since the last time fluid levels were measured.
09/20/07	10:54	13.25	831.50	13.25	831.50	5.45	--	--	--	--	--	--	Meter sounded when it hit the sediment at the bottom of the well (saturated sediment in well bottom), no measurable water in well, sediment on the probe, drain material in vault has settled approximately 2.0'.
10/31/07	9:57	12.68	832.07	13.19	831.56	5.51	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, VOCs = 1.3 ppm.
11/20/07	10:29	12.22	832.53	13.22	831.53	5.48	--	--	--	--	--	--	Firm bottom.
12/18/07	10:15	12.02	832.73	13.18	831.57	5.52	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	10:56	12.03	832.72	13.14	831.61	5.56	--	--	--	--	--	--	
02/21/08	14:36	11.06	833.69	13.43	831.32	5.27	--	--	--	--	--	--	Firm bottom.
03/18/08	12:05	10.61	834.14	13.38	831.37	5.32	--	--	--	--	--	--	Firm bottom.
05/12/08	8:18	12.59	832.16	12.55	832.20	6.15	--	--	--	--	--	--	Soft bottom.
06/05/08	13:37	13.32	831.43	18.60	826.15	0.10	--	--	--	--	--	--	Hard bottom.
07/08/08	9:15	13.71	831.04	18.55	826.20	0.15	--	--	--	--	--	--	Firm bottom, coal-tar-like odor.
08/06/08	9:20	13.25	831.50	18.55	826.20	0.15	--	--	--	--	--	--	Firm bottom, coal-tar-like odor.
11/19/08	9:12	13.12	831.63	18.55	826.20	0.15	--	--	--	--	--	--	
02/06/09	11:29	13.09	831.66	18.63	826.12	0.07	--	--	--	--	--	--	Brown NAPL-like material on tip of probe, coal-tar-like odor.
05/29/09	12:20	12.45	832.30	18.67	826.08	0.03	--	--	--	--	--	--	Soil around the outside and on the inside of the vault has settled.
08/11/09	10:34	12.33	832.42	17.79	826.96	0.91	--	--	--	--	--	--	Firm bottom, slight odor.
11/09/09	11:55	12.51	832.24	17.78	826.97	0.92	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 844.75
 Well bottom elev. (installed; FAMSL) = 826.05
 Installed Well Depth (ft) = 18.70

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.
5. Well redeveloped on June 5th 2008

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-14													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	13:44	12.07	833.20	17.09	828.18	0.51	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	11.57	833.70	17.20	828.07	0.40	--	--	--	--	--	--	
05/30/07	NR	14.74	830.53	17.07	828.20	0.53	--	--	--	--	--	--	
06/27/07	10:47	14.45	830.82	17.16	828.11	0.44	--	--	--	--	--	--	Mild, coal-tar-like odor, Silt on the last 2" of probe.
07/24/07	11:20	14.33	830.94	17.69	827.58	-0.09	--	--	--	--	--	--	Able to penetrate sediment in well 0.7', trace shoen and black material on end of probe, faint coal-tar-like odor.
08/28/07	11:10	14.72	830.55	17.12	828.15	0.48	--	--	--	--	--	--	Silt on end of probe, mild manure-like odor.
09/20/07	11:01	14.83	830.44	17.00	828.27	0.60	--	--	--	--	--	--	Firm bottom.
10/31/07	10:09	13.75	831.52	17.04	828.23	0.56	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, VOCs = 0.5 ppm.
11/20/07	10:34	13.45	831.82	17.05	828.22	0.55	--	--	--	--	--	--	Coal-tar-like odor.
12/18/07	10:20	13.05	832.22	17.30	827.97	0.30	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	10:53	13.06	832.21	16.93	828.34	0.67	--	--	--	--	--	--	
02/21/08	14:45	12.11	833.16	17.15	828.12	0.45	--	--	--	--	--	--	Firm bottom.
03/18/08	12:12	11.64	833.63	17.15	828.12	0.45	--	--	--	--	--	--	Firm bottom.
05/12/08	8:17	12.63	832.64	17.05	828.22	0.55	--	--	--	--	--	--	Soft bottom.
06/05/08	13:44	14.33	830.94	17.14	828.13	0.46	--	--	--	--	--	--	Hard bottom.
07/08/08	9:17	14.72	830.55	17.17	828.10	0.43	--	--	--	--	--	--	Firm bottom, coal-tar-like-odor.
08/06/08	9:24	14.28	830.99	17.12	828.15	0.48	--	--	--	--	--	--	Firm bottom, coal-tar-like-odor.
11/19/08	10:45	14.12	831.15	17.10	828.17	0.50	--	--	--	--	--	--	
02/06/09	11:37	14.08	831.19	17.05	828.22	0.55	--	--	--	--	--	--	Firm bottom.
05/29/09	12:25	13.76	831.51	17.12	828.15	0.48	--	--	--	--	--	--	Firm bottom.
08/11/09	10:37	13.42	831.85	17.11	828.16	0.49	--	--	--	--	--	--	Firm bottom.
11/09/09	11:56	13.53	831.74	17.11	828.16	0.49	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 845.27
 Well bottom elev. (installed; FAMSL) = 827.67
 Installed Well Depth (ft) = 17.60

