nationalgrid

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January 13, 2011

Mr. Bernard Franklin
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C
625 Broadway
Albany, NY 12233-7017

Re: Pre-Design Investigation Summary Report
Ogdensburg (King Street) Non-Owned Former MGP Site
Ogdensburg, New York
Site # V00479-6

Dear Mr. Franklin:

This letter summarizes the pre-design investigation (PDI) activities conducted at National Grid's Ogdensburg (King Street) Non-Owned Former MGP site located in Ogdensburg, New York. The PDI was conducted by ARCADIS in October and November 2010 in general accordance with the New York State Department of Environmental Conservation (NYSDEC) approved Remedial Action Work Plan (RAWP) (ARCADIS 2010). As discussed in the RAWP, the objectives of the PDI were to further investigate:

- visible tar or non-aqueous phase liquid (NAPL) and/or total polyaromatic hydrocarbons (PAHs) greater than 500 milligrams per kilogram (mg/kg) in the area immediately north of the site; and

- cyanide in the area of soil borings B-8 (surface cover IRM area), B-11, B-31, and MW-12R, and in groundwater at monitoring wells MW-9 and MW-11.

A summary of the activities performed to meet these objectives is presented below followed by a summary of the PDI field observations and analytical results.

SUMMARY OF PDI ACTIVITIES

For consistency, this discussion of the completed PDI activities follows the organizational structure for proposed fieldwork that was presented in Section 3.2 of the RAWP. As such, this discussion is divided into PDI work completed in the Area Immediately North of the Site, Areas Surrounding Sample Locations B-8, B-11, B-31, and MW-12R, and Additional Cyanide Locations to Sample. The locations of the PDI test pits and soil borings are shown on Figure 1. The PDI test pits and soil borings were completed by Parratt-Wolff, Inc, a subcontractor to ARCADIS, under the supervision of a geologist from ARCADIS. ARCADIS coordinated with an on-site NYSDEC representative to reach agreement on soil boring locations completed in all areas prior to completing the borings.

Area Immediately North of the Site

This PDI area is located north and south of the northern fence line (approximate property line) as shown on Figure 1. The purpose of the PDI work completed in this area was to further delineate the northern extent of NAPL and total PAHs greater than 500 mg/kg that had been previously observed primarily in soil on the bedrock surface. The PDI work conducted in this area consisted of two types of subsurface exploration: excavating three test pits (PDI-TP1, PDI-TP2, and PDI-TP3) followed by drilling 14 soil borings (PDI-SB18 through PDI-SB30). Two (PDI-TP2 and PDI-TP3) of the three test pits were excavated on the site (south) side of the fence in the northern area and the third test pit (PDI-TP1) was excavated west of the northwest corner of the site. Three test pits were installed in this area rather than one continuous test pit because two obstructions (eastern fence and holder foundation) were encountered while excavating the pits. Since NAPL was observed primarily on the bedrock surface during the RI, the three test pits were excavated to bedrock, which was encountered between approximately 4 and 7 feet below grade.

As shown in Table 1, varying amounts of NAPL were observed on the bedrock surface along the entire length of the two on-site test pits (PDI-TP2 and PDI-TP3). As such, additional investigations were warranted north of the northern fence line to delineate the northern extent of NAPL in the direction of King Street. Given the existence of several subsurface utilities immediately north of the fence, soil borings (instead of test pits) were identified as the appropriate method to investigate the presence of NAPL north of the fence. A total of 14 soil borings (PDI-SB18 through PDI-SB30; see Figure 1) were drilled in the area north of the fence. An initial "line" of 11 borings were drilled approximately 15 to 20 feet north of the test pits. Based on the observation of sticky coal tar like material in one (PDI-SB24) of these borings, three additional borings (PDI-SB29A, PDI-SB-29B, and PDI-SB30) were installed north of PDI-SB24 to delineate the northern extent of tar observed in this area. All borings were initially drilled using an air-knife to remove the upper approximately five feet of soil. Bedrock was encountered at several boring locations prior to reaching five feet, thus the borings were completed using just the air knife equipment. Conventional hollow-stem auger (HSA) drilling and spilt-spoon sampling techniques were used to advance borings beyond five feet at locations where bedrock was not encountered using the air knife. These borings also terminated on bedrock.

During installation of the test pits and soil borings, soil characteristics and conditions encountered were documented in a field book. In addition, soil samples were collected, visually described, screened with a photoionization detector (PID) for the presence and relative concentration of volatile compounds, and sent for laboratory analysis as necessary. A total of 9 analytical samples were collected from 9 of the soil borings and analyzed for PAHs. Soil samples were selected for laboratory analysis based on elevated PID readings and/or the presence of observed impacts (e.g., discoloration or staining). Soil samples with visible tar or soil samples without observed impacts were not submitted for laboratory analysis. A summary of observations made and samples collected during the test pit and soil boring installations is provided in Table 1.

Areas Surrounding Sample Locations B-8, B-11, B-31, and MW-12R

Due to the presence of total cyanide concentrations above the existing NYSDEC Recommended Soil Cleanup Objective (RSCO) of 27 mg/kg, 21 soil borings were drilled in the areas surrounding B-8 (the area of the Surface Cover IRM), B-11, B-31, and MW-12R to further define the absence/presence of

apparent purifier waste pockets (cyanide-impacted soil). The objective of this PDI effort was to delineate soils containing cyanide above the current SCO, to the extent possible. The following borings were drilled to investigate the potential presence of purifier waste pockets and potential elevated cyanide levels surrounding each of these areas:

- **B-8 (surface cover IRM)** – PDI-SB8, PDI-SB9, PDI-SB10, PDI-SB11, PDI-SB12, and PDI-SB13
- **B-11** – PDI-SB14, PDI-SB-15, PDI-SB16, PDI-SB17, PDI-SB-31, and PDI-SB32
- **B-31** – PDI-SB1, PDI-SB2, and PDI-SB3
- **MW-12R** – PDI-SB4, PDI-SB5A/B/C, PDI-SB6, and PDI-SB7

The locations of these borings are shown on Figure 1. It should be noted that the PDI scope of work identified in the RAWP discussed the need to install additional borings radially outward from the initial borings if purifier waste was identified in soil recovered from the initial borings. ARACADIS' geologist and the on-site NYSDEC representative agreed, in the field, that purifier waste was not identified in the initial borings and that additional radial borings were not warranted.

The soil borings in these areas were completed using the same methods that were used in the northern area: using an air-knife to advance the boring to five feet below grade, followed by conventional HSA drilling and sampling techniques until bedrock was encountered. Because bedrock was encountered before reaching five feet at most locations, conventional drilling was not required at most of the borings. During soil boring installation, soil characteristics and conditions encountered were documented in the field book. In addition, one soil sample was collected from the 2- to 4-foot interval at each soil boring location for laboratory analysis for total and free cyanide (resulting in a total of 19 samples for total and free cyanide). The 2- to 4-foot interval was selected as the sampling interval based on the NYSDEC's request. A summary of observations made and samples collected during the soil boring installations is provided in Table 1

Additional Cyanide Locations to Sample

To further evaluate the presence of cyanide, a groundwater sample was collected from monitoring wells MW-9 and MW-11 on November 11, 2010 to confirm the presence and level of total cyanide detected in these wells during the RI. As shown on Figure 1, these monitoring wells are the only offsite locations where groundwater samples contained cyanide at concentrations which exceeded the NYS Glass GA Groundwater Standard of 200 ug/L. In addition to the cyanide analysis, the groundwater sample from MW-9 was also analyzed for PAHs and BTEX. Consistent with the sampling method utilized during the RI activities, these monitoring wells were sampled using low-flow sampling techniques.

