Tables

Table 2-1
Historical Documents Observations
Former Jamaica Gas Light Company MGP Site
Queens, New York

Year and Media	Observations:
1856 Pages from Historiy of Queens County 1873 Atlas Map	The Jamaica Gas Light Company was incorporated June 3rd, 1856; capital $20,000. George Skidmore was president, Isaac Amberman treasurer, L.M. Jagger secretary, J. Tyloer Watts superintendent. The Site is identified as the Jamaica Gas Company. Structures shown include the two smaller gas holders and 5 buildings/structures. The two structures to the northwest are assumed dwellings and one structure on the northeast boundary also assumed a dwelling. The larger building north of the gas holder is assumed the purifier, retorts, boiler, and coal house. The fifth building to the east of the gas holder is assumed the coal shed. None of the structures are identified and assumed based on the 1886 Sandborn.
1874 Historic Photograph	The photograph shows the very edge of a building on the Jamaica Gas Light property. This photopgraph is the "oldest known photo of the LIRR's original depot at Jamaica - view looking west from the Beaver St. overpass - 1874. In 1877, the SSRR's 1871-era depot in place south of this location at Beaver Street was moved to a spot adjacent to the west side of this structure and both were utilized by the LIRR".
1886 Sanborn Map	The Site is identified as the Gas Works. One gas holder (size unknown) is illustrated in the center of the property along the south-eastern property line (presumed smaller western gas holder). Structures consisting of purifiers, retorts, and a coal house are located on the northeastern portion of the property, a coal shed is illustrated on the eastern portion of the Site, and an unknown building is shown adjacent to the gas holder. Three residential dwellings on the northwest and one on the northeast boundary are also illustrated. There is no listing as to the name of the Site operator.
1890 Atlas Map	No structures identified on the entire atlas.
1891 Sanborn Map	The Site is identified as the Gas Works. The structures from the 1886 Sanborn remain. Additional structures illustrated on the map consist of a second gas holder (size unknown, the smaller eastern gas holder) located southwest of the coal shed, and building labeled as the engine room/dynamos is located on the northeast portion of the property where a former residential dwelling was previously illustrated.
1895 - 1897 Historic Newpaper Article	Between 1895 and 1897 General Jourdan led the company through the purchase of six small gas lighting companies, four of which were in Queens. Operated as subsidiaries, the Flatbush Gas Co., the Newtown Gas Co., the Jamaica Gas Light Co., the Woodhaven Gas Light Co., and the Richmon Hill & Queens County Gas Light Companies were finally integrated into Brooklyn Union Gas in 1927.
1897 Sanborn Map	The Site is identified as the Jamaica Gas Light Company. The structures from the 1891 Sanborn remain with some modifications. The building previously labeled as the engine room/dynamos is now labeled as vacant. The retort building is now labeled as the generator room. The purifier building is now labeled as containing both purifiers and storage. Additional structures illustrated include an iron shed immediately adjacent to the purifier and storage building, a storage building located adjacent to the coal shed on the eastern portion of the Site, and a governor room located between the two smaller gas holders.
February 1899 Property Plan	The Property Plan is titled "Property Plan on Jamaica Gas Works". The structures identified are - Holder No. 1 (smaller eastern holder) diameter 34 ft, brick tank 36 ft diameter - Holder No. 2 (smaller western holder) diameter 40 ft, brick tank 42 ft diameter - Holder No. 3 (larger holder) diameter 97 ft 6 in, iron tank 100 ft diameter - There are three "ghost" footprints around the larger holder footprint, possible footprint of dwellings identified in 1897 Sanborn - Governor house present between the two smaller holders - Northeast of the smaller western holder is a building consisting of the meter and governor room, exhauster room, and the boiler room. - Northeast of the smaller eastern holder is a building consisting of the purifying and meter house, retort house with a boiler and benches, a generator house, a coal shed, and an electric light and engine room. - To the east of the smaller eastern holder is a "ghost" footprint of a boiler, a coal shed, and an unidentified structure.
1901 Sanborn Map	The structures from the 1897 Sanborn remain with some modifications. The building that contained the purifiers, retorts, and generator is labeled as not in use. The two holders, which are now identified as being 38 feet in diameter are also labeled as not in use. The governor building located between the two gas holders is labeled as a work shop. A 100 foot diameter gas holder is located on the southwestern portion of the property where residential dwellings were previously located. A new building labeled as a meter room and engine room is illustrated southwest of the former retort and purifier building. This indicates that the Site is no longer producing gas and is only used for gas storage.
1903-1908 L.I.R.R. Drawing	The Long Island Rail Road (L.I.R.R.) Drawing shows two structures within the Site and labeled as the Brooklyn Union Gas Company (BUG).
1905 Historical Photograph	The photograph is showing the old Jamaica Station facilities looking west from the street overpass with the Holder present in the background.
December 19, 1908 Historical Photograph	The photograph is showing the Jamaica Station tower looking east from the end of the old Jamaica Station platform with the large Holder present in the background.
1911 Sanborn Map	The property is now identified as the Brooklyn Union Gas Company. The abandoned 38-foot diameter gas holders and purifier/retort building are no longer illustrated. The 100 foot diameter gas holder is labeled as having a capacity of 500,000 cubic feet. The meter and engine building is also labeled as containing boilers. The coal sheds located on the northeastern portion of the Site are still illustrated, but are not identified as to their use at the Site. The work shop formerly located between the two removed gas holders is identified as storage.

Table 2-1
Historical Documents Observations
Former Jamaica Gas Light Company MGP Site
Queens, New York

Year and Media	Observations:
March 1911 Property Survey	The Survey (map # 1-E-87) is titled the Jamaica Gaslight Co., survey showing property to be sold, shaded areas to be sold. There is a detail of the northeast corner of the exhauster and boiler house.
November 8, 1911 Monument Drawing	The drawing is titled "sketch showing suggested location of monuments at Site of Jamaica Gas Light Co. Office Building. No other buildings or structures provided.
March 12, 1913 Photograph	L.I.R.R. grading construction looking east from upper level of new Jamaica station general offices towards old Jamaica station across from gas tanks.
December 22, 1913 Drawing	The December 22, 1913 BUG drawing is titled "Diagram of Holders Sheet 3 Showing Heights and Relations to Building Limits". The Jamaica Station Holder is identified as a 500,000 cu ft, with Beaver Street on the left side of it and a depth of 12-12'6" below grade surface to the holder bottom. The diameter of the holder is 100 ft with four lifts. In the notes column, the drawing # 2-G-86 is referenced.
1925 Sanborn Map	The Site is similar to the 1911 Sanborn Map. The former coal sheds located on the northeastern portion of the Site are labeled as storage. A pipe shed is shown northeast of the former work shop/storage building.
September 23, 1938 Historical Photograph #35666	The photograph (#35666) titled "Jamaica Station. Filled in holder site: looking west" provides a view from the southern boundary looking northwest towards the area of the former 500,000 cu ft gas holder with the railroad track and underpass in the background. The area is shown as filled in with soil to grade and a wooden picket fence around the property.
September 23, 1938 Historical Photograph #356667	The photograph (#35667) titled "Jamaica Station. Filled in holder site: looking east" provides a view from the northwest corner looking to the southeast of the site. There is level soil area in the footprint of the former holder with some one story and a multiple story brick building present in the background.
1942 Sanborn Map	The 500,000 cubic foot gas holder is no longer illustrated. The only structures shown on the map consists of the meter/engine room/boiler building, the storage area located on the northeastern portion of the Site, and a storage building located along the southeastern property boundary.
1951 Sanborn Map	The Site is now identified as the Brooklyn Union Gas Company, Queens Service Station. The former meter/engine room/boiler building is labeled as offices. A new office building is illustrated along the southeastern property boundary of the Site. The two storage buildings are still illustrated in the northeast portion of the property.
1954 Aerial Photograph	The property is the same as illustrated in the 1951 Sanborn Map.
1963 Sanborn Map	The property is the same as illustrated in the 1951 Sanborn Map.
1966 Aerial Photograph	The property is the same as illustrated in the 1951 Sanborn Map.
1967 Sanborn Map	The property is the same as illustrated in the 1951 Sanborn Map.
1975, 1984, 1985, and 1994 Aerial Photographs	The property is vacant on all aerial photographs. No structures are visible in the photograph. Note – The 1985 aerial photograph is unreadable.
1981, 1982, 1985-1988, 1990-1993, 1995, 1996, 1999, 2001-2006 Sanborns	The property is illustrated as vacant property on all Sanborn Maps listed.

Table 3-1
Summary of Surface Soil, Soil Boring, and Monitoring Well Locations, Rationale, and Analyses
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location	Sample IDs	Sample Interval Rationale	Date Collected	Sample Method	Sample Location Rationale	Completion Depth (ft bgs)	Soil Sample Laboratory Analysis+E4
Soil Borings and Surface Soil Samples							
SS-5	SS-5	surface soil	2/29/2012	Grab	Evaluate surface soil within former building operations	2*	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SS-5A	SS-5A	surface soil	3/8/2012	Grab		2*	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SS-11	SS-11	surface soil	2/28/2012	Grab	Evaluate surface soil from potential environmental impacts from the former MGP operations	2*	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SS-12	SS-12	surface soil	2/28/2012	Grab	Evaluate surface soil from potential environmental impacts from the former Purifier and Storage House	2*	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SS-14	SS-14	surface soil	2/27/2012	Grab	Evaluate surface soil from potential environmental impacts from within the former Engine Room, Dynamos, and Storage building	2*	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-1	SB-1 (2.5-5)	zero to five feet	3/5/2012	Grab	Evaluate the portion of the Site where historical information indicates no significant operations associated with the MGP in the western corner of the Site	40	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-1	SB-1 (17-19)	water table	3/5/2012	Grab			
SB-1	SB-1 (37.5-40)	bottom	3/5/2012	Grab			
SB-2	SB-2 (0-2.5)	zero to five feet	3/6/2012	Grab	Evaluate the portion of the Site where historical information indicates no significant operations associated with the MGP in the western corner of the site	40	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-2	SB-2 (17.5-20)	water table	3/6/2012	Grab			
SB-2	SB-2 (37.5-40)	bottom	3/6/2012	Grab			
SB-3	SB-3 (2.5-5)	zero to five feet	2/27/2012	Grab	Evaluate the center of the large gas holder above the holder bottom	11.75	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-3	SB-3 (5-10)	above impacts	2/27/2012	Grab			
SB-3	SB-3 (10-11.75)	impacts and bottom	2/27/2012	Grab			
SB-4	SB-4 (3-5)	zero to five feet	2/27/2012	Grab	Evaluate the interior of the large gas holder above the holder bottom	13	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-4	SB-4 (5-8.5)	above impacts	2/27/2012	Grab			
SB-4	SB-4 (8.5-10)	impacts	2/27/2012	Grab			
SB-4	SB-4 (10-13)	impacts and bottom	2/27/2012	Grab			
SB-5	SB-5 (2.5-5)	zero to five feet	3/8/12, 3/9/12	Grab	Evaluate any potential impact material from the former Engine Room	40	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-5	SB-5 (22-24)*[1]	water table	3/8/12, 3/9/12	Grab			
SB-5	SB-5 (37.5-40)	bottom	3/8/12, 3/9/12	Grab			
SB-6	SB-6 (1-3.5)*[1]	zero to five feet	2/22/2012	Grab	Evaluate the interior of the smaller eastern gas holder above the holder bottom	40	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-6	SB-6 (22-27)	water table	2/22/2012	Grab			
SB-6	SB-6 (37.5-40)	bottom	2/22/2012	Grab			
SB-7	SB-7 (0-2.5)	zero to five feet	2/22/2012	Grab	Evaluate the smaller eastern gas holder	40	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-7	SB-7 (21.5-24)	water table	2/22/2012	Grab			
SB-7	SB-7 (37.5-40)	bottom	2/22/2012	Grab			
SB-8	SB-8 (2.5-5)	zero to five feet	3/1/2012	Grab	Evaluate the area between the two smaller gas holders and northwest of the governor room	45	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-8	SB-8 (15-17)	visible and olfactory impacts	3/1/2012	Grab			
SB-8	SB-8 (20-25)	first clean	3/1/2012	Grab			
SB-8	SB-8 (42.5-45)	bottom	3/1/2012	Grab			
SB-9	SB-9 (2-2.5)	zero to five feet	2/23/2012	Grab	Evaluate the interior of the smaller western gas holder	40	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-9	SB-9 (10-13.5)	water table	2/23/2012	Grab			
SB-9	SB-9 (37.5-40)	bottom	2/23/2012	Grab			
SB-10	SB-10 (1-2.5)	zero to five feet	2/23/2012	Grab	Evaluate the perimeter of the smaller western gas holder	40	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-10	SB-10 (12.5-15)	visible and olfactory impacts	2/23/2012	Grab			
SB-10	SB-10 (26-27.5)	first clean	2/23/2012	Grab			
SB-10	SB-10 (37.5-40)	bottom	2/23/2012	Grab			
SB-11	SB-11 (0-2.5)	zero to five feet	2/28/2012	Grab	Evaluate surface soil from potential environmental impacts from the former MGP operations	40	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-11	SB-11 (25-27)	water table	2/28/2012	Grab			
SB-11	SB-11 (35-40)	bottom	2/28/2012	Grab			
SB-12	SB-12 (2.5-5)	zero to five feet	2/28/2012	Grab	Evaluate any potential impacts from the former Purifier and Storage Room	12.5	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-12	SB-12 (5-7.5)	impacts	2/28/2012	Grab			
SB-12	SB-12 (10-12.5)	first clean	2/28/2012	Grab			
SB-12	SB-12 (37.5-40)	bottom	2/28/2012	Grab			
SB-13	SB-13 (2.5-5)	zero to five feet	2/28/12, 2/29/12	Grab	Evaluate any potential impacts from the Retorts and Generator Room	40	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-13	SB-13 (22.5-24.5	water table	2/28/12, 2/29/12	Grab			
SB-13	SB-13 (37.5-40)	bottom	2/28/12, 2/29/12	Grab			
SB-14	SB-14 (2-5)*[1]	zero to five feet	2/27/2012	Grab	Evaluate any potential impacts from the former Engine Room and Dynamos	40	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-14	SB-14 (25-26.5)	water table	2/27/2012	Grab			
SB-14	SB-14 (37.5-40)	bottom	2/27/2012	Grab			
SB-15	SB-15 (2.5-5)	zero to five feet	2/28/12, 3/8/12, 3/9/12	Grab	Evaluate the eastern corner of the site in the area of the former coal storage shed	40	TCL VOCs, TCL SVOCs, TAL Metals, PCBs (as Aroclors), TCL Pesticides, TCL Herbicides, and Available Cyanide
SB-15	SB-15 (25-27.5)	water table	2/28/12, 3/8/12, 3/9/12	Grab			
SB-15	SB-15 (37.5-40)	bottom	2/28/12, 3/8/12, 3/9/12	Grab			
Groundwater							
MW-1	MW-1	middle of screened interval to characterize groundwater quality	4/5/2012	Grab	Coincident with SB-1 to evaluate the downgradient groundwater quality in the western corner of the Site for any offsite sources and within a portion of the site where historical information indicates no significant operations associated with the MGP.	28	VOCs + 10 TICS, SVOCs + 10 TICS, Pesticides/Herbicides, PCBs, TAL Metals, and Total Cyanide
MW-2	MW-2	middle of screened interval to characterize groundwater quality	4/6/2012	Grab	Coincident with SB-2 to evaluate the downgradient groundwater quality in the southern corner of the Site in the vicinity of the former 500,000 cubic foot gas holder.	29	VOCs + 10 TICS, SVOCs + 10 TICS, Pesticides/Herbicides, PCBs, TAL Metals, and Total Cyanide
MW-3	MW-3	middle of screened interval to characterize groundwater quality	4/5/2012	Grab	Coincident with SB-8 to evaluate groundwater quality between the two smaller gas holders adjacent to the former Governor Room.	32.5	VOCs + 10 TICS, SVOCs + 10 TICS, Pesticides/Herbicides, PCBs, TAL Metals, and Total Cyanide
MW-4	MW-4	middle of screened interval to characterize groundwater quality	4/6/2012	Grab	Coincident with SB-15 to evaluate the upgradient groundwater quality in a porton of the eastern corner of the Site where the area for coal storage was located.	36.5	VOCs + 10 TICS, SVOCs + 10 TICS, Pesticides/Herbicides, PCBs, TAL Metals, and Total Cyanide
MW-5	MW-5	middle of screened interval to characterize groundwater quality	4/6/2012	Grab	Coincident with SB-5 to evaluate groundwater quality in the north western area of the Site.	33	VOCs + 10 TICS, SVOCs + 10 TICS, Pesticides/Herbicides, PCBs, TAL Metals, and Total Cyanide
MW-6	MW-6	middle of screened interval to characterize groundwater quality	4/5/2012	Grab	Coincident with SB-13 to evaluate upgradient groundwater quality in the northeastern corner of the Site where the former Coal House and Generator Room was located.	33.5	VOCs + 10 TICS, SVOCs + 10 TICS, Pesticides/Herbicides, PCBs, TAL Metals, and Total Cyanide

Notes:
* Depth colleted in inches below grade surface
*[1] duplicate sample collected

Table 3-2
Monitoring Well Construction, Fluid Gauging, and Groundwater Elevation Summary
Former Jamaica Gas Light Company MGP Site
Queens, New York

MW ID	Ground Surface Elevation (ft)	Top of Casing Elevation (ft)	Date Installed	Well Diameter and Material	Screen Slot	Screened Interval (ft bgs)	Date Developed	04-Apr-12			Groundwater Elevation (ft)
								DTW (ft bgs)	DTB (ft bgs)	Additional Comments	4-Apr-12
MW-1	39.02	38.75	5-Mar-12	2-inch Ø PVC	0.010	16 - 26	21-Mar-12	17.81	27.03	soft bottom, no odor	20.94
MW-2	41.38	41.16	6-Mar-12	2-inch Ø PVC	0.010	17 - 27	21-Mar-12	20.34	28.01	hard bottom, no odor	20.82
MW-3	44.56	43.85	7-Mar-12	2-inch Ø PVC	0.010	20.5 - 30.5	21-Mar-12	22.76	31.60	hard bottom, no odor	21.09
MW-4	47.66	47.21	9-Mar-12	2-inch Ø PVC	0.010	24.5 - 34.5	21-Mar-12	26.03	35.98	hard bottom, no odor	21.18
MW-5	43.63	43.25	12-Mar-12	2-inch Ø PVC	0.010	21 - 31	21-Mar-12	22.11	33.22	soft bottom, no odor	21.14
MW-6	46.32	46.05	28-Mar-12	2-inch Ø PVC	0.010	21.5 - 31.5	21-Mar-12	21.81	32.60	soft bottom, no odor	24.24

Notes:
DTW = Depth to water from the top of casing/PVC
DTB = Depth to bottom from the top of casing/PVC
bgs = Below Ground Surface
Ø - Diameter
All wells have 2-foot sumps.
Top of casing elevations, ground surface elevations, and groundwater elevations in feet above North American Vertical Datum of 1988 (NAVD-88).
MW-3 was installed adjacent to SB-8.

Table 4-1
Summary of Observed Visible and Olfactory Impacts
Former Jamaica Gas Light Company MGP Site
Queens, New York

Boring ID	Top (ft bgs)	Bottom (ft bgs)	Impacts
SB-1 / MW -1	0	40	None
SB-2 / MW-2	0	40	None
SB - 3	0	10	None
SB - 3	10	11.75	Slight tar-like odor
SB - 4	0	8.5	None
SB - 4	8.5	13	Slight tar-like odor
SB - 5 / MW - 5	0	40	None
SB - 6	0	40	None
SB - 7	0	40	None
SB - 8 / MW -3	0	16.5	None
SB - 8 / MW -3	16.5	17	Slight tar coating and tar-like odor
SB - 8 / MW -3	17	19	Slight tar-like odor
SB - 8 / MW -3	19	45	None
SB - 9	0	9	None
SB - 9	9	13	Slight tar-like odor
SB - 9	13	13.5	tar coated
SB - 9	13.5	33	Slight tar-like odor
SB - 9	33	40	None
SB - 10	0	12.5	None
SB - 10	12.5	17.5	Tar coated and strong tar-like odor
SB - 10	17.5	26.8	Tar staining and tar-like odor
SB - 10	26.8	40	None
SB - 11	0	40	None
SB - 12	0	5	None
SB - 12	5	7.5	Tar coating and slight tar-like odor
SB - 12	7.5	7.75	None
SB - 12	7.75	8	Tar coating and slight tar-like odor
SB - 12	8	40	None
SB - 13 / MW - 6	0	40	None
SB - 14	0	40	None
SB - 15	0	40	None

Table 4-2
Summary of Analytical Results for Surface Soil
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location Sample Date Sample ID Sample Interval (inches)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SS-05 2/29/2012 SS-5 (0-2)022912 0-2"	SS-05A 3/8/2012 SS-5A (0-2)030812 0-2"	SS-11 2/28/2012 SS-11 (0-2)022812 0-2"	SS-12 2/28/2012 SS-12 (0-2)022812 0-2"	SS-14 2/27/2012 SS-14 (0-2)022712 0-2"
BTEX (mg/kg)								
Benzene	71-43-2	0.06	44	<0.00093 U	**0.00019 J**	<0.0011 U	<0.0011 U	<0.0012 U
Ethylbenzene	100-41-4	1	390	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Toluene	108-88-3	0.7	500	<0.00093 U	**0.0014**	<0.0011 U	<0.0011 U	<0.0012 U
Xylenes (total)	1330-20-7	0.26	500	<0.0028 U	<0.0031 U	<0.0033 U	<0.0033 U	<0.0035 U
Total BTEX		NL	NL	*ND*	***0.00159***	*ND*	*ND*	*ND*
Volatile Organic Compounds (VOCs)(mg/Kg)								
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.00093 U	**0.00053 J**	<0.0011 U	<0.0011 U	<0.0012 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
2-Butanone	78-93-3	0.12	500	**0.0024 J**	R	R	R	R
2-Hexanone	591-78-6	NL	NL	<0.0093 UJ	<0.01 U	<0.011 U	<0.011 U	<0.012 U
4-Methyl-2-pentanone	108-10-1	NL	NL	**0.00070 J**	<0.01 U	<0.011 U	<0.011 U	**0.0017 J**
Acetone	67-64-1	0.05	500	<0.011 U	<0.01 U	<0.011 U	<0.011 U	<0.014 U
Bromodichloromethane	75-27-4	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Bromoform	75-25-2	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Bromomethane	74-83-9	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 UJ
Carbon disulfide	75-15-0	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Carbon tetrachloride	56-23-5	0.76	22	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Chlorobenzene	108-90-7	1.1	500	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Chloroethane	75-00-3	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 UJ
Chloroform	67-66-3	0.37	350	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Chloromethane	74-87-3	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.00093 U	**0.00019 J**	<0.0011 U	<0.0011 U	<0.0012 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Dibromochloromethane	124-48-1	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Methylene chloride	75-09-2	0.05	500	**0.0047**	**0.031 J**	**0.0033**	**0.0029**	**0.0014**
Styrene	100-42-5	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Tetrachloroethene	127-18-4	1.3	150	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Trichloroethene	79-01-6	0.47	200	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Vinyl chloride	75-01-4	0.02	13	<0.00093 U	<0.0010 U	<0.0011 U	<0.0011 U	<0.0012 U
Total VOCs		NL	NL	***0.0078***	***0.03331***	***0.0033***	***0.0029***	***0.0031***
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)								
2-Methylnaphthalene	91-57-6	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Acenaphthene	83-32-9	20	500	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Acenaphthylene	208-96-8	100	500	**0.085 J**	**0.074 J**	**0.19 J**	**0.23 J**	**0.083 J**
Anthracene	120-12-7	100	500	**0.25 J**	**0.12 J**	**0.28 J**	**0.33 J**	**0.13 J**
Benzo(a)anthracene	56-55-3	1	5.6	**0.40**	**0.44**	**0.89**	**1.1**	**0.68**
Benzo(a)pyrene	50-32-8	1	1	**0.37**	**0.36**	**0.84**	**1.0**	**0.59**
Benzo(b)fluoranthene	205-99-2	1	5.6	**0.55**	**0.45**	**1.3**	**1.4**	**0.66**
Benzo(ghi)perylene	191-24-2	100	500	**0.38 J**	**0.33 J**	**0.57**	**0.79**	**0.44**
Benzo(k)fluoranthene	207-08-9	0.8	56	**0.18**	**0.21**	**0.46**	**0.66**	**0.25**
Chrysene	218-01-9	1	56	**0.51**	**0.45**	**1.2**	**1.4**	**0.61**
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	**0.078**	**0.091**	**0.14**	**0.20**	**0.12**
Fluoranthene	206-44-0	100	500	**0.75**	**0.61**	**1.4**	**1.7**	**0.86**
Fluorene	86-73-7	30	500	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	**0.41**	**0.33**	**0.64**	**0.83**	**0.48**
Naphthalene	91-20-3	12	500	<0.4 U	<0.35 U	<0.37 U	**0.046 J**	<0.4 U
Phenanthrene	85-01-8	100	500	**0.36 J**	**0.30 J**	**0.49**	**0.70**	**0.42**
Pyrene	129-00-0	100	500	**0.53**	**0.74**	**1.5**	**1.9**	**1.3**
Total PAHs		NL	NL	***4.853***	***4.505***	***9.9***	***12.286***	***6.623***
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)								
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.04 U	<0.035 U	<0.037 U	<0.039 U	<0.04 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
2,4-Dinitrophenol	51-28-5	NL	NL	<1.2 U	<1.1 U	<1.1 U	<1.2 U	<1.2 U
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
2-Chlorophenol	95-57-8	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
2-Methylphenol	95-48-7	0.33	500	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
2-Nitroaniline	88-74-4	NL	NL	<0.81 U	<0.72 U	<0.76 U	<0.79 U	<0.81 U
2-Nitrophenol	88-75-5	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.81 U	<0.72 U	<0.76 UJ	<0.79 UJ	<0.81 UJ
3-Nitroaniline	99-09-2	NL	NL	<0.81 U	<0.72 U	<0.76 U	<0.79 U	<0.81 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<1.2 U	<1.1 U	<1.1 U	<1.2 U	<1.2 U
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
4-Chloroaniline	106-47-8	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
4-Methylphenol	106-44-5	0.33	500	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
4-Nitroaniline	100-01-6	NL	NL	<0.81 U	<0.72 U	<0.76 U	<0.79 U	<0.81 U
4-Nitrophenol	100-02-7	NL	NL	<1.2 U	<1.1 U	<1.1 U	<1.2 U	<1.2 U
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.04 U	<0.035 U	<0.037 U	<0.039 U	<0.04 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	**0.29 J**	<0.35 U	**0.3 J**	**0.27 J**	**0.27 J**
Butyl benzyl phthalate	85-68-7	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Carbazole	86-74-8	NL	NL	**0.073 J**	<0.35 U	**0.15 J**	**0.18 J**	<0.4 U
Dibenzofuran	132-64-9	7	350	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Diethyl phthalate	84-66-2	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Dimethyl phthalate	131-11-3	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Di-n-butyl phthalate	84-74-2	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Di-n-octyl phthalate	117-84-0	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Hexachlorobenzene	118-74-1	0.33	6	<0.04 U	<0.035 U	<0.037 U	<0.039 U	<0.04 U
Hexachlorobutadiene	87-68-3	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
Hexachlorocyclopentadiene	77-47-4	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Hexachloroethane	67-72-1	NL	NL	<0.04 U	<0.035 U	<0.037 U	<0.039 U	<0.04 U
Isophorone	78-59-1	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Nitrobenzene	98-95-3	NL	69	<0.04 U	<0.035 U	<0.037 U	<0.039 U	<0.04 U
N-Nitrosodi-n-propylamine	621-64-7	NL	NL	<0.04 U	<0.035 U	<0.037 U	<0.039 U	<0.04 U
N-Nitrosodiphenylamine	86-30-6	NL	NL	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Pentachlorophenol	87-86-5	0.8	6.7	<1.2 U	<1.1 U	<1.1 U	<1.2 U	<1.2 U
Phenol	108-95-2	0.33	500	<0.4 U	<0.35 U	<0.37 U	<0.39 U	<0.4 U
Total SVOCs		NL	NL	***5.216***	***4.505***	***10.35***	***12.736***	***6.893***

Table 4-2
Summary of Analytical Results for Surface Soil
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location Sample Date Sample ID Sample Interval (inches)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial	SS-05 2/29/2012 SS-5 (0-2)022912 0-2"	SS-05A 3/8/2012 SS-5A (0-2)030812 0-2"	SS-11 2/28/2012 SS-11 (0-2)022812 0-2"	SS-12 2/28/2012 SS-12 (0-2)022812 0-2"	SS-14 2/27/2012 SS-14 (0-2)022712 0-2"
Inorganic Compounds (mg/Kg)								
Aluminum	7429-90-5	NL	NL	**3430**	**3580**	**5120**	**5750**	**5670**
Antimony	7440-36-0	NL	NL	**1.8 J**	**10.5**	**1.8 J**	<2.2 UJ	<2.3 UJ
Arsenic	7440-38-2	13	16	**2.9**	**4.4**	**7.2**	**8.1**	**6.0**
Barium	7440-39-3	350	400	**45.0 J**	**52.4**	**68.7**	**88.4**	**83.8**
Beryllium	7440-41-7		590	<0.46 U	**0.14 J**	**0.19 J**	<0.44 U	**0.23 J**
Cadmium	7440-43-9	2.5	9.3	**0.51 J**	**0.76 J**	**0.78 J**	**0.88 J**	**0.37 J**
Calcium	7440-70-2	NL	NL	**21500**	**12200**	**10500**	**9820**	**16300**
Chromium	7440-47-3	30	1500	**14.9**	**22.9 J**	**59.6**	**29.5**	**16.4**
Cobalt	7440-48-4	NL	NL	**6.5 J**	**5.3 J**	**6.7 J**	**7.9 J**	**6.1 J**
Copper	7440-50-8	50	270	**74.9**	**81.2**	**95**	**126**	**50.3**
Iron	7439-89-6	NL	NL	**25500**	**29800**	**33100**	**38800**	**18800**
Lead	7439-92-1	63	1000	**83.8**	**111**	**280 J**	**211 J**	**137 J**
Magnesium	7439-95-4	NL	NL	**7260**	**4180**	**4220 J**	**3960 J**	**8200 J**
Manganese	7439-96-5	1600	10000	**212**	**292 J**	**338 J**	**338 J**	**291 J**
Mercury	7439-97-6	0.18	2.8	**0.12**	**0.23 J+**	**0.26**	**0.34**	**0.37**
Nickel	7440-02-0	30	310	**13.2**	**16.8**	**21.4**	**24.8**	**12.3**
Potassium	7440-09-7	NL	NL	**617 J**	**467 J**	**480 J**	**584 J**	**644 J**
Selenium	7782-49-2	3.9	1500	<2.3 U	**1.5 J**	<2.2 U	<2.2 U	<2.3 U
Silver	7440-22-4	2	1500	<2.3 U	<2.0 U	<2.2 U	<2.2 U	<2.3 U
Sodium	7440-23-5	NL	NL	<1150 U	<983 U	<1120 U	<1100 U	<1160 U
Thallium	7440-28-0	NL	NL	<2.3 U	<2.0 U	<2.2 U	<2.2 U	<2.3 U
Vanadium	7440-62-2	NL	NL	**50.3**	**21.8**	**28.7**	**31.1**	**30.9**
Zinc	7440-66-6	109	10000	**119**	**128**	**186**	**249**	**149**
Cyanide (mg/Kg)								
Available cyanide	57-12-5-A	NL	NL	**0.073**	<0.043 U	<0.045 U	**0.024 J**	**0.22**
PCBs (mg/Kg)								
Aroclor 1016	12674-11-2	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
Aroclor 1221	11104-28-2	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
Aroclor 1232	11141-16-5	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
Aroclor 1242	53469-21-9	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
Aroclor 1248	12672-29-6	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
Aroclor 1254	11097-69-1	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
Aroclor 1260	11096-82-5	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
Aroclor 1262	37324-23-5	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
Aroclor 1268	11100-14-4	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
Total PCBs		0.1	1	*ND*	*ND*	*ND*	*ND*	*ND*
Pesticides (mg/Kg)								
Aldrin	309-00-2	0.005	0.68	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Alpha-BHC	319-84-6	0.02	3.4	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Beta-BHC	319-85-7	0.036	3	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Chlordane	57-74-9	NL	NL	<0.081 U	**0.038 J**	<0.076 U	<0.079 U	<0.081 U
DDD,4,4-	72-54-8	0.0033	92	<0.0081 U	**0.0061 J**	<0.0076 U	<0.0079 U	<0.0081 U
DDE,4,4-	72-55-9	0.0033	62	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
DDT,4,4-	50-29-3	0.0033	47	<0.0081 UJ	**0.014**	<0.0076 U	<0.0079 U	**0.0089**
Delta-BHC	319-86-8	0.04	500	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Dieldrin	60-57-1	0.005	1.4	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Endosulfan I	959-98-8	2.4	200	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Endosulfan II	33213-65-9	2.4	200	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Endosulfan sulfate	1031-07-8	2.4	200	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Endrin	72-20-8	0.014	89	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Endrin aldehyde	7421-93-4	NL	NL	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Endrin ketone	53494-70-5	NL	NL	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Gamma BHC - Lindane	58-89-9	0.1	9.2	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Heptachlor	76-44-8	0.042	15	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Heptachlor Epoxide	1024-57-3	NL	NL	<0.0081 U	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Methoxychlor	72-43-5	NL	NL	<0.0081 UJ	<0.0072 U	<0.0076 U	<0.0079 U	<0.0081 U
Toxaphene	8001-35-2	NL	NL	<0.081 U	<0.072 U	<0.076 U	<0.079 U	<0.081 U
Herbicides (mg/Kg)								
2,4,5-TP (Silvex)	93-72-1	3.8	500	<0.021 U	<0.018 U	<0.019 U	<0.02 U	<0.021 U
2,4-D	94-75-7	NL	NL	<0.021 U	<0.018 U	<0.019 U	<0.02 U	<0.021 U
T,2,4,5-	93-76-5	NL	NL	<0.021 U	<0.018 U	<0.019 U	<0.02 U	<0.021 U

Notes:

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

Yellow Shaded values exceed NYSDEC PART 375-6 Commercial use

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-01 3/5/2012 SB-1 (2.5-5)030512 2.5-5	SB-01 3/5/2012 SB-1(17-19)030512 17-19	SB-01 3/5/2012 SB-1 (37.5-40)030512 37.5-40	SB-02 3/6/2012 SB-2 (0-2.5)030612 0-2.5	SB-02 3/6/2012 SB-2 (17.5-20)030612 17.5-20	SB-02 3/6/2012 SB-2 (37.5-40)030612 37.5-40	SB-03 2/27/2012 SB-3 (2.5-5)022712 2.5-5	SB-03 2/27/2012 SB-3 (5-10)022712 5-10
BTEX (mg/kg)											
Benzene	71-43-2	0.06	44	**0.00041 J**	<0.0010 U	**0.00024 J**	**0.00015 J**	<0.00096 U	**0.00027 J**	**0.00030 J**	**0.00018 J**
Ethylbenzene	100-41-4	1	390	**0.00087 J**	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	**0.00025 J**	<0.0012 U
Toluene	108-88-3	0.7	500	**0.0013**	**0.00026 J**	**0.00075 J**	**0.00051 J**	**0.00033 J**	**0.00095 J**	**0.0013**	**0.00045 J**
Xylenes (total)	1330-20-7	0.26	500	**0.0045**	<0.0030 U	<0.0033 U	<0.0029 U	<0.0029 U	<0.0039 U	**0.0014 J**	**0.00094 J**
Total BTEX		NL	NL	***0.00708***	***0.00026***	***0.00099***	***0.00066***	***0.00033***	***0.00122***	***0.00325***	***0.00157***
Volatile Organic Compounds (VOCs)(mg/Kg)											
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
2-Butanone	78-93-3	0.12	500	R	R	R	R	R	R	**0.0096 J**	**0.0045 J**
2-Hexanone	591-78-6	NL	NL	<0.01 UJ	<0.01 UJ	<0.011 UJ	<0.0097 UJ	<0.0096 UJ	<0.013 UJ	<0.011 U	<0.012 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.01 U	<0.01 U	<0.011 U	<0.0097 U	<0.0096 U	<0.013 U	<0.011 U	<0.012 U
Acetone	67-64-1	0.05	500	<0.01 U	<0.0010 U	0.020 U	<0.0097 U	0.013 U	<0.013 U	**0.049 J**	<0.022 U
Bromodichloromethane	75-27-4	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
Bromoform	75-25-2	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
Bromomethane	74-83-9	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 UJ	<0.0012 U
Carbon disulfide	75-15-0	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	**0.00053 J**	**0.0019**
Carbon tetrachloride	56-23-5	0.76	22	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
Chlorobenzene	108-90-7	1.1	500	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
Chloroethane	75-00-3	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 UJ	<0.0012 U
Chloroform	67-66-3	0.37	350	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	**0.00093 J**	<0.0011 U	<0.0012 U
Chloromethane	74-87-3	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
Dibromochloromethane	124-48-1	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
Methylene chloride	75-09-2	0.05	500	**0.0059**	**0.0023**	**0.013**	**0.0075**	**0.0021**	**0.0051**	**0.0028**	**0.0061**
Styrene	100-42-5	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
Tetrachloroethene	127-18-4	1.3	150	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
Trichloroethene	79-01-6	0.47	200	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
Vinyl chloride	75-01-4	0.02	13	<0.0010 U	<0.0010 U	<0.0011 U	<0.00097 U	<0.00096 U	<0.0013 U	<0.0011 U	<0.0012 U
Total VOCs		NL	NL	***0.01298***	***0.01046***	***0.03399***	***0.01656***	***0.01543***	***0.01925***	***0.06518***	***0.01407***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-03 2/27/2012 SB-3 (10-11.75)022712 10-11.75	SB-04 2/27/2012 SB-4 (3-5)022712 3-5	SB-04 2/27/2012 SB-4 (5-8.5)022712 5-8.5	SB-04 2/27/2012 SB-4 (8.5-10)022712 8.5-10	SB-04 2/27/2012 SB-4 (10-13)022712 10-13	SB-05 3/8/2012 SB-5 (2.5-5)030812 2.5-5	SB-05 3/9/2012 DUP-3-030912 22-24	SB-05 3/9/2012 SB-5 (22-24)030912 22-24
BTEX (mg/kg)											
Benzene	71-43-2	0.06	44	**0.0093**	<0.0011 U	**0.00026 J**	<0.12 U	**0.00081 J**	<0.00091 U	<0.00095 U	**0.00017 J**
Ethylbenzene	100-41-4	1	390	**0.02**	**0.00031 J**	<0.0012 U	**0.017 J**	**0.0034**	<0.00091 U	**0.00017 J**	**0.00017 J**
Toluene	108-88-3	0.7	500	**0.011**	**0.00066 J**	**0.00070 J**	**0.026 J**	**0.0016**	**0.00086 J**	**0.00087 J**	**0.0013**
Xylenes (total)	1330-20-7	0.26	500	**0.013**	**0.0019 J**	**0.0013 J**	<0.35 U	**0.0053**	<0.0027 U	<0.0029 U	<0.0027 U
Total BTEX		NL	NL	***0.0533***	***0.00287***	***0.00226***	***0.043***	***0.01111***	***0.00086***	***0.00104***	***0.00164***
Volatile Organic Compounds (VOCs)(mg/Kg)											
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	**0.00020 J**	**0.00023 J**	**0.00029 J**
1,2-Dichloropropane	78-87-5	NL	NL	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
2-Butanone	78-93-3	0.12	500	**0.0035 J**	R	**0.014 J**	R	**0.0099 J**	R	R	**0.0015 J**
2-Hexanone	591-78-6	NL	NL	<0.01 U	<0.011 U	<0.012 U	<0.58 U	<0.012 U	<0.0091 U	<0.0095 U	<0.0091 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.01 U	<0.011 U	<0.012 U	<0.58 U	<0.012 U	<0.0091 U	<0.0095 U	<0.0091 U
Acetone	67-64-1	0.05	500	**0.025 J**	<0.011 U	**0.090**	<0.58 U	**0.056 J**	**0.042 J**	**0.042 J**	**0.070 J**
Bromodichloromethane	75-27-4	NL	NL	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
Bromoform	75-25-2	NL	NL	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
Bromomethane	74-83-9	NL	NL	<0.0010 UJ	<0.0011 U	<0.0012 U	<0.12 UJ	<0.0012 UJ	<0.00091 U	<0.00095 U	<0.00091 U
Carbon disulfide	75-15-0	NL	NL	**0.003**	<0.0011 U	**0.00067 J**	<0.12 U	**0.00066 J**	<0.00091 U	<0.00095 U	<0.00091 U
Carbon tetrachloride	56-23-5	0.76	22	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
Chlorobenzene	108-90-7	1.1	500	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
Chloroethane	75-00-3	NL	NL	<0.0010 UJ	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 UJ	<0.00091 U	<0.00095 U	<0.00091 U
Chloroform	67-66-3	0.37	350	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
Chloromethane	74-87-3	NL	NL	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	**0.00013 J**
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
Dibromochloromethane	124-48-1	NL	NL	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
Methylene chloride	75-09-2	0.05	500	**0.00094 J**	<0.0011 U	**0.0058**	<0.12 U	**0.0013**	**0.0083 J**	**0.0088 J**	**0.014 J**
Styrene	100-42-5	NL	NL	**0.0013**	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
Tetrachloroethene	127-18-4	1.3	150	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
Trichloroethene	79-01-6	0.47	200	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
Vinyl chloride	75-01-4	0.02	13	<0.0010 U	<0.0011 U	<0.0012 U	<0.12 U	<0.0012 U	<0.00091 U	<0.00095 U	<0.00091 U
Total VOCs		NL	NL	***0.08704***	***0.00287***	***0.11273***	***0.043***	***0.07897***	***0.05136***	***0.05207***	***0.08756***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-05 3/9/2012 SB-5 (37.5-40)030912 37.5-40	SB-06 2/22/2012 DUP-1-022212 1-3.5	SB-06 2/22/2012 SB-6 (1-3.5)022212 1-3.5	SB-06 2/22/2012 SB-6 (22-24)022212 22-24	SB-06 2/22/2012 SB-6 (37.5-40)022212 37.5-40	SB-07 2/22/2012 SB-7 (0-2.5)-22212 0-2.5	SB-07 2/22/2012 SB-7 (21.5-24)022212 21.5-24	SB-07 2/22/2012 SB-7 (37.5-40)022212 37.5-40
BTEX (mg/kg)											
Benzene	71-43-2	0.06	44	<0.0010 U	<0.0010 U	**0.00036 J**	<0.0010 U	<0.0010 U	**0.00043 J**	<0.00098 U	<0.0011 U
Ethylbenzene	100-41-4	1	390	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	**0.00046 J**	<0.00098 U	<0.0011 UJ
Toluene	108-88-3	0.7	500	**0.00076 J**	<0.0010 U	**0.00074 J**	<0.0010 U	<0.0010 U	**0.0032**	<0.00098 U	<0.0011 U
Xylenes (total)	1330-20-7	0.26	500	<0.0031 U	<0.0030 U	<0.0032 U	<0.0030 U	<0.0031 U	**0.0018 J**	<0.0029 U	<0.0032 UJ
Total BTEX		NL	NL	***0.00076***	*ND*	***0.0011***	*ND*	*ND*	***0.00589***	*ND*	*ND*
Volatile Organic Compounds (VOCs)(mg/Kg)											
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.0010 UJ	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 UJ
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	**0.00019 J**	<0.00098 U	<0.0011 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
2-Butanone	78-93-3	0.12	500	**0.0024 J**	**0.0026 J**	R	R	**0.0023 J**	R	R	**0.0032 J**
2-Hexanone	591-78-6	NL	NL	<0.01 U	<0.01 U	<0.011 U	<0.01 U	<0.01 U	<0.01 U	<0.0098 U	<0.011 UJ
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.01 U	<0.01 U	<0.011 U	<0.01 U	<0.01 U	<0.01 U	<0.0098 U	<0.011 UJ
Acetone	67-64-1	0.05	500	**0.10 J**	**0.091 J**	**0.041 J**	**0.029 J**	**0.067 J**	**0.042 J**	**0.023 J**	**0.11 J**
Bromodichloromethane	75-27-4	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 UJ
Bromoform	75-25-2	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
Bromomethane	74-83-9	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
Carbon disulfide	75-15-0	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
Carbon tetrachloride	56-23-5	0.76	22	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
Chlorobenzene	108-90-7	1.1	500	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 UJ
Chloroethane	75-00-3	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
Chloroform	67-66-3	0.37	350	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
Chloromethane	74-87-3	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 UJ
Dibromochloromethane	124-48-1	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
Methylene chloride	75-09-2	0.05	500	**0.0074 J**	**0.0067**	**0.024**	<0.0038 U	**0.0082**	**0.03**	<0.0021 U	**0.0058**
Styrene	100-42-5	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 UJ
Tetrachloroethene	127-18-4	1.3	150	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
Trichloroethene	79-01-6	0.47	200	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
Vinyl chloride	75-01-4	0.02	13	<0.0010 U	<0.0010 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.0010 U	<0.00098 U	<0.0011 U
Total VOCs		NL	NL	***0.11056***	***0.1003***	***0.0661***	***0.029***	***0.0775***	***0.07808***	***0.023***	***0.119***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-08 3/1/2012 SB-8 (2.5-5)030112 2.5-5	SB-08 3/1/2012 SB-8 (15-17)030112 15-17	SB-08 3/1/2012 SB-8 (20-25)030112 20-25	SB-08 3/1/2012 SB-8 (42.5-45)030112 42.5-45	SB-09 2/23/2012 SB-9 (2.5-5)022312 2.5-5	SB-09 2/23/2012 SB-9 (10-13.5)022312 10-13.5	SB-09 2/23/2012 SB-9 (37.5-40)022312 37.5-40	SB-10 2/23/2012 SB-10 (1-2.5)022312 1-2.5
BTEX (mg/kg)											
Benzene	71-43-2	0.06	44	**0.0039**	**0.0079**	**0.00026 J**	**0.00029 J**	**0.00090 J**	<1.1 U	<0.0011 U	**0.00032 J**
Ethylbenzene	100-41-4	1	390	**0.00057 J**	**0.0036**	<0.0010 U	**0.00019 J**	**0.00029 J**	**4.9**	<0.0011 U	**0.00033 J**
Toluene	108-88-3	0.7	500	**0.00029 J**	**0.0014**	**0.00033 J**	**0.00050 J**	**0.0012**	**0.33 J**	**0.00038 J**	**0.0014**
Xylenes (total)	1330-20-7	0.26	500	<0.0036 U	**0.0023 J**	<0.0030 U	<0.0032 U	**0.0023 J**	**7**	<0.0033 U	**0.0055**
Total BTEX		NL	NL	***0.00476***	***0.0152***	***0.00059***	***0.00098***	***0.00469***	***12.23***	***0.00038***	***0.00755***
Volatile Organic Compounds (VOCs)(mg/Kg)											
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
2-Butanone	78-93-3	0.12	500	R	R	R	R	R	R	**0.0023 J**	R
2-Hexanone	591-78-6	NL	NL	<0.012 UJ	<0.011 UJ	<0.01 UJ	<0.011 UJ	<0.01 U	<5.3 U	<0.011 U	<0.01 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.012 UJ	<0.011 UJ	<0.01 UJ	<0.011 UJ	<0.01 U	<5.3 U	<0.011 U	<0.01 U
Acetone	67-64-1	0.05	500	<0.012 U	<0.016 U	**0.025 J**	**0.034 J**	<0.01 U	R	<0.028 U	<0.01 U
Bromodichloromethane	75-27-4	NL	NL	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
Bromoform	75-25-2	NL	NL	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
Bromomethane	74-83-9	NL	NL	<0.0012 UJ	<0.0011 UJ	<0.0010 UJ	<0.0011 UJ	<0.0010 UJ	<1.1 U	<0.0011 U	<0.0010 UJ
Carbon disulfide	75-15-0	NL	NL	<0.0012 U	**0.00066 J**	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 UJ	<0.0011 U	<0.0010 U
Carbon tetrachloride	56-23-5	0.76	22	<0.0012 UJ	<0.0011 UJ	<0.0010 UJ	<0.0011 UJ	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
Chlorobenzene	108-90-7	1.1	500	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
Chloroethane	75-00-3	NL	NL	<0.0012 UJ	<0.0011 UJ	<0.0010 UJ	<0.0011 UJ	<0.0010 UJ	<1.1 U	<0.0011 U	<0.0010 UJ
Chloroform	67-66-3	0.37	350	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
Chloromethane	74-87-3	NL	NL	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
Dibromochloromethane	124-48-1	NL	NL	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
Methylene chloride	75-09-2	0.05	500	**0.0072**	**0.0052**	**0.0045**	**0.0044**	**0.0037**	<1.1 U	**0.0093**	**0.0043**
Styrene	100-42-5	NL	NL	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
Tetrachloroethene	127-18-4	1.3	150	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
Trichloroethene	79-01-6	0.47	200	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
Vinyl chloride	75-01-4	0.02	13	<0.0012 U	<0.0011 U	<0.0010 U	<0.0011 U	<0.0010 U	<1.1 U	<0.0011 U	<0.0010 U
Total VOCs		NL	NL	***0.01196***	***0.02106***	***0.03009***	***0.03938***	***0.00839***	***12.23***	***0.01198***	***0.01185***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-10 2/23/2012 SB-10 (12.5-15)022312 12.5-15	SB-10 2/23/2012 SB-10 (26-27.5)022312 26-27.5	SB-10 2/23/2012 SB-10 (37.5-40)022312 37.5-40	SB-11 2/28/2012 SB-11 (0-2.5)022812 0-2.5	SB-11 2/28/2012 SB-11 (25-27)022812 25-27	SB-11 2/28/2012 SB-11 (35-40)022812 35-40	SB-12 2/28/2012 SB-12 (2.5-5)022812 2.5-5	SB-12 2/28/2012 SB-12 (5-7.5)022812 5-7.5
BTEX (mg/kg)											
Benzene	71-43-2	0.06	44	**0.24**	**0.00038 J**	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	**0.00029 J**	**0.0014**
Ethylbenzene	100-41-4	1	390	**0.19**	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	**0.00021 J**
Toluene	108-88-3	0.7	500	**1.2**	**0.0018**	**0.00047 J**	**0.00014 J**	**0.00015 J**	**0.00014 J**	**0.00068 J**	**0.0025**
Xylenes (total)	1330-20-7	0.26	500	**16**	**0.024**	**0.0033**	<0.0031 U	<0.0027 U	<0.0030 U	<0.0032 U	**0.0013 J**
Total BTEX		NL	NL	***17.63***	***0.02618***	***0.00377***	***0.00014***	***0.00015***	***0.00014***	***0.00097***	***0.00541***
Volatile Organic Compounds (VOCs)(mg/Kg)											
1,1,1-Trichloroethane	71-55-6	0.68	500	**0.022 J**	**0.00056 J**	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	**0.00015 J**	**0.00047 J**
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
2-Butanone	78-93-3	0.12	500	R	**0.0025 J**	R	R	R	R	R	R
2-Hexanone	591-78-6	NL	NL	<0.55 U	<0.011 U	<0.01 U	<0.01 U	<0.0090 U	<0.01 U	<0.011 U	<0.01 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.55 U	<0.011 U	<0.01 U	<0.01 U	<0.0090 U	<0.01 U	<0.011 U	<0.01 U
Acetone	67-64-1	0.05	500	R	**0.029 J**	<0.016 U	<0.01 U	<0.0090 U	<0.01 U	<0.012 U	<0.01 U
Bromodichloromethane	75-27-4	NL	NL	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Bromoform	75-25-2	NL	NL	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Bromomethane	74-83-9	NL	NL	<0.11 U	<0.0011 UJ	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Carbon disulfide	75-15-0	NL	NL	<0.11 UJ	**0.00038 J**	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Carbon tetrachloride	56-23-5	0.76	22	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Chlorobenzene	108-90-7	1.1	500	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Chloroethane	75-00-3	NL	NL	<0.11 U	<0.0011 UJ	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Chloroform	67-66-3	0.37	350	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Chloromethane	74-87-3	NL	NL	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Dibromochloromethane	124-48-1	NL	NL	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Methylene chloride	75-09-2	0.05	500	<0.11 U	**0.0072**	**0.005**	<0.0010 U	<0.00090 U	<0.0010 U	**0.0034**	**0.0039**
Styrene	100-42-5	NL	NL	**0.7**	**0.0027**	**0.00031 J**	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	**0.00029 J**
Tetrachloroethene	127-18-4	1.3	150	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Trichloroethene	79-01-6	0.47	200	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Vinyl chloride	75-01-4	0.02	13	<0.11 U	<0.0011 U	<0.0010 U	<0.0010 U	<0.00090 U	<0.0010 U	<0.0011 U	<0.0010 U
Total VOCs		NL	NL	***18.352***	***0.06852***	***0.00908***	***0.00014***	***0.00015***	***0.00014***	***0.00452***	***0.01007***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

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Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-12 2/28/2012 SB-12 (10-12.5)022812 10-12.5	SB-12 2/28/2012 SB-12 (37.5-40)022812 37.5-40	SB-13 2/28/2012 SB-13 (2.5-5)022812 2.5-5	SB-13 2/29/2012 SB-13 (22.5-24.5)022912 22.5-24.5	SB-13 2/29/2012 SB-13 (37.5-40)022912 37.5-40	SB-14 2/27/2012 DUP-2-022712 2-5	SB-14 2/27/2012 SB-14 (2-5)022712 2-5	SB-14 2/27/2012 SB-14 (25-26.5)022712 25-26.5
BTEX (mg/kg)											
Benzene	71-43-2	0.06	44	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	**0.00021 J**
Ethylbenzene	100-41-4	1	390	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Toluene	108-88-3	0.7	500	<0.0010 U	**0.00016 J**	**0.00029 J**	<0.0010 U	**0.00014 J**	**0.00030 J**	<0.0011 U	**0.00036 J**
Xylenes (total)	1330-20-7	0.26	500	<0.0031 U	<0.0029 U	<0.0029 U	<0.0030 U	<0.0029 U	<0.0033 U	<0.0033 U	<0.0028 U
Total BTEX		NL	NL	*ND*	***0.00016***	***0.00029***	*ND*	***0.00014***	***0.0003***	*ND*	***0.00057***
Volatile Organic Compounds (VOCs)(mg/Kg)											
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	**0.00050 J**	**0.00090 J**	**0.00016 J**
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
1,2-Dichloropropane	78-87-5	NL	NL	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
2-Butanone	78-93-3	0.12	500	<0.01 U	R	R	R	R	R	R	**0.0015 J**
2-Hexanone	591-78-6	NL	NL	<0.01 UJ	<0.0098 U	<0.0097 U	<0.01 U	<0.0098 U	<0.011 U	<0.011 U	<0.0095 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.01 UJ	<0.0098 U	<0.0097 U	<0.01 U	<0.0098 U	<0.011 U	<0.011 U	<0.0095 U
Acetone	67-64-1	0.05	500	<0.01 U	<0.017 U	<0.0097 U	<0.013 U	<0.013 U	<0.011 U	<0.011 U	<0.015 U
Bromodichloromethane	75-27-4	NL	NL	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Bromoform	75-25-2	NL	NL	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Bromomethane	74-83-9	NL	NL	<0.0010 UJ	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 UJ	<0.0011 U	<0.00095 U
Carbon disulfide	75-15-0	NL	NL	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Carbon tetrachloride	56-23-5	0.76	22	<0.0010 UJ	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Chlorobenzene	108-90-7	1.1	500	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Chloroethane	75-00-3	NL	NL	<0.0010 UJ	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 UJ	<0.0011 U	<0.00095 U
Chloroform	67-66-3	0.37	350	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Chloromethane	74-87-3	NL	NL	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Dibromochloromethane	124-48-1	NL	NL	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Methylene chloride	75-09-2	0.05	500	**0.0012**	**0.0029**	**0.0063**	**0.0021**	**0.003**	**0.0043**	**0.0031**	**0.0024**
Styrene	100-42-5	NL	NL	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Tetrachloroethene	127-18-4	1.3	150	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Trichloroethene	79-01-6	0.47	200	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Vinyl chloride	75-01-4	0.02	13	<0.0010 U	<0.00098 U	<0.00097 U	<0.0010 U	<0.00098 U	<0.0011 U	<0.0011 U	<0.00095 U
Total VOCs		NL	NL	***0.0012***	***0.00306***	***0.00659***	***0.0021***	***0.00314***	***0.0051***	***0.004***	***0.00463***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-14 2/27/2012 SB-14 (37.5-40)022712 37.5-40	SB-15 2/28/2012 SB-15 (2.5-5)022812 2.5-5	SB-15 3/8/2012 SB-15 (25-27.5)030812 25-27.5	SB-15 3/9/2012 SB-15 (37.5-40)030912 37.5-40
BTEX (mg/kg)							
Benzene	71-43-2	0.06	44	<0.0010 U	<0.0011 U	**0.00015 J**	**0.00033 J**
Ethylbenzene	100-41-4	1	390	<0.0010 U	<0.0011 U	**0.00022 J**	<0.00097 U
Toluene	108-88-3	0.7	500	<0.0010 U	**0.00051 J**	**0.0015**	**0.00094 J**
Xylenes (total)	1330-20-7	0.26	500	<0.0031 U	<0.0034 U	**0.00075 J**	<0.0029 U
Total BTEX		NL	NL	*ND*	***0.00051***	***0.00262***	***0.00127***
Volatile Organic Compounds (VOCs)(mg/Kg)							
1,1,1-Trichloroethane	71-55-6	0.68	500	<0.0010 U	**0.00033 J**	<0.00093 U	<0.00097 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
1,1,2-Trichloroethane	79-00-5	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
1,1-Dichloroethane	75-34-3	0.27	240	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
1,1-Dichloroethene	75-35-4	0.33	500	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
1,2-Dichloroethane	107-06-2	0.02	30	<0.0010 U	<0.0011 U	**0.00024 J**	**0.00039 J**
1,2-Dichloropropane	78-87-5	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
2-Butanone	78-93-3	0.12	500	R	R	R	**0.0038 J**
2-Hexanone	591-78-6	NL	NL	<0.01 U	<0.011 UJ	<0.0093 U	<0.0097 U
4-Methyl-2-pentanone	108-10-1	NL	NL	<0.01 U	<0.011 UJ	<0.0093 U	<0.0097 U
Acetone	67-64-1	0.05	500	<0.019 U	<0.011 U	**0.053 J**	**0.14 J**
Bromodichloromethane	75-27-4	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Bromoform	75-25-2	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Bromomethane	74-83-9	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Carbon disulfide	75-15-0	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Carbon tetrachloride	56-23-5	0.76	22	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Chlorobenzene	108-90-7	1.1	500	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Chloroethane	75-00-3	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Chloroform	67-66-3	0.37	350	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Chloromethane	74-87-3	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
cis-1,2-Dichloroethene	156-59-2	0.25	500	<0.0010 U	<0.0011 U	**0.00011 J**	<0.00097 U
cis-1,3-Dichloropropene	10061-01-5	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Dibromochloromethane	124-48-1	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Methylene chloride	75-09-2	0.05	500	**0.0033**	**0.012**	**0.0085 J**	**0.022 J**
Styrene	100-42-5	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Tetrachloroethene	127-18-4	1.3	150	<0.0010 U	**0.00014 J**	<0.00093 U	<0.00097 U
trans-1,2-Dichloroethene	156-60-5	0.19	500	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
trans-1,3-Dichloropropene	10061-02-6	NL	NL	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Trichloroethene	79-01-6	0.47	200	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Vinyl chloride	75-01-4	0.02	13	<0.0010 U	<0.0011 U	<0.00093 U	<0.00097 U
Total VOCs		NL	NL	***0.0033***	***0.01298***	***0.06447***	***0.16746***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

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UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

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Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-01 3/5/2012 SB-1 (2.5-5)030512 2.5-5	SB-01 3/5/2012 SB-1(17-19)030512 17-19	SB-01 3/5/2012 SB-1 (37.5-40)030512 37.5-40	SB-02 3/6/2012 SB-2 (0-2.5)030612 0-2.5	SB-02 3/6/2012 SB-2 (17.5-20)030612 17.5-20	SB-02 3/6/2012 SB-2 (37.5-40)030612 37.5-40	SB-03 2/27/2012 SB-3 (2.5-5)022712 2.5-5	SB-03 2/27/2012 SB-3 (5-10)022712 5-10	SB-03 2/27/2012 SB-3 (10-11.75)022712 10-11.75	SB-04 2/27/2012 SB-4 (3-5)022712 3-5
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)													
2-Methylnaphthalene	91-57-6	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	**0.27 J**	<0.37 U
Acenaphthene	83-32-9	20	500	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	**0.53**	<0.37 U
Acenaphthylene	208-96-8	100	500	<0.36 U	<0.35 U	<0.42 U	**0.14 J**	<0.35 U	<0.44 U	<0.37 U	<0.41 U	**0.091 J**	<0.37 U
Anthracene	120-12-7	100	500	**0.049 J**	<0.35 U	<0.42 U	**0.18 J**	<0.35 U	<0.44 U	<0.37 U	<0.41 U	**1.5**	<0.37 U
Benzo(a)anthracene	56-55-3	1	5.6	**0.28**	<0.035 U	<0.042 U	**1.3**	<0.035 U	<0.044 U	**0.15**	**0.021 J**	**1.9**	**0.23**
Benzo(a)pyrene	50-32-8	1	1	**0.33**	<0.035 U	<0.042 U	**1.3**	<0.035 U	<0.044 U	**0.15**	<0.041 U	**1.3**	**0.22**
Benzo(b)fluoranthene	205-99-2	1	5.6	**0.36**	<0.035 U	<0.042 U	**1.4**	<0.035 U	<0.044 U	**0.17**	<0.041 U	**1.7**	**0.28**
Benzo(ghi)perylene	191-24-2	100	500	**0.15 J**	<0.35 U	<0.42 U	**0.93**	<0.35 U	<0.44 U	**0.12 J**	<0.41 U	**0.87**	**0.17 J**
Benzo(k)fluoranthene	207-08-9	0.8	56	**0.14**	<0.035 U	<0.042 U	**0.56**	<0.035 U	<0.044 U	**0.072**	<0.041 U	**0.57**	**0.10**
Chrysene	218-01-9	1	56	**0.31 J**	<0.35 U	<0.42 U	**1.3**	<0.35 U	<0.44 U	**0.15 J**	<0.41 U	**1.9**	**0.27 J**
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	**0.042**	<0.035 U	<0.042 U	**0.19**	<0.035 U	<0.044 U	<0.037 U	<0.041 U	**0.23**	**0.042**
Fluoranthene	206-44-0	100	500	**0.44**	<0.35 U	<0.42 U	**2.0**	<0.35 U	<0.44 U	**0.23 J**	<0.41 U	**3.5**	**0.36 J**
Fluorene	86-73-7	30	500	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	**1.0**	<0.37 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	**0.19**	<0.035 U	<0.042 U	**1.0**	<0.035 U	<0.044 U	**0.11**	<0.041 U	**1.0**	**0.19**
Naphthalene	91-20-3	12	500	<0.36 U	<0.35 U	<0.42 U	**0.13 J**	<0.35 U	<0.44 U	<0.37 U	<0.41 U	**0.83**	<0.37 U
Phenanthrene	85-01-8	100	500	**0.14 J**	<0.35 U	<0.42 U	**0.54 J**	<0.35 U	<0.44 U	**0.12 J**	<0.41 U	**4.3**	**0.11 J**
Pyrene	129-00-0	100	500	**0.31 J**	<0.35 U	<0.42 U	**1.8**	<0.35 U	<0.44 U	**0.31 J**	<0.41 U	**3.6**	**0.40**
Total PAHs		NL	NL	***2.741***	*ND*	*ND*	***12.77***	*ND*	*ND*	***1.582***	***0.021***	***25.091***	***2.372***
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)													
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.036 U	<0.035 U	<0.042 U	<0.072 U	<0.035 U	<0.044 U	<0.037 U	<0.041 U	<0.038 U	<0.037 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
2,4-Dinitrophenol	51-28-5	NL	NL	<1.1 U	<1.1 U	<1.3 U	<2.2 U	<1.1 U	<1.3 U	<1.1 U	<1.2 U	<1.2 U	<1.1 U
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.15 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U	<0.077 U	<0.075 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.15 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U	<0.077 U	<0.075 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
2-Chlorophenol	95-57-8	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
2-Methylphenol	95-48-7	0.33	500	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 UJ	<0.38 U	<0.37 U
2-Nitroaniline	88-74-4	NL	NL	<0.73 U	<0.71 U	<0.85 U	<1.5 U	<0.72 U	<0.89 U	<0.75 U	<0.83 U	<0.77 U	<0.75 U
2-Nitrophenol	88-75-5	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.73 U	<0.71 U	<0.85 U	<1.5 U	<0.72 U	<0.89 U	<0.75 UJ	<0.83 U	<0.77 U	<0.75 U
3-Nitroaniline	99-09-2	NL	NL	<0.73 U	<0.71 U	<0.85 U	<1.5 U	<0.72 U	<0.89 U	<0.75 U	<0.83 U	<0.77 U	<0.75 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<1.1 U	<1.1 U	<1.3 U	<2.2 U	<1.1 U	<1.3 U	<1.1 U	<1.2 U	<1.2 U	<1.1 U
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
4-Chloroaniline	106-47-8	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
4-Methylphenol	106-44-5	0.33	500	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
4-Nitroaniline	100-01-6	NL	NL	<0.73 U	<0.71 U	<0.85 U	<1.5 U	<0.72 U	<0.89 U	<0.75 U	<0.83 U	<0.77 U	<0.75 U
4-Nitrophenol	100-02-7	NL	NL	<1.1 U	<1.1 U	<1.3 U	<2.2 U	<1.1 U	<1.3 U	<1.1 U	<1.2 U	<1.2 U	<1.1 U
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.036 U	<0.035 U	<0.042 U	<0.072 U	<0.035 U	<0.044 U	<0.037 U	<0.041 U	<0.038 U	<0.037 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	**0.26 J**	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
Butyl benzyl phthalate	85-68-7	NL	NL	**0.11 J**	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
Carbazole	86-74-8	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	**0.58**	<0.37 U
Dibenzofuran	132-64-9	7	350	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	**0.58**	<0.37 U
Diethyl phthalate	84-66-2	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
Dimethyl phthalate	131-11-3	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
Di-n-butyl phthalate	84-74-2	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
Di-n-octyl phthalate	117-84-0	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
Hexachlorobenzene	118-74-1	0.33	6	<0.036 U	<0.035 U	<0.042 U	<0.072 U	<0.035 U	<0.044 U	<0.037 U	<0.041 U	<0.038 U	<0.037 U
Hexachlorobutadiene	87-68-3	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.15 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U	<0.077 U	<0.075 U
Hexachlorocyclopentadiene	77-47-4	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 UJ	<0.38 U	<0.37 U
Hexachloroethane	67-72-1	NL	NL	<0.036 U	<0.035 U	<0.042 U	<0.072 U	<0.035 U	<0.044 U	<0.037 U	<0.041 U	<0.038 U	<0.037 U
Isophorone	78-59-1	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
Nitrobenzene	98-95-3	NL	69	<0.036 U	<0.035 U	<0.042 U	<0.072 U	<0.035 U	<0.044 U	<0.037 U	<0.041 U	<0.038 U	<0.037 U
N-Nitrosodi-n-propylamine	621-64-7	NL	NL	<0.036 U	<0.035 U	<0.042 U	<0.072 U	<0.035 U	<0.044 U	<0.037 U	<0.041 UJ	<0.038 U	<0.037 U
N-Nitrosodiphenylamine	86-30-6	NL	NL	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
Pentachlorophenol	87-86-5	0.8	6.7	<1.1 U	<1.1 U	<1.3 U	<2.2 U	<1.1 U	<1.3 U	<1.1 U	<1.2 U	<1.2 U	<1.1 U
Phenol	108-95-2	0.33	500	<0.36 U	<0.35 U	<0.42 U	<0.72 U	<0.35 U	<0.44 U	<0.37 U	<0.41 U	<0.38 U	<0.37 U
Total SVOCs		NL	NL	***3.111***	*ND*	*ND*	***12.77***	*ND*	*ND*	***1.582***	***0.021***	***26.251***	***2.372***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-04 2/27/2012 SB-4 (5-8.5)022712 5-8.5	SB-04 2/27/2012 SB-4 (8.5-10)022712 8.5-10	SB-04 2/27/2012 SB-4 (10-13)022712 10-13	SB-05 3/8/2012 SB-5 (2.5-5)030812 2.5-5	SB-05 3/9/2012 DUP-3-030912 22-24	SB-05 3/9/2012 SB-5 (22-24)030912 22-24	SB-05 3/9/2012 SB-5 (37.5-40)030912 37.5-40	SB-06 2/22/2012 DUP-1-022212 1-3.5	SB-06 2/22/2012 SB-6 (1-3.5)022212 1-3.5	SB-06 2/22/2012 SB-6 (22-24)022212 22-24
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)													
2-Methylnaphthalene	91-57-6	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Acenaphthene	83-32-9	20	500	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Acenaphthylene	208-96-8	100	500	<0.41 U	<0.33 U	<0.42 U	<0.34 U	**0.076 J**	<0.34 U	<0.36 U	<0.37 U	**0.4 J**	<0.35 U
Anthracene	120-12-7	100	500	**0.063 J**	<0.33 U	<0.42 U	**0.13 J**	**0.16 J**	<0.34 U	<0.36 U	<0.37 U	**0.93**	<0.35 U
Benzo(a)anthracene	56-55-3	1	5.6	**0.33**	**0.037**	**0.12**	**0.48**	**0.67**	<0.034 U	<0.036 U	<0.037 U	**6.0**	<0.035 U
Benzo(a)pyrene	50-32-8	1	1	**0.29**	**0.024 J**	**0.10**	**0.31**	**0.37**	<0.034 U	<0.036 U	<0.037 U	**6.0**	<0.035 U
Benzo(b)fluoranthene	205-99-2	1	5.6	**0.32**	**0.033**	**0.12**	**0.32**	**0.40**	<0.034 U	<0.036 U	<0.037 U	**5.8**	<0.035 U
Benzo(ghi)perylene	191-24-2	100	500	**0.18 J**	<0.33 U	**0.077 J**	**0.16 J**	**0.18 J**	<0.34 U	<0.36 U	<0.37 U	**3.5**	<0.35 U
Benzo(k)fluoranthene	207-08-9	0.8	56	**0.14**	**0.016 J**	**0.044**	**0.13**	**0.16**	<0.034 U	<0.036 U	<0.037 U	**2.8**	<0.035 U
Chrysene	218-01-9	1	56	**0.34 J**	<0.33 U	**0.13 J**	**0.46**	**0.56**	<0.34 U	<0.36 U	<0.37 U	**5.5**	<0.35 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	**0.035 J**	<0.033 U	<0.042 U	**0.063**	**0.077**	<0.034 U	<0.036 U	<0.037 U	**1.3**	<0.035 U
Fluoranthene	206-44-0	100	500	**0.54**	**0.056 J**	**0.16 J**	**0.67**	**0.81**	<0.34 U	<0.36 U	<0.37 U	**7.3**	<0.35 U
Fluorene	86-73-7	30	500	<0.41 U	<0.33 U	<0.42 U	**0.045 J**	**0.046 J**	<0.34 U	<0.36 U	<0.37 U	**0.12 J**	<0.35 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	**0.20**	**0.022 J**	**0.084**	**0.19**	**0.20**	<0.034 U	<0.036 U	<0.037 U	**4.1**	<0.035 U
Naphthalene	91-20-3	12	500	<0.41 U	**0.24 J**	**0.052 J**	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	**0.24 J**	<0.35 U
Phenanthrene	85-01-8	100	500	**0.28 J**	<0.33 U	**0.077 J**	**0.34**	**0.32 J**	<0.34 U	<0.36 U	<0.37 U	**1.5**	<0.35 U
Pyrene	129-00-0	100	500	**0.55**	**0.046 J**	**0.18 J**	**0.80**	**1.0**	**0.042 J**	<0.36 U	<0.37 U	**5.2**	<0.35 U
Total PAHs		NL	NL	***3.268***	***0.474***	***1.144***	***4.098***	***5.029***	***0.042***	*ND*	*ND*	***50.69***	*ND*
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)													
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.041 U	<0.033 U	<0.042 U	<0.034 U	<0.036 U	<0.034 U	<0.036 U	<0.037 U	<0.073 U	<0.035 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
2,4-Dinitrophenol	51-28-5	NL	NL	<1.2 U	<1 U	<1.3 U	<1 U	<1.1 U	<1 U	R	<1.1 U	<2.2 U	<1 U
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.082 U	<0.067 U	<0.085 U	<0.069 U	<0.072 U	<0.069 U	<0.073 U	<0.075 U	<0.15 U	<0.07 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.082 U	<0.067 U	<0.085 U	<0.069 U	<0.072 U	<0.069 U	<0.073 U	<0.075 U	<0.15 U	<0.07 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
2-Chlorophenol	95-57-8	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
2-Methylphenol	95-48-7	0.33	500	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
2-Nitroaniline	88-74-4	NL	NL	<0.82 U	<0.67 U	<0.85 U	<0.69 U	<0.72 U	<0.69 U	<0.73 U	<0.75 U	<1.5 U	<0.7 U
2-Nitrophenol	88-75-5	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.82 U	<0.67 U	<0.85 U	<0.69 U	<0.72 U	<0.69 U	<0.73 U	<0.75 U	<1.5 U	<0.7 U
3-Nitroaniline	99-09-2	NL	NL	<0.82 U	<0.67 U	<0.85 U	<0.69 U	<0.72 U	<0.69 U	<0.73 U	<0.75 U	<1.5 U	<0.7 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<1.2 U	<1 U	<1.3 U	<1 U	<1.1 U	<1 U	<1.1 U	<1.1 U	<2.2 U	<1 U
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
4-Chloroaniline	106-47-8	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
4-Methylphenol	106-44-5	0.33	500	<0.41 U	**1.8**	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
4-Nitroaniline	100-01-6	NL	NL	<0.82 U	<0.67 U	<0.85 U	<0.69 U	<0.72 U	<0.69 U	<0.73 U	<0.75 U	<1.5 U	<0.7 UJ
4-Nitrophenol	100-02-7	NL	NL	<1.2 U	<1 U	<1.3 U	<1 U	<1.1 U	<1 U	<1.1 U	<1.1 U	<2.2 U	<1 U
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.041 U	<0.033 U	<0.042 U	<0.034 U	<0.036 U	<0.034 U	<0.036 U	<0.037 U	<0.073 U	<0.035 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Butyl benzyl phthalate	85-68-7	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Carbazole	86-74-8	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	**0.21 J**	<0.35 U
Dibenzofuran	132-64-9	7	350	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Diethyl phthalate	84-66-2	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Dimethyl phthalate	131-11-3	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Di-n-butyl phthalate	84-74-2	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Di-n-octyl phthalate	117-84-0	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Hexachlorobenzene	118-74-1	0.33	6	<0.041 U	<0.033 U	<0.042 U	<0.034 U	<0.036 U	<0.034 U	<0.036 U	<0.037 U	<0.073 U	<0.035 U
Hexachlorobutadiene	87-68-3	NL	NL	<0.082 U	<0.067 U	<0.085 U	<0.069 U	<0.072 U	<0.069 U	<0.073 U	<0.075 U	<0.15 U	<0.07 U
Hexachlorocyclopentadiene	77-47-4	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Hexachloroethane	67-72-1	NL	NL	<0.041 U	<0.033 U	<0.042 U	<0.034 U	<0.036 U	<0.034 U	<0.036 U	<0.037 U	<0.073 U	<0.035 U
Isophorone	78-59-1	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Nitrobenzene	98-95-3	NL	69	<0.041 U	<0.033 U	<0.042 U	<0.034 U	<0.036 U	<0.034 U	<0.036 U	<0.037 U	<0.073 U	<0.035 U
N-Nitrosodi-n-propylamine	621-64-7	NL	NL	<0.041 U	<0.033 U	<0.042 U	<0.034 U	<0.036 U	<0.034 U	<0.036 U	<0.037 U	<0.073 U	<0.035 U
N-Nitrosodiphenylamine	86-30-6	NL	NL	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Pentachlorophenol	87-86-5	0.8	6.7	<1.2 U	<1 U	<1.3 U	<1 U	<1.1 U	<1 U	<1.1 U	<1.1 U	<2.2 U	<1 U
Phenol	108-95-2	0.33	500	<0.41 U	<0.33 U	<0.42 U	<0.34 U	<0.36 U	<0.34 U	<0.36 U	<0.37 U	<0.73 U	<0.35 U
Total SVOCs		NL	NL	***3.268***	***2.274***	***1.144***	***4.098***	***5.029***	***0.042***	*ND*	*ND*	***50.9***	*ND*