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-15													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	13:46	12.07	833.16	48.98	796.25	0.22	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
04/25/07	NR	11.54	833.69	48.95	796.28	0.25	--	--	--	--	--	--	
05/30/07	NR	13.66	831.57	49.30	795.93	-0.10	--	--	--	--	--	--	
06/27/07	10:51	14.43	830.80	49.00	796.23	0.20	--	--	--	--	--	--	Trace Silt on probe, mild coal-tar-like odor.
07/24/07	11:27	14.28	830.95	48.95	796.28	0.25	--	--	--			--	Able to penetrate sediment in well 0.2', trace coal tar-like blebs and black material on end of probe, organic-like odor.
08/28/07	11:13	14.68	830.55	48.97	796.26	0.23	--	--	--	--	--	--	Orange material on probe.
09/20/07	11:06	14.78	830.45	48.95	796.28	0.25	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
10/31/07	10:13	13.70	831.53	48.91	796.32	0.29	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, VOCs = 0.9 ppm.
11/20/07	10:38	13.42	831.81	49.05	796.18	0.15	--	--	--	--	--	--	Coal-tar-like odor.
12/18/07	10:29	13.02	832.21	51.72	793.51	-2.52	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	10:50	12.99	832.24	48.89	796.34	0.31	--	--	--	--	--	--	Soft bottom.
02/21/08	14:46	12.08	833.15	48.90	796.33	0.30	--	--	--	--	--	--	Firm bottom.
03/18/08	12:10	11.60	833.63	48.90	796.33	0.30	--	--	--	--	--	--	Firm bottom.
05/12/08	8:15	12.57	832.66	48.95	796.28	0.25	--	--	--	--	--	--	Firm bottom.
06/05/08	13:45	14.28	830.95	48.90	796.33	0.30	--	--	--	--	--	--	Hard bottom.
07/08/08	9:19	14.69	830.54	48.93	796.30	0.27	--	--	--	--	--	--	Coal-tar-like odor.
08/06/08	9:25	14.21	831.02	49.29	795.94	-0.09	--	--	--	--	--	--	Coal-tar-like odor.
11/19/08	10:47	14.10	831.13	48.97	796.26	0.23	--	--	--	--	--	--	
02/06/09	11:41	14.04	831.19	49.02	796.21	0.18	--	--	--	--	--	--	Firm bottom.
05/29/09	12:30	13.42	831.81	48.92	796.31	0.28	--	--	--	--	--	--	Hard bottom.
08/11/09	10:40	13.32	831.91	48.90	796.33	0.30	--	--	--	--	--	--	Firm bottom.
11/09/09	11:58	13.52	831.71	48.90	796.33	0.30	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 845.23
 Well bottom elev. (installed; FAMSL) = 796.03
 Installed Well Depth (ft) = 49.20

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-16													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	14:39	14.81	833.60	49.73	798.68	0.18	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
04/25/07	NR	14.21	834.20	49.75	798.66	0.16	--	--	--	--	--	--	Bubbles at surface of water, black material on probe.
05/30/07	NR	16.30	832.11	49.85	798.56	0.06	--	--	--	--	--	--	Trace Silt on probe.
06/27/07	11:13	17.05	831.36	49.80	798.61	0.11	--	--	--	--	--	--	Mild coal-tar-like odor, black material on probe.
07/24/07	11:35	16.95	831.46	49.78	798.63	0.13	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', strong coal-tar-like odor, trace coal-tar-like blebs on probe.
08/28/07	11:22	17.32	831.09	49.75	798.66	0.16	--	--	--	--	--	--	Firm bottom.
09/20/07	11:14	17.42	830.99	49.62	798.79	0.29	--	--	--	--	--	--	Soft bottom, brown material on probe (from water surface), slight coal-tar-like odor, coal-tar-like material on probe.
10/31/07	10:27	16.37	832.04	49.64	798.77	0.27	--	--	--	--	--	--	Firm bottom, brown slime on probe (from water surface), VOCs = 0.8 ppm.
11/20/07	10:45	16.09	832.32	49.80	798.61	0.11	--	--	--	--	--	--	Manure-like odor.
12/18/07	10:38	15.66	832.75	49.92	798.49	-0.01	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:35	15.61	832.80	49.78	798.63	0.13	--	--	--	--	--	--	Soft bottom.
02/21/08	15:31	14.73	833.68	49.75	798.66	0.16	--	--	--	--	--	--	Soft bottom, manure-like odor.
03/18/08	12:20	14.21	834.20	49.75	798.66	0.16	--	--	--	--	--	--	Firm bottom, coal-tar-like odor, trace brown/black sticky coal-tar-like material on probe, bubbles on the water surface, brown slimy material on probe from water surface.
05/12/08	8:55	16.17	832.24	49.77	798.64	0.14	--	--	--	--	--	--	Firm bottom.
06/05/08	13:56	16.85	831.56	49.70	798.71	0.21	--	--	--	--	--	--	Sheen, foam.
07/08/08	9:23	17.26	831.15	49.72	798.69	0.19	--	--	--	--	--	--	Firm bottom.
08/06/08	9:32	16.83	831.58	49.75	798.66	0.16	--	--	--	--	--	--	Coal-tar-like odor.
11/19/08	10:50	16.73	831.68	49.70	798.71	0.21	--	--	--	--	--	--	
02/06/09	11:49	16.61	831.80	49.65	798.76	0.26	--	--	--	--	--	--	
05/29/09	12:40	16.13	832.28	49.69	798.72	0.22	--	--	--	--	--	--	Firm bottom, brown foam on the surface of the water.
08/11/09	10:47	16.09	832.32	49.69	798.72	0.22	--	--	--	--	--	--	Firm bottom.
11/09/09	12:01	16.09	832.32	49.65	798.76	0.26	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 848.41
 Well bottom elev. (installed; FAMSL) = 798.50
 Installed Well Depth (ft) = 49.91