Field Methods and Quality Assurance

To provide consistency with previous site investigations, field procedures, analytical methods, sample-handling procedures, and laboratory protocols used during the PDI were conducted in accordance with the NYSDEC-approved *Generic Site Characterization/IRM Work Plan for Site Investigations at Non-Owned Former MGP Sites* and supporting appendices (Field Sampling Plan [FSP] and Quality Assurance Project Plan [QAPP] dated November 2002. The soil and groundwater samples (including quality assurance/quality control [QA/QC] samples) were packaged, handled, and shipped in general

accordance with QA/QC protocols and the soil and groundwater sampling protocols presented in the FSP and QAPP.

All soil samples were submitted for laboratory analysis using USEPA SW-846 Methods as referenced in the most recent edition of the NYSDEC Analytical Services Protocol (ASP), with Category B analytical laboratory reports. Free cyanide analyses were performed using ASTM D4282-02 because the laboratory was not set up or certified by New York State through the Environmental Laboratory Approval Program **(**ELAP**)** to perform the newly promulgated SW-846 Test Method 9016 for free cyanide (as discussed in the RAWP). The only laboratory (Clarkson University) set up for this testing is not ELAP-certified and would not be able to meet the PDI schedule.

Data Usability Summary Reports (DUSRs) of the laboratory data packages were prepared. The results of the DUSRs have been incorporated into the analytical summary tables provided in this report.

SUMMARY OF PDI RESULTS

A summary of the key PDI findings is provided in this section based on the areas of investigation described above. This summary is aided by information presented on Figure 1 and in Tables 1 through 3. Figure 1 provides a visual depiction of areas where tar was observed in the overburden during the RI and PDI activities. Figure 1 also highlights locations where total cyanide and total PAHs have been detected in soil at levels exceeding the action levels presented in the RAWP (i.e., greater than 500 mg/kg for total PAHs, and greater than 27 mg/kg for free cyanide or greater than 40 mg/kg for total cyanide). Table 1 provides information regarding the materials encountered in the soil borings and total depths of soil borings. Tables 2 and 3 provide the analytical results of PDI soil samples and groundwater samples, respectively.

<u>Area Immediately North of the Site</u>

- Pertinent observations made during test pit excavation:

  PDI-TP1 (off-site, west of northwest corner of site)
  - Bedrock was encountered at approximately 3.5 feet below grade.
  - No observed impacts.

  PDI-TP2 (on-site, northwest corner of site)
  - Bedrock was encountered at approximately 7 feet below grade.
  - Varying amounts of coal-tar like material and odor was observed in the approximately one to two-feet of soil on the bedrock surface. Soil appeared to be more heavily impacted near the former holder (east end of test pit).

  PDI-TP3 (on-site, northeast corner of site)
  - Bedrock was encountered between 4 and 6 feet below grade.
  - Varying amounts of coal-tar like material and odor was observed in the approximately 0.5 to 2-feet of soil on the bedrock surface. Soil impacted with coal-tar like material was

observed in 0.5-feet of soil on the rock surface on the west, south, and east sides of the circular tar well.

- Tar was only observed (on the bedrock surface) in one soil boring (PDI-SB24) completed north of the fence. The northern extent of the tar at this location was delineated by the lack of tar observed in soil borings PDI-SB29A/B and PDI-SB30 completed north of PDI-SB24.

- Staining (described by the geologist and noted in Table 1 as "discoloration") and coal-tar like odor was observed at many borings in the soil interval above the bedrock.

- As shown on Figure 1 and in Table 2, four of the nine samples collected for PAH analysis contained concentrations of total PAHs above 500 mg/kg: PDI-SB26, PDI-SB-27, PDI-SB28, and PDI-SB30. As described in Table 1, each of these samples exhibited staining and a coal-tar like odor.

Areas Surrounding Sample Locations B-8, B-11, B-31, and MW-12R

- Bedrock was encountered at depths between approximately 2 and 7 feet below grade in the borings completed in these areas.

- ARCADIS' geologist and the on-site NYSDEC-representative agreed that purifier waste was not observed in any of the borings completed in these areas.

- Total cyanide was detected in all samples (a total of 19 samples) collected in these areas at concentrations ranging between 2.1 and 79 mg/kg. Only three of these samples (SB-5C, SB-11, and SB-12) contained levels of total cyanide slightly above 40 mg/kg.

- Free cyanide was detected in 8 of 19 samples at concentrations ranging between 0.101 and 4.21 mg/kg. These concentrations are well below 27 mg/kg for free cyanide.

Additional Cyanide Locations to Sample

- Several VOCs and SVOCs were detected in groundwater sampled from monitoring well MW-9 at levels exceeding NYS Class GA Standards or Guidance Values. The highest concentrations were BTEX and PAH compounds. The levels of VOCs and SVOCs detected in groundwater sampled from MW-9 are slightly lower than the levels detected in two previous sampling rounds completed during the RI.

- Total cyanide was not detected in the groundwater sample collected from MW-9. Total cyanide was previously detected at 943 and 440 ug/L during the two previous sampling rounds completed during the RI.

- The purge water removed while sampling MW-9 was clear and colorless, but did have a coal-tar like odor.

- Total cyanide was detected in groundwater sampled from MW-11 at 491ug/L. This level is slightly higher than the level (359 ug/L) detected during the previous sampling round conducted at is well.

- The purge water removed while sampling MW-11 was clear, colorless, and odorless.

CONCLUSIONS

Based on the PDI results, National Grid proposes to address the NAPL and/or PAHs greater than 500 mg/kg in the area immediately north of the site and the cyanide in the offsite parcels as follows:

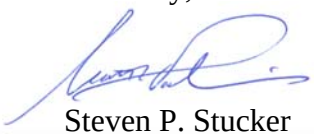
- Extend the excavation north of the site to remove NAPL impacted soils without significantly impacting the infrastructure beneath/near King Street. The excavation limits will be determined during the remedial design in close coordination with the City and the NYSDEC.

- Extend the excavation of the surface cover IRM area to include PDI location PDI-SB11 to address the detection of total cyanide of 79 mg/kg. No further action is proposed for the four other sample locations on offsite parcels (i.e., PDI locations PDI-SB5C and PDI-SB12, and RI locations MW-12R and B-11) where the PDI results demonstrate cyanide concentrations less than 40 mg/kg (RI location B-11), or that the total cyanide concentration only slightly exceeded 40 mg/kg (highest was 53.5 mg/kg).