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location / Sample Date / Sample ID / Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-06 2/22/2012 SB-6 (37.5-40)022212 37.5-40	SB-07 2/22/2012 SB-7 (0-2.5)-22212 0-2.5	SB-07 2/22/2012 SB-7 (21.5-24)022212 21.5-24	SB-07 2/22/2012 SB-7 (37.5-40)022212 37.5-40	SB-08 3/1/2012 SB-8 (2.5-5)030112 2.5-5	SB-08 3/1/2012 SB-8 (15-17)030112 15-17	SB-08 3/1/2012 SB-8 (20-25)030112 20-25	SB-08 3/1/2012 SB-8 (42.5-45)030112 42.5-45	SB-09 2/23/2012 SB-9 (2.5-5)022312 2.5-5	SB-09 2/23/2012 SB-9 (10-13.5)022312 10-13.5
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)													
2-Methylnaphthalene	91-57-6	NL	NL	<0.36 U	**0.05 J**	<0.34 U	<0.36 U	<0.41 U	**0.076 J**	<0.35 U	<0.41 U	**0.073 J**	**69**
Acenaphthene	83-32-9	20	500	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	**0.16 J**	<0.35 U	<0.41 U	**0.068 J**	**36**
Acenaphthylene	208-96-8	100	500	<0.36 U	**0.15 J**	<0.34 U	<0.36 U	**0.048 J**	**0.12 J**	<0.35 U	<0.41 U	**0.26 J**	**83**
Anthracene	120-12-7	100	500	<0.36 U	**0.25 J**	<0.34 U	<0.36 U	**0.14 J**	**0.30 J**	<0.35 U	<0.41 U	**0.36**	**30**
Benzo(a)anthracene	56-55-3	1	5.6	<0.036 U	**1.1**	<0.034 U	<0.036 U	**0.76**	**0.76**	<0.035 U	<0.041 U	**1.6**	**19**
Benzo(a)pyrene	50-32-8	1	1	<0.036 U	**1.0**	<0.034 U	<0.036 U	**0.67**	**0.74**	<0.035 U	<0.041 U	**1.8**	**24**
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.036 U	**1.1**	<0.034 U	<0.036 U	**0.75**	**0.77**	<0.035 U	<0.041 U	**1.9**	**17**
Benzo(ghi)perylene	191-24-2	100	500	<0.36 U	**0.44**	<0.34 U	<0.36 U	**0.38 J**	**0.47**	<0.35 U	<0.41 U	**1.2**	**25**
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.036 U	**0.44**	<0.034 U	<0.036 U	**0.31**	**0.29**	<0.035 U	<0.041 U	**0.69**	**6.6**
Chrysene	218-01-9	1	56	<0.36 U	**1.1**	<0.34 U	<0.36 U	**0.70**	**0.77**	<0.35 U	<0.41 U	**1.5**	**19**
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.036 U	**0.16**	<0.034 U	<0.036 U	**0.084**	**0.11**	<0.035 U	<0.041 U	**0.31**	**2**
Fluoranthene	206-44-0	100	500	<0.36 U	**2.0**	<0.34 U	<0.36 U	**1.1**	**1.4**	<0.35 U	<0.41 U	**2.2**	**60**
Fluorene	86-73-7	30	500	<0.36 U	**0.079 J**	<0.34 U	<0.36 U	<0.41 U	**0.25 J**	<0.35 U	<0.41 U	**0.13 J**	**58**
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.036 U	**0.53**	<0.034 U	<0.036 U	**0.48**	**0.51**	<0.035 U	<0.041 U	**1.2**	**18**
Naphthalene	91-20-3	12	500	<0.36 U	**0.10 J**	<0.34 U	<0.36 U	**0.072 J**	**0.32 J**	<0.35 U	<0.41 U	**0.12 J**	**190**
Phenanthrene	85-01-8	100	500	<0.36 U	**0.87**	<0.34 U	<0.36 U	**0.48**	**1.2**	<0.35 U	<0.41 U	**1.6**	**130**
Pyrene	129-00-0	100	500	<0.36 U	**1.3**	<0.34 U	<0.36 U	**1.1**	**1.3**	<0.35 U	<0.41 U	**2.6**	**98**
Total PAHs		NL	NL	*ND*	***10.669***	*ND*	*ND*	***7.074***	***9.546***	*ND*	*ND*	***17.611***	***884.6***
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)													
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.036 U	<0.036 U	<0.034 U	<0.036 U	<0.041 U	<0.038 U	<0.035 U	<0.041 U	<0.036 U	<0.98 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
2,4-Dinitrophenol	51-28-5	NL	NL	<1.1 U	<1.1 U	R	<1.1 U	<1.2 U	<1.2 U	<1.1 U	<1.3 U	<1.1 U	<30 U
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.073 U	<0.074 U	<0.069 U	<0.073 U	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<2 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.073 U	<0.074 U	<0.069 U	<0.073 U	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<2 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
2-Chlorophenol	95-57-8	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
2-Methylphenol	95-48-7	0.33	500	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
2-Nitroaniline	88-74-4	NL	NL	<0.73 U	<0.74 U	<0.69 U	<0.73 U	<0.82 U	<0.78 U	<0.72 U	<0.84 U	<0.73 U	<20 U
2-Nitrophenol	88-75-5	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.73 U	<0.74 U	<0.69 U	<0.73 U	<0.82 U	<0.78 U	<0.72 U	<0.84 U	<0.73 U	<20 UJ
3-Nitroaniline	99-09-2	NL	NL	<0.73 U	<0.74 U	<0.69 U	<0.73 U	<0.82 U	<0.78 U	<0.72 U	<0.84 U	<0.73 U	<20 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<1.1 U	<1.1 U	<1 U	<1.1 U	<1.2 U	<1.2 U	<1.1 U	<1.3 U	<1.1 U	<30 U
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
4-Chloroaniline	106-47-8	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
4-Methylphenol	106-44-5	0.33	500	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
4-Nitroaniline	100-01-6	NL	NL	<0.73 U	<0.74 U	<0.69 U	<0.73 UJ	<0.82 U	<0.78 U	<0.72 U	<0.84 U	<0.73 U	<20 U
4-Nitrophenol	100-02-7	NL	NL	<1.1 U	<1.1 U	<1 U	<1.1 U	<1.2 U	<1.2 U	<1.1 U	<1.3 U	<1.1 U	<30 U
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.036 U	<0.036 U	<0.034 U	<0.036 U	<0.041 U	<0.038 U	<0.035 U	<0.041 U	<0.036 U	<0.98 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
Butyl benzyl phthalate	85-68-7	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
Carbazole	86-74-8	NL	NL	<0.36 U	**0.076 J**	<0.34 U	<0.36 U	<0.41 U	**0.08 J**	<0.35 U	<0.41 U	**0.085 J**	<9.8 U
Dibenzofuran	132-64-9	7	350	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	**0.1 J**	<0.35 U	<0.41 U	<0.36 U	<9.8 U
Diethyl phthalate	84-66-2	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
Dimethyl phthalate	131-11-3	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
Di-n-butyl phthalate	84-74-2	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
Di-n-octyl phthalate	117-84-0	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
Hexachlorobenzene	118-74-1	0.33	6	<0.036 U	<0.036 U	<0.034 U	<0.036 U	<0.041 U	<0.038 U	<0.035 U	<0.041 U	<0.036 U	<0.98 U
Hexachlorobutadiene	87-68-3	NL	NL	<0.073 U	<0.074 U	<0.069 U	<0.073 U	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<2 U
Hexachlorocyclopentadiene	77-47-4	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
Hexachloroethane	67-72-1	NL	NL	<0.036 U	<0.036 U	<0.034 U	<0.036 U	<0.041 U	<0.038 U	<0.035 U	<0.041 U	<0.036 U	<0.98 U
Isophorone	78-59-1	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
Nitrobenzene	98-95-3	NL	69	<0.036 U	<0.036 U	<0.034 U	<0.036 U	<0.041 U	<0.038 U	<0.035 U	<0.041 U	<0.036 U	<0.98 U
N-Nitrosodi-n-propylamine	621-64-7	NL	NL	<0.036 U	<0.036 U	<0.034 U	<0.036 U	<0.041 U	<0.038 U	<0.035 U	<0.041 U	<0.036 U	<0.98 U
N-Nitrosodiphenylamine	86-30-6	NL	NL	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
Pentachlorophenol	87-86-5	0.8	6.7	<1.1 U	<1.1 U	<1 U	<1.1 U	<1.2 U	<1.2 U	<1.1 U	<1.3 U	<1.1 U	<30 U
Phenol	108-95-2	0.33	500	<0.36 U	<0.36 U	<0.34 U	<0.36 U	<0.41 U	<0.38 U	<0.35 U	<0.41 U	<0.36 U	<9.8 U
Total SVOCs		NL	NL	*ND*	***10.745***	*ND*	*ND*	***7.074***	***9.726***	*ND*	*ND*	***17.696***	***884.6***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-09 2/23/2012 SB-9 (37.5-40)022312 37.5-40	SB-10 2/23/2012 SB-10 (1-2.5)022312 1-2.5	SB-10 2/23/2012 SB-10 (12.5-15)022312 12.5-15	SB-10 2/23/2012 SB-10 (26-27.5)022312 26-27.5	SB-10 2/23/2012 SB-10 (37.5-40)022312 37.5-40	SB-11 2/28/2012 SB-11 (0-2.5)022812 0-2.5	SB-11 2/28/2012 SB-11 (25-27)022812 25-27	SB-11 2/28/2012 SB-11 (35-40)022812 35-40	SB-12 2/28/2012 SB-12 (2.5-5)022812 2.5-5	SB-12 2/28/2012 SB-12 (5-7.5)022812 5-7.5
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)													
2-Methylnaphthalene	91-57-6	NL	NL	<0.39 U	<0.35 U	**41**	**1.2**	<0.36 U	<0.34 U	**0.043 J**	<0.35 U	**0.46 J**	**2 J**
Acenaphthene	83-32-9	20	500	<0.39 U	<0.35 U	**13**	**0.42 J**	<0.36 U	<0.34 U	<0.33 U	<0.35 U	**1.4 J**	**2.5 J**
Acenaphthylene	208-96-8	100	500	<0.39 U	<0.35 U	**36**	**1.5**	<0.36 U	**0.22 J**	**0.24 J**	<0.35 U	**2.3**	**12**
Anthracene	120-12-7	100	500	<0.39 U	<0.35 U	**63**	**2.0**	<0.36 U	**0.19 J**	**0.14 J**	<0.35 U	**7.5**	**28**
Benzo(a)anthracene	56-55-3	1	5.6	<0.039 U	**0.17**	**82**	**3.4**	<0.036 U	**0.58**	**0.35**	**0.045**	**24**	**69**
Benzo(a)pyrene	50-32-8	1	1	<0.039 U	**0.17**	**37**	**1.8**	<0.036 U	**0.81**	**0.56 J**	**0.055**	**18**	**37**
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.039 U	**0.2**	**47**	**1.9**	<0.036 U	**0.78**	**0.47 J**	**0.051**	**19**	**41**
Benzo(ghi)perylene	191-24-2	100	500	<0.39 U	**0.075 J**	**8.6**	**1.0**	<0.36 U	**0.75**	**0.53 J**	**0.052 J**	**11**	**8.6**
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.039 U	**0.087**	**17**	**0.56**	<0.036 U	**0.33**	**0.16**	**0.018 J**	**8.4**	**22**
Chrysene	218-01-9	1	56	<0.39 U	**0.17 J**	**71**	**3.4**	<0.36 U	**0.65**	**0.39**	**0.05 J**	**21**	**54**
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.039 U	<0.035 U	**5.2**	**0.47**	<0.036 U	**0.08**	**0.054**	<0.035 U	**3.4**	**5.1**
Fluoranthene	206-44-0	100	500	<0.39 U	**0.21 J**	**110**	**4.4**	<0.36 U	**1.6**	**1.4 J**	**0.14 J**	**37**	**100**
Fluorene	86-73-7	30	500	<0.39 U	<0.35 U	**61**	**2.8**	<0.36 U	**0.091 J**	**0.16 J**	<0.35 U	**2.3**	**12**
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.039 U	**0.082**	**11**	**1.0**	<0.036 U	**0.61**	**0.41**	**0.032 J**	**13**	**13**
Naphthalene	91-20-3	12	500	<0.39 U	<0.35 U	**27**	**0.47 J**	<0.36 U	**0.071 J**	**0.063 J**	<0.35 U	**0.73 J**	**1.8 J**
Phenanthrene	85-01-8	100	500	<0.39 U	**0.093 J**	**140**	**6.2**	<0.36 U	**1.0**	**1.6**	**0.14 J**	**24**	**47**
Pyrene	129-00-0	100	500	<0.39 U	**0.17 J**	**85**	**3.6**	<0.36 U	**1.9**	**1.8 J**	**0.19 J**	**35**	**73**
Total PAHs		NL	NL	*ND*	***1.427***	***854.8***	***36.12***	*ND*	***9.662***	***8.37***	***0.773***	***228.49***	***528***
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)													
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.039 U	<0.035 U	<0.74 U	<0.074 U	<0.036 U	<0.034 U	<0.033 U	<0.035 U	<0.19 U	<0.72 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
2,4-Dinitrophenol	51-28-5	NL	NL	<1.2 U	<1.1 U	<22 U	<2.3 U	<1.1 U	<1 U	R	<1.1 U	<5.7 U	<22 U
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.08 U	<0.071 U	<1.5 U	<0.15 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.38 U	<1.5 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.08 U	<0.071 U	<1.5 U	<0.15 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.38 U	<1.5 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
2-Chlorophenol	95-57-8	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
2-Methylphenol	95-48-7	0.33	500	<0.39 UJ	<0.35 U	<7.4 U	<0.74 U	<0.36 UJ	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
2-Nitroaniline	88-74-4	NL	NL	<0.8 U	<0.71 U	<15 U	<1.5 U	<0.74 U	<0.69 U	<0.68 U	<0.71 U	<3.8 U	<15 U
2-Nitrophenol	88-75-5	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.8 U	<0.71 U	<15 UJ	<1.5 U	<0.74 U	<0.69 U	<0.68 U	<0.71 U	<3.8 UJ	<15 UJ
3-Nitroaniline	99-09-2	NL	NL	<0.8 U	<0.71 U	<15 U	<1.5 U	<0.74 U	<0.69 U	<0.68 U	<0.71 U	<3.8 U	<15 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<1.2 U	<1.1 U	<22 U	<2.3 U	<1.1 U	<1 U	<1 U	<1.1 U	<5.7 U	<22 U
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
4-Chloroaniline	106-47-8	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
4-Methylphenol	106-44-5	0.33	500	<0.39 U	<0.35 U	**2.2 J**	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	**2 J**
4-Nitroaniline	100-01-6	NL	NL	<0.8 U	<0.71 U	<15 U	<1.5 U	<0.74 U	<0.69 U	<0.68 U	<0.71 U	<3.8 U	<15 U
4-Nitrophenol	100-02-7	NL	NL	<1.2 U	<1.1 U	<22 U	<2.3 U	<1.1 U	<1 U	<1 U	<1.1 U	<5.7 U	<22 U
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.039 U	<0.035 U	<0.74 U	<0.074 U	<0.036 U	<0.034 U	<0.033 U	<0.035 U	<0.19 U	<0.72 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	**0.6**	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
Butyl benzyl phthalate	85-68-7	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
Carbazole	86-74-8	NL	NL	<0.39 U	<0.35 U	**20**	**0.88**	<0.36 U	<0.34 U	<0.33 U	<0.35 U	**1.6 J**	**2.6 J**
Dibenzofuran	132-64-9	7	350	<0.39 U	<0.35 U	**30**	**1.3**	<0.36 U	<0.34 U	<0.33 U	<0.35 U	**1.3 J**	**4.7 J**
Diethyl phthalate	84-66-2	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
Dimethyl phthalate	131-11-3	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
Di-n-butyl phthalate	84-74-2	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
Di-n-octyl phthalate	117-84-0	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
Hexachlorobenzene	118-74-1	0.33	6	<0.039 U	<0.035 U	<0.74 U	<0.074 U	<0.036 U	<0.034 U	<0.033 U	<0.035 U	<0.19 U	<0.72 U
Hexachlorobutadiene	87-68-3	NL	NL	<0.08 U	<0.071 U	<1.5 U	<0.15 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.38 U	<1.5 U
Hexachlorocyclopentadiene	77-47-4	NL	NL	<0.39 UJ	<0.35 U	<7.4 U	<0.74 U	<0.36 UJ	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
Hexachloroethane	67-72-1	NL	NL	<0.039 U	<0.035 U	<0.74 U	<0.074 U	<0.036 U	<0.034 U	<0.033 U	<0.035 U	<0.19 U	<0.72 U
Isophorone	78-59-1	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
Nitrobenzene	98-95-3	NL	69	<0.039 U	<0.035 U	<0.74 U	<0.074 U	<0.036 U	<0.034 U	<0.033 U	<0.035 U	<0.19 U	<0.72 U
N-Nitrosodi-n-propylamine	621-64-7	NL	NL	<0.039 UJ	<0.035 U	<0.74 U	<0.074 U	<0.036 UJ	<0.034 U	<0.033 U	<0.035 U	<0.19 U	<0.72 U
N-Nitrosodiphenylamine	86-30-6	NL	NL	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	<7.2 U
Pentachlorophenol	87-86-5	0.8	6.7	<1.2 U	<1.1 U	<22 U	<2.3 U	<1.1 U	<1 U	<1 U	<1.1 U	<5.7 U	<22 U
Phenol	108-95-2	0.33	500	<0.39 U	<0.35 U	<7.4 U	<0.74 U	<0.36 U	<0.34 U	<0.33 U	<0.35 U	<1.9 U	**1.4 J**
Total SVOCs		NL	NL	***0.6***	***1.427***	***907***	***38.3***	*ND*	***9.662***	***8.37***	***0.773***	***231.39***	***538.7***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-12 2/28/2012 SB-12 (10-12.5)022812 10-12.5	SB-12 2/28/2012 SB-12 (37.5-40)022812 37.5-40	SB-13 2/28/2012 SB-13 (2.5-5)022812 2.5-5	SB-13 2/29/2012 SB-13 (22.5-24.5)022912 22.5-24.5	SB-13 2/29/2012 SB-13 (37.5-40)022912 37.5-40	SB-14 2/27/2012 DUP-2-022712 2-5	SB-14 2/27/2012 SB-14 (2-5)022712 2-5	SB-14 2/27/2012 SB-14 (25-26.5)022712 25-26.5	SB-14 2/27/2012 SB-14 (37.5-40)022712 37.5-40	SB-15 2/28/2012 SB-15 (2.5-5)022812 2.5-5
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)													
2-Methylnaphthalene	91-57-6	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	**0.17 J**	**0.17 J**	<0.35 U	<0.37 U	<0.38 U
Acenaphthene	83-32-9	20	500	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	**0.13 J**	**0.15 J**	<0.35 U	<0.37 U	<0.38 U
Acenaphthylene	208-96-8	100	500	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	**0.15 J**	**0.076 J**	<0.35 U	<0.37 U	<0.38 U
Anthracene	120-12-7	100	500	**0.057 J**	<0.36 U	<0.35 U	<0.35 U	<0.38 U	**0.56**	**0.46**	**0.10 J**	<0.37 U	<0.38 U
Benzo(a)anthracene	56-55-3	1	5.6	**0.21**	<0.036 U	**0.064**	<0.035 U	<0.038 U	**3.1**	**2.7**	**0.36**	<0.037 U	**0.31**
Benzo(a)pyrene	50-32-8	1	1	**0.12**	<0.036 U	**0.051**	<0.035 U	<0.038 U	**2.8**	**2.3**	**0.33**	<0.037 U	**0.32**
Benzo(b)fluoranthene	205-99-2	1	5.6	**0.17**	<0.036 U	**0.054**	<0.035 U	<0.038 U	**2.5**	**2.1**	**0.3**	<0.037 U	**0.33**
Benzo(ghi)perylene	191-24-2	100	500	<0.35 U	<0.36 U	**0.03 J**	<0.35 U	<0.38 U	**0.79**	**1.0**	**0.23 J**	<0.37 U	**0.21 J**
Benzo(k)fluoranthene	207-08-9	0.8	56	**0.05**	<0.036 U	**0.022 J**	<0.035 U	<0.038 U	**0.83**	**0.61**	**0.11**	<0.037 U	**0.15**
Chrysene	218-01-9	1	56	**0.2 J**	<0.36 U	**0.064 J**	<0.35 U	<0.38 U	**2.9**	**2.6**	**0.34 J**	<0.37 U	**0.30 J**
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.035 U	<0.036 U	<0.035 U	<0.035 U	<0.038 U	**0.38**	**0.41**	**0.079**	<0.037 U	**0.072**
Fluoranthene	206-44-0	100	500	**0.39**	<0.36 U	**0.085 J**	<0.35 U	<0.38 U	**1.6**	**1.3**	**0.35**	<0.37 U	**0.40**
Fluorene	86-73-7	30	500	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	**0.20 J**	**0.17 J**	<0.35 U	<0.37 U	<0.38 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.035 U	<0.036 U	**0.031 J**	<0.035 U	<0.038 U	**0.84**	**1.0**	**0.22**	<0.037 U	**0.24**
Naphthalene	91-20-3	12	500	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	**0.11 J**	**0.10 J**	<0.35 U	<0.37 U	<0.38 U
Phenanthrene	85-01-8	100	500	**0.12 J**	<0.36 U	<0.35 U	<0.35 U	<0.38 U	**1.2**	**0.99**	**0.34 J**	<0.37 U	**0.14 J**
Pyrene	129-00-0	100	500	**0.29 J**	<0.36 U	**0.091 J**	<0.35 U	<0.38 U	**1.7**	**1.7**	**0.47**	<0.37 U	**0.36 J**
Total PAHs		NL	NL	***1.607***	*ND*	***0.492***	*ND*	*ND*	***19.96***	***17.836***	***3.229***	*ND*	***2.832***
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)													
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.035 U	<0.036 U	<0.035 U	<0.035 U	<0.038 U	<0.037 U	<0.037 U	<0.035 U	<0.037 U	<0.038 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
2,4-Dinitrophenol	51-28-5	NL	NL	<1 U	<1.1 U	<1.1 U	R	<1.1 U	<1.1 U	<1.1 U	<1.1 U	R	<1.1 U
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.07 U	<0.073 U	<0.07 U	<0.07 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U	<0.075 U	<0.077 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.07 U	<0.073 U	<0.07 U	<0.07 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U	<0.075 U	<0.077 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
2-Chlorophenol	95-57-8	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
2-Methylphenol	95-48-7	0.33	500	<0.35 U	<0.36 U	<0.35 UJ	<0.35 UJ	<0.38 UJ	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
2-Nitroaniline	88-74-4	NL	NL	<0.7 U	<0.73 U	<0.7 U	<0.7 U	<0.76 U	<0.75 U	<0.76 U	<0.72 U	<0.75 U	<0.77 U
2-Nitrophenol	88-75-5	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.7 U	<0.73 U	<0.7 U	<0.7 U	<0.76 U	<0.75 UJ	<0.76 UJ	<0.72 U	<0.75 U	<0.77 U
3-Nitroaniline	99-09-2	NL	NL	<0.7 U	<0.73 U	<0.7 U	<0.7 U	<0.76 U	<0.75 U	<0.76 U	<0.72 U	<0.75 U	<0.77 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
4-Chloroaniline	106-47-8	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
4-Methylphenol	106-44-5	0.33	500	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
4-Nitroaniline	100-01-6	NL	NL	<0.7 U	<0.73 U	<0.7 U	<0.7 U	<0.76 U	<0.75 U	<0.76 U	<0.72 U	<0.75 U	<0.77 U
4-Nitrophenol	100-02-7	NL	NL	<1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.035 U	<0.036 U	<0.035 U	<0.035 U	<0.038 U	<0.037 U	<0.037 U	<0.035 U	<0.037 U	<0.038 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	**0.13 J**
Butyl benzyl phthalate	85-68-7	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	**0.093 J**
Carbazole	86-74-8	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	**0.24 J**	**0.22 J**	<0.35 U	<0.37 U	<0.38 U
Dibenzofuran	132-64-9	7	350	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	**0.14 J**	**0.12 J**	<0.35 U	<0.37 U	<0.38 U
Diethyl phthalate	84-66-2	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
Dimethyl phthalate	131-11-3	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
Di-n-butyl phthalate	84-74-2	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
Di-n-octyl phthalate	117-84-0	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
Hexachlorobenzene	118-74-1	0.33	6	<0.035 U	<0.036 U	<0.035 U	<0.035 U	<0.038 U	<0.037 U	<0.037 U	<0.035 U	<0.037 U	<0.038 U
Hexachlorobutadiene	87-68-3	NL	NL	<0.07 U	<0.073 U	<0.07 U	<0.07 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U	<0.075 U	<0.077 U
Hexachlorocyclopentadiene	77-47-4	NL	NL	<0.35 U	<0.36 U	<0.35 UJ	<0.35 UJ	<0.38 UJ	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
Hexachloroethane	67-72-1	NL	NL	<0.035 U	<0.036 U	<0.035 U	<0.035 U	<0.038 U	<0.037 U	<0.037 U	<0.035 U	<0.037 U	<0.038 U
Isophorone	78-59-1	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
Nitrobenzene	98-95-3	NL	69	<0.035 U	<0.036 U	<0.035 U	<0.035 U	<0.038 U	<0.037 U	<0.037 U	<0.035 U	<0.037 U	<0.038 U
N-Nitrosodi-n-propylamine	621-64-7	NL	NL	<0.035 U	<0.036 U	<0.035 UJ	<0.035 UJ	<0.038 UJ	<0.037 U	<0.037 U	<0.035 U	<0.037 U	<0.038 U
N-Nitrosodiphenylamine	86-30-6	NL	NL	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
Pentachlorophenol	87-86-5	0.8	6.7	<1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U
Phenol	108-95-2	0.33	500	<0.35 U	<0.36 U	<0.35 U	<0.35 U	<0.38 U	<0.37 U	<0.37 U	<0.35 U	<0.37 U	<0.38 U
Total SVOCs		NL	NL	***1.607***	*ND*	***0.492***	*ND*	*ND*	***20.34***	***18.176***	***3.229***	*ND*	***3.055***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-15 3/8/2012 SB-15 (25-27.5)030812 25-27.5	SB-15 3/9/2012 SB-15 (37.5-40)030912 37.5-40
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)					
2-Methylnaphthalene	91-57-6	NL	NL	<0.34 U	<0.38 U
Acenaphthene	83-32-9	20	500	<0.34 U	<0.38 U
Acenaphthylene	208-96-8	100	500	<0.34 U	<0.38 U
Anthracene	120-12-7	100	500	<0.34 U	<0.38 U
Benzo(a)anthracene	56-55-3	1	5.6	<0.034 U	<0.038 U
Benzo(a)pyrene	50-32-8	1	1	<0.034 U	<0.038 U
Benzo(b)fluoranthene	205-99-2	1	5.6	<0.034 U	<0.038 U
Benzo(ghi)perylene	191-24-2	100	500	<0.34 U	<0.38 U
Benzo(k)fluoranthene	207-08-9	0.8	56	<0.034 U	<0.038 U
Chrysene	218-01-9	1	56	<0.34 U	<0.38 U
Dibenz(a,h)anthracene	53-70-3	0.33	0.56	<0.034 U	<0.038 U
Fluoranthene	206-44-0	100	500	<0.34 U	<0.38 U
Fluorene	86-73-7	30	500	<0.34 U	<0.38 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	5.6	<0.034 U	<0.038 U
Naphthalene	91-20-3	12	500	<0.34 U	<0.38 U
Phenanthrene	85-01-8	100	500	<0.34 U	<0.38 U
Pyrene	129-00-0	100	500	<0.34 U	**0.04 J**
Total PAHs		NL	NL	*ND*	***0.04***
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)					
1,2,4-Trichlorobenzene	120-82-1	NL	NL	<0.034 U	<0.038 U
1,2-Dichlorobenzene	95-50-1	1.1	500	<0.34 U	<0.38 U
1,3-Dichlorobenzene	541-73-1	2.4	280	<0.34 U	<0.38 U
1,4-Dichlorobenzene	106-46-7	1.8	130	<0.34 U	<0.38 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	NL	<0.34 U	<0.38 U
2,4,5-Trichlorophenol	95-95-4	NL	NL	<0.34 U	<0.38 U
2,4,6-Trichlorophenol	88-06-2	NL	NL	<0.34 U	<0.38 U
2,4-Dichlorophenol	120-83-2	NL	NL	<0.34 U	<0.38 U
2,4-Dimethylphenol	105-67-9	NL	NL	<0.34 U	<0.38 U
2,4-Dinitrophenol	51-28-5	NL	NL	<1 U	<1.1 U
2,4-Dinitrotoluene	121-14-2	NL	NL	<0.07 U	<0.076 U
2,6-Dinitrotoluene	606-20-2	NL	NL	<0.07 U	<0.076 U
2-Chloronaphthalene	91-58-7	NL	NL	<0.34 U	<0.38 U
2-Chlorophenol	95-57-8	NL	NL	<0.34 U	<0.38 U
2-Methylphenol	95-48-7	0.33	500	<0.34 U	<0.38 U
2-Nitroaniline	88-74-4	NL	NL	<0.7 U	<0.76 U
2-Nitrophenol	88-75-5	NL	NL	<0.34 U	<0.38 U
3,3'-Dichlorobenzidine	91-94-1	NL	NL	<0.7 U	<0.76 U
3-Nitroaniline	99-09-2	NL	NL	<0.7 U	<0.76 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	NL	<1 U	<1.1 U
4-Bromophenyl phenyl ether	101-55-3	NL	NL	<0.34 U	<0.38 U
4-Chloro-3-methylphenol	59-50-7	NL	NL	<0.34 U	<0.38 U
4-Chloroaniline	106-47-8	NL	NL	<0.34 U	<0.38 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	NL	<0.34 U	<0.38 U
4-Methylphenol	106-44-5	0.33	500	<0.34 U	<0.38 U
4-Nitroaniline	100-01-6	NL	NL	<0.7 U	<0.76 U
4-Nitrophenol	100-02-7	NL	NL	<1 U	<1.1 U
bis(2-Chloroethoxy)methane	111-91-1	NL	NL	<0.34 U	<0.38 U
bis(2-Chloroethyl) ether	111-44-4	NL	NL	<0.034 U	<0.038 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	NL	<0.34 U	<0.38 U
Butyl benzyl phthalate	85-68-7	NL	NL	<0.34 U	<0.38 U
Carbazole	86-74-8	NL	NL	<0.34 U	<0.38 U
Dibenzofuran	132-64-9	7	350	<0.34 U	<0.38 U
Diethyl phthalate	84-66-2	NL	NL	<0.34 U	<0.38 U
Dimethyl phthalate	131-11-3	NL	NL	<0.34 U	<0.38 U
Di-n-butyl phthalate	84-74-2	NL	NL	<0.34 U	<0.38 U
Di-n-octyl phthalate	117-84-0	NL	NL	<0.34 U	<0.38 U
Hexachlorobenzene	118-74-1	0.33	6	<0.034 U	<0.038 U
Hexachlorobutadiene	87-68-3	NL	NL	<0.07 U	<0.076 U
Hexachlorocyclopentadiene	77-47-4	NL	NL	<0.34 U	<0.38 U
Hexachloroethane	67-72-1	NL	NL	<0.034 U	<0.038 U
Isophorone	78-59-1	NL	NL	<0.34 U	<0.38 U
Nitrobenzene	98-95-3	NL	69	<0.034 U	<0.038 U
N-Nitrosodi-n-propylamine	621-64-7	NL	NL	<0.034 U	<0.038 U
N-Nitrosodiphenylamine	86-30-6	NL	NL	<0.34 U	<0.38 U
Pentachlorophenol	87-86-5	0.8	6.7	<1 U	<1.1 U
Phenol	108-95-2	0.33	500	<0.34 U	<0.38 U
Total SVOCs		NL	NL	*ND*	***0.04***

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

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mg/Kg = milligram per kilogram

Bold indicates compound was detected

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Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-01 3/5/2012 SB-1 (2.5-5)030512 2.5-5	SB-01 3/5/2012 SB-1(17-19)030512 17-19	SB-01 3/5/2012 SB-1 (37.5-40)030512 37.5-40	SB-02 3/6/2012 SB-2 (0-2.5)030612 0-2.5	SB-02 3/6/2012 SB-2 (17.5-20)030612 17.5-20	SB-02 3/6/2012 SB-2 (37.5-40)030612 37.5-40	SB-03 2/27/2012 SB-3 (2.5-5)022712 2.5-5	SB-03 2/27/2012 SB-3 (5-10)022712 5-10
Inorganic Compounds (mg/Kg)											
Aluminum	7429-90-5	NL	NL	**5720**	**2400**	**1430**	**3840**	**4930**	**1690**	**7300**	**5420**
Antimony	7440-36-0	NL	NL	<2.0 U	<2.1 U	<2.4 U	**1.6 J**	<2.0 U	<2.6 U	<2.0 UJ	<2.2 U
Arsenic	7440-38-2	13	16	**3.0**	**0.97 J**	**1.2**	**5.2**	**2.0**	<1.3 U	**3.9**	**1.8**
Barium	7440-39-3	350	400	**62.2**	**18.1 J**	**10.8 J**	**86.7**	**21.5 J**	**14.0 J**	**54.7**	**53.7**
Beryllium	7440-41-7		590	**0.64**	<0.41 U	<0.47 U	**0.27 J**	**0.17 J**	<0.52 U	**0.28 J**	**0.23 J**
Cadmium	7440-43-9	2.5	9.3	**0.60 J**	<1.0 U	<1.2 U	**0.83 J**	<1.0 U	<1.3 U	<0.99 U	<1.1 U
Calcium	7440-70-2	NL	NL	**10200**	**377 J**	**456 J**	**13000**	**528 J**	**390 J**	**4800**	**16300**
Chromium	7440-47-3	30	1500	**15.6**	**6.9**	**6.2**	**11.3**	**16.9**	**5.2**	**16.1**	**12.1**
Cobalt	7440-48-4	NL	NL	**5.1 J**	**3.9 J**	**2.4 J**	**3.9 J**	**3.4 J**	**1.8 J**	**5.8 J**	**3.8 J**
Copper	7440-50-8	50	270	**67.5**	**10.3**	**4.6 J**	**33.6**	**7.7**	**5.5 J**	**25.3**	**12.2**
Iron	7439-89-6	NL	NL	**16900**	**12300**	**7900**	**14100**	**15600**	**6760**	**17000**	**12900**
Lead	7439-92-1	63	1000	**220**	**3.0**	**2.3**	**596**	**5.0**	**1.7**	**54.7 J**	**31.4**
Magnesium	7439-95-4	NL	NL	**5600**	**802 J**	**623 J**	**6170**	**881 J**	**745 J**	**2700 J**	**1860**
Manganese	7439-96-5	1600	10000	**310**	**237**	**137**	**237**	**235**	**56.5**	**269 J**	**233**
Mercury	7439-97-6	0.18	2.8	**0.19**	<0.032 U	<0.040 U	**0.38**	<0.033 U	<0.044 U	**0.15**	**0.045**
Nickel	7440-02-0	30	310	**13.5**	**7.0 J**	**5.6 J**	**10.4**	**8.5**	**5.2 J**	**12.8**	**8.1 J**
Potassium	7440-09-7	NL	NL	**290 J**	**436 J**	**209 J**	**268 J**	**248 J**	**339 J**	**679 J**	**515 J**
Selenium	7782-49-2	3.9	1500	**1.3 J**	<2.1 U	<2.4 U	<2.1 U	<2.0 U	<2.6 U	<2.0 U	<2.2 U
Silver	7440-22-4	2	1500	<2.0 U	<2.1 U	<2.4 U	<2.1 U	<2.0 U	<2.6 U	<2.0 U	<2.2 U
Sodium	7440-23-5	NL	NL	<1010 U	<1030 U	<1180 U	<1040 U	<1010 U	<1310 U	<993 U	<1120 U
Thallium	7440-28-0	NL	NL	<2.0 U	<2.1 U	<2.4 U	<2.1 U	<2.0 U	<2.6 U	<2.0 U	<2.2 U
Vanadium	7440-62-2	NL	NL	**24.1**	**18.5**	**10.4 J**	**21.3**	**15.7**	**10.1 J**	**24.3**	**14.6**
Zinc	7440-66-6	109	10000	**555**	**13**	**8.8**	**167**	**14**	**51.6**	**90.9**	**32.4**
Cyanide (mg/Kg)											
Available cyanide	57-12-5-A	NL	NL	<0.043 U	<0.042 U	<0.050 U	<0.043 U	<0.043 U	<0.053 U	**0.045**	<0.050 U
PCBs (mg/Kg)											
Aroclor 1016	12674-11-2	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.073 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U
Aroclor 1221	11104-28-2	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.073 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U
Aroclor 1232	11141-16-5	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.073 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U
Aroclor 1242	53469-21-9	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.073 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U
Aroclor 1248	12672-29-6	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.073 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U
Aroclor 1254	11097-69-1	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.073 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U
Aroclor 1260	11096-82-5	NL	NL	**0.073**	<0.071 U	<0.085 U	**0.029 J**	<0.072 U	<0.089 U	<0.075 U	<0.083 U
Aroclor 1262	37324-23-5	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.073 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U
Aroclor 1268	11100-14-4	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.073 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U
Total PCBs		0.1	1	***0.073***	*ND*	*ND*	***0.029***	*ND*	*ND*	*ND*	*ND*
Pesticides (mg/Kg)											
Aldrin	309-00-2	0.005	0.68	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Alpha-BHC	319-84-6	0.02	3.4	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Beta-BHC	319-85-7	0.036	3	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Chlordane	57-74-9	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.073 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U
DDD,4,4-	72-54-8	0.0033	92	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
DDE,4,4-	72-55-9	0.0033	62	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
DDT,4,4-	50-29-3	0.0033	47	**0.0073**	<0.0071 U	<0.0085 U	**0.0063 J**	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 UJ
Delta-BHC	319-86-8	0.04	500	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Dieldrin	60-57-1	0.005	1.4	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Endosulfan I	959-98-8	2.4	200	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Endosulfan II	33213-65-9	2.4	200	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Endosulfan sulfate	1031-07-8	2.4	200	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Endrin	72-20-8	0.014	89	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Endrin aldehyde	7421-93-4	NL	NL	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Endrin ketone	53494-70-5	NL	NL	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Gamma BHC - Lindane	58-89-9	0.1	9.2	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Heptachlor	76-44-8	0.042	15	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Heptachlor Epoxide	1024-57-3	NL	NL	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 U
Methoxychlor	72-43-5	NL	NL	<0.0073 U	<0.0071 U	<0.0085 U	<0.0073 U	<0.0072 U	<0.0089 U	<0.0075 U	<0.0083 UJ
Toxaphene	8001-35-2	NL	NL	<0.073 U	<0.071 U	<0.085 U	<0.073 U	<0.072 U	<0.089 U	<0.075 U	<0.083 U
Herbicides (mg/Kg)											
2,4,5-TP (Silvex)	93-72-1	3.8	500	<0.018 U	<0.018 U	<0.021 U	<0.018 U	<0.018 U	<0.023 U	<0.019 U	<0.021 U
2,4-D	94-75-7	NL	NL	<0.018 U	<0.018 U	<0.021 U	<0.018 U	<0.018 U	<0.023 U	<0.019 U	<0.021 U
T,2,4,5-	93-76-5	NL	NL	<0.018 U	<0.018 U	<0.021 U	<0.018 U	<0.018 U	<0.023 U	<0.019 U	<0.021 U

Notes:

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Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