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-17													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	14:36	14.80	833.54	24.34	824.00	0.16	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	14.17	834.17	24.35	823.99	0.15	--	--	--	--	--	--	Bubbles at surface of water, black material on probe.
05/30/07	NR	16.28	832.06	24.34	824.00	0.16	--	--	--	--	--	--	Trace Silt on probe.
06/27/07	11:17	17.02	831.32	24.78	823.56	-0.28	--	--	--	--	--	--	Black material on probe.
07/24/07	11:39	16.92	831.42	24.70	823.64	-0.20	--	--	--	--	--	--	Able to penetrate sediment in well 0.5', black material on probe, trace coal-tar-like blebs on probe.
08/28/07	11:25	17.27	831.07	24.32	824.02	0.18	--	--	--	--	--	--	Firm bottom.
09/20/07	11:19	17.38	830.96	24.42	823.92	0.08	--	--	--	--	--	--	Firm bottom, brown material on probe (from water surface).
10/31/07	10:31	16.34	832.00	24.33	824.01	0.17	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, VOCs = 0.9 ppm.
11/20/07	10:48	16.09	832.25	24.39	823.95	0.11	--	--	--	--	--	--	Mild coal-tar-like odor.
12/18/07	10:41	15.65	832.69	24.53	823.81	-0.03	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:37	15.59	832.75	24.37	823.97	0.13	--	--	--	--	--	--	Soft bottom.
02/21/08	15:35	14.72	833.62	24.45	823.89	0.05	--	--	--	--	--	--	Firm bottom.
03/18/08	12:18	14.19	834.15	24.49	823.85	0.01	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, trace brown/black sticky coal-tar-like material on probe, bubbles on the water surface.
05/12/08	8:57	16.11	832.23	24.53	823.81	-0.03	--	--	--	--	--	--	Firm bottom.
06/05/08	13:57	16.83	831.51	24.70	823.64	-0.20	--	--	--	--	--	--	Slightly soft.
07/08/08	9:26	17.21	831.13	24.65	823.69	-0.15	--	--	--	--	--	--	Firm bottom, trace streaks of yellow coal-tar-like material on probe, coal-tar-like odor.
08/06/08	9:35	16.82	831.52	24.35	823.99	0.15	--	--	--	--	--	--	Coal-tar-like odor.
11/19/08	10:51	16.73	831.61	24.65	823.69	-0.15	--	--	--	--	--	--	
02/06/09	11:52	16.59	831.75	24.41	823.93	0.09	--	--	--	--	--	--	
05/29/09	12:41	16.09	832.25	24.54	823.80	-0.04	--	--	--	--	--	--	Hard bottom, riser leaning toward the south.
08/11/09	10:50	16.06	832.28	24.61	823.73	-0.11	--	--	--	--	--	--	Firm bottom, slight odor.
11/09/09	12:02	16.09	832.25	24.69	823.65	-0.19	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 848.34
 Well bottom elev. (installed; FAMSL) = 823.84
 Installed Well Depth (ft) = 24.50

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.
5. Installed well depth is an average of measured depths to bottom for measurements taken from 1/18/07-7/08/08.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-18													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	14:52	12.23	833.59	42.08	803.74	-0.10	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	11.62	834.20	42.05	803.77	-0.07	--	--	--	--	--	--	Coal-tar-like odor.
05/30/07	NR	13.71	832.11	42.15	803.67	-0.17	--	--	--	--	--	--	
06/27/07	11:07	14.44	831.38	42.05	803.77	-0.07	--	--	--	--	--	--	Mild coal-tar-like odor, black material on probe.
07/24/07	11:42	14.36	831.46	42.00	803.82	-0.02	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', reddish material on probe.
08/28/07	11:33	14.71	831.11	42.00	803.82	-0.02	--	--	--	--	--	--	Firm bottom, mild manure-like odor.
09/20/07	11:32	14.84	830.98	41.90	803.92	0.08	--	--	--	--	--	--	Firm bottom, brown material on probe (from water surface).
10/31/07	10:47	13.81	832.01	41.78	804.04	0.20	--	--	--	--	--	--	Firm bottom, coal-tar-like odor, VOCs = 0.4 ppm.
11/20/07	10:52	13.53	832.29	41.98	803.84	0.00	--	--	--	--	--	--	Strong coal-tar-like odor.
12/18/07	10:46	13.11	832.71	42.25	803.57	-0.27	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	NR	NR	NR	NR	NR	NR	--	--	--	--	--	--	Could not open vault lid.
02/21/08	15:43	12.17	833.65	41.98	803.84	0.00	--	--	--	--	--	--	Soft bottom.
03/18/08	12:28	11.62	834.20	41.93	803.89	0.05	--	--	--	--	--	--	Soft bottom, coal-tar-like odor, trace brown/black sticky coal-tar-like material on probe, bubbles on the water surface, brown slimy material on probe from water surface.
05/12/08	9:03	13.57	832.25	41.97	803.85	0.01	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
06/05/08	14:03	14.27	831.55	42.04	803.78	-0.06	--	--	--	--	--	--	Slightly soft.
07/08/08	9:32	14.71	831.11	42.07	803.75	-0.09	--	--	--	--	--	--	Firm bottom, coal-tar-like odor.
08/06/08	9:38	14.24	831.58	41.95	803.87	0.03	--	--	--	--	--	--	Coal-tar-like odor.
11/19/08	10:53	14.19	831.63	41.97	803.85	0.01	--	--	--	--	--	--	
02/06/09	11:56	14.01	831.81	41.95	803.87	0.03	--	--	--	--	--	--	
05/29/09	12:45	13.55	832.27	42.00	803.82	-0.02	--	--	--	--	--	--	Firm bottom.
08/11/09	10:56	13.54	832.28	42.00	803.82	-0.02	--	--	--	--	--	--	Soft bottom, odor.
11/09/09	12:06	13.56	832.26	41.97	803.85	0.01	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 845.82
 Well bottom elev. (installed; FAMSL) = 803.84
 Installed Well Depth (ft) = 41.98