In accordance with the schedule outlined in the RAWP, National Grid will submit draft Technical Plans/Specifications and supporting documentation within 90 days of the NYSDEC's written approval of the results and conclusions of this PDI summary report, pending negotiations with the City regarding the northern limits of excavation.

Please feel free to contact me by phone at 315-428-5652 or by email at Steven.Stucker@nationalgrid.com if you have any questions.

Sincerely,


for
Steven P. Stucker
Environmental Department

SAP/plf
Attachments

cc: George Heitzman, NYSDEC
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Tables

TABLE 1
SUMMARY OF SOIL BORING ACTIVITIES

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Boring ID	Depth to Bedrock[1]	Description	Sample Collected
PDI-TP1	3.5	**Approximately 10.5 - 19.5 feet from western fence (off-site) -** - Moist with brown sand, little gravel and trace cobbles with red brick and wood railroad tie - no visible impacts or odors (0 - 3.5 ft bgs); PID 0.0 ppm	- No Sample Collected
PDI-TP2	7.0	**Approximately 9 - 19 feet from western fence** - Sand, silt, and gravel (0 - 5 ft bgs), wet at 3.0 ft bgs; PID 0.0 ppm - Gravel, brick, cobbles, and wood (5 - 7 ft bgs); PID 0.0 ppm - Coal-tar-like bleb, rainbow sheen, and slight coal tar odor (6.0 ft bgs); PID 0.0 ppm - Coal-tar-like coating, rainbow sheen, slight coal-tar-like odor (7.0 ft bgs); PID 0.0 ppm -Top of bedrock7.0 ft bgs **Approximately 19 - 43 feet from western fence -** - Sand, silt, and gravel with trace cobbles and brick, slight coal tar odor (0 - 5 ft bgs), wet at 3.0 ft bgs; PID 0.0 ppm - Brown to black gravel, some sand and silt, cobbles and red brick, black-sticky coal-tar-like material (5 - 7 ft bgs); more heavily impacted between 6.6 - 7 ft bgs; PID 0.0 ppm - Yellow, 6" deactivated natural gas pipe at 3 ft bgs - Top of bedrock 7.0 ft bgs	- No Sample Collected
PDI-TP3	Varies	**Approximately 75 - 84 feet from western fence -** - Brown sand and trace gravel, 6" black pipe encountered approximately 0.5 ft bgs **Approximately 84 - 91 feet from western fence -** - Sand, gravel, trace organics with red brick (0- 2 ft bgs); PID 0.0 ppm - 8" water line encountered at 3.0 ft bgs - Wet with sand, boulders, little cobbles and gravel, heavily impacted with coal-tar-like material and odor at 3 ft bgs, clay tile pipe piece [4"] (2 - 3 ft bgs); PID 0.0 ppm - Boulders, little cobbles, trace gravel and sand with coal-tar-like odor (3 - 5 ft bgs); PID 0.0 ppm - Top of bedrock 5.0 ft bgs **Approximately 91 - 131 feet from western fence -** - Moist with brown sand, some boulders (1 ft bgs), with trace sand, gravel, and brick, wood and metal (0 - 2 ft bgs); PID 0.0 ppm - Brown sand, trace boulders, sand, gravel, and brick (2 - 4 ft bgs), black sticky coal-tar-like material on top of bedrock with trace brown oil-like material and rainbow sheen at 109 ft from western fence with coal-tar-like odor; PID 0.0 ppm - 8" water line 96 ft from western fence at 3.0 ft bgs - Groundwater at 3.0 ft bgs; top of bedrock 4.0 ft bgs	- No Sample Collected

See Notes on Page 6.

TABLE 1
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PRE-DESIGN INVESTIGATION
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OGDENSBURG, NEW YORK

Boring ID	Depth to Bedrock[1]	Description	Sample Collected
PDI-TP3	Varies	**West Side of Tar Well -** - Dark brown sand, red brick, coal-tar-like odor (0 - 4.0 ft bgs); groundwater at 3.0 ft bgs - Brown to black sand, gravel, brick, metal (4.0 - 6.0 ft bgs); saturated with coal-tar-like material (5.5 - 6.0 ft bgs), rainbow sheen **South Side of Tar Well -** - Dark brown sand, gravel, red brick, metal, boulders, wood, cobbles, moist (0 - 2.0 ft bgs) - Dark brown sand, gravel, red brick, metal, boulders, wood, cobbles, moist (2.0 - 6.0 ft bgs); coal-tar like material 5.5 - 6.0 ft bgs - Top of bedrock 6.0 ft bgs **East Side of Tar Well -** - Dark brown sand, gravel, cobbles, red brick, and moist (0 - 3.0 ft bgs) - Gray sand, gravel, cobbles, red brick, coal-tar-like and sulfur like odors, wet (3.0 - 6.0 ft bgs); coal-tar-like material 5.5 - 6.0 ft bgs - Top of bedrock 6.0 ft bgs	- No Sample Collected
PDI-SB1	3.4	- Sand, gravel and silt throughout; wet throughout - Groundwater at 1 ft bgs - Coal-tar-like odor 0.2 - 3.4 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB1 (2 - 3 ft bgs) collected for Total and Free Cyanide
PDI-SB2	5.0	- Sand and gravel throughout - Cobbles (2 - 5 ft bgs) - Moist from 0 - 1 ft bgs; wet from 3 - 5 ft bgs; groundwater at 3 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB2 (2 - 4 ft bgs) collected for Total and Free Cyanide
PDI-SB3	4.1	- Sand and gravel throughout - Silt and cobbles (2 - 4 ft bgs) - Moist from 0 - 3 ft bgs, wet from 3 - 4.1 ft bgs; groundwater at 3 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB3 (2 - 4 ft bgs) collected for Total and Free Cyanide
PDI-SB4	4.8	- Silt, sand, and gravel throughout - Cobbles, glass, and porcelain (3 - 4 ft bgs) - Moist from 1 - 3 ft bgs, wet from 3 - 4.8 ft bgs; groundwater at 3.8 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB04 (2 - 4 ft bgs) collected for Total and Free Cyanide
PDI-SB5A	1.8 (Refusal - Concrete Pad)	- Silt, sand, and gravel throughout - Concrete pad (1.8 ft bgs) - Moist 1 - 1.8 ft bgs - No odors, PID reading 0.0 ppm throughout	- No Sample Collected

See Notes on Page 6.