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Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-03 2/27/2012 SB-3 (10-11.75)022712 10-11.75	SB-04 2/27/2012 SB-4 (3-5)022712 3-5	SB-04 2/27/2012 SB-4 (5-8.5)022712 5-8.5	SB-04 2/27/2012 SB-4 (8.5-10)022712 8.5-10	SB-04 2/27/2012 SB-4 (10-13)022712 10-13	SB-05 3/8/2012 SB-5 (2.5-5)030812 2.5-5	SB-05 3/9/2012 DUP-3-030912 22-24	SB-05 3/9/2012 SB-5 (22-24)030912 22-24
Inorganic Compounds (mg/Kg)											
Aluminum	7429-90-5	NL	NL	**3980**	**8750**	**9680**	**5110**	**11200**	**2220**	**2500**	**1910**
Antimony	7440-36-0	NL	NL	<2.1 UJ	<2.1 UJ	<2.3 U	<1.8 U	<2.3 UJ	<2.1 U	<2.1 U	<2.0 U
Arsenic	7440-38-2	13	16	**2.3**	**4.4**	**4.2**	**2.4**	**4.7**	**1.6**	**1.8**	**1.3**
Barium	7440-39-3	350	400	**85.1**	**89.7**	**62.5**	**43.2**	**80.5**	**20.8 J**	**19.2 J**	**19.4 J**
Beryllium	7440-41-7		590	**0.20 J**	**0.34 J**	**0.43 J**	**0.20 J**	**0.47**	<0.41 U	<0.43 U	<0.39 U
Cadmium	7440-43-9	2.5	9.3	**0.92 J**	<1.0 U	**0.23 J**	**0.16 J**	<1.2 U	<1.0 U	<1.1 U	<0.98 U
Calcium	7440-70-2	NL	NL	**27600**	**2630**	**2080**	**1930**	**9640**	**519 J**	**698 J**	**506 J**
Chromium	7440-47-3	30	1500	**10.8**	**17.5**	**19**	**11.4**	**17**	**7.1 J**	**8.8 J**	**7.6 J**
Cobalt	7440-48-4	NL	NL	**3.3 J**	**4.9 J**	**6.6 J**	**3.5 J**	**5.8 J**	**2.9 J**	**3.1 J**	**3.5 J**
Copper	7440-50-8	50	270	**13.1**	**29.9**	**16.7**	**13.3**	**24.7**	**10.9**	**10.6**	**9.8**
Iron	7439-89-6	NL	NL	**18600**	**16100**	**21800**	**12200**	**18800**	**13600**	**13500**	**14000**
Lead	7439-92-1	63	1000	**83.2 J**	**223 J**	**55.3**	**58.5**	**89.0 J**	**12.9 J**	**22.9**	**45**
Magnesium	7439-95-4	NL	NL	**1720 J**	**1530 J**	**1590**	**1040**	**5640 J**	**707 J**	**785 J**	**713 J**
Manganese	7439-96-5	1600	10000	**247 J**	**308 J**	**364**	**274**	**433 J**	**250 J**	**195 J**	**348 J**
Mercury	7439-97-6	0.18	2.8	**0.029 J**	**0.59**	**0.09**	**0.077**	<0.041 U	**0.036**	**0.043**	<0.028 U
Nickel	7440-02-0	30	310	**8.6**	**9.6**	**12.1**	**6.7 J**	**13**	**5.4 J**	**5.9 J**	**10.7**
Potassium	7440-09-7	NL	NL	**346 J**	**329 J**	**323 J**	**192 J**	**401 J**	**221 J**	**239 J**	**334 J**
Selenium	7782-49-2	3.9	1500	<2.1 U	<2.1 U	<2.3 U	<1.8 U	<2.3 U	<2.1 U	<2.1 U	<2.0 U
Silver	7440-22-4	2	1500	<2.1 U	<2.1 U	<2.3 U	<1.8 U	<2.3 U	<2.1 U	<2.1 U	<2.0 U
Sodium	7440-23-5	NL	NL	<1030 U	<1040 U	<1170 U	<901 U	<1160 U	<1040 U	<1070 U	<977 U
Thallium	7440-28-0	NL	NL	<2.1 U	<2.1 U	<2.3 U	<1.8 U	<2.3 U	<2.1 U	<2.1 U	<2.0 U
Vanadium	7440-62-2	NL	NL	**14.6**	**19.7**	**26.7**	**14.3**	**24.5**	**11.1**	**10.6 J**	**11**
Zinc	7440-66-6	109	10000	**294**	**92.7**	**65.2**	**43.4**	**79.3**	**15.1**	**20.2**	**14.6**
Cyanide (mg/Kg)											
Available cyanide	57-12-5-A	NL	NL	**0.35**	**0.022 J**	**0.049**	**3.4**	**22.8**	<0.042 U	<0.043 U	<0.041 U
PCBs (mg/Kg)											
Aroclor 1016	12674-11-2	NL	NL	<0.077 U	<0.075 U	<0.082 U	<0.067 U	<0.085 U	<0.069 U	<0.072 U	<0.069 U
Aroclor 1221	11104-28-2	NL	NL	<0.077 U	<0.075 U	<0.082 U	<0.067 U	<0.085 U	<0.069 U	<0.072 U	<0.069 U
Aroclor 1232	11141-16-5	NL	NL	<0.077 U	<0.075 U	<0.082 U	<0.067 U	<0.085 U	<0.069 U	<0.072 U	<0.069 U
Aroclor 1242	53469-21-9	NL	NL	<0.077 U	<0.075 U	<0.082 U	<0.067 U	<0.085 U	<0.069 U	<0.072 U	<0.069 U
Aroclor 1248	12672-29-6	NL	NL	<0.077 U	<0.075 U	<0.082 U	<0.067 U	<0.085 U	<0.069 U	<0.072 U	<0.069 U
Aroclor 1254	11097-69-1	NL	NL	<0.077 U	<0.075 U	<0.082 U	<0.067 U	<0.085 U	<0.069 U	<0.072 U	<0.069 U
Aroclor 1260	11096-82-5	NL	NL	<0.077 U	<0.075 U	<0.082 U	**0.012 J**	<0.085 U	<0.069 U	<0.072 U	<0.069 U
Aroclor 1262	37324-23-5	NL	NL	<0.077 U	<0.075 U	<0.082 U	<0.067 U	<0.085 U	<0.069 U	<0.072 U	<0.069 U
Aroclor 1268	11100-14-4	NL	NL	<0.077 U	<0.075 U	<0.082 U	<0.067 U	<0.085 U	<0.069 U	<0.072 U	<0.069 U
Total PCBs		0.1	1	*ND*	*ND*	*ND*	***0.012***	*ND*	*ND*	*ND*	*ND*
Pesticides (mg/Kg)											
Aldrin	309-00-2	0.005	0.68	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Alpha-BHC	319-84-6	0.02	3.4	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Beta-BHC	319-85-7	0.036	3	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Chlordane	57-74-9	NL	NL	<0.077 U	<0.075 U	<0.082 U	<0.067 U	<0.085 U	<0.07 U	<0.072 U	<0.069 U
DDD,4,4-	72-54-8	0.0033	92	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
DDE,4,4-	72-55-9	0.0033	62	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
DDT,4,4-	50-29-3	0.0033	47	<0.0077 U	<0.0075 U	<0.0082 UJ	<0.0067 UJ	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Delta-BHC	319-86-8	0.04	500	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Dieldrin	60-57-1	0.005	1.4	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Endosulfan I	959-98-8	2.4	200	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Endosulfan II	33213-65-9	2.4	200	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Endosulfan sulfate	1031-07-8	2.4	200	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Endrin	72-20-8	0.014	89	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Endrin aldehyde	7421-93-4	NL	NL	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Endrin ketone	53494-70-5	NL	NL	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Gamma BHC - Lindane	58-89-9	0.1	9.2	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Heptachlor	76-44-8	0.042	15	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Heptachlor Epoxide	1024-57-3	NL	NL	<0.0077 U	<0.0075 U	<0.0082 U	<0.0067 U	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Methoxychlor	72-43-5	NL	NL	<0.0077 U	<0.0075 U	<0.0082 UJ	<0.0067 UJ	<0.0085 U	<0.0070 U	<0.0072 U	<0.0069 U
Toxaphene	8001-35-2	NL	NL	<0.077 U	<0.075 U	<0.082 U	<0.067 U	<0.085 U	<0.07 U	<0.072 U	<0.069 U
Herbicides (mg/Kg)											
2,4,5-TP (Silvex)	93-72-1	3.8	500	<0.02 U	<0.019 U	<0.021 U	<0.017 U	<0.022 U	<0.018 U	<0.018 U	<0.018 U
2,4-D	94-75-7	NL	NL	<0.02 U	<0.019 U	<0.021 U	<0.017 U	<0.022 U	<0.018 U	<0.018 U	<0.018 U
T,2,4,5-	93-76-5	NL	NL	<0.02 U	<0.019 U	<0.021 U	<0.017 U	<0.022 U	<0.018 U	<0.018 U	<0.018 U

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-05 3/9/2012 SB-5 (37.5-40)030912 37.5-40	SB-06 2/22/2012 DUP-1-022212 1-3.5	SB-06 2/22/2012 SB-6 (1-3.5)022212 1-3.5	SB-06 2/22/2012 SB-6 (22-24)022212 22-24	SB-06 2/22/2012 SB-6 (37.5-40)022212 37.5-40	SB-07 2/22/2012 SB-7 (0-2.5)-22212 0-2.5	SB-07 2/22/2012 SB-7 (21.5-24)022212 21.5-24	SB-07 2/22/2012 SB-7 (37.5-40)022212 37.5-40
Inorganic Compounds (mg/Kg)											
Aluminum	7429-90-5	NL	NL	**1880**	**1580**	**6930**	**2360**	**2020**	**5500**	**2670**	**1890**
Antimony	7440-36-0	NL	NL	<2.2 U	<2.1 U	<2.1 U	<2.0 U	<1.9 U	<2.1 U	<1.9 U	<2.2 U
Arsenic	7440-38-2	13	16	<1.1 U	<1.1 U	**4.6**	<1.0 U	<0.97 U	**5.4**	<0.97 U	<1.1 U
Barium	7440-39-3	350	400	**58.4**	**23.8 J**	**86.3**	**13.1 J**	**25.4 J**	**65.4**	**14.0 J**	**24.7 J**
Beryllium	7440-41-7		590	<0.44 U	<0.43 U	**0.49**	<0.41 U	<0.39 U	**0.24 J**	**0.17 J**	<0.43 U
Cadmium	7440-43-9	2.5	9.3	<1.1 U	<1.1 U	**0.28 J**	<1.0 U	<0.97 U	**0.68 J**	<0.97 U	<1.1 U
Calcium	7440-70-2	NL	NL	**338 J**	**240 J**	**5340**	**419 J**	**381 J**	**28800**	**296 J**	**446 J**
Chromium	7440-47-3	30	1500	**7.4 J**	**5.1**	**14**	**13.7**	**6.7**	**12.8**	**8.3**	**7.8**
Cobalt	7440-48-4	NL	NL	**2.4 J**	**2.4 J**	**5.6 J**	**2.3 J**	**2.8 J**	**4.2 J**	**3.0 J**	**2.4 J**
Copper	7440-50-8	50	270	**6.5**	**4.1 J**	**26.2**	**5.8**	**6.1**	**33.7**	**3.4 J**	**5.7**
Iron	7439-89-6	NL	NL	**7870**	**5530 J**	**20000**	**7510**	**8410 J**	**13800**	**8900**	**7450**
Lead	7439-92-1	63	1000	**2.6**	**1.1**	**62.9**	**2.5**	**1.4**	**144**	**1.9**	**1.6**
Magnesium	7439-95-4	NL	NL	**902 J**	**693 J**	**2270**	**652 J**	**919 J**	**14700**	**866 J**	**815 J**
Manganese	7439-96-5	1600	10000	**332 J**	**282 J**	**283 J**	**81.2 J**	**306 J**	**232 J**	**80.1 J**	**268 J**
Mercury	7439-97-6	0.18	2.8	<0.036 U	<0.034 U	**0.24**	<0.033 U	<0.035 U	**0.36**	**0.092**	<0.036 U
Nickel	7440-02-0	30	310	**8.2 J**	**7.7 J**	**13.6**	**6.0 J**	**9.7**	**10.4**	**5.8 J**	**9.5**
Potassium	7440-09-7	NL	NL	**503 J**	**505 J**	**454 J**	**190 J**	**757 J**	**379 J**	**165 J**	**473 J**
Selenium	7782-49-2	3.9	1500	<2.2 U	<2.1 U	**1.5 J**	<2.0 U	<1.9 U	<2.1 U	<1.9 U	<2.2 U
Silver	7440-22-4	2	1500	<2.2 U	<2.1 U	<2.1 U	<2.0 U	<1.9 U	<2.1 U	<1.9 U	<2.2 U
Sodium	7440-23-5	NL	NL	<1090 U	<1070 U	<1050 U	<1020 U	<972 U	<1030 U	<972 U	<1080 U
Thallium	7440-28-0	NL	NL	<2.2 U	<2.1 U	<2.1 U	<2.0 U	<1.9 U	<2.1 U	<1.9 U	<2.2 U
Vanadium	7440-62-2	NL	NL	**9.0 J**	**5.8 J**	**33.6**	**9.0 J**	**9.0 J**	**24.3**	**8.7 J**	**9.4 J**
Zinc	7440-66-6	109	10000	**9.2**	**7.9**	**40.1**	**9.9**	**9.8**	**106**	**15.7**	**10**
Cyanide (mg/Kg)											
Available cyanide	57-12-5-A	NL	NL	<0.044 U	<0.044 U	<0.044 U	<0.042 U	<0.044 U	<0.044 U	<0.041 U	<0.044 U
PCBs (mg/Kg)											
Aroclor 1016	12674-11-2	NL	NL	<0.073 U	<0.075 U	<0.074 U	<0.07 U	<0.074 U	<0.074 U	<0.069 U	<0.073 U
Aroclor 1221	11104-28-2	NL	NL	<0.073 U	<0.075 U	<0.074 U	<0.07 U	<0.074 U	<0.074 U	<0.069 U	<0.073 U
Aroclor 1232	11141-16-5	NL	NL	<0.073 U	<0.075 U	<0.074 U	<0.07 U	<0.074 U	<0.074 U	<0.069 U	<0.073 U
Aroclor 1242	53469-21-9	NL	NL	<0.073 U	<0.075 U	<0.074 U	<0.07 U	<0.074 U	<0.074 U	<0.069 U	<0.073 U
Aroclor 1248	12672-29-6	NL	NL	<0.073 U	<0.075 U	<0.074 U	<0.07 U	<0.074 U	<0.074 U	<0.069 U	<0.073 U
Aroclor 1254	11097-69-1	NL	NL	<0.073 U	<0.075 U	<0.074 U	<0.07 U	<0.074 U	<0.074 U	<0.069 U	<0.073 U
Aroclor 1260	11096-82-5	NL	NL	<0.073 U	<0.075 U	<0.074 U	<0.07 U	<0.074 U	<0.074 U	<0.069 U	<0.073 U
Aroclor 1262	37324-23-5	NL	NL	<0.073 U	<0.075 U	<0.074 U	<0.07 U	<0.074 U	<0.074 U	<0.069 U	<0.073 U
Aroclor 1268	11100-14-4	NL	NL	<0.073 U	<0.075 U	<0.074 U	<0.07 U	<0.074 U	<0.074 U	<0.069 U	<0.073 U
Total PCBs		0.1	1	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
Pesticides (mg/Kg)											
Aldrin	309-00-2	0.005	0.68	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Alpha-BHC	319-84-6	0.02	3.4	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Beta-BHC	319-85-7	0.036	3	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Chlordane	57-74-9	NL	NL	<0.073 U	<0.075 U	<0.074 U	<0.07 U	<0.074 U	<0.074 U	<0.069 U	<0.073 U
DDD,4,4-	72-54-8	0.0033	92	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
DDE,4,4-	72-55-9	0.0033	62	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
DDT,4,4-	50-29-3	0.0033	47	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Delta-BHC	319-86-8	0.04	500	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Dieldrin	60-57-1	0.005	1.4	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Endosulfan I	959-98-8	2.4	200	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Endosulfan II	33213-65-9	2.4	200	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Endosulfan sulfate	1031-07-8	2.4	200	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Endrin	72-20-8	0.014	89	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Endrin aldehyde	7421-93-4	NL	NL	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Endrin ketone	53494-70-5	NL	NL	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Gamma BHC - Lindane	58-89-9	0.1	9.2	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Heptachlor	76-44-8	0.042	15	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Heptachlor Epoxide	1024-57-3	NL	NL	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Methoxychlor	72-43-5	NL	NL	<0.0073 U	<0.0075 U	<0.0074 U	<0.0070 U	<0.0074 U	<0.0074 U	<0.0069 U	<0.0073 U
Toxaphene	8001-35-2	NL	NL	<0.073 U	<0.075 U	<0.074 U	<0.07 U	<0.074 U	<0.074 U	<0.069 U	<0.073 U
Herbicides (mg/Kg)											
2,4,5-TP (Silvex)	93-72-1	3.8	500	<0.019 U	<0.0042 U	**0.00099 J**	<0.0039 U	<0.0042 U	**0.00071 J**	**0.0017 J**	<0.0041 U
2,4-D	94-75-7	NL	NL	<0.019 UJ	**0.0099 J**	<0.042 U	<0.039 U	<0.042 U	<0.042 U	**0.0077 J**	**0.036 J**
T,2,4,5-	93-76-5	NL	NL	<0.019 U	**0.0017 J**	**0.0020 J**	<0.0097 U	<0.01 U	<0.01 U	<0.0097 U	**0.0098 J**

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-08 3/1/2012 SB-8 (2.5-5)030112 2.5-5	SB-08 3/1/2012 SB-8 (15-17)030112 15-17	SB-08 3/1/2012 SB-8 (20-25)030112 20-25	SB-08 3/1/2012 SB-8 (42.5-45)030112 42.5-45	SB-09 2/23/2012 SB-9 (2.5-5)022312 2.5-5	SB-09 2/23/2012 SB-9 (10-13.5)022312 10-13.5	SB-09 2/23/2012 SB-9 (37.5-40)022312 37.5-40	SB-10 2/23/2012 SB-10 (1-2.5)022312 1-2.5
Inorganic Compounds (mg/Kg)											
Aluminum	7429-90-5	NL	NL	**2440**	**2180**	**2580**	**2110**	**3530**	**2820**	**1860**	**5780**
Antimony	7440-36-0	NL	NL	<2.3 U	<2.3 U	<2.1 U	<2.3 U	<2.1 UJ	<2.4 UJ	<2.2 U	<1.9 UJ
Arsenic	7440-38-2	13	16	**9.7**	**4.1**	**1.1**	**2.1**	**5.2**	**4.9**	<1.1 U	**2.4**
Barium	7440-39-3	350	400	**55.3**	**37.8 J**	**13.2 J**	**21.1 J**	**56.6**	**29.8 J**	**13.3 J**	**30.6 J**
Beryllium	7440-41-7		590	**0.17 J**	**0.20 J**	<0.42 U	<0.46 U	**0.20 J**	<0.47 U	<0.43 U	**0.25 J**
Cadmium	7440-43-9	2.5	9.3	<1.2 U	<1.1 U	<1.1 U	<1.2 U	<1.0 U	**0.24 J**	<1.1 U	<0.96 U
Calcium	7440-70-2	NL	NL	**2930**	**4540**	**408 J**	**386 J**	**8240**	**6800**	**239 J**	**3610**
Chromium	7440-47-3	30	1500	**12.7**	**8.4**	**6.5**	**8.6**	**8.1**	**6.8**	**5.3**	**13.6**
Cobalt	7440-48-4	NL	NL	**3.5 J**	**2.5 J**	**4.8 J**	**3.1 J**	**4.5 J**	**2.6 J**	**2.6 J**	**4.0 J**
Copper	7440-50-8	50	270	**199**	**85.7**	**8.8**	**8.1**	**43.4**	**17.9**	**3.9 J**	**11.6**
Iron	7439-89-6	NL	NL	**9790**	**6360**	**8370**	**10100**	**13100**	**11600**	**7970**	**17100**
Lead	7439-92-1	63	1000	**87.7**	**103**	**2.0**	**2.5**	**162 J**	**115 J**	**1.5**	**26.4 J**
Magnesium	7439-95-4	NL	NL	**607 J**	**1540**	**793 J**	**940 J**	**3230 J**	**3160 J**	**859 J**	**2900 J**
Manganese	7439-96-5	1600	10000	**50.7**	**77.9**	**125**	**234**	**181 J**	**151 J**	**149**	**305 J**
Mercury	7439-97-6	0.18	2.8	**0.11**	**0.08**	<0.033 U	<0.040 U	**3.8**	**0.25**	<0.039 U	**0.056**
Nickel	7440-02-0	30	310	**11.6**	**7.6 J**	**9.3**	**8.0 J**	**11**	**5.3 J**	**6.5 J**	**8.6**
Potassium	7440-09-7	NL	NL	**671 J**	**400 J**	**341 J**	**797 J**	**350 J**	**270 J**	**518 J**	**253 J**
Selenium	7782-49-2	3.9	1500	**3.5**	<2.3 U	<2.1 U	<2.3 U	<2.1 U	<2.4 U	<2.2 U	<1.9 U
Silver	7440-22-4	2	1500	<2.3 U	<2.3 U	<2.1 U	<2.3 U	<2.1 U	<2.4 U	<2.2 U	<1.9 U
Sodium	7440-23-5	NL	NL	**226 J**	<1140 U	<1060 U	<1150 U	<1040 U	<1180 U	<1080 U	<956 U
Thallium	7440-28-0	NL	NL	<2.3 U	<2.3 U	<2.1 U	<2.3 U	<2.1 U	<2.4 U	<2.2 U	<1.9 U
Vanadium	7440-62-2	NL	NL	**18**	**14.4**	**8.0 J**	**8.8 J**	**13.5**	**10.4 J**	**7.1 J**	**19**
Zinc	7440-66-6	109	10000	**58.2**	**39.9**	**14.5**	**10.6**	**93.5**	**84.4**	**9.0**	**31.6**
Cyanide (mg/Kg)											
Available cyanide	57-12-5-A	NL	NL	<0.049 U	<0.046 U	<0.043 U	<0.050 U	<0.044 U	**1.7**	<0.048 U	<0.042 U
PCBs (mg/Kg)											
Aroclor 1016	12674-11-2	NL	NL	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<0.079 U	<0.08 U	<0.071 U
Aroclor 1221	11104-28-2	NL	NL	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<0.079 U	<0.08 U	<0.071 U
Aroclor 1232	11141-16-5	NL	NL	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<0.079 U	<0.08 U	<0.071 U
Aroclor 1242	53469-21-9	NL	NL	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<0.079 U	<0.08 U	<0.071 U
Aroclor 1248	12672-29-6	NL	NL	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<0.079 U	<0.08 U	<0.071 U
Aroclor 1254	11097-69-1	NL	NL	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<0.079 U	<0.08 U	<0.071 U
Aroclor 1260	11096-82-5	NL	NL	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<0.079 U	<0.08 U	<0.071 U
Aroclor 1262	37324-23-5	NL	NL	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<0.079 U	<0.08 U	<0.071 U
Aroclor 1268	11100-14-4	NL	NL	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<0.079 U	<0.08 U	<0.071 U
Total PCBs		0.1	1	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
Pesticides (mg/Kg)											
Aldrin	309-00-2	0.005	0.68	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Alpha-BHC	319-84-6	0.02	3.4	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	**0.0064 J**	<0.0080 U	<0.0071 U
Beta-BHC	319-85-7	0.036	3	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Chlordane	57-74-9	NL	NL	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<0.079 U	<0.08 U	<0.071 U
DDD,4,4-	72-54-8	0.0033	92	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
DDE,4,4-	72-55-9	0.0033	62	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
DDT,4,4-	50-29-3	0.0033	47	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	**0.012**	<0.0080 UJ	<0.0071 U
Delta-BHC	319-86-8	0.04	500	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Dieldrin	60-57-1	0.005	1.4	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Endosulfan I	959-98-8	2.4	200	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Endosulfan II	33213-65-9	2.4	200	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Endosulfan sulfate	1031-07-8	2.4	200	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Endrin	72-20-8	0.014	89	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Endrin aldehyde	7421-93-4	NL	NL	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Endrin ketone	53494-70-5	NL	NL	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Gamma BHC - Lindane	58-89-9	0.1	9.2	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Heptachlor	76-44-8	0.042	15	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Heptachlor Epoxide	1024-57-3	NL	NL	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	<0.0079 U	<0.0080 U	<0.0071 U
Methoxychlor	72-43-5	NL	NL	<0.0082 U	<0.0078 U	<0.0072 U	<0.0084 U	<0.0073 U	**0.0070 J**	<0.0080 UJ	<0.0071 U
Toxaphene	8001-35-2	NL	NL	<0.082 U	<0.078 U	<0.072 U	<0.084 U	<0.073 U	<0.079 U	<0.08 U	<0.071 U
Herbicides (mg/Kg)											
2,4,5-TP (Silvex)	93-72-1	3.8	500	<0.021 U	<0.02 U	<0.018 U	<0.021 U	<0.019 U	<0.02 U	<0.02 U	<0.018 U
2,4-D	94-75-7	NL	NL	<0.021 U	<0.02 U	<0.018 U	<0.021 U	<0.019 U	<0.02 U	<0.02 U	<0.018 U
T,2,4,5-	93-76-5	NL	NL	<0.021 U	<0.02 U	<0.018 U	<0.021 U	<0.019 U	<0.02 U	<0.02 U	<0.018 U

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-10 2/23/2012 SB-10 (12.5-15)022312 12.5-15	SB-10 2/23/2012 SB-10 (26-27.5)022312 26-27.5	SB-10 2/23/2012 SB-10 (37.5-40)022312 37.5-40	SB-11 2/28/2012 SB-11 (0-2.5)022812 0-2.5	SB-11 2/28/2012 SB-11 (25-27)022812 25-27	SB-11 2/28/2012 SB-11 (35-40)022812 35-40	SB-12 2/28/2012 SB-12 (2.5-5)022812 2.5-5	SB-12 2/28/2012 SB-12 (5-7.5)022812 5-7.5
Inorganic Compounds (mg/Kg)											
Aluminum	7429-90-5	NL	NL	**2740**	**2580**	**1600**	**2510**	**1950**	**1800**	**5060**	**3650**
Antimony	7440-36-0	NL	NL	<2.2 UJ	<2.0 UJ	<2.0 U	<1.9 UJ	<1.9 UJ	<2.1 UJ	**1.2 J**	<1.9 UJ
Arsenic	7440-38-2	13	16	**1.5**	**1.5**	<0.99 U	**1.3**	<0.93 U	<1.0 U	**6.1**	**2.5**
Barium	7440-39-3	350	400	**13.9 J**	**15.3 J**	**11.1 J**	**27.3 J**	**18.8 J**	**16.9 J**	**155**	**38**
Beryllium	7440-41-7		590	<0.44 U	<0.40 U	<0.40 U	<0.38 U	<0.37 U	<0.41 U	**0.25 J**	<0.38 U
Cadmium	7440-43-9	2.5	9.3	<1.1 U	<1.0 U	<0.99 U	<0.94 U	<0.93 U	<1.0 U	**0.36 J**	<0.95 U
Calcium	7440-70-2	NL	NL	**688 J**	**703 J**	**284 J**	**1650**	**396 J**	**348 J**	**38300**	**5710**
Chromium	7440-47-3	30	1500	**8.3**	**7.8**	**7.6**	**8.5**	**8.7**	**10**	**16.8**	**11.5**
Cobalt	7440-48-4	NL	NL	**1.8 J**	**2.6 J**	**2.6 J**	**2.2 J**	**1.3 J**	**1.8 J**	**5.7 J**	**3.1 J**
Copper	7440-50-8	50	270	**7.3**	**6.9**	**5.2**	**9.1**	**6.4**	**4.8 J**	**33.2**	**12.7**
Iron	7439-89-6	NL	NL	**11500**	**10700**	**6740**	**14600**	**13800**	**10500**	**18900**	**13700**
Lead	7439-92-1	63	1000	**2.7 J**	**4.9 J**	**1.2**	**31.8 J**	**5.3 J**	**3.1 J**	**320 J**	**151 J**
Magnesium	7439-95-4	NL	NL	**841 J**	**870 J**	**634 J**	**871 J**	**614 J**	**659 J**	**7450 J**	**1480 J**
Manganese	7439-96-5	1600	10000	**108 J**	**127 J**	**122**	**138 J**	**84.0 J**	**115 J**	**327 J**	**197 J**
Mercury	7439-97-6	0.18	2.8	<0.034 U	<0.033 U	<0.033 U	**0.19**	<0.031 U	<0.033 U	**0.67**	**0.15**
Nickel	7440-02-0	30	310	**4.9 J**	**9.7**	**6.5 J**	**5.8 J**	**4.5 J**	**5.9 J**	**13.9**	**9.5**
Potassium	7440-09-7	NL	NL	**230 J**	**308 J**	**368 J**	**280 J**	**315 J**	**352 J**	**486 J**	**297 J**
Selenium	7782-49-2	3.9	1500	<2.2 U	<2.0 U	<2.0 U	<1.9 U	<1.9 U	<2.1 U	<1.9 U	<1.9 U
Silver	7440-22-4	2	1500	<2.2 U	<2.0 U	<2.0 U	<1.9 U	<1.9 U	<2.1 U	<1.9 U	<1.9 U
Sodium	7440-23-5	NL	NL	<1090 U	<1010 U	<991 U	<941 U	<935 U	<1030 U	<973 U	<948 U
Thallium	7440-28-0	NL	NL	<2.2 U	<2.0 U	<2.0 U	<1.9 U	<1.9 U	<2.1 U	<1.9 U	<1.9 U
Vanadium	7440-62-2	NL	NL	**12.5**	**12**	**6.9 J**	**11.6**	**11.2**	**9.3 J**	**18.8**	**15.2**
Zinc	7440-66-6	109	10000	**12.2**	**13.9**	**7.3**	**20.9**	**10.3**	**9.3**	**232**	**64.3**
Cyanide (mg/Kg)											
Available cyanide	57-12-5-A	NL	NL	**3.3**	**0.32**	<0.044 U	<0.041 U	<0.040 U	<0.042 U	<0.045 U	<0.044 U
PCBs (mg/Kg)											
Aroclor 1016	12674-11-2	NL	NL	<0.075 U	<0.076 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.076 U	<0.073 U
Aroclor 1221	11104-28-2	NL	NL	<0.075 U	<0.076 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.076 U	<0.073 U
Aroclor 1232	11141-16-5	NL	NL	<0.075 U	<0.076 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.076 U	<0.073 U
Aroclor 1242	53469-21-9	NL	NL	<0.075 U	<0.076 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.076 U	<0.073 U
Aroclor 1248	12672-29-6	NL	NL	<0.075 U	<0.076 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.076 U	<0.073 U
Aroclor 1254	11097-69-1	NL	NL	<0.075 U	<0.076 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	**0.13 J**	<0.073 U
Aroclor 1260	11096-82-5	NL	NL	<0.075 U	<0.076 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.076 U	<0.073 U
Aroclor 1262	37324-23-5	NL	NL	<0.075 U	<0.076 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.076 U	<0.073 U
Aroclor 1268	11100-14-4	NL	NL	<0.075 U	<0.076 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.076 U	<0.073 U
Total PCBs		0.1	1	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	***0.13***	*ND*
Pesticides (mg/Kg)											
Aldrin	309-00-2	0.005	0.68	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Alpha-BHC	319-84-6	0.02	3.4	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Beta-BHC	319-85-7	0.036	3	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Chlordane	57-74-9	NL	NL	<0.075 U	<0.075 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.076 U	<0.073 U
DDD,4,4-	72-54-8	0.0033	92	**0.18 J**	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	**0.018 NJ**	**0.043 J**
DDE,4,4-	72-55-9	0.0033	62	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
DDT,4,4-	50-29-3	0.0033	47	<0.0075 U	<0.0075 U	<0.0074 UJ	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Delta-BHC	319-86-8	0.04	500	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Dieldrin	60-57-1	0.005	1.4	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Endosulfan I	959-98-8	2.4	200	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Endosulfan II	33213-65-9	2.4	200	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Endosulfan sulfate	1031-07-8	2.4	200	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Endrin	72-20-8	0.014	89	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Endrin aldehyde	7421-93-4	NL	NL	<0.0075 U	**0.020**	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	**0.012 NJ**
Endrin ketone	53494-70-5	NL	NL	**0.14 J**	**0.019**	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	**0.026 NJ**	**0.11 NJ**
Gamma BHC - Lindane	58-89-9	0.1	9.2	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Heptachlor	76-44-8	0.042	15	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Heptachlor Epoxide	1024-57-3	NL	NL	<0.0075 U	<0.0075 U	<0.0074 U	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Methoxychlor	72-43-5	NL	NL	<0.0075 U	<0.0075 U	<0.0074 UJ	<0.0069 U	<0.0068 U	<0.0071 U	<0.0076 U	<0.0073 U
Toxaphene	8001-35-2	NL	NL	<0.075 U	<0.075 U	<0.074 U	<0.069 U	<0.068 U	<0.071 U	<0.076 U	<0.073 U
Herbicides (mg/Kg)											
2,4,5-TP (Silvex)	93-72-1	3.8	500	<0.019 U	<0.019 U	<0.019 U	<0.018 U	<0.017 U	<0.018 U	<0.019 U	<0.019 U
2,4-D	94-75-7	NL	NL	<0.019 U	<0.019 U	<0.019 U	<0.018 U	<0.017 U	<0.018 U	<0.019 U	<0.019 U
T,2,4,5-	93-76-5	NL	NL	<0.019 U	<0.019 U	<0.019 U	<0.018 U	<0.017 U	<0.018 U	<0.019 U	<0.019 U

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

AECOM

Sample Location / Sample Date / Sample ID / Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-12 2/28/2012 SB-12 (10-12.5)022812 10-12.5	SB-12 2/28/2012 SB-12 (37.5-40)022812 37.5-40	SB-13 2/28/2012 SB-13 (2.5-5)022812 2.5-5	SB-13 2/29/2012 SB-13 (22.5-24.5)022912 22.5-24.5	SB-13 2/29/2012 SB-13 (37.5-40)022912 37.5-40	SB-14 2/27/2012 DUP-2-022712 2-5	SB-14 2/27/2012 SB-14 (2-5)022712 2-5	SB-14 2/27/2012 SB-14 (25-26.5)022712 25-26.5
Inorganic Compounds (mg/Kg)											
Aluminum	7429-90-5	NL	NL	**3300**	**1710**	**4210**	**2350**	**2010**	**6430**	**5500**	**3380**
Antimony	7440-36-0	NL	NL	<2.0 UJ	<2.1 UJ	<2.0 U	<2.0 U	<2.1 U	<2.0 UJ	<2.2 UJ	<2.0 UJ
Arsenic	7440-38-2	13	16	**1.3**	<1.1 U	**1.7**	<0.98 U	<1.0 U	**6.2**	**6.5**	**2.5**
Barium	7440-39-3	350	400	**23.4 J**	**12.8 J**	**33.8 J**	**18.3 J**	**24.9 J**	**109**	**100**	**26.2 J**
Beryllium	7440-41-7		590	**0.17 J**	<0.43 U	**0.17 J**	<0.39 U	<0.41 U	**0.38 J**	**0.50**	<0.39 U
Cadmium	7440-43-9	2.5	9.3	<1.0 U	<1.1 U	<0.99 U	<0.98 U	<1.0 U	<0.98 U	<1.1 U	<0.98 U
Calcium	7440-70-2	NL	NL	**630 J**	**324 J**	**880 J**	**550 J**	**283 J**	**4720**	**3290**	**1700**
Chromium	7440-47-3	30	1500	**12.3**	**7.0**	**16.4**	**8.0**	**6.5**	**12.9**	**14**	**13.8**
Cobalt	7440-48-4	NL	NL	**4.4 J**	**2.1 J**	**4.0 J**	**3.4 J**	**2.3 J**	**5.0 J**	**5.0 J**	**2.7 J**
Copper	7440-50-8	50	270	**9.3**	**3.3 J**	**11.2**	**7.7**	**4.3 J**	**40.9**	**34.7**	**13.5**
Iron	7439-89-6	NL	NL	**15600**	**7020**	**19900**	**12000**	**8800**	**19200**	**15500**	**9920**
Lead	7439-92-1	63	1000	**6.1 J**	**1.8 J**	**26**	**2.3**	**1.6**	**143 J**	**115 J**	**45.8 J**
Magnesium	7439-95-4	NL	NL	**988 J**	**736 J**	**1520**	**746 J**	**886 J**	**2280 J**	**1550 J**	**1280 J**
Manganese	7439-96-5	1600	10000	**182 J**	**136 J**	**333**	**245**	**306**	**326 J**	**302 J**	**147 J**
Mercury	7439-97-6	0.18	2.8	<0.033 U	<0.033 U	**0.052**	<0.035 U	<0.037 U	**0.24**	**0.24**	**0.061**
Nickel	7440-02-0	30	310	**9.1**	**6.0 J**	**11.4**	**9.9**	**9.5**	**12.5**	**12.6**	**7.5 J**
Potassium	7440-09-7	NL	NL	**361 J**	**545 J**	**641 J**	**388 J**	**530 J**	**515 J**	**447 J**	**270 J**
Selenium	7782-49-2	3.9	1500	<2.0 U	<2.1 U	<2.0 U	<2.0 U	<2.1 U	<2.0 U	<2.2 U	<2.0 U
Silver	7440-22-4	2	1500	<2.0 U	<2.1 U	<2.0 U	<2.0 U	<2.1 U	<2.0 U	<2.2 U	<2.0 U
Sodium	7440-23-5	NL	NL	<1000 U	<1060 U	<986 U	<984 U	<1030 U	<977 U	<1120 U	<976 U
Thallium	7440-28-0	NL	NL	<2.0 U	<2.1 U	<2.0 U	<2.0 U	<2.1 U	<2.0 U	<2.2 U	<2.0 U
Vanadium	7440-62-2	NL	NL	**21.4**	**6.2 J**	**16**	**13.6**	**9.6 J**	**23.5**	**22.3**	**11.8**
Zinc	7440-66-6	109	10000	**23.7**	**8.0**	**24.5**	**11.6**	**9.8**	**101**	**97.4**	**35.8**
Cyanide (mg/Kg)											
Available cyanide	57-12-5-A	NL	NL	<0.042 U	<0.044 U	<0.042 U	<0.042 U	<0.045 U	<0.045 U	<0.046 U	<0.043 U
PCBs (mg/Kg)											
Aroclor 1016	12674-11-2	NL	NL	<0.07 U	<0.073 U	<0.071 U	<0.071 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U
Aroclor 1221	11104-28-2	NL	NL	<0.07 U	<0.073 U	<0.071 U	<0.071 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U
Aroclor 1232	11141-16-5	NL	NL	<0.07 U	<0.073 U	<0.071 U	<0.071 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U
Aroclor 1242	53469-21-9	NL	NL	<0.07 U	<0.073 U	<0.071 U	<0.071 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U
Aroclor 1248	12672-29-6	NL	NL	<0.07 U	<0.073 U	<0.071 U	<0.071 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U
Aroclor 1254	11097-69-1	NL	NL	<0.07 U	<0.073 U	<0.071 U	<0.071 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U
Aroclor 1260	11096-82-5	NL	NL	<0.07 U	<0.073 U	<0.071 U	<0.071 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U
Aroclor 1262	37324-23-5	NL	NL	<0.07 U	<0.073 U	<0.071 U	<0.071 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U
Aroclor 1268	11100-14-4	NL	NL	<0.07 U	<0.073 U	<0.071 U	<0.071 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U
Total PCBs		0.1	1	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
Pesticides (mg/Kg)											
Aldrin	309-00-2	0.005	0.68	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Alpha-BHC	319-84-6	0.02	3.4	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Beta-BHC	319-85-7	0.036	3	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Chlordane	57-74-9	NL	NL	<0.07 U	<0.073 U	<0.071 U	<0.071 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U
DDD,4,4-	72-54-8	0.0033	92	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
DDE,4,4-	72-55-9	0.0033	62	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
DDT,4,4-	50-29-3	0.0033	47	<0.0070 U	<0.0073 U	<0.0071 UJ	<0.0071 UJ	<0.0076 UJ	<0.0075 U	<0.0076 U	<0.0072 U
Delta-BHC	319-86-8	0.04	500	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Dieldrin	60-57-1	0.005	1.4	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Endosulfan I	959-98-8	2.4	200	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Endosulfan II	33213-65-9	2.4	200	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Endosulfan sulfate	1031-07-8	2.4	200	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Endrin	72-20-8	0.014	89	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Endrin aldehyde	7421-93-4	NL	NL	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Endrin ketone	53494-70-5	NL	NL	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Gamma BHC - Lindane	58-89-9	0.1	9.2	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Heptachlor	76-44-8	0.042	15	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Heptachlor Epoxide	1024-57-3	NL	NL	<0.0070 U	<0.0073 U	<0.0071 U	<0.0071 U	<0.0076 U	<0.0075 U	<0.0076 U	<0.0072 U
Methoxychlor	72-43-5	NL	NL	<0.0070 U	<0.0073 U	<0.0071 UJ	<0.0071 UJ	<0.0076 UJ	<0.0075 U	<0.0076 U	<0.0072 U
Toxaphene	8001-35-2	NL	NL	<0.07 U	<0.073 U	<0.071 U	<0.071 U	<0.076 U	<0.075 U	<0.076 U	<0.072 U
Herbicides (mg/Kg)											
2,4,5-TP (Silvex)	93-72-1	3.8	500	<0.018 U	<0.019 U	<0.018 U	<0.018 U	<0.019 U	<0.019 U	<0.019 U	<0.018 U
2,4-D	94-75-7	NL	NL	<0.018 U	<0.019 U	<0.018 U	<0.018 U	<0.019 U	<0.019 U	<0.019 U	<0.018 U
T,2,4,5-	93-76-5	NL	NL	<0.018 U	<0.019 U	<0.018 U	<0.018 U	<0.019 U	<0.019 U	<0.019 U	<0.018 U