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-19													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	14:47	12.25	833.56	19.08	826.73	0.03	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	11.63	834.18	16.16	829.65	2.95	--	--	--	--	--	--	Mild coal-tar-like odor. Depth to bottom measurement questionable.
05/30/07	NR	13.72	832.09	19.15	826.66	-0.04	--	--	--	--	--	--	Hard bottom, trace sediment on probe.
06/27/07	11:03	14.46	831.35	19.18	826.63	-0.07	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, black material on probe.
07/24/07	11:45	14.37	831.44	19.17	826.64	-0.06	--	--	--	--	--	--	Black material on probe, organic-like odor, trace coal-tar-like blebs on probe.
08/28/07	11:30	14.72	831.09	19.22	826.59	-0.11	--	--	--	--	--	--	Firm bottom, manure-like odor.
09/20/07	11:26	14.85	830.96	19.17	826.64	-0.06	--	--	--	--	--	--	Firm bottom, brown material on probe (from water surface) coal-tar-like odor, coal-tar-like material on probe.
10/31/07	10:43	13.83	831.98	19.16	826.65	-0.05	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor, VOCs = 0.9 ppm.
11/20/07	10:59	13.58	832.23	19.11	826.7	0.00	--	--	--	--	--	--	Strong coal-tar-like odor.
12/18/07	10:50	13.13	832.68	19.30	826.51	-0.19	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	NR	NR	NR	NR	NR	NR	--	--	--	--	--	--	Could not open vault lid.
02/21/08	15:38	12.20	833.61	19.17	826.64	-0.06	--	--	--	--	--	--	Firm bottom, coal-tar-like odor.
03/18/08	12:25	11.63	834.18	19.25	826.56	-0.14	--	--	--	--	--	--	Firm bottom, bubbles on the water surface.
05/12/08	9:05	13.59	832.22	19.21	826.60	-0.10	--	--	--	--	--	--	Firm bottom.
06/05/08	14:04	14.30	831.51	19.23	826.58	-0.12	--	--	--	--	--	--	Slightly soft.
07/08/08	9:35	14.72	831.09	19.22	826.59	-0.11	--	--	--	--	--	--	Firm bottom, coal-tar-like odor.
08/06/08	9:40	14.26	831.55	19.17	826.64	-0.06	--	--	--	--	--	--	Coal-tar-like odor.
11/19/08	10:54	14.21	831.60	19.10	826.71	0.01	--	--	--	--	--	--	
02/06/09	11:58	14.03	831.78	19.24	826.57	-0.13	--	--	--	--	--	--	
05/29/09	12:44	13.87	831.94	19.20	826.61	-0.09	--	--	--	--	--	--	Hard bottom.
08/11/09	11:00	13.56	832.25	19.19	826.62	-0.08	--	--	--	--	--	--	Firm bottom, odor.
11/09/09	12:07	13.57	832.24	19.15	826.66	-0.04	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 845.81
 Well bottom elev. (installed; FAMSL) = 826.70
 Installed Well Depth (ft) = 19.11

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well bottom elevations are approximate.

FAMSL = Feet Above Mean Sea Level.
 TOC = Top of Casing.
 -- = NAPL not present.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-20													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	16:25	7.59	834.37	13.80	828.16	1.65	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	6.88	835.08	13.90	828.06	1.55	--	--	--	--	--	--	Silty bottom.
05/30/07	NR	9.72	832.24	13.44	828.52	2.01	--	--	--	--	--	--	Soft bottom, entire probe covered with gray Silt, coal-tar-like odor.
06/27/07	8:57	10.50	831.46	13.68	828.28	1.77	--	--	--	--	--	--	Very Silty bottom, entire probe (6") covered in Silt.
07/24/07	10:13	10.18	831.78	15.33	826.63	0.12	--	--	--	--	--	--	Able to penetrate sediment in well 0.3', organic-like odor, soft bottom.
08/28/07	10:03	10.74	831.22	13.50	828.46	1.95	--	--	--	--	--	--	Approximately 4" of Silt on end of probe. Curb box settled, J-plug rim cracked.
09/20/07	9:35	10.98	830.98	13.58	828.38	1.87	--	--	--	--	--	--	Able to penetrate sediment in well 0.4', sediment on probe, coal-tar-like odor, coal-tar-like material on probe.
10/31/07	8:37	9.38	832.58	13.64	828.32	1.81	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor, VOCs = 0.0 ppm.
11/20/07	8:57	8.61	833.35	13.48	828.48	1.97	--	--	--	--	--	--	Coal-tar-like odor.
12/18/07	8:57	7.80	834.16	13.62	828.34	1.83	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:23	8.41	833.55	12.44	829.52	3.01	--	--	--	--	--	--	Soft Bottom.
02/21/08	15:08	7.20	834.76	14.27	827.69	1.18	--	--	--	--	--	--	Soft Bottom, coal-tar-like odor.
03/18/08	13:05	7.19	834.77	13.53	828.43	1.92	--	--	--	--	--	--	Mild coal-tar-like odor, trace sheen on sediment on probe. J-plug rim cracked due to curb box settling.
05/12/08	8:51	9.94	832.02	13.57	828.39	1.88	--	--	--	--	--	--	Sediment on probe, faint coal-tar-like odor.
06/05/08	11:43	10.62	831.34	15.40	826.56	0.05	--	--	--	--	--	--	Little gray sediment on probe.
07/08/08	8:21	10.96	831.00	13.85	828.11	1.60	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
08/06/08	8:36	10.47	831.49	13.85	828.11	1.60	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
11/19/08	8:21	9.91	832.05	15.39	826.57	0.06	--	--	--	--	--	--	Soft bottom, approximately 1.5 foot of sediment on probe, coal tar-like odor.
02/06/09	8:23	10.31	831.65	14.28	827.68	1.17	--	--	--	--	--	--	Soft bottom.
05/29/09	11:33	9.31	832.65	13.50	828.46	1.95	--	--	--	--	--	--	Soft bottom.
08/11/09	9:34	8.72	833.24	15.40	826.56	0.05	--	--	--	--	--	--	Very soft bottom, slight odor, 1.6' of sediment on probe.
11/09/09	10:56	9.28	832.68	14.75	827.21	0.70	--	--	--	--	--	--	Very soft bottom, 1' of gray sediment on probe.

Top of Casing (FAMSL) 841.96
 Well bottom elev. (installed; FAMSL) = 826.51
 Installed Well Depth (ft) = 15.45

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.