TABLE 1
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OGDENSBURG, NEW YORK

Boring ID	Depth to Bedrock[1]	Description	Sample Collected
PDI-SB5B	2.8	- Sand, gravel and trace silt throughout - Moist from 2 - 2.8 ft bgs - No odors, PID reading 0.0 ppm throughout	- No Sample Collected
PDI-SB5C	4.3	- Silt, sand, and gravel throughout - Moist from 1 - 4.3 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB05C (2 - 4 ft bgs) collected for Total and Free Cyanide
PDI-SB6	4.4	- Silt, sand, gravel, and clay throughout - Cobbles (4 - 4.4 ft bgs) - Moist from 4 - 4.4 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB06 (2 - 4 ft bgs) collected for Total and Free Cyanide
PDI-SB7	3.6	- Silt, sand, and gravel throughout - Moist from 1 - 3.6 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB07 (2 - 3.6 ft bgs) collected for Total and Free Cyanide
PDI-SB8	4.4	- Silt and cinders with trace brick, slag, and sand (0 - 4.4 ft bgs) - Moist from 2 - 4.4 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB8 (2 - 4 ft bgs) collected for Total and Free Cyanide
PDI-SB9	4.8	- Black/brown cinders, tan/red brick, silt, sand, and trace slag throughout - Moist from 2 - 4.8 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB9 (2 - 4 ft bgs) collected for Total and Free Cyanide
PDI-SB10	6.3	- Silt, sand, and gravel throughout - Brown/black cinders, red/tan brick, and trace slag (3 - 5 ft bgs) - Gravel, silt, sand, and red brick (5 - 6.3 ft bgs) - Moist from 2 - 5 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB10 (2 - 4 ft bgs) collected for Total and Free Cyanide
PDI-SB11	6.6	- Silt, sand, and gravel throughout - Brown/black cinders, red brick, and cinders (4 - 5 ft bgs) - Sand, gravel and red brick (5 - 6.6 ft bgs) - Moist from 3 - 5 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB11 (2 - 4 ft bgs) collected for Total and Free Cyanide
PDI-SB12	5.5	- Sand, silt, gravel, and brown cobbles throughout - Moist throughout - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB12 (2 - 4 ft bgs) collected for Total and Free Cyanide
PDI-SB13	5.3	- Silt, sand, and gravel throughout - Trace cinders (2 - 4 ft bgs); dark brown cobbles (4 - 5.3 ft bgs) - Moist throughout - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB13 (2 - 4 ft bgs) collected for Total and Free Cyanide
PDI-SB14	4.8	- Silt, sand, and gravel throughout - Cobbles (3 - 4.8 ft bgs) - Moist from 2 - 4.8 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB14 (2 - 4 ft bgs) collected for Total and Free Cyanide

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Boring ID	Depth to Bedrock[1]	Description	Sample Collected
PDI-SB15	3.2	- Silt, sand, and gravel throughout - Cobbles (3 - 3.2 ft bgs) - Moist from 2 - 3.2 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB15 (2 - 3.2 ft bgs) collected for Total and Free Cyanide
PDI-SB16	3.5	- Silt, sand, and gravel throughout - Brown cobbles (2 - 3.5 ft bgs) - Moist throughout - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB16 (2 - 3 ft bgs) collected for Total and Free Cyanide
PDI-SB17	3.3	- Silt, sand, and gravel throughout - Brick (1 - 2 ft bgs); cobbles and trace red brick (2 - 3.3 ft bgs) - Moist from 1 - 3.3 ft bgs - No odors, PID reading 0.0 ppm throughout	- Sample PDI-SB17 (2 - 3.3 ft bgs) collected for Total and Free Cyanide
PDI-SB18	7.1	- Sand and trace gravel throughout - Moist from 0 - 2.5 ft bgs, wet from 2.5 - 7.1 ft bgs - No odors, PID reading 0.0 ppm throughout	- No Sample Collected
PDI-SB19	7.3	- Sand and trace gravel throughout - Discolored sand - no odor (6.5 - 7 ft bgs) - Moist from 0 - 2.5 ft bgs, wet from 2.5 - 7.3; groundwater at 2.5 ft bgs - PID reading 0.0 ppm throughout	- Sample PDI-SB19 (6.8 - 7.3 ft bgs) collected for SVOCs
PDI-SB20	7.4	- Brown sand and trace gravel throughout - Coal-tar-like odor and discoloration (5.2 - 5.3 and 7 - 7.3 ft bgs) - Moist from 0 - 2.5 ft bgs, wet from 2.5 - 7.3; groundwater at 2.5 ft bgs - PID reading 0.0 ppm throughout	- Sample PDI-SB20 (6.9 - 7.4 ft bgs) collected for SVOCs
PDI-SB21	7.6	- Sand and gravel throughout - Cobbles (2.8 - 5.5 ft bgs); coal-tar-like odor and discoloration (5.1 - 6.0 ft bgs) - Moist from 0 - 2.5 ft bgs; wet from 2.5 - 7.6 ft bgs; groundwater at 2.5 ft bgs - PID reading 0.7 ppm (4 - 5 ft); 1.4 ppm (5 - 6 ft)	- Sample PDI-SB21 (6.0 - 7.6 ft bgs) collected for SVOCs
PDI-SB22	4.9	- Sand, gravel and trace cobbles throughout - Gray discoloration and odor (3 - 4.2 and 4.49 - 4.50 ft bgs) - Moist from 0 - 2.5 ft bgs, wet from 2.5 - 4.9 ft bgs; groundwater at 2.5 ft bgs - PID reading 0.0 ppm throughout	- Sample PDI-SB22 (4.7 - 4.9 ft bgs) collected for SVOCs
PDI-SB23	4.3	- Sand, gravel and trace cobbles throughout - Trace black cinders (1.6 ft bgs); red brick and black slate (2.0 ft bgs) - Groundwater at 3.2 ft bgs - PID reading 0.0 ppm throughout	- No Sample Collected

See Notes on Page 6.

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OGDENSBURG, NEW YORK

Boring ID	Depth to Bedrock[1]	Description	Sample Collected
PDI-SB24	5.7	- Sand and gravel throughout - Trace red brick (2.0 ft bgs); clay pipe (2.5 ft bgs) - Black sticky coal-tar-like material (5.1 - 5.7 ft bgs) - Saturated and wet (5.0 - 5.7 ft bgs) - Groundwater at 2.4 ft bgs - PID reading 88.0 ppm (5 - 5.7 ft bgs)	- No Sample Collected
PDI-SB25	5.3	- Sand and gravel throughout with trace slag - Red brick obstruction and wet (2.5 ft bgs) - Dark gray/black slag and red brick (2.5 - 3 ft bgs) - Discoloration and coal-tar-like odor (3 - 5.3 ft bgs) - PID reading 0.0 ppm throughout	- Sample PDI-SB25 (3 - 5.3 ft bgs) collected for SVOCs
PDI-SB26	4.9	- Sand and gravel throughout with trace metal - Dark gray slag and red brick (2.7 - 3.2 ft bgs) - Red brick obstruction and wet (3.7 ft bgs) - Red brick (4 - 4.2 ft bgs) and discoloration and coal-tar-like odor (4.2 - 4.8 ft bgs) - PID reading 0.0 ppm throughout	- Sample PDI-SB26 (4.2 - 4.9 ft bgs) collected for SVOCs
PDI-SB27	4.1	- Sand and gravel throughout - Dark gray discoloration and coal-tar-like odor (3.6 - 4.1 ft bgs) - PID reading 5.3 ppm (3 - 4 ft bgs)	- Sample PDI-SB27 (3.6 - 4.1 ft bgs) collected for SVOCs
PDI-SB28	4.8	- Sand, gravel, red brick and trace cobbles throughout - Dark gray/black discoloration and coal-tar-like odor (3.0 - 4.8 ft bgs) - Groundwater at 2.5 ft bgs - PID reading 0.0 ppm throughout	- Sample PDI-SB28 (4.5 - 4.8 ft bgs) collected for SVOCs
PDI-SB29A	2.6 (Refusal - Pipe)	- Gravel and sand throughout - Black 6" diameter pipe (2.6 ft bgs) - Wet throughout - PID reading 0.0 ppm throughout	- No Sample Collected
PDI-SB29B	3.6	- Gravel and sand throughout - Wet throughout - PID reading 0.0 ppm throughout	- No Sample Collected
PDI-SB30	3.9	- Sand, gravel, and trace red brick throughout - Gray discoloration and coal-tar-like odor (3.4 - 3.9 ft bgs) - Groundwater at 2.5 ft bgs - PID reading 22.2 ppm (3 - 4 ft bgs)	- Sample PDI-SB28 (3.4 - 3.9 ft bgs) collected for SVOCs
PDI-SB31	2.8	- Gravel, silt, and sand throughout - Organics (0 - 0.2 ft bgs) - Cinders, glass, ceramic (2 - 2.8 ft bgs) - Moist throughout - PID reading 0.0 ppm throughout	- Sample PDI-SB31 (2 - 2.8 ft bgs) collected for Total and Free Cyanide