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-3
Summary of Analytical Results in Subsurface Soils
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location Sample Date Sample ID Sample Interval (feet)	CAS #	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use	SB-14 2/27/2012 SB-14 (37.5-40)022712 37.5-40	SB-15 2/28/2012 SB-15 (2.5-5)022812 2.5-5	SB-15 3/8/2012 SB-15 (25-27.5)030812 25-27.5	SB-15 3/9/2012 SB-15 (37.5-40)030912 37.5-40
Inorganic Compounds (mg/Kg)							
Aluminum	7429-90-5	NL	NL	**1840**	**4300**	**2470**	**1520**
Antimony	7440-36-0	NL	NL	<2.1 U	<2.3 U	<2.0 U	<2.1 U
Arsenic	7440-38-2	13	16	**0.99 J**	**7.9**	**1.0**	<1.1 U
Barium	7440-39-3	350	400	**13.8 J**	**81.7**	**21.1 J**	**14.3 J**
Beryllium	7440-41-7		590	<0.42 U	**0.27 J**	**0.14 J**	<0.42 U
Cadmium	7440-43-9	2.5	9.3	<1.1 U	**0.18 J**	<1.0 U	<1.1 U
Calcium	7440-70-2	NL	NL	**340 J**	**2990**	**516 J**	**469 J**
Chromium	7440-47-3	30	1500	**7.2**	**12.9**	**14.2 J**	**6.8 J**
Cobalt	7440-48-4	NL	NL	**2.7 J**	**5.2 J**	**3.9 J**	**2.5 J**
Copper	7440-50-8	50	270	**7.6**	**24.9**	**9.4**	**5.0 J**
Iron	7439-89-6	NL	NL	**9610**	**22400**	**13400**	**12000**
Lead	7439-92-1	63	1000	**2.2**	**309**	**15.7**	**3.4**
Magnesium	7439-95-4	NL	NL	**748 J**	**1620**	**856 J**	**671 J**
Manganese	7439-96-5	1600	10000	**147**	**235**	**259 J**	**142 J**
Mercury	7439-97-6	0.18	2.8	<0.037 U	**0.52**	**0.024 J**	<0.036 U
Nickel	7440-02-0	30	310	**6.7 J**	**13.6**	**7.7 J**	**6.1 J**
Potassium	7440-09-7	NL	NL	**469 J**	**396 J**	**504 J**	**352 J**
Selenium	7782-49-2	3.9	1500	<2.1 U	**3.8**	<2.0 U	<2.1 U
Silver	7440-22-4	2	1500	<2.1 U	<2.3 U	<2.0 U	<2.1 U
Sodium	7440-23-5	NL	NL	<1050 U	<1130 U	<1000 U	<1060 U
Thallium	7440-28-0	NL	NL	<2.1 U	<2.3 U	<2.0 U	<2.1 U
Vanadium	7440-62-2	NL	NL	**7.7 J**	**17.9**	**13**	**9.1 J**
Zinc	7440-66-6	109	10000	**11**	**73.9**	**16.9**	**10.8**
Cyanide (mg/Kg)							
Available cyanide	57-12-5-A	NL	NL	<0.045 U	<0.046 U	<0.042 U	<0.046 U
PCBs (mg/Kg)							
Aroclor 1016	12674-11-2	NL	NL	<0.075 U	<0.076 U	<0.07 U	<0.076 U
Aroclor 1221	11104-28-2	NL	NL	<0.075 U	<0.076 U	<0.07 U	<0.076 U
Aroclor 1232	11141-16-5	NL	NL	<0.075 U	<0.076 U	<0.07 U	<0.076 U
Aroclor 1242	53469-21-9	NL	NL	<0.075 U	<0.076 U	<0.07 U	<0.076 U
Aroclor 1248	12672-29-6	NL	NL	<0.075 U	<0.076 U	<0.07 U	<0.076 U
Aroclor 1254	11097-69-1	NL	NL	<0.075 U	<0.076 U	<0.07 U	<0.076 U
Aroclor 1260	11096-82-5	NL	NL	<0.075 U	<0.076 U	<0.07 U	<0.076 U
Aroclor 1262	37324-23-5	NL	NL	<0.075 U	<0.076 U	<0.07 U	<0.076 U
Aroclor 1268	11100-14-4	NL	NL	<0.075 U	<0.076 U	<0.07 U	<0.076 U
Total PCBs		0.1	1	*ND*	*ND*	*ND*	*ND*
Pesticides (mg/Kg)							
Aldrin	309-00-2	0.005	0.68	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Alpha-BHC	319-84-6	0.02	3.4	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Beta-BHC	319-85-7	0.036	3	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Chlordane	57-74-9	NL	NL	<0.075 U	<0.076 U	<0.07 U	<0.076 U
DDD,4,4-	72-54-8	0.0033	92	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
DDE,4,4-	72-55-9	0.0033	62	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
DDT,4,4-	50-29-3	0.0033	47	<0.0075 U	<0.0076 UJ	<0.0070 U	<0.0076 U
Delta-BHC	319-86-8	0.04	500	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Dieldrin	60-57-1	0.005	1.4	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Endosulfan I	959-98-8	2.4	200	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Endosulfan II	33213-65-9	2.4	200	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Endosulfan sulfate	1031-07-8	2.4	200	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Endrin	72-20-8	0.014	89	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Endrin aldehyde	7421-93-4	NL	NL	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Endrin ketone	53494-70-5	NL	NL	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Gamma BHC - Lindane	58-89-9	0.1	9.2	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Heptachlor	76-44-8	0.042	15	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Heptachlor Epoxide	1024-57-3	NL	NL	<0.0075 U	<0.0076 U	<0.0070 U	<0.0076 U
Methoxychlor	72-43-5	NL	NL	<0.0075 U	<0.0076 UJ	<0.0070 U	<0.0076 U
Toxaphene	8001-35-2	NL	NL	<0.075 U	<0.076 U	<0.07 U	<0.076 U
Herbicides (mg/Kg)							
2,4,5-TP (Silvex)	93-72-1	3.8	500	<0.019 U	<0.019 U	<0.018 U	<0.019 U
2,4-D	94-75-7	NL	NL	<0.019 U	<0.019 U	<0.018 U	<0.019 U
T,2,4,5-	93-76-5	NL	NL	<0.019 U	<0.019 U	<0.018 U	<0.019 U

Notes:

A. Green Shaded values exceed NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

ND = calculated totals are not detected

NL = Not Listed

mg/Kg = milligram per kilogram

Bold indicates compound was detected

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control criteria. The presence of absence of the analyte cannot be verified.

Table 4-4
Summary of Analytical Results in Groundwater
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location / Sample Date / Sample ID	CAS Number	NYSDEC Groundwater Guidance or Standard Value[1]	MW-01 4/4/2012 MW-1-040412	MW-01 4/4/2012 DUP-1-040412	MW-02 4/4/2012 MW-2-040412	MW-03 4/4/2012 MW-3-040412	MW-04 4/5/2012 MW-4-040512	MW-05 4/4/2012 MW-5-040412	MW-06 4/5/2012 MW-6-040512
BTEX (ug/L)									
Benzene	71-43-2	1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Ethylbenzene	100-41-4	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Toluene	108-88-3	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Xylenes (total)	1330-20-7	5	<3.0 U	<3.0 U	<3.0 U	<3.0 U	<3.0 U	<3.0 U	<3.0 U
Volatile Organic Compounds (VOCs)(ug/L)									
1,1,1-Trichloroethane	71-55-6	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	**0.12 J**	<1.0 U	<1.0 U
1,1,2,2-Tetrachloroethane	79-34-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,1,2-Trichloroethane	79-00-5	1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,1-Dichloroethane	75-34-3	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,1-Dichloroethene	75-35-4	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichloroethane	107-06-2	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichloropropane	78-87-5	1	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
2-Butanone	78-93-3	50	R	R	R	R	R	R	R
2-Hexanone	591-78-6	50	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-Methyl-2-pentanone	108-10-1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Acetone	67-64-1	50	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Bromodichloromethane	75-27-4	50	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Bromoform	75-25-2	50	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Bromomethane	74-83-9	5	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 U	<1.0 U	<1.0 U
Carbon disulfide	75-15-0	60	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Carbon tetrachloride	56-23-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Chlorobenzene	108-90-7	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Chloroethane	75-00-3	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Chloroform	67-66-3	7	**0.96 J**	**0.98 J**	**0.82 J**	**2.6**	<1.0 U	**3.8**	<1.0 U
Chloromethane	74-87-3	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
cis-1,2-Dichloroethene	156-59-2	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
cis-1,3-Dichloropropene	10061-01-5	0.4	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Dibromochloromethane	124-48-1	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Methylene chloride	75-09-2	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Styrene	100-42-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Tetrachloroethene	127-18-4	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
trans-1,2-Dichloroethene	156-60-5	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
trans-1,3-Dichloropropene	10061-02-6	0.4	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Trichloroethene	79-01-6	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U
Vinyl chloride	75-01-4	2	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U	<1.0 U

Notes:

1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].

ug/L - micrograms per liter

mg/L - milligrams per liter

NL = Not Listed

NA = Not Analyzed

ND = Not Detected

J = The associated numerical value is an estimated quantity.

J- = The associated numerical value is an estimated quantity, suspected low bias.

R = The associated data is rejected.

U = The material was analyzed for but not detected at, or above, the reporting limit. The associated numerical value is the sample quantitation limit.

Bold indicates compound detected at a concentration greater than the reporting limit.

Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

Table 4-4
Summary of Analytical Results in Groundwater
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location / Sample Date / Sample ID	CAS Number	NYSDEC Groundwater Guidance or Standard Value[1]	MW-01 4/4/2012 MW-1-040412	MW-01 4/4/2012 DUP-1-040412	MW-02 4/4/2012 MW-2-040412	MW-03 4/4/2012 MW-3-040412	MW-04 4/5/2012 MW-4-040512	MW-05 4/4/2012 MW-5-040412	MW-06 4/5/2012 MW-6-040512
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/L)									
2-Methylnaphthalene	91-57-6	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Acenaphthene	83-32-9	20	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Acenaphthylene	208-96-8	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Anthracene	120-12-7	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Benzo(a)anthracene	56-55-3	0.002	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
Benzo(a)pyrene	50-32-8	NL	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
Benzo(b)fluoranthene	205-99-2	0.002	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
Benzo(ghi)perylene	191-24-2	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Benzo(k)fluoranthene	207-08-9	0.002	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
Chrysene	218-01-9	0.002	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Dibenz(a,h)anthracene	53-70-3	NL	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
Fluoranthene	206-44-0	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Fluorene	86-73-7	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
Naphthalene	91-20-3	10	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Phenanthrene	85-01-8	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Pyrene	129-00-0	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Other Semi Volatile Organic Compounds (SVOC) (ug/L)									
1,2,4-Trichlorobenzene	120-82-1	5	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
1,2-Dichlorobenzene	95-50-1	3	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
1,3-Dichlorobenzene	541-73-1	3	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
1,4-Dichlorobenzene	106-46-7	3	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
2,4,5-Trichlorophenol	95-95-4	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
2,4,6-Trichlorophenol	88-06-2	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
2,4-Dichlorophenol	120-83-2	5	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
2,4-Dimethylphenol	105-67-9	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
2,4-Dinitrophenol	51-28-5	10	<33 U	<33 U	<31 UJ	<33 U	<31 U	<31 U	<31 U
2,4-Dinitrotoluene	121-14-2	5	<2.2 U	<2.2 U	<2.0 U	<2.2 U	<2.1 U	<2.1 U	<2.1 U
2,6-Dinitrotoluene	606-20-2	5	<2.2 U	<2.2 U	<2.0 U	<2.2 U	<2.1 U	<2.1 U	<2.1 U
2-Chloronaphthalene	91-58-7	10	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
2-Chlorophenol	95-57-8	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
2-Methylphenol	95-48-7	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
2-Nitroaniline	88-74-4	5	<22 U	<22 U	<20 U	<22 U	<21 U	<21 U	<21 U
2-Nitrophenol	88-75-5	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
3,3'-Dichlorobenzidine	91-94-1	5	<22 U	<22 U	<20 U	<22 U	<21 U	<21 U	<21 U
3-Nitroaniline	99-09-2	5	<22 U	<22 U	<20 U	<22 U	<21 U	<21 U	<21 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	<33 U	<33 U	<31 U	<33 U	<31 U	<31 U	<31 U
4-Bromophenyl phenyl ether	101-55-3	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
4-Chloro-3-methylphenol	59-50-7	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
4-Chloroaniline	106-47-8	5	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
4-Chlorophenyl phenyl ether	7005-72-3	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
4-Methylphenol	106-44-5	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
4-Nitroaniline	100-01-6	5	<22 U	<22 U	<20 U	<22 U	<21 U	<21 U	<21 U
4-Nitrophenol	100-02-7	NL	<33 U	<33 U	<31 U	<33 U	<31 U	<31 U	<31 U
bis(2-Chloroethoxy)methane	111-91-1	5	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
bis(2-Chloroethyl) ether	111-44-4	1	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
bis(2-Ethylhexyl) phthalate	117-81-7	5	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Butyl benzyl phthalate	85-68-7	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Carbazole	86-74-8	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Dibenzofuran	132-64-9	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Diethyl phthalate	84-66-2	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Dimethyl phthalate	131-11-3	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Di-n-butyl phthalate	84-74-2	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Di-n-octyl phthalate	117-84-0	NL	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Hexachlorobenzene	118-74-1	0.4	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
Hexachlorobutadiene	87-68-3	0.5	<2.2 U	<2.2 U	<2.0 U	<2.2 U	<2.1 U	<2.1 U	<2.1 U
Hexachlorocyclopentadiene	77-47-4	5	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Hexachloroethane	67-72-1	5	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
Isophorone	78-59-1	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Nitrobenzene	98-95-3	0.4	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
N-Nitrosodi-n-propylamine	621-64-7	50	<1.1 U	<1.1 U	<1.0 U	<1.1 U	<1.0 U	<1.0 U	<1.0 U
N-Nitrosodiphenylamine	86-30-6	50	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U
Pentachlorophenol	87-86-5	1	<33 U	<33 U	<31 U	<33 U	<31 U	<31 U	<31 U
Phenol	108-95-2	1	<11 U	<11 U	<10 U	<11 U	<10 U	<10 U	<10 U

Notes:

1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].

ug/L - micrograms per liter

mg/L - milligrams per liter

NL = Not Listed

NA = Not Analyzed

ND = Not Detected

J = The associated numerical value is an estimated quantity.

J- = The associated numerical value is an estimated quantity, suspected low bias.

R = The associated data is rejected.

U = The material was analyzed for but not detected at, or above, the reporting limit. The associated numerical value is the sample quantitation limit.

Bold indicates compound detected at a concentration greater than the reporting limit.

Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

Table 4-4
Summary of Analytical Results in Groundwater
Former Jamaica Gas Light Company MGP Site
Queens, New York

Sample Location / Sample Date / Sample ID	CAS Number	NYSDEC Groundwater Guidance or Standard Value[1]	MW-01 4/4/2012 MW-1-040412	MW-01 4/4/2012 DUP-1-040412	MW-02 4/4/2012 MW-2-040412	MW-03 4/4/2012 MW-3-040412	MW-04 4/5/2012 MW-4-040512	MW-05 4/4/2012 MW-5-040412	MW-06 4/5/2012 MW-6-040512
Inorganic Compounds (ug/L)									
Aluminum	7429-90-5	NL	<200 U	<200 U	<200 U	**303**	**423**	**717**	**626**
Antimony	7440-36-0	3	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Arsenic	7440-38-2	25	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Barium	7440-39-3	1000	**85.0 J**	**85.6 J**	**63.7 J**	**74.3 J**	**73.0 J**	**83.5 J**	**45.7 J**
Beryllium	7440-41-7	3	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U	<2.0 U
Cadmium	7440-43-9	5	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Calcium	7440-70-2	NL	**34200**	**35000**	**24300**	**38000**	**47000**	**25300**	**40600**
Chromium	7440-47-3	50	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Cobalt	7440-48-4	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U	<50.0 U	<50.0 U	<50.0 U
Copper	7440-50-8	200	<25.0 U	<25.0 U	<25.0 U	<25.0 U	<25.0 U	<25.0 U	**9.6 J**
Iron	7439-89-6	300	<150 U	**139 J**	**216**	**655**	**807**	**1440**	**1300**
Lead	7439-92-1	25	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U	<5.0 U
Magnesium	7439-95-4	35000	**9040**	**8950**	**4530 J**	**11000**	**9610**	**7060**	**10500**
Manganese	7439-96-5	300	**128**	**130**	<15.0 U	**75.2**	**57.4**	**73.2**	**39.4**
Mercury	7439-97-6	0.7	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U	<0.20 U
Nickel	7440-02-0	100	<40.0 U	<40.0 U	<40.0 U	<40.0 U	<40.0 U	<40.0 U	**5.5 J**
Potassium	7440-09-7	NL	**5190**	**5250**	**6400**	**9210**	**8320**	**7390**	**6310**
Selenium	7782-49-2	10	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Silver	7440-22-4	50	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Sodium	7440-23-5	20000	**21200**	**21300**	**71300**	**75400**	**41400**	**73600**	**21800**
Thallium	7440-28-0	0.5	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U	<10.0 U
Vanadium	7440-62-2	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U	<50.0 U	<50.0 U	<50.0 U
Zinc	7440-66-6	2000	<30.0 U	<30.0 U	<30.0 U	<30.0 U	<30.0 U	<30.0 U	<30.0 U
Cyanide (ug/L)									
Total Cyanide	57-12-5	200	<10. U	<10. U	**100**	**3.0 J**	<10. U	<10. U	<10. U
Available Cyanide		NL	NS	NS	NS	NS	NS	NS	NS
PCBs (ug/L)									
Aroclor 1016	12674-11-2	NL	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 U	<0.51 U	<0.51 U
Aroclor 1221	11104-28-2	NL	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 U	<0.51 U	<0.51 U
Aroclor 1232	11141-16-5	NL	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 U	<0.51 U	<0.51 U
Aroclor 1242	53469-21-9	NL	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 U	<0.51 U	<0.51 U
Aroclor 1248	12672-29-6	NL	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 U	<0.51 U	<0.51 U
Aroclor 1254	11097-69-1	NL	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 U	<0.51 U	<0.51 U
Aroclor 1260	11096-82-5	NL	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 U	<0.51 U	<0.51 U
Aroclor 1262	37324-23-5	NL	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 U	<0.51 U	<0.51 U
Aroclor 1268	11100-14-4	NL	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 UJ	<0.51 U	<0.51 U	<0.51 U
Pesticides (ug/L)									
Aldrin	309-00-2	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Alpha-BHC	319-84-6	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Beta-BHC	319-85-7	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Chlordane	57-74-9	NL	<0.51 U	<0.51 U	<0.51 U	<0.51 U	<0.51 U	<0.51 U	<0.51 U
DDD,4,4-	72-54-8	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
DDE,4,4-	72-55-9	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
DDT,4,4-	50-29-3	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Delta-BHC	319-86-8	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Dieldrin	60-57-1	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Endosulfan I	959-98-8	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Endosulfan II	33213-65-9	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Endosulfan sulfate	1031-07-8	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Endrin	72-20-8	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Endrin aldehyde	7421-93-4	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Endrin ketone	53494-70-5	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Gamma BHC - Lindane	58-89-9	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Heptachlor	76-44-8	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Heptachlor Epoxide	1024-57-3	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Methoxychlor	72-43-5	NL	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U	<0.051 U
Toxaphene	8001-35-2	NL	<0.51 U	<0.51 U	<0.51 U	<0.51 U	<0.51 U	<0.51 U	<0.51 U
Herbicides (ug/L))									
2,4,5-TP (Silvex)	93-72-1	NL	<0.56 U	<0.56 U	<0.53 U	<0.56 U	<0.51 U	<0.52 U	<0.51 U
2,4-D	94-75-7	NL	<0.56 U	<0.56 U	<0.53 U	<0.56 U	<0.51 U	<0.52 U	<0.51 U
T,2,4,5-	93-76-5	NL	<0.56 U	<0.56 U	<0.53 U	<0.56 U	<0.51 U	<0.52 U	<0.51 U

Notes:

1 - Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998].

ug/L - micrograms per liter

mg/L - milligrams per liter

NL = Not Listed

NA = Not Analyzed

ND = Not Detected

J = The associated numerical value is an estimated quantity.

J- = The associated numerical value is an estimated quantity, suspected low bias.

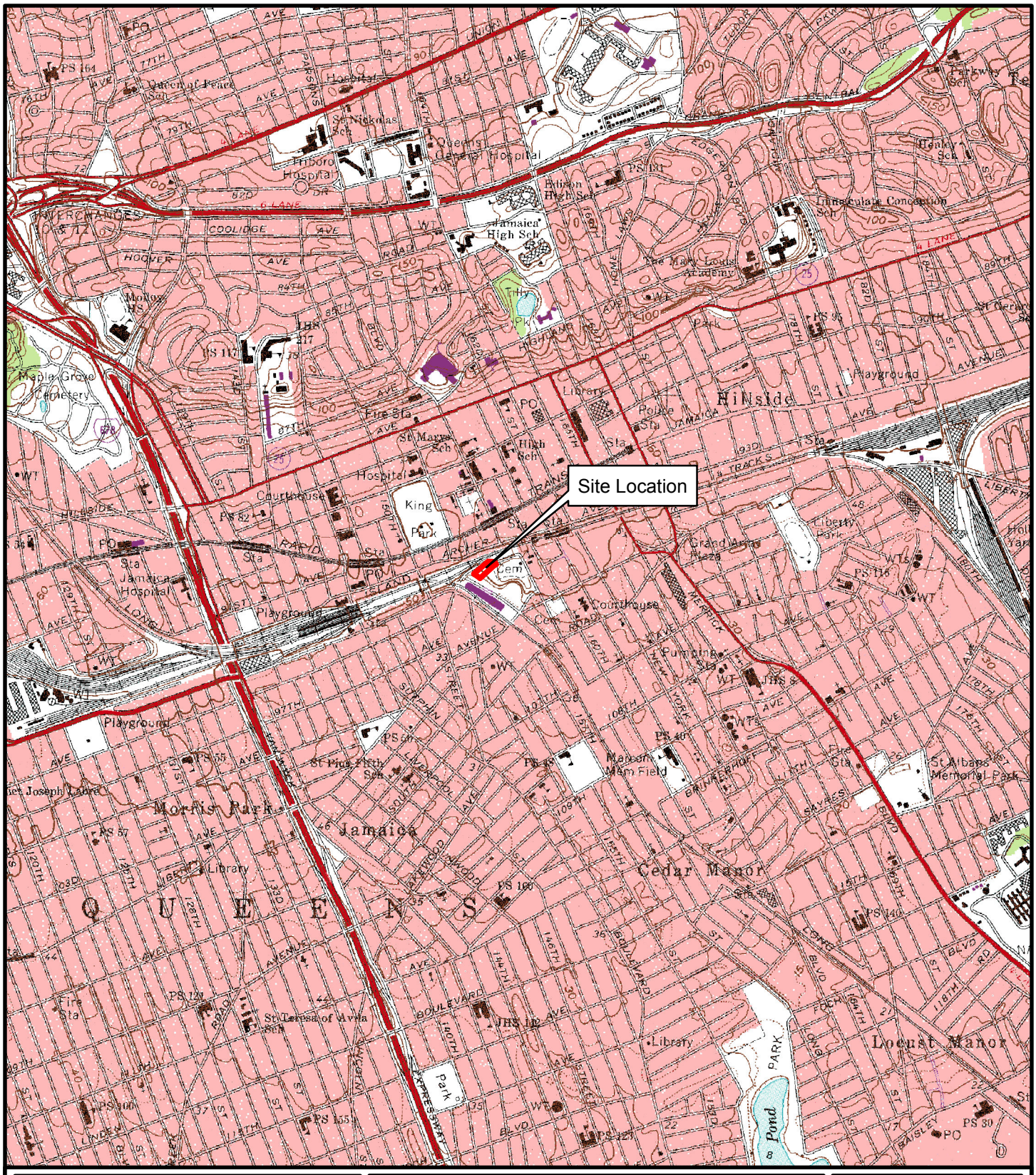
R = The associated data is rejected.

U = The material was analyzed for but not detected at, or above, the reporting limit. The associated numerical value is the sample quantitation limit.

Bold indicates compound detected at a concentration greater than the reporting limit.

Yellow highlight indicates exceedance of the NYSDEC Groundwater Guidance or Standard Value.

Figures



AECOM Environment
20 Exchange Place
New York, NY 10005
(212) 798-8500
www.aecom.com

Site Location Map
National Grid
Former Jamaica Gas Light Company MGP Site
Queens, New York

Data Source: USGS Topographic Quadrangle - Jamaica, 2009

Scale:	Date:	Project Number:
1"=2000'	August 23, 2012	60144468

Figure Number:

1-1

\\usnycs01\Environment\National Grid\Jamaica Holder\GIS\Mxd

Legend

- Project Site
- Building

Land Use

- One & Two Family Buildings
- Multi Family Walk Up Buildings
- Commercial and Office Building
- Industrial and Manufacturing
- Public Facilities and Institutions
- Transportation and Utility
- Open Space and Outdoor Recreation
- Parking Facilities
- Vacant Land
- Unknown
- Block Boundary
- 10099 Block Number
- 1 Lot Number

Note: Tax Block & Tax Lot files are copyrighted by the New York City Department of City Planning

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20 Exchange Place
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Parcel Locations
National Grid
Former Jamaica Gas Light Company MGP Site
Queens, New York

Scale:	Date:	Project Number:
1 in = 200 ft	08/23/2012	60144468

Figure Number:

2-1

J:\Rem_Eng\Project Files\P600 (60000 - 60999)\60144-412 Flatbush Station A&B Gas Holder\8.0 Project Documents\8.1 Scope of Work\8.11 SC Scope of Work - 2009\Misc\Figures\MXD\Figure_2-1_Parcel_Map.mxd

AECOM

153rd ST

ARCHER AVE

Long Island Railroad Property

Asphalt

Grass

Asphalt

BEAVER RD

ACCESS RD

NYS Dormitory Authority

Prospect Cemetery

159th ST

BEAVER RD

158th ST

157th ST

NYS Dormitory Authority

Legend

- Gate
- Project Site
- Approximate Property Boundary Not Surveyed
- Fence
- Retaining Wall
- Present Curb Line
- Railroad

N W E S

0 20 40 80 Feet

1 in = 80 ft

NAD 83 New York Long Island
NAVD 88 North American Vertical Datum

NOTES:
1. SITE FEATURES (FENCE, RETAINING WALL, ETC.) TAKEN FROM GEOD CORPORATION SURVEY, DATED APRIL 2012.
2. HORIZONTAL DATUM IS NORTH AMERICAN DATUM OF 1983 (NAD 83-CORS NEW YORK LONG ISLAND).
3. VERTICAL DATUM IS NORTH AMERICAN DATUM OF 1988 (NAVD 88).

NATIONAL GRID
FORMER JAMAICA GAS LIGHT COMPANY MGP SITE
QUEENS, NEW YORK

DATE: 09/28/2012 | DRWN: XW | JOB #: 60144468

SITE LAYOUT

FIGURE 2-2

V:\Jamaica MGP Site\GIS\Mxd\Updated_20120927\Figure 2-2 Site Layout.mxd (National Grid on USNYCS01\Environment (Y))

AECOM

Long Island Railroad Property

Asphalt

Grass

Asphalt

Light Engine Room
(1873 - 1901)

Coal Shed
(1873 - 1897)

Generator House
(1897 - 1901)

Retort House
(1873 - 1901)

Purifiers and Meter House
(1873 - 1901)

Iron Shed
(1897 - 1901)

BEAVER RD

Coal Shed
(1873 - 1901)

Ripeshed
(1925 - 1967)

ACCESS RD

Boilers
(1899-1942)
Office
(1951-1967)

Exhauster Room
(1899-1942)
Office
(1951-1967)

Meter & Governor
Room
(1899-1942)
Office
(1951-1967)

NYS Dormitory Authority

Storage
(1886 - 1901)

Holder No. 1
Holder 34 ft diam.
Brick Tank 38 ft diam.
10,000 cu ft
(1873 - 1901)

Governor Room/Workshop
(1886 - 1901)

Storage
(1942 - 1951)

Holder No. 2
Holder 40 ft diam.
Brick Tank 42 ft diam.
18,000 cu ft
(1873 - 1901)

Holder No. 3
Holder 97.5 ft diam.
Iron Tank 100 ft diam.
500,000 cu ft
(1898 - 1938)

Pavement

Prospect Cemetery

BEAVER RD

158th ST

NYS Dormitory
Authority

Legend

- Gate
- Project Site
- Approximate Property Boundary Not Surveyed
- Historical Feature
- Fence
- Retaining Wall
- Present Curb Line
- Railroad

N W E S

0 10 20 40 Feet

1 in = 40 ft

NAD 83 New York Long Island
NAVD 88 North American Vertical Datum

NOTES:
1. SITE FEATURES (FENCE, RETAINING WALL, ETC.) TAKEN FROM GEOD CORPORATION SURVEY, DATED APRIL 2012.
2. LOCATIONS OF HISTORIC MGP STRUCTURES BASED ON SANBORN FIRE INSURANCE MAPS, BUG DRAWINGS, HISTORIC AERIAL PHOTOGRAPHY, AND SC RESULTS.
3. HORIZONTAL DATUM IS NORTH AMERICAN DATUM OF 1983 (NAD 83-CORS NEW YORK LONG ISLAND).
4. VERTICAL DATUM IS NORTH AMERICAN DATUM OF 1988 (NAVD 88).

NATIONAL GRID
FORMER JAMAICA GAS LIGHT COMPANY MGP SITE
QUEENS, NEW YORK

DATE: 09/28/2012 | DRWN: XW | JOB #: 60144468

HISTORICAL STRUCTURE LOCATIONS AND SITE BOUNDARY

FIGURE 2-3

V:\Jamaica MGP Site\GIS\Mxd\Updated_20120927\Figure 2-3 Historical Structure Locations and Site Boundary.mxd (National Grid on USNYCS01\Environment) (Y))

AECOM

Long Island Railroad Property

Asphalt

Grass

Asphalt

Light Engine Room (1873 - 1901)

Coal Shed (1873 - 1897)

Generator House (1897 - 1901)

Retort House (1873 - 1901)

Purifiers and Meter House (1873 - 1901)

Iron Shed (1897 - 1901)

BEAVER RD

ACCESS RD

Coal Shed (1873 - 1901)

Repeshed (1925 - 1967)

Boilers (1899-1942) Office (1951-1967)

Exhauster Room (1899-1942) Office (1951-1967)

Meter & Governor Room (1899-1942) Office (1951-1967)

Storage (1886 - 1901)

Holder No. 1 Holder 34 ft diam. Brick Tank 38 ft diam. 10,000 cu ft (1873 - 1901)

Governor Room/Workshop (1886 - 1901)

Storage (1942 - 1951)

Holder No. 2 Holder 40 ft diam. Brick Tank 42 ft diam. 18,000 cu ft (1873 - 1901)

Holder No. 3 Holder 97.5 ft diam. Iron Tank 100 ft diam. 500,000 cu ft (1898 - 1938)

NYS Dormitory Authority

Pavement

Prospect Cemetery

NYS Dormitory Authority

BEAVER RD

158th ST

SB-1/MW-1
SB-2/MW-2
SB-3
SB-4
SB-5/MW-5
SS-5
SS-5A
SB-6
SB-7
SB-8
SB-8A/MW-3
SB-9
SB-10
SB-11
SS-11
SB-12
SS-12
SB-13/MW-6
SB-14
SS-14
SB-15/MW-4

Legend

- Monitoring Well Locaiton
- Soil Boring
- Surface Soil Sample
- Gate
- Project Site
- Approximate Property Boundary Not Surveyed
- Historical Feature
- Fence
- Retaining Wall
- Present Curb Line
- Railroad

N W E S

0 10 20 40 Feet

1 in = 40 ft

NAD 83 New York Long Island
NAVD 88 North American Vertical Datum

NOTES:
1. SITE FEATURES (FENCE, RETAINING WALL, ETC.) TAKEN FROM GEOD CORPORATION SURVEY, DATED APRIL 2012.
2. LOCATIONS OF HISTORIC MGP STRUCTURES BASED ON SANBORN FIRE INSURANCE MAPS, BUG DRAWINGS, HISTORIC AERIAL PHOTOGRAPHY, AND SC RESULTS.
3. HORIZONTAL DATUM IS NORTH AMERICAN DATUM OF 1983 (NAD 83-CORS NEW YORK LONG ISLAND).
4. VERTICAL DATUM IS NORTH AMERICAN DATUM OF 1988 (NAVD 88).

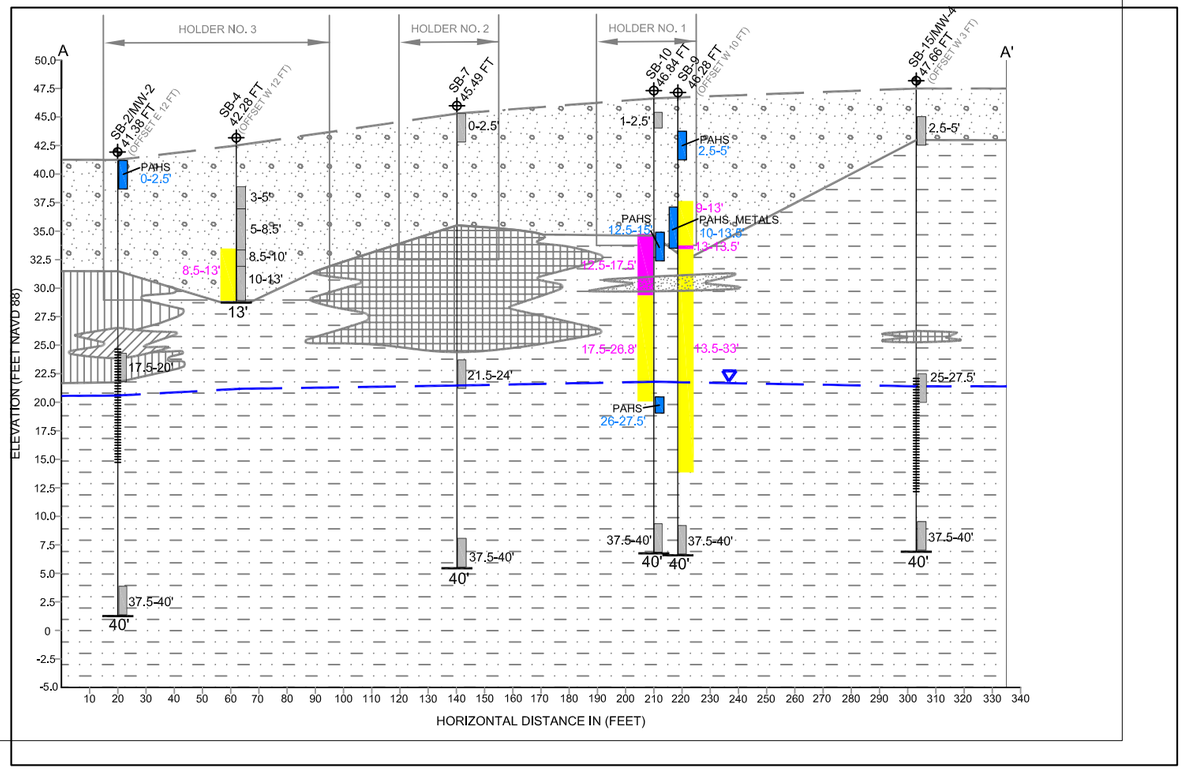
NATIONAL GRID
FORMER JAMAICA GAS LIGHT COMPANY MGP SITE
QUEENS, NEW YORK

DATE: 09/28/2012 | DRWN: XW | JOB #: 60144468

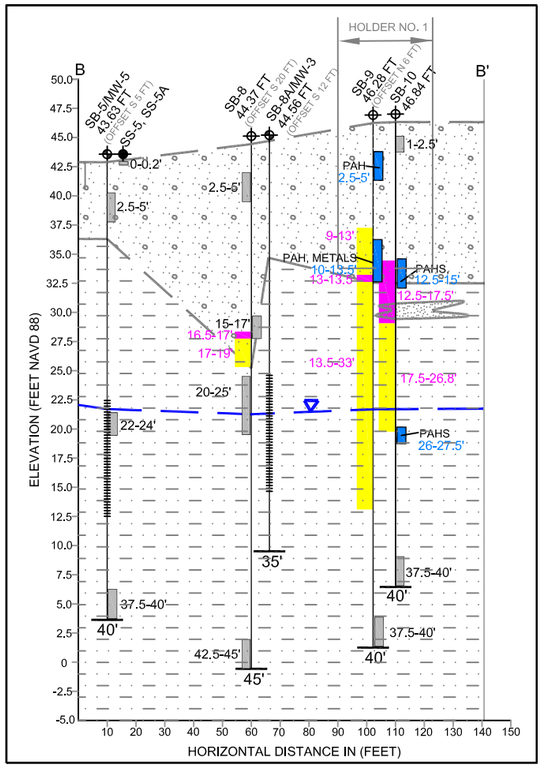
SITE CHARACTERIZATION LOCATIONS

FIGURE 3-1

V:\Jamaica MGP Site\GIS\Mxd\Updated_20120927\Figure 3-1 Site Characterization Locations.mxd (National Grid on USNYCS01\Environment) (Y))



CROSS SECTION A - A'



CROSS SECTION B - B'

LEGEND

VISUAL AND OLFACTORY IMPACTS

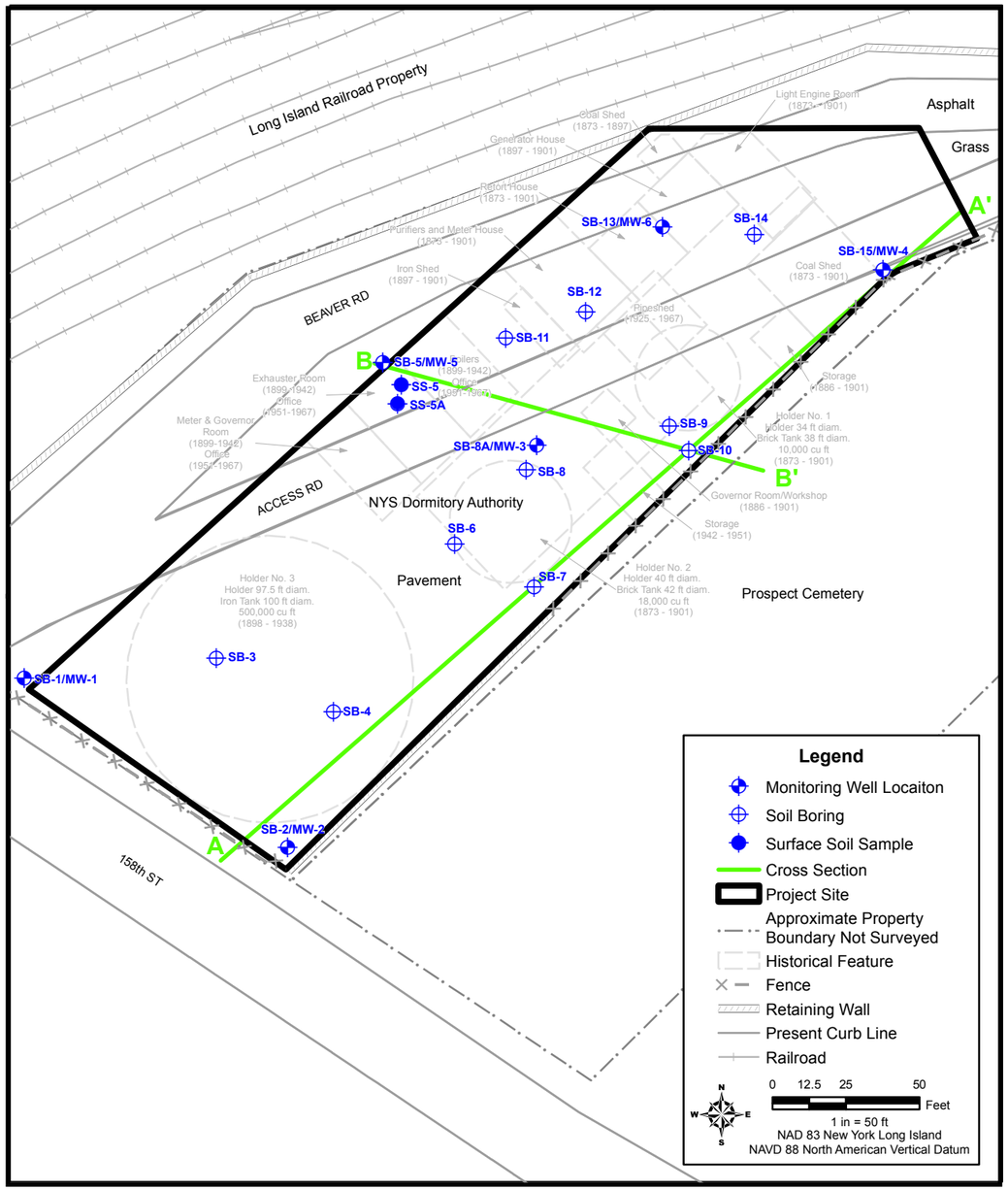
- COATED MATERIAL, LENSES
- STAINING, ODOR
- 17.5-33' DEPTH RANGE OF VISUAL OLFACTORY IMPACTS (BGS)

STRATIGRAPHY

- FILL
- SILTY SAND
- WELL GRADED SAND
- POORLY GRADED SAND
- SANDY SILTY
- CLAY AND SILTY CLAY OF LOW PLASTICITY
- GROUNDWATER
- 40' BORING COMPLETION DEPTH (BGS)
- EXCEEDANCES PER THE NYSDEC PART 375-6.8(b) COMMERCIAL USE SOIL CLEANUP OBJECTIVE VALUE
- SAMPLE INTERVAL
- BGS BELOW GROUND SURFACE
- 0-2.5' SAMPLE COMPLETION DEPTH (INCHES BGS)
- SCREEN INTERVAL

NOTE:

1. VERTICAL EXAGGERATION 1:4.



LOCATION OF CROSS SECTIONS

NOTES:

1. SITE FEATURES (FENCE, RETAINING WALL, ETC.) TAKEN FROM GEOD CORPORATION SURVEY, DATED APRIL 2012.
2. LOCATIONS OF HISTORIC MGP STRUCTURES BASED ON SANBORN FIRE INSURANCE MAPS, BUG DRAWINGS, HISTORIC AERIAL PHOTOGRAPHY, AND SC RESULTS.
3. HORIZONTAL DATUM IS NORTH AMERICAN DATUM OF 1983 (NAD 83-CORS NEW YORK LONG ISLAND).
4. VERTICAL DATUM IS NORTH AMERICAN DATUM OF 1988 (NAVD 88).

NATIONAL GRID
FORMER JAMAICA GAS LIGHT COMPANY MGP SITE
QUEENS, NEW YORK

DATE: 09/28/2012 | DRWN: XW | JOB #: 60144468

GEOLOGIC CROSS SECTIONS

FIGURE 4-1

V:\Jamaica MGP Site\GIS\Mxd\Updated_20120927\Figure 4-1 Geologic Cross Sections.mxd (National Grid on USNYCS01\Environment (Y))

AECOM

Long Island Railroad Property

Asphalt
Grass
Asphalt

MW-6 (24.24)
MW-4 (21.18)
MW-5 (21.14)
MW-3 (21.09)
MW-1 (20.94)
MW-2 (20.82)

BEAVER RD
ACCESS RD
BEAVER RD

Pavement
NYS Dormitory Authority

Prospect Cemetery

NYS Dormitory Authority

City University of New York Building

158th ST
157th ST
159th ST
LIBERTY AVE

21.15
21.10
21.05
21.00
20.95
20.90
20.85
20.80
20.75
20.70
20.65
20.60
20.55
20.50
20.45
20.40
20.35
20.30
20.30

MW-1 (20.39)
MW-2 (20.98)
MW-3 (20.69)
MW-4 (20.34)
MW-5 (20.33)
MW-6 (20.54)

Legend

- Monitoring Well Locaiton
- Gate
- 20.60 Groundwater Elevation Contour
- Groundwater Flow Direction
- MW-1 (20.39) Groundwater Elevation (Feet NAVD 88)
- Project Site
- Approximate Property Boundary Not Surveyed
- Historical Feature
- Fence
- Retaining Wall
- Present Curb Line
- Railroad

N W E S

0 20 40 80 Feet

1 in = 80 ft

NAD 83 New York Long Island
NAVD 88 North American Vertical Datum

NOTES:
1. SITE FEATURES (FENCE, RETAINING WALL, ETC.) TAKEN FROM GEOD CORPORATION SURVEY, DATED APRIL 2012.
2. LOCATIONS OF HISTORIC MGP STRUCTURES BASED ON SANBORN FIRE INSURANCE MAPS, BUG DRAWINGS, HISTORIC AERIAL PHOTOGRAPHY, AND SC RESULTS.
3. HORIZONTAL DATUM IS NORTH AMERICAN DATUM OF 1983 (NAD 83-CORS NEW YORK LONG ISLAND).
4. VERTICAL DATUM IS NORTH AMERICAN DATUM OF 1988 (NAVD 88).
5. MW-6 GROUNDWATER ELEVATION DATA IS NOT INCLUDED IN THE GROUNDWATER CONTOUR DUE TO A 1.65 FEET GROUNDWATER ELEVATION SHIFT.

NATIONAL GRID
FORMER JAMAICA GAS LIGHT COMPANY MGP SITE
QUEENS, NEW YORK

DATE: 09/28/2012	DRWN: XW	JOB #: 60144411

GROUNDWATER ELEVATION CONTOUR MAP APRIL 4, 2012

FIGURE 4-2

V:\Jamaica MGP Site\GIS\Mxd\Updated_20120927\Figure 4-2 Groundwater Elevation Contour Map April 4 2012.mxd (National Grid on USNYCS01\Environment\ (Y))

AECOM

Long Island Railroad Property

Asphalt

Grass

Asphalt

Light Engine Room (1873 - 1901)

Coal Shed (1873 - 1897)

Generator House (1897 - 1901)

Retort House (1873 - 1901)

Purifiers and Meter House (1873 - 1901)

Iron Shed (1897 - 1901)

BEAVER RD

ACCESS RD

Coal Shed (1873 - 1901)

Pipeshed (1925 - 1967)

Boilers (1899-1942) Office (1951-1967)

Exhauster Room (1899-1942) Office (1951-1967)

Meter & Governor Room (1899-1942) Office (1951-1967)

Storage (1886 - 1901)

Holder No. 1 Holder 34 ft diam. Brick Tank 38 ft diam. 10,000 cu ft (1873 - 1901)

Governor Room/Workshop (1886 - 1901)

Storage (1942 - 1951)

Holder No. 2 Holder 40 ft diam. Brick Tank 42 ft diam. 18,000 cu ft (1873 - 1901)

Holder No. 3 Holder 97.5 ft diam. Iron Tank 100 ft diam. 500,000 cu ft (1898 - 1938)

NYS Dormitory Authority

Pavement

Prospect Cemetery

NYS Dormitory Authority

SB-13/MW-6 (0'-40')

SB-14 (0'-40')

SB-15/MW-4 (0'-40')

SB-12 (5'-7.5', 7.75'-8') (0'-5', 7.5'-7.75' 8'-40')

SB-11 (0'-40')

SB-5/MW-5 (0'-40')

SB-9 (9'-13', 13.5'-33') (13'-13.5') (0'-9', 33'-40')

SB-8A/MW-3 (0'-45') (17'-19')

SB-10 (17.5'-26.8') (0'-12.5', 26.8'-40') (12.5'-17.5')

SB-8 (0'-16.5', 19'-40') (16.5'-17')

SB-6 (0'-40')

SB-7 (0'-40')

(10'-11.75')

SB-3 (0'-10')

SB-1/MW-1 (0'-40')

SB-4 (0'-8.5') (8.5'-13')

SB-2/MW-2 (0'-40')

BEAVER RD

158th ST

Legend

- Monitoring Well Locaiton
- Soil Boring
- Gate
- Project Site
- Approximate Property Boundary Not Surveyed
- Historical Feature
- No Impacts
- Staining, Odor
- Coated Material, Lenses
- (10'-13') Depth of Impacts Observed in Feet Below Ground Surface (BGS)
- Fence
- Retaining Wall
- Present Curb Line
- Railroad

N W E S

0 10 20 40 Feet

1 in = 40 ft

NAD 83 New York Long Island
NAVD 88 North American Vertical Datum

NOTES:
1. SITE FEATURES (FENCE, RETAINING WALL, ETC.) TAKEN FROM GEOD CORPORATION SURVEY, DATED APRIL 2012.
2. LOCATIONS OF HISTORIC MGP STRUCTURES BASED ON SANBORN FIRE INSURANCE MAPS, BUG DRAWINGS, HISTORIC AERIAL PHOTOGRAPHY, AND SC RESULTS.
3. HORIZONTAL DATUM IS NORTH AMERICAN DATUM OF 1983 (NAD 83-CORS NEW YORK LONG ISLAND).
4. VERTICAL DATUM IS NORTH AMERICAN DATUM OF 1988 (NAVD 88).

NATIONAL GRID FORMER JAMAICA GAS LIGHT COMPANY MGP SITE QUEENS, NEW YORK			**VISUAL AND OLFACTORY IMPACTS** **FIGURE 4-3**
DATE: 09/28/2012	DRWN: XW	JOB #: 60144468	

V:\Jamaica MGP Site\GIS\Mxd\Updated_20120927\Figure 4-3 Visual and Olfactory Impacts.mxd (National Grid on USNYCS01\Environment\ (Y))

AECOM

Sample Location	SS-11
Sample Date	2/28/2012
Sample ID	SS-11 (0-2)022812
Sample Interval (inches)	0-2"
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)	
Benzo(b)fluoranthene	1.3
Chrysene	1.2
Indeno(1,2,3-cd)pyrene	0.64
Total PAHs	*9.9*
Inorganic Compounds (mg/Kg)	
Chromium	59.6
Copper	95
Lead	280
Mercury	0.26
Zinc	186

Sample Location	SS-14
Sample Date	2/27/2012
Sample ID	SS-14 (0-2)022712
Sample Interval (inches)	0-2"
Inorganic Compounds (mg/Kg)	
Copper	50.3
Lead	137J
Mercury	0.37
Zinc	149
Pesticides (mg/Kg)	
DDT,4,4-	0.0089

Sample Location	SS-05
Sample Date	2/29/2012
Sample ID	SS-5 (0-2)022912
Sample Interval (inches)	0-2"
Inorganic Compounds (mg/Kg)	
Copper	74.9
Lead	83.8
Zinc	119

Sample Location	SS-05A
Sample Date	3/8/2012
Sample ID	SS-5A (0-2)030812
Sample Interval (inches)	0-2"
Inorganic Compounds (mg/Kg)	
Copper	81.2
Lead	111
Mercury	0.23J+
Zinc	128
Pesticides (mg/Kg)	
DDD,4,4-	0.0061 J
DDT,4,4-	0.014

Sample Location	SS-12
Sample Date	2/28/2012
Sample ID	SS-12 (0-2)022812
Sample Interval (inches)	0-2"
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)	
Benzo(a)anthracene	1.1
Benzo(b)fluoranthene	1.4
Chrysene	1.4
Indeno(1,2,3-cd)pyrene	0.83
Total PAHs	*12.286*
Inorganic Compounds (mg/Kg)	
Copper	126
Lead	211J
Mercury	0.34
Zinc	249

Legend

- Surface Soil Sample
- Gate
- Project Site
- Approximate Property Boundary Not Surveyed
- Historical Feature
- Fence
- Retaining Wall
- Present Curb Line
- Railroad

0 10 20 40 Feet

1 in = 40 ft

NAD 83 New York Long Island
NAVD 88 North American Vertical Datum

J = The associated numerical value is an estimated quantity.
Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.
J+ = The result is an estimated numerical quantity, likely to be biased high. The associated numerical result is the approximate concentration of the analyte in the sample (inorganics).
A = NYSDEC CP-51 alternate criteria of 500 mg/Kg for total PAHs.

	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)		
Benzo(a)anthracene	1	5.6
Benzo(b)fluoranthene	1	5.6
Chrysene	1	56
Indeno(1,2,3-cd)pyrene	0.5	5.6
Total PAHs	*500[A]*	*500[A]*
Inorganic Compounds (mg/Kg)		
Chromium	30	1500
Copper	50	270
Lead	63	1000
Mercury	0.18	2.8
Zinc	109	10000
Pesticides (mg/Kg)		
DDD,4,4-	0.0033	92
DDT,4,4-	0.0033	47

NOTES:
1. SITE FEATURES (FENCE, RETAINING WALL, ETC.) TAKEN FROM GEOD CORPORATION SURVEY, DATED APRIL 2012.
2. LOCATIONS OF HISTORIC MGP STRUCTURES BASED ON SANBORN FIRE INSURANCE MAPS, BUG DRAWINGS, HISTORIC AERIAL PHOTOGRAPHY, AND SC RESULTS.
3. HORIZONTAL DATUM IS NORTH AMERICAN DATUM OF 1983 (NAD 83-CORS NEW YORK LONG ISLAND).
4. VERTICAL DATUM IS NORTH AMERICAN DATUM OF 1988 (NAVD 88).

NATIONAL GRID
FORMER JAMAICA GAS LIGHT COMPANY MGP SITE
QUEENS, NEW YORK

DATE: 09/28/2012 | DRWN: XW | JOB #: 60144468

SURFACE SOIL ANALYTICAL EXCEEDANCES

FIGURE 4-4

V:\Jamaica MGP Site\GIS\Mxd\Updated_20120927\Figure 4-4 Surface Soil Analytical Exceedances.mxd (National Grid on USNYCS01\Environment (Y))

AECOM

NOTES:
1. SITE FEATURES (FENCE, RETAINING WALL, ETC.) TAKEN FROM GEOD CORPORATION SURVEY, DATED APRIL 2012.
2. LOCATIONS OF HISTORIC MGP STRUCTURES BASED ON SANBORN FIRE INSURANCE MAPS, BUG DRAWINGS AND HISTORIC AERIAL PHOTOGRAPHY.
3. HORIZON DATUM IS NORTH AMERICAN DATUM OF 1983 (NAD 83-CORS NEW YORK LONG ISLAND).
4. VERTICAL DATUM IS NORTH AMERICAN DATUM OF 1988 (NAVD 88).

Sample Location	SB-12	SB-12	SB-12	SB-12
Sample Date	2/28/2012	2/28/2012	2/28/2012	2/28/2012
Sample ID	SB-12 (2.5-5)022812	SB-12 (5-7.5)022812	SB-12 (10-12.5)022812	SB-12 (37.5-40)022812
Sample Interval (feet)	2.5-5	5-7.5	10-12.5	37.5-40
PAHs (mg/Kg)				
Benzo(a)anthracene	24	69	0.21	<0.036 U
Benzo(a)pyrene	18	37	0.12	<0.036 U
Benzo(b)fluoranthene	19	41	0.17	<0.036 U
Benzo(k)fluoranthene	8.4	22	0.05	<0.036 U
Chrysene	21	54	0.2 J	<0.36 U
Dibenz(a,h)anthracene	3.4	5.1	<0.035 U	<0.036 U
Fluoranthene	37	100	0.39	<0.36 U
Indeno(1,2,3-cd)pyrene	13	13	<0.035 U	<0.036 U
Total PAHs	*228.49*	*528*	*1.607*	*ND*
SVOC (mg/Kg)				
4-Methylphenol	<1.9 U	2 J	<0.35 U	<0.36 U
Phenol	<1.9 U	1.4 J	<0.35 U	<0.36 U
Inorganic Compounds (mg/Kg)				
Lead	320 J	151 J	6.1	1.8
Mercury	0.67	0.15	<0.033 U	<0.033 U
Zinc	232	64.3	23.7	8.0
Pesticides (mg/Kg)				
DDD,4,4-	0.018 NJ	0.043 J	<0.0070 U	<0.0073 U

Sample Location	SB-14	SB-14	SB-14	SB-14
Sample Date	2/27/2012	2/27/2012	2/27/2012	2/27/2012
Sample ID	DUP-2-022712	SB-14 (2-5)022712	SB-14 (25-26.5)022712	SB-14 (37.5-40)022712
Sample Interval (feet)	2-5	2-5	25-26.5	37.5-40
PAHs (mg/Kg)				
Benzo(a)anthracene	3.1	2.7	0.36	<0.037 U
Benzo(a)pyrene	2.8	2.3	0.33	<0.037 U
Benzo(b)fluoranthene	2.5	2.1	0.3	<0.037 U
Benzo(k)fluoranthene	0.83	0.61	0.11	<0.037 U
Chrysene	2.9	2.6	0.34 J	<0.37 U
Dibenz(a,h)anthracene	0.38	0.41	0.079	<0.037 U
Indeno(1,2,3-cd)pyrene	0.84	1.0	0.22	<0.037 U
Total PAHs	*19.96*	*17.836*	*3.229*	*ND*
Inorganic Compounds (mg/Kg)				
Lead	143 J	115 J	45.8	2.2
Mercury	0.24	0.24	0.061	<0.037 U

Sample Location	SB-15	SB-15	SB-15
Sample Date	2/28/2012	3/8/2012	3/9/2012
Sample ID	SB-15 (2.5-5)022812	SB-15 (25-27.5)030812	SB-15 (37.5-40)030912
Sample Interval (feet)	2.5-5	25-27.5	37.5-40
VOCs (mg/Kg)			
Acetone	0.055	0.053 J	0.14 J
Inorganic Compounds (mg/Kg)			
Lead	309	15.7	3.4
Mercury	0.52	0.024 J	<0.036 U

Sample Location	SB-11	SB-11	SB-11
Sample Date	2/28/2012	2/28/2012	2/28/2012
Sample ID	SB-11 (0-2.5)022812	SB-11 (25-27)022812	SB-11 (35-40)022812
Sample Interval (inches)	0-2.5	25-27	35-40
PAHs (mg/Kg)			
Indeno(1,2,3-cd)pyrene	0.61	0.41	0.032 J
Total PAHs	*9.662*		
Inorganic Compounds (mg/Kg)			
Mercury	0.19	<0.031 U	<0.033 U

Sample Location	SB-05	SB-05	SB-05
Sample Date	3/8/2012	3/9/2012	3/9/2012
Sample ID	SB-5 (2.5-5)030812	SB-5 (22-24)030912	SB-5 (37.5-40)030912
Sample Interval (inches)	2.5-5	22-24	37.5-40
VOCs (mg/Kg)			
Acetone	0.042	0.07 J	0.10 J

Sample Location	SB-08	SB-08	SB-08	SB-08
Sample Date	3/1/2012	3/1/2012	3/1/2012	3/1/2012
Sample ID	SB-8 (2.5-5)030112	SB-8 (15-17)030112	SB-8 (20-25)030112	SB-8 (42.5-45)030112
Sample Interval (feet)	2.5-5	15-17	20-25	42.5-45
PAHs (mg/Kg)				
Indeno(1,2,3-cd)pyrene	0.48	0.51	<0.035 U	<0.041 U
Total PAHs	*7.074*	*9.546*	*ND*	*ND*
Inorganic Compounds (mg/Kg)				
Copper	199	85.7	8.8	8.1
Lead	87.7	103	2.0	2.5

Sample Location	SB-06	SB-06	SB-06	SB-06
Sample Date	2/22/2012	2/22/2012	2/22/2012	2/22/2012
Sample ID	DUP-1-022212	SB-6 (1-3.5)022212	SB-6 (22-24)022212	SB-6 (37.5-40)022212
Sample Interval (inches)	1-3.5	1-3.5	22-24	37.5-40
VOCs (mg/Kg)				
Acetone	0.091 J	0.041 J	0.029 J	0.067 J
PAHs (mg/Kg)				
Benzo(a)anthracene	<0.037 U	6.0	<0.035 U	<0.036 U
Benzo(a)pyrene	<0.037 U	6.0	<0.035 U	<0.036 U
Benzo(b)fluoranthene	<0.037 U	5.8	<0.035 U	<0.036 U
Benzo(k)fluoranthene	<0.037 U	2.8	<0.035 U	<0.036 U
Chrysene	<0.37 U	5.5	<0.35 U	<0.36 U
Dibenz(a,h)anthracene	<0.037 U	1.3	<0.035 U	<0.036 U
Indeno(1,2,3-cd)pyrene	<0.037 U	4.1	<0.035 U	<0.036 U
Total PAHs	*ND*	*50.69*	*ND*	*ND*
Inorganic Compounds (mg/Kg)				
Mercury	<0.034 U	0.24	<0.033 U	<0.035 U

Sample Location	SB-01
Sample Date	3/5/2012
Sample ID	SB-1 (2.5-5)030512
Sample Interval (feet)	2.5-5
Inorganic Compounds (mg/Kg)	
Copper	67.5
Lead	220
Mercury	0.19
Zinc	555
Pesticides (mg/Kg)	
DDT,4,4-	0.0073

Sample Location	SB-03	SB-03
Sample Date	2/27/2012	2/27/2012
Sample ID	SB-3 (5-10)022712	SB-3 (10-11.75)022712
Sample Interval (feet)	5-10	10-11.75
PAHs (mg/Kg)		
Benzo(a)anthracene	0.021 J	1.9
Benzo(a)pyrene	<0.041 U	1.3
Benzo(b)fluoranthene	<0.041 U	1.7
Chrysene	<0.41 U	1.9
Indeno(1,2,3-cd)pyrene	<0.041 U	1.0
Total PAHs	*0.021*	*25.091*
Inorganic Compounds (mg/Kg)		
Lead	31.4	83.2
Zinc	32.4	294

Sample Location	SB-04	SB-04	SB-04	SB-04
Sample Date	2/27/2012	2/27/2012	2/27/2012	2/27/2012
Sample ID	SB-4 (3-5)022712	SB-4 (5-8.5)022712	SB-4 (8.5-10)022712	SB-4 (10-13)022712
Sample Interval (feet)	3-5	5-8.5	8.5-10	10-13
VOCs (mg/Kg)				
Acetone	0.0046J	0.090	<0.58 U	0.056 J
SVOCs (mg/Kg)				
4-Methylphenol	<0.37 U	<0.41 U	1.8	<0.42 U
Inorganic Compounds (mg/Kg)				
Lead	223	55.3	58.5	89.0 J
Mercury	0.59	0.09	0.077	<0.041 U

Sample Location	SB-07	SB-07	SB-07
Sample Date	2/22/2012	2/22/2012	2/22/2012
Sample ID	SB-7 (0-2.5)-22212	SB-7 (21.5-24)022212	SB-7 (37.5-40)022212
Sample Interval (inches)	0-2.5	21.5-24	37.5-40
VOCs (mg/Kg)			
Acetone	0.042 J	0.023 J	0.11 J
PAHs (mg/Kg)			
Benzo(a)anthracene	1.1	<0.034 U	<0.036 U
Benzo(b)fluoranthene	1.1	<0.034 U	<0.036 U
Chrysene	1.1	<0.34 U	<0.36 U
Indeno(1,2,3-cd)pyrene	0.53	<0.034 U	<0.036 U
Total PAHs	*10.669*		
Inorganic Compounds (mg/Kg)			
Lead	144	1.9	1.6
Mercury	0.36	0.092	<0.036 U

Sample Location	SB-02
Sample Date	3/6/2012
Sample ID	SB-2 (0-2.5)030612
Sample Interval (feet)	0-2.5
PAHs (mg/Kg)	
Benzo(a)anthracene	1.3
Benzo(a)pyrene	1.3
Benzo(b)fluoranthene	1.4
Chrysene	1.3
Indeno(1,2,3-cd)pyrene	1.0
Total PAHs	*12.77*
Inorganic Compounds (mg/Kg)	
Lead	596
Mercury	0.38
Zinc	167
Pesticides (mg/Kg)	
DDT,4,4-	0.0063 J

Sample Location	SB-09	SB-09	SB-09
Sample Date	2/23/2012	2/23/2012	2/23/2012
Sample ID	SB-9 (2.5-5)022312	SB-9 (10-13.5)022312	SB-9 (37.5-40)022312
Sample Interval (feet)	2.5-5	10-13.5	37.5-40
BTEX (mg/kg)			
Ethylbenzene	0.00029 J	4.9	<0.0011 U
Xylenes (total)	0.0023 J	7	<0.0033 U
PAHs (mg/Kg)			
Acenaphthene	0.068 J	36	<0.39 U
Benzo(a)anthracene	1.6	19	<0.039 U
Benzo(a)pyrene	1.8	24	<0.039 U
Benzo(b)fluoranthene	1.9	17	<0.039 U
Benzo(k)fluoranthene	0.69	6.6	<0.039 U
Chrysene	1.5	19	<0.39 U
Dibenz(a,h)anthracene	0.31	2	<0.039 U
Fluorene	0.13 J	58	<0.39 U
Indeno(1,2,3-cd)pyrene	1.2	18	<0.039 U
Naphthalene	0.12 J	190	<0.39 U
Phenanthrene	1.6	130	<0.39 U
Total PAHs	*17.611*	*884.6*	*ND*
Inorganic Compounds (mg/Kg)			
Lead	2.5	162	115
Mercury	<0.040 U	3.8	0.25
Pesticides (mg/Kg)			
DDT,4,4-	<0.0073 U	0.012	<0.0080 UJ

Sample Location	SB-10	SB-10	SB-10	SB-10
Sample Date	2/23/2012	2/23/2012	2/23/2012	2/23/2012
Sample ID	SB-10 (1-2.5)022312	SB-10 (12.5-15)022312	SB-10 (26-27.5)022312	SB-10 (37.5-40)022312
Sample Interval (inches)	1-2.5	12.5-15	26-27.5	37.5-40
BTEX (mg/kg)				
Benzene	0.00032 J	0.24	0.00038 J	<0.0010 U
Toluene	0.0014	1.2	0.0018	0.00047 J
Xylenes (total)	0.0055	16	0.024	0.0033
PAHs (mg/Kg)				
Benzo(a)anthracene	0.17	82	3.4	<0.036 U
Benzo(a)pyrene	0.17	37	1.8	<0.036 U
Benzo(b)fluoranthene	0.2	47	1.9	<0.036 U
Benzo(k)fluoranthene	0.087	17	0.56	<0.036 U
Chrysene	0.17 J	71	3.4	<0.36 U
Dibenz(a,h)anthracene	<0.035 U	5.2	0.47	<0.036 U
Fluoranthene	0.21 J	110	4.4	<0.36 U
Fluorene	<0.35 U	61	2.8	<0.36 U
Indeno(1,2,3-cd)pyrene	0.082	11	1.0	<0.036 U
Naphthalene	<0.35 U	27	0.47 J	<0.36 U
Phenanthrene	0.093 J	140	6.2	<0.36 U
Total PAHs	*1.427*	*854.8*	*36.12*	*ND*
SVOCs (mg/Kg)				
4-Methylphenol	<0.35 U	2.2 J	<0.74 U	<0.36 U
Dibenzofuran	<0.35 U	30	1.3	<0.36 U
Pesticides (mg/Kg)				
DDD,4,4-	<0.0071 U	0.18	<0.0075 U	<0.0074 U

	NYSDEC Part 375-6 Unrestricted Use	NYSDEC Part 375-6 Commercial Use
BTEX (mg/kg)		
Benzene	0.06	44
Ethylbenzene	1	390
Toluene	0.7	500
Xylenes (total)	0.26	500
Volatile Organic Compounds (VOCs)(mg/Kg)		
Acetone	0.05	500
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)		
Acenaphthene	20	500
Benzo(a)anthracene	1	5.6
Benzo(a)pyrene	1	1
Benzo(b)fluoranthene	1	5.6
Benzo(k)fluoranthene	0.8	56
Chrysene	1	56
Dibenz(a,h)anthracene	0.33	0.56
Fluoranthene	100	500
Fluorene	30	500
Indeno(1,2,3-cd)pyrene	0.5	5.6
Naphthalene	12	500
Phenanthrene	100	500
Total PAHs	500[A]	500[A]
Other Semi Volatile Organic Compounds (SVOC) (mg/Kg)		
4-Methylphenol	0.33	500
Dibenzofuran	7	350
Inorganic Compounds (mg/Kg)		
Copper	50	270
Lead	63	1000
Mercury	0.18	2.8
Zinc	109	10000
Pesticides (mg/Kg)		
DDD,4,4-	0.0033	92
DDT,4,4-	0.0033	47

Long Island Railroad Property
Asphalt
Grass
Asphalt
Light Engine Room (1873 - 1901)
Coal Shed (1873 - 1897)
Generator House (1897 - 1901)
Meter House (1873 - 1901)
Purifiers and Meter House (1873 - 1901)
Iron Shed (1897 - 1901)
Coal Shed (1873 - 1901)
Piperied (1925 - 1967)
BEAVER RD
ACCESS RD
Boilers (1899-1942) Office (1951-1967)
Exhauster Room (1899-1942) Office (1951-1967)
Meter & Governor Room (1899-1942) Office (1951-1967)
Holder No. 1 Holder 34 ft diam. Brick Tank 38 ft diam. 10,000 cu ft (1873 - 1901)
Storage (1886 - 1901)
Governor Room/Workshop (1886 - 1901)
Storage (1942 - 1951)
NYS Dormitory Authority
Holder No. 3 Holder 97.5 ft diam. Iron Tank 100 ft diam. 500,000 cu ft (1898 - 1938)
Holder No. 2 Holder 40 ft diam. Brick Tank 42 ft diam. 18,000 cu ft (1873 - 1901)
Pavement
158th ST
SB-1
SB-2
SB-3
SB-4
SB-5
SB-6
SB-7
SB-8
SB-8A
SB-9
SB-10
SB-11
SB-12
SB-13
SB-14
SB-15

Legend

- Soil Boring
- Gate
- Project Site
- Approximate Property Boundary Not Surveyed
- Historical Feature
- Fence
- Retaining Wall
- Present Curb Line
- Railroad

N W E S

0 10 20 40 Feet

1 in = 40 ft

NAD 83 New York Long Island

NAVD 88 North American Vertical Datum

J = The associated numerical value is an estimated quantity.

Exceedance of the NYSDEC Part 375-6.8(b) Unrestricted Use Soil Cleanup Objective value.

Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

Exceedance of the NYSDEC CP-51 Alternate Criteria of 500 mg/Kg for Total PAHs.

NATIONAL GRID
FORMER JAMAICA GAS LIGHT COMPANY MGP SITE
QUEENS, NEW YORK

DATE: 09/28/2012 | DRWN: XW | JOB #: 60144468

SUBSURFACE SOIL ANALYTICAL EXCEEDANCES

FIGURE 4-5

V:\Jamaica MGP Site\GIS\mxd\Updated_20120927\Figure 4-5 Subsurface Soil Analytical Exceedances.mxd (National Grid on USNYCS01\Environment\ (Y))

AECOM

Sample Location	MW-06
Sample Date	4/5/2012
Sample ID	MW-6-040512
Inorganic Compounds (ug/L)	
Iron	**1300**
Sodium	**21800**

Sample Location	MW-05
Sample Date	4/4/2012
Sample ID	MW-5-040412
Inorganic Compounds (ug/L)	
Iron	**1440**
Sodium	**73600**

Sample Location	MW-01	MW-01
Sample Date	4/4/2012	4/4/2012
Sample ID	MW-1-040412	DUP-1-040412
Inorganic Compounds (ug/L)		
Sodium	**21200**	**21300**

Sample Location	MW-04
Sample Date	4/5/2012
Sample ID	MW-4-040512
Inorganic Compounds (ug/L)	
Iron	**807**
Sodium	**41400**

Sample Location	MW-03
Sample Date	4/4/2012
Sample ID	MW-3-040412
Inorganic Compounds (ug/L)	
Iron	**655**
Sodium	**75400**

Sample Location	MW-02
Sample Date	4/4/2012
Sample ID	MW-2-040412
Inorganic Compounds (ug/L)	
Sodium	**71300**

	NYSDEC Groundwater Guidance or Standard Value[1]
Inorganic Compounds (ug/L)	
Iron	300
Sodium	20000

Legend

- Monitoring Well Locaiton
- Gate
- Project Site
- Approximate Property Boundary Not Surveyed
- Historical Feature
- Fence
- Retaining Wall
- Present Curb Line
- Railroad

0 10 20 40 Feet

1 in = 40 ft

NAD 83 New York Long Island
NAVD 88 North American Vertical Datum

Exceedance of the NYSDEC Groundwater Guidance or Standard Value.

[1]Guidance or standard values - NYSDEC, Division of Water TOGS (1.1.1) - 6 NYCRR 703.5 [NYSDEC, 1998]

Long Island Railroad Property
Asphalt
Grass
Asphalt
Coal Shed (1873 - 1897)
Light Engine Room (1873 - 1901)
Generator House (1897 - 1901)
Retort House (1873 - 1901)
Purifiers and Meter House (1873 - 1901)
Iron Shed (1897 - 1901)
Coal Shed (1873 - 1901)
Pipeshed (1925 - 1967)
BEAVER RD
ACCESS RD
MW-6
MW-5
MW-4
MW-3
MW-1
MW-2
Exhaustor Room (1899-1942) Office (1951-1967)
Boilers (1899-1942) Office (1951-1967)
Meter & Governor Room (1899-1942) Office (1951-1967)
Storage (1886 - 1901)
Holder No. 1 Holder 34 ft diam. Brick Tank 38 ft diam. 10,000 cu ft (1873 - 1901)
Governor Room/Workshop (1886 - 1901)
Storage (1942 - 1951)
Holder No. 2 Holder 40 ft diam. Brick Tank 42 ft diam. 18,000 cu ft (1873 - 1901)
Holder No. 3 Holder 97.5 ft diam. Iron Tank 100 ft diam. 500,000 cu ft (1898 - 1938)
NYS Dormitory Authority
Pavement
Prospect Cemetery
FDA Property
BEAVER RD
158th ST

NOTES:
1. SITE FEATURES (FENCE, RETAINING WALL, ETC.) TAKEN FROM GEOD CORPORATION SURVEY, DATED APRIL 2012.
2. LOCATIONS OF HISTORIC MGP STRUCTURES BASED ON SANBORN FIRE INSURANCE MAPS, BUG DRAWINGS, HISTORIC AERIAL PHOTOGRAPHY, AND SC RESULTS.
3. HORIZONTAL DATUM IS NORTH AMERICAN DATUM OF 1983 (NAD 83-CORS NEW YORK LONG ISLAND).
4. VERTICAL DATUM IS NORTH AMERICAN DATUM OF 1988 (NAVD 88).

NATIONAL GRID
FORMER JAMAICA GAS LIGHT COMPANY MGP SITE
QUEENS, NEW YORK

DATE: 09/28/2012 | DRWN: XW | JOB #: 60144468

GROUNDWATER ANALYTICAL EXCEEDANCES

FIGURE 4-6

V:\Jamaica MGP Site\GIS\Mxd\Updated_20120927\Figure 4-6 Groundwater Analytical Exceedances.mxd (National Grid on USNYCS01\Environmental (Y:))

Boring Logs

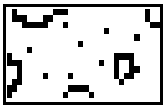
AECOM
20 Exchange Place, 13th Floor
New York, NY 10005

Boring Log Legend

Project Name: Jamaica Gas Light MGP
Project Number: 60144468-210
Location: Queens, NY
Client: National Grid

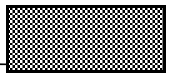
Stratigraphy

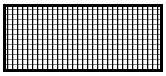

Fill

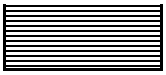

(GW) Well Graded Gravel

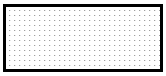
Meadow Mat

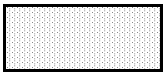

(PT) Fibrous and Friable Peat

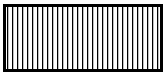

(OH) Organic Clay

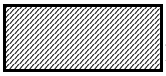

(SM) Silty Sand

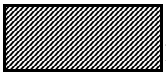

(SC) Clayey Sand


(SW) Well Graded Sand

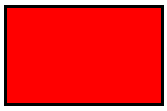

(SP) Poorly Graded Sand

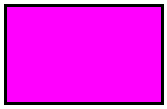

(ML) Sandy Silty


(CL) Clay and Silty Clay of Low Plasticity


(CH) Clay and Silty Clay of High Plasticity

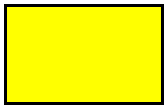
Visual Impacts


Tar Saturated


Coated Material, Lenses


Hardened Tar

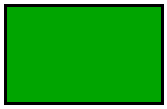

Blebs, Globs, Sheen


Staining, Odor


Petroleum Impacts Saturation & Sheen


Petroleum Impacts Staining & Odor


Purifier Waste & Odor


No Observed Impacts

Definitions:

1.) NA - Not Applicable
2.) ft - feet
3.) bgs - below ground surface
4.) SAA - Same As Above
5.) NAVD 88 - North American Vertical Datum of 1988
6.) ppm - parts per million
7.) PID - Photo Ionization Meter
8.) U.S.C.S. - Unified Soil Classification System
9.) NAPL - Non-Aqueous Phase Liquid
10.) HSA - Hollow Stem Auger

Boring ID: SB-1 / MW-1

Project Name: Jamaica Gas Light MGP
Project Number: 60144468-210
Client: National Grid
Date Pre-Cleared: March 5, 2012
Date Started/Completed: March 5, 2012

Drilling Company: Fenley and Nicol
Drilling Method: Direct Push / HSA
Sampling Method: 5 ft Macro-Core®
Boring Diameter: 8 inches
Logged By: Jessica Ehlen

Water Level: ~19 ft bgs
Total Depth: 40 ft bgs
Ground Elevation: 39.02' NAVD 88
Converted To Well (Y/N): Yes
Well ID: MW-1

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
0	5.0'/ 5.0'	0.4				FILL		0-0.3 ft bgs: ASPHALT	GROUT
-1								0.3-2.5 ft bgs: FILL: medium to fine grained sand, ~20% silt, ~20% concrete, asphalt, coal, glass debris, dry, brown, no odor.	
-2									
-3		0.4			SB-1 (2.5-5)			2.5-5 ft bgs: SAA.	
-4									
-5	4.0'/ 5.0'	0.5						5-7.5 ft bgs: SAA, ~10% brick debris.	
-6									
-7									
-8		0.2				SW		7.5-10 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~10% fine subrounded gravel, <5% coarse grained sand, moist, light brown, no odor.	
-9									
-10	3.8'/ 5.0'	0.6						10-15 ft bgs: SAA, ~15% coarse to fine subrounded gravel, few bands of reddish brown coloration, <1 inch thick throughout.	
-11									
-12									
-13		0.4							
-14									
-15	3.4'/ 5.0'	1.2						15-20 ft bgs: SAA (10-15 ft bgs), wet at 19 ft bgs, slight organic-like odor at 19-20 ft bgs, greyish brown, 15-19 ft bgs reddish brown.	BENTONITE
-16									
-17		0.3			SB-1 (17-19)				
-18									
-19		0.5							
-20	5.0'/ 5.0'	1.8						20-25 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~10% coarse grained sand, <5 % fine subrounded gravel, wet, light brown to reddish brown, no odor.	SAND PA
-21									PVC SCR

PVC RISER

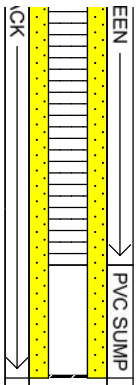
Notes:
Location was pre-cleared by hand from 0-5 ft bgs.
A 2 inch well was installed at this location from 16 to 26 ft bgs.
Well was installed ~3' south from sampled boring due to auger refusal.

Definitions:
1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-1 / MW-1

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~19 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 39.02' NAVD 88
Date Pre-Cleared: March 5, 2012	**Boring Diameter:** 8 inches	**Converted To Well (Y/N):** Yes
Date Started/Completed: March 5, 2012	**Logged By:** Jessica Ehlen	**Well ID:** MW-1

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
-22									
-23		0.3							
-24									
-25	5.0'/ 5.0'	1.1						25-30 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~5% fine subrounded gravel, wet, light brown, no odor.	
-26									
-27									
-28		0.5							
-29									
-30	5.0'/ 5.0'	1.1						30- 35 ft bgs:SAA.	
-31									
-32									
-33		0.4							
-34									
-35	3.8'/ 5.0'	0.5						35-40 ft bgs: SAA, brown.	
-36									
-37									
-38		0.5			SB-1 (37.5-40)				
-39									
-40								END OF BORING 40 ft bgs	



Notes:

Location was pre-cleared by hand from 0-5 ft bgs.
A 2 inch well was installed at this location from 16 to 26 ft bgs.
Well was installed ~3' south from sampled boring due to auger refusal.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-2 / MW-2

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~20 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 41.38' NAVD 88
Date Pre-Cleared: March 6, 2012	**Boring Diameter:** 8 inches	**Converted To Well (Y/N):** Yes
Date Started/Completed: March 6, 2012	**Logged By:** Jessica Ehlen	**Well ID:** MW-2

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
0 to -21	5.0'/ 5.0'	0.9			SB-2 (0-2.5)	FILL		0-0.3 ft bgs: ASPHALT 0.3-2.5 ft bgs: FILL: medium to fine grained sand, ~15% silt, ~5% fine subrounded gravel, dry, brown, no odor.	GROUT
		0.6						2.5-5 ft bgs: FILL: medium to fine grained sand, ~15% silt, ~15% coarse grained sand, ~5% fine subrounded gravel, dry, brown, no odor.	
	3.0'/ 5.0'	5.2						5-5.5 ft bgs: SAA, ~10% brick and concrete debris. 5.5-10 ft bgs: FILL: medium to fine grained sand and silt, ~10% fine subrounded gravel, <5% coal debris throughout, moist, light brown, no odor.	
		3.4							
	3.4'/ 5.0'	1.8				ML		10-15 ft bgs: SANDY SILT (ML): silt, ~30% fine grained sand, ~10% medium grained sand, ~10% fine subrounded gravel, moist, brown, no odor.	BENTONITE
		1.7							
	3.2'/ 5.0'	2.5				CL		15-17.5 ft bgs: CLAY AND SILTY CLAY OF LOW PLASTICITY (CL): clayey silt, <5% fine grained sand, low plasticity, moist, light grey, no odor.	SA
		3.5			SB-2 (17.5-20)	ML		17.5-20 ft bgs: SANDY SILT (ML): silt, ~30% fine grained sand, ~15% fine subrounded gravel, 1 cobble 0.4' long from 19-19.4 ft bgs, moist, reddish brown, no odor.	PVC RISER
	2.8'/ 5.0'	3.3				SW		20-25 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~15% fine subrounded gravel, wet, light brown, no odor.	PVC

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

A 2 inch well was installed at this location from 17 to 27 ft bgs.

Boring collapsed from 40-29 ft bgs while augering.

GROUP-END:

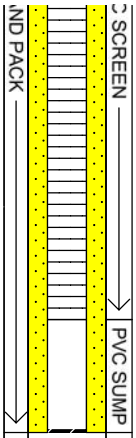
Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-2 / MW-2

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~20 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 41.38' NAVD 88
Date Pre-Cleared: March 6, 2012	**Boring Diameter:** 8 inches	**Converted To Well (Y/N):** Yes
Date Started/Completed: March 6, 2012	**Logged By:** Jessica Ehlen	**Well ID:** MW-2

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
-22									
-23		2.7							
-24									
-25	2.8'/ 5.0'	4.5						25-30 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~15% coarse grained sand, <5% fine subrounded gravel, wet, light brown, no odor.	
-26									
-27									
-28		2.7							
-29									
-30	5.0'/ 5.0'	3.2						30-35 ft bgs: SAA.	
-31									
-32									
-33		2.5							
-34									
-35	5.0'/ 5.0'	2.4						35-40 ft bgs: SAA.	
-36									
-37									
-38		1.3			SB-2 (37.5-40)				
-39									
-40								END OF BORING 40 ft bgs	



Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

A 2 inch well was installed at this location from 17 to 27 ft bgs.

Boring collapsed from 40-29 ft bgs while augering.

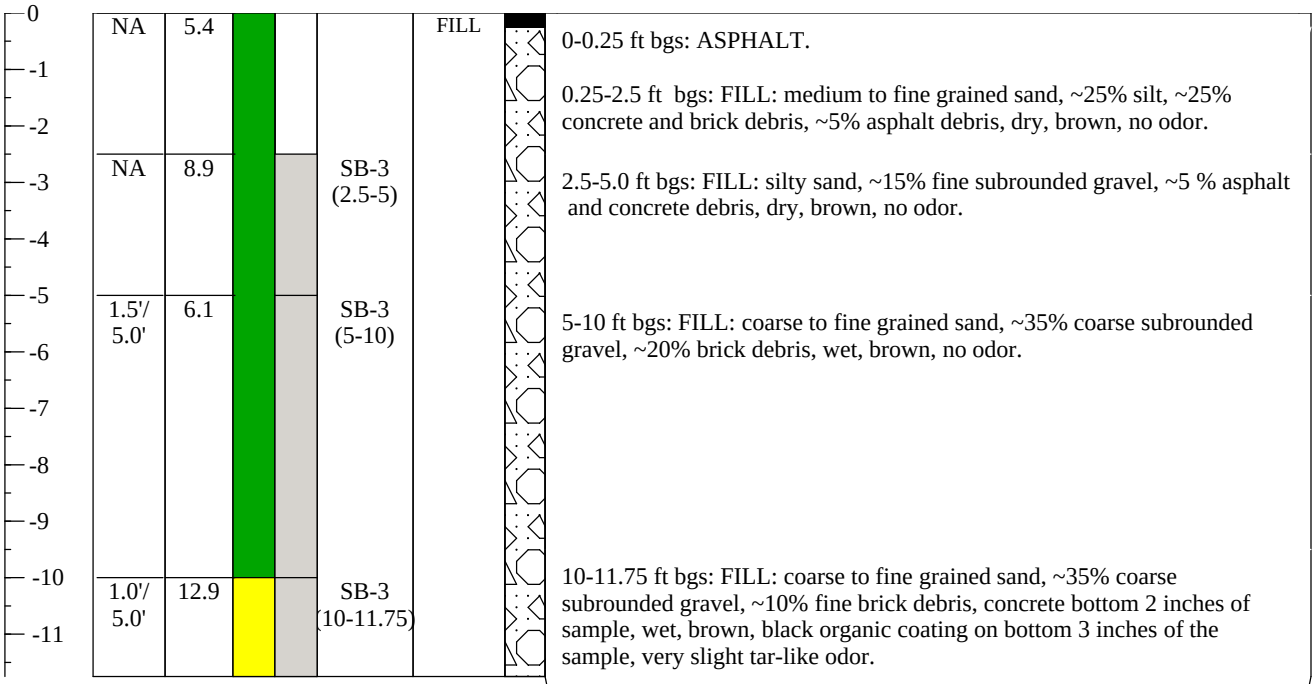
GROUP-END:

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-3

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 11.75 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 40.78' NAVD 88
Date Pre-Cleared: February 27, 2012	**Boring Diameter:** 3 3/16 inches	**Converted To Well (Y/N):** No
Date Started/Completed: February 27, 2012	**Logged By:** Jessica Ehlen	**Well ID:** NA



Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

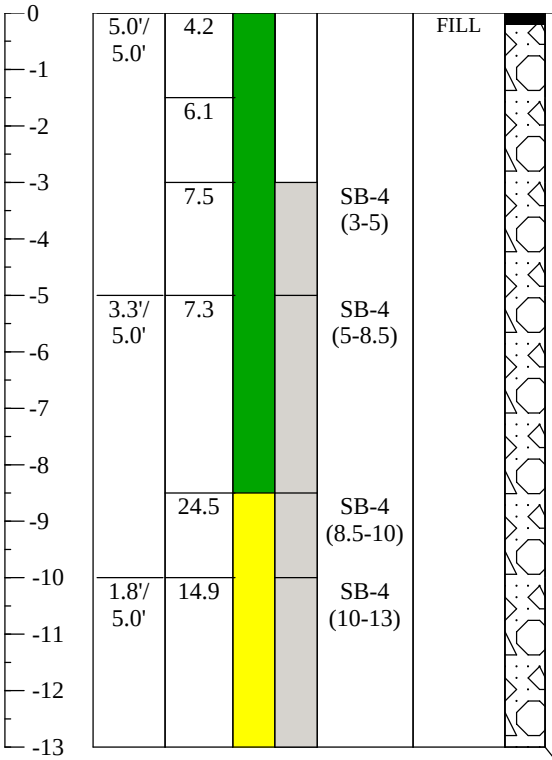
Impacts include visual and olfactory observations.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-4

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~10 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 13 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 42.28' NAVD 88
Date Pre-Cleared: February 27, 2012	**Boring Diameter:** 3 3/16"	**Converted To Well (Y/N):** No
Date Started/Completed: February 27, 2012	**Logged By:** Jessica Ehlen	**Well ID:** NA



Geologic Description

0-0.2 ft bgs: ASPHALT
0.2-1.5 ft bgs: FILL: medium to fine grained sand, ~25% silt, ~25% brick and concrete debris, brown, dry, no odor.

1.5-3 ft bgs: SAA, moist.

3- 5 ft bgs: FILL: sandy silt, ~15% fine concrete and brick debris, moist, brown, no odor.

5-8.5 ft bgs: FILL: sandy silt, ~10% fine subrounded gravel, ~10% clay, moist, brown, slight organic odor.

8.5-10 ft bgs: FILL: wood debris (piling), creosote-like odor.

10-13 ft bgs: FILL: sandy silt, ~30% clay, ~10% wood, concrete, and brick debris, low plasticity, wet, 2 inches of concrete at bottom of sample, slight tar-like odor.

End of boring at 13 ft bgs due to refusal (holder bottom).

Notes:
Location was pre-cleared by hand from 0-5 ft bgs.
Impacts include visual and olfactory observations.

Definitions:
1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-5 / MW-5

Project Name: Jamaica Gas Light MGP
Project Number: 60144468-210
Client: National Grid
Date Pre-Cleared: March 8, 2012
Date Started/Completed: March 8/12, 2012

Drilling Company: Fenley and Nicol
Drilling Method: Direct Push / HSA
Sampling Method: 5 ft Macro-Core®
Boring Diameter: 8 inches
Logged By: Jessica Ehlen

Water Level: ~24 ft bgs
Total Depth: 40 ft bgs
Ground Elevation: 43.63' NAVD 88
Converted To Well (Y/N): Yes
Well ID: MW-5

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
0	5.0'/ 5.0'	0.9			SS-5A (0-2")	FILL		0-0.35 ft bgs: FILL: silty sand, ~35% coarse subangular gravel, dry, brown, no odor.	GROUT
-1								0.35-2.5 ft bgs: FILL: SAA, ~20% brick and concrete debris, dry, brown, no odor.	
-2									
-3		0.9			SB-5 (2.5-5)			2.5-5 ft bgs: FILL: medium to fine grained sand, ~15% fine subrounded gravel, <5% brick and concrete debris, dry, brown, no odor.	
-4									
-5	3.2'/ 5.0'	1.0						5-7.5 ft bgs: FILL: medium to fine grained sand, ~10% brick debris, ~15% coarse subrounded gravel, moist, light brown, no odor.	
-6									
-7									
-8		0.7				SW		7.5-10 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, <5% fine subrounded gravel, moist, light brown, no odor.	
-9									
-10	2.0'/ 5.0'	0.9						10-15 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~20% coarse to fine subrounded gravel, moist, light brown, no odor.	
-11									
-12									
-13									
-14									
-15	5.0'/ 5.0'	1.2						15-20 ft bgs: SAA, less gravel ~10%, dark brown from 16-17 ft bgs.	BENTONITE
-16									
-17									
-18		1.3							
-19									
-20	5.0'/ 5.0'	0.6						20-25 ft bgs: SAA, wet at 24 ft bgs, ~5% fine subrounded gravel.	PVC RISER
-21									

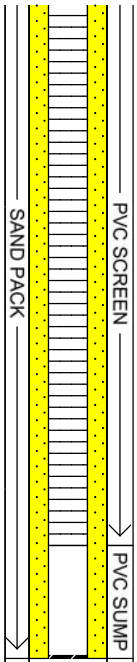
Notes:
- Location was pre-cleared by hand from 0-5 ft bgs.
- Impacts include visual and olfactory observations.
- A 2 inch well was installed at this location from 21 to 31 ft bgs.
- Boring collapsed from 40-33 ft bgs while augering.

Definitions:
1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-5 / MW-5

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 43.63' NAVD 88
Date Pre-Cleared: March 8, 2012	**Boring Diameter:** 8 inches	**Converted To Well (Y/N):** Yes
Date Started/Completed: March 8/12, 2012	**Logged By:** Jessica Ehlen	**Well ID:** MW-5

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
-22		0.7			SB-5 (22-24)				
-23									
-24		0.3							
-25	5.0'/ 5.0'	0.6						25-30 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~10% coarse grained sand, ~10% fine subrounded gravel, wet, light brown, no odor.	
-26									
-27									
-28		0.1							
-29									
-30	5.0'/ 5.0'	0.0						30-35 ft bgs: SAA.	
-31									
-32									
-33		0.8							
-34									
-35	5.0'/ 5.0'	0.0						35-4 ft bgs: SAA, ~10% coarse subrounded gravel, wet, brown, no odor.	
-36									
-37									
-38		0.0			SB-5 (37.5-40)				
-39									
-40								END OF BORING 40 ft bgs	

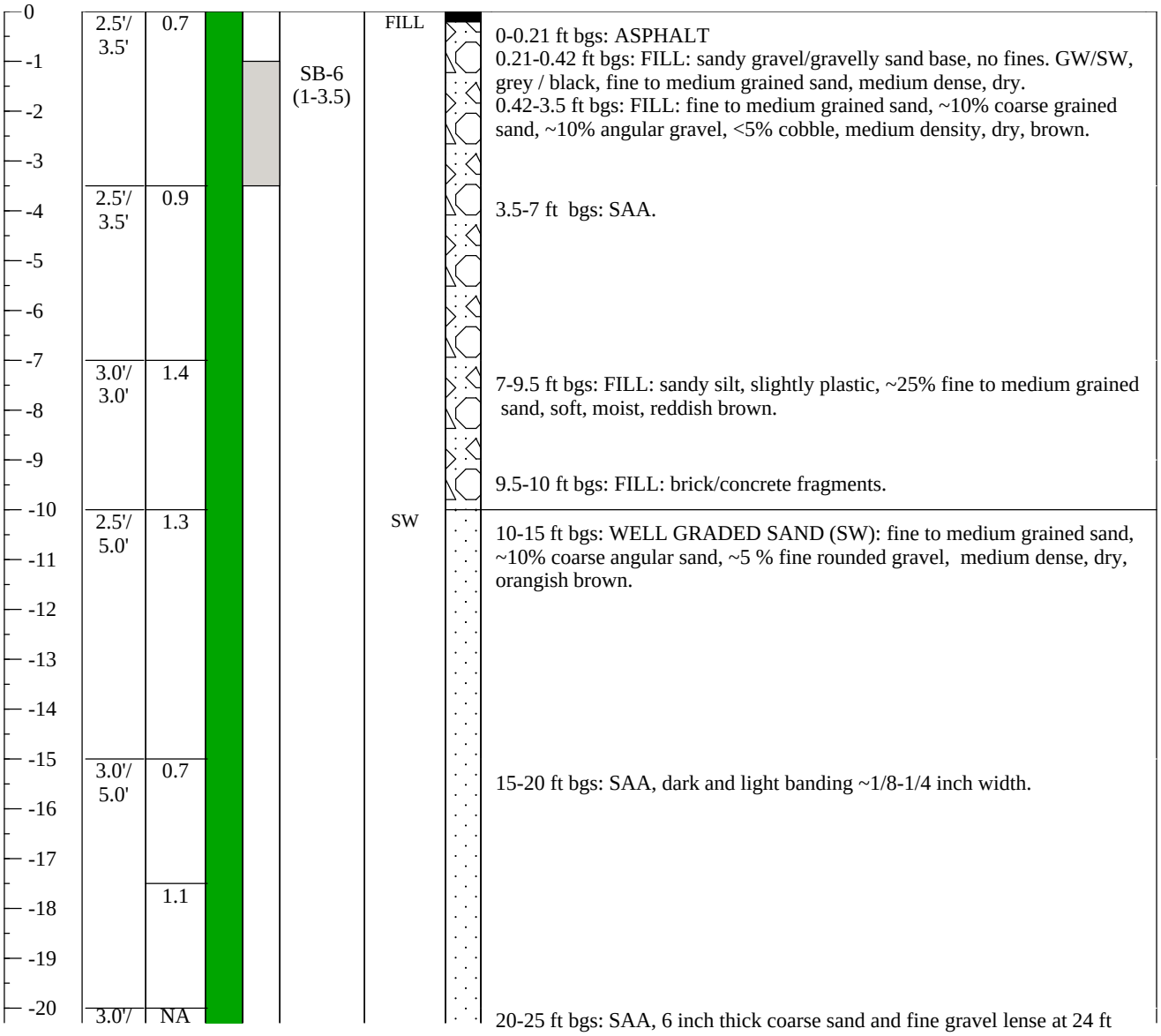


Notes:
- Location was pre-cleared by hand from 0-5 ft bgs.
- Impacts include visual and olfactory observations.
- A 2 inch well was installed at this location from 21 to 31 ft bgs.
- Boring collapsed from 40-33 ft bgs while augering.

Definitions:
1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-6

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 43.79' NAVD 88
Date Pre-Cleared: February 22, 2012	**Boring Diameter:** 3 3/16"	**Converted To Well (Y/N):** No
Date Started/Completed: February 22, 2012	**Logged By:** Hallie Garrett	**Well ID:** NA



Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

Impacts include visual and olfactory observations.

GROUP-END:

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-6

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 43.79' NAVD 88
Date Pre-Cleared: February 22, 2012	**Boring Diameter:** 3 3/16"	**Converted To Well (Y/N):** No
Date Started/Completed: February 22, 2012	**Logged By:** Hallie Garrett	**Well ID:** NA

Depth (Feet)	Recovery (Feet)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description
-21	5.0'							bgs, wet at ~24 ft bgs.
-22		1.3			SB-6 (22-24)			
-23								
-24		1.3						
-25	3.0'/ 5.0'	1.1						25-30 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~5% fine rounded gravel, medium dense, wet, light brown.
-26								
-27								
-28		1.3						
-29								
-30	5.0'/ 5.0'	1.4						30-35 ft bgs: SAA.
-31								
-32								
-33		1.2						
-34								
-35	5.0'/ 5.0'	0.6						35-40 ft bgs: SAA.
-36								
-37								
-38		1.0			SB-6 (37.5-40)			
-39								
-40								END OF BORING 40 ft bgs

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

Impacts include visual and olfactory observations.

GROUP-END:

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-7

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 45.49' NAVD 88
Date Pre-Cleared: February 22, 2012	**Boring Diameter:** 3 3/16 inches	**Converted To Well (Y/N):** No
Date Started/Completed: February 22, 2012	**Logged By:** Jessica Ehlen	**Well ID:** NA

Depth (Feet)	Recovery (Feet)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description
0	5.0'/ 5.0'	2.8			SB-7 (0-2.5)	FILL		0-0.2 ft bgs: ASPHALT 0.2-1.2 ft bgs: FILL: medium to fine grained sand, ~25% silt, ~30% brick and concrete debris, dry, brown, no odor.
-1								
-2								1.2-2 ft bgs: FILL: CONCRETE SLAB
-3		2.1						2-2.5 ft bgs: SAA (0.2-1.2).
-4								2.5-5 ft bgs: SAA.
-5	5.0'/ 5.0'	1.5						5-6 ft bgs: SAA.
-6		1.0						6-10 ft bgs: FILL: medium to fine grained sand, ~30% silt, ~10% fine subrounded gravel, 2 pieces of coal from 8.5-9 ft bgs, <5% plant fibers (roots), dry, brown, no odor.
-7								
-8		0.9						
-9								
-10	2.8'/ 5.0'	1.6				SM		10-15 ft bgs: SILTY SAND (SM): medium to fine grained sand and silt, <5% fine rounded gravel, dry, tan, dark brown from 13.5'-13.8', no odor.
-11								
-12								
-13								
-14								
-15	2.0'/ 5.0'	1.0						15-20 ft bgs: SAA, ~15% fine rounded gravel, dry, orange-tan, dark brown from 18'-19', no odor.
-16								
-17								
-18								
-19								
-20	4.2'/	0.8						20-21.5 ft bgs: SAA, dry, dark brown from 21-21.3 ft bgs.

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

Impacts include visual and olfactory observations.

GROUP-END:

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-7

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 45.49' NAVD 88
Date Pre-Cleared: February 22, 2012	**Boring Diameter:** 3 3/16 inches	**Converted To Well (Y/N):** No
Date Started/Completed: February 22, 2012	**Logged By:** Jessica Ehlen	**Well ID:** NA

Depth (Feet)	Recovery (Feet)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description
-21	5.0'							
-22		0.6			SB-7 (21.5-24)	SW		21.5-24 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~10% coarse grained sand, moist, tan, orange band from 23'-23.2', no odor.
-23								
-24		1.0						24-25 ft bgs: SAA, wet.
-25	2.8'/ 5.0'	0.6						25-30 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~10% fine rounded gravel, wet, tan, few orange bands at 27.5'-28.7', no odor.
-26								
-27								
-28		0.5						
-29								
-30	5.0'/ 5.0'	1.0						30-35 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~25% fine rounded gravel, wet, light brown, no odor.
-31								
-32								
-33		0.6						
-34								
-35	5.0'/ 5.0'	0.6						35-40 ft bgs: SAA.
-36								
-37								
-38		2.0			SB-7 (37.5-40) +ms/msd			
-39								
-40								END OF BORING 40 ft bgs.

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

Impacts include visual and olfactory observations.

GROUP-END:

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-8 / MW-3

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 45 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 44.37' NAVD 88
Date Pre-Cleared: March 1, 2012	**Boring Diameter:** 8 Inches	**Converted To Well (Y/N):** Yes
Date Started/Completed: March 7, 2012	**Logged By:** Jessica Ehlen	**Well ID:** MW-3

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
0	5.0'/ 5.0'	1.8				FILL		0-0.15 ft bgs: ASPHALT 0.15-2.5 ft bgs: FILL: silty sand and coarse subangular gravel, <5% brick and concrete debris, <5% coal debris, dry, brown, no odor.	GROUT
-1									
-2									
-3		1.9			SB-8 (2.5-5)			2.5-5 ft bgs: FILL: medium to fine grained sand, ~30% silt, ~30% brick and mortar debris, ~10% coarse subangular gravel, <5% coal debris, <5% ash, dry, brown, no odor.	
-4									
-5	2.5'/ 5.0'	2.1						5-7.5 ft bgs: SAA.	
-6									
-7									
-8		2.8						7.5-9 ft bgs: FILL: medium to fine grained sand, ~15% silt, ~10% brick and mortar debris, <5% coal debris and ash, dry, brown, no odor.	
-9								9-10 ft bgs: FILL: brick and mortar debris, ~25% medium to fine grained sand, <5% coal debris and ash, dry, grey, no odor.	
-10	2.2'/ 5.0'	1.5						10-15 ft bgs: SAA (9-10), ~10% ash, ~5% broken glass.	
-11									
-12									
-13									
-14									
-15	4.7'/ 5.0'	45.3			SB-8 (15-17)			15-17 ft bgs: SAA (10-15), slight tar-like coating and slight tar-like odor from 16.5 ft bgs to 17 ft bgs, crushed brick ~5 inches thick at 17 ft bgs.	
-16									
-17		30.4						17-19 ft bgs: FILL: fine grained sand and silt, ~25% coarse subrounded gravel, <5% metal debris, dry, greyish brown, slight naphthalene-like odor.	BENTONITE
-18									
-19		3.5				SW		19-20 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, <5% fine subrounded gravel, moist, light brown, no odor.	
-20	2.5'/ 5.0'	2.2			SB-8 (20-25)			20-25 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~10% coarse grained sand, moist, wet at 24.5 ft bgs, light brown, few bands	PVC RISER
-21									

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.
Impacts include visual and olfactory observations.
A 2 inch well was installed from 20.5 to 30.5 ft bgs, ~10 ft east of soil boring due to auger refusal at multiple locations.
Water level was measured at 23.5 ft bgs ~10 ft east of soil boring.
Borehole collapsed from 35-32.5 ft bgs while augering.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-8 / MW-3

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 45 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 44.37' NAVD 88
Date Pre-Cleared: March 1, 2012	**Boring Diameter:** 8 Inches	**Converted To Well (Y/N):** Yes
Date Started/Completed: March 7, 2012	**Logged By:** Jessica Ehlen	**Well ID:** MW-3

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
-22								of orange brown coloration, no odor.	SAND PACK, PVC SCREEN, PVC SUMP
-23									
-24									
-25	2.6'/ 5.0'	0.8						25-30 ft bgs: SAA, brown (no banding).	
-26									
-27									
-28		0.6							
-29									
-30	3.3'/ 5.0'	1.5						30-35 ft bgs: SAA (25-30), ~10% coarse subrounded gravel.	
-31									
-32									
-33		1.0							
-34									
-35	0.0'/ 5.0'	NA				NR		35-40 ft bgs: No Recovery, rock in sample bit.	
-36									
-37									
-38									
-39									
-40	5.0'/ 5.0'	1.0				SW		40-45 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~20% coarse grained sand, <5% fine subrounded gravel, wet, light brown, no odor.	
-41									
-42									
-43		1.0			SB-8				

Notes:

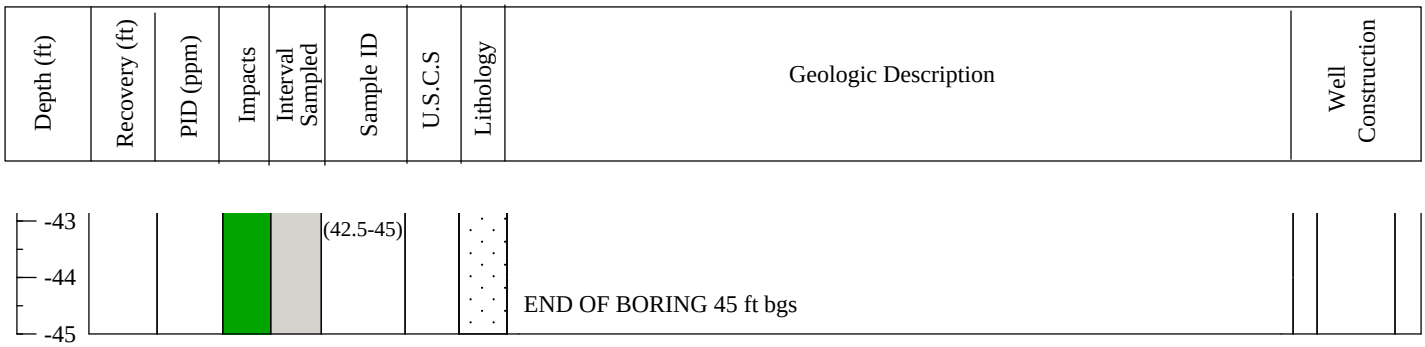
Location was pre-cleared by hand from 0-5 ft bgs.
Impacts include visual and olfactory observations.
A 2 inch well was installed from 20.5 to 30.5 ft bgs, ~10 ft east of soil boring due to auger refusal at multiple locations.
Water level was measured at 23.5 ft bgs ~10 ft east of soil boring.
Borehole collapsed from 35-32.5 ft bgs while augering.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-8 / MW-3

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 45 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 44.37' NAVD 88
Date Pre-Cleared: March 1, 2012	**Boring Diameter:** 8 Inches	**Converted To Well (Y/N):** Yes
Date Started/Completed: March 7, 2012	**Logged By:** Jessica Ehlen	**Well ID:** MW-3



Notes:

Location was pre-cleared by hand from 0-5 ft bgs.
Impacts include visual and olfactory observations.
A 2 inch well was installed from 20.5 to 30.5 ft bgs, ~10 ft east of soil boring due to auger refusal at multiple locations.
Water level was measured at 23.5 ft bgs ~10 ft east of soil boring.
Borehole collapsed from 35-32.5 ft bgs while augering.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-8 A / MW-3

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 35 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 44.56 NAVD88
Date Pre-Cleared: March 7, 2012	**Boring Diameter:** 8 Inches	**Converted To Well (Y/N):** No
Date Started/Completed: March 7, 2012	**Logged By:** Jessica Ehlen	**Well ID:** MW-3

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
0	5.0'/ 5.0'	0.7				FILL		0-0.3 ft bgs: ASPHALT	GROUT
-1								0.3-2.5 ft bgs: FILL: medium to fine grained sand, ~20% silt, ~10% concrete and asphalt debris, ~10% fine subrounded gravel, brown, no odor.	
-2									
-3		0.6						2.5-5 ft bgs: FILL: medium to fine grained sand, ~20% silt, ~5% concrete debris, ~10% fine subrounded gravel, brown, no odor.	
-4									
-5	3.0'/ 5.0'	6.0						5-10 ft bgs: SAA.	
-6									
-7									
-8		2.8							
-9									
-10	3.4'/ 5.0'	0.8				SW		10-15 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~10% fine subrounded gravel, light brown, layer of silt, from 13-13.5 ft bgs, ~ 30% clay, low plasticity, light brown, no odor.	
-11									
-12									
-13									
-14									
-15	3.7'/ 5.0'	0.4						15-20 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~10% fine subrounded gravel, ~5% plant fibers, light brown, no odor.	BENTONITE
-16									
-17		0.7							
-18									
-19		0.4							PVC RISER
-20									

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.
Impacts include visual and olfactory observations.
A 2 inch well was installed from 20.5 to 30.5 ft bgs
Borehole collapsed from 35-32.5 ft bgs while augering/pulling rods from borehole.
No samples were collected from this borehole.

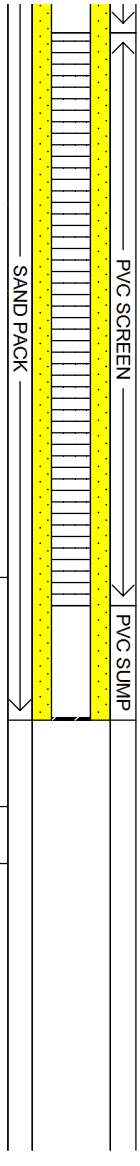
Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-8 A / MW-3

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 35 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 44.56 NAVD88
Date Pre-Cleared: March 7, 2012	**Boring Diameter:** 8 Inches	**Converted To Well (Y/N):** No
Date Started/Completed: March 7, 2012	**Logged By:** Jessica Ehlen	**Well ID:** MW-3

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
-20									
-21	3.0'/ 5.0'	0.3						20-23.5 ft bgs: SAA.	
		0.3							
-22									
-23		0.4							
-24								23.5-25 ft bgs: WELL GRADED SAND (SW): coarse to fin grains sand, ~20% fine subrounded gravel, light brown, wet, no odor.	
-25	5.0'/ 5.0'	0.5						25-30 ft bgs: SAA.	
-26									
-27									
-28		0.3							
-29									
-30	5.0'/ 5.0'	0.9						30-35 ft bgs: SAA.	
-31									
-32									
-33		0.6							
-34								END OF BORING 35 ft bgs	
-35									
-36									
-37									
-38									
-39									
-40									



Notes:

Location was pre-cleared by hand from 0-5 ft bgs.
Impacts include visual and olfactory observations.
A 2 inch well was installed from 20.5 to 30.5 ft bgs
Borehole collapsed from 35-32.5 ft bgs while augering/pulling rods from borehole.
No samples were collected from this borehole.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-8 A / MW-3

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 35 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 44.56 NAVD88
Date Pre-Cleared: March 7, 2012	**Boring Diameter:** 8 Inches	**Converted To Well (Y/N):** No
Date Started/Completed: March 7, 2012	**Logged By:** Jessica Ehlen	**Well ID:** MW-3

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction

Notes:

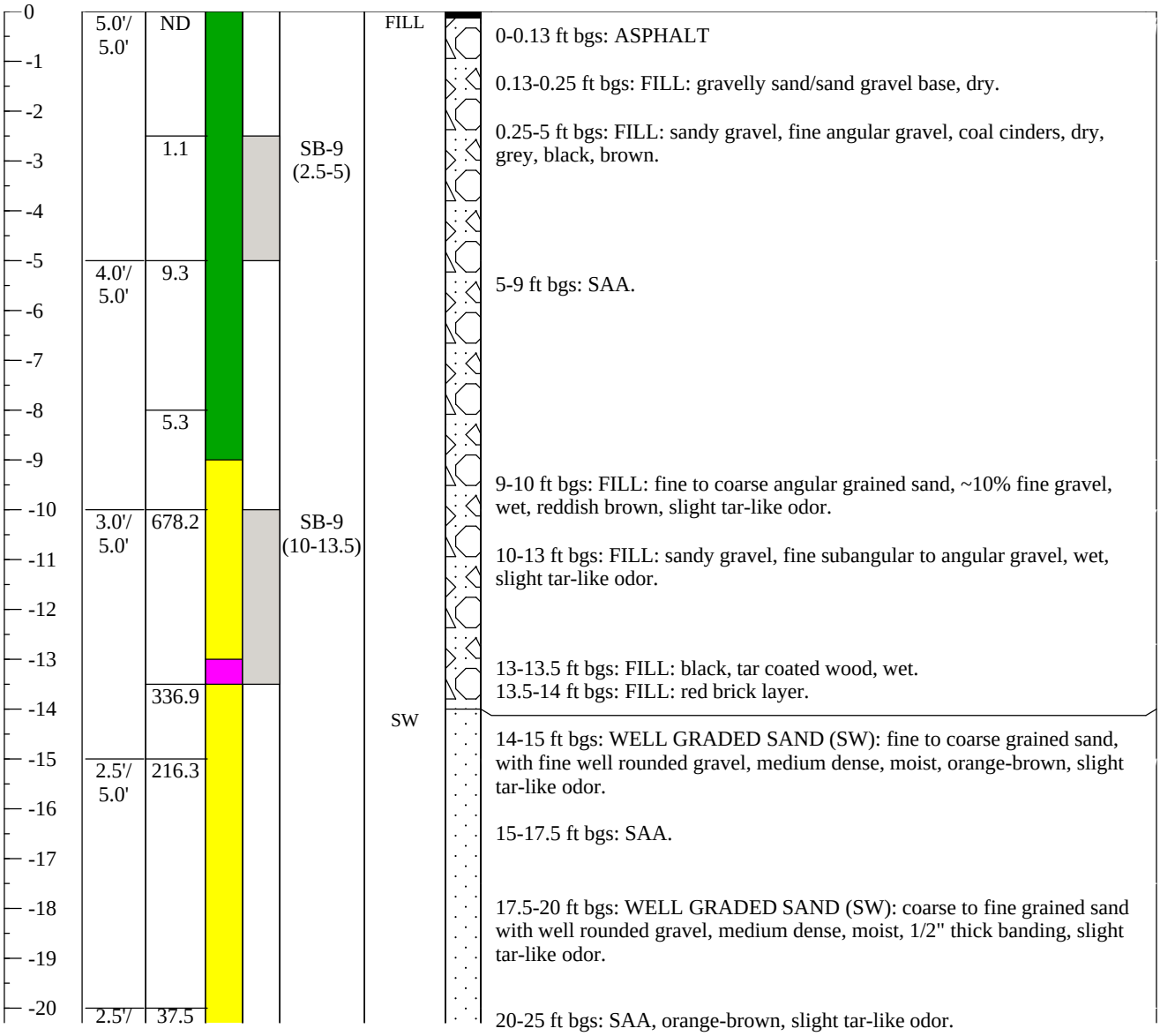
Location was pre-cleared by hand from 0-5 ft bgs.
Impacts include visual and olfactory observations.
A 2 inch well was installed from 20.5 to 30.5 ft bgs
Borehole collapsed from 35-32.5 ft bgs while augering/pulling rods from borehole.
No samples were collected from this borehole.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-9

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~26 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 46.28' NAVD 88
Date Pre-Cleared: February 23, 2012	**Boring Diameter:** 3 3/16 Inches	**Converted To Well (Y/N):** No
Date Started/Completed: February 23, 2012	**Logged By:** Hallie Garrett	**Well ID:** NA



0-0.13 ft bgs: ASPHALT

0.13-0.25 ft bgs: FILL: gravelly sand/sand gravel base, dry.

0.25-5 ft bgs: FILL: sandy gravel, fine angular gravel, coal cinders, dry, grey, black, brown.

5-9 ft bgs: SAA.

9-10 ft bgs: FILL: fine to coarse angular grained sand, ~10% fine gravel, wet, reddish brown, slight tar-like odor.

10-13 ft bgs: FILL: sandy gravel, fine subangular to angular gravel, wet, slight tar-like odor.

13-13.5 ft bgs: FILL: black, tar coated wood, wet.
13.5-14 ft bgs: FILL: red brick layer.

14-15 ft bgs: WELL GRADED SAND (SW): fine to coarse grained sand, with fine well rounded gravel, medium dense, moist, orange-brown, slight tar-like odor.

15-17.5 ft bgs: SAA.

17.5-20 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand with well rounded gravel, medium dense, moist, 1/2" thick banding, slight tar-like odor.

20-25 ft bgs: SAA, orange-brown, slight tar-like odor.

Notes:

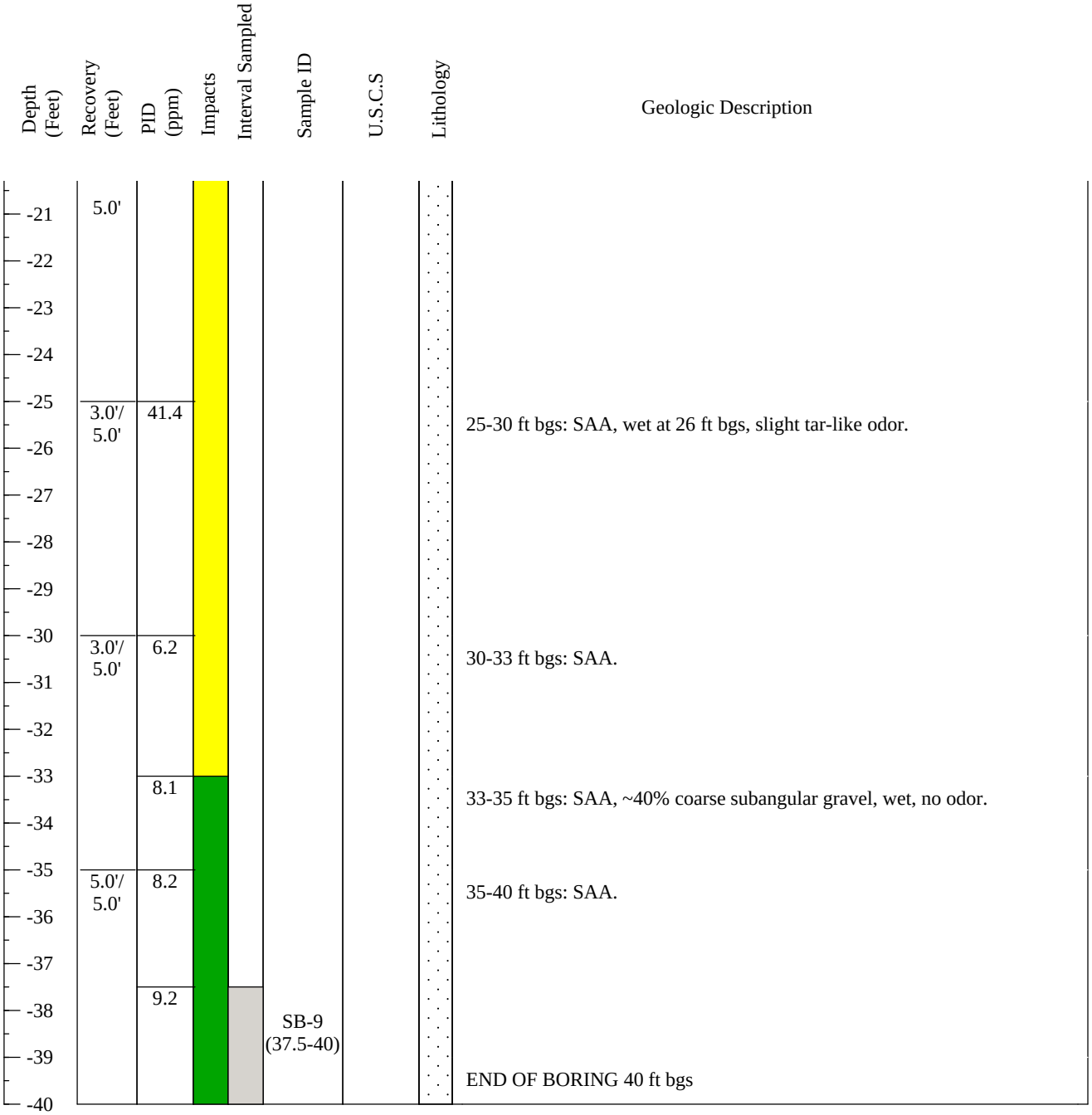
Location was pre-cleared by hand from 0-5 ft bgs.
Impacts include visual and olfactory observations.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-9

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~26 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 46.28' NAVD 88
Date Pre-Cleared: February 23, 2012	**Boring Diameter:** 3 3/16 Inches	**Converted To Well (Y/N):** No
Date Started/Completed: February 23, 2012	**Logged By:** Hallie Garrett	**Well ID:** NA



Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

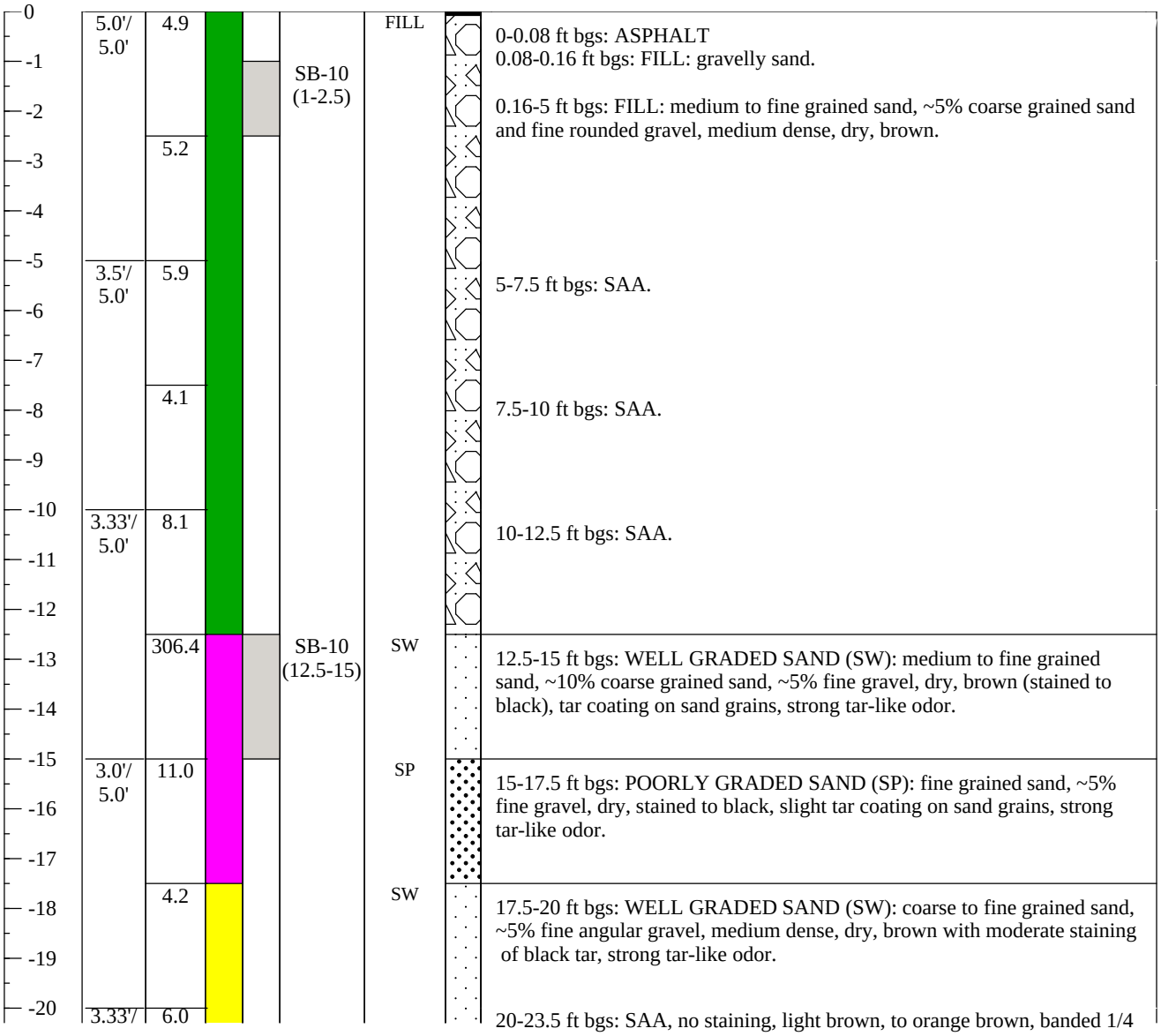
Impacts include visual and olfactory observations.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-10

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~26.2 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 46.84' NAVD 88
Date Pre-Cleared: February 23, 2012	**Boring Diameter:** 3 3/16"	**Converted To Well (Y/N):** No
Date Started/Completed: February 23, 2012	**Logged By:** Hallie Garrett	**Well ID:** NA



Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

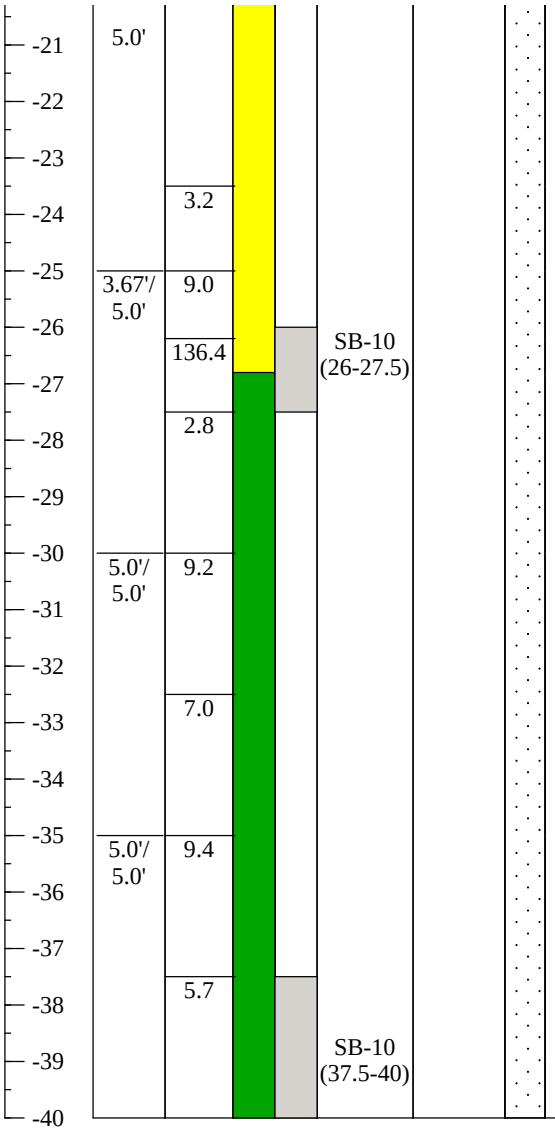
Impacts include visual and olfactory observations.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-10

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~26.2 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 46.84' NAVD 88
Date Pre-Cleared: February 23, 2012	**Boring Diameter:** 3 3/16"	**Converted To Well (Y/N):** No
Date Started/Completed: February 23, 2012	**Logged By:** Hallie Garrett	**Well ID:** NA



Geologic Description
-1 inch, slight tar-like odor.
23.5-25 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~10% fine gravel, dry, medium brown, banded with heavy staining, slight tar-like odor.
25-26.2 ft bgs: SAA.
26.2-26.8 ft bgs: SAA, wet, moderate staining, slight to moderate tar-like odor.
26.8-30 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~10% rounded gravel, wet, no staining or odor.
30-35 ft bgs: SAA, no staining or odor.
35-40 ft bgs: SAA, no staining or odor.
END OF BORING 40 ft bgs

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

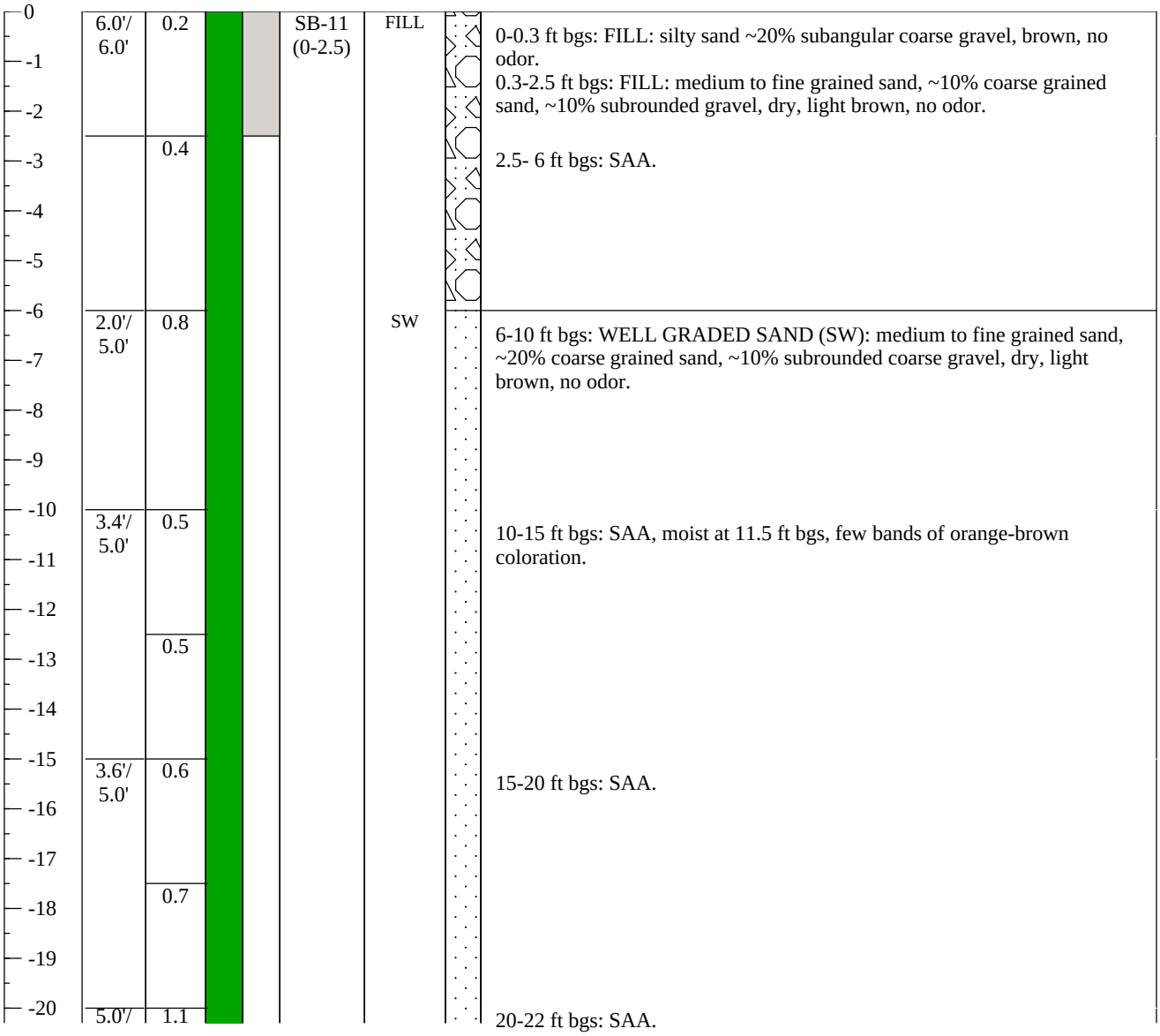
Impacts include visual and olfactory observations.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-11

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~27 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 45.13' NAVD 88
Date Pre-Cleared: February 28, 2012	**Boring Diameter:** 3 3/16 inches	**Converted To Well (Y/N):** No
Date Started/Completed: February 28, 2012	**Logged By:** Jessica Ehlen	**Well ID:** NA



Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

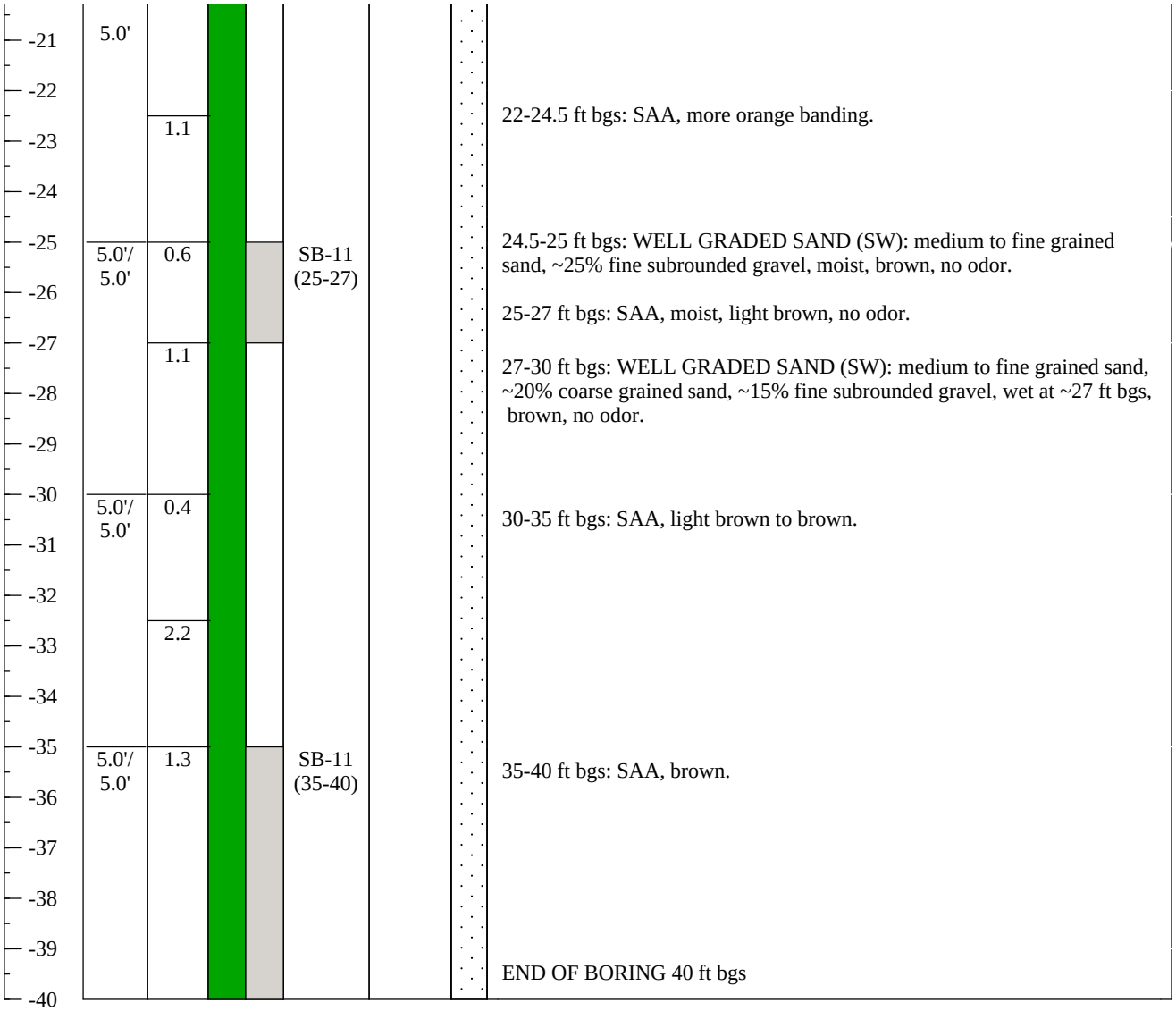
Impacts include visual and olfactory observations.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-11

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~27 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 45.13' NAVD 88
Date Pre-Cleared: February 28, 2012	**Boring Diameter:** 3 3/16 inches	**Converted To Well (Y/N):** No
Date Started/Completed: February 28, 2012	**Logged By:** Jessica Ehlen	**Well ID:** NA



Geologic Description

22-24.5 ft bgs: SAA, more orange banding.

24.5-25 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~25% fine subrounded gravel, moist, brown, no odor.

25-27 ft bgs: SAA, moist, light brown, no odor.

27-30 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~20% coarse grained sand, ~15% fine subrounded gravel, wet at ~27 ft bgs, brown, no odor.

30-35 ft bgs: SAA, light brown to brown.

35-40 ft bgs: SAA, brown.

END OF BORING 40 ft bgs

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

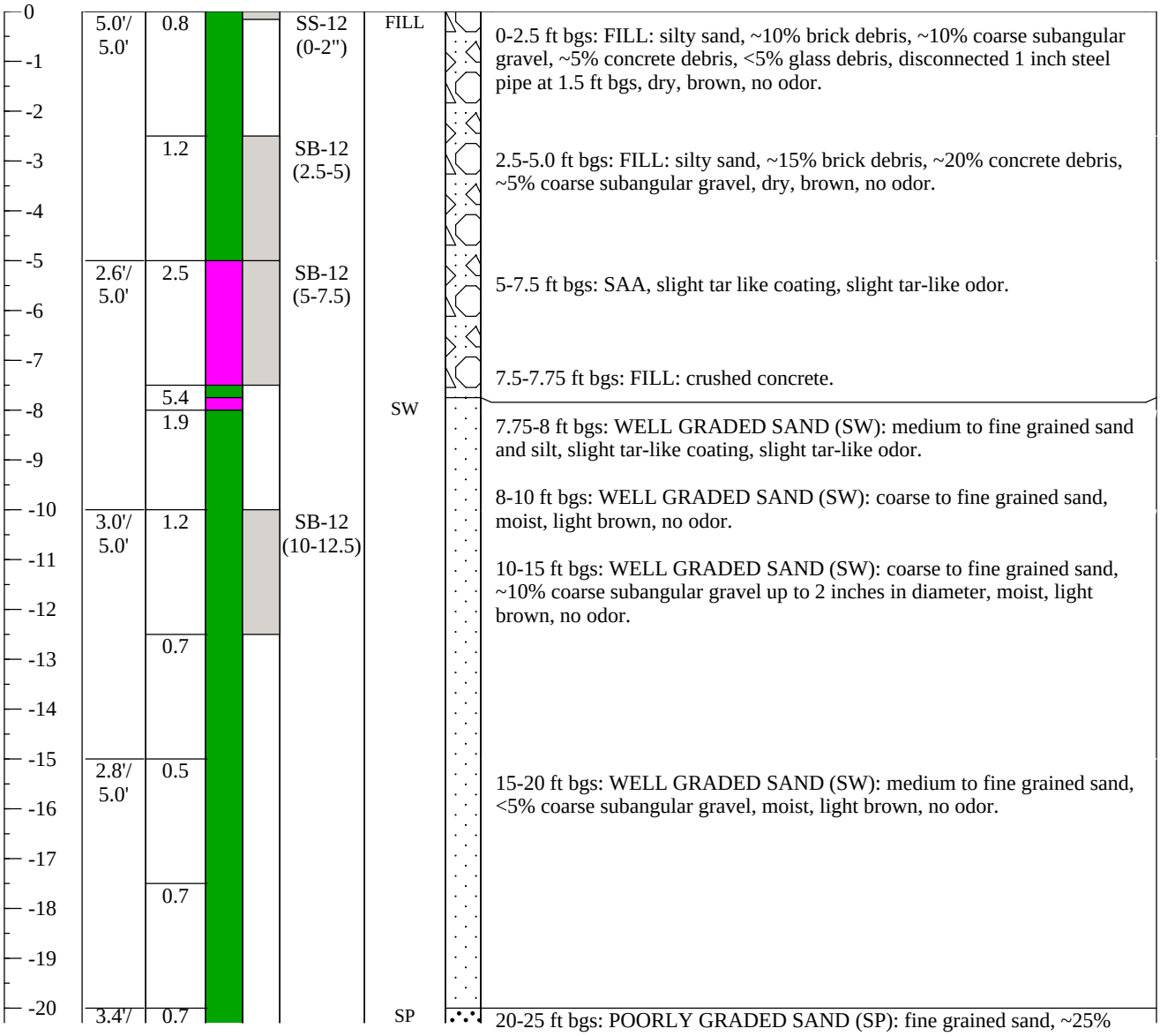
Impacts include visual and olfactory observations.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-12

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~23.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 45.65' NAVD 88
Date Pre-Cleared: February 28, 2012	**Boring Diameter:** 3 3/16"	**Converted To Well (Y/N):** No
Date Started/Completed: February 28, 2012	**Logged By:** Jessica Ehlen	**Well ID:** NA



Geologic Description

0-2.5 ft bgs: FILL: silty sand, ~10% brick debris, ~10% coarse subangular gravel, ~5% concrete debris, <5% glass debris, disconnected 1 inch steel pipe at 1.5 ft bgs, dry, brown, no odor.

2.5-5.0 ft bgs: FILL: silty sand, ~15% brick debris, ~20% concrete debris, ~5% coarse subangular gravel, dry, brown, no odor.

5-7.5 ft bgs: SAA, slight tar like coating, slight tar-like odor.

7.5-7.75 ft bgs: FILL: crushed concrete.

7.75-8 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand and silt, slight tar-like coating, slight tar-like odor.

8-10 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, moist, light brown, no odor.

10-15 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~10% coarse subangular gravel up to 2 inches in diameter, moist, light brown, no odor.

15-20 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, <5% coarse subangular gravel, moist, light brown, no odor.

20-25 ft bgs: POORLY GRADED SAND (SP): fine grained sand, ~25%

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

Impacts include visual and olfactory observations.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-12

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~23.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 45.65' NAVD 88
Date Pre-Cleared: February 28, 2012	**Boring Diameter:** 3 3/16"	**Converted To Well (Y/N):** No
Date Started/Completed: February 28, 2012	**Logged By:** Jessica Ehlen	**Well ID:** NA

Depth (Feet)	Recovery (Feet)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description
-21	5.0'							medium grained sand, <5% coarse grained sand, moist, wet at 23.5 ft bgs, light brown, no odor.
-22		0.9						
-23								
-24		0.7						
-25	3.7'/ 5.0'	0.4				SW		25-30 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~20% coarse grained sand, ~10% fine subrounded gravel, wet, brown, no odor
-26								
-27								
-28		0.6						
-29								
-30	5.0'/ 5.0'	2.0						30-35 ft bgs: SAA.
-31								
-32								
-33		1.3						
-34								
-35	5.0'/ 5.0'	1.4						35-40 ft bgs: SAA.
-36								
-37								
-38		0.9			SB-12 (37.5-40)			
-39								
-40								END OF BORING 40 ft bgs

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

Impacts include visual and olfactory observations.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-13 / MW-6

Project Name: Jamaica Gas Light MGP
Project Number: 60144468-210
Client: National Grid
Date Pre-Cleared: February 28, 2012
Date Started/Completed: February 29, 2012

Drilling Company: Fenley and Nicol
Drilling Method: Direct Push / HSA
Sampling Method: 5 ft Macro-Core®
Boring Diameter: 8 Inches
Logged By: K. Barbour / J. Ehlen

Water Level: ~24.5 ft bgs
Total Depth: 40 ft bgs
Ground Elevation: 46.32' NAVD 88
Converted To Well (Y/N): Yes
Well ID: MW-6

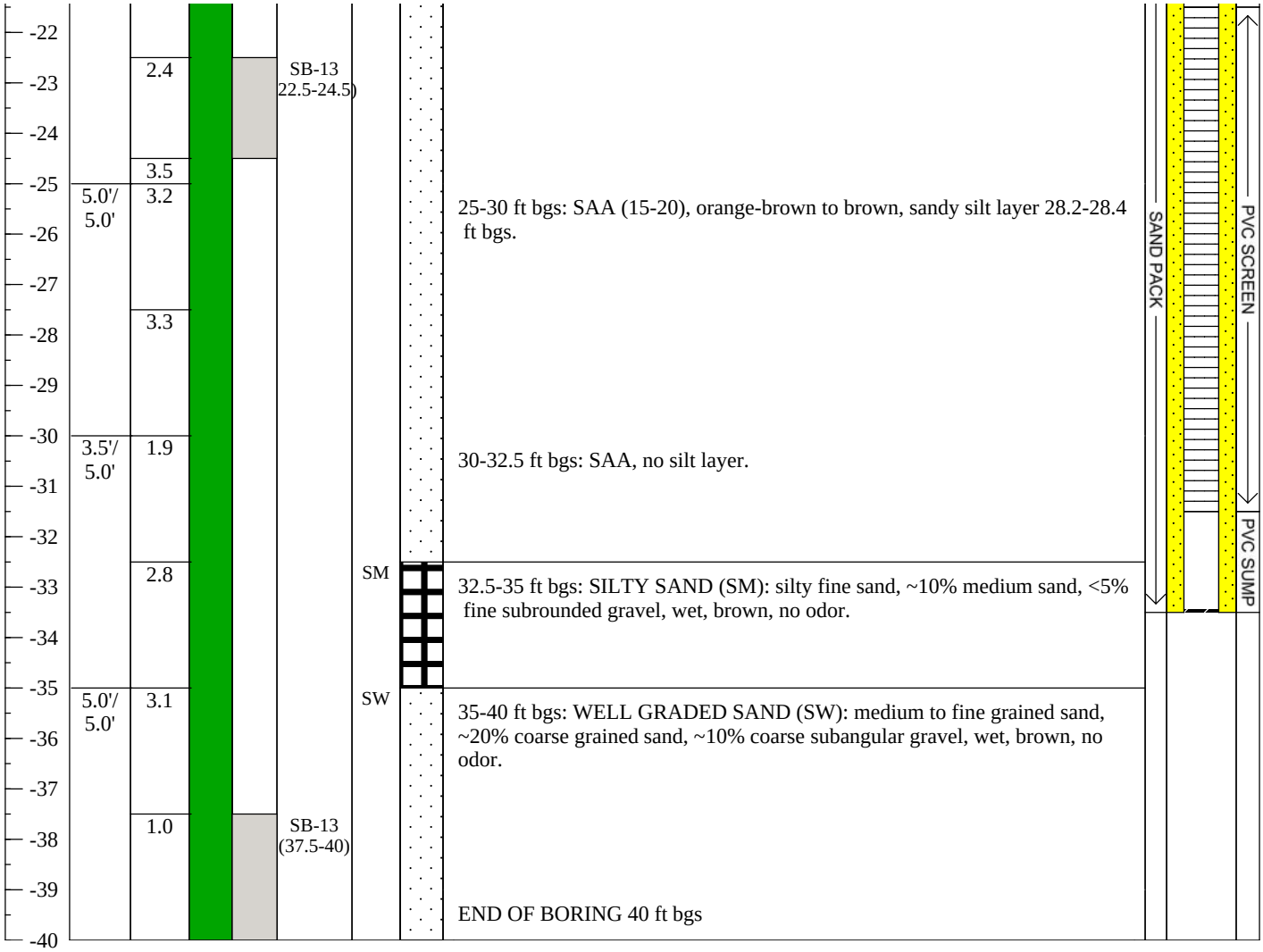
Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
0	5.0'/ 5.0'	0.1				FILL		0-2.5 ft bgs: FILL: medium to fine grained sand, ~10% coarse grained sand, ~10% subrounded gravel, ~10% silt, dry, brown, no odor.	GROUT
-1									
-2									
-3		0.2			SB-13 (2.5-5)			2.5-5 ft bgs: SAA.	
-4									
-5	3.3'/ 5.0'	1.2						5-7.5 ft bgs: FILL: medium to fine grained sand, ~10% silt, ~10% fine subrounded gravel,<5% plant fibers, moist, brown, no odor.	
-6									
-7									
-8		1.0				SW		7.5-10 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~15% fine subrounded gravel, moist, orange-brown, no odor.	
-9									
-10	3.2'/ 5.0'	2.3						10-15 ft bgs: SAA, some reddish brown banding.	
-11									
-12									
-13		2.3							
-14									
-15	4.4'/ 5.0'	4.2						15-20 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~10% coarse grained sand, <5% fine subrounded gravel, moist, light brown, few orange-brown bands, no odor.	
-16									
-17									
-18		3.9							BENTONITE
-19									
-20	4.4'/ 5.0'	1.8						20-25 ft bgs: SAA, more orange-brown banding, 1 coarse subangular gravel at 22 ft bgs, 2 inches in diameter, wet at 24.5 ft bgs.	PVC RISER
-21									

Notes:
- Location was pre-cleared by hand from 0-5 ft bgs.
- Impacts include visual and olfactory observations.
- A 2 inch well was installed at this location from 21.5-31.5 ft bgs.
- Borehole collapsed from 40-33.5 ft bgs while augering.

Definitions:
1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-13 / MW-6

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~24.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 46.32' NAVD 88
Date Pre-Cleared: February 28, 2012	**Boring Diameter:** 8 Inches	**Converted To Well (Y/N):** Yes
Date Started/Completed: February 29, 2012	**Logged By:** K. Barbour / J. Ehlen	**Well ID:** MW-6



Notes:

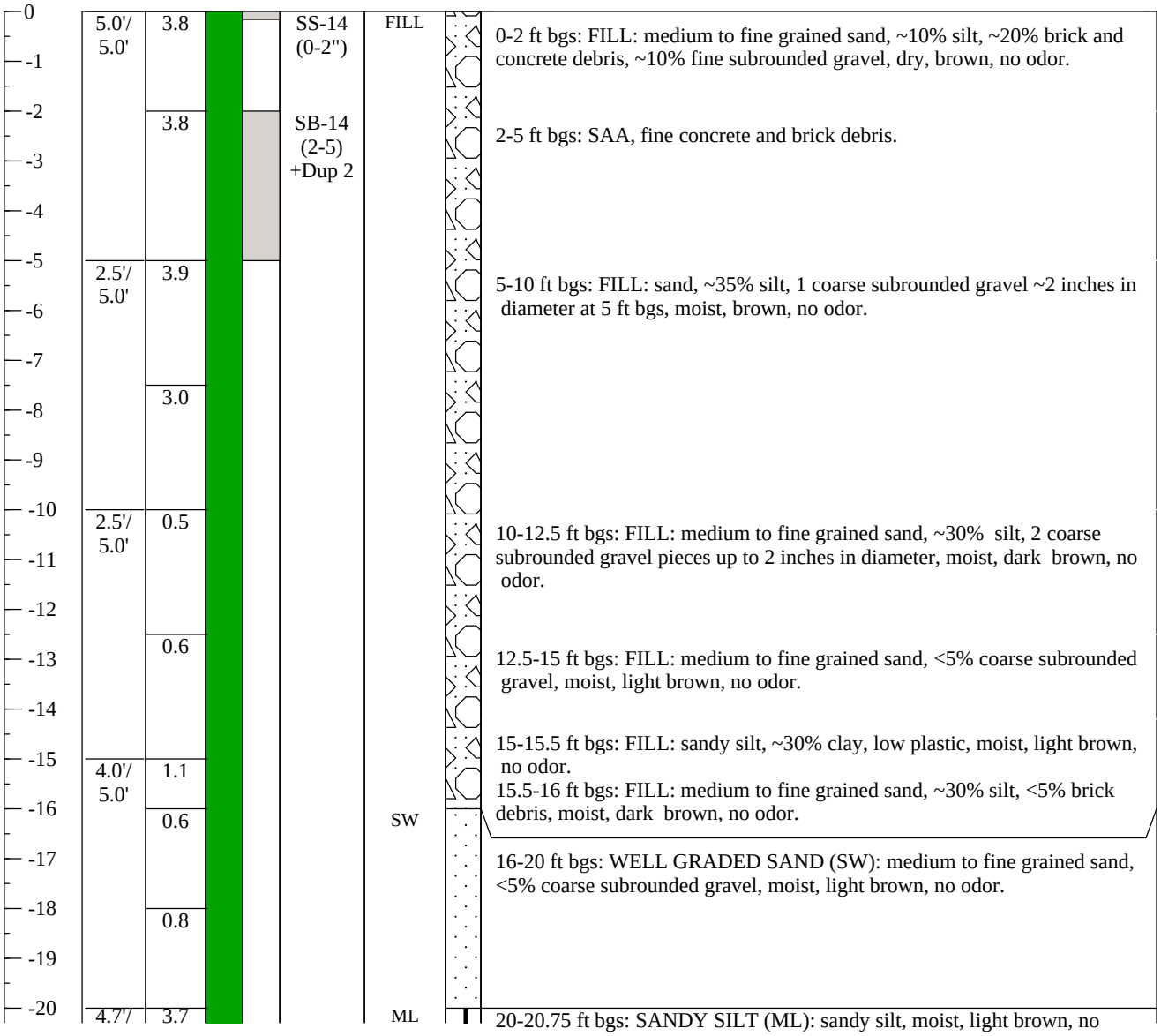
Location was pre-cleared by hand from 0-5 ft bgs.
Impacts include visual and olfactory observations.
A 2 inch well was installed at this location from 21.5-31.5 ft bgs.
Borehole collapsed from 40-33.5 ft bgs while augering.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-14

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~26.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 46.99' NAVD 88
Date Pre-Cleared: February 27, 2012	**Boring Diameter:** 3 3/16"	**Converted To Well (Y/N):** No
Date Started/Completed: February 27, 2012	**Logged By:** Jessica Ehlen	**Well ID:** NA



Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

Impacts include visual and olfactory observations.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-14

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~26.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 46.99' NAVD 88
Date Pre-Cleared: February 27, 2012	**Boring Diameter:** 3 3/16"	**Converted To Well (Y/N):** No
Date Started/Completed: February 27, 2012	**Logged By:** Jessica Ehlen	**Well ID:** NA

Depth (Feet)	Recovery (Feet)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description
-21	5.0'	0.5				SW		odor.
-22								20.75-21 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~10% mica schist pieces (black), moist, dark brown, no odor.
-23		0.7						21-25 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, <5% fine subrounded gravel, moist, light brown, few bands of orange-red sand, no odor.
-24								
-25	5.0'/ 5.0'	3.5			SB-14 (25-26.5)	SM		25-26 ft bgs: SILTY SAND (SM): silty sand, moist, light brown, no odor.
-26						SW		26-26.5 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~20% coarse subangular gravel, moist, dark brown, no odor.
-27		0.4						
-28		1.2						26.5-30 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~10% coarse grained sand, ~10% fine subrounded gravel, wet, orange-brown, no odor.
-29								
-30	5.0'/ 5.0'	2.0						30-35 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, <5% fine subrounded gravel, wet, light brown, no odor.
-31								
-32								
-33		1.1						
-34								
-35	5.0'/ 5.0'	1.8						35-40 ft bgs: SAA.
-36								
-37								
-38		2.1			SB-14 (37.5-40) +ms/msd			
-39								
-40								END OF BORING 40 ft bgs

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.

Impacts include visual and olfactory observations.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S. - Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid

Boring ID: SB-15 / MW-4

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~27.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 47.66' NAVD 88
Date Pre-Cleared: February 28, 2012	**Boring Diameter:** 8 inches	**Converted To Well (Y/N):** Yes
Date Started/Completed: March 8/9, 2012	**Logged By:** K. Barbour / J. Ehlen	**Well ID:** MW-4

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
0	5.0'/ 5.0'	0.1				FILL		0-2.5 ft bgs: FILL: silty sand, ~15% coarse gravel, dry, brown, no odor.	GROUT
-1									
-2									
-3		0.0			SB-15 (2.5-5)			2.5-5 ft bgs: SAA.	
-4									
-5	2.2'/ 5.0'	0.3				SW		5-10 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~10% silt, ~5% fine subangular gravel, dry, light brown, no odor.	
-6									
-7									
-8									
-9									
-10	3.3'/ 5.0'	0.7						10-15 ft bgs: SAA, moist, few bands of reddish brown coloration (mineral), ~15% fine subrounded gravel.	
-11									
-12									
-13		0.3							
-14									
-15	5.0'/ 5.0'	1.6						15-20 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~15% fine subrounded gravel, <5% silt, moist, light brown, no odor.	
-16									
-17									
-18		0.4							
-19									
-20									
-21	5.0'/ 5.0'	0.8						20-21.5 ft bgs: SAA.	BENT
									PVC RISER

Notes:
- Location was pre-cleared by hand from 0-5 ft bgs.
- Impacts include visual and olfactory observations.
- A 2 inch well was installed at this location from 24.5 to 34.5 ft bgs.

Definitions:
1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot

Boring ID: SB-15 / MW-4

Project Name: Jamaica Gas Light MGP	**Drilling Company:** Fenley and Nicol	**Water Level:** ~27.5 ft bgs
Project Number: 60144468-210	**Drilling Method:** Direct Push / HSA	**Total Depth:** 40 ft bgs
Client: National Grid	**Sampling Method:** 5 ft Macro-Core®	**Ground Elevation:** 47.66' NAVD 88
Date Pre-Cleared: February 28, 2012	**Boring Diameter:** 8 inches	**Converted To Well (Y/N):** Yes
Date Started/Completed: March 8/9, 2012	**Logged By:** K. Barbour / J. Ehlen	**Well ID:** MW-4

Depth (ft)	Recovery (ft)	PID (ppm)	Impacts	Interval Sampled	Sample ID	U.S.C.S	Lithology	Geologic Description	Well Construction
-22						SM SW		21.5-22 ft bgs: SILTY SAND (SM): silty sand, <5% plant fibers, moist, dark brown, no odor.	BENTONITE
-23		0.3						22-25 ft bgs: WELL GRADED SAND (SW): SAA, (10-15), few thin reddish brown bands.	
-24									
-25	5.0'/ 5.0'	0.5			SB-15 (25-27.5)			25-30 ft bgs: WELL GRADED SAND (SW): medium to fine grained sand, ~10% coarse grained sand, ~10% fine subrounded gravel, ~15% silt, moist, wet at 27.5 ft bgs, light brown, no odor.	
-26									
-27									
-28		0.4							
-29									
-30	5.0'/ 5.0'	1.1						30-35 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~10% fine subrounded gravel, wet, light brown, no odor.	SAND PACK
-31									
-32									
-33		0.6							
-34									
-35	4.5'/ 5.0'	0.1						35-40 ft bgs: WELL GRADED SAND (SW): coarse to fine grained sand, ~10% fine subrounded gravel, ~5% coarse subrounded gravel, wet, light brown, no odor.	PVC SCREEN
-36									
-37									
-38		0.0			SB-15 (37.5-40)				PVC SUMP
-39								END OF BORING 40 ft bgs	
-40									

Notes:

Location was pre-cleared by hand from 0-5 ft bgs.
Impacts include visual and olfactory observations.
A 2 inch well was installed at this location from 24.5 to 34.5 ft bgs.

Definitions:

1) NA - Not Applicable
2) ft - feet
3) bgs - below ground surface
4) U.S.C.S.- Unified Soil Classification System
5) NAVD 88 - North American Vertical Datum of 1988
6) SAA - Same As Above
7) PID - Photo Ionization Detector
8) ppm - parts per million
9) NAPL - Non-Aqueous Phase Liquid
10) HSA - Hollow Stem Auger
11) Well Screen 10 Slot