FAMSL = Feet Above Mean Sea Level.
 bmp = below measuring point.
 TOC = Top of Casing.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-21													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	8:10	8.13	833.89	13.25	828.77	2.75	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	7.54	834.48	15.30	826.72	0.70	--	--	--	--	--	--	Very Silty.
05/30/07	NR	9.80	832.22	14.38	827.64	1.62	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
06/27/07	9:10	10.46	831.56	14.03	827.99	1.97	--	--	--	--	--	--	Silt on the last 3" of the probe.
07/24/07	10:17	10.00	832.02	14.79	827.23	1.21	--	--	--	--	--	--	Soft bottom, sediment on probe, trace sheen on probe, faint coal-tar-like odor.
08/28/07	10:13	10.95	831.07	14.20	827.82	1.80	--	--	--	--	--	--	Soft bottom, approximately 3" of Silt on end of probe, manure-like odor. Curb box settled, lid will not close completely.
09/20/07	9:39	10.98	831.04	14.11	827.91	1.89	--	--	--	--	--	--	Able to penetrate sediment in well 0.2', sediment on probe, coal-tar-like odor.
10/31/07	8:45	9.47	832.55	14.14	827.88	1.86	--	--	--	--	--	--	Able to penetrate sediment in well 0.2', mild coal-tar-like odor, VOCs = 0.0 ppm.
11/20/07	9:03	9.09	832.93	14.11	827.91	1.89	--	--	--	--	--	--	Coal-tar-like odor, sediment on probe.
12/18/07	9:16	9.17	832.85	13.95	828.07	2.05	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:17	9.41	832.61	13.97	828.05	2.03	--	--	--	--	--	--	Soft bottom.
02/21/08	15:14	8.15	833.87	14.37	827.65	1.63	--	--	--	--	--	--	Soft bottom, mild coal-tar-like odor.
03/18/08	13:00	8.04	833.98	14.28	827.74	1.72	--	--	--	--	--	--	Soft bottom.
05/12/08	8:50	9.97	832.05	13.86	828.16	2.14	--	--	--	--	--	--	Soft bottom, sediment on probe.
06/05/08	11:52	10.85	831.17	16.09	825.93	-0.09	--	--	--	--	--	--	
07/08/08	8:30	11.13	830.89	16.09	825.93	-0.09	--	--	--	--	--	--	Firm bottom, sediment on probe.
08/06/08	8:42	10.66	831.36	15.85	826.17	0.15	--	--	--	--	--	--	
11/19/08	8:25	10.07	831.95	15.88	826.14	0.12	--	--	--	--	--	--	Approximately 1inch of sediment on probe.
02/06/09	9:09	10.51	831.51	15.56	826.46	0.44	--	--	--	--	--	--	
05/29/09	11:41	9.14	832.88	15.87	826.15	0.13	--	--	--	--	--	--	Firm bottom, riser leaning to the west.
08/11/09	9:41	8.59	833.43	15.85	826.17	0.15	--	--	--	--	--	--	Soft bottom, 3" of gray sediment on probe, slight odor.
11/09/09	10:58	9.61	832.41	16.01	826.01	-0.01	--	--	--	--	--	--	Soft bottom.

Top of Casing (FAMSL) = 842.02
 Well bottom elev. (installed; FAMSL) = 826.02
 Installed Well Depth (ft) = 16.00

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well redeveloped on June 5th 2008

FAMSL = Feet Above Mean Sea Level.
 bmp = below measuring point.
 TOC = Top of Casing.
 NR = Not Recorded.

Table 1. Barrier Wall Fluid-Level Monitoring, New York State Electric & Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

RECOVERY WELL RW-22													
Date	Time	Depth to Water (ft bTOC)	GW Elevation (FAMSL)	Depth to Bottom (ft bTOC)	Well Bottom Elevation (FAMSL)	Sediment Thickness (ft)	LNAPL			DNAPL			Comments/Observations
							Depth to LNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	Depth to DNAPL (ft bTOC)	Thickness of Layer (ft)	Volume Purged (liters)	
01/18/07	8:04	8.02	833.95	49.12	792.85	3.08	--	--	--	--	--	--	Soft bottom.
04/25/07	NR	7.45	834.52	47.60	794.37	4.60	--	--	--	--	--	--	
05/30/07	NR	9.83	832.14	47.60	794.37	4.60	--	--	--	--	--	--	Little Silt on probe, slight coal-tar-like odor.
06/27/07	9:19	10.75	831.22	47.78	794.19	4.42	--	--	--	--	--	--	
07/24/07	10:20	10.28	831.69	48.98	792.99	3.22	--	--	--	--	--	--	Probe appeared to sink through 1' sediment, organic-like odor.
08/28/07	10:16	10.92	831.05	47.75	794.22	4.45	--	--	--	--	--	--	Soft bottom, LEL = 9%, O ₂ = 19.3ppm, VOC = 9.4ppm.
09/20/07	9:45	10.97	831.00	48.75	793.22	3.45	--	--	--	--	--	--	Able to penetrate sediment in well 0.15'.
10/31/07	8:52	9.53	832.44	47.68	794.29	4.52	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', mild coal-tar-like odor, VOCs = 0.9 ppm.
11/20/07	9:09	9.19	832.78	47.82	794.15	4.38	--	--	--	--	--	--	Coal-tar-like odor.
12/18/07	9:00	9.00	832.97	47.64	794.33	4.56	--	--	--	--	--	--	Able to penetrate sediment in well 0.1', coal-tar-like odor.
01/31/08	11:16	9.22	832.75	47.65	794.32	4.55	--	--	--	--	--	--	Soft bottom.
02/21/08	15:17	8.71	833.26	48.88	793.09	3.32	--	--	--	--	--	--	Soft bottom, manure-like odor.
03/18/08	12:58	7.91	834.06	47.75	794.22	4.45	--	--	--	--	--	--	Soft bottom, coal-tar-like odor, black sediment on probe. Curb box has settled, tire tracks over and around curb box.
05/12/08	8:45	9.99	831.98	48.01	793.96	4.19	--	--	--	--	--	--	Soft bottom, coal-tar-like odor.
06/05/08	11:53	10.82	831.15	52.22	789.75	-0.02	--	--	--	--	--	--	
07/08/08	8:31	11.03	830.94	51.87	790.10	0.33	--	--	--	--	--	--	Firm bottom, mild coal-tar-like odor.
08/06/08	8:46	10.54	831.43	51.80	790.17	0.40	--	--	--	--	--	--	Coal-tar-like odor.
11/19/08	8:27	10.02	831.95	52.19	789.78	0.01	--	--	--	--	--	--	
02/06/09	9:11	10.45	831.52	51.49	790.48	0.71	--	--	--	--	--	--	
05/29/09	11:42	9.10	832.87	51.90	790.07	0.30	--	--	--	--	--	--	Firm bottom, riser leaning toward the east.
08/11/09	9:45	8.64	833.33	51.59	790.38	0.61	--	--	--	--	--	--	Soft bottom, slight odor.
11/09/09	10:59	9.52	832.45	51.91	790.06	0.29	--	--	--	--	--	--	Firm bottom.