See Notes on Page 6.

TABLE 1
SUMMARY OF SOIL BORING ACTIVITIES

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Boring ID	Depth to Bedrock[1]	Description	Sample Collected
PDI-SB32	2.2	- Gravel, silt, and sand throughout - Organics (0 - 0.2 ft bgs) - Cinders and red brick (2 - 2.2 ft bgs) - Moist throughout - PID reading 0.0 ppm throughout	- Sample PDI-SB32 (2 - 2.2 ft bgs) collected for Total and Free Cyanide

Notes:
1. Indicates depth to bedrock unless otherwise noted.
2. ft bgs = feet below ground surface.
3. PID = photoionization detector.
4. SVOCs = Semivolatile organic compounds.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID: / Sample Depth(Feet): / Date Collected:	Units	PDI-SB1 2 - 3 10/25/10	PDI-SB2 2 - 4 10/25/10	PDI-SB3 2 - 4 10/25/10	PDI-SB4 2 - 4 10/27/10	PDI-SB5C 2 - 4 10/26/10	PDI-SB6 2 - 4 10/26/10	PDI-SB7 2 - 3.6 10/26/10	PDI-SB8 2 - 4 10/26/10	PDI-SB9 2 - 4 10/26/10	PDI-SB10 2 - 4 10/26/10
SVOCs											
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 10.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID: / Sample Depth(Feet): / Date Collected:	Units	PDI-SB1 2 - 3 10/25/10	PDI-SB2 2 - 4 10/25/10	PDI-SB3 2 - 4 10/25/10	PDI-SB4 2 - 4 10/27/10	PDI-SB5C 2 - 4 10/26/10	PDI-SB6 2 - 4 10/26/10	PDI-SB7 2 - 3.6 10/26/10	PDI-SB8 2 - 4 10/26/10	PDI-SB9 2 - 4 10/26/10	PDI-SB10 2 - 4 10/26/10
SVOCs (Cont.)											
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloroethoxy) methane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloroethyl) ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl) phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 10.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID: / Sample Depth(Feet): / Date Collected:	Units	PDI-SB1 2 - 3 10/25/10	PDI-SB2 2 - 4 10/25/10	PDI-SB3 2 - 4 10/25/10	PDI-SB4 2 - 4 10/27/10	PDI-SB5C 2 - 4 10/26/10	PDI-SB6 2 - 4 10/26/10	PDI-SB7 2 - 3.6 10/26/10	PDI-SB8 2 - 4 10/26/10	PDI-SB9 2 - 4 10/26/10	PDI-SB10 2 - 4 10/26/10
SVOCs (Cont.)											
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-N-propylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PAHs	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide											
Cyanide, Total	mg/kg	8.1	2.1	10.8	23.3	53.5	34	25.6	1.3 U [2.3]	21.1 J	10.9
Cyanide, Free	mg/kg	0.153 J	0.288 U	0.249 U	0.268 U	0.295 U	0.333 U	0.277 U	0.266 U [0.27 U]	0.204 J	0.265 U

See Notes on Page 10.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID:		PDI-SB11	PDI-SB12	PDI-SB13	PDI-SB14	PDI-SB15	PDI-SB16	PDI-SB17	PDI-SB19	PDI-SB20	PDI-SB21
Sample Depth(Feet):		2 - 4	2 - 4	2 - 4	2 - 4	2 - 3.2	2 - 3	2 - 3.3	6.8 - 7.3	6.9 - 7.4	6 - 7.6
Date Collected:	Units	10/26/10	10/27/10	10/27/10	10/27/10	10/27/10	10/27/10	10/27/10	10/28/10	10/28/10	10/28/10
SVOCs											
1,2,4-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
1,2-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
1,3-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
1,4-Dichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
2,4,5-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
2,4-Dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
2-Methylnaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	8.6	0.41 J
2-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
2-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
3,3'-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
3-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
4,6-Dinitro-2-methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
4-Bromophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
4-Chloro-3-methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
4-Chloroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
4-Chlorophenyl-phenylether	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
4-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	0.18 J	4.0 U
4-Nitroaniline	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	12	6.6
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.019 J	2.3	2.5

See Notes on Page 10.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID:		PDI-SB11	PDI-SB12	PDI-SB13	PDI-SB14	PDI-SB15	PDI-SB16	PDI-SB17	PDI-SB19	PDI-SB20	PDI-SB21
Sample Depth(Feet):		2 - 4	2 - 4	2 - 4	2 - 4	2 - 3.2	2 - 3	2 - 3.3	6.8 - 7.3	6.9 - 7.4	6 - 7.6
Date Collected:	Units	10/26/10	10/27/10	10/27/10	10/27/10	10/27/10	10/27/10	10/27/10	10/28/10	10/28/10	10/28/10
SVOCs (Cont.)											
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.022 J	14	8.2
Benzo(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.11 J	8.8	11
Benzo(a)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.13 J	7.9	11
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.12 J	7.8	9.6
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.068 J	2.9	5.7
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.059 J	2.6	2.9
Benzyl Alcohol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
Bis(2-chloroethoxy) methane	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Bis(2-chloroethyl) ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
bis(2-Chloroisopropyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Bis(2-ethylhexyl) phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.16 J	0.85 J	1.8 J
Butylbenzyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Chrysene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.10 J	7.8	9.8
Dibenzo(a,h)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.020 J	0.90 J	1.6 J
Dibenzofuran	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	8.7	4.4
Diethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Dimethylphthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Di-n-butyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Di-n-octyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.18 J	20	22
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	11	5.8
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Hexachlorobutadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.065 J	2.8	5.2
Isophorone	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Naphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.036 J	24	2.4
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U