Top of Casing (FAMSL) = 841.97
 Well bottom elev. (installed; FAMSL) = 789.77
 Installed Well Depth (ft) = 52.20

Notes:

1. Elevations referenced to the NAVD 88 Datum.
2. Surface elevation = the elevation of the vault lid or curb box lid.
3. Used weighted measuring tape for depth to bottom starting on 7/24/07.
4. Well redeveloped on June 5th 2008

FAMSL = Feet Above Mean Sea Level.
 bmp = below measuring point.
 TOC = Top of Casing.
 NR = Not Recorded.

Table 2. Offsite Fluid-Level Monitoring, New York State Electric and Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

Well ID	Installed Well Depth (ft-bgs)	11/24/2004				1/28/2005				8/9/2007				3/18/2008			
		DTW (ft-TIC)	DTB (ft-TIC)	DTNAPL (ft-TIC)	NAPL Thickness (ft)	DTW (ft-TIC)	DTB (ft-TIC)	DTNAPL (ft-TIC)	NAPL Thickness (ft)	DTW (ft-TIC)	DTB (ft-TIC)	DTNAPL (ft-TIC)	NAPL Thickness (ft)	DTW (ft-TIC)	DTB (ft-TIC)	DTNAPL (ft-TIC)	NAPL Thickness (ft)
MW97-07S	NA	17.43	24.86	--	--	15.8	24.65	--	--	18.09	24.83	--	--	15.21	24.81	--	--
MW01-07R	NA	16.47	100+	--	--	14.6	108.65	--	--	16.70	+100	--	--	13.71	108.79	--	--
NMW-1	44.00	14.38	40.35	--	--	15.87	40.35	--	--	18.01	40.05	--	--	15.70	40.03	--	--
NMW-2	44.00	14.47	42.66	--	--	NA	NA	--	--	15.10	42.78	--	--	12.26	42.75	--	--
PZ01-02	21.00	10.03	20.58	10.00	0.03	8.31	20.6	8.28	0.03	10.57	17.40	--	--	7.68	17.25	7.57	0.11
PZ03-01D	47.00	15.78	46.72	--	--	14.17	46.5	--	--	16.39	46.70	--	--	13.55	46.76	--	--
PZ03-02A	16.00	14.08	15.35	--	--	12.25	15.1	--	--	Dry	14.67	--	--	11.78	14.70	--	--
PZ03-02D	55.50	14.28	54.72	--	--	12.35	54.5	--	--	14.82	54.13	--	--	12.00	54.10	--	--
PZ03-03A	11.00	10.71	10.96	--	--	10.15	10.9	--	--	8.68	8.68	--	--	8.67	8.67	--	--
PZ03-03B	22.00	11.78	22.2	--	--	10.1	22.1	--	--	12.51	21.90	--	--	9.65	21.21	--	--
PZ03-03D	50.00	11.89	49.41	--	--	NA	NA	--	--	12.56	48.10	--	--	9.69	48.05	--	--
PZ03-04A	15.00	10.33	14.60	--	--	9.25	14.60	--	--	10.97	14.60	--	--	8.12	14.38	--	--
PZ03-04B	22.00	10.96	22.06	--	--	9.52	22.06	--	--	11.70	21.19	--	--	8.82	21.21	--	--
PZ03-04D	42.00	11.07	41.62	--	--	9.46	41.60	--	--	11.75	41.50	--	--	8.91	41.18	--	--
PZ03-05A	13.00	10.64	12.38	--	--	9.23	12.35	--	--	6.20	6.20	--	--	Dry	6.20	--	--
PZ03-05B	17.00	10.66	15.92	--	--	9.33	15.95	--	--	11.42	15.76	--	--	8.11	15.70	--	--
PZ03-05C	28.00	10.75	27.59	--	--	9.15	27.60	--	--	11.48	24.67	--	--	7.78	24.70	--	--
PZ03-05D	45.00	10.61	44.80	--	--	9.93	44.80	--	--	9.85	33.74	--	--	5.89	33.75	--	--
PZ03-06A	12.00	9.70	11.51	--	--	8.27	11.50	--	--	10.30	11.50	--	--	6.92	11.46	--	--
PZ03-06B	19.00	10.31	18.05	10.30	0.01	8.75	18.00	8.53	0.22	10.85	17.81	10.76	0.09	8.40	17.25	8.26	0.14
PZ03-06C	33.00	10.25	32.68	--	--	6.07	32.65	--	--	11.00	31.90	--	--	8.14	31.75	--	--
PZ03-06D	51.50	5.90	51.00	--	--	8.55	51.00	--	--	7.01	50.98	--	--	6.07	50.95	--	--
PZ03-07A	11.00	8.85	10.50	--	--	7.50	10.50	--	--	8.61	10.35	--	--	6.42	10.38	--	--
PZ03-07B	17.00	9.31	16.67	--	--	7.68	16.70	--	--	10.00	16.26	--	--	7.38	16.22	--	--
PZ03-07C	31.00	9.46	32.85	--	--	7.80	32.85	--	--	10.10	31.20	--	--	7.23	30.90	--	--
PZ03-07D	55.50	9.50	52.90	--	--	7.80	52.90	--	--	10.23	52.76	--	--	7.31	52.62	--	--
PZ03-08A	12.00	9.89	11.45	--	--	7.10	11.45	--	--	9.28	10.97	--	--	6.39	10.98	--	--
PZ03-08B	18.00	9.08	18.68	--	--	7.45	18.65	--	--	9.75	17.35	--	--	6.91	17.40	--	--
PZ03-08C	31.00	9.15	30.65	--	--	7.50	30.65	--	--	9.84	30.27	--	--	6.98	30.30	--	--
PZ03-08D	56.00	9.12	54.68	--	--	7.50	54.70	--	--	9.81	55.22	--	--	6.98	55.00	--	--
PZ03-09A	23.00	19.47	47.17	--	--	18.00	21.50	--	--	NA	NA	--	--	17.43	21.80	--	--
PZ03-09D	48.00	19.12	47.17	--	--	17.54	47.00	--	--	NA	NA	--	--	16.91	47.13	--	--

Table 2. Offsite Fluid-Level Monitoring, New York State Electric and Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

Well ID	Installed Well Depth (ft-bgs)	11/19/2008				5/29/2009				11/9/2009			
		DTW (ft-TIC)	DTB (ft-TIC)	DTNAPL (ft-TIC)	NAPL Thickness (ft)	DTW (ft-TIC)	DTB (ft-TIC)	DTNAPL (ft-TIC)	NAPL Thickness (ft)	DTW (ft-TIC)	DTB (ft-TIC)	DTNAPL (ft-TIC)	NAPL Thickness (ft)
MW97-07S	NA	17.32	24.90	--	--	16.65	24.92	--	--	16.91	24.82	--	--
MW01-07R	NA	16.37	109.02	--	--	15.72	109.60	--	--	15.48	110.00	--	--
NMW-1	44.00	18.20	40.52	--	--	17.58	40.40	--	--	17.67	40.35	--	--
NMW-2	44.00	14.59	42.95	--	--	13.94	43.02	--	--	14.17	42.80	--	--
PZ01-02	21.00	9.70	17.30	9.61	0.09	9.49	17.29	8.71	0.78	9.65	17.30	9.20	0.45
PZ03-01D	47.00	15.88	46.76	--	--	15.23	46.69	--	--	15.37	46.72	--	--
PZ03-02A	16.00	13.02	14.80	--	--	11.93	14.80	--	--	13.59	14.75	--	--
PZ03-02D	55.50	13.09	54.17	--	--	13.60	54.18	--	--	13.83	54.16	--	--
PZ03-03A	11.00	8.73	8.73	--	--	--	8.70	--	--	8.79	8.79	--	--
PZ03-03B	22.00	11.81	21.91	--	--	11.02	20.92	--	--	10.79	21.90	--	--
PZ03-03D	50.00	11.86	48.04	--	--	11.08	48.03	--	--	11.38	48.02	--	--
PZ03-04A	15.00	10.81	14.43	--	--	10.06	14.46	--	--	10.08	14.42	--	--
PZ03-04B	22.00	11.12	21.22	--	--	10.72	21.21	--	--	10.49	21.19	--	--
PZ03-04D	42.00	10.97	41.24	--	--	10.12	41.30	--	--	10.53	41.32	--	--
PZ03-05A	13.00	6.18	6.18	--	--	--	6.20	--	--	6.20	6.20	--	--
PZ03-05B	17.00	8.69	15.75	--	--	10.12	15.71	--	--	9.78	15.75	--	--
PZ03-05C	28.00	10.75	24.69	--	--	10.00	24.72	--	--	9.92	24.64	--	--
PZ03-05D	45.00	11.11	33.75	--	--	9.61	33.79	--	--	9.23	33.80	--	--
PZ03-06A	12.00	10.08	11.52	10.01	0.07	9.32	11.50	--	--	9.38	11.50	9.32	0.06
PZ03-06B	19.00	10.91	16.88	10.78	0.13	9.81	16.90	8.19	1.62	9.71	16.80	9.51	0.20
PZ03-06C	33.00	9.92	31.70	--	--	9.02	31.72	--	--	9.59	31.69	--	--
PZ03-06D	51.50	7.62	51.03	--	--	7.93	51.00	--	--	8.41	50.80	--	--
PZ03-07A	11.00	9.16	10.33	--	--	8.60	10.35	--	--	8.27	10.35	--	--
PZ03-07B	17.00	9.14	16.27	--	--	8.22	16.25	--	--	8.72	16.24	--	--
PZ03-07C	31.00	8.93	30.89	--	--	8.61	30.95	--	--	7.88	30.92	--	--
PZ03-07D	55.50	9.12	52.70	--	--	9.07	52.56	--	--	8.83	52.75	--	--
PZ03-08A	12.00	8.84	10.95	--	--	8.12	11.00	--	--	8.27	11.00	--	--
PZ03-08B	18.00	8.93	17.34	--	--	7.98	17.42	--	--	8.42	17.40	--	--
PZ03-08C	31.00	8.92	30.30	--	--	8.93	30.36	--	--	8.02	30.30	--	--
PZ03-08D	56.00	9.01	54.85	--	--	8.11	55.01	--	--	8.44	54.95	--	--
PZ03-09A	23.00	19.40	21.84	--	--	18.77	21.78	--	--	18.97	21.71	--	--
PZ03-09D	48.00	19.21	47.17	--	--	18.59	46.97	--	--	18.69	46.90	--	--

Table 3. DNAPL Monitoring Summary - MW93-06D, New York State Electric and Gas Corporation, Binghamton Court Street Former MGP Site, Binghamton, New York

Well ID	Date	Time	Depth to Water (ft btoc)	Depth to Top of DNAPL (ft)	Measured Well Depth (ft-btoc)	Approx. DNAPL Thickness (ft)	Approx. Volume DNAPL Removed (gallons)
MW93-06D	7/14/09	13:00	13.95	60.72	62.62	1.90	0.00
	8/6/09	12:30	14.07	60.49	62.64	2.15	0.30
	8/11/09	13:30	14.04	62.03	62.63	0.60	0.05
	8/20/09	9:52	14.39	62.03	62.63	0.60	0.10
	9/9/09	9:19	14.45	62.19	62.64	0.45	0.07
	9/18/09	NA	NG	62.44	62.64	0.20	0.00
	9/28/09	11:30	NG	62.29	62.64	0.35	0.06
	11/9/09	NA	13.92	-	62.65	trace	0.00
	11/23/09	11:30	NG	61.94	62.64	0.70	0.10
Cumulative Volume of DNAPL Removed at MW93-06D =							0.68

Notes:

btoc = Below top of casing.

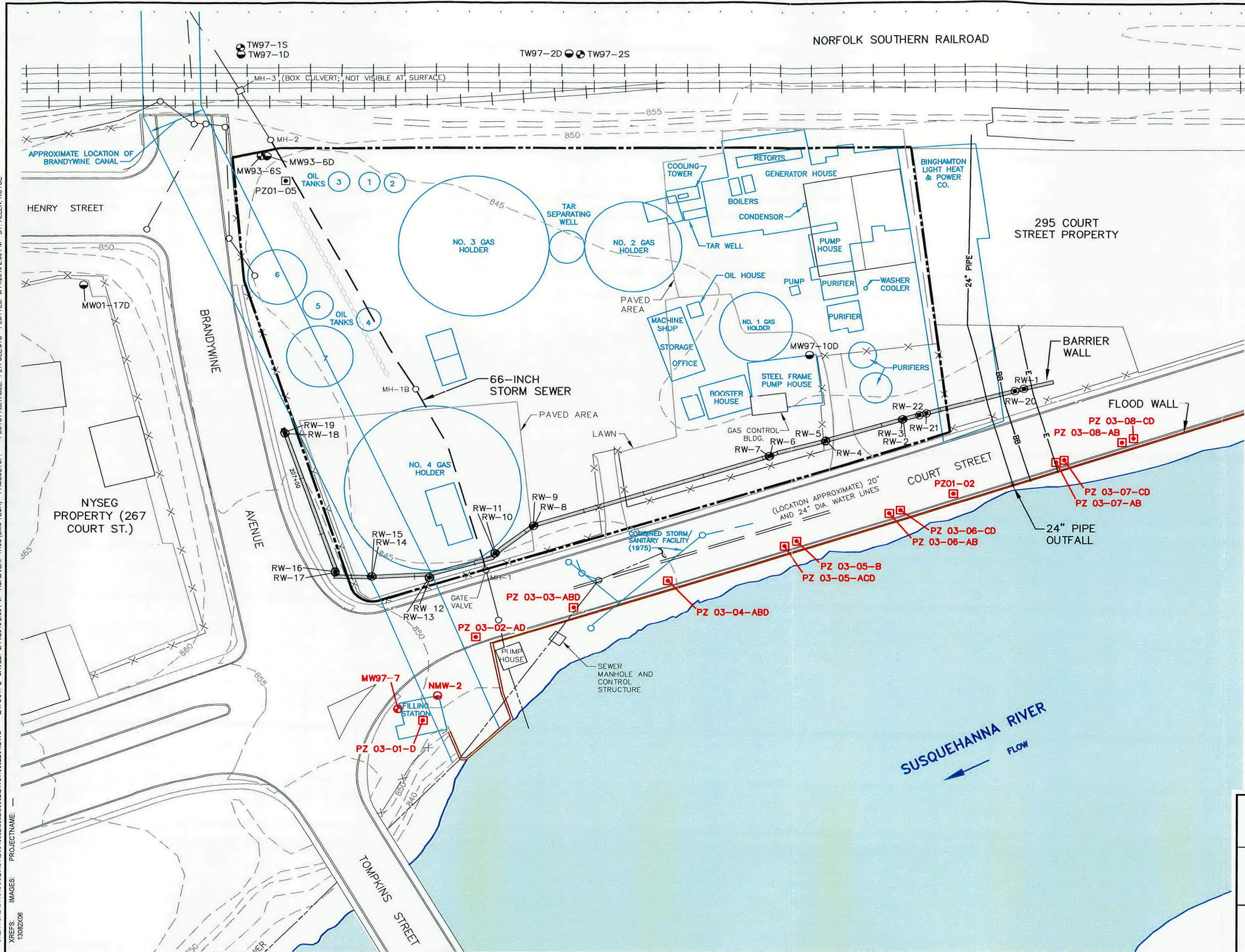
NG = Not Gauged.

NA = Not Available.

ARCADIS

FIGURES

CITY:SYRACUSE,N.Y. DIV:GROUP:ENVCAD-441 DB:NR E ALLEN LD:OP: PIC:OP: PND:CORNELL TN:OP: LYRON:OFF-REF.
G:\ENVCAD\SYRACUSE\ACT\B00130820020002002002\DWG\B13082501.DWG LAYOUT: 2 SAVED: 3/11/2010 2:38 PM ACADVER: 17.05 (LMS TECH) PLOTSETUP: PLOTSTYLETABLE: PLT:FULLCTB9 PLOTTED: 3/11/2010 2:38 PM BY: ALLEN ROYCE
XREFS: 13082506
IMAGES: PROJECTNAME: -

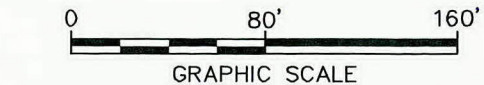


LEGEND:

- FLOOD WALL
- RAILROAD TRACK
- FENCE
- SITE PROPERTY LINES (APPROXIMATE)
- SEWER LINE (APPROXIMATE)
- GROUND SURFACE ELEVATION CONTOUR (FT. AMSL)
- HISTORICAL FEATURE
- BURIED CONCRETE WALL
- WELLS HIGHLIGHTED IN RED = WELLS OUTSIDE THE BARRIER WALL CURRENTLY MONITORED SEMI ANNUALLY
- BARRIER WALL RECOVERY WELL
- MONITORING WELL (SHALLOW)
- MONITORING WELL (DEEP)
- PIEZOMETER

NOTES:

1. BASE MAP PROVIDED BY NYSEG (JUNE 12, 1997).
2. SURFACE ELEVATIONS DIGITIZED FROM CITY OF BINGHAMTON MAP, SHEET 303, FLOWN DECEMBER 2, 1973 AND MAPPED APRIL 1, 1974.
3. ALL ELEVATIONS ARE REFERENCED TO MEAN SEA LEVEL USING NATIONAL GEODETIC VERTICAL DATUM OF 1929, HORIZONTAL DATUM: NAD 83 NEW YORK STATE CENTRAL 3102.
4. STORM SEWER LOCATION DIGITIZED FROM CITY OF BINGHAMTON MAP, SHEET 303, ENTITLED: PRELIMINARY REPORT, COMPREHENSIVE STORM DRAINAGE, EXISTING FACILITIES. PREPARED BY VERNON O. SHUMAKER, CONSULTING ENGINEER, VESTAL, NEW YORK, DATE NOT PROVIDED.



NEW YORK STATE ELECTRIC & GAS CORP.
BINGHAMTON, NEW YORK COURT STREET SITE
NAPL MONITORING REPORT

**SEMI ANNUAL "SENTINEL"
MONITORING LOCATIONS**