See Notes on Page 10.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID:		PDI-SB11	PDI-SB12	PDI-SB13	PDI-SB14	PDI-SB15	PDI-SB16	PDI-SB17	PDI-SB19	PDI-SB20	PDI-SB21
Sample Depth(Feet):		2 - 4	2 - 4	2 - 4	2 - 4	2 - 3.2	2 - 3	2 - 3.3	6.8 - 7.3	6.9 - 7.4	6 - 7.6
Date Collected:	Units	10/26/10	10/27/10	10/27/10	10/27/10	10/27/10	10/27/10	10/27/10	10/28/10	10/28/10	10/28/10
SVOCs (Cont.)											
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
N-Nitroso-di-N-propylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.41 U	1.9 U	4.0 U
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.077 J	30	21
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.21 U	0.97 U	2.1 U
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	0.15 J	16	18
Total PAHs	mg/kg	NA	NA	NA	NA	NA	NA	NA	1.2 J	180 J	140 J
Cyanide											
Cyanide, Total	mg/kg	79	49.7	31.2	6.1	20.1	15.9	22.9	NA	NA	NA
Cyanide, Free	mg/kg	4.21	0.248 J	0.249 J	0.148 J	0.18 J	0.24 U	0.101 J	NA	NA	NA

See Notes on Page 10.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID:		PDI-SB22	PDI-SB25	PDI-SB26	PDI-SB27	PDI-SB28	PDI-SB30	PDI-SB31	PDI-SB32
Sample Depth(Feet):		4.7 - 4.9	3 - 5.3	4.2 - 4.9	3.6 - 4.1	4.5 - 4.8	3.4 - 3.9	2.0 - 2.8	2.0 - 2.2
Date Collected:	Units	10/28/10	10/29/10	10/29/10	10/28/10	10/29/10	10/29/10	11/11/10	11/11/10
SVOCs									
1,2,4-Trichlorobenzene	mg/kg	3.6 U	4.1 U	91 U	91 U	20 U	22 U [19 U]	NA	NA
1,2-Dichlorobenzene	mg/kg	3.6 U	4.1 U	91 U	91 U	20 U	22 U [19 U]	NA	NA
1,3-Dichlorobenzene	mg/kg	3.6 U	4.1 U	91 U	91 U	20 U	22 U [19 U]	NA	NA
1,4-Dichlorobenzene	mg/kg	3.6 U	4.1 U	91 U	91 U	20 U	22 U [19 U]	NA	NA
2,4,5-Trichlorophenol	mg/kg	1.9 U	2.1 U	47 U	47 UJ	10 U	11 U [9.8 U]	NA	NA
2,4,6-Trichlorophenol	mg/kg	1.9 U	2.1 U	47 U	47 UJ	10 U	11 U [9.8 U]	NA	NA
2,4-Dichlorophenol	mg/kg	1.9 U	2.1 U	47 U	47 UJ	10 U	11 U [9.8 U]	NA	NA
2,4-Dimethylphenol	mg/kg	1.9 U	2.1 U	47 U	47 UJ	10 U	11 U [9.8 U]	NA	NA
2,4-Dinitrophenol	mg/kg	3.6 U	4.1 U	91 U	91 UJ	20 U	22 U [19 U]	NA	NA
2,4-Dinitrotoluene	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
2,6-Dinitrotoluene	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
2-Chloronaphthalene	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
2-Chlorophenol	mg/kg	1.9 U	2.1 U	47 U	47 UJ	10 U	11 U [9.8 U]	NA	NA
2-Methylnaphthalene	mg/kg	1.9 U	8.1	39 J	20 J	3.8 J	220 [76]	NA	NA
2-Methylphenol	mg/kg	1.9 U	2.1 U	5.1 J	47 UJ	10 U	11 U [9.8 U]	NA	NA
2-Nitroaniline	mg/kg	3.6 U	4.1 U	91 U	91 U	20 U	22 U [19 U]	NA	NA
2-Nitrophenol	mg/kg	1.9 U	2.1 U	47 U	47 UJ	10 U	11 U [9.8 U]	NA	NA
3,3'-Dichlorobenzidine	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
3-Nitroaniline	mg/kg	3.6 U	4.1 U	91 U	91 U	20 U	22 U [19 U]	NA	NA
4,6-Dinitro-2-methylphenol	mg/kg	3.6 U	4.1 U	91 U	91 UJ	20 U	22 U [19 U]	NA	NA
4-Bromophenyl-phenylether	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
4-Chloro-3-methylphenol	mg/kg	1.9 U	2.1 U	47 U	47 UJ	10 U	11 U [9.8 U]	NA	NA
4-Chloroaniline	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
4-Chlorophenyl-phenylether	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
4-Methylphenol	mg/kg	3.6 U	0.28 J	15 J	5.5 J	20 U	22 U [19 U]	NA	NA
4-Nitroaniline	mg/kg	3.6 U	4.1 U	91 U	91 U	20 U	22 U [19 U]	NA	NA
4-Nitrophenol	mg/kg	3.6 U	4.1 U	91 U	91 UJ	20 U	22 U [19 U]	NA	NA
Acenaphthene	mg/kg	0.65 J	5.2	25 J	95	7.2 J	23 [8.0 J]	NA	NA
Acenaphthylene	mg/kg	1.8 J	3.7	50	230	23	110 J [43 J]	NA	NA

See Notes on Page 10.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID:		PDI-SB22	PDI-SB25	PDI-SB26	PDI-SB27	PDI-SB28	PDI-SB30	PDI-SB31	PDI-SB32
Sample Depth(Feet):		4.7 - 4.9	3 - 5.3	4.2 - 4.9	3.6 - 4.1	4.5 - 4.8	3.4 - 3.9	2.0 - 2.8	2.0 - 2.2
Date Collected:	Units	10/28/10	10/29/10	10/29/10	10/28/10	10/29/10	10/29/10	11/11/10	11/11/10
SVOCs (Cont.)									
Anthracene	mg/kg	3.3	10	96	510	52	100 J [39 J]	NA	NA
Benzo(a)anthracene	mg/kg	7.8	14	160	520	67	66 J [24 J]	NA	NA
Benzo(a)pyrene	mg/kg	8.9	13	180	470	60	46 [17]	NA	NA
Benzo(b)fluoranthene	mg/kg	8.3	12	150	490	56	39 [16]	NA	NA
Benzo(g,h,i)perylene	mg/kg	5.2	6.2	68	170	20	10 J [6.0 J]	NA	NA
Benzo(k)fluoranthene	mg/kg	3.6	5.8	70	160	26	20 [6.1 J]	NA	NA
Benzyl Alcohol	mg/kg	3.6 U	4.1 U	91 U	91 UJ	20 U	22 U [19 U]	NA	NA
Bis(2-chloroethoxy) methane	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Bis(2-chloroethyl) ether	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
bis(2-Chloroisopropyl)ether	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Bis(2-ethylhexyl) phthalate	mg/kg	1.8 J	2.2	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Butylbenzyl phthalate	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Chrysene	mg/kg	6.7	12	130	450	54	55 J [20 J]	NA	NA
Dibenzo(a,h)anthracene	mg/kg	1.4 J	1.9 J	23 J	54	6.6 J	4.5 J [2.1 J]	NA	NA
Dibenzofuran	mg/kg	1.2 J	8.0	49	230	22	76 J [28 J]	NA	NA
Diethylphthalate	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Dimethylphthalate	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Di-n-butyl phthalate	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Di-n-octyl phthalate	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Fluoranthene	mg/kg	14	29	240	1,100	140	120 J [44 J]	NA	NA
Fluorene	mg/kg	2.3	9.2	72	350	39	130 J [47 J]	NA	NA
Hexachlorobenzene	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Hexachlorobutadiene	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Hexachlorocyclopentadiene	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Hexachloroethane	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	4.7	6.2	65	170	21	11 [5.1 J]	NA	NA
Isophorone	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Naphthalene	mg/kg	1.2 J	33	170	75	9.8 J	360 [130]	NA	NA
Nitrobenzene	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA

See Notes on Page 10.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID:		PDI-SB22	PDI-SB25	PDI-SB26	PDI-SB27	PDI-SB28	PDI-SB30	PDI-SB31	PDI-SB32
Sample Depth(Feet):		4.7 - 4.9	3 - 5.3	4.2 - 4.9	3.6 - 4.1	4.5 - 4.8	3.4 - 3.9	2.0 - 2.8	2.0 - 2.2
Date Collected:	Units	10/28/10	10/29/10	10/29/10	10/28/10	10/29/10	10/29/10	11/11/10	11/11/10
SVOCs (Cont.)									
N-Nitrosodimethylamine	mg/kg	3.6 U	4.1 U	91 U	91 U	20 U	22 U [19 U]	NA	NA
N-Nitroso-di-N-propylamine	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
N-Nitrosodiphenylamine	mg/kg	1.9 U	2.1 U	47 U	47 U	10 U	11 U [9.8 U]	NA	NA
Pentachlorophenol	mg/kg	3.6 U	4.1 U	91 U	91 UJ	20 U	22 U [19 U]	NA	NA
Phenanthrene	mg/kg	9.3	29	250	1,200	130	230 [91]	NA	NA
Phenol	mg/kg	1.9 U	2.1 U	5.2 J	47 U	10 U	11 U [9.8 U]	NA	NA
Pyrene	mg/kg	12	23	210	860	110	97 J [39 J]	NA	NA
Total PAHs	mg/kg	91 J	220 J	2,000 J	6,900 J	830 J	1,600 J [610 J]	NA	NA
Cyanide									
Cyanide, Total	mg/kg	NA	NA	NA	NA	NA	NA	14.1	8
Cyanide, Free	mg/kg	NA	NA	NA	NA	NA	NA	0.242 U	0.253 U

See Notes on Page 10.

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Lab Qualifiers	Definition
J	Indicates an estimated value.
NA	Not analyzed.
U	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Notes:
mg/kg = milligrams per kilogram which is equivalent to parts per million (ppm).
Shading indicates that the sample result exceeds the total cyanide criterion of 40 mg/kg or total PAH criterion of 500 mg/kg.

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS Standards and Guidance Values	Units	MW-9 11/11/10	MW-11 11/11/10
VOCs				
1,1,1-Trichloroethane	5	ug/L	1.0 U	NA
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	NA
1,1,2-Trichloroethane	1	ug/L	1.0 U	NA
1,1-Dichloroethane	5	ug/L	0.53 J	NA
1,1-Dichloroethene	5	ug/L	1.0 U	NA
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	NA
1,2-Dibromo-3-chloropropane	0.04	ug/L	1.0 U	NA
1,2-Dibromoethane	0.0006	ug/L	1.0 U	NA
1,2-Dichlorobenzene	3	ug/L	1.0 U	NA
1,2-Dichloroethane	0.6	ug/L	1.0 U	NA
1,2-Dichloroethene (total)	- -	ug/L	2.0 U	NA
1,2-Dichloropropane	1	ug/L	1.0 U	NA
1,3-Dichlorobenzene	3	ug/L	1.0 U	NA
1,4-Dichlorobenzene	3	ug/L	1.0 U	NA
1,4-Difluorobenzene	- -	ug/L	25	NA
Acetone	50	ug/L	4.9 J	NA
Benzene	1	ug/L	280 DJ	NA
Bromodichloromethane	50	ug/L	1.0 U	NA
Bromoform	50	ug/L	1.0 U	NA
Bromomethane	5	ug/L	1.0 U	NA
Carbon Disulfide	60	ug/L	1.0 U	NA
Carbon Tetrachloride	5	ug/L	1.0 U	NA
Chlorobenzene	5	ug/L	1.0 U	NA
Chloroethane	5	ug/L	1.0 U	NA
Chloroform	7	ug/L	1.0 U	NA
Chloromethane	5	ug/L	1.0 U	NA
cis-1,2-Dichloroethene	5	ug/L	1.0 U	NA
cis-1,3-Dichloropropene	0.4	ug/L	1.0 U	NA
Cyclohexane	- -	ug/L	0.55 J	NA
Dibromochloromethane	50	ug/L	1.0 U	NA
Dichlorodifluoromethane	5	ug/L	1.0 U	NA
Ethylbenzene	5	ug/L	130 D	NA
Freon TF	5	ug/L	1.0 U	NA
Isopropylbenzene	5	ug/L	27	NA
Methyl Acetate	- -	ug/L	1.0 U	NA
Methyl Butyl Ketone	50	ug/L	5.0 U	NA
Methyl Ethyl Ketone	50	ug/L	10 U	NA
Methyl Isobutyl Ketone	- -	ug/L	5.0 U	NA
Methylcyclohexane	- -	ug/L	0.85 J	NA
Methylene Chloride	5	ug/L	1.0 U	NA
Methyl-tert-butyl ether	10	ug/L	1.0 U	NA
Styrene	5	ug/L	8.0	NA
Tetrachloroethene	5	ug/L	1.0 U	NA
Toluene	5	ug/L	120 D	NA
trans-1,2-Dichloroethene	5	ug/L	1.0 U	NA

See Notes on Page 4.

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS Standards and Guidance Values	Units	MW-9 11/11/10	MW-11 11/11/10
VOCs (Cont.)				
trans-1,3-Dichloropropene	0.4	ug/L	1.0 U	NA
Trichloroethene	5	ug/L	1.0 U	NA
Trichlorofluoromethane	5	ug/L	1.0 U	NA
Vinyl Chloride	2	ug/L	1.0 U	NA
Xylene (total)	5	ug/L	220	NA
Total BTEX	- -	ug/L	750 J	NA
SVOCs				
1,2,4-Trichlorobenzene	5	ug/L	19 U	NA
1,2-Dichlorobenzene	3	ug/L	19 U	NA
1,3-Dichlorobenzene	3	ug/L	19 U	NA
1,4-Dichlorobenzene	3	ug/L	19 U	NA
2,4,5-Trichlorophenol	1	ug/L	9.7 U	NA
2,4,6-Trichlorophenol	1	ug/L	9.7 U	NA
2,4-Dichlorophenol	5	ug/L	9.7 U	NA
2,4-Dimethylphenol	50	ug/L	14	NA
2,4-Dinitrophenol	10	ug/L	19 U	NA
2,4-Dinitrotoluene	5	ug/L	9.7 U	NA
2,6-Dinitrotoluene	5	ug/L	9.7 U	NA
2-Chloronaphthalene	10	ug/L	9.7 U	NA
2-Chlorophenol	1	ug/L	9.7 U	NA
2-Methylnaphthalene	- -	ug/L	7.1 J	NA
2-Methylphenol	1	ug/L	10	NA
2-Nitroaniline	5	ug/L	19 U	NA
2-Nitrophenol	1	ug/L	9.7 U	NA
3,3'-Dichlorobenzidine	5	ug/L	9.7 U	NA
3-Nitroaniline	5	ug/L	19 U	NA
4,6-Dinitro-2-methylphenol	1	ug/L	19 U	NA
4-Bromophenyl-phenylether	- -	ug/L	9.7 U	NA
4-Chloro-3-methylphenol	1	ug/L	9.7 U	NA
4-Chloroaniline	5	ug/L	9.7 U	NA
4-Chlorophenyl-phenylether	- -	ug/L	9.7 U	NA
4-Methylphenol	1	ug/L	19 U	NA
4-Nitroaniline	5	ug/L	19 U	NA
4-Nitrophenol	1	ug/L	19 U	NA
Acenaphthene	20	ug/L	62	NA
Acenaphthylene	- -	ug/L	36	NA
Anthracene	50	ug/L	11	NA
Benzo(a)anthracene	0.002	ug/L	9.7 U	NA
Benzo(a)pyrene	0	ug/L	9.7 U	NA
Benzo(b)fluoranthene	0.002	ug/L	9.7 U	NA
Benzo(g,h,i)perylene	- -	ug/L	9.7 U	NA
Benzo(k)fluoranthene	0.002	ug/L	9.7 U	NA
Benzyl Alcohol	- -	ug/L	39 U	NA
Bis(2-Chloro-1-Methylethyl) Ether	5	ug/L	9.7 U	NA
Bis(2-chloroethoxy) methane	5	ug/L	9.7 U	NA

See Notes on Page 4.

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Location ID: / Date Collected:	NYSDEC TOGS Standards and Guidance Values	Units	MW-9 11/11/10	MW-11 11/11/10
SVOCs (Cont.)				
Bis(2-chloroethyl) ether	1	ug/L	9.7 U	NA
Bis(2-ethylhexyl) phthalate	5	ug/L	9.7 U	NA
Butylbenzyl phthalate	50	ug/L	9.7 U	NA
Chrysene	0.002	ug/L	9.7 U	NA
Dibenzo(a,h)anthracene	- -	ug/L	9.7 U	NA
Dibenzofuran	- -	ug/L	56	NA
Diethylphthalate	50	ug/L	9.7 U	NA
Dimethylphthalate	50	ug/L	9.7 U	NA
Di-n-butyl phthalate	50	ug/L	9.7 U	NA
Di-n-octyl phthalate	50	ug/L	9.7 U	NA
Fluoranthene	50	ug/L	6.2 J	NA
Fluorene	50	ug/L	56	NA
Hexachlorobenzene	0.04	ug/L	9.7 U	NA
Hexachlorobutadiene	0.5	ug/L	9.7 U	NA
Hexachlorocyclopentadiene	5	ug/L	9.7 U	NA
Hexachloroethane	5	ug/L	9.7 U	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	9.7 U	NA
Isophorone	50	ug/L	9.7 U	NA
Naphthalene	10	ug/L	250	NA
Nitrobenzene	0.4	ug/L	9.7 U	NA
N-Nitroso-di-N-propylamine	- -	ug/L	9.7 U	NA
N-Nitrosodiphenylamine	50	ug/L	9.7 U	NA
N-Nitrosomethylethylamine	- -	ug/L	19 U	NA
Pentachlorophenol	1	ug/L	19 U	NA
Phenanthrene	50	ug/L	53	NA
Phenol	1	ug/L	9.7 U	NA
Pyrene	50	ug/L	3.7 J	NA
Total PAHs	- -	ug/L	490 J	NA
Cyanide				
Cyanide, Total	200	ug/L	10 U	491 [435]

See Notes on Page 4.

TABLE 3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

NATIONAL GRID
PRE-DESIGN INVESTIGATION
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK

Lab Qualifiers	Definition
D	Compound quantitated using a secondary dilution.
J	Indicates an estimated value.
NA	Not analyzed.
U	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Notes:
ug/L = micrograms per liter which is equivalent to parts per billion (ppb).
Shading indicates that the sample result exceeds the NYSDEC Technical Operational Guidance Series Memorandum 1.1.1. Standards and Guidance Values.

See Notes on Page 4.

Figure

LEGEND:

- TOTAL CYANIDE > 40 mg/kg
- PAH > 500 mg/kg
- COAL TAR–LIKE MATERIAL IDENTIFIED IN OVERBURDEN
- MW-10 — MONITORING WELL
- VP-1 — SOIL VAPOR SAMPLING POINT
- SV-1 — SOIL VAPOR SAMPLING POINT
- PZ-1 — PIEZOMETER
- HA-1 — HAND–AUGER BORING
- TP-1 — TEST PIT
- B-1 — SOIL BORING
- SS-01 — SURFACE SOIL SAMPLE
- TAR WELL — FEATURE FROM 1909 SANBORN MAP
- TAR WELL — FEATURE FROM SEPTEMBER 1925 SANBORN MAP
- APPROXIMATE SITE BOUNDARY
- LOCATION OF IRM SURFACE COVER

NOTES:

1. BASE MAP FROM SURVEY BY WCT SURVEYORS, P.C., ON 11/21/2003, 12/22/2003 AND 4/7/2004. ELEVATIONS ARE BASED ON THE NAVD 88 DATUM. BASE MAP UPDATED BY C.T. MALE SURVEYORS ON SEPTEMBER 7, 2006 AND OCTOBER 29, 2010.
2. HISTORICAL FEATURE LOCATIONS AND SCALE ARE APPROXIMATE.
3. SUMMARY INCLUDES RESULTS FROM FIELD ACTIVITIES CONDUCTED BETWEEN 2003 AND 2010.

0 50' 100'

GRAPHIC SCALE

NATIONAL GRID
OGDENSBURG (KING STREET) NON-OWNED FORMER MGP SITE
OGDENSBURG, NEW YORK
PRE-DESIGN INVESTIGATION

SOIL SAMPLES EXCEEDING DECISION DOCUMENT ACTION LEVELS

ARCADIS

FIGURE
1

CITY: SYRACUSE, NY GROUP: ENVCAD DB: L. POSENAUER, P. LISTER PIC: J.NUSS PM/TM'R: S.POWLIN LYR:ON=*;OFF=REF
G:\ENVCAD\SYRACUSE\ACT\B0036671\0001\00020\DWG\PDI\36671G01.DWG LAYOUT: 1SAVED: 1/11/2011 3:10 PM BY: POSENAUER, LISA
XREFS:
36671X01
36671B01
36671X02
PLTFULLCTB PLOTTED: 1/11/2011 3:10 PM BY: POSENAUER, LISA
---PLOTSTYLETABLE: 18.0S (LMS TECH) PAGESETUP: