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Feasibility Study for the Rome (Kingsley Avenue) Site Operable Unit No. 2 Rome, New York

February 2006
(Revised February 2009)

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Feasibility Study for the Rome (Kingsley Avenue) Site Operable Unit No. 2 Rome, New York

Prepared for:

National Grid

Prepared by:

ARCADIS
6723 Towpath Road
P.O. Box 66
Syracuse
New York 13214-0066
Tel 315.446.9120
Fax 315.671.9450

Our Ref.:

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Date:

February 2006
(Revised February 2009)

ARCADIS

Certification Statement

I, James M. Nuss, P.E., am a licensed Professional Engineer in the State of New York, and employed by ARCADIS. To the best of my knowledge, and based on my inquiry of the persons involved in preparing this document under my direction, I certify that the Feasibility Study for the National Grid Rome (Kingsley Avenue) Operable Unit 2 (OU-2) was completed in general accordance with an Order on Consent (Index #4-0473-0000) between National Grid and the New York State Department of Environmental Conservation (NYSDEC).

Pursuant to the above document, and with NYSDEC concurrence, this FS Report identifies and evaluates potential remedial alternatives to address environmental concerns identified to date at OU-2.

James M. Nuss, P.E.
NYS PE License No. 067963

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1. Introduction

1.1 Overview

This *Feasibility Study for the National Grid Rome (Kingsley Avenue) Site Operable Unit No. 2* (FS Report) has been prepared on behalf of National Grid for Operable Unit 2 (OU-2) ("the Site") at the former manufactured gas plant (MGP) located in Rome, New York (Figure 1). National Grid's Rome (Kingsley Avenue) former MGP is categorized as a Class II Inactive Hazardous Waste site (Site #6-33-043) by the New York State Department of Environmental Conservation (NYSDEC). Remedial activities are being performed at the former MGP under the Order on Consent, Index #4-0473-0000 executed November 2003 between the NYSDEC and Niagara Mohawk (Niagara Mohawk, a National Grid Company, formerly known as "Niagara Mohawk" and now known as "National Grid").

The Rome (Kingsley Avenue) former MGP Site is composed of two operable units as described in the *Record of Decision for National Grid's Rome (Kingsley Avenue) Site Operable Unit No. 1 (OU-1): Site No. 6-33-043* (NYSDEC, 2002a) ("ROD for OU-1"). OU-1 consists of the former MGP property owned by National Grid and includes MGP-impacted soils, groundwater, and non-aqueous phase liquid (NAPL) within that property; MGP-impacted surface soils of a small contiguous area of undeveloped New York State (NYS) Power Authority-owned land east of the Mohawk River; and MGP-impacted sediment in a backwater area that is owned in part by National Grid with the remainder owned by the NYS Power Authority. OU-2 was described in the ROD for OU-1 as MGP-impacted groundwater and DNAPL extending beyond the western boundary (downgradient) of OU-1. OU-2 includes MGP-impacted groundwater and DNAPL beneath land owned by National Grid and the NYS Power Authority (east of the Mohawk River), the Mohawk River, and properties west of the Mohawk River extending to East Whitesboro Street. Figure 2 depicts a Site Plan of OU-2.

This FS Report identifies and evaluates potential remedial alternatives for OU-2. In doing so, it necessarily takes into consideration the remedy proposed for OU-1 (and currently subject to ongoing remedial design), and the anticipated beneficial effects that future remedial actions within OU-1 will have on OU-2.

In addition to the documents identified above, the following documents, which were previously submitted to the NYSDEC, serve as the basis for the evaluations presented in this FS Report:

- *Remedial Investigation Report for the Rome (Kingsley Avenue) Site with Addendum* (RI Report), March 1999, Parsons Engineering Science, Inc. (Parsons, 1999);

- *"Off-Site" Remedial Investigation (RI) Draft Site Remedial Investigation Report* (SRI Report), October 2000, Foster Wheeler Environmental Engineering Corporation (Foster Wheeler, 2000);

- *OU-2 Groundwater Investigation Results – Fall 2004*, National Grid January 26, 2005 letter to NYSDEC (National Grid, 2005a); and

- *OU-2 Groundwater Investigation Results – Spring 2005*, National Grid August 1, 2005 letter to NYSDEC (National Grid, 2005b).

1.2 Purpose

The overall purpose of this FS Report is to identify, evaluate, and recommend a remedial alternative that satisfies the remedial action objectives (RAOs) for OU-2. The basis for this recommendation is an evaluation of potential alternatives using criteria set forth by the following:

- Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980, 42 U.S.C. Sections 9601 et seq., as amended;

- Applicable provisions of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) regulations contained in Part 300 of Title 40 of the Code of Federal Regulations (40 CFR 300);

- United States Environmental Protection Agency (USEPA) guidance document titled *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA* (USEPA, 1988);

- NYSDEC Technical and Administrative Guidance Memorandum #4025 (TAGM #4025) titled *Guidelines for Remedial Investigations/Feasibility Studies (NYSDEC, 1989)*; and

- NYSDEC TAGM #4030 titled *Selection of Remedial Actions at Inactive Hazardous Waste Sites* (NYSDEC, 1990).

1.3 Document Organization

This FS Report is organized as follows:

Section	Title	Content
Section 1	Introduction	Provides an overview, describes the purpose, and summarizes the document organization.
Section 2	Site Description	Provides a description of the OU-2 location, the former MGP history, remedial activities within OU-1, an overall characterization of OU-2 based on investigation results, and an exposure assessment summary.
Section 3	Standards, Criteria, and Guidelines (SCGs)	Identifies the SCGs that govern the development and selection of remedial alternatives.
Section 4	Remedial Action Objectives (RAOs)	Develops RAOs for OU-2 that are protective of human health and the environment, and identifies media to be addressed through implementation of the remedial alternatives.
Section 5	Identification and Screening of Technologies and Identification of Potential Alternatives	Identifies and screens General Response Actions (GRAs) and remedial technology types and processes. Lists potential remedial alternatives for meeting the RAOs for OU-2 based on the results of the screening. Presents a description and an evaluation of each potential remedial alternative using the criteria presented in the NCP.
Section 6	Comparative Evaluation of Remedial Alternatives	Presents a comparative analysis for each of the remedial alternatives.
Section 7	Recommended Remedial Alternative	Identifies the recommended remedial alternative for OU-2.
Section 8	References	Presents a list of the references cited in this FS Report.

In addition to the sections listed above, various tables and figures are included and referenced, as appropriate.

2. Site Description

2.1 OU-2 Location

OU-2 is defined as dissolved-phase MGP constituents in groundwater and DNAPL present in the subsurface beyond the western limits of OU-1 (i.e., the former MGP property on Kingsley Avenue). OU-2 includes impacted groundwater and DNAPL that is beneath undeveloped property owned by National Grid and the NYS Power Authority east of the Mohawk River, the Mohawk River, and parcels west of the river. For the purpose of this FS, it is assumed that OU-2 extends to East Whitesboro Street. The parcels within OU-2 west of the river are currently used for residential and commercial purposes. Beyond the western limits of OU-2 are Erie Boulevard (State Route 69), the abandoned Penn-Central Company railroad line, commercial/industrial businesses, and a residential area. An aerial photograph of the general area is provided as Figure 3. The west side of the river includes various buildings, storage areas, and transportation routes. Summary pages are provided, as Attachment 1, from an EDR Database Report (2004) that presents results of a database search for historic spills/releases and registered storage tanks near OU-2.

2.2 Former MGP History

The former MGP facility was constructed in 1917. Peak operations were performed at the facility between 1917 and 1927. By 1930, gas production at the facility was reduced to a limited emergency supply for the City of Rome. At that time, the regular gas supply came from a regional gas supply network (NYSDEC, 2002a). Various buildings and operations areas were located within the former MGP property, including an aboveground oil tank, aboveground tar storage tanks, and aboveground “gas oil” tank. Upon cessation of MGP operations, the facility was decommissioned. The central MGP building was refurbished and used as a service and maintenance building between 1949 and 1987 with subsequent demolition in 1994 (Foster Wheeler, 2002). A portion of the property south of the former MGP is currently occupied by an active substation, which is one of the major substations for the Mohawk Valley region in National Grid’s service territory. In addition to the electrical substation, a natural gas regulator station (that is scheduled to be decommissioned by National Grid) is located near the northeast corner of National Grid’s property.

Related to past operations and practices at the former MGP property, historic releases of MGP-related constituents and NAPL occurred. To address these releases, a series of remedial actions have been performed (and will be conducted in the future) within OU-1. The releases have also apparently resulted in the presence of dissolved-phase constituents and DNAPL in the subsurface portions of OU-2. Additional information is presented below on the remedial actions within OU-1 and site conditions.

2.3 Remedial Actions within OU-1

As previously stated, the ROD for OU-1 (NYSDEC, 2002a) describes the selected final remedy for OU-1. The remedy for OU-1 generally includes components that address soil, groundwater, and NAPL within the former MGP property, and sediments within a backwater area on the east side of the river.

Specifically, the remedy for OU-1 includes the following components:

- Removal and transport offsite for thermal treatment and disposal of approximately 21,100 cubic yards (cy) of DNAPL and light NAPL (LNAPL) present in soil.

- Demolition and removal of the tar well and former distribution and relief holder foundations as part of the soil excavations. Deep excavations performed to remove DNAPL associated with these structures will continue to the depth of the water table.

- Construction of a sheetpile cutoff wall to contain DNAPL and prevent its migration to areas beyond the OU-1 (i.e., into OU-2). Collection sumps will be installed along the upgradient side of the barrier wall for the removal of DNAPL for offsite treatment/disposal. Groundwater will be collected and treated for MGP constituents.

- Removal of purifier waste residuals that were left in place following the previously implemented IRM.

- Removal of approximately 800 cy of sediment, to a depth of 4 feet, containing cyanide and polycyclic aromatic hydrocarbons (PAHs) from the backwater area, near the east bank of the Mohawk River, above the spillway nearest to OU-1.

- Construction of a 2-foot-thick soil cover over an approximate 14-acre area in the northern portion of OU-1. Areas planned for roadways or parking lots will be covered by pavement as an alternate to the soil cover.

- Removal of approximately 90 cy of soils above the NYSDEC TAGM #4046 levels from three small isolated areas to a minimum depth of 2 feet, and subsequent restoration.

- Performance of a long-term monitoring program. The program will include the monitoring for and removal of DNAPL, if present, on a regular basis from wells or sumps upgradient (east) of the cutoff wall. In addition, a groundwater monitoring well network will be established and other monitoring and inspections will be performed to monitor the effectiveness of the remedy components.

- Implementation of institutional controls to limit future property development and prevent future exposures to constituents remaining onsite (the institutional controls will include that portion of OU-2 east of the river: [in area that falls within limits of both OU-1 and OU-2]). An annual certification will be submitted to document whether that engineering and institutional controls included in the remedy are in place and remain effective to control exposures.

Construction of the OU-1 remedial measures described above have been implemented in a phased approach beginning in 2006, with construction of the groundwater treatment system anticipated to be completed in 2010.

In addition to the planned remedial measures identified above, two interim remedial measures (IRMs) were previously conducted within OU-1. National Grid performed the first IRM in June 1994 to remove NAPL from a subsurface pipe that was broken by a backhoe bucket during decommissioning of one of the former MGP operations buildings. Two 10-yard rolloffs were filled with NAPL-impacted material and 41 drums were filled with impacted debris, sludge, water, and personal protective equipment. Along with these materials it was estimated that approximately 100 gallons of NAPL were removed. National Grid then conducted a second IRM in January 1995 to remove purifier residuals to a depth of 3 feet from the former purifier waste disposal area. During the IRM for the purifier residuals, 972 tons of materials were removed. Additional details on these IRMs are provided in the *Feasibility Study for the National Grid Rome (Kingsley Avenue) Site Operable Unit No. 1* (Foster Wheeler, 2002).

2.4 Hydrologic Conditions

The Mohawk River is the dominant hydrologic feature within OU-2. River substrate in this reach is mostly gravel with some rubble. Flow of the Mohawk River is southerly in the Rome area and is controlled by releases from a dam (known as Delta Dam) located approximately 5.5 miles upstream from OU-2. The confluence of the Mohawk River with the New York State Barge Canal is approximately 1,500 feet downstream (south) from OU-2 at a location immediately east of a location known as Guard Gate 7 on the Barge Canal. No drainage channels are known to extend through the OU-2 area.

2.5 Geologic Conditions

Unconsolidated sediments, consisting of recent-age alluvium and glacial deposits that overly shale bedrock, characterize the regional geology in the area of the Site. The recent-age alluvium consists of fine to coarse sand and gravel and ranges in thickness from 3 feet to over 30 feet. Glacial deposits underlie the alluvium or are exposed at ground surface in areas where the alluvium is absent. The glacial deposits generally consist of well sorted, stratified sands that were likely formed near the shoreline of glacial lakes. Sedimentation in the glacial lakes can also be seen in the form of glacial lake silts and clays.

In addition, glacial outwash sediments have been observed in the Rome area. Glacial outwash consists of well-rounded, coarse to fine gravel and sand that was likely deposited during glacial recession. These relatively coarse grained sandy and gravelly glacial deposits range in thickness from 5 feet to over 50 feet.

Glacial till has also been observed in the region. Glacial till directly overlies bedrock and generally forms the base of the glacial deposits. It consists of a poorly sorted blend of clay and silt with varying amounts of sand and gravel. Glacial till is typically formed beneath a glacier and therefore is generally very dense. The thickness of the till in the region has been observed to be approximately 3 feet to over 150 feet. The bedrock in the region has been mapped as Middle Ordovician Utica Shale (Fisher et al., 1970). The Utica Shale is a black, graptolitic shale containing abundant pyrite (Isachsen, 1991).

The location of a generalized geologic cross-section depicting the surficial geologic units in the OU-2 area is shown on Figure 4, and the cross-section is presented on Figure 5. As shown in the cross-section, the principal unconsolidated geologic units comprising the OU-2 area consist of:

- 0.5 to 22 feet of fill material consisting of sand, silt, cinders, fly ash, and brick fragments;
- 2 to 14 feet of brown silt and clay, when present;
- 6 to 20 feet of alluvial sand and gravel;
- 12 to 25 feet of alluvial sand and silt;
- 2 to 8 feet of transitional fine sand, silt, and clay, when present; and
- Reddish-brown lacustrine clay observed between 35 and 52 feet below grade.

The thickness and presence of the geologic units vary depending on location. The entire OU-2 area appears to be underlain by a continuous layer of fill and relatively thick layers of sand and gravel and sand and silt. The base of the surficial geologic material encountered in OU-2 is a reddish-brown dense lacustrine clay. The clay is composed of varying amounts of silt and clay with some coarse “stringers” of sand and gravel. The surface of the red clay layer west of the river is sloped to the east and north, toward the Mohawk River. Although bedrock has not been encountered in any borings advanced in OU-2, shale bedrock was reportedly encountered at a depth of approximately 125 feet in a natural gas well drilled nearby (Dale, 1953).

2.6 Hydrogeologic Conditions

Three hydrogeologic units have been identified at OU-2 based on hydraulic characteristics. The hydrogeologic units consist of the following:

- Upper alluvial sand and gravel hydrogeologic unit (shallow overburden unit);
- Lacustrine hydrogeologic unit containing sand and silt unit and transitional sand, silt, and clay units (deep overburden unit); and
- Red lacustrine clay hydrogeologic unit (which is the deepest hydrogeologic unit).

A comprehensive, synoptic round of water levels was measured at accessible wells in OU-1 and OU-2 on October 11, 2004. Table 1 provides a list of the water levels as referenced to North American Vertical Datum (NAVD) 1988. As shown in Table 1, the depth to groundwater measured in the shallow overburden wells in OU-1 and OU-2 range from 8 to 14 feet below grade. While it appears that shallow overburden groundwater converges toward the Mohawk River, groundwater in the deep overburden appears to flow beneath the river from the east to the west-southwest. A deep overburden groundwater elevation contour map is presented on Figure 6. The available hydrogeologic information suggests that the river is not a boundary with respect to deep overburden groundwater flow.

The contours depicted on Figure 6 suggest that the horizontal hydraulic gradients in the deep overburden in OU-2 range from 0.004 to 0.006. The water levels measured at the water table piezometers and the deeper overburden wells collectively shows that vertical hydraulic gradients on the west of the river are downward. These downward hydraulic gradients range from approximately 0.017 to 0.059. The downward gradients observed in this area may be attributed to the dam that is located on the Mohawk River immediately adjacent to the former MGP site. Conditions exist for the river to recharge water to the river banks in the area of dam, thus producing higher shallow groundwater levels in that area.

The hydraulic conductivity of the deeper overburden has been estimated using data collected, on behalf of National Grid, during slug tests performed by Foster Wheeler in July

2000 and using results from specific capacity tests performed, on behalf of National Grid, by ARCADIS (formerly BBL) in April 2005. The table below summarizes the hydraulic conductivity values that were estimated using the July 2000 and April 2005 permeability data sets.

Well ID	Monitoring Event	Estimated Hydraulic Conductivity (cm/sec)	Geologic Formation of Screened Interval
MW04-31	April 2005	$5.57x10^{-5}$	Sand/Silt/Clay
MW04-32	April 2005	$4.39x10^{-3}$	Sand/Silt
MW04-33	April 2005	$9.16x10^{-5}$	Sand/Silt/Clay
MW04-34	April 2005	$1.55x10^{-3}$	Sand/Silt
MW04-35	April 2005	$7.99x10^{-4}$	Sand/Silt/Clay
MW04-36	April 2005	$3.71x10^{-4}$	Sand/Silt
MW-28	July 2000	$2.01x10^{-4}$	Sand/Silt
MW-29	July 2000	$2.36x10^{-4}$	Silt/Clay/Some Sand
MW-30	July 2000	$3.06x10^{-4}$	Sand/Silt/Clay

Notes:

1. Specific capacity data collected in April 2005 were evaluated using the methods described in Walton, 1962 to estimate hydraulic conductivity.
2. Hydraulic conductivity for July 2000 was based on the slug test data obtained by Foster Wheeler and presented in the SRI Report.
3. cm/sec = centimeters per second.
4. Data presented above are for the deep overburden unit.

As shown in the above table, the hydraulic conductivity of the deeper overburden ranges from approximately $5.57x10^{-5}$ cm/sec [MW04-31] to $4.39x10^{-3}$ cm/sec [MW04-32]. The variability in the hydraulic conductivity may be attributable to the degree of finer grained material contained in the geologic formation surrounding each well screen. For example, monitoring well MW04-31 appears to be screened largely in the transition zone between the alluvial sand and silt and red lacustrine clay. As such, there is a larger percentage of silt and clay surrounding the well screen. In contrast, the geologic material surrounding the well screen for monitoring well MW04-32 appears to have much less silt and clay.

2.7 Groundwater Use

There is no known use, or planned future use, of groundwater within OU-2 as a potable, commercial/industrial, or irrigation water supply, as indicated based on the following information:

- The general area in which OU-2 is located is served by the City of Rome municipal system, according to the Oneida County Health Department (2005).

- The City of Rome water is supplied by the East Branch of Fish Creek, outside the potential hydrogeological influence of OU-2 (Oneida County Health Department, 2005).

- New residences or commercial businesses, if any are constructed within 100 feet of the water main, are required by the City of Rome to obtain their potable water from the municipal water main that supplies the area (Code Enforcement Office of the City of Rome, 1995).

- No private wells were identified by any property owners during National Grid's discussions regarding property access for the new monitoring wells installed in 2004.

- According to the EDR Database Report (provided in Attachment 1), no potable wells, industrial wells, or irrigation wells are located within OU-2.

- No private wells were observed by field personnel during investigation activities conducted, on behalf of National Grid, in 2004 and 2005 within OU-2.

2.8 Soil and Groundwater Chemical Characterization

A total of 23 monitoring wells and piezometers and 24 soil borings have been installed within OU-2. Monitoring activities at the wells have been performed to document water table elevation and whether DNAPL is present, and to collect groundwater samples for laboratory analyses. In addition, visual observations of DNAPL have been documented and soil samples have been collected during the soil boring installations within OU-2. A summary of the analytical laboratory results and DNAPL observations is provided below.

2.8.1 Soil Analytical Data

The distribution of benzene, toluene, ethylbenze, and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), and total cyanide in subsurface soil within OU-2 is shown on Figure 7. As shown on Figure 7, only six of the 27 collected soil samples contained concentrations of MGP-related constituents above NYSDEC Part 375 Restricted Residential Use criteria. Five of these six samples were located on the east side of the Mohawk River. The one sample on the west side of the river contained concentrations of only benzene above criteria. Two of the six samples exceeding criteria on the west side also contained DNAPL. Accordingly, these samples contained the highest concentrations of PAHs. BTEX and cyanide were not analyzed for in these two samples.

2.8.2 DNAPL Observations

Visual observation of whether DNAPL is present in OU-2 began with the well installation activities in April 1997. Since that time, additional monitoring wells have been installed, visual observations have been made on several occasions, and DNAPL has not been observed in any of the monitoring wells/boring located west of the river. DNAPL has been observed east of the river at a total of three locations within OU-2 (shown on Figure 7). The observations indicate that DNAPL occurs above the red clay layer confining unit. The three locations east of the river where DNAPL has been observed are as follows:

Well/Boring	DNAPL Thickness	Date Observed
GP-34 (well)	trace	February 2000, May 2003, and October 2004
GP-35 (well)	trace 0.48 feet 0.05 feet	October 2004 May 2003 February 2000
GP-36 (boring)	0.25 foot	February 2000

2.8.3 Groundwater Analytical Results

The results of the most recent groundwater sampling event for individual monitoring wells and piezometers are shown on Figure 8. A summary discussion of the groundwater sampling results for OU-2 is provided below.

Shallow Overburden Groundwater

One monitoring well and six piezometers have been installed and screened in the shallow overburden unit within OU-2. Groundwater has been sampled from the one monitoring well (MW-04S) and two of the piezometers (PZ-05 and PZ-06). Monitoring well MW-04S was installed on the east side of the Mohawk River and the two piezometers were installed on the west side of the river. Samples collected from these three locations have been analyzed for volatile organic compounds (VOCs) including BTEX, and semivolatile organic compounds (SVOCs) including PAHs, and inorganics, including cyanide. Results obtained for the laboratory analyses of shallow overburden groundwater samples from the monitoring events at these locations are summarized below.

Sampling Event	Monitoring Well/Piezometer With Constituent Results Above NYS GA Standards listed in TOGS 1.1.1
Spring 2008	PZ-05 and PZ-06: No exceedances.
Fall 2007	PZ-05 and PZ-06: No exceedances.
Fall 2004	MW-04S: benzene
Winter 1995 (see note below)	MW-04S: benzene and cyanide (total)
Fall 1994	MW-04S: benzene

Notes:
1. An IRM to remove purifier residuals (a potential cyanide source, north of MW-04S) was completed in January 1995.
2. TOGS 1.1.1 = Technical & Operational Guidance Series 1.1.1, *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations* (NYSDEC, 1998)

Deep Overburden Groundwater

A total of thirteen monitoring wells have been installed and screened within the deep overburden unit within OU-2. Among the deep overburden monitoring wells, one well (MW-04D) was installed east of the river and twelve wells were installed west of the river (MW-25, MW-26, MW-27, MW-28, MW-29, MW-30, MW04-31, MW04-32, MW04-33, MW04-34, MW04-35, and MW04-36). Samples collected from this zone were submitted for laboratory analyses of VOCs, SVOCs, and/or inorganics, including cyanide. Results obtained for the laboratory analyses of deep overburden groundwater samples are summarized below.

Sampling Event	Monitoring Wells with Analytical Results Above Class GA Standards and Guidance Values	Constituent Above Class GA Standards and Guidance Values listed in TOGS 1.1.1
Spring 2008	MW-25 MW-30	benzene benzene
Fall 2007	None above standards	None
Spring 2005	None above standards	None
Fall 2004	None above standards	None
Spring 2001	MW-26	benzene, ethylbenzene, and naphthalene
Fall 2000	MW-26 MW-29 MW-30	BTEX and naphthalene BTEX BTEX
Summer 2000	MW-25 MW-26 MW-27 MW-29	naphthalene benzene BTEX and naphthalene benzene

Sampling Event	Monitoring Wells with Analytical Results Above Class GA Standards and Guidance Values	Constituent Above Class GA Standards and Guidance Values listed in TOGS 1.1.1
Spring 1997	MW-25 MW-26 MW-27	BTEX and naphthalene BTEX and naphthalene BTEX and naphthalene

Notes:

1. During the various sampling events, different sets of monitoring wells were sampled.
2. Tables 2 through 4 identify the monitoring wells sampled during each of the events.
3. MW-30 was installed west of Erie Boulevard reportedly through petroleum-impacted fill of unknown origin (Foster Wheeler, 2000).
4. Screen intervals are as follows: MW-25 (37 to 47 feet bgs), MW-26 (30.5 to 40.5 feet bgs), MW-27 (39.5 to 49.5 feet bgs), MW-29 (36 to 56 feet bgs), and MW-30 (34 to 44 feet bgs).

A comprehensive summary of the groundwater analytical results is presented in Table 2 (VOCs), Table 3 (SVOCs), and Table 4 (inorganics).

2.9 Soil Vapor Sampling Summary

Soil vapor samples were collected to assess whether the Site-related VOCs are present in the subsurface soil vapor near residences located near existing monitoring well locations MW-25, MW-26, and MW-27 to the west of the Mohawk River. The soil vapor sampling locations are shown on Figure 9.

The soil vapor samples were collected on November 8, 2007 from seven locations. Three of the samples were re-sampled on December 7, 2007 due to quality control issues. These samples are denoted with an “A” in the sample identification shown on Figure 9. All samples were collected in accordance with the New York State Department of Health (NYSDOH) document entitled Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Final, October 2006 (Guidance) and National Grid’s Standard Operating Procedure (SOP) for vapor sampling. The samples were submitted for analysis of traditional TO-15 VOCs. Samples were also submitted for forensic analysis of paraffin, isoparaffin, aromatic, naphthene, and olefin (PIANO) compounds by a modified USEPA SW-846 Method 8240.

The comprehensive list of soil vapor sampling analytical results is provided in Table 5 and the results for only BTEX and naphthalene are shown on Figure 9. Based on review of the soil vapor sampling results, the concentrations of VOCs detected in the soil vapor samples are at low levels within the typical range of an urban setting. Furthermore, a forensic evaluation of the results suggests that the VOCs detected during the soil vapor sampling are not related to the MGP.

2.10 Exposure Assessment Summary

As indicated above, a two-component baseline risk assessment (consisting of a human health risk assessment [HHRA] and an fish and wildlife impact analysis [FWIA]) was presented in the RI Report (Parsons, 1999) for the Rome (Kingsley Avenue) Site. The HHRA was conducted to assess the potential risk to human health resulting from constituents within environmental media at and downgradient of the former MGP. A FWIA was conducted to address existing environmental conditions and characterize local ecological resources. The objectives of the FWIA were to identify the fish and wildlife resources that exist on and in the vicinity of the former MGP, and to evaluate the potential for exposure of these resources to MGP-related constituents in environmental media. The FWIA was conducted in accordance with the requirements outlined as Step I and Step IIA of the NYSDEC Division of Fish and Wildlife document titled Impact Analysis for Inactive Hazardous Waste Sites (NYSDEC, 1994). The results obtained for each component of the baseline risk assessment, related to MGP-impacted groundwater and DNAPL beyond the western boundary of OU-1, are summarized below.

2.10.1 Human Health Risk Assessment

The HHRA presented in the RI Report (Parsons, 1999) indicated that there is no direct exposure pathway for human receptors via groundwater use downgradient of the former MGP. As previously summarized, there is currently no use or known planned use of groundwater for potable, commercial/industrial, or irrigation purposes within OU-2. Furthermore, potable water supply for new residential and commercial construction within 100 feet of the water main is required by law to connect to the municipal water supply.

Evaluation of indirect exposure to groundwater via vapor intrusion is a future activity for OU-2. The NYSDEC initiated a statewide effort to evaluate potential for vapor migration from groundwater, and related impacts on indoor air quality, at sites where groundwater is impacted by VOCs. Because the potential for vapor intrusion into occupied structures has not yet been evaluated at OU-2, evaluation of this pathway is a future activity for OU-2 (see Section 8).

2.10.2 Fish and Wildlife Impact Analysis

The FWIA presented in the RI Report (Parsons, 1999) stated that there is no direct exposure pathway for wildlife to groundwater, since wildlife would not be exposed to groundwater during foraging, nesting, or burrowing activities. The RI Report indicates that groundwater may discharge to surface water, however, analytical results indicate that MGP-related constituents (i.e., BTEX, PAHs, and cyanide) have not been detected (and did not exceed NYSDEC Class C water quality standards), in any of the surface water samples collected from the Mohawk River.

3. Standards, Criteria, and Guidelines (SRGs)

3.1 Overview

This FS Report was prepared in general conformance with the applicable SCGs described in the following:

- NYSDEC TAGM #4025 titled *Guidelines for Remedial Investigations/Feasibility Studies* (NYSDEC, 1989);
- NYSDEC TAGM #4030 titled *Selection of Remedial Actions at Inactive Hazardous Waste Sites* (NYSDEC, 1990); and
- NCP.

In accordance with NYSDEC guidance, SCGs are to be progressively identified and applied on a site-specific basis as the RI/FS proceeds. Standards and criteria are cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations that are generally applicable, consistently applied, and officially promulgated under federal or state law that are either directly applicable or relevant and appropriate to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstances. Guidelines are non-promulgated criteria that are not legal requirements and do not have the same status as "standards and criteria;" however, remedial programs should be designed with consideration given to guidelines that, based on professional judgment, are determined to be applicable to the project [Part 375-1.10(c)(1)(ii) of Title 6 of the New York Compilation of Codes, Rules, and Regulations (6 NYCRR 375-1.10(c)(1)(ii))].

The SCGs considered for the potential remedial alternatives identified in this FS Report were categorized into the following NYSDEC-recommended classifications:

- <u>Chemical-Specific SCGs</u> – These SCGs are usually health- or risk-based numerical values or methodologies that, when applied to site-specific conditions, result in the establishment of numerical values for each constituent of concern. These values establish the acceptable amount or concentration of chemical constituents that may be found in, or discharged to, the ambient environment.

- Action-Specific SCGs – These SCGs are usually technology- or activity-based requirements or limitations on actions taken with respect to hazardous waste management and site cleanup.

- Location-Specific SCGs – These SCGs are restrictions placed on the concentration of hazardous substances or the conduct of activities solely because they occur in specific locations.

Site-specific SCGs are presented in the following subsections.

3.2 Chemical-Specific SCGs

Potential chemical-specific SCGs for this Site are summarized in Table 6. One set of chemical-specific SCGs that potentially apply to the impacted Site soil are the Resource Conservation and Recovery Act- (RCRA-) regulated (RCRA-regulated) levels for Toxicity Characteristic Leaching Procedure (TCLP) constituents, as outlined in 40 CFR 261 and in 6 NYCRR Part 371. The TCLP constituent levels are a set of numerical criteria at which solid waste is considered a hazardous waste by the characteristic of toxicity. In addition, the hazardous characteristics of ignitability, reactivity, and corrosivity also could be applicable.

According to the RI Report (Parsons, 1999), the groundwater beneath the Site is classified as Class GA and, as such, the NYS Groundwater Quality Standards (6 NYCRR Parts 700-705) are potentially applicable chemical-specific standards. These standards identify acceptable levels of constituents in groundwater based on potable use.

3.3 Action-Specific SCGs

The potential action-specific SCGs for this Site are summarized in Table 7. Action-specific SCGs include general health and safety requirements and general requirements regarding handling and disposing of hazardous waste (including transportation and disposal, permitting, manifesting, disposal and treatment facilities). The action-specific SCGs have been divided into the following two categories:

- Action-specific SCGs potentially common to all remedial alternatives; and
- Action-specific SCGs potentially applicable to specific remedial alternatives.

The first category includes general health and safety requirements and general requirements regarding RCRA hazardous waste facilities (including transportation and disposal facilities). The second category includes the SCGs that apply to individual remedial alternatives.

The United States Department of Transportation (USDOT) and New York State rules for the transport of hazardous materials are provided under 49 CFR Parts 107 and 171.1 through 172.558 and 6 NYCRR 372.3. These rules include procedures for packaging, labeling, manifesting, and transporting of hazardous materials and would potentially be applicable to the transport of hazardous materials under any remedial alternative. New York State requirements for waste transporter permits are included in 6 NYCRR Part 364 along with standards for the collection, transport, and delivery of regulated wastes within New York. Contractors transporting waste materials offsite during the selected remedial alternative would need to be properly permitted.

Section 401 (State Water Quality Certification) of the Clean Water Act (CWA) is administered by the NYSDEC. Any remedial alternatives that result in a discharge into the Mohawk River would need to comply with the substantive provisions of a State Water Quality Certification from the NYSDEC.

The National Pollutant Discharge Elimination System (NPDES) program also is administered in New York State by the NYSDEC as a State Pollutant Discharge Elimination System (SPDES). If the selected remedial alternative for the Site results in discharges to surface water (due to dewatering or other activities), discharge limits would need to be established for individual constituents in accordance with the NYSDEC SPDES (6 NYCRR 750-758).

A remedial alternative conducted within the Site would need to comply with applicable requirements outlined under the Occupational Safety and Health Act (OSHA). General industry standards are outlined under OSHA (29 CFR 1910) that specify time-weighted average concentrations for worker exposure to various compounds and training requirements for workers involved with hazardous waste operations. The types of safety equipment and procedures to be followed during site remediation are specified under 29 CFR 1926, and recordkeeping and reporting-related regulations are outlined under 29 CFR 1904.

In addition to the requirements outlined under OSHA, the preparedness and prevention procedures, contingency plan, and emergency procedures outlined under RCRA (40 CFR 264) are potentially relevant and appropriate to those remedial alternatives that include the generation, treatment, or storing hazardous wastes.

3.4 Location-Specific SCGs

The potential location-specific SCGs for this Site are summarized in Table 8. Examples of potential location-specific SCGs include floodplain and wetland regulations, restrictions promulgated under the National Historic Preservation Act, Endangered Species Act, and other federal acts. Location-specific SCGs also include local building permits.

As part of the RI activities, the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, Community Panel 360741 0001, dated September 1983 was reviewed and it was determined that portion of the Site were located within the 100-year floodplain for the Mohawk River. Another part of the RI was to review the NYS Natural Heritage Program Biological and Conservation Data System files; these files indicated that there are no known occurrences of threatened or endangered species or significant habitats within a 2-mile radius of the Site. An “exploitable, vulnerable plant species” was identified in the Natural Heritage Program files as being present in the City of Rome, within 2 miles of the Site; however, the RI Report states that the plant species and its habitat were not observed at the Rome (Kingsley Avenue) Site or its vicinity (Parsons, 1999). According to the *Phase 1A Cultural Resource Investigations for the Rome (Kingsley Avenue) Site* (Collamer & Associates, Inc., 1997), research indicates that the Site is located within 1,000 feet south of Fort Stanwix, which was a portage between the Mohawk River and the Oneida Lake – Lake Ontario in the mid-1700s. Cultural resource investigations within the Site did not yield any information that would warrant an archaeological investigation, but it was recommended in the above-referenced report that a professional archaeologist be on call during remediation efforts and provide periodic monitoring of Site excavations, if any excavation were to take place.

4. Remedial Action Objectives

The remedial action objectives (RAOs) identified for OU-2 were generally developed by considering information related to the completed Site characterizations, current/future land use, the results of the exposure assessment described in Section 2.9, and the potential SCGs identified for OU-2 in Section 3. The RAOs selected for OU-2 are presented in the following table:

Environmental Media (Constituents of Concern)	Remedial Action Alternatives
Groundwater (BTEX, naphthalene, and cyanide)	1. Reduce concentrations of COCs in groundwater to levels below NYS TOGS 1.1.1 Class GA standards and guidance values. 2. Mitigate potential for exposure to COCs in groundwater.
DNAPL	3. Reduce accumulations of DNAPL to the extent reasonably practicable.

Rationale supporting the development of each of the RAOs is presented below.

4.1 Groundwater

The groundwater beneath OU-2 is classified as Class GA and, as such, the NYS Groundwater Quality Standards (6 NYCRR Parts 700-705) are applicable. Based on the evaluation of the geologic and hydrogeologic conditions and the analytical data for OU-2, shallow and deep overburden groundwater east of the river and deep overburden groundwater west of the river appears to have been impacted with constituents that are commonly related to historic MGP operations. Therefore, reducing COC concentrations in groundwater to levels below TOGS 1.1.1 Class GA standards and guidance values has been identified as a RAO.

Although there is currently no direct exposure pathway to groundwater and little, if any, potential for future exposure through potable or commercial/industrial groundwater use, there is potential for future exposure if groundwater were used for non-potable purposes (e.g., lawn watering, car washing, etc.). Taking into consideration the potential for future exposure, mitigating potential human exposure to COCs in groundwater has been identified as an RAO.

4.2 DNAPL

Although there is no potential for direct exposure to DNAPL, removal of DNAPL is a programmatic concern that has been identified by the NYSDEC. Therefore, reducing accumulations of DNAPL, to the extent reasonably practicable, has been identified as an RAO.

5. Identification and Screening of Technologies and Identification of Potential Alternatives

5.1 Overview

This section identifies potential remedial alternatives to address MGP-impacted groundwater and DNAPL in OU-2 toward the RAOs identified in Section 4. As an initial step in this process, general response actions (GRAs) were identified. GRAs are media-specific and may include various activities such as treatment, containment, institutional controls, excavation, or any combination of these activities. Based on the GRAs, potential remedial action alternatives were identified. Detailed evaluations of these potential remedial alternatives are presented in Section 6.

Remedial technology types that are potentially applicable for addressing the impacted media at OU-2 were identified through a variety of sources including review of scientific journals, vendor information, experience, and review of the following documents:

- NYSDEC TAGM #4030 titled *Selection of Remedial Actions at Inactive Hazardous Waste Sites* (NYSDEC, 1990);
- *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (USEPA, 1988);
- *Technology Briefs – Data Requirements for Selecting Remedial Action Technologies* (USEPA, various dates);
- *Remediation Technologies Screening Matrix and Reference Guide* (USEPA and USAF, 1993); and
- *Management of Manufactured Gas Plant Sites* (Gas Research Institute, 1996).

5.2 General Response Actions

Based on the RAOs identified in Section 4, the following GRAs have been established for OU-2:

- No Further Action;
- Groundwater Monitoring;
- Institutional Controls;

- Removal;
- In-Situ Containment/Control;
- In-Situ Treatment;
- Ex-Situ Onsite Treatment; and
- Offsite Treatment and/or Disposal.

5.3 Remedial Technology Screening

Screening of potential remedial technologies was conducted to identify, when possible, representative remedial technologies from which potential remedial alternatives could be selected and evaluated in detail. The preliminary screening was generally based on effectiveness in meeting the RAOs and implementability (e.g., ability to construct, reliably operate, and meet technical specifications or criteria), the availability of specific equipment and technical specialists to operate the equipment, and the operation and maintenance activities required after completion of remedial construction.

As part of evaluating the general effectiveness and implementability of technologies for OU-2, some consideration was given to the overall practicability of the various technologies under consideration, based on the anticipated future Site conditions and specifically the beneficial effect that the remedial actions to be implemented for OU-1 will have on the impacted groundwater and DNAPL within OU-2. For example, the results of the predictive groundwater flow model that was developed for the OU-1 remedy was taken into consideration. The model was developed and presented in the 65% Basis of Design Report to represent anticipated conditions following construction of the proposed cutoff wall along the western boundary of OU-1 (upgradient of OU-2). The model predicted that the cutoff wall would reduce unrestricted groundwater flow by 99.6%. As a result, the OU-1 remedy would reduce, to the extent practicable, future transport of groundwater containing dissolved-phase constituents and also eliminate, to the extent practicable, the future potential for migration of DNAPL from OU-1. This information was used to screen out technology types and process options that would not be effective to implement at OU-2.

5.3.1 Preliminary Screening

1. *No Further Action* – No further actions (beyond those identified for OU-1 or previously implemented in OU-1) would be implemented to address groundwater quality or the presence of DNAPL in OU-2. No further action was retained to serve as a baseline against which other remedial alternatives may be compared.

2. *Groundwater Monitoring* – Groundwater monitoring includes periodic monitoring to collect groundwater samples for laboratory analyses and to observe for the presence of DNAPL. This technology may include monitoring the natural attenuation processes. Natural attenuation is effective in reducing COC concentrations in groundwater via natural processes (e.g., degradation, adsorption, dispersion, dilution, volatilization) under suitable conditions. Various lines of evidence are available to document that natural attenuation is taking place, including analytical data to document observed reductions in plume geometry and constituent concentrations (the primary lines of evidence), geochemical data as an indicator of degradation, microbial data as an indicator of degradation, estimation of attenuation rates, modeling, and other methods. Natural attenuation would be relevant at OU-2 because groundwater remedial construction activities are anticipated to be completed in 2010 within OU-1 (upgradient of OU-2**)** and remediation of OU-1 is anticipated to reduce the unrestricted groundwater flow from the former MGP by nearly 100% (see discussion above). Furthermore, the MGP-related constituents currently found within OU-2 (i.e., BTEX and naphthalene) are well-documented to be amenable to natural attenuation processes, and the area in which groundwater concentrations are above Class GA standards within OU-2 is relatively limited. Therefore, groundwater monitoring was retained for further evaluation.

3. *Institutional Controls* – Institutional controls consist of non-intrusive administrative controls focused on minimizing potential contact with affected groundwater. Institutional controls include deed restrictions to prohibit potable and non-potable groundwater use. As previously stated, institutional controls are part of the OU-1 remedy for that portion of OU-2 that is east of the river and that is also part of OU-1. Therefore, that portion of OU-2 east of the river is not proposed to be included in the institutional controls for OU-2. Institutional controls can reduce exposure potential; therefore, this technology process was retained for further evaluation.

4. *Removal* – The remedial technologies associated with this GRA consist of measures to remove impacted groundwater and DNAPL from the subsurface. The technology processes identified for groundwater and DNAPL removal include:

   - Passive removal of DNAPL from extraction wells;
   - Active removal from extraction wells; and
   - Collection trenches.

   Active extraction wells and collection trenches were not retained for further evaluation for OU-2 because a large volume of groundwater would need to be removed, while only limited COC mass would be removed. Passive DNAPL collection is a feasible technology process that could potentially provide an effective means of collecting and removing DNAPL, as observed by the accumulation of DNAPL in GP-35 (monitoring well) east of the river between the proposed wall cutoff and the river location. Removal technologies are proven and the equipment, materials, and contractors to construct extraction wells are readily available. Therefore, passive removal of DNAPL from extractions wells was retained for further evaluation.

5. *In-Situ Containment/Control* – The remedial technologies associated with this GRA consist of measures to address impacted groundwater and DNAPL without removal or treatment. The remedial technology considered for this GRA consisted of capping/infiltration control and hydraulic containment. The technology processes evaluated under these remedial technologies include:

    - Clay/soil cap, asphalt concrete cap, and multi-media cap (capping/infiltration control); and

    - Steel sheetpiles and slurry walls (hydraulic containment).

    Capping and hydraulic containment processes are being implemented within OU-1, but these technology processes were not retained for further evaluation for OU-2. Capping/infiltration controls were not retained because capping to limit infiltration or prevent direct contact would not be effective for achieving the RAOs. A cutoff wall is proposed for OU-1 and an additional cutoff wall would not achieve the RAOs, therefore, hydraulic containment was not retained for further evaluation.

6. *In-Situ Treatment* – The remedial technologies associated with this GRA consist of measures to treat impacted groundwater in-situ (i.e., without extracting the groundwater). These technologies would treat the groundwater to remove or otherwise alter the COCs to achieve the RAOs established for groundwater. Remedial technologies evaluated for this GRA included biological treatment, chemical treatment, and extraction. The technology processes considered under this GRA include:

    - Enhanced aerobic biodegradation, anaerobic biodegradation, and biosparging (biological treatment);

    - Chemical oxidation and permeable reactive barrier (PRB) (chemical treatment); and

    - Dynamic underground stripping and hydrous pyrolysis/oxidation (DUS/HPO) (extraction).

Enhanced aerobic biodegradation is a commonly used bioremediation technique for organic compounds; therefore, enhanced aerobic biodegradation using chemical additives was retained for further evaluation. Aerobic biodegradation processes can occur only when sufficient oxygen levels are present. Chemical additives (oxygen releasing compounds) can be used at sites to add oxygen and stimulate microbial activity. Chemical oxidation is an innovative technology with limited full-scale implementation to treat dissolved-phase VOCs and PAHs. Therefore, chemical oxidation is implementable at OU-2 and may have the potential of reducing concentrations of COCs in groundwater to levels below NYS TOGS 1.1.1 Class GA standards and guidance values. Therefore, enhanced aerobic biodegradation and chemical oxidation were retained for further evaluation. Due to potential ineffectiveness at OU-2 and/or the potential to facilitate uncontrolled DNAPL migration, the other in-situ treatment technology processes listed above were not retained.

7. *Ex-Situ Onsite Treatment* – The remedial technologies associated with this GRA consist of measures to extract and treat impacted groundwater onsite. Ex-situ onsite remedial treatment technologies identified to potentially address the COCs in the extracted groundwater consist of chemical treatment and physical separation. The technology processes include:

- Ultra-violet (UV) oxidation and chemical oxidation (chemical treatment); and
- Carbon adsorption, filtration, air stripping, precipitation/coagulation/flocculation, and oil/water separation (physical separation).

These technologies were screened out based on the anticipated difficulties in implementation due to the limited COC mass relative to the groundwater volume to be collected and treated using these processes.

8. *Offsite Treatment and/or Disposal* – The remedial technologies associated with this GRA consist of measures to discharge groundwater and/or DNAPL at an offsite location after extraction. Technology processes under the discharge technology include:

- Discharge of groundwater at a publicly-owned treatment works (POTW);
- Discharge of groundwater to surface water via storm sewer;
- Disposal of groundwater and/or DNAPL at a privately-owned treatment/disposal facility; and
- Reinjection of groundwater via injection wells.

None of the offsite treatment and/or disposal technologies were retained for groundwater due to their anticipated difficulties in implementation because of the limited COC mass relative to the groundwater volume to be collected and treated using these processes. DNAPL disposal at a privately-owned treatment/disposal facility was retained for further evaluation.

5.3.2 Summary of Retained Remedial Technologies

The following remedial technologies were retained through the preliminary screening presented above.

- No Further Action;
- Groundwater Monitoring;
- Institutional Controls;
- Passive DNAPL Collection/Removal;
- Off-Site DNAPL Treatment/Disposal;
- In-Situ Enhanced Aerobic Biodegradation; and
- In-Situ Chemical Oxidation.

5.4 Development of Remedial Alternatives

Several combinations of remedial technologies were used to develop to remedial alternatives, as summarized below.

Remedial Alternative	Groundwater and/or DNAPL Remedy Components						
	No Further Action	Institutional Controls	Groundwater Monitoring	Passive DNAPL Collection/Removal	Offsite DNAPL Treatment/Disposal	In-Situ Enhanced Aerobic Biodegradation	In-Situ Chemical Oxidation
Alternative 1	✓						
Alternative 2			✓	✓	✓		
Alternative 3		✓	✓	✓	✓	✓	
Alternative 4		✓	✓	✓	✓		✓

A brief description of the alternatives is presented below and detailed technical descriptions of the remedial alternatives are presented in Section 6 as part of a remedial alternatives evaluation.

Alternative 1 – No Further Action

Under this alternative, no further remedial activities would be conducted beyond those identified in Section 2 for OU-1. Because remediation will be implemented in the future upgradient of OU-2, the concentrations of COCs in groundwater are anticipated to be reduced over time as a result of natural attenuation. Natural attenuation would occur as a result of biodegradation and other natural processes (e.g., adsorption, dispersion, dilution, volatilization) over time.

Alternative 2 – Groundwater Monitoring with Passive DNAPL Collection/Removal and Offsite DNAPL Treatment and Disposal

Because remediation will be implemented upgradient of OU-2, the concentrations of COCs in groundwater are anticipated to be reduced over time as a result of natural attenuation. Under Alternative 2, groundwater monitoring would involve monitoring to document the reduction in COC concentration over time. Monitoring would be conducted consistent with the guidance established by NYSDEC and USEPA. Monitoring also would be conducted to periodically observe DNAPL levels in monitoring wells and to bail wells when recoverable DNAPL is present. Recovered DNAPL would be transferred to containers for offsite transport and treatment/disposal at a permitted facility. Under this alternative, DNAPL recovery wells would be installed and screened across the subsurface zone, west of the OU-1 cutoff wall, where DNAPL may be located.

Alternative 3 – In-Situ Enhanced Aerobic Biodegradation (Chemical Additives) with Institutional Controls, Groundwater Monitoring, Passive DNAPL Collection/Removal, and Offsite DNAPL Treatment/Disposal

Under Alternative 3, in-situ aerobic biodegradation would be enhanced using chemical additives (such as oxygen releasing compounds). The additives would be introduced into the subsurface to increase oxygen levels in the groundwater, making the subsurface favorable for microbial growth and an acceleration of in-situ bioremediation. Institutional controls would also be implemented to prohibit potable and non-potable groundwater use. The use restrictions would be placed on the properties where groundwater is found to contain COCs at concentrations greater than NYS TOGS 1.1.1 Class GA groundwater standards and guidance values. Because remediation will be implemented upgradient of

OU-2, the concentrations of COCs in groundwater are anticipated to be reduced over time as a result of natural attenuation. Groundwater monitoring would involve monitoring to document the reduction in COC concentrations as a result of biodegradation and other natural processes (e.g., adsorption, dispersion, dilution, volatilization) over time. Monitoring would be conducted consistent with the guidance established by NYSDEC and USEPA. Monitoring would also be conducted to periodically observe DNAPL levels in monitoring wells and to bail wells when recoverable DNAPL is present. Recovered DNAPL would be transferred to containers for offsite transport and treatment/disposal at a permitted facility. Under this alternative, DNAPL recovery wells would be installed and screened across the subsurface zone, west of the OU-1 cutoff wall, where DNAPL may be located.

Alternative 4 – In-Situ Chemical Oxidation with Institutional Controls, Groundwater Monitoring, Passive DNAPL Collection/Removal, and Offsite DNAPL Treatment/ Disposal

Under this alternative, in-situ chemical oxidation would involve the addition of oxidizing agents (e.g., hydrogen peroxide, ozone, permanganate, among others) to degrade organic constituents to less-toxic byproducts. The oxidizing agents would be injected into the subsurface to reduce the mass of COCs (i.e., BTEX and PAHs) in groundwater on the west side of the river. Institutional controls would be implemented to prohibit potable and non-potable groundwater use. The use restrictions would be placed on the properties where groundwater is found to contain COCs at concentrations greater than NYS TOGS 1.1.1 Class GA groundwater standards and guidance values. Because remediation will be implemented upgradient of OU-2, the concentrations of COCs in groundwater are anticipated to be reduced over time as a result of natural attenuation. Groundwater monitoring would involve monitoring to document the reduction in COC concentrations as a result of biodegradation and other natural processes (e.g., adsorption, dispersion, dilution, volatilization) over time. Monitoring would be conducted consistent with the guidance established by NYSDEC and USEPA. Monitoring would also be conducted to periodically observe DNAPL levels in monitoring wells and to bail wells when recoverable DNAPL is present. Recovered DNAPL would be transferred to containers for offsite transport and treatment/disposal at a permitted facility. Under this alternative, DNAPL recovery wells would be installed and screened across the subsurface zone, west of the OU-1 cutoff wall, where DNAPL may be located.

6. Comparative Evaluation of Remedial Alternatives

6.1 Overview

This section further describes the potential remedial alternatives selected for OU-2. Each of the retained remedial alternatives is described and evaluated with respect to the criteria presented in NYSDEC's TAGM #4030 (NYSDEC, 1990) and the USEPA's *Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA* (USEPA, 1988). The results of the evaluation of remedial alternatives will be used to aid in the recommendation of the overall remedial alternative for implementation at the OU-2.

6.2 Description of Evaluation Criteria

The evaluation of remedial alternatives presented in this section consists of an assessment of each assembled alternatives (identified in Section 5.4) against the following seven evaluation criteria:

- Compliance with SCGs;
- Long-Term Effectiveness and Permanence;
- Reduction of Toxicity, Mobility, or Volume;
- Short-Term Effectiveness;
- Overall Protection of Human Health and the Environment;
- Implementability; and
- Cost.

These evaluation criteria encompass statutory requirements and include other gauges such as overall feasibility. Additional criteria including public and state acceptance will be addressed following submittal of this FS Report.

A description of the evaluation criteria is presented in the following subsections.

6.2.1 Compliance with SCGs

This evaluation criterion evaluates each remedial alternative's ability to comply with SCGs. The following items are considered during evaluation of the remedial alternative:

- Compliance with chemical-specific SCGs;
- Compliance with action-specific SCGs; and
- Compliance with location-specific SCGs.

This evaluation criterion also addresses whether the remedial alternative would be in compliance with other appropriate federal and state criteria, advisories, and guidance. Applicable chemical-, action-, and location-specific SCGs are presented in Tables 6, 7, and 8, respectively.

6.2.2 Long-Term Effectiveness and Permanence

The evaluation of each remedial alternative relative to its long-term effectiveness and permanence is made by considering the risks that may remain following completion of the remedial alternative. The following factors will be assessed in the evaluation of the alternative's long-term effectiveness and permanence:

- Potential environmental impacts from untreated waste or treatment residuals remaining at the completion of the remedial alternative;
- The adequacy and reliability of controls (if any) that will be used to manage treatment residuals or remaining untreated waste; and
- The remedial alternative’s ability to meet RAOs established for the Site.

6.2.3 Reduction of Toxicity, Mobility, and Volume

This evaluation criterion addresses the degree to which the remedial alternative will permanently and significantly reduce the toxicity, mobility, or volume of the constituents present in the Site media. The evaluation focuses on the following factors:

- The treatment process and the amount of materials to be treated;
- The treatment process’s anticipated ability to reduce the toxicity, mobility, or volume;
- The nature and quantity of treatment residuals that will remain after treatment;
- The relative amount of hazardous substances, pollutants, or contaminants that will be destroyed, treated, or recycled; and
- The degree to which the treatment is irreversible.

6.2.4 Short-Term Effectiveness

The short-term effectiveness of the remedial alternative is evaluated relative to its effect on human health and the environment during implementation of this alternative. The evaluation of each alternative with respect to its short-term effectiveness will consider the following:

- Short-term impacts to which the community may be exposed during implementation of the alternative;
- Potential impacts to workers during implementation of the remedial actions and the effectiveness and reliability of protective measures;
- Potential environmental impacts of the remedial action and the effectiveness of mitigative measures to be used during implementation; and
- Amount of time until protection is achieved.

Additional items to be considered when evaluating the remedial alternative relative to its short-term effectiveness are identified as specific considerations in the USEPA's *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (USEPA, 1988).

6.2.5 Overall Protection of Human Health and the Environment

This evaluation of the remedial alternative addresses whether the alternative provides adequate protection of human health and the environment. This evaluation relies on the assessments conducted for other evaluation criteria, including long-term and short-term effectiveness, and compliance with SCGs.

6.2.6 Implementability

This criterion addresses the technical and administrative feasibility of implementing the remedial alternative, including the availability of the various services and materials required for implementation. The following factors are considered during the implementability evaluation:

- ***Technical Feasibility*** – This factor refers to the relative ease of implementing or completing the remedial alternative based on Site-specific constraints. In addition, the remedial alternative's constructability and operational reliability are considered, as well as the ability to monitor the effectiveness of the remedial alternative.

- ***Administrative Feasibility*** – This factor refers to the feasibility of acquiring, and the time required to obtain any necessary approvals and permits.

6.2.7 Cost

This criterion refers to the total cost to implement the remedial alternative. The total cost of each alternative represents the sum of the direct capital costs (materials, equipment, and labor), indirect capital costs (engineering, licenses or permits, and the contingency allowances), and O&M costs. O&M costs may include operating labor, energy, chemicals, and sampling and analysis. These costs, which are developed to allow the comparison of the remedial alternatives, are estimated with expected accuracies of -30 to +50%, in accordance with USEPA's *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (USEPA, 1988). A 20% contingency factor is included to cover unforeseen costs incurred during subsequent design and implementation activities. Present worth costs are calculated for alternatives expected to last more than two years. In accordance with USEPA guidance, a 7% discount rate (before taxes and after inflation) is used to determine the present worth factor.

6.3 Detailed Evaluation of Remedial Alternatives

This section presents the detailed analysis of each of the following remedial alternatives:

- Alternative 1 – No Action;

- Alternative 2 – Groundwater Monitoring with Passive DNAPL Collection/Removal and Offsite DNAPL Treatment/ Disposal;

- Alternative 3 – In-Situ Enhanced Aerobic Biodegradation (Chemical Additives) with Institutional Controls, Groundwater Monitoring, Passive DNAPL Collection/Removal, and Offsite DNAPL Treatment/Disposal; and

- Alternative 4 – In-Situ Chemical Oxidation with Institutional Controls, Groundwater Monitoring, Passive DNAPL Collection/Removal, and Offsite DNAPL Treatment/ Disposal.

Each alternative is evaluated against the seven criteria described in Section 6.2.

6.3.1 Alternative 1 – No Further Action Alternative

The No Further Action alternative was retained for evaluation for each of the environmental media to be addressed for OU-2 as required by USEPA's *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (USEPA, 1988) and the NCP.

Technical Description

The No Further Action alternative serves as the baseline for comparison of the overall effectiveness of the other remedial alternatives. The No Further Action alternative would not involve the implementation of any additional remedial activities to address the COCs at the Site. As indicated above, remedial activities will be implemented at OU-1 under remedial activities that are administratively addressed under the ROD for OU-1. Because OU-2 is downgradient, it would be subject to the beneficial effects of the remedial actions implemented within OU-1. Under Alternative 1, no additional remedial actions within OU-2 would be made to affect the site conditions. Because remediation will be implemented upgradient of OU-2, the concentrations of COCs in groundwater are anticipated to be reduced over time as a result of natural attenuation via biodegradation and other natural processes (e.g., adsorption, dispersion, dilution, volatilization).

Compliance with SCGs

- *Chemical-Specific SCGs*: The chemical-specific SCGs identified for this alternative are presented in Table 6. Although removal and treatment will be implemented within OU-1 (regardless of whether any remediation is performed within OU-2) and natural processes (e.g., biodegradation, dispersion, dilution, and sorption, and/or volatilization) will continue to reduce COC concentrations, the chemical-specific SCGs may not be achieved, in the short term, under the no further action alternative.

- *Action-Specific SCGs*: This alternative does not involve the implementation of any remedial activities; therefore, the action-specific SCGs are not applicable.

- *Location-Specific SCGs*: This alternative does not involve the implementation of any remedial activities; therefore, the location-specific SCGs are not applicable.

Long-Term Effectiveness and Permanence

Under this alternative, the concentration of COCs would be permanently reduced over time following remediation of OU-1.

Reduction of Toxicity, Mobility, and Volume

Under this alternative, COC concentrations would be reduced as a result of natural processes. The reduction in COC concentrations would reduce the toxicity, mobility, and volume of the COCs.

Short-Term Effectiveness

Under this remedy, no remedial activities would be implemented within OU-2; therefore, there would be no short-term environmental impacts or risks posed to the community. Because the remedy for OU-1 has not yet been implemented, there would be some amount of time in the short-term before COC concentrations are reduced.

Overall Protection of Human Health and the Environment

Under this alternative, COC concentrations would be reduced over time. Therefore, the no further action alternative would mitigate the potential for future exposure and result in overall protection of human health and the environment.

Implementability

Under this alternative, there would be no remedial activities within OU-2. Therefore, Alternative 1 would be readily implementable.

Cost

There are no significant costs associated with Alternative 1.

6.3.2 Alternative 2 – Groundwater Monitoring with Passive DNAPL Collection and Removal

Technical Description

Under Alternative 2, initial groundwater sampling and analyses activities would be conducted to create a baseline against which future data would be evaluated. Initial groundwater monitoring activities would be conducted quarterly for the first year (total of four sampling events). After the initial year of quarterly monitoring, National Grid, in coordination with NYSDEC, would develop a plan to conduct periodic monitoring to document groundwater quality. Groundwater monitoring activities would potentially consist of recording groundwater field measurements (i.e., dissolved oxygen [DO], pH, turbidity, temperature, etc.) and collecting groundwater samples for laboratory analysis for natural attenuation parameters (e.g., geochemical parameters and microbial count) and laboratory analysis from the existing monitoring wells within OU-2 and additional new and/or replacement monitoring wells to facilitate monitoring (as appropriate). Monitoring would also be conducted to observe DNAPL levels in monitoring wells. DNAPL, if present at a measurable and recoverable level, would be removed manually using a dedicated bailer or mechanically using a peristaltic (or comparable) pump. Recovered DNAPL would be placed in appropriate containers for transport and offsite treatment/disposal. Under this alternative, recovery wells would be installed on the east side of the river and screened within the subsurface zone where DNAPL may be located. The area proposed for installation of the DNAPL recovery wells is shown on Figure 10.

The results of the groundwater monitoring and DNAPL recovery/disposal activities would be summarized and presented to the NYSDEC in annual reports. If the results of the periodic monitoring indicate that groundwater COC concentrations are not being reduced, and/or MGP-related constituents in groundwater are further migrating, National Grid would provide recommendations for additional remediation measures to address impacted groundwater at and/or near OU-2.

Compliance with SCGs

- *Chemical-Specific SCGs*: The chemical-specific SCGs identified for this alternative are presented in Table 6. Although removal and treatment will be implemented in the future within OU-1 (regardless of whether any actions are taken within OU-2), natural processes (i.e., biodegradation, dispersion, dilution, adsorption, and/or volatilization) will continue to reduce COC concentrations, and DNAPL collection and removal should further contribute to the reduction in COC concentrations, the chemical-specific SCGs may not be achieved, in the short term, under this alternative.

- *Action-Specific SCGs*: Action-specific SCGs that apply to this alternative are associated with installation of wells, monitoring, and DNAPL collection/disposal, and OSHA health and safety requirements. Compliance with action-specific SCGs would be accomplished by following an NYSDEC-approved RD/RA Work Plan and Site-specific HASP.

- *Location-Specific SCGs*: This alternative does not involve the implementation of any active remedial activities; therefore, the location-specific SCGs are not applicable.

Long-Term Effectiveness and Permanence

Under this alternative, the concentration of COCs would be reduced as a result of OU-1 remediation and natural processes, and these processes would be effective and permanent. In addition, because this alternative would involve DNAPL collection and recovery and offsite treatment/ disposal, this alternative would also permanently reduce DNAPL levels to the extent reasonably practicable.

Reduction of Toxicity, Mobility, and Volume

Under this Alternative 2, COC concentrations would be reduced as a result of natural processes and DNAPL removal. The reduction in COC concentrations would reduce the toxicity, mobility, and volume of the COCs. Under this alternative, monitoring would document the reduction in COC concentrations.

Short-Term Effectiveness

Monitoring wells within OU-2 are (and would continue to be) equipped with locks to restrict access to the wells. Under this alternative, there would be no contact with impacted groundwater or DNAPL with the possible exception of potential for worker exposure during periodic groundwater sampling and DNAPL recovery activities, which will be conducted in accordance with an appropriate health and safety plan. There would be some amount of time in the short-term before COC concentrations are reduced and all institutional controls are in place.

Overall Protection of Human Health and the Environment

Under this alternative, COC concentrations would be reduced over time. Therefore, this alternative would mitigate the potential for future exposure and result in overall protection of human health and the environment. Groundwater monitoring activities associated with this alternative would document the reduction of COC concentrations in groundwater via natural processes. Potential migration of impacted groundwater would be monitored via sampling to assess the need, if any, to further protect potential downgradient groundwater receptors.

Implementability

Equipment, personnel, and support services (e.g., analytical laboratories, drillers, disposal services) qualified to conduct groundwater monitoring and DNAPL recovery activities are readily available.

Cost

The capital costs associated with this alternative include the costs to install several new monitoring wells; install DNAPL recovery wells; conduct periodic groundwater monitoring; conduct laboratory analysis of the groundwater samples; collect and dispose of DNAPL (if any); and prepare an annual report. The present worth cost has been calculated assuming that semi-annual monitoring and DNAPL disposal activities are continued for a period of 30 years. The estimated present worth cost of this alternative is approximately $1,700,000. A detailed breakdown of the estimated costs associated with this alternative is presented in Table 9.

6.3.3 Alternative 3 – In-Situ Enhanced Aerobic Biodegradation (Chemical Additive) with Institutional Controls, Groundwater Monitoring, Passive DNAPL Collection/Removal, and Offsite DNAPL Treatment/Disposal

Technical Description

Alternative 3 would address impacted groundwater using in-situ enhanced aerobic biodegradation, institutional controls, groundwater monitoring, passive DNAPL collection/ removal, and offsite DNAPL treatment/disposal.

In-situ aerobic biodegration of organic compounds (constituents) depends upon providing microorganisms with suitable conditions for active growth. Several factors may affect a microorganism’s ability to degrade organic compounds, including availability of oxygen, pH, temperature, nutrient supply (such as nitrogen and phosphorus), constituent concentration, bioavailability of the constituent, and relative biodegradation rate of the constituent. In-situ enhanced aerobic biodegradation involves the introduction of chemical additives into the subsurface to supply sufficient oxygen levels so that natural bacterial growth to occur. Oxygen release compound products (such as ORC®) have been used at sites with varying degrees of success. Oxygen release compounds products can be used at sites to stimulate microbial activity. A slurry of oxygen release materials and water can be introduced to the subsurface using high-pressure injection. The injection locations are determined based upon the area of impact and anticipated radius of influence of each injection point.

Prior to implementation of this remedial alternative, baseline monitoring would be conducted and the data would be used to identify appropriate design parameters for injection of chemical additives to support in-situ enhanced biodegradation. This alternative would include pretreatment and post-treatment monitoring events of field and laboratory parameters (potentially including temperature, pH, dissolved oxygen, oxidation-reduction potential [ORP], microbial counts, etc.) at groundwater monitoring locations to determine the effectiveness of the alternative. During design, a network of injection points would be targeted for installation in select areas of OU-2. In order for in-situ enhanced aerobic biodegradation to be effective, it is necessary to deliver the chemical additive in a manner that promotes contact with the impacted zone. The radius of influence surrounding an individual injection location is dependent upon conditions encountered within OU-2, including subsurface stratigraphy, injection pressure, etc. and date would be collected to support the design. If the findings of the pretreatment monitoring event indicate that in-situ enhanced aerobic biodegradation using chemical additives would not be effective at OU-2, a review of alternative remedial measures would be conducted and additional recommendations would be presented to the NYSDEC.

Under this alternative, institutional controls would involve creating a legal notice to prohibit the future installation of groundwater wells for irrigation purposes.

Under this alternative, in conjunction with the enhanced biodegradation activities, initial groundwater sampling and analysis would be conducted to create a baseline against which that future data can be evaluated. Initial groundwater monitoring activities would be conducted quarterly for the first year (total of four sampling events). After the initial year of quarterly monitoring, National Grid, in coordination with NYSDEC, would develop a plan to conduct periodic monitoring to document groundwater quality. Groundwater monitoring activities would potentially consist of recording natural attenuation field measurements (i.e., DO, pH, turbidity, temperature, etc.) and collecting groundwater samples for natural attenuation parameters (e.g., geochemical parameters and microbial count) and laboratory analysis from the existing monitoring wells within OU-2 and additional new and/or replacement monitoring wells to facilitate monitoring (as appropriate). Monitoring would also be conducted to observe DNAPL levels in monitoring wells. DNAPL, if present at a recoverable level, would be removed manually using a dedicated bailer or mechanically using a peristaltic (or comparable) pump. Recovered DNAPL would be placed in appropriate containers for transport and offsite treatment/disposal. Under this alternative, additional recovery wells would also be installed on the east side of the river and screened within the subsurface zone where DNAPL may be located. The area proposed for installation of the DNAPL recovery wells is shown on Figure 10.

The results of the enhanced biodegradation, groundwater monitoring, and DNAPL recovery activities would be summarized and presented to the NYSDEC in annual reports. If the results of the periodic monitoring indicate that groundwater COC concentrations are not being reduced, and/or MGP-related constituents in groundwater are further migrating, National Grid would provide recommendations for additional remediation measures to address impacted groundwater at and/or near the Site.

Compliance with SCGs

- *Chemical-Specific SCGs*: Chemical-specific SCGs are presented in Table 6. Although removal and treatment will be implemented in the future within OU-1 (regardless of whether any actions are taken within OU-2), enhanced biodegradation and natural processes (i.e., biodegradation, dispersion, dilution, adsorption, and/or volatilization) would continue to reduce COC concentrations, and DNAPL collection and removal should further contribute to the reduction in COC concentrations, the chemical-specific SCGs may not be achieved, in the short term, under this alternative.

- *Action-Specific SCGs*: Action-specific SCGs are presented in Table 7. Action-specific SCGs that apply to this alternative are associated with installation/injection of the chemical additive, monitoring, DNAPL collection/disposal, and OSHA health and safety requirements. Compliance with action-specific SCGs would be accomplished by following an NYSDEC-approved Remedial Design/Remedial Action Work Plan (RD/RA Work Plan) and Site-specific Health and Safety Plan (HASP).

  Process residuals generated during the implementation of the alternative (e.g., drilling waste from well installation) would be characterized to determine appropriate offsite disposal requirements. If any of the materials are characterized as a hazardous waste, then the RCRA universal treatment standards, RCRA land disposal restrictions, and USDOT requirements for the packaging, labeling, transportation, and disposal of hazardous or regulated materials may be applicable. Compliance with these requirements would be achieved by using licensed waste transporters and properly permitted disposal facilities.

- *Location-Specific SCGs*: Location-specific SCGs are presented in Table 8. Remedial activities at the Site would be conducted in accordance with local codes and ordinances.

Long-Term Effectiveness and Permanence

Under this alternative, the concentration of COCs would be reduced as a result of OU-1 remediation, natural processes, and enhanced biodegradation, and these processes would be effective and permanent. In addition, because this alternative would involve DNAPL collection and recovery and offsite treatment/disposal, this alternative would also permanently reduce DNAPL levels to the extent reasonably practicable.

Reduction of Toxicity, Mobility, and Volume

Under Alternative 3, COC concentrations would be reduced as a result of enhanced biodegradation natural processes and DNAPL removal. The reduction in COC concentrations would reduce the toxicity, mobility, and volume of the COCs. Under this alternative, monitoring would document the reduction in COC concentrations.

Short-Term Effectiveness

Monitoring wells within OU-2 are (and would continue to be) equipped with locks to restrict access to the wells. Under this alternative, there would be no contact with impacted groundwater or DNAPL with the possible exception of potential for worker exposure during additional of additives to groundwater, periodic groundwater sampling and DNAPL recovery activities, which will be conducted in accordance with an appropriate health and safety plan. There would be some amount of time in the short-term before COC concentrations are reduced and all institutional controls are in place. Potential exposure of onsite workers to chemical constituents and operational hazards would be mitigated by the use of PPE and through equipment and material handling procedures, as specified in a Site-specific HASP that would be developed during the remedial design activities.

Overall Protection of Human Health and the Environment

Although there are no existing direct exposure pathways to COCs, institutional controls would provide additional measures to further reduce the potential for future exposure. Furthermore, under this alternative, COC concentrations would be reduced over time and this reduction would be facilitated using groundwater additives to enhance biodegradation. Therefore, this alternative would mitigate the potential for future exposure and result in overall protection of human health and the environment. Groundwater monitoring activities associated with this alternative would document the reduction of COC concentrations in groundwater via natural processes and enhanced biodegradation. Potential migration of impacted groundwater would be monitored via sampling to assess the need, if any, to further protect potential downgradient groundwater.

Implementability

Equipment and materials associated with the implementation of in-situ enhanced aerobic biodegradation using chemical additives are available and technically feasible. Although remedial information obtained from other sites similar to OU-2 provides useful information regarding the implementability and effectiveness of this technology process, several uncertainties exist for implementation of this remedial alternative. For example, the radius of influence surrounding individual injection locations is uncertain and would depend upon conditions at OU-2, including subsurface stratigraphy, injection pressure, etc. In addition, although the time associated with implementation of this remedial alternative may be relatively short (e.g., 2 to 4 years), the duration to achieve reduce COC concentrations is not known with certainty. Therefore, it is assumed that long-term monitoring of the groundwater would continue for at least 30 years.

Cost

The capital costs associated with this alternative include in-situ enhanced biodegradation (chemical additives) implementation, plus the costs of the institutional controls, groundwater monitoring, and passive DNAPL recovery/collection and offsite DNAPL treatment/disposal. The present worth cost has been calculated assuming that monitoring/maintenance activities will be conducted for a period of 30 years. The estimated present worth cost of this alternative is approximately $2,500,000. A detailed breakdown of the estimated costs associated with this alternative is presented in Table 10.

6.3.4 Alternative 4 – In-Situ Chemical Oxidation with Institutional Controls, Groundwater Monitoring, and Passive DNAPL Collection/Removal and Offsite Treatment/Disposal

Technical Description

This alternative would address impacted groundwater and NAPL at the Site through in-situ chemical oxidation, institutional controls, groundwater monitoring, passive DNAPL collection/removal, and offsite DNAPL treatment/disposal.

The primary purpose of in-situ chemical oxidation would be to reduce the mass of COCs in the groundwater and reduce the mass flux of COCs from NAPL to the dissolved phase in groundwater. In-situ chemical oxidation involves the introduction of oxidizing agents (and initiators) into the subsurface to degrade organic constituents to less-toxic byproducts. For the purposes of this alternative, it has been assumed that ozone, persulfate, permanganate, peroxide, or a combination of these would be used as the oxidizing agent(s) to address subsurface impacts.

Prior to full-scale implementation of in-situ chemical oxidation, a pilot-scale study would be conducted to evaluate the feasibility, effectiveness, and appropriate design parameters for full-scale implementation. The pilot-scale testing would likely include pre-injection baseline monitoring, installing a series of oxidant injection wells, injecting oxidizing agents (i.e., ozone) into the subsurface, and performing post-injection monitoring to evaluate the effectiveness of the remedial technology. Multiple oxidant injections may be performed as part of the pilot-scale study to monitor the effectiveness and determine appropriate operating conditions. If the findings of the pilot-scale testing indicate that in-situ oxidation may be effective, the remedial design for the full-scale system would be prepared and/or modified (if necessary) and implementation of in-situ chemical oxidation would proceed on a full-scale application. If the findings of the pilot-scale testing indicate that in-situ oxidation is not effective, a review of alternative remedial measures would be conducted and additional recommendations would be presented to the NYSDEC.

In order for in-situ oxidation to be effective, it is necessary to deliver the oxidizing agents in a manner that promotes contact with the chemical constituents, and a network of injection points would be installed in select areas of OU-2. The radius of influence surrounding an individual injection location is dependent upon Site-specific conditions, including subsurface stratigraphy, oxidant concentration, injection pressure, etc. Information collected during design activities would be evaluated to properly design the oxidant delivery parameters (e.g., oxidant concentration, injection pressure, etc.) and the spacing of oxidant injection locations.

In conjunction with oxidant injection, the evaluation and implementation of a soil vapor extraction (SVE) system may be required to recover off-gas generated during treatment and excess ozone that does not degrade/react. A confirmation that an SVE system is needed, as part of full-scale implementation, would be determined as part of the remedial design activities.

A monitoring program would be conducted to evaluate treatment effectiveness. Pre-injection monitoring would be conducted prior to implementation to determine baseline concentrations of chemical constituents in groundwater within the treatment areas. The monitoring program would consist of collecting periodic subsurface groundwater samples for laboratory analysis to determine if the treatment efforts are reducing concentrations of COCs in subsurface media. Long-term groundwater monitoring activities would be continued following completion of the in-situ oxidation treatment activities. Natural attenuation parameters may also be monitored to determine the effectiveness of treatment.

Under this alternative, institutional controls would involve creating a legal notice to prohibit potable and non-potable groundwater use.

Under this alternative, in conjunction with the chemical oxidation activities, initial groundwater sampling and analysis would be conducted to create a baseline against which that future data can be evaluated. Groundwater monitoring activities would be conducted quarterly for the first year (total of four sampling events). After the initial year of quarterly monitoring, National Grid, in coordination with NYSDEC, would develop a plan to conduct periodic monitoring to document groundwater quality. Groundwater monitoring activities would potentially consist of recording natural attenuation field measurements (i.e., DO, pH, turbidity, temperature, etc.) and collecting groundwater samples for natural attenuation parameters and laboratory analysis from the existing monitoring wells within OU-2 and additional new and/or replacement monitoring wells to facilitate monitoring (as appropriate). Monitoring would also be conducted to observe DNAPL levels in monitoring wells. DNAPL, if present at a recoverable level, would be removed manually using a dedicated bailer or mechanically using a peristaltic (or comparable) pump. Recovered DNAPL would be placed in appropriate containers for transport and offsite treatment/disposal. Under this alternative, additional recovery wells would also be installed on the east side of the river and screened within the subsurface zone where DNAPL may be located. The area proposed for installation of the DNAPL recovery wells is shown on Figure 10.

The results of the chemical oxidation injections, groundwater monitoring, and DNAPL recovery/disposal activities would be summarized and presented to the NYSDEC in annual reports. If the results of the periodic monitoring indicate that groundwater COC concentrations are not being reduced, and/or MGP-related constituents in groundwater are further migrating, National Grid would provide recommendations for additional remediation measures to address impacted groundwater at and/or near the Site.

Compliance with SCGs

- *Chemical-Specific SCGs*: Chemical-specific SCGs are presented in Table 6. Although removal and treatment will be implemented in the future within OU-1 (regardless of whether any actions are taken within OU-2), chemical oxidation and natural processes (i.e., biodegradation, dispersion, dilution, adsorption, and/or volatilization) would continue to reduce COC concentrations, and DNAPL collection and removal should further contribute to the reduction in COC concentrations, the chemical-specific SCGs may not be achieved, in the short term, under this alternative.

- *Action-Specific SCGs*: Action-specific SCGs are presented in Table 7. Action-specific SCGs that apply to this alternative are associated with installation and operation of the oxidant injection system, monitoring, and DNAPL collection/disposal, and OSHA health and safety requirements. Compliance with action-specific SCGs would be accomplished by following an NYSDEC-approved RD/RA Work Plan and Site-specific HASP.

The implementation of this alternative would result in the generation of air emissions. The SCGs applicable to air emissions include the PSD air emission provisions contained in 40 CFR 51 and all relevant requirements under the Clean Air Act contained in 40 CFR 1-99. In addition, NYS regulations regarding air emissions would apply. To comply with these SCGs, the treatment system would need to be designed and operated such that PSD limits would not be exceeded and the system would comply with all state and federal air emission requirements.

Process residuals generated during the implementation of the alternative (e.g., drilling waste from well installation) would be characterized to determine appropriate offsite disposal requirements. If any of the materials are characterized as a hazardous waste, then the RCRA UTSs/LDRs and USDOT requirements for the packaging, labeling, transportation, and disposal of hazardous or regulated materials may be applicable.

Compliance with these requirements would be achieved by using licensed waste transporters and properly permitted disposal facilities.

- *Location-Specific SCGs*: Location-specific SCGs are presented in Table 8. Remedial activities at the Site would be conducted in accordance with local building/construction codes and ordinances.

Long-Term Effectiveness and Permanence

Prior to full-scale implementation of in-situ chemical oxidation, a pilot-scale study would be conducted to evaluate the feasibility, effectiveness, and appropriate design parameters for full-scale implementation. Implementation of this alternative would be expected to permanently treat (via chemical oxidation) impacted groundwater in OU-2. This remedial alternative would mitigate impacts to groundwater by reducing the mass flux of COCs from the DNAPL to the dissolved phase and would oxidize dissolved-phase COCs in groundwater.

A long-term O&M plan would be developed that would include monitoring the in-situ chemical oxidation system performance, adjusting system operations for optimal performance, and performing routine maintenance. Long-term groundwater monitoring would also be conducted using existing monitoring wells to monitor the concentrations of COCs in groundwater and assess the effectiveness of the in-situ chemical oxidation.

Reduction of Toxicity, Mobility, and Volume

Under Alternative 4, COC concentrations would be reduced as a result of chemical oxidation, natural processes, and DNAPL removal. The reduction in COC concentrations would reduce the toxicity, mobility, and volume of the COCs. Under this alternative, monitoring would document the reduction in COC concentrations.

Short-Term Effectiveness

Monitoring wells within OU-2 are (and would continue to be) equipped with locks to restrict access to the wells. Under this alternative, there would be no contact with impacted groundwater or DNAPL with the possible exception of potential for worker exposure during additional of additives to groundwater, periodic groundwater sampling and DNAPL recovery activities, which will be conducted in accordance with an appropriate health and safety plan. There would be some amount of time in the short-term before COC concentrations are reduced and all institutional controls are in place. Potential exposure of onsite workers to chemical constituents and operational hazards would be mitigated by the use of PPE and through equipment and material handling procedures, as specified in a Site-specific HASP that would be developed during the remedial design activities. A limitation of chemical oxidation is the potential for exposure of onsite residents and trespassers to chemicals (e.g., ozone) onsite (see discussion below).

Overall Protection of Human Health and the Environment

Although there are no existing direct exposure pathways to COCs, institutional controls would provide additional measures to further reduce the potential for future exposure. Furthermore, under this alternative, COC concentrations would be reduced in both the short- term and long-term. Therefore, this alternative would mitigate the potential for future exposure and result in overall protection of human health and the environment. Groundwater monitoring activities associated with this alternative would document the reduction of COC concentrations in groundwater via natural processes and chemical oxidation. Potential migration of impacted groundwater would be monitored via sampling to assess the need, if any, to further protect potential downgradient groundwater.

Implementability

Prior to full-scale implementation of in-situ chemical oxidation, a pilot-scale study would be conducted to evaluate the feasibility, effectiveness, and appropriate design parameters for full-scale implementation. Equipment and materials associated with the implementation of in-situ oxidation are available. For example, ozone could be generated onsite using commercially available mobile ozone-generating units and delivered to the subsurface via typical injection wells. However, installation of ozone injection points and vapor extraction wells is not desirable on residential property. Another potential limitation is that an SVE system may also be required in conjunction with in-situ chemical oxidation to recover and treat off-gas and residual ozone. SVE is technically feasible, but not be easily implementable. Equipment and materials for an SVE system are readily available, but difficulties exist in the installation and operation of the system because of the residential setting where this technology would need to be implemented.

Several uncertainties exist for full-scale implementation of in-situ oxidation. The radius of influence surrounding individual injection locations is uncertain and may depend upon Site-specific conditions, including subsurface stratigraphy, ozone concentration, injection pressure, etc. There is also the uncertainty of short circuiting where a leaky seal at an injection point may allow oxidant to move directly up the well annulus to the unsaturated zone instead of being forced into the impacted groundwater zone. In addition, soil oxygen demand could result in a low estimation of the amount of oxidant required to address the impacted media due to the oxygen demand of natural organic material in Site soils. Uncertainties also exist for other system design parameters (e.g., ozone concentrations, injection rates, injection pressures, etc.). Additional data would need to be collected to identify appropriate design parameters for full-scale implementation.

The time associated with successful implementation of this remedial alternative may be relatively short (e.g., approximately 3 to 5 years), the duration is not known with certainty. Therefore, it is assumed that the long-term monitoring of the groundwater would continue for at least 30 years.

Cost

The capital costs associated with this alternative include in-situ chemical oxidation pilot study and the construction of the full-scale in-situ chemical oxidation remedial system, plus the costs of the institutional controls, groundwater monitoring, and passive DNAPL collection. The present worth cost has been calculated assuming that O&M activities will be conducted for a period of 30 years. The estimated present worth cost of this alternative is approximately $4,100,000. A detailed breakdown of the estimated costs associated with this alternative is presented in Table 11.

6.4 Comparative Evaluation of Alternatives

This section presents a comparative analysis of each remedial alternative using the seven evaluation criteria identified above. The comparative analysis identifies the advantages and disadvantages of each alternative relative to one another. The results of the comparative analysis serve as the basis for the recommended remedial alternative identified in Section 7.

Compliance with SCGs

Alternatives 1 through 4 would each contribute to achieving the SCGs identified for this Site. Alternative 1 would address the chemical-specific SCGs through natural attenuation following implementation of the remedy for OU-1. Alternative 2 would address the chemical-specific SCGs through natural attenuation following implementation of the remedy for OU-1 and DNAPL removal. Alternatives 3 and 4 would consist of these same remedy components as Alternative 2 and, in addition, would involve in-situ treatment processes to address localized areas of COCs in groundwater. The latter alternatives would be subject to design activities that would assess effectiveness and, if determined effective, to support an appropriate design and implementation.

Long-Term Effectiveness and Permanence

Alternative 4 involves a technology with limited full-scale information available to confirm its effectiveness and implementability; therefore, a pilot scale test would be necessary to evaluate feasibility. Alternatives 1 through 4 would be effective at reducing COC concentrations and DNAPL mass over differing time periods. Nevertheless, each of these alternatives would be irreversible in the long-term. There may be some short-term “rebound” effects of the in-situ treatment processes (where concentrations are initially reduced and return to pre-treatment levels), however, the overall long-term effect of each remedy would be permanent.

Reduction of Toxicity, Mobility, and Volume

Alternative 1 would require the greatest amount of time to reduce toxicity, mobility, and volume. Alternative 2 reduces toxicity, mobility and volume over the same duration. If successful in providing treatment, Alternatives 3 and 4 would reduce toxicity, mobility, and/or volume over the shortest periods of time because of in-situ treatment. Ultimately, Alternatives 1 through 4 would achieve the same reduction in toxicity, mobility, and volume.

Short-Term Effectiveness

Because there are no existing direct exposure pathways to COCs, each of the alternatives poses the same degree of short-term effectiveness in terms of exposure to COCs. Alternatives 2 through 4 have an advantage (compared to Alternative 1) because these alternatives involve implementing institutional controls. The institutional controls would allow precautions to be put in place to mitigate the potential for exposure. Alternatives 3 and 4 involve measures to reduce COC concentrations in groundwater that the other alternatives do not involve. However, these measures have uncertainties and present their own risks associated with their implementation (e.g., Alternatives 3 and 4 involve handling chemicals onsite residential properties). Alternatives 2 through 4 each involve potential risk to onsite workers involved in handling heavy equipment during well installation activities, sampling activities, and collecting DNAPL. In addition, Alternatives 3 and 4 would involve potential risk to onsite workers involved in handling treatment chemicals. Risks to onsite workers would be minimized by implementing a Site-specific HASP, and risks to the community would be minimized by providing security, implementing an air monitoring plan to mitigate the potential migration of volatile organic vapors, and, if needed, instituting additional engineering controls during remedy implementation.

Overall Protection of Human Health and the Environment

Because there are no existing direct exposure pathways to COCs, each of the alternatives poses the same degree of overall protection of human health and the environment in the short-term. Alternatives 2 through 4 have an advantage (compared to Alternative 1) because these alternatives involve implementing institutional controls. The institutional controls would allow precautions to be put in place to mitigate the potential for future exposure. Alternatives 1 through 4 would each be protective of human health and the environment in the long-term.

Implementability

Each of the alternatives is technically feasible and could be implemented at the Site. Alternative 4 involves a technology with limited full-scale information available to confirm its effectiveness and implementability; therefore, a pilot scale test would be necessary to evaluate feasibility. Prior to implementing Alternatives 3 or 4, additional data would need to be collected to identify appropriate design parameters for full-scale implementation. In terms of administrative implementability, Alternatives 3 and 4 would be more difficult to implement because these alternatives are intrusive, present the greatest potential nuisance to the community, and involve the greatest amount of trucking activities through the community. Due to the technical complexities of the in-situ treatment processes and the setting in which in-situ treatment would need to be conducted, the likelihood of technical and administrative problems under Alternatives 3 and 4 is greater than for Alternatives 1 and 2.

Cost

A summary of the estimated cost for each remedial alternative is presented below (detailed cost estimates for the individual remedial alternatives are provided in Tables 9 through 11):

Remedial Alternative	Description	Estimated Present-Worth Cost
Alternative 1	No Further Action	$0
Alternative 2	Groundwater Monitoring with Passive DNAPL Collection/Removal and Offsite DNAPL Treatment/ Disposal	$1,700,000

Remedial Alternative	Description	Estimated Present-Worth Cost
Alternative 3	In-Situ Enhanced Aerobic Biodegradation (Chemical Additives) with Institutional Controls, Groundwater Monitoring, Passive DNAPL Collection/Removal, and Offsite DNAPL Treatment/Disposal	$2,500,000
Alternative 4	In-Situ Chemical Oxidation with Institutional Controls, Groundwater Monitoring, Passive DNAPL Collection/Removal, and Offsite DNAPL Treatment/Disposal	$4,100,000

7. Recommended Remedial Alternative

Based on the results of the comparative analysis of remedial alternatives presented in Section 6, Alternative 2 has been identified as the recommended remedial alternative. Alternative 2 involves implementation of groundwater monitoring, passive DNAPL collection/removal, and offsite DNAPL treatment/disposal. Alternative 2 involves activities to potentially achieve SCGs over time, and Alternative 2 compares favorably to the other potential remedial alternatives. Alternative 2 is a remedy that would provide long-term effectiveness and permanence and would reduce toxicity, mobility, and volume. In terms of short-term effectiveness, Alternative 2 is more effective than Alternative 1, but potentially less effective in the short-term than Alternatives 3 and 4; however, these latter two alternatives have uncertainties in their treatment components. In terms of administrative implementability, Alternative 2 would present more difficulties than Alternative 1, and fewer difficulties than Alternatives 3 and 4. In terms of cost, Alternative 2 is projected to cost more than Alternative 1, and cost less than Alternatives 3 and 4. In summary, Alternative 2 compares favorably to the other alternatives and would provide overall protection of human health and the environment; therefore, Alternative 2 (groundwater monitoring, passive DNAPL collection/removal, and offsite DNAPL treatment/disposal) is the recommended remedy for OU-2.

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Tables

TABLE 1
GROUNDWATER ELEVATIONS AND VERTICAL GRADIENTS
OCTOBER 11, 2004

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Well ID	Well Location	Measuring Point Elevation	Depth to Water (ft.) (TIC)	Water Elevation (ft, amsl)	Middle Screen Elevation (ft, amsl)	Vertical Hydraulic Gradient (ft/ft)
Groundwater Elevations						
MW-02D	OU-1	437.32	8.00	429.32	--	--
MW-03D	OU-1	438.69	8.87	429.82	--	--
MW-05D	OU-1	440.18	12.02	428.16	--	--
MW-08	OU-1	439.91	10.40	429.51	--	--
MW-10D	OU-1	437.56	10.07	427.49	--	--
MW-12	OU-1	439.20	10.31	428.89	--	--
MW-13D	OU-1	438.09	9.32	428.77	--	--
MW-16D	OU-1	433.00	5.58	427.42	--	--
MW-17D	OU-1	436.47	8.67	427.80	--	--
MW-18D	OU-1	435.27	7.15	428.12	--	--
MW-20D	OU-1	434.86	9.02	425.84	--	--
MW-22D	OU-1	436.41	9.64	426.77	--	--
MW-23D	OU-1	435.64	8.48	427.16	--	--
PZ03D	OU-1	439.64	13.67	425.97	--	--
PZ04D	OU-1	440.12	10.69	429.43	--	--
Groundwater Elevations & Vertical Gradients						
MW-27	OU-2	439.19	14.73	424.46	--	--
MW-28	OU-2	439.51	NA	NA	--	--
MW-29	OU-2	438.78	NA	NA	--	--
MW-30	OU-2	439.13	NA	NA	--	--
MW04-32	OU-2	NA	NA	NA	--	--
MW04-33*	OU-2	437.52	10.26	427.26	--	--
MW04-35*	OU-2	436.93	10.93	426	--	--
MW04-36*	OU-2	434.48	8.32	426.16	--	--
PZ-07	OU-2	434.35	DRY	NA	--	--
MW-25	OU-2	438.62	13.31	425.31	394.24	0.050
PZ-05		439.19	12.27	426.92	426.24	
MW-26	OU-2	437.34	12.02	425.32	397.94	0.017
PZ-06		437.71	11.94	425.77	424.66	
MW04-31*	OU-2	440.53	12.41	428.12	393.28	0.025
PZ04-31*		440.53	11.61	428.92	424.78	
MW04-34*	OU-2	438.83	12.39	426.44	399.08	0.059
PZ04-34*		438.85	10.75	428.10	427.08	

Notes:

1. * = Measuring point elevation calculated from ground surface survey data, assuming the measuring point is 3 inches lower than ground surface.
2. Positive value indicates downward vertical hydraulic gradient.
3. ft amsl = feet above mean sea level; TIC = top of inner casing; NA = not available; -- = not applicable.
4. Elevations in reference to NAVD 1988.
5. Monitoring wells MW-28, MW-29, and MW-30 were inaccessible on October 11, 2004.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW04-31[1] 11/16/04	MW04-31[2] 04/01/05	MW04-32[1] 12/08/04	MW04-32[2] 04/01/05	MW04-33[1] 11/16/04	MW04-33[2] 03/31/05	MW04-34[1] 11/15/04	MW04-34[2] 04/01/05	MW04-35[1] 11/15/04	MW04-35[2] 03/31/05
Volatile Organics												
1,1,1-Trichloroethane	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.30 U	5.0 U	0.30 U	5.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	0.50 U	1.0 U
1,1,2-Trichloroethane	1	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.30 U	3.0 U	0.30 U	3.0 U
1,1-Dichloroethane	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.40 U	5.0 U	0.40 U	5.0 U
1,1-Dichloroethene	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.30 U	2.0 U	0.30 U	2.0 U
1,2-Dichloroethane	0.6	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U
1,2-Dichloroethene (total)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.40 U	1.0 U	0.40 U	1.0 U
2-Butanone	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.90 U	5.0 U	0.90 U	5.0 U
2-Hexanone	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.90 U	5.0 U	0.90 U	5.0 U
4-Methyl-2-pentanone	- -	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.40 U	5.0 U	0.40 U	5.0 U
Acetone	50	ug/L	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	1.0 UJ	5.0 U	1.0 UJ	5.0 U
Benzene	1	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.30 U	1.0 U	0.30	1.0 U
Bromodichloromethane	50	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.30 U	1.0 U	0.30 U	1.0 U
Bromoform	50	ug/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	0.30 U	4.0 U	0.30 U	4.0 U
Bromomethane	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.30 UJ	5.0 U	0.30 UJ	5.0 U
Carbon Disulfide	60	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.20 U	5.0 U	0.20 U	5.0 U
Carbon Tetrachloride	5	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.30 U	2.0 U	0.30 U	2.0 U
Chlorobenzene	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.30 U	5.0 U	0.30 U	5.0 U
Chloroethane	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.40 UJ	5.0 U	0.40 UJ	5.0 U
Chloroform	7	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.30 U	5.0 U	0.30 U	5.0 U
Chloromethane	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.40 U	5.0 U	0.40 U	5.0 U
cis-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.40 U	5.0 U	0.40 U	5.0 U
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.30 U	5.0 U	0.30 U	5.0 U
Dibromochloromethane	50	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.20 U	5.0 U	0.20 U	5.0 U
Ethylbenzene	5	ug/L	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	0.30 U	4.0 U	0.30 U	4.0 U
Methylene Chloride	5	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.90 U	3.0 U	0.90 U	3.0 U
Styrene	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.30 U	5.0 U	0.30 U	5.0 U
Tetrachloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.40 U	1.0 U	0.40 U	1.0 U
Toluene	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.30 U	5.0 U	0.30 U	5.0 U
trans-1,2-Dichloroethene	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.30 U	5.0 U	0.30 U	5.0 U
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.40 U	5.0 U	0.40 U	5.0 U
Trichloroethene	5	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.40 U	1.0 U	0.40 U	1.0 U
Vinyl Acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.40 U	5.0 U	0.40 U	5.0 U
Xylenes (total)	5	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.20 U	5.0 U	0.20 U	5.0 U

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW04-31[1] 11/16/04	MW04-31[2] 04/01/05	MW04-32[1] 12/08/04	MW04-32[2] 04/01/05	MW04-33[1] 11/16/04	MW04-33[2] 03/31/05	MW04-34[1] 11/15/04	MW04-34[2] 04/01/05	MW04-35[1] 11/15/04	MW04-35[2] 03/31/05
Volatile Organics PIANO												
1,1,4-Trimethylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dimethylcyclopentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3,4-Tetramethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-TMCP(ccc)/2-Octene (trans)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylcyclopentane (ctc)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4,5-Tetramethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Triethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dimethyl-3-ethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dimethyl-4-ethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dimethylcyclohexane (cis)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dimethylcyclohexane (trans)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Triethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Diethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dimethyl-2-ethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dimethyl-4-ethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dimethyl-5-ethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dimethylcyclopentane (cis)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-DMCP (trans)/2-Methyl-1-hexene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dimethyl-2-ethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dimethylcyclohexane (trans)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Decene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Heptene/1,2-DMCP (trans)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Hexene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl-2-ethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl-2-isopropylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl-2-propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl-3-ethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl-3-isopropylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl-3-propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl-4-ethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Methyl-4-propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW04-31[1] 11/16/04	MW04-31[2] 04/01/05	MW04-32[1] 12/08/04	MW04-32[2] 04/01/05	MW04-33[1] 11/16/04	MW04-33[2] 03/31/05	MW04-34[1] 11/15/04	MW04-34[2] 04/01/05	MW04-35[1] 11/15/04	MW04-35[2] 03/31/05
Volatile Organics PIANO (cont.)												
1-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Nonene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Octene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Pentene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-t-Butyl-3,5-Dimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2,3-Trimethylbutane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2,3-Trimethylpentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dimethylbutane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dimethylhexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dimethylpentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,3-Trimethylpentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,4-Trimethylpentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3-Dimethylbutane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3-Dimethylheptane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3-Dimethylhexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3-Dimethylpentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethyhexane / 2,2,3-TMP	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylpentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,5-Dimethylheptane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,5-Dimethylhexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Ethylthiophene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Heptene (cis)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Heptene (trans)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexene (cis)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexene (trans)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-1-butene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-2-pentene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylheptane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylhexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnonane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyloctane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylpentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylthiophene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nonene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Octene (cis)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Pentene (cis)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW04-31[1] 11/16/04	MW04-31[2] 04/01/05	MW04-32[1] 12/08/04	MW04-32[2] 04/01/05	MW04-33[1] 11/16/04	MW04-33[2] 03/31/05	MW04-34[1] 11/15/04	MW04-34[2] 04/01/05	MW04-35[1] 11/15/04	MW04-35[2] 03/31/05
Volatile Organics PIANO (cont.)												
2-Pentene (trans)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Diethylpentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dimethylheptane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dimethyloctane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dimethylpentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,4-Dimethylheptane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,5-Dimethylheptane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Ethylhexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Ethylpentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Heptene (cis)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Heptene (trans)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methyl-1-butene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylheptane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylhexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylnonane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methyloctane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylpentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylthiophene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nonene (cis)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nonene (trans)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-1-pentene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylheptane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyloctane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzothiophene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyclopentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Decane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diisopropyl Ether (DIPE)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dodecane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl Tertiary Butyl Ether (ETBE)	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylcyclopentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indan	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1	Units	MW04-31[1] 11/16/04	MW04-31[2] 04/01/05	MW04-32[1] 12/08/04	MW04-32[2] 04/01/05	MW04-33[1] 11/16/04	MW04-33[2] 03/31/05	MW04-34[1] 11/15/04	MW04-34[2] 04/01/05	MW04-35[1] 11/15/04	MW04-35[2] 03/31/05
Volatile Organics PIANO (cont.)												
Isobutylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isooctane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isoprene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylcyclopentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclopentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MMT	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nonane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylcyclopentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Octane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p/m-Xylene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentadecane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TAME	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tertiary butanol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetradecane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thiophene	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tridecane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Undecane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW4-35[7] 11/06/07	MW4-35[7] 05/22/08	MW04-36[1] 11/15/04	MW04-36[2] 03/31/05	MW4-36[7] 11/06/07	MW4-36[7] 05/22/08	MW-04D[3] 10/19/94	MW-04D[3] 01/17/95	MW-04S[3] 10/19/94	MW-04S[3] 01/17/95
Volatile Organics												
1,1,1-Trichloroethane	5	ug/L	NA	NA	0.30 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	0.50 U	1.0 U [1.0 U]	NA	NA	10 U	NA	10 U	NA
1,1,2-Trichloroethane	1	ug/L	NA	NA	0.30 U	3.0 U [3.0 U]	NA	NA	10 U	NA	10 U	NA
1,1-Dichloroethane	5	ug/L	NA	NA	0.40 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
1,1-Dichloroethene	5	ug/L	NA	NA	0.30 U	2.0 U [2.0 U]	NA	NA	10 U	NA	10 U	NA
1,2-Dichloroethane	0.6	ug/L	NA	NA	0.40	2.0 U [2.0 U]	NA	NA	10 U	NA	10 U	NA
1,2-Dichloroethene (total)	- -	ug/L	NA	NA	NA	NA	NA	NA	10 U	NA	10 U	NA
1,2-Dichloropropane	1	ug/L	NA	NA	0.40 U	1.0 U [1.0 U]	NA	NA	10 U	NA	10 U	NA
2-Butanone	50	ug/L	NA	NA	0.90 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
2-Hexanone	50	ug/L	NA	NA	0.90 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
4-Methyl-2-pentanone	- -	ug/L	NA	NA	0.40 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
Acetone	50	ug/L	NA	NA	1.0 UJ	5.0 U [5.0 U]	NA	NA	18	NA	10 U	NA
Benzene	1	ug/L	NA	NA	0.30 U	1.0 U [1.0 U]	NA	NA	10 U	1.0 U	2.0 J	2.0
Bromodichloromethane	50	ug/L	NA	NA	0.30 U	1.0 U [1.0 U]	NA	NA	10 U	NA	10 U	NA
Bromoform	50	ug/L	NA	NA	0.30 U	4.0 U [4.0 U]	NA	NA	10 U	NA	10 U	NA
Bromomethane	5	ug/L	NA	NA	0.30 UJ	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
Carbon Disulfide	60	ug/L	NA	NA	0.20 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
Carbon Tetrachloride	5	ug/L	NA	NA	0.30 U	2.0 U [2.0 U]	NA	NA	10 U	NA	10 U	NA
Chlorobenzene	5	ug/L	NA	NA	0.30 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
Chloroethane	5	ug/L	NA	NA	0.40 UJ	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
Chloroform	7	ug/L	NA	NA	0.30 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
Chloromethane	5	ug/L	NA	NA	0.40 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
cis-1,2-Dichloroethene	5	ug/L	NA	NA	0.40 U	5.0 U [5.0 U]	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	0.30 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
Dibromochloromethane	50	ug/L	NA	NA	0.20 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
Ethylbenzene	5	ug/L	NA	NA	0.30 U	4.0 U [4.0 U]	NA	NA	10 U	1.0 U	10 U	1.0 U
Methylene Chloride	5	ug/L	NA	NA	0.90 U	3.0 U [3.0 U]	NA	NA	10 U	NA	10 U	NA
Styrene	5	ug/L	NA	NA	0.30 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
Tetrachloroethene	5	ug/L	NA	NA	0.40 U	1.0 U [1.0 U]	NA	NA	10 U	NA	10 U	NA
Toluene	5	ug/L	NA	NA	0.30 U	5.0 U [5.0 U]	NA	NA	10 U	1.0 U	10 U	1.0 U
trans-1,2-Dichloroethene	5	ug/L	NA	NA	0.30 U	5.0 U [5.0 U]	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	0.40 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
Trichloroethene	5	ug/L	NA	NA	0.40 U	1.0 U [1.0 U]	NA	NA	10 U	NA	10 U	NA
Vinyl Acetate	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	NA	NA	0.40 U	5.0 U [5.0 U]	NA	NA	10 U	NA	10 U	NA
Xylenes (total)	5	ug/L	NA	NA	0.20 U	5.0 U [5.0 U]	NA	NA	10 U	1.0 U	10 U	1.0 U

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1	Units	MW4-35[7] 11/06/07	MW4-35[7] 05/22/08	MW04-36[1] 11/15/04	MW04-36[2] 03/31/05	MW4-36[7] 11/06/07	MW4-36[7] 05/22/08	MW-04D[3] 10/19/94	MW-04D[3] 01/17/95	MW-04S[3] 10/19/94	MW-04S[3] 01/17/95
Volatile Organics PIANO												
1,1,4-Trimethylcyclohexane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1,1-Dimethylcyclopentane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1,2,3,4-Tetramethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1,2,3-TMCP(ccc)/2-Octene (trans)	- -	ug/L	NA	4.00 UJ	NA	NA	NA	4.00 UJ	NA	NA	NA	NA
1,2,3-Trimethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1,2,3-Trimethylcyclopentane (ctc)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1,2,4,5-Tetramethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,2,4-Triethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1,2,4-Trimethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,2-Dibromoethane	0.0006	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,2-Diethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,2-Dimethyl-3-ethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,2-Dimethyl-4-ethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,2-Dimethylcyclohexane (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1,2-Dimethylcyclohexane (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1,3,5-Triethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,3-Diethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1,3-Dimethyl-2-ethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,3-Dimethyl-4-ethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,3-Dimethyl-5-ethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,3-Dimethylcyclopentane (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1,3-DMCP (trans)/2-Methyl-1-hexene	- -	ug/L	NA	4.00 UJ	NA	NA	NA	4.00 UJ	NA	NA	NA	NA
1,4-Dimethyl-2-ethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1,4-Dimethylcyclohexane (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
1-Decene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1-Heptene/1,2-DMCP (trans)	- -	ug/L	4.00 U	4.00 UJ	NA	NA	4.00 U	4.00 UJ	NA	NA	NA	NA
1-Hexene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1-Methyl-2-ethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1-Methyl-2-isopropylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1-Methyl-2-propylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1-Methyl-3-ethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1-Methyl-3-isopropylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1-Methyl-3-propylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1-Methyl-4-ethylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1-Methyl-4-propylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1	Units	MW4-35[7] 11/06/07	MW4-35[7] 05/22/08	MW04-36[1] 11/15/04	MW04-36[2] 03/31/05	MW4-36[7] 11/06/07	MW4-36[7] 05/22/08	MW-04D[3] 10/19/94	MW-04D[3] 01/17/95	MW-04S[3] 10/19/94	MW-04S[3] 01/17/95
Volatile Organics PIANO (cont.)												
1-Methylnaphthalene	- -	ug/L	0.490 JB	2.00 UJ	NA	NA	0.700 JB	2.00 UJ	NA	NA	NA	NA
1-Nonene	- -	ug/L	5.00 U	2.00 UJ	NA	NA	5.00 U	2.00 UJ	NA	NA	NA	NA
1-Octene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1-Pentene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
1-t-Butyl-3,5-Dimethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2,2,3-Trimethylbutane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2,2,3-Trimethylpentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2,2-Dimethylbutane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2,2-Dimethylhexane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2,2-Dimethylpentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2,3,3-Trimethylpentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2,3,4-Trimethylpentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2,3-Dimethylbutane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2,3-Dimethylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2,3-Dimethylhexane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2,3-Dimethylpentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2,4-Dimethyhexane / 2,2,3-TMP	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2,4-Dimethylpentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2,5-Dimethylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2,5-Dimethylhexane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2-Ethylthiophene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2-Heptene (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2-Heptene (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2-Hexene (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2-Hexene (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2-Methyl-1-butene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2-Methyl-2-pentene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2-Methylheptane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2-Methylhexane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	0.790 JB	2.00 UJ	NA	NA	1.10 JB	2.00 UJ	NA	NA	NA	NA
2-Methylnonane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2-Methyloctane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2-Methylpentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2-Methylthiophene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
2-Nonene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2-Octene (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
2-Pentene (cis)	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW4-35[7] 11/06/07	MW4-35[7] 05/22/08	MW04-36[1] 11/15/04	MW04-36[2] 03/31/05	MW4-36[7] 11/06/07	MW4-36[7] 05/22/08	MW-04D[3] 10/19/94	MW-04D[3] 01/17/95	MW-04S[3] 10/19/94	MW-04S[3] 01/17/95
Volatile Organics PIANO (cont.)												
2-Pentene (trans)	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
3,3-Diethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3,3-Dimethylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3,3-Dimethyloctane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3,3-Dimethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3,4-Dimethylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3,5-Dimethylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3-Ethylhexane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
3-Ethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3-Heptene (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3-Heptene (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3-Methyl-1-butene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3-Methylheptane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
3-Methylhexane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
3-Methylnonane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3-Methyloctane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3-Methylpentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
3-Methylthiophene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
3-Nonene (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
3-Nonene (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
4-Methyl-1-pentene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
4-Methylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
4-Methyloctane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
Benzene	1	ug/L	0.260 J	0.790 J	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Benzothiophene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Cyclohexane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Cyclopentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Decane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Diisopropyl Ether (DIPE)	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Dodecane	- -	ug/L	0.490 J	2.00 UJ	NA	NA	0.430 J	2.00 UJ	NA	NA	NA	NA
Ethyl Tertiary Butyl Ether (ETBE)	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Ethylbenzene	5	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Ethylcyclopentane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
Heptane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Hexane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Hexylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
Indan	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1	Units	MW4-35[7] 11/06/07	MW4-35[7] 05/22/08	MW04-36[1] 11/15/04	MW04-36[2] 03/31/05	MW4-36[7] 11/06/07	MW4-36[7] 05/22/08	MW-04D[3] 10/19/94	MW-04D[3] 01/17/95	MW-04S[3] 10/19/94	MW-04S[3] 01/17/95
Volatile Organics PIANO (cont.)												
Isobutylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
Isobutylcyclohexane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
Isooctane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Isopentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Isoprene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Isopropylcyclohexane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
Isopropylcyclopentane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Methylcyclohexane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Methylcyclopentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
MMT	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Naphthalene	10	ug/L	0.450 JB	2.00 UJ	NA	NA	0.730 JB	2.00 UJ	NA	NA	NA	NA
n-Butylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Nonane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
n-Propylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
n-Propylcyclopentane	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
Octane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
o-Xylene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
p/m-Xylene	5	ug/L	0.440 J	4.00 UJ	NA	NA	4.00 U	4.00 UJ	NA	NA	NA	NA
Pentadecane	- -	ug/L	NA	5.00 UJ	NA	NA	NA	5.00 UJ	NA	NA	NA	NA
Pentane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Pentylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
p-Isopropyltoluene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
sec-Butylbenzene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Styrene	5	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
TAME	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
tert-Butylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	NA	2.00 UJ	NA	NA	NA	NA
Tertiary butanol	- -	ug/L	2.00 U	R	NA	NA	2.00 U	R	NA	NA	NA	NA
Tetradecane	- -	ug/L	NA	5.00 UJ	NA	NA	NA	5.00 UJ	NA	NA	NA	NA
Thiophene	- -	ug/L	2.00 U	2.00 UJ	NA	NA	2.00 U	2.00 UJ	NA	NA	NA	NA
Toluene	5	ug/L	0.190 J	2.00 UJ	NA	NA	0.210 J	2.00 UJ	NA	NA	NA	NA
Tridecane	- -	ug/L	5.00 U	2.00 UJ	NA	NA	5.00 U	2.00 UJ	NA	NA	NA	NA
Undecane	- -	ug/L	2.00 U	2.00 UJ	NA	NA	0.200 J	2.00 UJ	NA	NA	NA	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW25[3] 04/08/97	MW25[4] 07/20/00	MW25[5] 10/09/00	MW25[6] 05/02/01	MW-25[7] 11/05/07	MW-25[7] 05/21/08	MW26[3] 04/08/97	MW26[4] 07/21/00	MW26[5] 10/06/00	MW26[6] 05/02/01	MW-26[7] 11/06/07
Volatile Organics													
1,1,1-Trichloroethane	5	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
1,1,2-Trichloroethane	1	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
1,1-Dichloroethane	5	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
1,1-Dichloroethene	5	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
1,2-Dichloroethane	0.6	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
1,2-Dichloroethene (total)	- -	ug/L	NA	NA	50 U	NA	NA	NA	NA	NA	500 U	NA	NA
1,2-Dichloropropane	1	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
2-Butanone	50	ug/L	NA	10 U	100 U	NA	NA	NA	NA	200 U	1,000 U	NA	NA
2-Hexanone	50	ug/L	NA	10 U	100 U	NA	NA	NA	NA	200 U	1,000 U	NA	NA
4-Methyl-2-pentanone	- -	ug/L	NA	10 U	100	NA	NA	NA	NA	200 U	1,000 U	NA	NA
Acetone	50	ug/L	NA	10 U	160	NA	NA	NA	NA	110 U	1,000 U	NA	NA
Benzene	1	ug/L	2,500 D [2,500 D]	5.0 U	1,300	5.0 U	NA	NA	10,000 D	2,600	19,000	630	NA
Bromodichloromethane	50	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Bromoform	50	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Bromomethane	5	ug/L	NA	10 U	100 U	NA	NA	NA	NA	200 U	1,000 U	NA	NA
Carbon Disulfide	60	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Carbon Tetrachloride	5	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Chlorobenzene	5	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Chloroethane	5	ug/L	NA	10 U	100 U	NA	NA	NA	NA	200 U	1,000 U	NA	NA
Chloroform	7	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Chloromethane	5	ug/L	NA	10 U	100 U	NA	NA	NA	NA	200 U	1,000 U	NA	NA
cis-1,2-Dichloroethene	5	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Dibromochloromethane	50	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Ethylbenzene	5	ug/L	42 [38]	5.0 U	23 J	5.0 U	NA	NA	620 JD	100 U	780	25 U	NA
Methylene Chloride	5	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Styrene	5	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Tetrachloroethene	5	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Toluene	5	ug/L	260 JD [270 JD]	5.0 U	38 J	5.0 U	NA	NA	280 JD	100 U	120 J	0.90 J	NA
trans-1,2-Dichloroethene	5	ug/L	NA	5.0 U	NA	NA	NA	NA	NA	100 U	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Trichloroethene	5	ug/L	NA	5.0 U	50 U	NA	NA	NA	NA	100 U	500 U	NA	NA
Vinyl Acetate	- -	ug/L	NA	10 U	100 U	NA	NA	NA	NA	200 U	1,000 U	NA	NA
Vinyl Chloride	2	ug/L	NA	10 U	100 U	NA	NA	NA	NA	200 U	1,000 U	NA	NA
Xylenes (total)	5	ug/L	24 [22]	5.0 U	14 J	5.0 U	NA	NA	350	100 U	430 J	25 U	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW25[3] 04/08/97	MW25[4] 07/20/00	MW25[5] 10/09/00	MW25[6] 05/02/01	MW-25[7] 11/05/07	MW-25[7] 05/21/08	MW26[3] 04/08/97	MW26[4] 07/21/00	MW26[5] 10/06/00	MW26[6] 05/02/01	MW-26[7] 11/06/07
Volatile Organics PIANO													
1,1,4-Trimethylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1,1-Dimethylcyclopentane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1,2,3,4-Tetramethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1,2,3-TMCP(ccc)/2-Octene (trans)	- -	ug/L	NA	NA	NA	NA	NA	4.00 U	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1,2,3-Trimethylcyclopentane (ctc)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1,2,4,5-Tetramethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,2,4-Triethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,2-Dibromoethane	0.0006	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,2-Dichloroethane	0.6	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,2-Diethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,2-Dimethyl-3-ethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,2-Dimethyl-4-ethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,2-Dimethylcyclohexane (cis)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1,2-Dimethylcyclohexane (trans)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1,3,5-Triethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,3-Diethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1,3-Dimethyl-2-ethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,3-Dimethyl-4-ethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,3-Dimethyl-5-ethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,3-Dimethylcyclopentane (cis)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1,3-DMCP (trans)/2-Methyl-1-hexene	- -	ug/L	NA	NA	NA	NA	NA	4.00 U	NA	NA	NA	NA	NA
1,4-Dimethyl-2-ethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1,4-Dimethylcyclohexane (trans)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
1-Decene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1-Heptene/1,2-DMCP (trans)	- -	ug/L	NA	NA	NA	NA	4.00 U	4.00 U	NA	NA	NA	NA	4.00 U
1-Hexene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1-Methyl-2-ethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1-Methyl-2-isopropylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1-Methyl-2-propylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1-Methyl-3-ethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1-Methyl-3-isopropylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1-Methyl-3-propylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1-Methyl-4-ethylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1-Methyl-4-propylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW25[3] 04/08/97	MW25[4] 07/20/00	MW25[5] 10/09/00	MW25[6] 05/02/01	MW-25[7] 11/05/07	MW-25[7] 05/21/08	MW26[3] 04/08/97	MW26[4] 07/21/00	MW26[5] 10/06/00	MW26[6] 05/02/01	MW-26[7] 11/06/07
Volatile Organics PIANO (cont.)													
1-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	0.480 JB	0.400 J	NA	NA	NA	NA	0.700 JB
1-Nonene	- -	ug/L	NA	NA	NA	NA	5.00 U	2.00 U	NA	NA	NA	NA	5.00 U
1-Octene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1-Pentene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
1-t-Butyl-3,5-Dimethylbenzene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2,2,3-Trimethylbutane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2,2,3-Trimethylpentane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2,2-Dimethylbutane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2,2-Dimethylhexane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2,2-Dimethylpentane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2,3,3-Trimethylpentane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2,3,4-Trimethylpentane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2,3-Dimethylbutane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2,3-Dimethylheptane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2,3-Dimethylhexane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2,3-Dimethylpentane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2,4-Dimethyhexane / 2,2,3-TMP	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2,4-Dimethylpentane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2,5-Dimethylheptane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2,5-Dimethylhexane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2-Ethylthiophene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2-Heptene (cis)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2-Heptene (trans)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2-Hexene (cis)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2-Hexene (trans)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2-Methyl-1-butene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2-Methyl-2-pentene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2-Methylheptane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2-Methylhexane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2-Methylnaphthalene	- -	ug/L	NA	NA	NA	NA	0.690 JB	2.00 U	NA	NA	NA	NA	1.10 JB
2-Methylnonane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2-Methyloctane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2-Methylpentane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2-Methylthiophene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
2-Nonene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2-Octene (cis)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
2-Pentene (cis)	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW25[3] 04/08/97	MW25[4] 07/20/00	MW25[5] 10/09/00	MW25[6] 05/02/01	MW-25[7] 11/05/07	MW-25[7] 05/21/08	MW26[3] 04/08/97	MW26[4] 07/21/00	MW26[5] 10/06/00	MW26[6] 05/02/01	MW-26[7] 11/06/07
Volatile Organics PIANO (cont.)													
2-Pentene (trans)	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
3,3-Diethylpentane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3,3-Dimethylheptane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3,3-Dimethyloctane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3,3-Dimethylpentane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3,4-Dimethylheptane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3,5-Dimethylheptane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3-Ethylhexane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
3-Ethylpentane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3-Heptene (cis)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3-Heptene (trans)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3-Methyl-1-butene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3-Methylheptane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
3-Methylhexane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
3-Methylnonane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3-Methyloctane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3-Methylpentane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
3-Methylthiophene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
3-Nonene (cis)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
3-Nonene (trans)	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
4-Methyl-1-pentene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
4-Methylheptane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
4-Methyloctane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
Benzene	1	ug/L	NA	NA	NA	NA	2.00 U	93.0	NA	NA	NA	NA	2.00 U
Benzothiophene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Cyclohexane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Cyclopentane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Decane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Diisopropyl Ether (DIPE)	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Dodecane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	0.360 J
Ethyl Tertiary Butyl Ether (ETBE)	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Ethylbenzene	5	ug/L	NA	NA	NA	NA	2.00 U	2.39	NA	NA	NA	NA	2.00 U
Ethylcyclopentane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
Heptane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Hexane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Hexylbenzene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
Indan	- -	ug/L	NA	NA	NA	NA	2.00 U	2.46	NA	NA	NA	NA	2.00 U

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW25[3] 04/08/97	MW25[4] 07/20/00	MW25[5] 10/09/00	MW25[6] 05/02/01	MW-25[7] 11/05/07	MW-25[7] 05/21/08	MW26[3] 04/08/97	MW26[4] 07/21/00	MW26[5] 10/06/00	MW26[6] 05/02/01	MW-26[7] 11/06/07
Volatile Organics PIANO (cont.)													
Isobutylbenzene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
Isobutylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
Isooctane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Isopentane	- -	ug/L	NA	NA	NA	NA	0.640 J	2.00 U	NA	NA	NA	NA	2.00 U
Isoprene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
Isopropylbenzene	5	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Isopropylcyclohexane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
Isopropylcyclopentane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
Methyl tert-butyl ether	10	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Methylcyclohexane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Methylcyclopentane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
MMT	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Naphthalene	10	ug/L	NA	NA	NA	NA	2.00 U	2.26	NA	NA	NA	NA	0.640 JB
n-Butylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Nonane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
n-Propylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
n-Propylcyclopentane	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
Octane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
o-Xylene	- -	ug/L	NA	NA	NA	NA	2.00 U	0.500 J	NA	NA	NA	NA	2.00 U
p/m-Xylene	5	ug/L	NA	NA	NA	NA	4.00 U	4.00 U	NA	NA	NA	NA	4.00 U
Pentadecane	- -	ug/L	NA	NA	NA	NA	NA	5.00 U	NA	NA	NA	NA	NA
Pentane	- -	ug/L	NA	NA	NA	NA	0.930 J	2.00 U	NA	NA	NA	NA	2.00 U
Pentylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
p-Isopropyltoluene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
sec-Butylbenzene	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
Styrene	5	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
TAME	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	2.00 U
tert-Butylbenzene	- -	ug/L	NA	NA	NA	NA	NA	2.00 U	NA	NA	NA	NA	NA
Tertiary butanol	- -	ug/L	NA	NA	NA	NA	2.00 U	R	NA	NA	NA	NA	2.00 U
Tetradecane	- -	ug/L	NA	NA	NA	NA	NA	5.00 U	NA	NA	NA	NA	NA
Thiophene	- -	ug/L	NA	NA	NA	NA	2.00 U	1.09 J	NA	NA	NA	NA	2.00 U
Toluene	5	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	0.310 J
Tridecane	- -	ug/L	NA	NA	NA	NA	5.00 U	2.00 U	NA	NA	NA	NA	5.00 U
Undecane	- -	ug/L	NA	NA	NA	NA	2.00 U	2.00 U	NA	NA	NA	NA	0.240 J

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1	Units	MW-26[7] 05/21/08	MW27[3] 04/08/97	MW27[4] 07/20/00	MW27[5] 10/06/00	MW27[6] 05/02/01	MW-27[7] 11/05/07	MW-27[7] 05/21/08	MW28[3] 07/20/00	MW28[5] 10/06/00	MW-28[7] 05/22/08	MW29[5] 07/20/00
Volatile Organics													
1,1,1-Trichloroethane	5	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
1,1,2,2-Tetrachloroethane	5	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
1,1,2-Trichloroethane	1	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
1,1-Dichloroethane	5	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
1,1-Dichloroethene	5	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
1,2-Dichloroethane	0.6	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
1,2-Dichloroethene (total)	- -	ug/L	NA	NA	NA	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
1,2-Dichloropropane	1	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
2-Butanone	50	ug/L	NA	NA	10 U	100 U	NA	NA	NA	10 U	10 U	NA	10 U
2-Hexanone	50	ug/L	NA	NA	10 U	100 U	NA	NA	NA	10 U	10 U	NA	10 U
4-Methyl-2-pentanone	- -	ug/L	NA	NA	10 U	100 U	NA	NA	NA	10 U	10 U	NA	10 U
Acetone	50	ug/L	NA	NA	10 U	100 U	NA	NA	NA	10 U	10 U	NA	10 U
Benzene	1	ug/L	NA	72	95	1,300	5.0 U	NA	NA	5.0 U	0.70 J	NA	5.0 U
Bromodichloromethane	50	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Bromoform	50	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Bromomethane	5	ug/L	NA	NA	10 U	100 U	NA	NA	NA	10 U	10 U	NA	10 U
Carbon Disulfide	60	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Carbon Tetrachloride	5	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Chlorobenzene	5	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Chloroethane	5	ug/L	NA	NA	10 U	100 U	NA	NA	NA	10 U	10 U	NA	10 U
Chloroform	7	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	NA	5.0 U	NA	5.0 U
Chloromethane	5	ug/L	NA	NA	10 U	100 U	NA	NA	NA	10 U	10 U	NA	10 U
cis-1,2-Dichloroethene	5	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
cis-1,3-Dichloropropene	0.4	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Dibromochloromethane	50	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Ethylbenzene	5	ug/L	NA	32	13	69	5.0 U	NA	NA	1.0	0.90 J	NA	5.0 U
Methylene Chloride	5	ug/L	NA	NA	5.0 U	16 JB	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Styrene	5	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Tetrachloroethene	5	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Toluene	5	ug/L	NA	12	28	230	5.0 U	NA	NA	5.0 U	5.0 U	NA	5.0 U
trans-1,2-Dichloroethene	5	ug/L	NA	NA	5.0 U	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	5.0 U	5.0 U	NA	5.0 U
Trichloroethene	5	ug/L	NA	NA	5.0 U	50 U	NA	NA	NA	10 U	5.0 U	NA	10 U
Vinyl Acetate	- -	ug/L	NA	NA	10 U	100 U	NA	NA	NA	10 U	10 U	NA	10 U
Vinyl Chloride	2	ug/L	NA	NA	10 U	100 U	NA	NA	NA	10 U	10 U	NA	10 U
Xylenes (total)	5	ug/L	NA	17	6.0	32 J	5.0 U	NA	NA	5.0 U	5.0 U	NA	5.0 U

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW-26[7] 05/21/08	MW27[3] 04/08/97	MW27[4] 07/20/00	MW27[5] 10/06/00	MW27[6] 05/02/01	MW-27[7] 11/05/07	MW-27[7] 05/21/08	MW28[3] 07/20/00	MW28[5] 10/06/00	MW-28[7] 05/22/08	MW29[5] 07/20/00
Volatile Organics PIANO													
1,1,4-Trimethylcyclohexane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1,1-Dimethylcyclopentane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1,2,3,4-Tetramethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1,2,3-TMCP(ccc)/2-Octene (trans)	- -	ug/L	4.00 U	NA	NA	NA	NA	NA	4.00 U	NA	NA	4.00 UJ	NA
1,2,3-Trimethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1,2,3-Trimethylcyclopentane (ctc)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1,2,4,5-Tetramethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,2,4-Triethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1,2,4-Trimethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,2-Dibromoethane	0.0006	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,2-Dichloroethane	0.6	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,2-Diethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,2-Dimethyl-3-ethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,2-Dimethyl-4-ethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,2-Dimethylcyclohexane (cis)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1,2-Dimethylcyclohexane (trans)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1,3,5-Triethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1,3,5-Trimethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,3-Diethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1,3-Dimethyl-2-ethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,3-Dimethyl-4-ethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,3-Dimethyl-5-ethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,3-Dimethylcyclopentane (cis)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1,3-DMCP (trans)/2-Methyl-1-hexene	- -	ug/L	4.00 U	NA	NA	NA	NA	NA	4.00 U	NA	NA	4.00 UJ	NA
1,4-Dimethyl-2-ethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1,4-Dimethylcyclohexane (trans)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
1-Decene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-Heptene/1,2-DMCP (trans)	- -	ug/L	4.00 U	NA	NA	NA	NA	4.00 U [4.00 U]	4.00 U	NA	NA	4.00 UJ	NA
1-Hexene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-Methyl-2-ethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-Methyl-2-isopropylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-Methyl-2-propylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-Methyl-3-ethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-Methyl-3-isopropylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-Methyl-3-propylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-Methyl-4-ethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-Methyl-4-propylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1	Units	MW-26[7] 05/21/08	MW27[3] 04/08/97	MW27[4] 07/20/00	MW27[5] 10/06/00	MW27[6] 05/02/01	MW-27[7] 11/05/07	MW-27[7] 05/21/08	MW28[3] 07/20/00	MW28[5] 10/06/00	MW-28[7] 05/22/08	MW29[5] 07/20/00
Volatile Organics PIANO (cont.)													
1-Methylnaphthalene	- -	ug/L	2.00 U	NA	NA	NA	NA	0.250 JB [0.280 JB]	2.00 U	NA	NA	2.00 UJ	NA
1-Nonene	- -	ug/L	2.00 U	NA	NA	NA	NA	5.00 U [5.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-Octene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-Pentene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
1-t-Butyl-3,5-Dimethylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2,2,3-Trimethylbutane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2,2,3-Trimethylpentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2,2-Dimethylbutane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2,2-Dimethylhexane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2,2-Dimethylpentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2,3,3-Trimethylpentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2,3,4-Trimethylpentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2,3-Dimethylbutane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2,3-Dimethylheptane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2,3-Dimethylhexane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2,3-Dimethylpentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2,4-Dimethyhexane / 2,2,3-TMP	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2,4-Dimethylpentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2,5-Dimethylheptane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2,5-Dimethylhexane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2-Ethylthiophene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2-Heptene (cis)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2-Heptene (trans)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2-Hexene (cis)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2-Hexene (trans)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2-Methyl-1-butene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2-Methyl-2-pentene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2-Methylheptane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2-Methylhexane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2-Methylnaphthalene	- -	ug/L	2.00 U	NA	NA	NA	NA	0.390 JB [0.480 JB]	2.00 U	NA	NA	2.00 UJ	NA
2-Methylnonane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2-Methyloctane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2-Methylpentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2-Methylthiophene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
2-Nonene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2-Octene (cis)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
2-Pentene (cis)	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1	Units	MW-26[7] 05/21/08	MW27[3] 04/08/97	MW27[4] 07/20/00	MW27[5] 10/06/00	MW27[6] 05/02/01	MW-27[7] 11/05/07	MW-27[7] 05/21/08	MW28[3] 07/20/00	MW28[5] 10/06/00	MW-28[7] 05/22/08	MW29[5] 07/20/00
Volatile Organics PIANO (cont.)													
2-Pentene (trans)	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
3,3-Diethylpentane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3,3-Dimethylheptane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3,3-Dimethyloctane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3,3-Dimethylpentane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3,4-Dimethylheptane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3,5-Dimethylheptane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3-Ethylhexane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
3-Ethylpentane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3-Heptene (cis)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3-Heptene (trans)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3-Methyl-1-butene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3-Methylheptane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
3-Methylhexane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
3-Methylnonane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3-Methyloctane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3-Methylpentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
3-Methylthiophene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
3-Nonene (cis)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
3-Nonene (trans)	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
4-Methyl-1-pentene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
4-Methylheptane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
4-Methyloctane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
Benzene	1	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Benzothiophene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Cyclohexane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Cyclopentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Decane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Diisopropyl Ether (DIPE)	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Dodecane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Ethyl Tertiary Butyl Ether (ETBE)	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Ethylbenzene	5	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Ethylcyclopentane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
Heptane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Hexane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Hexylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
Indan	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW-26[7] 05/21/08	MW27[3] 04/08/97	MW27[4] 07/20/00	MW27[5] 10/06/00	MW27[6] 05/02/01	MW-27[7] 11/05/07	MW-27[7] 05/21/08	MW28[3] 07/20/00	MW28[5] 10/06/00	MW-28[7] 05/22/08	MW29[5] 07/20/00
Volatile Organics PIANO (cont.)													
Isobutylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
Isobutylcyclohexane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
Isooctane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Isopentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Isoprene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
Isopropylbenzene	5	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Isopropylcyclohexane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
Isopropylcyclopentane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
Methyl tert-butyl ether	10	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Methylcyclohexane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Methylcyclopentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
MMT	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Naphthalene	10	ug/L	2.00 U	NA	NA	NA	NA	0.360 JB [0.330 JB]	2.00 U	NA	NA	2.00 UJ	NA
n-Butylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Nonane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
n-Propylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
n-Propylcyclopentane	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
Octane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
o-Xylene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
p/m-Xylene	5	ug/L	4.00 U	NA	NA	NA	NA	4.00 U [4.00 U]	4.00 U	NA	NA	4.00 UJ	NA
Pentadecane	- -	ug/L	5.00 U	NA	NA	NA	NA	NA	5.00 U	NA	NA	5.00 UJ	NA
Pentane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Pentylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
p-Isopropyltoluene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
sec-Butylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Styrene	5	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
TAME	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
tert-Butylbenzene	- -	ug/L	2.00 U	NA	NA	NA	NA	NA	2.00 U	NA	NA	2.00 UJ	NA
Tertiary butanol	- -	ug/L	R	NA	NA	NA	NA	2.00 U [2.00 U]	R	NA	NA	R	NA
Tetradecane	- -	ug/L	5.00 U	NA	NA	NA	NA	NA	5.00 U	NA	NA	5.00 UJ	NA
Thiophene	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Toluene	5	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Tridecane	- -	ug/L	2.00 U	NA	NA	NA	NA	5.00 U [5.00 U]	2.00 U	NA	NA	2.00 UJ	NA
Undecane	- -	ug/L	2.00 U	NA	NA	NA	NA	2.00 U [2.00 U]	2.00 U	NA	NA	2.00 UJ	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW29[5] 10/06/00	MW-29[7] 05/22/08	MW30[5] 07/20/00	MW30[5] 10/06/00	MW-30[7] 05/22/08	PZ-05[7] 11/06/07	PZ-05[7] 05/21/08	PZ-06[7] 11/06/07	PZ-06[7] 05/21/08
Volatile Organics											
1,1,1-Trichloroethane	5	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	5	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
1,1-Dichloroethene	5	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	- -	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
1,2-Dichloropropane	1	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
2-Butanone	50	ug/L	2.0 J	NA	10 U	200 U	NA	NA	NA	NA	NA
2-Hexanone	50	ug/L	10 U	NA	10 U	200 U	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	- -	ug/L	10 U	NA	10 U	200 U	NA	NA	NA	NA	NA
Acetone	50	ug/L	10 U	NA	10 U	200 U	NA	NA	NA	NA	NA
Benzene	1	ug/L	14	NA	5.0 U	2,200	NA	NA	NA	NA	NA
Bromodichloromethane	50	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Bromoform	50	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Bromomethane	5	ug/L	10 U	NA	10 U	200 U	NA	NA	NA	NA	NA
Carbon Disulfide	60	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Chlorobenzene	5	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Chloroethane	5	ug/L	10 U	NA	10 U	200 U	NA	NA	NA	NA	NA
Chloroform	7	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Chloromethane	5	ug/L	10 U	NA	10 U	200 U	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	5	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Dibromochloromethane	50	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Ethylbenzene	5	ug/L	4.0 J	NA	5.0 U	36 J	NA	NA	NA	NA	NA
Methylene Chloride	5	ug/L	5.0 U	NA	10 U	100 U	NA	NA	NA	NA	NA
Styrene	5	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Tetrachloroethene	5	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Toluene	5	ug/L	3.0 J	NA	5.0 U	100	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Trichloroethene	5	ug/L	5.0 U	NA	5.0 U	100 U	NA	NA	NA	NA	NA
Vinyl Acetate	- -	ug/L	10 U	NA	10 U	200 U	NA	NA	NA	NA	NA
Vinyl Chloride	2	ug/L	10 U	NA	10 U	200 U	NA	NA	NA	NA	NA
Xylenes (total)	5	ug/L	2.0 J	NA	5.0 U	53 J	NA	NA	NA	NA	NA

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW29[5] 10/06/00	MW-29[7] 05/22/08	MW30[5] 07/20/00	MW30[5] 10/06/00	MW-30[7] 05/22/08	PZ-05[7] 11/06/07	PZ-05[7] 05/21/08	PZ-06[7] 11/06/07	PZ-06[7] 05/21/08
Volatile Organics PIANO											
1,1,4-Trimethylcyclohexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1,1-Dimethylcyclopentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1,2,3,4-Tetramethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1,2,3-TMCP(ccc)/2-Octene (trans)	- -	ug/L	NA	4.00 UJ	NA	NA	4.00 UJ	NA	4.00 UJ	NA	4.00 U [4.00 U]
1,2,3-Trimethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1,2,3-Trimethylcyclopentane (ctc)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1,2,4,5-Tetramethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U] [2.00 U]
1,2,4-Triethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1,2,4-Trimethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1,2-Dibromoethane	0.0006	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1,2-Dichloroethane	0.6	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1,2-Diethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1,2-Dimethyl-3-ethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1,2-Dimethyl-4-ethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1,2-Dimethylcyclohexane (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1,2-Dimethylcyclohexane (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1,3,5-Triethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1,3,5-Trimethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1,3-Diethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1,3-Dimethyl-2-ethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1,3-Dimethyl-4-ethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1,3-Dimethyl-5-ethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1,3-Dimethylcyclopentane (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1,3-DMCP (trans)/2-Methyl-1-hexene	- -	ug/L	NA	4.00 UJ	NA	NA	4.00 UJ	NA	4.00 UJ	NA	4.00 U [4.00 U]
1,4-Dimethyl-2-ethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1,4-Dimethylcyclohexane (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
1-Decene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1-Heptene/1,2-DMCP (trans)	- -	ug/L	NA	4.00 UJ	NA	NA	4.00 UJ	4.00 U	4.00 UJ	4.00 U	4.00 U [4.00 U]
1-Hexene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1-Methyl-2-ethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1-Methyl-2-isopropylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1-Methyl-2-propylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1-Methyl-3-ethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1-Methyl-3-isopropylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1-Methyl-3-propylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1-Methyl-4-ethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1-Methyl-4-propylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1	Units	MW29[5] 10/06/00	MW-29[7] 05/22/08	MW30[5] 07/20/00	MW30[5] 10/06/00	MW-30[7] 05/22/08	PZ-05[7] 11/06/07	PZ-05[7] 05/21/08	PZ-06[7] 11/06/07	PZ-06[7] 05/21/08
Volatile Organics PIANO (cont.)											
1-Methylnaphthalene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	0.530 JB	2.00 UJ	0.310 JB	2.00 U [2.00 U]
1-Nonene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	5.00 U	2.00 UJ	5.00 U	2.00 U [2.00 U]
1-Octene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1-Pentene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
1-t-Butyl-3,5-Dimethylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2,2,3-Trimethylbutane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2,2,3-Trimethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2,2-Dimethylbutane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2,2-Dimethylhexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2,2-Dimethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2,3,3-Trimethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2,3,4-Trimethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2,3-Dimethylbutane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2,3-Dimethylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2,3-Dimethylhexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2,3-Dimethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2,4-Dimethyhexane / 2,2,3-TMP	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2,4-Dimethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2,5-Dimethylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2,5-Dimethylhexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2-Ethylthiophene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2-Heptene (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2-Heptene (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2-Hexene (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2-Hexene (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2-Methyl-1-butene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2-Methyl-2-pentene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2-Methylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2-Methylhexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2-Methylnaphthalene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	0.780 JB	2.00 UJ	0.570 JB	2.00 U [2.00 U]
2-Methylnonane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2-Methyloctane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2-Methylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2-Methylthiophene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
2-Nonene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2-Octene (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
2-Pentene (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW29[5] 10/06/00	MW-29[7] 05/22/08	MW30[5] 07/20/00	MW30[5] 10/06/00	MW-30[7] 05/22/08	PZ-05[7] 11/06/07	PZ-05[7] 05/21/08	PZ-06[7] 11/06/07	PZ-06[7] 05/21/08
Volatile Organics PIANO (cont.)											
2-Pentene (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
3,3-Diethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3,3-Dimethylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3,3-Dimethyloctane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3,3-Dimethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3,4-Dimethylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3,5-Dimethylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3-Ethylhexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
3-Ethylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3-Heptene (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3-Heptene (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3-Methyl-1-butene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3-Methylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
3-Methylhexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
3-Methylnonane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3-Methyloctane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3-Methylpentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
3-Methylthiophene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
3-Nonene (cis)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
3-Nonene (trans)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
4-Methyl-1-pentene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
4-Methylheptane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
4-Methyloctane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
Benzene	1	ug/L	NA	2.00 UJ	NA	NA	3.90 J	0.340 J	2.00 UJ	0.190 J	2.00 U [2.00 U]
Benzothiophene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Cyclohexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Cyclopentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Decane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Diisopropyl Ether (DIPE)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Dodecane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	0.280 J	2.00 UJ	2.00 U	2.00 U [2.00 U]
Ethyl Tertiary Butyl Ether (ETBE)	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Ethylbenzene	5	ug/L	NA	2.00 UJ	NA	NA	0.600 J	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Ethylcyclopentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
Heptane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Hexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Hexylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
Indan	- -	ug/L	NA	2.00 UJ	NA	NA	0.570 J	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW29[5] 10/06/00	MW-29[7] 05/22/08	MW30[5] 07/20/00	MW30[5] 10/06/00	MW-30[7] 05/22/08	PZ-05[7] 11/06/07	PZ-05[7] 05/21/08	PZ-06[7] 11/06/07	PZ-06[7] 05/21/08
Volatile Organics PIANO (cont.)											
Isobutylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
Isobutylcyclohexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
Isooctane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Isopentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Isoprene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
Isopropylbenzene	5	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Isopropylcyclohexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
Isopropylcyclopentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
Methyl tert-butyl ether	10	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Methylcyclohexane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Methylcyclopentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
MMT	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Naphthalene	10	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	0.900 JB	2.00 UJ	0.310 JB	2.00 U [2.00 U]
n-Butylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Nonane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
n-Propylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
n-Propylcyclopentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
Octane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
o-Xylene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
p/m-Xylene	5	ug/L	NA	4.00 UJ	NA	NA	4.00 UJ	0.370 J	4.00 UJ	4.00 U	4.00 U [4.00 U]
Pentadecane	- -	ug/L	NA	5.00 UJ	NA	NA	5.00 UJ	NA	5.00 UJ	NA	5.00 U [5.00 U]
Pentane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Pentylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
p-Isopropyltoluene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
sec-Butylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Styrene	5	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
TAME	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
tert-Butylbenzene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	NA	2.00 UJ	NA	2.00 U [2.00 U]
Tertiary butanol	- -	ug/L	NA	R	NA	NA	R	2.00 U	R	2.00 U	R [R]
Tetradecane	- -	ug/L	NA	5.00 UJ	NA	NA	5.00 UJ	NA	5.00 UJ	NA	5.00 U [5.00 U]
Thiophene	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]
Toluene	5	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	0.290 J	2.00 UJ	0.190 J	2.00 U [2.00 U]
Tridecane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	5.00 U	2.00 UJ	5.00 U	2.00 U [2.00 U]
Undecane	- -	ug/L	NA	2.00 UJ	NA	NA	2.00 UJ	2.00 U	2.00 UJ	2.00 U	2.00 U [2.00 U]

See Notes on Page 26.

TABLE 2
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS (VOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Notes:

[1] Data as presented in Niagara Mohawk, a National Grid Company. Letter to the NYSDEC regarding well installation and the first round of groundwater sampling and water level measurements for the new wells installed on OU-2, dated January 26, 2005.

[2] Data as presented in Niagara Mohawk, a National Grid Company. Letter to the NYSDEC regarding a second round of groundwater sampling on OU-2, dated August 1, 2005.

[3] Data as presented in Parsons Engineering Science, Inc. 1999. *Remedial Investigation Report for the Rome (Kingsley Avenue) Site, City of Rome, New York.* Prepared for Niagara Mohawk Power Corporation, Syracuse, New York. March 1999.

[4] Data as presented in Foster Wheeler Environmental Corporation, 2000. “Off-Site” Remedial Investigation (RI) Report for the Rome (Kingsley Ave.) Site. Prepared for Niagara Mohawk Power Corporation, October 2000.

[5] Data as presented in Foster Wheeler Environmental Engineering Corporation. 2002. *Feasibility Study Report for the Rome (Kingsley Ave.) Site.* Prepared for Niagara Mohawk Power Corporation, Syracuse, New York. January 2002.

[6] Data as presented in Niagara Mohawk, a National Grid Company. Letter to the NYSDEC in response to comments issued for the *Off-Site RI Work Plan* dated July 10, 2001.

[7] Groundwater samples collected by ARCADIS.

All concentrations reported in micrograms per liter (ug/L); equivalent to parts per billion (ppb).
-- = Sample not analyzed for specified constituent.
New York State Department of Environmental Conservation Class GA Standards from "New York State Ambient Water Quality Standards and Guidance Values," June 1998.
NA = No criteria available.
BTEX and naphthalene were proposed to be analyzed in groundwater samples from MW-25, -26, and 27 in July 2001; however, a report presenting these analytical data could not be located.

Data Qualifiers:

B = Compound was also present in an associated blank.
D = Compound value reported is from a dilution sample.
J = Compound was positively identified; however, the associated numerical value is an estimated concentration only.
U = Compound was not detected at the indicated concentration.

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW04-31[1] 11/16/04	MW04-31[2] 04/01/05	MW04-32[1] 12/08/04	MW04-32[2] 04/01/05	MW04-33[1] 11/16/04	MW04-33[2] 03/31/05	MW04-34[1] 11/15/04	MW04-34[2] 04/01/05	MW04-35[1] 11/15/04	MW04-35[2] 03/31/05
Semivolatile Organics												
1,2,4-Trichlorobenzene	5	ug/L	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	0.30 U	1.0 U	0.30 U	1.0 U
1,2-Dichlorobenzene	3	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.40 U	10 U	0.40 U	10 U
1,3-Dichlorobenzene	3	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.30 U	10 U	0.30 U	10 U
1,4-Dichlorobenzene	3	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.50 U	10 U	0.50 U	10 U
1-Chloropropane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	11 U	NA	NA	10 U	0.70 U	NA	0.70 U	10 U
2,4,6-Trichlorophenol	1	ug/L	NA	NA	11 U	NA	NA	10 U	0.70 U	NA	0.80 U	10 U
2,4-Dichlorophenol	5	ug/L	NA	NA	11 U	NA	NA	10 U	1.2 U	NA	1.3 U	10 U
2,4-Dimethylphenol	50	ug/L	NA	NA	11 U	NA	NA	10 U	1.0 U	NA	1.0 U	10 U
2,4-Dinitrophenol	10	ug/L	NA	NA	42 U	NA	NA	42 U	1.7 UJ	NA	1.8 UJ	42 U
2,4-Dinitrotoluene	5	ug/L	2.1 U	2.1 U	2.1 U	2.1 U	2.0 U	2.1 U	0.40 U	2.1 U	0.40 U	2.1 U
2,6-Dinitrotoluene	5	ug/L	2.1 U	2.1 U	2.1 U	2.1 U	2.0 U	2.1 U	0.60 U	2.1 U	0.60 U	2.1 U
2-Chloronaphthalene	10	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.40 U	10 U	0.40 U	10 U
2-Chlorophenol	1	ug/L	NA	NA	11 U	NA	NA	10 U	1.2 U	NA	1.3 U	10 U
2-Methylnaphthalene	- -	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.40 U	10 U	0.50 U	10 U
2-Methylphenol	1	ug/L	NA	NA	11 U	NA	NA	10 U	0.80 U	NA	0.80 U	10 U
2-Nitroaniline	5	ug/L	21 U	21 U	21 U	21 U	20 U	21 U	0.80 U	21 U	0.80 U	21 U
2-Nitrophenol	1	ug/L	NA	NA	11 U	NA	NA	10 U	1.6 U	NA	1.7 U	10 U
3,3'-Dichlorobenzidine	5	ug/L	21 U	21 U	21 U	21 U	20 U	21 U	2.5 U	21 U	2.6 U	21 U
3-Nitroaniline	5	ug/L	21 U	21 U	21 U	21 U	20 U	21 U	0.40 U	21 U	0.40 U	21 U
4,6-Dinitro-2-methylphenol	1	ug/L	NA	NA	42 U	NA	NA	42 U	0.30 U	NA	0.30 U	42 U
4-Bromophenyl-phenylether	- -	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.40 U	10 U	0.40 U	10 U
4-Chloro-3-Methylphenol	1	ug/L	NA	NA	11 U	NA	NA	10 U	1.2 U	NA	1.2 U	10 U
4-Chloroaniline	5	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.60 U	10 U	0.60 U	10 U
4-Chlorophenyl-phenylether	- -	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.30 U	10 U	0.30 U	10 U
4-Methylphenol	1	ug/L	NA	NA	11 U	NA	NA	10 U	1.2 UJ	NA	1.2 UJ	10 U
4-Nitroaniline	5	ug/L	21 U	21 U	21 U	21 U	20 U	21 U	0.60 U	21 U	0.60 U	21 U
4-Nitrophenol	1	ug/L	NA	NA	42 U	NA	NA	42 U	0.70 U	NA	0.70 U	42 U
Acenaphthene	20	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.096 U	10 U	0.098 U	10 U
Acenaphthylene	- -	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.074 U	10 U	0.076 U	10 U
Anthracene	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.096 U	10 U	0.098 U	10 U
Benzo(a)anthracene	0.002	ug/L	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	0.096 U	1.0 U	0.098 U	1.0 U
Benzo(a)pyrene	0	ug/L	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	0.074 U	1.0 U	0.076 U	1.0 U
Benzo(b)fluoranthene	0.002	ug/L	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	0.096 U	1.0 U	0.098 U	1.0 U
Benzo(g,h,i)perylene	- -	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.074 U	10 U	0.076 U	10 U

See Notes on Page 11.

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW04-31[1] 11/16/04	MW04-31[2] 04/01/05	MW04-32[1] 12/08/04	MW04-32[2] 04/01/05	MW04-33[1] 11/16/04	MW04-33[2] 03/31/05	MW04-34[1] 11/15/04	MW04-34[2] 04/01/05	MW04-35[1] 11/15/04	MW04-35[2] 03/31/05
Semivolatile Organics (cont.)												
Benzo(k)fluoranthene	0.002	ug/L	1.0 U	1.0 U	1.1 UJ	1.0 U	1.0 U	1.0 U	0.064 U	1.0 U	0.065 U	1.0 U
Benzoic Acid	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloro-1-methylethyl)ether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.60 UJ	10 U	0.60 UJ	10 U
bis(2-Chloroethyl)ether	1	ug/L	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
bis(2-Chloroisopropyl)ether	- -	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.60 UJ	10 U	0.60 UJ	10 U
bis(2-Ethylhexyl)phthalate	5	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	2.5 U	10 U	3.2 U	10 U
Butylbenzylphthalate	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.70 U	10 U	0.70 U	10 U
Carbazole	- -	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.032 U	10 U	0.033 U	10 U
Chrysene	0.002	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.096 U	10 U	0.098 U	10 U
Dibenzo(a,h)anthracene	- -	ug/L	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	0.10 U	1.0 U	0.10 U	1.0 U
Dibenzofuran	- -	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.40 U	10 U	0.40 U	10 U
Diethylphthalate	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.30 U	10 U	0.30 U	10 U
Dimethylphthalate	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.30 U	10 U	0.30 U	10 U
Di-n-Butylphthalate	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.50 U	10 U	0.50 U	10 U
Di-n-Octylphthalate	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.60 U	10 U	0.60 U	10 U
Fluoranthene	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.074 U	10 U	0.076 U	10 U
Fluorene	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.10 U	10 U	0.10 U	10 U
Hexachlorobenzene	0.04	ug/L	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	0.30 U	1.0 U	0.30 U	1.0 U
Hexachlorobutadiene	0.5	ug/L	2.1 U	2.1 U	2.1 U	2.1 U	2.0 U	2.1 U	1.4 U	2.1 U	1.4 U	2.1 U
Hexachlorocyclopentadiene	5	ug/L	10 U	10 UJ	11 U	10 UJ	10 U	10 UJ	0.50 UJ	10 UJ	0.50 UJ	10 UJ
Hexachloroethane	5	ug/L	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	0.80 U	1.0 U	0.80 U	1.0 U
Indeno(1,2,3-cd)pyrene	0.002	ug/L	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	0.096 U	1.0 U	0.098 U	1.0 U
Isophorone	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.40 U	10 U	0.40 U	10 U
Naphthalene	10	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.042 U	10 U	0.043 U	10 U
Nitrobenzene	0.4	ug/L	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	0.60 U	1.0 U	0.60 U	1.0 U
N-Nitroso-di-n-propylamine	- -	ug/L	1.0 U	1.0 U	1.1 U	1.0 U	1.0 U	1.0 U	0.60 U	1.0 U	0.60 U	1.0 U
N-Nitrosodiphenylamine	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.30 U	10 U	0.30 U	10 U
Pentachlorophenol	1	ug/L	NA	NA	42 U	NA	NA	42 U	2.6 U	NA	2.7 U	42 U
Phenanthrene	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.096 U	10 U	0.098 U	10 U
Phenol	1	ug/L	NA	NA	11 U	NA	NA	10 U	0.50 U	NA	0.60 U	10 U
Pyrene	50	ug/L	10 U	10 U	11 U	10 U	10 U	10 U	0.074 U	10 U	0.076 U	10 U

See Notes on Page 11.

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW4-35[7] 11/06/07	MW4-35[7] 05/22/08	MW04-36[1] 11/15/04	MW04-36[2] 03/31/05	MW4-36[7] 11/06/07	MW4-36[7] 05/22/08	MW-04D[3] 10/19/94	MW-04D[3] 01/17/95	MW-04S[3] 10/19/94	MW-04S[3] 01/17/95
Semivolatile Organics												
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	0.30 U	1.0 U [1.0 U]	NA	NA	10 U	NA	10 U	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	0.40 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	0.30 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	0.50 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
1-Chloropropane	- -	ug/L	NA	NA	NA	NA	NA	NA	10 U	NA	10 U	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	0.70 U	10 U [10 U]	NA	NA	25 U	NA	25 U	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	0.70 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	1.2 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	1.0 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	1.7 UJ	40 U [40 U]	NA	NA	25 U	NA	25 U	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	0.40 U	2.0 U [2.0 U]	NA	NA	10 U	NA	10 U	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	0.60 U	2.0 U [2.0 U]	NA	NA	10 U	NA	10 U	NA
2-Chloronaphthalene	10	ug/L	NA	NA	0.40 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
2-Chlorophenol	1	ug/L	NA	NA	1.2 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	0.40 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
2-Methylphenol	1	ug/L	NA	NA	0.80 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
2-Nitroaniline	5	ug/L	NA	NA	0.80 U	20 U [20 U]	NA	NA	25 U	NA	25 U	NA
2-Nitrophenol	1	ug/L	NA	NA	1.6 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	2.4 U	20 U [20 U]	NA	NA	10 U	NA	10 U	NA
3-Nitroaniline	5	ug/L	NA	NA	0.40 U	20 U [20 U]	NA	NA	25 U	NA	25 U	NA
4,6-Dinitro-2-methylphenol	1	ug/L	NA	NA	0.20 U	40 U [40 U]	NA	NA	25 U	NA	25 U	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	0.40 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
4-Chloro-3-Methylphenol	1	ug/L	NA	NA	1.1 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
4-Chloroaniline	5	ug/L	NA	NA	0.60 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	0.30 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
4-Methylphenol	1	ug/L	NA	NA	1.2 UJ	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
4-Nitroaniline	5	ug/L	NA	NA	0.50 U	20 U [20 U]	NA	NA	25 UJ	NA	25 UJ	NA
4-Nitrophenol	1	ug/L	NA	NA	0.70 U	40 U [40 U]	NA	NA	25 U	NA	25 U	NA
Acenaphthene	20	ug/L	NA	NA	0.094 U	10 U [10 U]	NA	NA	10 U	10 U	10 U	10 U
Acenaphthylene	- -	ug/L	NA	NA	0.073 U	10 U [10 U]	NA	NA	10 U	10 U	10 U	10 U
Anthracene	50	ug/L	NA	NA	0.094 U	10 U [10 U]	NA	NA	10 U	10 U	10 U	10 U
Benzo(a)anthracene	0.002	ug/L	NA	NA	0.094 U	1.0 U [1.0 U]	NA	NA	10 U	10 U	10 U	10 U
Benzo(a)pyrene	0	ug/L	NA	NA	0.073 U	1.0 U [1.0 U]	NA	NA	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	0.094 U	1.0 U [1.0 U]	NA	NA	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	0.073 U	10 U [10 U]	NA	NA	10 U	10 U	10 U	10 U

See Notes on Page 11.

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW4-35[7] 11/06/07	MW4-35[7] 05/22/08	MW04-36[1] 11/15/04	MW04-36[2] 03/31/05	MW4-36[7] 11/06/07	MW4-36[7] 05/22/08	MW-04D[3] 10/19/94	MW-04D[3] 01/17/95	MW-04S[3] 10/19/94	MW-04S[3] 01/17/95
Semivolatile Organics (cont.)												
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	0.062 U	1.0 U [1.0 U]	NA	NA	10 U	10 U	10 U	10 U
Benzoic Acid	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloro-1-methylethyl)ether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	0.60 UJ	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	1.0 U	1.0 U [1.0 U]	NA	NA	10 U	NA	10 U	NA
bis(2-Chloroisopropyl)ether	- -	ug/L	NA	NA	0.60 UJ	10 U [10 U]	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	1.3 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
Butylbenzylphthalate	50	ug/L	NA	NA	0.60 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
Carbazole	- -	ug/L	NA	NA	0.031 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
Chrysene	0.002	ug/L	NA	NA	0.094 U	10 U [10 U]	NA	NA	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	0.10 U	1.0 U [1.0 U]	NA	NA	10 U	10 U	10 U	10 U
Dibenzofuran	- -	ug/L	NA	NA	0.40 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
Diethylphthalate	50	ug/L	NA	NA	0.20 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
Dimethylphthalate	50	ug/L	NA	NA	0.30 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	0.50 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	0.50 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
Fluoranthene	50	ug/L	NA	NA	0.073 U	10 U [10 U]	NA	NA	10 U	10 U	2.0 J	10 U
Fluorene	50	ug/L	NA	NA	0.10 U	10 U [10 U]	NA	NA	10 U	10 U	10 U	10 U
Hexachlorobenzene	0.04	ug/L	NA	NA	0.30 U	1.0 U [1.0 U]	NA	NA	10 U	NA	10 U	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	1.4 U	2.0 U [2.0 U]	NA	NA	10 U	NA	10 U	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	0.40 UJ	10 UJ [10 UJ]	NA	NA	10 UJ	NA	10 UJ	NA
Hexachloroethane	5	ug/L	NA	NA	0.80 U	1.0 U [1.0 U]	NA	NA	10 U	NA	10 U	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	0.094 U	1.0 U [1.0 U]	NA	NA	10 U	10 U	10 U	10 U
Isophorone	50	ug/L	NA	NA	0.40 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
Naphthalene	10	ug/L	0.450 JB	2.00 UJ	0.042 U	10 U [10 U]	0.730 JB	2.00 UJ	10 U	10 U	10 U	10 U
Nitrobenzene	0.4	ug/L	NA	NA	0.60 U	1.0 U [1.0 U]	NA	NA	10 U	NA	10 U	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	0.60 U	1.0 U [1.0 U]	NA	NA	10 U	NA	10 U	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	0.20 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
Pentachlorophenol	1	ug/L	NA	NA	2.6 U	40 U [40 U]	NA	NA	25 U	NA	25 U	NA
Phenanthrene	50	ug/L	NA	NA	0.094 U	10 U [10 U]	NA	NA	10 U	10 U	2.0 J	10 U
Phenol	1	ug/L	NA	NA	0.50 U	10 U [10 U]	NA	NA	10 U	NA	10 U	NA
Pyrene	50	ug/L	NA	NA	0.073 U	10 U [10 U]	NA	NA	10 U	10 U	1.0 J	10 U

See Notes on Page 11.

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: / Date Collected:	NYSDEC TOGS 1.1.1	Units	MW25[3] 04/08/97	MW25[4] 07/20/00	MW25[5] 10/09/00	MW25[6] 05/02/01	MW-25[7] 11/05/07	MW-25[7] 05/21/08	MW26[3] 04/08/97	MW26[4] 07/21/00	MW26[5] 10/06/00	MW26[6] 05/02/01	MW-26[7] 11/06/07
Semivolatile Organics													
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chloropropane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
2-Methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Acenaphthylene	- -	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Anthracene	50	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Benzo(a)anthracene	0.002	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Benzo(a)pyrene	0	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA

See Notes on Page 11.

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW25[3] 04/08/97	MW25[4] 07/20/00	MW25[5] 10/09/00	MW25[6] 05/02/01	MW-25[7] 11/05/07	MW-25[7] 05/21/08	MW26[3] 04/08/97	MW26[4] 07/21/00	MW26[5] 10/06/00	MW26[6] 05/02/01	MW-26[7] 11/06/07
Semivolatile Organics (cont.)													
Benzo(k)fluoranthene	0.002	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Benzoic Acid	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloro-1-methylethyl)ether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Fluorene	50	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	29 [29]	32	6.0 J	0.90 J	2.00 U	2.26	210 D	1.0 J	14	17	0.640 JB
Nitrobenzene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	10 U	10 U	NA	NA	NA	NA	10 U	10 U	NA	NA

See Notes on Page 11.

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW-26[7] 05/21/08	MW27[3] 04/08/97	MW27[4] 07/20/00	MW27[5] 10/06/00	MW27[6] 05/02/01	MW-27[7] 11/05/07	MW-27[7] 05/21/08	MW28[3] 07/20/00	MW28[5] 10/06/00	MW-28[7] 05/22/08	MW29[5] 07/20/00
Semivolatile Organics													
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chloropropane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
2-Methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Acenaphthylene	- -	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Anthracene	50	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Benzo(a)anthracene	0.002	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Benzo(a)pyrene	0	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Benzo(b)fluoranthene	0.002	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Benzo(g,h,i)perylene	- -	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U

See Notes on Page 11.

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW-26[7] 05/21/08	MW27[3] 04/08/97	MW27[4] 07/20/00	MW27[5] 10/06/00	MW27[6] 05/02/01	MW-27[7] 11/05/07	MW-27[7] 05/21/08	MW28[3] 07/20/00	MW28[5] 10/06/00	MW-28[7] 05/22/08	MW29[5] 07/20/00
Semivolatile Organics (cont.)													
Benzo(k)fluoranthene	0.002	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Benzoic Acid	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloro-1-methylethyl)ether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Dibenzo(a,h)anthracene	- -	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Fluorene	50	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	2.00 U	15	34	8.0 J	7.0 J	0.360 JB [0.330 JB]	2.00 U	10 U	11 U	2.00 UJ	10 U
Nitrobenzene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	NA	NA	10 U	10 U	NA	NA	NA	10 U	11 U	NA	10 U

See Notes on Page 11.

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW29[5] 10/06/00	MW-29[7] 05/22/08	MW30[5] 07/20/00	MW30[5] 10/06/00	MW-30[7] 05/22/08	PZ-05[7] 11/06/07	PZ-05[7] 05/21/08	PZ-06[7] 11/06/07	PZ-06[7] 05/21/08
Semivolatile Organics											
1,2,4-Trichlorobenzene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	3	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Chloropropane	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	10	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	- -	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
2-Methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	20	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Acenaphthylene	- -	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Anthracene	50	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Benzo(a)anthracene	0.002	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Benzo(a)pyrene	0	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	- -	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA

See Notes on Page 11.

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	NYSDEC TOGS 1.1.1	Units	MW29[5] 10/06/00	MW-29[7] 05/22/08	MW30[5] 07/20/00	MW30[5] 10/06/00	MW-30[7] 05/22/08	PZ-05[7] 11/06/07	PZ-05[7] 05/21/08	PZ-06[7] 11/06/07	PZ-06[7] 05/21/08
Semivolatile Organics (cont.)											
Benzo(k)fluoranthene	0.002	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Benzoic Acid	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzyl Alcohol	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloro-1-methylethyl)ether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroisopropyl)ether	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	0.002	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	- -	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Dibenzofuran	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octylphthalate	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	50	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Fluorene	50	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Hexachlorobenzene	0.04	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	5	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Isophorone	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	10	ug/L	10 U	2.00 UJ	10 U	10 U	2.00 UJ	0.900 JB	2.00 UJ	0.310 JB	2.00 U [2.00 U]
Nitrobenzene	0.4	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	- -	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	50	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	50	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA
Phenol	1	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	50	ug/L	10 U	NA	10 U	10 U	NA	NA	NA	NA	NA

See Notes on Page 11.

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Notes:

[1] Data as presented in Niagara Mohawk, a National Grid Company. Letter to the NYSDEC regarding well installation and the first round of groundwater sampling and water level measurements for the new wells installed on OU-2, dated January 26, 2005.

[2] Data as presented in Niagara Mohawk, a National Grid Company. Letter to the NYSDEC regarding a second round of groundwater sampling on OU-2, dated August 1, 2005.

[3] Data as presented in Parsons Engineering Science, Inc. 1999. *Remedial Investigation Report for the Rome (Kingsley Avenue) Site, City of Rome, New York.* Prepared for Niagara Mohawk Power Corporation, Syracuse, New York. March 1999.

[4] Data as presented in Foster Wheeler Environmental Corporation, 2000. “Off-Site” Remedial Investigation (RI) Report for the Rome (Kingsley Ave.) Site. Prepared for Niagara Mohawk Power Corporation, October 2000.

[5] Data as presented in Foster Wheeler Environmental Engineering Corporation. 2002. *Feasibility Study Report for the Rome (Kingsley Ave.) Site.* Prepared for Niagara Mohawk Power Corporation, Syracuse, New York. January 2002.

[6] Data as presented in Niagara Mohawk, a National Grid Company. Letter to the NYSDEC in response to comments issued for the *Off-Site RI Work Plan* dated July 10, 2001.

[7] Data collected by ARCADIS.

All concentrations reported in micrograms per liter (ug/L); equivalent to parts per billion (ppb).
-- = Sample not analyzed for specified constituent.
New York State Department of Environmental Conservation Class GA Standards from "New York State
Ambient Water Quality Standards and Guidance Values," June 1998.
NA = No criteria available.
BTEX and naphthalene were proposed to be analyzed in groundwater samples from MW-25, -26, and 27 in July 2001; however, a report presenting these analytical data could not be located.

Data Qualifiers:
B = Compound was also present in an associated blank.
D = Compound value reported is from a dilution sample.
J = Compound was positively identified; however, the associated numerical value is an estimated concentration only.
U = Compound was not detected at the indicated concentration.

TABLE 4
GROUNDWATER ANALYTICAL RESULTS FOR INORGANIC COMPOUNDS
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID Sample Date	MW04-31[1] 11/16/2004	MW04-31[2] 4/1/2005	MW04-32[1] 12/8/2004	MW04-32[2] 4/1/2005	MW04-33[1] 11/16/2004	MW04-33[2] 3/31/2005	MW04-34[1] 11/15/2004	MW04-34[2] 4/1/2005	MW04-35[1] 11/15/2004	MW04-35[2] 3/31/2005
Inorganics										
Aluminum	--	--	--	--	--	--	--	--	--	--
Ammonia	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	--	--	--	--
Barium	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--
Cyanide, Free	--	--	--	--	--	--	--	--	--	--
Cyanide, Total	10 U	10 U	24	10 U	10 U	10 U	10 U	10 U	19	10 U
Ferric Iron	--	--	--	--	--	--	--	--	--	--
Ferrous Iron	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--
Lead	--	--	--	--	--	--	--	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--

See Notes on Page 5.

TABLE 4
GROUNDWATER ANALYTICAL RESULTS FOR INORGANIC COMPOUNDS
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID Sample Date	MW04-36[1] 11/15/2004	MW04-36[2] 3/31/2005	MW04-36-DUP[2] 3/31/2005	MW-04S[3] 10/19/1994	MW-04S[3] 1/17/1995	MW-04D[3] 10/19/1994	MW-04D[3] 1/17/1995	MW25[3] 4/8/1997	MW25-DUP[3] 4/8/1997	MW25[4] 7/20/2000
Inorganics										
Aluminum	--	--	--	922 J	30,700	4,260 J	17,800	--	--	--
Ammonia	--	--	--	--	--	--		--	--	5.09
Antimony	--	--	--	38 U	39.8 J	38 U	39.8 J	--	--	--
Arsenic	--	--	--	5 U	6.6 J	12.7	39.6	--	--	--
Barium	--	--	--	95.8 J	878 J	389	1,600 J	--	--	--
Beryllium	--	--	--	2 U	4.6 J	2 U	2.6 J	--	--	--
Cadmium	--	--	--	2 U	10.6	2 U	2 U	--	--	--
Calcium	--	--	--	79,500	355,000 J	322,000	1,390,000 J	--	--	241,000
Chromium	--	--	--	5 U	54.3	5.6 J	31.1	--	--	--
Cobalt	--	--	--	6.9 J	96.5	13.8 J	44.7 J	--	--	--
Copper	--	--	--	259	1,290	42.3	105	--	--	--
Cyanide, Free	--	--	--	--	--	--	--	--	--	0.01 U
Cyanide, Total	23	10 U	10 U	10 U	284 J	20	40 J	--	--	0.027
Ferric Iron	--	--	--	--	--	--	--	--	--	83.8
Ferrous Iron	--	--	--	--	--	--	--	--	--	1.23
Iron	--	--	--	10,700	181,000 J	13,200	56,700 J	--	--	--
Lead	--	--	--	25.5	133	24.8	42.1	--	--	--
Magnesium	--	--	--	8,490	49,600 J	104,000	179,000 J	--	--	65,100
Manganese	--	--	--	5760 J	23,100 J	2,410 J	10,300 J	--	--	--
Mercury	--	--	--	0.2 U	1.8	0.27	0.83	--	--	--
Nickel	--	--	--	26 U	132	26 U	57.2	--	--	--
Potassium	--	--	--	1,770 J	5,320	2,080 J	7,130	--	--	9,430
Selenium	--	--	--	5 U	5 UJ	5 U	50 UJ	--	--	--
Silver	--	--	--	5 U	6 U	5 U	6 U	--	--	--
Sodium	--	--	--	7,640	10,200	20,400	27,100	--	--	--
Thallium	--	--	--	5 U	5 U	5 U	5 UJ	--	--	--
Vanadium	--	--	--	17 U	113	18.2 J	54.1	--	--	--
Zinc	--	--	--	385	11,400	111	245	--	--	--

See Notes on Page 5.

TABLE 4
GROUNDWATER ANALYTICAL RESULTS FOR INORGANIC COMPOUNDS
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID / Sample Date	MW25[5] 10/9/2000	MW25[6] 5/2/2001	MW26[3] 4/8/1997	MW26[4] 7/21/2000	MW26[5] 10/6/2000	MW26[6] 5/2/2001	MW27[3] 4/8/1997	MW27[4] 7/20/2000	MW27[5] 10/6/2000	MW27[6] 5/2/2001
Inorganics										
Aluminum	--	--	--	--	--	--	--	--	--	--
Ammonia	4.27	--	--	14	18.7	--	--	6.55	4.12	--
Antimony	--	--	--	--	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--	--	--	--	--
Barium	--	--	--	--	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--	--	--	--	--
Calcium	608,000	--	--	47,800	131,000	--	--	57,100	55,800	--
Chromium	--	--	--	--	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	--	--	--	--	--	--	--
Cyanide, Free	10 U	--	--	0.01 U	10 U	--	--	0.01 U	10 U	--
Cyanide, Total	10 U	--	--	0.013	13.9	--	--	0.035	29.3	--
Ferric Iron	--	--	--	1.63	--	--	--	1.29	--	--
Ferrous Iron	--	--	--	0.5	--	--	--	1.01	--	--
Iron	44.4 J	--	--	--	17 J	--	--	--	0.89 J	--
Lead	--	--	--	--	--	--	--	--	--	--
Magnesium	62,800	--	--	7,690	26,400	--	--	14,100	13,900	--
Manganese	--	--	--	--	--	--	--	--	--	--
Mercury	--	--	--	--	--	--	--	--	--	--
Nickel	--	--	--	--	--	--	--	--	--	--
Potassium	7,570 J	--	--	2,410 B	4,350	--	--	1,480 B	1,980	--
Selenium	--	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--

See Notes on Page 5.

TABLE 4
GROUNDWATER ANALYTICAL RESULTS FOR INORGANIC COMPOUNDS
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID Sample Date	MW28[3] 7/20/2000	MW28[5] 10/6/2000	MW29[5] 7/20/2000	MW29[5] 10/6/2000	MW30[5] 7/20/2000	MW30[5] 10/6/2000
Inorganics						
Aluminum	--	--	--	--	--	--
Ammonia	--	--	--	--	--	--
Antimony	--	--	--	--	--	--
Arsenic	--	--	--	--	--	--
Barium	--	--	--	--	--	--
Beryllium	--	--	--	--	--	--
Cadmium	--	--	--	--	--	--
Calcium	33,600	33,300	28,000	28,500	55,200	54,200
Chromium	--	--	--	--	--	--
Cobalt	--	--	--	--	--	--
Copper	--	--	--	--	--	--
Cyanide, Free	0.01 U	10 U	0.01 U	10 U	0.01 U	10 U
Cyanide, Total	0.01 U	10 U	0.01 U	10 U	0.27	35.4
Ferric Iron	0.5 U	--	1.25 J	--	0.5 U	--
Ferrous Iron	0.5 U	--	1.09	--	0.5 U	--
Iron	--	0.5 UJ	--	1.89 J	--	0.5 U
Lead	--	--	--	--	--	--
Magnesium	9,920	9,760	10,800	11,800	17,800	17,000
Manganese	--	--	--	--	--	--
Mercury	--	--	--	--	--	--
Nickel	--	--	--	--	--	--
Potassium	464 B	692	1,260 B	1,800	2,390 B	3,710
Selenium	--	--	--	--	--	--
Silver	--	--	--	--	--	--
Sodium	--	--	--	--	--	--
Thallium	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--
Zinc	--	--	--	--	--	--

See Notes on Page 5.

TABLE 4
GROUNDWATER ANALYTICAL RESULTS FOR INORGANIC COMPOUNDS
micrograms per liter (ug/L)

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Notes:

[1] Data as presented in Niagara Mohawk, a National Grid Company. Letter to the NYSDEC regarding well installation and the first round of groundwater sampling and water level measurements for the new wells installed on OU-2, dated January 26, 2005.

[2] Data as presented in Niagara Mohawk, a National Grid Company. Letter to the NYSDEC regarding a second round of groundwater sampling on OU-2, dated August 1, 2005.

[3] Data as presented in Parsons Engineering Science, Inc. 1999. *Remedial Investigation Report for the Rome (Kingsley Avenue) Site, City of Rome, New York.* Prepared for Niagara Mohawk Power Corporation, Syracuse, New York. March 1999.

[4] Data as presented in Foster Wheeler Environmental Corporation, 2000. “Off-Site” Remedial Investigation (RI) Report for the Rome (Kingsley Ave.) Site. Prepared for Niagara Mohawk Power Corporation, October 2000.

[5] Data as presented in Foster Wheeler Environmental Engineering Corporation. 2002. *Feasibility Study Report for the Rome (Kingsley Ave.) Site.* Prepared for Niagara Mohawk Power Corporation, Syracuse, New York. January 2002.

[6] Data as presented in Niagara Mohawk, a National Grid Company. Letter to the NYSDEC in response to comments issued for the *Off-Site RI Work Plan* dated July 10, 2001.

All concentrations reported in micrograms per liter (ug/L); equivalent to parts per billion (ppb).
-- Sample not analyzed for specified constituent.
MW* is a field duplicate of MW-25.

Data Qualifiers:

B = Compound was also present in an associated blank.
J = Compound was positively identified; however, the associated numerical value is an estimated concentration only.
U = The compound was not detected at the indicated concentration.

TABLE 5
SOIL VAPOR SAMPLING ANALYTICAL RESULTS

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	Units	Ambient 11/08/07	Ambient 12/03/07	SV-1A 12/03/07	SV-2 11/08/07	SV-3 11/08/07	SV-4A 12/03/07	SV-5A 12/03/07	SV-6 11/08/07
Volatile Organics									
1,1,1-Trichloroethane	ug/m3	<1.1	<1.1	<1.1	5.9 [6.8]	<1.1	<1.1	<1.1	<1.1
1,1,2,2-Tetrachloroethane	ug/m3	<1.4	<1.4	<1.4	<1.4 [<1.4]	<1.4	<1.4	<1.4	<1.4
1,1,2-trichloro-1,2,2-trifluoroethane	ug/m3	0.61 J	<1.5	0.64 J	<1.5 [<1.5]	<1.5	0.58 J	0.77 J	<1.5
1,1,2-Trichloroethane	ug/m3	<1.1	<1.1	<1.1	<1.1 [<1.1]	<1.1	<1.1	<1.1	<1.1
1,1-Dichloroethane	ug/m3	<0.81	<0.81	<0.81	<0.81 [<0.81]	<0.81	<0.81	<0.81	<0.81
1,1-Dichloroethene	ug/m3	<0.79	<0.79	<0.79	<0.79 [<0.79]	<0.79	<0.79	<0.79	<0.79
1,2,3-Trimethylbenzene	ug/m3	<0.98	<0.98	<0.98	<0.98 [<0.98]	<0.98	<0.98	0.45 J	<0.98
1,2,4,5-Tetramethylbenzene	ug/m3	<1.1	<1.1	<1.1	<1.1 [<1.1]	<1.1	<1.1	<1.1	<1.1
1,2,4-Trichlorobenzene	ug/m3	<1.5	<1.5	<1.5	<1.5 [<1.5]	<1.5	<1.5	<1.5	<1.5
1,2,4-Trimethylbenzene	ug/m3	<0.98	<0.98	<0.98	1 [1.3]	0.69 J	2.8	1	0.59 J
1,2-Dibromoethane	ug/m3	<1.5	<1.5	<1.5	<1.5 [<1.5]	<1.5	<1.5	<1.5	<1.5
1,2-Dichlorobenzene	ug/m3	<1.2	<1.2	<1.2	<1.2 [<1.2]	<1.2	<1.2	<1.2	<1.2
1,2-Dichloroethane	ug/m3	<0.81	<0.81	<0.81	<0.81 [<0.81]	<0.81	<0.81	<0.81	<0.81
1,2-Dichloropropane	ug/m3	<0.92	<0.92	<0.92	<0.92 [<0.92]	<0.92	<0.92	<0.92	<0.92
1,3,5-Trimethylbenzene	ug/m3	<0.98	<0.98	<0.98	0.29 J [0.34 J]	<0.98	<0.98	0.28 J	<0.98
1,3-Butadiene	ug/m3	<0.44	<0.44	<0.44	0.75 [0.86]	4.3	13	0.29 J	2.2
1,3-Dichlorobenzene	ug/m3	<1.2	<1.2	<1.2	<1.2 [<1.2]	<1.2	<1.2	<1.2	<1.2
1,4-Dichlorobenzene	ug/m3	<1.2	<1.2	<1.2	<1.2 [<1.2]	<1.2	<1.2	<1.2	<1.2
1,4-Dioxane	ug/m3	<0.72	<0.72	<0.72	<0.72 [<0.72]	<0.72	<0.72	<0.72	<0.72
1-Methyl-4-ethylbenzene	ug/m3	<0.98	<0.98	0.78 J	0.29 J [<0.98]	<0.98	<0.98	0.34 J	<0.98
1-Methylnaphthalene	ug/m3	<1.2	<14	<14	<1.2 [<1.2]	<1.2	<14	<14	<1.2
2,2,4-Trimethylpentane	ug/m3	<0.93	<0.93	<0.93	1 [1]	0.89 J	<0.93	<0.93	<0.93
2-Butanone	ug/m3	0.77	0.56 J	1.9	1.4 [1.6]	3	30	1.8	5.1
2-Chlorotoluene	ug/m3	<1	<1	<1	<1 [<1]	<1	<1	<1	<1
2-Ethylthiophene	ug/m3	<0.92	<0.92	<0.92	<0.92 [<0.92]	<0.92	<0.92	<0.92	<0.92
2-Hexanone	ug/m3	<0.82	<0.82	<0.82	<0.82 [<0.82]	<0.82	9.8	0.35 J	<0.82
2-Methylnaphthalene	ug/m3	<1.2	<14	<14	<1.2 [<1.2]	<1.2	<14	<14	<1.2
2-Methylthiophene	ug/m3	<0.8	<0.8	<0.8	<0.8 [<0.8]	<0.8	<0.8	<0.8	<0.8
3-Chloropropene	ug/m3	<0.63	<0.63	<0.63	<0.63 [<0.63]	<0.63	<0.63	<0.63	<0.63

See Notes on Page 7.

TABLE 5
SOIL VAPOR SAMPLING ANALYTICAL RESULTS

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	Units	Ambient 11/08/07	Ambient 12/03/07	SV-1A 12/03/07	SV-2 11/08/07	SV-3 11/08/07	SV-4A 12/03/07	SV-5A 12/03/07	SV-6 11/08/07
Volatile Organics (continued)									
3-Methylthiophene	ug/m3	<0.8	<0.8	<0.8	<0.8 [<0.8]	<0.8	<0.8	<0.8	<0.8
4-Methyl-2-pentanone	ug/m3	<0.82	<0.82	<0.82	<0.82 [<0.82]	<0.82	25	<0.82	<0.82
Acetaldehyde	ug/m3	6.6	4.6	21	68 [70]	49	27	14	45
Acetone	ug/m3	5.1	7	<1.2	82 [85]	56	34	14	51
Acrolein	ug/m3	<0.46	<0.46	<0.46	<0.46 [<0.46]	<0.46	1.1	<0.46	<0.46
Benzene	ug/m3	0.61 J	0.74	1.7	5.2 [5.4]	4.6	7	1.8	2.9
Benzothiophene	ug/m3	<1.1	<14	<14	<1.1 [<1.1]	<1.1	<14	<14	<1.1
Bromodichloromethane	ug/m3	<1.3	<1.3	<1.3	<1.3 [<1.3]	<1.3	<1.3	<1.3	<1.3
Bromoform	ug/m3	<2.1	<2.1	<2.1	<2.1 [<2.1]	<2.1	<2.1	<2.1	<2.1
Bromomethane	ug/m3	<0.78	<0.78	<0.78	<0.78 [<0.78]	<0.78	<0.78	<0.78	<0.78
Butane	ug/m3	0.74	3.7	80	16 [17]	35	36	3.5	35
Carbon Disulfide	ug/m3	0.16 J	<0.62	2	3.7 [4]	3.3	4.6	0.88	5.8
Carbon Tetrachloride	ug/m3	0.5 J	0.44 J	0.38 J	<1.3 [<1.3]	<1.3	<1.3	0.5 J	<1.3
Chlorobenzene	ug/m3	<0.92	<0.92	<0.92	<0.92 [<0.92]	<0.92	<0.92	<0.92	<0.92
Chloroethane	ug/m3	<0.53	<0.53	<0.53	<0.53 [<0.53]	<0.53	<0.53	<0.53	<0.53
Chloroform	ug/m3	<0.98	<0.98	<0.98	<0.98 [<0.98]	2.2	<0.98	<0.98	<0.98
Chloromethane	ug/m3	0.97	1	0.18 J	<0.41 [<0.41]	<0.41	0.59	1	0.27 J
cis-1,2-Dichloroethene	ug/m3	<0.79	<0.79	<0.79	<0.79 [<0.79]	<0.79	<0.79	<0.79	<0.79
cis-1,3-Dichloropropene	ug/m3	<0.91	<0.91	<0.91	<0.91 [<0.91]	<0.91	<0.91	<0.91	<0.91
Cyclohexane	ug/m3	<0.69	<0.69	0.35 J	0.93 [1.1]	1.1	1.3	0.17 J	1.4
Decane	ug/m3	<1.2	<1.2	5.8	0.41 J [<1.2]	3	5.8	1.6	1.7
Dibromochloromethane	ug/m3	<1.7	<1.7	<1.7	<1.7 [<1.7]	<1.7	<1.7	<1.7	<1.7
Dichlorodifluoromethane	ug/m3	2.2	2.2	2.3	2.1 [1.9]	2.6	2.3	2.4	2
Dodecane	ug/m3	<1.4	<3.5	<3.5	1 J [<1.4]	<1.4	<3.5	0.9 J	0.42 J
Ethanol	ug/m3	1 JB	2.5	2.3	18 [15]	22	7.8	3.7	24
Ethylbenzene	ug/m3	<0.87	0.26 J	2.9	1.4 [1.8]	1	11	0.82 J	0.82 J
Freon-114	ug/m3	<1.4	<1.4	<1.4	<1.4 [<1.4]	<1.4	<1.4	<1.4	<1.4
Heptane	ug/m3	<0.82	<0.82	11	1.9 [2.3]	2.3	7.1	0.28 J	2
Hexachlorobutadiene	ug/m3	<2.1	<2.1	<2.1	<2.1 [<2.1]	<2.1	<2.1	<2.1	<2.1

See Notes on Page 7.

TABLE 5
SOIL VAPOR SAMPLING ANALYTICAL RESULTS

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	Units	Ambient 11/08/07	Ambient 12/03/07	SV-1A 12/03/07	SV-2 11/08/07	SV-3 11/08/07	SV-4A 12/03/07	SV-5A 12/03/07	SV-6 11/08/07
Volatile Organics (continued)									
Hexane	ug/m3	<0.7	0.58 J	30	6.7 [6.9]	5.5	6.6	0.6 J	6.9
Indan	ug/m3	<0.97	<0.97	<0.97	<0.97 [<0.97]	<0.97	<0.97	<0.97	<0.97
Indene	ug/m3	<0.95	<0.95	<0.95	<0.95 [<0.95]	<0.95	<0.95	<0.95	<0.95
Isopropyl Alcohol	ug/m3	<0.49	<0.49	0.42 J	<0.49 [<0.49]	<0.49	13	0.78	<0.49
Methyl tert-butyl ether	ug/m3	<0.72	<0.72	<0.72	<0.72 [<0.72]	<0.72	9.7	<0.72	<0.72
Methylene Chloride	ug/m3	0.49 JB	0.37 J	<0.69	0.76 B [0.66 JB]	3.2	0.27 J	0.72	0.83 B
Naphthalene	ug/m3	<1	<5.2	0.44 J	<1 [<1]	<1	0.48 J	0.57 J	<1
Nonane	ug/m3	<1	<1	2.2	<1 [<1]	<1	3.7	0.46 J	<1
Octane	ug/m3	<0.93	<0.93	1.7	0.42 J [0.56 J]	0.79 J	5.6	<0.93	0.42 J
o-Xylene	ug/m3	<0.87	0.25 J	2.7	1.5 [1.9]	1.2	10	0.81 J	0.87
p/m-Xylene	ug/m3	0.56 J	0.66 J	9.9	4.3 [5.7]	3.5	33	2.8	2.6
Pentane	ug/m3	0.44 J	1.7	58	12 [12]	17	49	2	16
Styrene	ug/m3	<0.85	<0.85	1.5	<0.85 [<0.85]	<0.85	2.6	0.41 J	<0.85
Tertiary butanol	ug/m3	<0.61	<0.61	<0.61	<0.61 [<0.61]	<0.61	<0.61	<0.61	<0.61
Tetrachloroethene	ug/m3	<1.4	<1.4	<1.4	<1.4 [<1.4]	<1.4	<1.4	<1.4	<1.4
Thiophene	ug/m3	<0.69	<0.69	<0.69	<0.69 [<0.69]	<0.69	<0.69	<0.69	<0.69
Toluene	ug/m3	1.2	1.4	13	13 [17]	14	32	3.9	9.2
trans-1,2-Dichloroethene	ug/m3	<0.79	<0.79	<0.79	<0.79 [<0.79]	<0.79	<0.79	<0.79	<0.79
trans-1,3-Dichloropropene	ug/m3	<0.91	<0.91	<0.91	<0.91 [<0.91]	<0.91	<0.91	<0.91	<0.91
Trichloroethene	ug/m3	<1.1	<1.1	<1.1	<1.1 [<1.1]	<1.1	<1.1	<1.1	<1.1
Trichlorofluoromethane	ug/m3	1.2	1.2	1.2	2.1 [2.2]	1.2	1 J	1.4	0.95 J
Undecane	ug/m3	<1.3	<1.3	<1.3	<1.3 [<1.3]	<1.3	120	12	<1.3
Vinyl bromide	ug/m3	<0.87	<0.87	<0.87	<0.87 [<0.87]	<0.87	<0.87	<0.87	<0.87
Vinyl Chloride	ug/m3	<0.51	<0.51	<0.51	<0.51 [<0.51]	<0.51	<0.51	<0.51	<0.51
VOCs Piano									
1,2,4,5-Tetramethylbenzene	ug/m3	0.011 J	0.022 J	0.121 J	0.093 J [0.066 J]	0.044 J	<0.137	0.137	0.044 J
1,2,4-Trimethylbenzene	ug/m3	0.167 B	0.172	1.7	0.938 [1.14]	0.688	2.48	0.756	0.604
1,2-Dibromoethane	ug/m3	<0.192	0.015 JB	<0.192	0.023 JB [0.061 JB]	<0.192	<0.192	0.038 JB	<0.192
1,2-Dichloroethane	ug/m3	<0.101	<0.101	<0.101	0.073 J [0.077 J]	<0.101	<0.101	<0.101	0.069 J

See Notes on Page 7.

TABLE 5
SOIL VAPOR SAMPLING ANALYTICAL RESULTS

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: / Date Collected:	Units	Ambient 11/08/07	Ambient 12/03/07	SV-1A 12/03/07	SV-2 11/08/07	SV-3 11/08/07	SV-4A 12/03/07	SV-5A 12/03/07	SV-6 11/08/07
VOCs Piano (continued)									
1,2-Diethylbenzene	ug/m3	<0.137	<0.137	<0.137	<0.137 [<0.137]	<0.137	0.044 J	0.033 J	<0.137
1,2-Dimethyl-3-ethylbenzene	ug/m3	<0.137	<0.137	<0.137	<0.137 [0.033 J]	0.022 J	0.11 J	0.11 J	0.027 J
1,2-Dimethyl-4-ethylbenzene	ug/m3	<0.137	<0.137	0.208	0.115 J [0.104 J]	0.066 J	0.23	0.132 J	0.066 J
1,3,5-Trimethylbenzene	ug/m3	0.064 J	0.064 JB	0.496	0.29 [0.363]	0.201	0.923	0.216	0.172
1,3-Butadiene	ug/m3	0.029 J	0.044 J	0.106	0.811 [0.893]	3.35	11.2	0.237	2.37
1,3-Dimethyl-2-ethylbenzene	ug/m3	<0.137	<0.137	<0.137	<0.137 [<0.137]	<0.137	<0.137	<0.137	<0.137
1,3-Dimethyl-4-ethylbenzene	ug/m3	<0.137	<0.137	0.176	0.082 J [0.071 J]	0.049 J	0.186	0.137	0.044 J
1,3-Dimethyl-5-ethylbenzene	ug/m3	0.022 J	<0.137	0.269	0.137 [0.115 J]	0.077 J	0.28	0.208	0.077 J
1,4-Dimethyl-2-ethylbenzene	ug/m3	<0.137	<0.137	0.165	0.088 J [0.071 J]	0.049 J	0.181	<0.137	<0.137
1-Decene	ug/m3	<0.143	<0.143	<0.143	<0.143 [<0.143]	<0.143	<0.143	<0.143	<0.143
1-Ethyl-1-methylcyclopentane	ug/m3	<0.115	<0.115	0.087 J	<0.115 [<0.115]	<0.115	0.119	<0.115	<0.115
1-Heptene	ug/m3	<0.1	<0.1	0.815	1.22 [1.35]	1.24	3.55	<0.1	2.03
1-Hexene	ug/m3	<0.086	0.079 J	0.375	1.5 [1.91]	2.54	6.82	0.076 J	3.66
1-Methyl-2-ethylbenzene	ug/m3	0.059 J	0.049 J	0.467	0.231 [0.285]	0.157	1.08	0.187	0.142
1-Methyl-2-isopropylbenzene	ug/m3	<0.137	<0.137	<0.137	0.06 J [<0.137]	<0.137	<0.137	<0.137	<0.137
1-Methyl-2-propylbenzene	ug/m3	<0.137	<0.137	0.137	<0.137 [0.038 J]	<0.137	0.143	<0.137	<0.137
1-Methyl-3-ethylbenzene	ug/m3	0.138	0.113 J	1.31	0.629 [0.81]	0.422	3.27	0.452	0.378
1-Methyl-3-isopropylbenzene	ug/m3	<0.137	<0.137	0.126 J	<0.137 [<0.137]	<0.137	0.203	<0.137	<0.137
1-Methyl-3-propylbenzene	ug/m3	0.022 J	<0.137	<0.137	0.11 J [0.104 J]	0.066 J	0.378	<0.137	0.06 J
1-Methyl-4-ethylbenzene	ug/m3	0.088 J	0.074 JB	0.747	0.314 [0.408]	0.216	1.53	0.285	0.201
1-Methyl-4-propylbenzene	ug/m3	0.011 J	<0.137	0.115 J	0.055 J [0.049 J]	0.033 J	0.143	0.093 J	0.033 J
1-Methylnaphthalene	ug/m3	0.035 JB	0.099 J	0.07 J	0.105 JB [0.064 JB]	0.058 JB	0.058 J	0.314 J	0.046 JB
1-Nonene	ug/m3	<0.129	<0.129	0.939	<0.129 [<0.129]	<0.129	0.939	<0.129	<0.129
1-Octene	ug/m3	<0.115	<0.115	0.482	0.261 [0.454]	0.399	2.57	<0.115	0.335
1-Pentene	ug/m3	<0.072	0.115	1.11	2.82 [3.14]	7.63	21.3	0.335	9.41
2,2-Dimethylpentane	ug/m3	<0.102	0.016 J	0.049 J	<0.102 [0.074 J]	0.115	0.111	<0.102	0.27
2,3,3-Trimethylpentane	ug/m3	0.061 J	0.098 J	0.579	0.415 [0.476]	0.495	0.868	0.107 J	0.35
2,3,4-Trimethylpentane	ug/m3	<0.117	<0.117	0.205	0.369 [0.392]	0.378	0.331	<0.117	0.247
2,3-Dimethylbutane	ug/m3	<0.088	0.141	1.89	1.07 [0.99]	0.849	<0.088	0.127	0.99

See Notes on Page 7.

TABLE 5
SOIL VAPOR SAMPLING ANALYTICAL RESULTS

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	Units	Ambient 11/08/07	Ambient 12/03/07	SV-1A 12/03/07	SV-2 11/08/07	SV-3 11/08/07	SV-4A 12/03/07	SV-5A 12/03/07	SV-6 11/08/07
VOCs Piano (continued)									
2,3-Dimethylhexane	ug/m3	0.023 J	0.047 J	0.77	0.191 [0.21]	0.191	0.21	0.033 J	0.154
2,3-Dimethylpentane	ug/m3	0.066 J	0.127	2.8	0.577 [0.573]	0.516	0.43	0.102	0.672
2,4-Dimethyhexane / 2,2,3-TMP	ug/m3	0.033 J	0.047 J	0.565	0.229 J [0.238]	0.233	1.35	0.047 J	0.229 J
2,4-Dimethylpentane	ug/m3	<0.102	0.082 J	0.586	0.446 [0.438]	0.299	0.18	0.066 J	0.479
2,5-Dimethylhexane	ug/m3	0.028 J	0.042 J	0.35	0.233 [0.238]	0.219	0.21	0.033 J	0.177
2-Ethylthiophene	ug/m3	<0.115	<0.115	<0.115	<0.115 [<0.115]	<0.115	<0.115	<0.115	<0.115
2-Methyl-1-butene	ug/m3	0.04 JB	0.143	2.62	4.21 [4.4]	9.27	14.6	0.375	10
2-Methylheptane	ug/m3	<0.117	0.075 J	1.75	0.448 [0.518]	0.57	1.38	0.145	0.401
2-Methylhexane	ug/m3	0.139	0.266	8.39	1.91 [2.02]	1.96	<0.102	0.201	2.2
2-Methylnaphthalene	ug/m3	0.046 JB	0.105 J	0.081 J	0.157 JB [0.087 JB]	0.087 JB	0.07 J	0.32 J	0.076 JB
2-Methylpentane	ug/m3	0.268	0.704	13.2	5.52 [5.33]	4.16	2.17	0.641	4.98
2-Methylthiophene	ug/m3	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	0.036 J	<0.1	<0.1
2-Pentene (cis)	ug/m3	0.023 J	0.1	0.966	2.48 [2.44]	3.46	5.13	0.143	4.02
2-Pentene (trans)	ug/m3	0.034 J	0.169	2.67	3.68 [3.57]	2.58	2.08	0.209	2.9
3-Ethylhexane	ug/m3	<0.117	<0.117	1.29	0.07 J [0.079 J]	0.135	<0.117	<0.117	0.103 J
3-Methylheptane	ug/m3	<0.117	0.075 J	3.06	0.411 [0.485]	0.504	0.668	0.065 J	0.308
3-Methylhexane	ug/m3	0.209	0.311	12	1.69 [1.73]	1.51	0.631	<0.102	1.8
3-Methylpentane	ug/m3	0.13	0.387	13.1	3.42 [3.36]	2.84	2.04	0.335	3.65
3-Methylthiophene	ug/m3	<0.1	<0.1	<0.1	<0.1 [<0.1]	<0.1	<0.1	<0.1	<0.1
Benzene	ug/m3	0.421	0.654	1.38	3.77 [3.97]	3.17	5.98	1.15	2.18
Benzothiophene	ug/m3	0.022 JB	0.049 JB	0.044 JB	0.049 JB [0.06 JB]	0.027 JB	0.038 JB	0.241	0.022 JB
Cyclohexane	ug/m3	0.038 J	0.127	0.255	0.942 [0.98]	0.884	1.06	0.141	1.37
Cyclopentane	ug/m3	<0.072	0.103	1.16	1.46 [1.48]	1	<0.072	0.126	0.994
Decane	ug/m3	0.11 JB	0.093 J	6.99	0.32 B [0.279 B]	0.279 B	6.04	1.12	0.343 B
Diisopropyl Ether (DIPE)	ug/m3	<0.104	<0.104	<0.104	<0.104 [<0.104]	<0.104	<0.104	<0.104	<0.104
Dodecane	ug/m3	0.292 B	0.167 J	<0.174	0.842 [0.508 B]	0.383 B	<0.174	<0.174	0.536 B
Ethyl Tertiary Butyl Ether (ETBE)	ug/m3	<0.104	<0.104	<0.104	<0.104 [<0.104]	<0.104	0.196	<0.104	<0.104
Ethylbenzene	ug/m3	0.152	0.2	2.88	1.16 [1.63]	0.968	9.65	0.607	0.751
Heptane	ug/m3	0.176	0.238	10.2	1.51 [1.65]	1.63	6.35	0.295	1.42

See Notes on Page 7.

TABLE 5
SOIL VAPOR SAMPLING ANALYTICAL RESULTS

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Location ID: Date Collected:	Units	Ambient 11/08/07	Ambient 12/03/07	SV-1A 12/03/07	SV-2 11/08/07	SV-3 11/08/07	SV-4A 12/03/07	SV-5A 12/03/07	SV-6 11/08/07
VOCs Piano (continued)									
Hexane	ug/m3	0.162 B	0.451	21.3	5.14 [5.2]	4.23	5.14	0.451	5.24
Indan	ug/m3	0.029 J	0.039 J	0.324	0.15 [0.169]	0.106 J	0.411	0.198	0.106 J
Indene	ug/m3	<0.119	<0.119	<0.119	0.043 J [0.071 J]	0.028 J	<0.119	0.066 J	0.028 J
Isooctane	ug/m3	0.177	0.28	0.383	0.929 [0.91]	0.817	0.859	0.224	0.677
Isopentane	ug/m3	0.773	2.79	38.7	17.8 [17]	16.5	9.1	2.36	16.6
Isopropylbenzene	ug/m3	0.02 J	0.025 J	2.42	0.083 J [0.098 J]	0.152	1.02	0.123	0.059 J
Methyl tert-butyl ether	ug/m3	<0.09	<0.09	<0.09	<0.09 [<0.09]	0.569	8.63	0.068 J	<0.09
Methylcyclohexane	ug/m3	0.048 J	0.1	0.345	0.622 [0.65]	1.22	<0.1	0.108	1.06
Methylcyclopentane	ug/m3	0.086	0.258	1.8	2.78 [2.82]	1.58	0.767	0.21	1.8
MMT	ug/m3	<0.223	<0.223	<0.223	<0.223 [<0.223]	<0.223	<0.223	<0.223	<0.223
Naphthalene	ug/m3	0.089 JB	0.309	0.613	0.314 B [0.225 B]	0.168 B	0.471	0.739	0.157 B
n-Butylbenzene	ug/m3	<0.137	<0.137	0.126 J	0.044 J [0.049 J]	<0.137	0.132 J	0.088 J	<0.137
Nonane	ug/m3	0.073 J	0.084 J	2.04	0.21 [0.257]	0.204	2.81	0.294	0.183
n-Propylbenzene	ug/m3	0.044 J	<0.123	0.481	0.196 [0.265]	0.118 J	1.49	0.162	0.108 J
Octane	ug/m3	0.079 JB	0.093 J	1.85	0.453 [0.532]	0.667	5.41	0.131	0.359
o-Xylene	ug/m3	0.161	0.217	2.7	1.28 [1.77]	0.968	9.24	0.625	0.781
p/m-Xylene	ug/m3	0.404	0.521	9.16	3.51 [4.95]	2.74	27.2	1.88	2.16
Pentane	ug/m3	0.342	1.31	49	12.2 [12.9]	14.4	40.2	1.62	18
Pentylbenzene	ug/m3	<0.151	<0.151	<0.151	<0.151 [<0.151]	<0.151	<0.151	0.103 J	<0.151
p-Isopropyltoluene	ug/m3	<0.137	<0.137	0.428	5.8 [3.88]	2.87	0.812	0.186	3.83
sec-Butylbenzene	ug/m3	<0.123	<0.123	0.059 J	<0.123 [0.015 J]	<0.123	0.133	0.034 J	<0.123
Styrene	ug/m3	0.03 JB	0.03 J	1.41	0.128 B [0.136 B]	0.123 B	2.13	0.294	0.17 B
TAME	ug/m3	<0.104	<0.104	<0.104	<0.104 [<0.104]	<0.104	1.43	<0.104	<0.104
Tertiary butanol	ug/m3	0.07 J	0.07 J	0.239	0.954 [1.2]	0.845	4.63	0.23	0.897
Thiophene	ug/m3	<0.086	<0.086	<0.086	<0.086 [<0.086]	<0.086	0.268	<0.086	<0.086
Toluene	ug/m3	0.753	1.17	11.7	10.6 [13.8]	11.5	29.2	2.65	7.73
Tridecane	ug/m3	0.226 B	0.151 J	<0.188	0.49 B [0.271 B]	0.347 B	<0.188	<0.188	0.332 B
Undecane	ug/m3	0.134 JB	0.134 J	65	0.466 [0.332 B]	0.402	60.4	7.66	0.441

See Notes on Page 7.

TABLE 5
SOIL VAPOR SAMPLING ANALYTICAL RESULTS

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Notes:

VOCs = Volatile Organic Compounds.

ug/m^3 = micrograms per meter cubed.

B = Analyte was also detected in the associated method blank.

J = Indicates an estimated value.

< = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

Field duplicate sample results are presented in brackets.

TABLE 6
POTENTIAL CHEMICAL-SPECIFIC SCGs

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Regulation	Citation	Summary of Requirements	Considerations in the Remedial Process/Action for Attainment
Identification and Listing of Hazardous Wastes	40 CFR Part 261 (Federal) 6 NYCRR Part 371 (New York State)	Outlines criteria for determining if a solid waste is a hazardous waste and is subject to regulation under 40 CFR Parts 260-266 and 6 NYCRR Parts 371-376.	Applicable to use for determining if soil at the site is a hazardous waste by characteristic. These regulations do not set cleanup standards, but are considered when establishing remedial action objectives.
Groundwater Quality Standards	6 NYCRR Part 703.5	Establishes quality standards for groundwater.	These criteria are applicable in evaluating groundwater quality.
NYSDEC Ambient Water Quality Standards and Guidance Values	Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1	Provides a compilation of ambient water quality standards and guidance values for toxic and non-conventional pollutants for use in the NYSDEC programs.	These standards are applicable in evaluating groundwater quality.
NYSDEC Guidance on Determination of Soil Cleanup Objectives and Cleanup Levels	Technical and Administrative Guidance Memorandum (TAGM) 4046, January 24, 1994	Provides a basis and a procedure to determine soil cleanup levels, as appropriate, for sites when cleanup to pre-disposal conditions is not possible or feasible. Contains generic soil cleanup objectives.	These guidance values are to be considered in evaluating soil quality.
NYSDEC Guidance on Management of MGP Waste During Remediation	Technical and Administrative Guidance Memorandum (TAGM) 4061, August 13, 2000	Outlines criteria wherein coal tar waste and soils and sediment impacted by MGP constituents may be excluded from 6 NYCRR Parts 370-374 and 375.	Applicable for off-site disposal and thermal treatment of constituents.
NYSDEC Technical Guidance for Screening Contaminated Sediments	Division of Fish and Wildlife, Division of Marine Resources (January 1999)	Describes methodology for establishing sediment criteria for the purpose of identifying sediment that potentially may impact marine and aquatic ecosystems.	These criteria are applicable in sediment groundwater quality.
Air Quality Standards	6 NYCRR Part 257	Establishes quality standards for air.	These criteria are applicable in evaluating air quality and will be considered in the preparation of the site specific HASP and Community Air Monitoring Plans.

TABLE 7
POTENTIAL ACTION-SPECIFIC SCGs

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Regulation	Citation	Summary of Requirements	Considerations in the Remedial Process/Action for Attainment
OSHA - General Industry Standards	29 CFR Part 1910	These regulations specify the 8-hour time-weighted average concentration for worker exposure to various organic compounds. Training requirements for workers at hazardous waste operations are specified in 29 CFR Part 1910.120.	Proper respiratory equipment will be worn if it is not possible to maintain the work atmosphere below these concentrations.
OSHA - Safety and Health Standards	29 CFR Part 1926	These regulations specify the type of safety equipment and procedures to be followed during the site remediation.	Appropriate safety equipment will be on site and appropriate procedures will be followed during remedial activities.
OSHA - Recordkeeping, Reporting, and Related Regulations	29 CFR Part 1904	These regulations outline recordkeeping and reporting requirements for an employer under OSHA.	These regulations apply to the company(s) contracted to install, operate, and maintain remedial actions at hazardous waste sites.
RCRA - Preparedness and Prevention	40 CFR Parts 264.30 - 264.31	These regulations outline requirements for safety equipment and spill control.	Safety and communication equipment will be installed at the site as necessary. Local authorities will be familiarized with the site.
RCRA - Contingency Plan and Emergency Procedures	40 CFR Parts 264.50 - 264.56	Provides requirements for outlining emergency procedures to be used following explosions, fires, etc.	Plans will be developed and implemented during remedial design. Copies of the plan will be kept on site.
CWA - Discharge to Water of U.S.	40 CFR Parts 122, 125, 403, 230, and 402 CWA Section 404	Establishes site-specific pollutant limitations and performance standards which are designated to protect surface water quality. Types of discharges regulated under CWA include: discharge to surface water or ocean, indirect discharge to a POTW, and discharge of dredged or fill material into U.S. waters.	May be relevant and appropriate for remediation alternatives which discharge water back to the Creek or that include dredging/filling.
Use and Protection of Waters	6 NYCRR Party 608	This regulation presents the NYS Stream Protection Program. Applicable sections include excavation and placement of fill in navigable waters.	Would be relevant during remedial activities to address Schermerhorn Creek.
National Pollution Discharge Elimination System (NPDES)	40 CFR Part 122	These regulations detail the specific permit requirements for the discharge of pollutants to the waters of the U.S.	Any water discharged from the site would be treated and discharged in accordance with NPDES permit requirements.

TABLE 7
POTENTIAL ACTION-SPECIFIC SCGs

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Regulation	Citation	Summary of Requirements	Considerations in the Remedial Process/Action for Attainment
New York State Pollution Discharge Elimination System (SPDES)	6 NYCRR Parts 750-758	These regulations detail the specific permit requirements for the discharge of pollutants to the waters of New York State.	Any water discharged from the site would be treated and discharged in accordance with NYSDEC SPDES permit requirements.
Land Disposal Facility Notice in Deed	40 CFR Parts 264/265 116-119(b)(1)	Established provisions for a deed notation for closed hazardous waste disposal units to prevent land disturbance by future owners.	The regulations are potentially applicable because close areas may be similar to closed RCRA units.
Land Disposal Regulations	6 NYCRR Part 376	Land Disposal Restrictions	Identifies wastes that are restricted from land disposal and defines those circumstances under which an otherwise prohibited waste may be land disposed.
New York State Air Quality Classification System	6 NYCRR Part 265	Outlines the air quality classifications for different land uses and population densities.	Air quality classification system will be referenced during the treatment process design.
National Emission Standards for Hazardous Air Pollutants (NESHAP)	40 CFR Part 61	Provides emission standards for hazardous air pollutants.	Proper design on air emissions controls will be implemented to meet these regulations.
New Source Performance Standards (NSPS)	40 CFR Part 60.52	Provides particulate emission limits for incinerators.	Particulate emission limits should be specified for compliance.
Clean Air Act - National Ambient Air Quality Standards (CAA - NAAQS)	40 CFR Parts 1-99	Applies to major stationary sources such as treatment units that have the potential to emit significant amounts of pollutants. Regulations under CAA do not specifically regulate emissions from LTTD units, but prevention of significant deterioration (PSD) provisions may apply to an on-site treatment facility.	The treatment system will be designed to meet these emission limits. If required, PSD procedures will be included in the remedial design/remedial action process.
New York Permits and Certificates	6 NYCRR Part 201	Gives instructions and regulations for obtaining a permit to operating air emission source. Also gives instructions on what do to in case of malfunction.	Permits are not required for remedial actions taken at hazardous waste sites; however, documentation for relevant and appropriate permit conditions would be provided to the NYSDEC prior to and during the implementation of this alternative.

TABLE 7
POTENTIAL ACTION-SPECIFIC SCGs

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Regulation	Citation	Summary of Requirements	Considerations in the Remedial Process/Action for Attainment
New York Emissions Testing, Sampling and Analytical Determinations	6 NYCRR Part 202	Outlines requirements for emissions testing for air emission sources. States that independent emissions tests can be ordered by the Commissioner of the NYSDEC.	Emissions from the treatment procedure must be analyzed.
New York Regulations for General Process Emission Sources	6 NYCRR Part 212	Outlines the procedure of environment rating. The Commissioner determines a rating of emissions based on sampling.	The Commissioner will issue an environmental rating for emissions based on this regulation.
Protection of Significant Deterioration of Air Quality (PSD)	40 CFR Part 51.2	New major stationary sources may be subject to PSD review [i.e., require best available control technology (BACT), lowest achievable emission limit (LAEL), and/or emission off-sets].	If necessary, PSD procedures will be included in the remedial design/remedial action process. The procedures could be expanded to BACT and LAEL evaluations.
New York Air Quality Area Classifications - Schenectady County	6 NYCRR Part 302	Defines areas of Schenectady County into levels of the air quality classification system.	The site is located in a Level III area.
New York Hazardous Waste Management Facilities	6 NYCRR Part 373-1.5f	Lists specific requirements for the operation of incinerators and energy recovery units. A trial burn plan must be submitted.	A trail burn will be submitted before operation begins.
New York Hazardous Waste Management Facilities	6 NYCRR Parts 373-1.6 and 373-1.9a	This regulation describes the permit required for operation of a hazardous waste incinerator and/or energy recovery unit.	Permits are not required for remedial actions taken at hazardous waste sites; however, documentation for relevant and appropriate permit conditions would be provided to the NYSDEC prior to and during the implementation of this alternative.
New York Hazardous Waste Management Facilities	6 NYCRR Part 373-2.15	Provides requirements for the operation of a thermal treatment unit, including information about monitoring, inspections, closure, and hazardous waste constituents.	Operational requirements must be followed during thermal treatment.
New York Hazardous Waste Management Facilities	6 NYCRR Part 373-2.16	Outlines requirements for the operation of thermal treatment unit, including information about waste analysis, general operating requirements, closure, and standards for particular hazardous wastes.	Operational requirements must be followed during thermal treatment.

TABLE 7
POTENTIAL ACTION-SPECIFIC SCGs

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Regulation	Citation	Summary of Requirements	Considerations in the Remedial Process/Action for Attainment
New York Requirements Specific to Thermal Treatment	6 NYCRR Part 373-3.16	Outlines requirements for the operation of thermal treatment unit, including information about waste analysis, general operating requirements, closure, and standards for particular hazardous wastes.	Operational requirements must be followed during thermal treatment.
Management of Soil and Sediment Contaminated with Coal Tar from Former Manufactured Gas Plants	TAGM 4046	Facilitates the permanent treatment of soil or sediment that have been contaminated with coal tar from former MGP sites.	Applicable for offsite treatment of impacted soils.
New York Air Resources Regulations - General Provisions	6 NYCRR Part 200	Provides definitions and general provisions of New York State Air Resources regulations. Lists references used in developing these laws.	This regulation may serve as a reference during the thermal treatment.
New York General Prohibitions	6 NYCRR Part 211	Lists restricted pollution activities.	No restricted activities will occur at the site.
New York Air Quality Standards	6 NYCRR Part 257	Provides air quality standards for different chemicals (including those found at the site), particles, and processes.	The emissions from the treatment process will meet the air quality standards.
Identification and Listing of Hazardous Wastes	6 NYCRR Part 371	Establishes procedures for identifying solid wastes that are subject to regulation as hazardous wastes.	Materials excavated/removed from the site will be handled in accordance with RCRA and New York State Hazardous waste regulations, if appropriate.
RCRA - Regulated Levels for Toxic Characteristics Leaching Procedure (TCLP) Constituents	40 CFR Part 261	These regulations specify the TCLP constituent levels for identification of hazardous wastes that exhibit the characteristics of toxicity.	Excavated soil/sediment may be sampled and analyzed for TCLP constituents prior to disposal and to determine if the materials are hazardous based on the characteristic of toxicity.
Hazardous Waste Manifest System and Related Standards for Generators, Transporters, and Facilities	6 NYCRR Part 372	Provides guidelines relating to the use of the manifest system and its recordkeeping requirements. It applies to generators, transporters, and facilities in New York State.	This regulation will be applicable to any company(s) contracted to do treatment work at the site or to transport hazardous material from the site.

TABLE 7
POTENTIAL ACTION-SPECIFIC SCGs

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Regulation	Citation	Summary of Requirements	Considerations in the Remedial Process/Action for Attainment
Standards Applicable to Transporters of Applicable Hazardous Waste - RCRA Section 3003	40 CFR Parts 262 and 263 40 CFR Parts 170-179	Establishes the responsibility of off-site transporters of hazardous waste in the handling, transportation, and management of the waste. Requires manifesting, recordkeeping, and immediate action in the event of a discharge.	This regulation will be applicable to any company(s) contracted to transport hazardous material from the site.
DOT Rules for Transportation of Hazardous Materials	49 CFR Parts 107, 171.1 - 172.558	Outlines procedures for the packaging, labeling, manifesting, and transporting of hazardous waste.	Any company contracted to transport hazardous material from the site will be required to follow these regulations.
New York Regulations for Transportation of Hazardous Waste	6 NYCRR Part 372.3 a-d	Outlines procedures for the packaging, labeling, manifesting, and transporting of hazardous waste.	These requirements will be applicable to any company(s) contracted to transport hazardous materials from the site.
Waste Transporter Permits	6 NYCRR Part 364	Governs the collection, transport, and delivery of regulated waste within New York State.	Properly permitted haulers will be used if any waste materials are transported off-site.
New York Regulations for Hazardous Waste Management Facilities	6 NYCRR Parts 373 - 1.1 - 373 - 1.8	Provides requirements and procedures for obtaining a permit to operate a hazardous waste Treatment, Storage, Disposal facility (TSDF). Also lists contents and conditions of permits.	Any off-site facility accepting waste from the site must be properly permitted.
USEPA - Administered Permit Program: The Hazardous Waste Permit Program	RCR Section 3005 40 CFR Part 270.124	Covers the basic permitting, application, monitoring, and reporting requirements for off-site hazardous waste management facilities.	Any off-site facility accepting waste from the site must be properly permitted. Implementation of the site remedy will include consideration of these requirements.
New York Hazardous Waste Management System - General	6 NYCRR Part 370	Provides definitions terms and general instructions for the Part 370 series of hazardous waste management.	Hazardous waste is to be managed according to this regulation.
New Discharges to Publically Owned Treatment Works	TOGS 1.3.8	Focuses on the effects of a new, increased, or changed discharge to a POTW and the potential effects on the POTW's SPDES permit and pre-treatment program.	Would be applicable for discharge of treated groundwater or other waste waters generated during the remedial activities that are discharged to a POTW.

TABLE 7
POTENTIAL ACTION-SPECIFIC SCGs

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Regulation	Citation	Summary of Requirements	Considerations in the Remedial Process/Action for Attainment
RCRA - General Standards	40 CFR Part 264.111	General performance standards requiring minimization of need for further maintenance and control; minimization or elimination of post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated runoff, or hazardous decomposition products. Also requires decontamination or disposal of contaminated equipment, structures, and soils.	Proper design considerations will be implemented to minimize the need for future maintenance. Decontamination actions and facilities will be included.
CAA-NAAQS	40 CFR Part 60	Establishes ambient air quality standards for protection of public health.	Remedial operations will be performed in a manner that minimizes the production of benzene and particulate matter.
NYSDEC Technical and Administrative Guidance Memorandum (TAGMs)	NYSDEC TAGMs	TAGMs are NYSDEC guidance that are to be considered during the remedial process.	Appropriate TAGMs will be considered during the remediation process.

TABLE 8
POTENTIAL LOCATION-SPECIFIC SCGs

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Regulation	Citation	Summary of Requirements	Considerations in the Remedial Process/Action for Attainment
Floodplains Management	40 CFR Appendix A to Part 6	Procedures on floodplain management and wetlands protection.	Activities taking place within floodplains must be done to avoid advance impacts and preserve beneficial values in floodplains.
Hazardous Waste Facility Located on a Floodplain	40 CFR Part 264.18(b)	Requirements for a Treatment, Storage, Disposal facility (TSDF) built within a 100-year floodplain.	Hazardous waste TSDF activities must be designed and operated to avoid washout.
National Historic Preservation Act	36 CFR Part 800	Requirements for preservation of historic properties.	Activities taking place on a site on or under consideration for placement on the National Register of Historic Places must be planned to preserve the historic property and minimize harm.
Preservation of Area Containing Artifacts	36 CFR Part 65	Requirements for preservation of historical/archeological artifacts.	Activities must be done to identify, preserve, and recover artifact if the site has been identified as containing a significant historical artifact.
New York Hazardous Facility Located on Floodplain	6 NYCRR Part 373-2.14	Requirements for a TSDF building within 100-year floodplain.	Hazardous waste TSDF activities must be designed and operated to avoid washout.
New York Preservation of Historic Structures or Artifacts	Section 14.09	Requirements for preservation of historical/archeological artifacts.	Activities must be done to identify, preserve, and recover artifact if the site has been identified as containing a significant historical artifact.
Discharge of Dredge or Fill Material into Waters of the United States	40 CFR Part 230	Requirements for discharge of fill material or dredge material into water of the United States.	Activities resulting in the discharge of fill material or dredge material to Schermerhorn Creek must be done under a permit from the United States Army Corps of Engineers.
Modifications to Waterways that Affect Fish of Wildlife	40 CFR Part 6.302	Requirements for protecting fish or wildlife when diverting, channeling, or otherwise modifying a stream or river.	If activities result in the modification of Schermerhorn Creek, measures must be taken to protect fish or wildlife.

TABLE 8
POTENTIAL LOCATION-SPECIFIC SCGs

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Regulation	Citation	Summary of Requirements	Considerations in the Remedial Process/Action for Attainment
National Environmental Policy Act	40 CFR Part 6.302 40 CFR Part 6, App. A	USEPA - two executive orders: 11988 - Floodplain Management - Requires federal agencies, where possible, to avoid or minimize adverse impacts of federal actions upon wetlands/floodplains and enhance natural values of such.	Executive orders may be considered if work conducted will affect floodplains.
Rivers and Harbors Act	33 CFR Parts 320-330	Prohibits unauthorized obstruction of alteration of any navigable water in the U.S. (Dredging, fill, cofferdams, piers, etc.). Requirements for permits affecting "navigable waters of the U.S."	Remedial activities may include dredging, damming, and/or armoring. If dredging and/or armoring is performed, a permit may be required for work in "navigable waters of the U.S."
CWA - Discharge to Waters of the U.S.	Section 404	Types of discharges regulated under CWA include: discharge to surface water or ocean, indirect discharge to a POTW, and discharge of dredged or fill material into waters of the U.S. (including wetlands).	May be relevant and appropriate for remediation alternatives which discharge water back to the Creek or that include dredging/filling.
Protection of Waters Program	6 NYCRR Part 608	Protection of waters permit program regulates: 1) any disturbance of the bed or banks of a protected stream or water course; 2) construction and maintenance of dams; and 3) excavation or fill in waters of the state.	Remedial actions involving disturbance of a protected water course or excavation fill in waters of the State would require a permit issued by the NYSDEC.
Endangered Species Act	16 USC 1531 et seq. 50 CFR Part 200 50 CFR Part 402	Required federal agencies to ensure that the continued existence of any endangered or threatened species and their habit will not be jeopardized by a site action.	The Fish and Wildlife Impact Analysis conducted during the Remedial Investigation does not indicate the presence of endangered species on the site.
Floodplain Management Criteria for State Projects	6 NYCRR Part 502	Establishes floodplain management practices for projects involving state-owned and state-financed facilities.	Remedial activities involving placement of fill in the 100-year floodplain should consider these management practices.

TABLE 9
COST ESTIMATE FOR ALTERNATIVE 2
GROUNDWATER MONITORING WITH PASSIVE DNAPL COLLECTION/REMOVAL AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Item #	Description	Estimated Quantity	Unit	Unit Price (materials and labor)	Estimated Amount
CAPITAL COSTS					
Groundwater Monitoring					
1	Quarterly Groundwater Sampling	4	ea	$7,500	$30,000
2	Laboratory Analysis	4	ea	$12,500	$50,000
3	Work Plan	1	ea	$45,000	$45,000
4	Prepare Annual Groundwater Monitoring Report	1	LS	$35,000	$35,000
5	Investigation-Derived Waste Disposal	8	drum	$450	$3,600
6	Monitoring Well New/Replacement	10	ea	$5,000	$50,000
				Subtotal	$213,600
				Administration and Engineering (10%)	$21,360
				Contingency (20%)	$42,720
				Total	$277,680
Passive DNAPL Collection and Removal					
7	Mobilization/Demobilization	1	LS	$20,000	$20,000
8	Install DNAPL Recovery Wells	6	ea	$8,000	$48,000
9	Waste Disposal	1	LS	$5,000	$5,000
				Subtotal	$73,000
				Administration and Engineering (10%)	$7,300
				Contingency (20%)	$14,600
				Total	$94,900
				Total Capital Cost	**$372,580**
INSPECTION, MAINTENANCE, AND MONITORING COSTS					
Groundwater Monitoring					
10	Groundwater Monitoring and Reporting	1	LS	$65,000	$65,000
				Subtotal	$65,000
				Contingency (20%)	$13,000
				Total	$78,000
				30-Year Total Present Worth Cost	$967,980
Passive DNAPL Collection and Removal					
11	DNAPL Collection/Removal	1	LS	$24,000	$24,000
12	Waste Disposal	1	LS	$1,000	$1,000
				Subtotal	$25,000
				Contingency (20%)	$5,000
				Total	$30,000
				30-Year Total Present Worth Cost	$372,300
				Annual O&M Cost (Years 1 - 30)	**$108,000**
				Total 30-Year Present Worth Cost of O&M	**$1,340,280**
				Total Estimated Cost	**$1,712,860**
				Rounded Cost	**$1,700,000**

See Notes on Page 2.

TABLE 9
COST ESTIMATE FOR ALTERNATIVE 2
GROUNDWATER MONITORING WITH PASSIVE DNAPL COLLECTION/REMOVAL AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

General Notes:

1. Cost estimate is based on past experience and vendor estimate.

2. This estimate has been prepared for the purposes of comparing potential remedial alternatives. The information in this cost estimate is based on the available information regarding the site investigation and the anticipated scope of the remedial alternative. Changes in cost elements are likely to occur as a result of new information and data collected during the engineering design of the remedial alternative. This cost estimate is expected to be within -30% to +50% of the actual projected cost. Utilization of this cost estimate information beyond the stated purpose is not recommended. ARCADIS is not licensed to provide financial or legal consulting services; as such; this cost estimate information is not intended to be utilized for complying with financial reporting requirements associated with liability services.

Groundwater Monitoring Assumptions:

1. Quarterly groundwater monitoring cost estimate includes: all labor, equipment, travel, subsistence, and materials necessary to conduct quarterly groundwater monitoring for a 1-year period. Groundwater monitoring will consist of collecting groundwater samples from up to six select monitoring points using low-flow sampling methods. Cost assumes two project level personnel could complete the monitoring activities in 4 work days.

2. Laboratory analysis cost estimate includes all labor, equipment, and materials necessary to submit groundwater samples to an analytical laboratory for analysis. Approximately twenty samples will potentially be analyzed for VOCs and approximately sixteen samples will potentially be analyzed for PAHs and natural attenuation indicator parameters, such as BOD, COD, nitrates, nitrites, sulfide, sulfate, alkalinity, and microbial count. Cost assumes standard analytical turnaround time.

3. Work Plan cost includes development of a scope of work, sampling plan, quality assurance/quality control plan, and other technical support plans related to groundwater monitoring.

4. Prepare annual monitoring report cost estimate includes all labor, equipment, and materials necessary to prepare a report summarizing the results of the groundwater monitoring activities and the observed trends from the first year of groundwater monitoring. Cost includes data validation.

5. Waste disposal cost estimate includes all labor, equipment, and materials necessary to dispose of groundwater waste material generated during the quarterly groundwater monitoring activities. Costs assume that the groundwater would be disposed of as a non-hazardous waste at an appropriate treatment/disposal facility. Cost assumes two drums of liquid would be generated during each sampling event.

6. Monitoring well cost estimate includes all labor, equipment, and materials necessary to install new/replacement monitoring wells. Cost estimate assumes that average well depths are 35 to 45 feet. Cost estimate assumes that groundwater monitoring wells will be constructed of PVC and include above grade stand up covers.

7. Groundwater monitoring and reporting cost estimate includes all labor, equipment, and materials necessary to conduct semi-annual sampling events, analyze groundwater samples, and prepare an annual groundwater monitoring report to summarize the results of the groundwater monitoring activities. Report will include data evaluation and trend analysis of the data. Cost includes data validation.

TABLE 9
COST ESTIMATE FOR ALTERNATIVE 2
GROUNDWATER MONITORING WITH PASSIVE DNAPL COLLECTION/REMOVAL AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Passive DNAPL Collection and Removal Assumptions:

1. Mobilization/Demobilization cost includes: mobilization and demobilization of all labor, equipment, and material necessary to install new wells to facilitate passive recovery of DNAPL from the site.

2. Install DNAPL collection wells cost estimate includes all labor, equipment, and materials necessary to install and develop up to eight 4-inch diameter passive DNAPL recovery wells.

3. Miscellaneous waste disposal cost estimate is based on disposal of PPE and disposable equipment used during construction/installation of DNAPL recovery structures at a facility permitted to accept the waste. Cost estimate includes waste characterization sampling and analysis and assumes that material will be disposed of as non-hazardous waste.

4. DNAPL monitoring/recovery cost estimate includes all labor, equipment, and materials, necessary to monitor DNAPL collection wells and passively remove accumulated DNAPL, if encountered. Cost estimates assume DNAPL monitoring/ recovery will be performed on a monthly basis. Cost estimate includes preparation of quarterly summary reports for the DNAPL monitoring.

5. Waste disposal cost estimate includes all labor, equipment, and materials necessary to dispose of waste material generated during O&M activities. Cost assumes one 55-gallon drum of DNAPL would require management and disposal per year.

General Assumptions:

1. Present worth is estimated based on a 7% beginning-of-year discount rate (adjusted for inflation) in accordance with OSWER Directive 9355.3-20 "Revisions to OMB Circular A-94 on Guidelines and Discount Rates for Benefit-Cost Analysis" (USEPA, 1993). It is assumed that "year zero" is 2008.

TABLE 10
COST ESTIMATE FOR ALTERNATIVE 3
IN-SITU ENHANCED AEROBIC BIODEGRADATION (CHEMICAL ADDITIVES) WITH INSTITUTIONAL CONTROLS, GROUNDWATER MONITORING, PASSIVE DNAPL COLLECTION/REMOVAL, AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Item #	Description	Estimated Quantity	Unit	Unit Price (materials and labor)	Estimated Amount
CAPITAL COSTS					
In-Situ Enhanced Aerobic Biodegradation (Chemical Additive)					
1	Mobilization/Demobilization	1	LS	$82,000	$82,000
2	Install Temporary Fencing	500	LF	$35	$17,500
3	Pre-Design Investigation (Baseline Sampling)	1	LS	$27,000	$27,000
4	Final RD/RA Work Plan and Engineering Design	1	LS	$82,000	$82,000
5	Permitting	1	LS	$16,500	$16,500
6	Drilling - Injection Subcontractor	1	LS	$170,000	$170,000
7	Remediation Material (Chemical Additive)	1	LS	$85,000	$85,000
8	Post-Injection Monitoring	1	LS	$27,000	$27,000
9	Waste Disposal	1	LS	$5,500	$5,500
				Subtotal	$512,500
				Administration and Engineering (10%)	$51,250
				Contingency (20%)	$102,500
				Total	$666,250
Institutional Controls					
10	Expenses for Deed Restrictions	1	LS	$50,000	$50,000
				Subtotal	$50,000
				Administration and Engineering (10%)	$5,000
				Contingency (20%)	$10,000
				Total	$65,000
Groundwater Monitoring					
11	Quarterly Groundwater Sampling	4	ea	$7,500	$30,000
12	Laboratory Analysis	4	ea	$12,500	$50,000
13	Work Plan	1	ea	$15,000	$15,000
14	Prepare Annual Groundwater Monitoring Report	1	LS	$50,000	$50,000
15	Investigation-Derived Waste Disposal	8	drum	$450	$3,600
16	Monitoring Well New/Replacement	10	ea	$5,000	$50,000
				Subtotal	$198,600
				Administration and Engineering (10%)	$19,860
				Contingency (20%)	$39,720
				Total	$258,180
Passive DNAPL Collection and Removal					
17	Mobilization/Demobilization	1	LS	$20,000	$20,000
18	Install DNAPL Recovery Wells	6	ea	$8,000	$48,000
19	Waste Disposal	1	LS	$5,000	$5,000
				Subtotal	$73,000
				Administration and Engineering (10%)	$7,300
				Contingency (20%)	$14,600
				Total	$94,900
				Total Capital Cost	**$1,084,330**

See Notes on Page 2.

TABLE 10
COST ESTIMATE FOR ALTERNATIVE 3
IN-SITU ENHANCED AEROBIC BIODEGRADATION (CHEMICAL ADDITIVES) WITH INSTITUTIONAL CONTROLS, GROUNDWATER MONITORING, PASSIVE DNAPL COLLECTION/REMOVAL, AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Item #	Description	Estimated Quantity	Unit	Unit Price (materials and labor)	Estimated Amount
INSPECTION, MAINTENANCE, AND MONITORING COSTS					
Institutional Controls					
20	Verification of Institutional Controls and Notifications to NYSDEC	1	LS	$5,000	$5,000
				Subtotal	$5,000
				Contingency (20%)	$1,000
				Total	$6,000
				30-Year Total Present Worth Cost	$74,460
Groundwater Monitoring					
21	Groundwater Monitoring and Reporting	1	LS	$65,000	$65,000
				Subtotal	$65,000
				Contingency (20%)	$13,000
				Total	$78,000
				30-Year Total Present Worth Cost	$967,980
Passive DNAPL Collection and Removal					
22	DNAPL Collection/Removal	1	LS	$24,000	$24,000
23	Waste Disposal	1	LS	$1,000	$1,000
				Subtotal	$25,000
				Contingency (20%)	$5,000
				Total	$30,000
				30-Year Total Present Worth Cost	$372,300
				Annual O&M Cost (Years 1 - 30)	**$114,000**
				Total 30-Year Present Worth Cost of O&M	**$1,414,740**
				Total Estimated Cost	**$2,499,070**
				Rounded Cost	**$2,500,000**

<u>General Notes:</u>

1. Cost estimate is based on past experience and vendor estimate. In-situ enhanced aerobic biodegradation vendor estimates were obtained in 2005 and have been converted to 2008 Dollars using an 8.7686% inflation rate in accordance with the consumer price provided by the U.S. Department of Labor Bureau of Labor Statistics (http://www.bls.gov\data\inflation_calculator.htm, February 6, 2009).

2. This estimate has been prepared for the purposes of comparing potential remedial alternatives. The information in this cost estimate is based on the available information regarding the site investigation and the anticipated scope of the remedial alternative. Changes in cost elements are likely to occur as a result of new information and data during the engineering design of the remedial alternative. This cost estimate is expected to be within -30% to +50% of the actual projected cost. Utilization of this cost estimate information beyond the stated purpose is not recommended. ARCADIS is not licensed to provide financial or legal consulting services; as such; this cost estimate information is not intended to be utilized for complying with financial reporting requirements associated with liability services.

TABLE 10
COST ESTIMATE FOR ALTERNATIVE 3
IN-SITU ENHANCED AEROBIC BIODEGRADATION (CHEMICAL ADDITIVES) WITH INSTITUTIONAL CONTROLS, GROUNDWATER MONITORING, PASSIVE DNAPL COLLECTION/REMOVAL, AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

In-Situ Enhanced Aerobic Biodegradation (Chemical Additive) Assumptions:

1. Mobilization/Demobilization cost includes: mobilization and demobilization of all labor, equipment, and material necessary to conduct the injection of chemical additives at the site.

2. Temporary fencing cost estimate includes labor, equipment, and materials necessary to install and remove temporary fencing around the working area.

3. Pre-design investigation (baseline sampling) cost estimate includes; project data review and sample analyses and interpretation; and project management cost.

4. Final remedial action work plan and engineering design will be conducted following the completion of a pre-design investigation.

5. Permitting cost estimate includes all costs to obtain appropriate permits necessary for the injection of the chemical additives.

6. Drilling cost estimate includes all labor, equipment, and materials necessary to install up 170 injection points.

7. Remediation Material (Chemical Additive) cost estimate includes all materials necessary for the in-situ enhanced degradation injection.

8. Post-injection monitoring cost estimate includes all labor, equipment, and materials to collect groundwater samples following the injection. Cost assumes one round of post-injection sampling potentially consisting constituent and natural attenuation parameters.

9. Miscellaneous waste disposal cost estimate is based on disposal of PPE and disposal equipment at a facility permitted to accept the waste.

Institutional Control Assumptions:

1. Expenses for deed restrictions estimate includes all labor and materials necessary to institute deed restrictions for the site to prevent potential future use of site groundwater.

2. Institutional controls cost estimate includes the annual costs associated with institutional controls include verifying the status of institutional controls and preparing/submitting notification to the NYSDEC to demonstrate that the institutional controls are being maintained and remain effective.

Groundwater Monitoring Assumptions:

1. Quarterly groundwater monitoring cost estimate includes: all labor, equipment, travel, subsistence, and materials necessary to conduct quarterly groundwater monitoring for a 1-year period. Groundwater monitoring will consist of collecting groundwater samples from up to six select monitoring points using low-flow sampling methods. Cost assumes two project level personnel could complete the monitoring activities in 4 work days.

TABLE 10
COST ESTIMATE FOR ALTERNATIVE 3
IN-SITU ENHANCED AEROBIC BIODEGRADATION (CHEMICAL ADDITIVES) WITH INSTITUTIONAL CONTROLS, GROUNDWATER MONITORING, PASSIVE DNAPL COLLECTION/REMOVAL, AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Groundwater Monitoring Assumptions (cont.):

2. Laboratory analysis cost estimate includes all labor, equipment, and materials necessary to submit groundwater samples to an analytical laboratory for analysis. Approximately 20 samples will potentially be analyzed for VOCs and approximately 16 samples will potentially be analyzed for PAHs and natural attenuation indicator parameters, such as BOD, COD, nitrates, nitrites, sulfide, sulfate, alkalinity, and microbial count. Cost assumes standard analytical turnaround time.

3. Work Plan for groundwater monitoring will be coordinated with the RD/RA work plan preparation activity.

4. Prepare annual monitoring report cost estimate includes all labor, equipment, and materials necessary to prepare a report summarizing the results of the groundwater monitoring activities and the observed trends from the first year of groundwater monitoring. Cost includes data validation.

5. Waste disposal cost estimate includes all labor, equipment, and materials necessary to dispose of groundwater waste material generated during the quarterly groundwater monitoring activities. Costs assume that the groundwater would be disposed of as a non-hazardous waste at an appropriate treatment/disposal facility. Cost assumes two drums of liquid would be generated during each sampling event.

6. Monitoring well cost estimate includes all labor, equipment, and materials necessary to install new/replacement monitoring wells. Cost estimate assumes that average well depths are 35 to 45 feet. Cost estimate assumes that groundwater monitoring wells will be constructed of PVC and include above grade stand up covers.

7. Groundwater monitoring and reporting cost estimate includes all labor, equipment, and materials necessary to conduct semi-annual sampling events, analyze groundwater samples, and prepare an annual groundwater monitoring report to summarize the results of the groundwater monitoring activities. Report will include data evaluation and trend analysis of the data. Cost includes data validation.

Passive DNAPL Collection and Removal Assumptions

1. Mobilization/Demobilization cost includes: mobilization and demobilization of all labor, equipment, and material necessary to install new wells to facilitate passive recovery of DNAPL from the site.

2. Install DNAPL collection wells cost estimate includes all labor, equipment, and materials necessary to install and develop up to eight 4-inch diameter passive DNAPL recovery wells.

3. Miscellaneous waste disposal cost estimate is based on disposal of PPE and disposable equipment used during construction/installation of DNAPL recovery structures at a facility permitted to accept the waste. Cost estimate includes waste characterization sampling and analysis and assumes that material will be disposed of as non-hazardous waste.

4. DNAPL monitoring/recovery cost estimate includes all labor, equipment, and materials, necessary to monitor DNAPL collection wells and passively remove accumulated DNAPL, if encountered. Cost estimates assume DNAPL monitoring/recovery will be performed on a monthly basis. Cost estimate includes preparation of quarterly summary reports for the DNAPL monitoring.

5. Waste disposal cost estimate includes all labor, equipment, and materials necessary to dispose of waste material generated during O&M activities. Cost assumes one 55-gallon drum of DNAPL would require management and disposal per year.

TABLE 10
COST ESTIMATE FOR ALTERNATIVE 3
IN-SITU ENHANCED AEROBIC BIODEGRADATION (CHEMICAL ADDITIVES) WITH INSTITUTIONAL CONTROLS, GROUNDWATER MONITORING, PASSIVE DNAPL COLLECTION/REMOVAL, AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

General Assumptions

1. Present worth is estimated based on a 7% beginning-of-year discount rate (adjusted for inflation) in accordance with OSWER Directive 9355.3-20 "Revisions to OMB Circular A-94 on Guidelines and Discount Rates for Benefit-Cost Analysis" (USEPA, 1993). It is assumed that "year zero" is 2008.

TABLE 11
COST ESTIMATE FOR GROUNDWATER ALTERNATIVE 4
IN-SITU CHEMICAL OXIDATION WITH INSTITUTIONAL CONTROLS, GROUNDWATER MONITORING, PASSIVE DNAPL COLLECTION/REMOVAL, AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Item #	Description	Estimated Quantity	Unit	Unit Price (materials and labor)	Estimated Amount
CAPITAL COSTS					
In-Situ Chemical Oxidation					
1	Mobilization/Demobilization	1	LS	$82,000	$82,000
2	Install Temporary Fencing	500	LF	$25	$12,500
3	Pre-Design Investigation	1	LS	$33,000	$33,000
4	Pilot-Scale Testing	1	LS	$55,000	$55,000
5	Final RD/RA Work Plan and Engineering Design	1	LS	$110,000	$110,000
6	Permitting	1	LS	$27,000	$27,000
7	Drilling - Remediation Points	1	LS	$92,000	$92,000
8	Remediation Equipment and Licensing	1	LS	$330,000	$330,000
9	Remediation System Installation	1	LS	$220,000	$220,000
10	Ozone Monitoring System	1	LS	$55,000	$55,000
11	System Startup	1	LS	$27,000	$27,000
12	Waste Disposal	1	LS	$5,500	$5,500
				Subtotal	$1,049,000
				Administration and Engineering (10%)	$104,900
				Contingency (20%)	$209,800
				Total	$1,363,700
Institutional Controls					
13	Expenses for Deed Restrictions	1	LS	$50,000	$50,000
				Subtotal	$50,000
				Administration and Engineering (10%)	$5,000
				Contingency (20%)	$10,000
				Total	$65,000
Groundwater Monitoring					
14	Quarterly Groundwater Sampling	4	ea	$7,500	$30,000
15	Laboratory Analysis	4	ea	$12,500	$50,000
16	Work Plan	1	ea	$15,000	$15,000
17	Prepare Annual Groundwater Monitoring Report	1	LS	$50,000	$50,000
18	Waste Disposal	8	drum	$450	$3,600
19	Monitoring Well New/Replacement	10	ea	$5,000	$50,000
				Subtotal	$198,600
				Administration and Engineering (10%)	$19,860
				Contingency (20%)	$39,720
				Total	$258,180
Passive DNAPL Collection and Removal					
20	Mobilization/Demobilization	1	LS	$20,000	$20,000
21	Install DNAPL Recovery Wells	6	ea	$8,000	$48,000
22	Miscellaneous Waste Disposal	1	LS	$5,000	$5,000
				Subtotal	$73,000
				Administration and Engineering (10%)	$7,300
				Contingency (20%)	$14,600
				Total	$94,900
				Total Capital Cost	**$1,781,780**

See Notes on Page 3.

TABLE 11
COST ESTIMATE FOR GROUNDWATER ALTERNATIVE 4
IN-SITU CHEMICAL OXIDATION WITH INSTITUTIONAL CONTROLS, GROUNDWATER MONITORING, PASSIVE DNAPL COLLECTION/REMOVAL, AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Item #	Description	Estimated Quantity	Unit	Unit Price (materials and labor)	Estimated Amount
OPERATION & INSPECTION, MAINTENANCE, AND MONITORING COSTS					
In-Situ Chemical Oxidation					
23	Oxidation Treatment System O&M	12	month	$16,500	$198,000
24	Post-Injection Monitoring	1	LS	$11,000	$11,000
25	Electrical Usage	12	month	$1,600	$19,200
26	Ozone Injection and SVE O&M	12	month	$4,500	$54,000
27	Waste Disposal	1	LS	$2,000	$2,000
				Subtotal	$284,200
				Contingency (20%)	$56,840
				Total	$341,040
				Total Present Worth Cost	$893,525
Institutional Controls					
28	Verification of Institutional Controls and Notifications to NYSDEC	1	LS	$5,000	$5,000
				Subtotal	$5,000
				Contingency (20%)	$1,000
				Total	$6,000
				30-Year Total Present Worth Cost	$74,460
Groundwater Monitoring					
29	Groundwater Monitoring and Reporting	1	LS	$65,000	$65,000
				Subtotal	$65,000
				Contingency (20%)	$13,000
				Total	$78,000
				30-Year Total Present Worth Cost	$967,980
Passive DNAPL Collection and Removal					
30	DNAPL Collection/Removal	1	LS	$24,000	$24,000
31	Waste Disposal	1	LS	$1,000	$1,000
				Subtotal	$25,000
				Contingency (20%)	$5,000
				Total	$30,000
				30-Year Total Present Worth Cost	$372,300
				Annual O&M Cost (Years 1 - 3)	**$455,040**
				Annual Costs of O&M (Years 4 - 30)	**$114,000**
				Total Present Worth Cost of O&M	**$2,308,265**
				Total Estimated Cost	**$4,090,045**
				Rounded Cost	**$4,100,000**

See Notes on Page 3.

TABLE 11
COST ESTIMATE FOR GROUNDWATER ALTERNATIVE 4
IN-SITU CHEMICAL OXIDATION WITH INSTITUTIONAL CONTROLS, GROUNDWATER MONITORING, PASSIVE DNAPL COLLECTION/REMOVAL, AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

General Notes:

1. Cost estimate is based on past experience and vendor estimate. In-situ chemical oxidation vendor estimates were obtained in 2005 and have been converted to 2008 Dollars using an 8.7686% inflation rate in accordance with the consumer price index provided by the U.S. Department of Labor Bureau of Labor Statistics (http://www.bls.gov\data\inflation_calculator.htm, February 6, 2009).

2. This estimate has been prepared for the purposes of comparing potential remedial alternatives. The information in this cost estimate is based on the available information regarding the site investigation and the anticipated scope of the remedial alternative. Changes in cost elements are likely to occur as a result of new information and data collected during the engineering design of the remedial alternative. This cost estimate is expected to be within -30% to +50% of the actual projected cost. Utilization of this cost estimate information beyond the stated purpose is not recommended. ARCADIS is not licensed to provide financial or legal consulting services; as such; this cost estimate information is not intended to be utilized for complying with financial reporting requirements associated with liability services.

Chemical Oxidation Assumptions:

1. Mobilization/Demobilization cost includes: mobilization and demobilization of all labor, equipment, and material necessary to conduct a pilot study and install/construct an in-situ chemical oxidation system at the site.

2. Temporary fencing cost estimate includes labor, equipment, and materials necessary to install and remove temporary fencing around the working area.

3. Pre-design investigation cost estimate includes; project data review and work plan; total oxidant demand - sample analyses and interpretation; remedial investigation report and preliminary remedial action work plan; and project management cost.

4. Pilot-scale testing cost estimate includes all labor, equipment, and materials, necessary to conduct a one-month ozone injection pilot-scale study including injection point installation, equipment rental, and monitoring.

5. Final RD/RA work plan and engineering design will be conducted following the completion of the pre-design investigation and pilot-scale testing. Cost includes preparation of ancillary support documents.

6. Permitting cost estimate includes all costs to obtain appropriate permits necessary for the operation and maintenance of the full-scale ozone injection system.

7. Drilling cost estimate includes all labor, equipment, and materials necessary to install injection points, soil vapor extraction (SVE) wells, new observation wells. This cost also includes the construction and removal of a decontamination pad, which includes labor, equipment, and materials necessary to construct and remove a 60-foot by 30-foot decontamination pad and appurtenances. The decontamination pad would consist of 40-mil high density polyethylene (HDPE) with a 6-inch gravel drainage layer placed over the HDPE liner, surrounded by a 1-foot high berm and sloped to a collection sump for the collection of decontamination water.

8. Remediation equipment and licensing cost estimate includes all materials and equipment necessary for the in-situ chemical oxidation and SVE systems including but not limited to pumps, compressors, tubing, electronic controls, etc.

9. Remediation system installation cost estimate includes all labor necessary to install the in-situ chemical oxidation and SVE systems including, but not limited to, pumps, compressors, tubing, electronic controls, etc.

TABLE 11
COST ESTIMATE FOR GROUNDWATER ALTERNATIVE 4
IN-SITU CHEMICAL OXIDATION WITH INSTITUTIONAL CONTROLS, GROUNDWATER MONITORING, PASSIVE DNAPL COLLECTION/REMOVAL, AND OFFSITE DNAPL TREATMENT/DISPOSAL

FEASIBILITY STUDY
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK

Chemical Oxidation Assumptions (cont.):

10. Ozone monitoring system cost estimate includes labor to install ozone monitoring system.

11. System startup cost estimate includes labor to support initial startup of ozone injection and SVE systems.

12. Miscellaneous waste disposal cost estimate is based on disposal of PPE and disposal equipment at a facility permitted to accept the waste.

13. Oxidation Treatment System O&M cost estimate includes all labor necessary to operate and maintain the oxidation treatment system. It is assumed that the system will operate 24-hr/day for 36 months. Estimate includes costs for a subcontractor's representative to visit the site once per week to monitor field parameters and perform general maintenance on the in-situ chemical oxidation system.

14. Post-injection monitoring cost estimate includes all labor, equipment, and materials to collect and analyze groundwater samples following ozone injection. Cost assumes two rounds of post-injection sampling.

15. Electrical Utility cost estimate includes the cost of electrical utility charges needed to operate the ozone injection and SVE systems.

16. Ozone injection and SVE O&M cost includes all labor needed by subcontractor to oversee the ozone injection and SVE systems.

17. Miscellaneous waste disposal cost estimate is based on disposal of PPE and disposal equipment at a facility permitted to accept the waste.

Institutional Control Assumptions:

1. Expenses for deed restrictions estimate includes all labor and materials necessary to institute deed restrictions for the for the site to prevent potential future use of site groundwater.

2. Institutional controls cost estimate includes the annual costs associated with institutional controls include verifying the status of institutional controls and preparing/submitting notification to the NYSDEC to demonstrate that the institutional controls are being maintained and remain effective.

Groundwater Monitoring Assumptions:

1. Quarterly groundwater monitoring cost estimate includes: all labor, equipment, travel, subsistence, and materials necessary to conduct quarterly groundwater monitoring for a 1-year period. Groundwater monitoring will consist of collecting groundwater samples from up to six select monitoring points using low-flow sampling methods. Cost assumes two project level personnel could complete the monitoring activities in 4 work days.

2. Laboratory analysis cost estimate includes all labor, equipment, and materials necessary to submit groundwater samples to an analytical laboratory for analysis. Approximately 20 samples will potentially be analyzed for VOCs and approximately 16 samples will potentially be analyzed for PAHs and natural attenuation indicator parameters, such as BOD, COD, nitrates, nitrites, sulfide, sulfate, alkalinity, and microbial count. Cost assumes standard analytical turnaround time.

Groundwater Monitoring Assumptions (cont.):

3. Work Plan for groundwater monitoring will be coordinated with the RD/RA work plan preparation activity.

4. Prepare annual monitoring report cost estimate includes all labor, equipment, and materials necessary to prepare a report summarizing the results of the groundwater monitoring activities and the observed trends from the first year of groundwater monitoring. Cost includes data validation.

5. Waste disposal cost estimate includes all labor, equipment, and materials necessary to dispose of groundwater waste material generated during the quarterly groundwater monitoring activities. Costs assume that the groundwater would be disposed of as a non-hazardous waste at an appropriate treatment/disposal facility. Cost assumes two drums of liquid would be generated during each sampling event.

6. Monitoring well cost estimate includes all labor, equipment, and materials necessary to install new/replacement monitorin wells. Cost estimate assumes that average well depths are 35 to 45 feet. Cost estimate assumes that groundwater monitoring wells will be constructed of PVC and include above grade stand up covers.

7. Groundwater monitoring and reporting cost estimate includes all labor, equipment, and materials necessary to conduct semi-annual sampling events, analyze groundwater samples, and prepare an annual groundwater monitoring report to summarize the results of the groundwater monitoring activities. Report will include data evaluation and trend analysis of tl data. Cost includes data validation.

Passive DNAPL Collection and Removal Assumptions:

1. Mobilization/Demobilization cost includes: mobilization and demobilization of all labor, equipment, and material necessary to install new wells to facilitate passive recovery of DNAPL from the site.

2. Install DNAPL collection wells cost estimate includes all labor, equipment, and materials necessary to install and develop up to eight 4-inch diameter passive DNAPL recovery wells.

3. Miscellaneous waste disposal cost estimate is based on disposal of PPE and disposable equipment used during construction/installation of DNAPL recovery structures at a facility permitted to accept the waste. Cost estimate includes waste characterization sampling and analysis and assumes that material will be disposed of as non-hazardous waste.

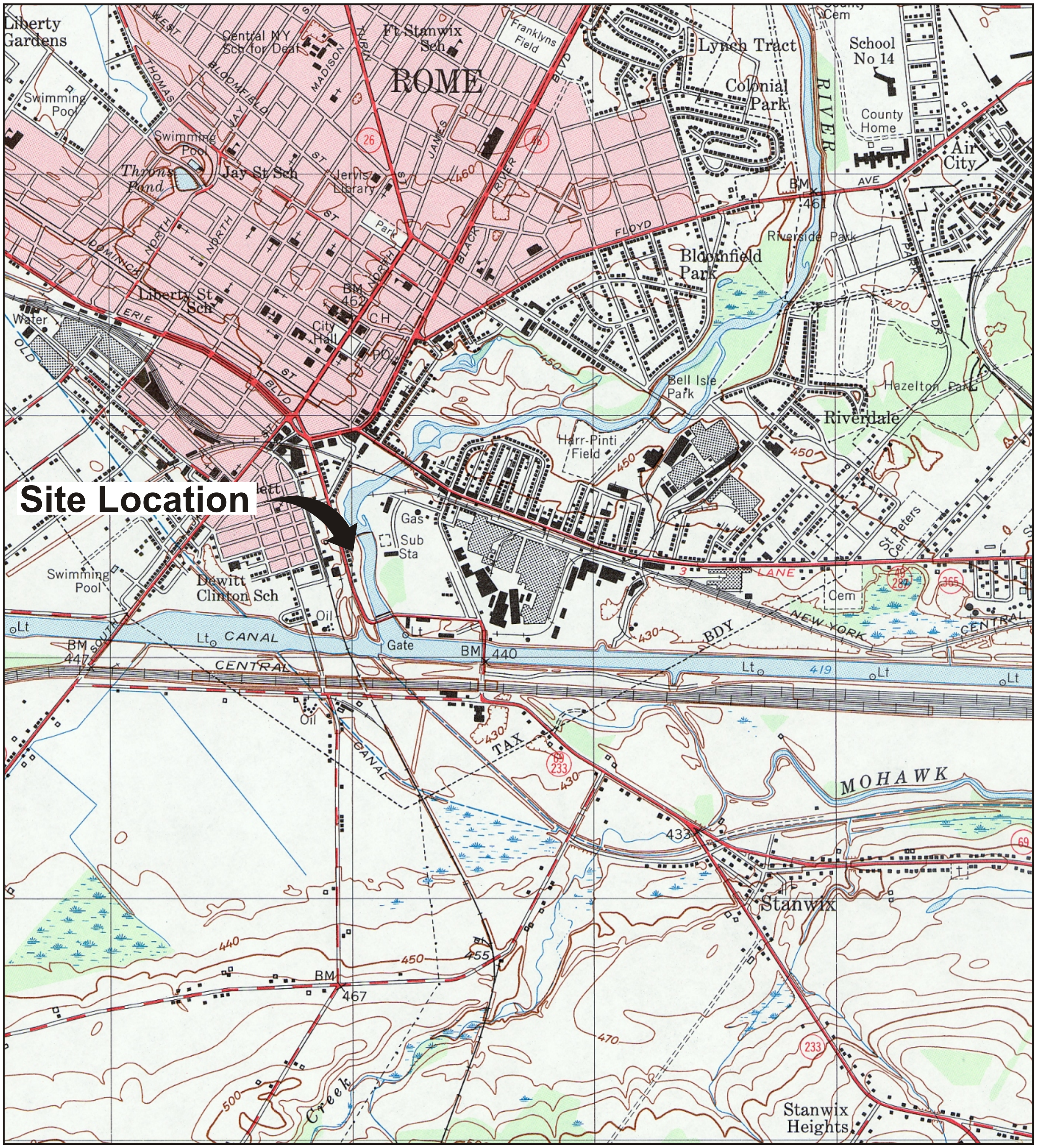
4. DNAPL monitoring/recovery cost estimate includes all labor, equipment, and materials, necessary to monitor DNAPL collection wells and passively remove accumulated DNAPL, if encountered. Cost estimates assume DNAPL monitoring/ recovery will be performed on a monthly basis. Cost estimate includes preparation of quarterly summary reports for the DNAPL monitoring.

5. Waste disposal cost estimate includes all labor, equipment, and materials necessary to dispose of waste material generated during O&M activities. Cost assumes one 55-gallon drum of DNAPL would require management and disposal per year.

General Assumptions:

1. Present worth is estimated based on a 7% beginning-of-year discount rate (adjusted for inflation) in accordance with OSWER Directive 9355.3-20 "Revisions to OMB Circular A-94 on Guidelines and Discount Rates for Benefit-Cost Analys (USEPA, 1993). It is assumed that "year zero" is 2008.

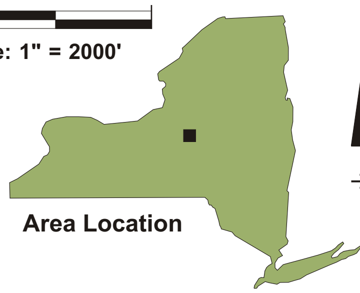
Figures



REFERENCE: Base Map Source: USGS 7.5 Min. Topo. Quad., Rome, NY.

2000' 0 2000'

Approximate Scale: 1" = 2000'



Area Location

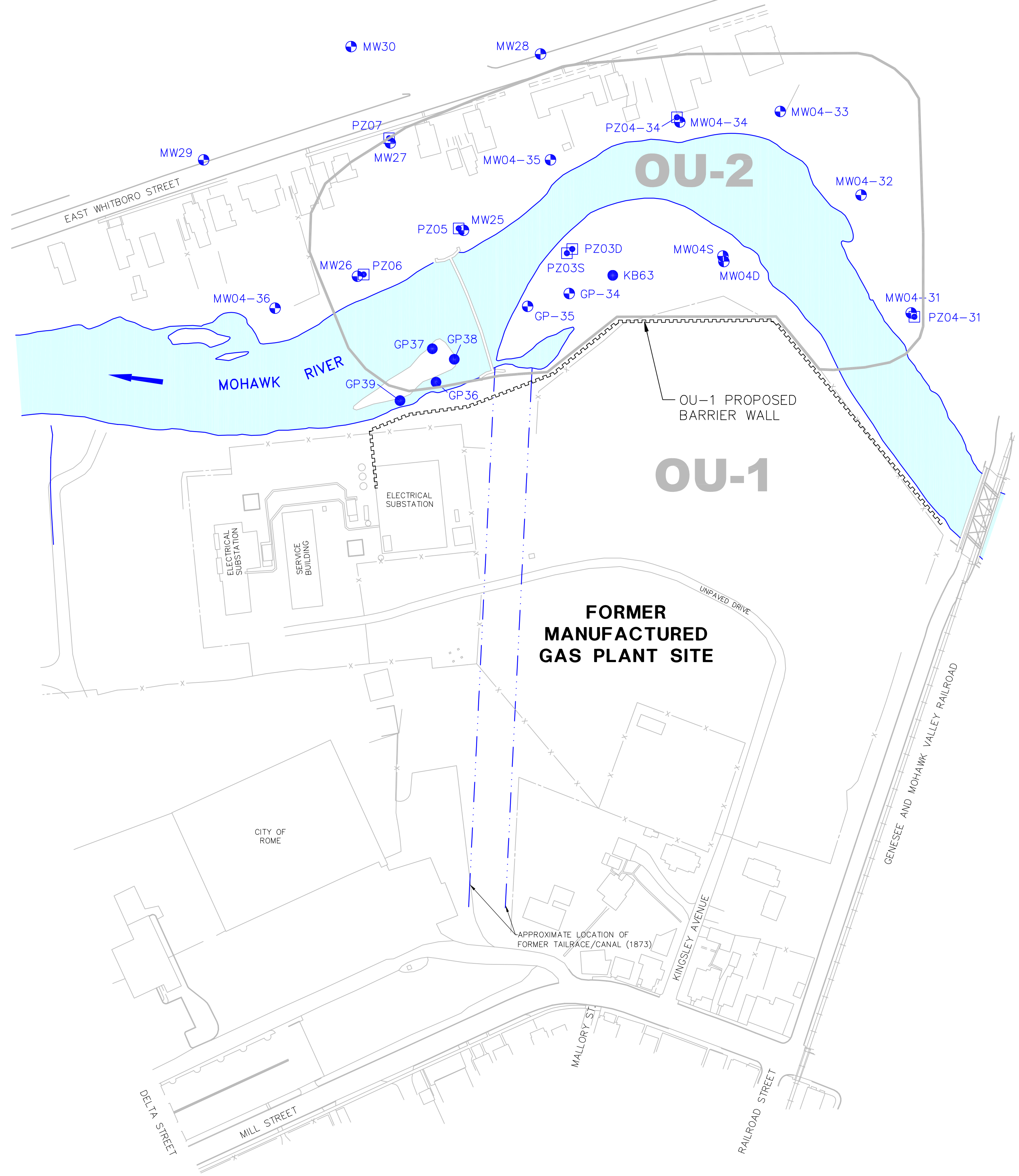
NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK
OU-2 FEASIBILITY STUDY REPORT

SITE LOCATION MAP

ARCADIS

FIGURE
1

01/23/09 SYRACUSE, NY-ENV/CAD-DJH, KLS
B0036642/0000/00100/CDR/36642N01.CDR



LEGEND:

- FORMER TAILRACE (APPROXIMATE)
- MW04–34 MONITORING WELL
- PZ02 PIEZOMETER
- GP34 HISTORICAL SOIL BORING/GEOPROBE LOCATION
- APPROXIMATE LOCATION OF PROPOSED BARRIER WALL

NOTES:

1. BASE MAP SUPPLIED BY ERDMAN ANTHONY, AT A SCALE OF 1" = 40' TITLED "KINGSLEY AVENUE", WAS CREATED BY PHOTOGRAMMETRIC METHODS FROM DATA COLLECTED ON NOVEMBER 10, 2003.
2. ALL LOCATIONS ARE APPROXIMATE.
3. MEASURING POINT ELEVATIONS FOR MONITORING WELLS MW04–31, MW04–33, MW04–34, MW04–35 AND MW04–36 WERE CALCULATED USING GROUND SURFACE SURVEY DATA, ASSUMING THE MEASURING POINT IS 3 INCHES LOWER THAN GROUND SURFACE.
4. AS DEFINED IN THE RECORD OF DECISION (MARCH 2002), THERE IS AN AREA THAT IS IN BOTH OU–1 AND OU–2. THE SOIL/SEDIMENTS IN THE AREA ARE DEFINED AS BEING IN OU–1, AND THE GROUNDWATER/NAPL IS DEFINED AS BEING IN OU–2.
5. OU–2 BOUNDARY AS DEPICTED, OBTAINED FROM FIGURE 1 OF RECORD OF DECISION FOR SITE NO. 6–33–043, DATED MARCH 2002.

0 100' 200'
GRAPHIC SCALE

NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK
OU-2 FEASIBILITY STUDY REPORT

SITE PLAN

ARCADIS

FIGURE
2

CITY: SYRACUSE DIV/GROUP: ENVCAD DB: NJR LAF NESS PM:(Reqd) LYR: ON=*;OFF=*REF
G:\ENVCAD\SYRACUSE\ACT\B0036642\0000\00100\DWG\36642W03.DWG LAYOUT: 2 SAVED: 2/17/2009 3:14 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: C-LD2B-PDF-TABLOID PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 2/17/2009 3:14 PM BY: SMITHGALL, NANCY
XREFS: 36642X01 IMAGES: PROJECTNAME: ----

02/17/09 SYRACUSE, NY-ENV/CAD-DJH, KLS
B0036642/0000/00100/CDR/36642G01.CDR

REFERENCE: Base Figure Source: Parsons Engineering Science, Inc., Figure 1.3 of Final RI Report, March 9, 1999.

NATIONAL GRID
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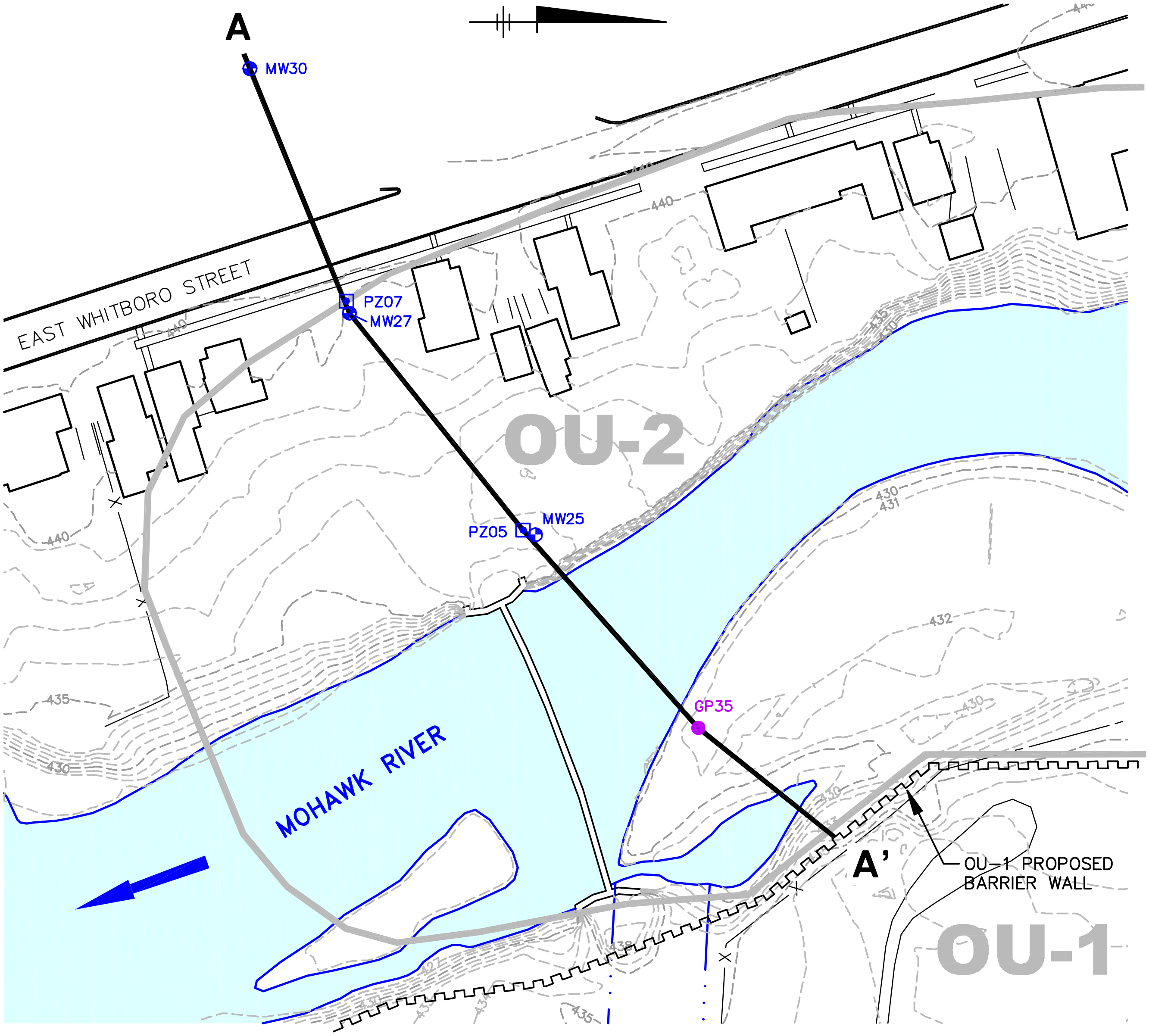
ROME, NEW YORK
OU-2 FEASIBILITY STUDY REPORT

AERIAL PHOTOGRAPH

ARCADIS

FIGURE
3



LEGEND:

- FORMER TAILRACE (APPROXIMATE)
- —430— 5' INDEX CONTOUR LINE
- —434— 1' INTERMEDIATE CONTOUR LINE
- MW27 MONITORING WELL
- PZ05 PIEZOMETER
- GP11 SOIL BORING/GEOPROBE
- APPROXIMATE BARRIER WALL LOCATION
- APPROXIMATE BOUNDARY OF OU-2

NOTES:

1. BASE MAP SUPPLIED BY ERDMAN ANTHONY, AT A SCALE OF 1" = 40' TITLED "KINGSLEY AVENUE", WAS CREATED BY PHOTOGRAMMETRIC METHODS FROM DATA COLLECTED ON NOVEMBER 10, 2003.
2. HISTORICAL SAMPLING LOCATIONS AND FORMER MGP STRUCTURE LOCATIONS WERE BASED ON MAPPING SUPPLIED BY FOSTER WHEELER ENVIRONMENTAL CORPORATION, DATED 12/12/00 AT A SCALE OF 1" = 110', TITLED "SITE LAYOUT MAP ROME (KINGSLEY AVENUE) SITE NIAGARA MOHAWK" FIGURE NO. 1-2 OF THE JANUARY 2002 FEASIBILITY STUDY REPORT.

0 100' 200'

GRAPHIC SCALE

NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK
QU-2 FEASIBILITY STUDY REPORT

CROSS-SECTION LOCATION MAP

ARCADIS

FIGURE
4

CITY:SYRACUSE DIV/GROUP:ENVCAD DB:LAF LAF NES LD:(Opt) PIC:(Opt) PM:(Reqd) TM:(Opt) LYR:(Opt)ON=*;OFF=*REF*
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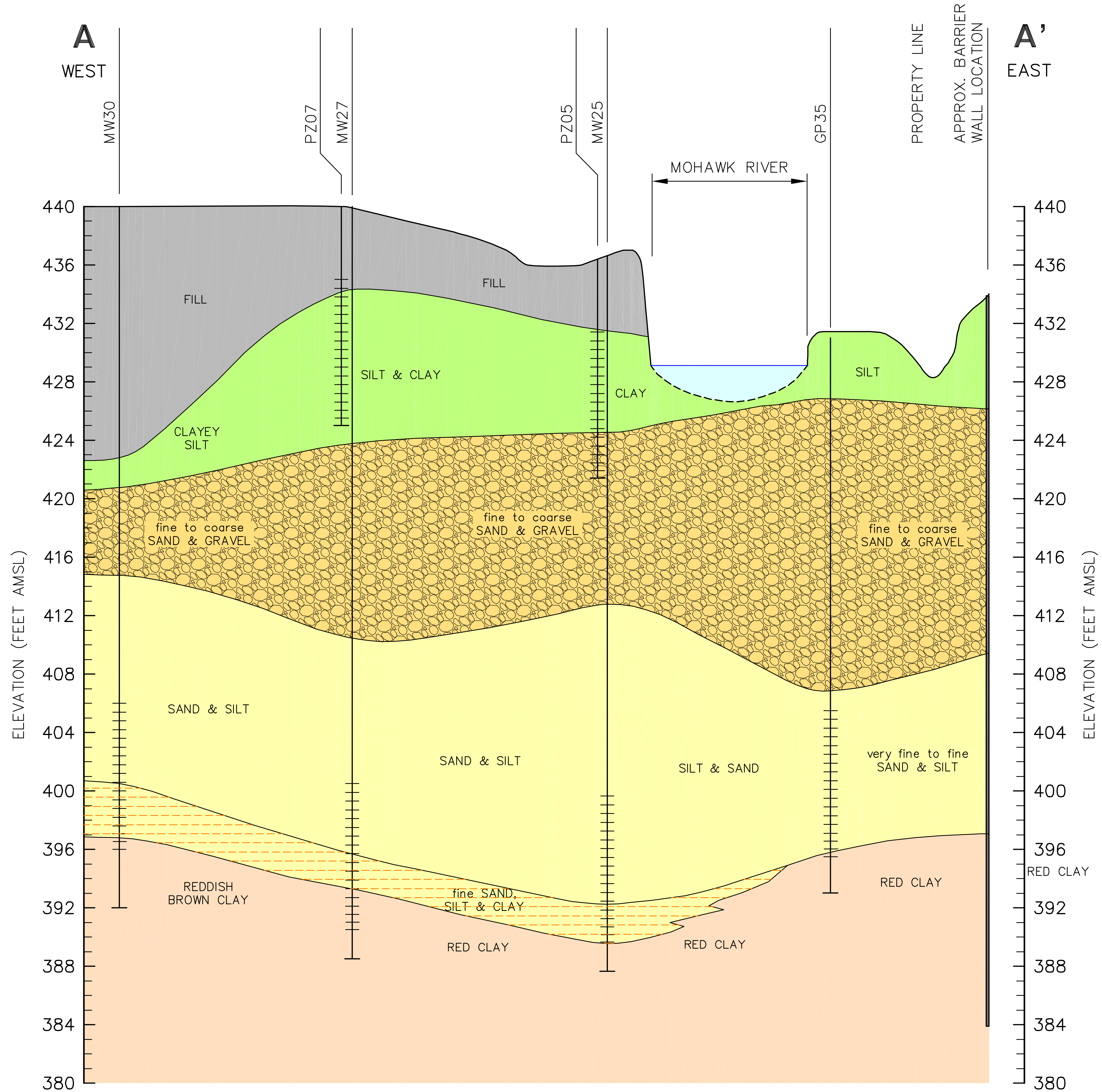
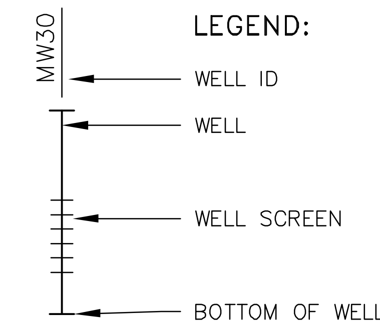




NOTES:

1. CONTACTS ARE APPROXIMATE AND INFERRED BETWEEN KNOWN DATA POINTS (BORINGS AND MONITORING WELLS).
2. INFORMATION ON GEOLOGIC FORMATIONS WAS OBTAINED FROM THE BORING LOGS PROVIDED IN THE "OFF-SITE" REMEDIAL INVESTIGATION (RI) REPORT FOR THE ROME (KINGSLEY AVE.) SITE (FOSTER WHEELER ENVIRONMENTAL CORPORATION, 2000) (MW25, MW27, MW30, PZ05, AND PZ07) AND THE FEASIBILITY STUDY REPORT FOR THE ROME (KINGSLEY AVE.) SITE (FOSTER WHEELER ENVIRONMENTAL CORPORATION, 2002) (GP35).

VERTICAL EXAGGERATION = 10X

0 4' 8' VERTICAL SCALE

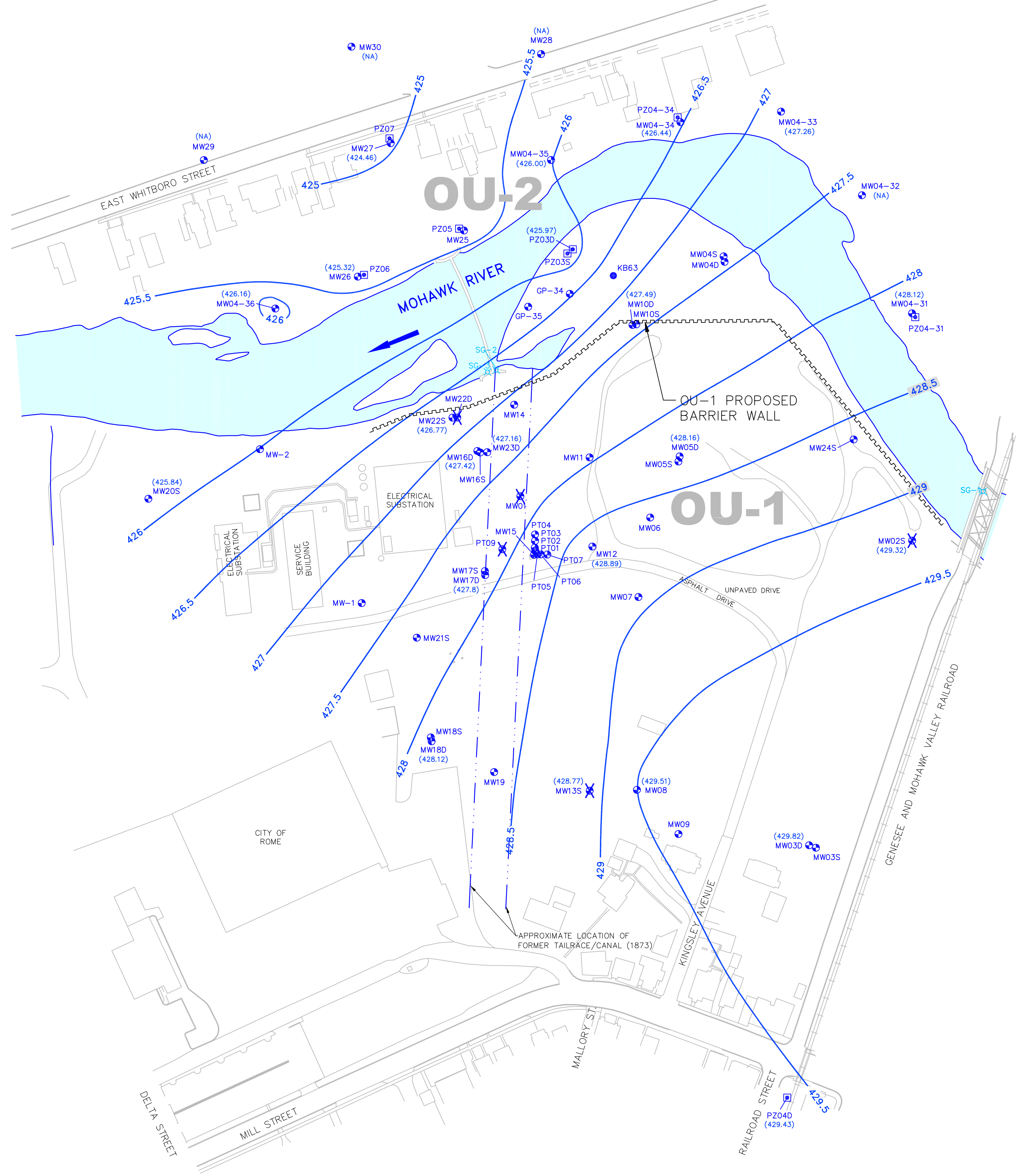
0 40' 80' HORIZONTAL SCALE

NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK
OU-2 FEASIBILITY STUDY REPORT

GEOLOGIC CROSS-SECTION A -A'

ARCADIS

FIGURE
5



LEGEND:

- FORMER TAILRACE (APPROXIMATE)
- SG-1 — SURFACE WATER GAUGE (INSTALLED 10/03)
- MW04-34 — MONITORING WELL
- MW28 — DECOMMISSIONED/MISSING/UNABLE TO LOCATE, OR DAMAGED MONITORING WELL
- PZ02 — PIEZOMETER
- KB63 — HISTORICAL SOIL BORING/GEOPROBE LOCATION
- INFERRED POTENTIOMETRIC SURFACE ELEVATION CONTOUR
- (427.26) — POTENTIOMETRIC SURFACE ELEVATION (FEET)
- APPROXIMATE LOCATION OF PROPOSED BARRIER WALL

NOTES:

1. BASE MAP SUPPLIED BY ERDMAN ANTHONY, AT A SCALE OF 1" = 40' TITLED "KINGSLEY AVENUE", WAS CREATED BY PHOTOGRAMMETRIC METHODS FROM DATA COLLECTED ON NOVEMBER 10, 2003.
2. ALL LOCATIONS ARE APPROXIMATE.
3. MEASURING POINT ELEVATIONS FOR MONITORING WELLS MW04-31, MW04-33, MW04-34, MW04-35 AND MW04-36 WERE CALCULATED USING GROUND SURFACE SURVEY DATA, ASSUMING THE MEASURING POINT IS 3 INCHES LOWER THAN GROUND SURFACE.
4. AS DEFINED IN THE RECORD OF DECISION (MARCH 2002), THERE IS AN AREA THAT IS IN BOTH OU-1 AND OU-2. THE SOIL/SEDIMENTS IN THE AREA ARE DEFINED AS BEING IN OU-1, AND THE GROUNDWATER/DNAPL IS DEFINED AS BEING IN OU-2. FOR THE PURPOSES OF THIS FIGURE, THAT AREA IS LOCATED WITHIN OU-2.
5. WATER LEVEL ELEVATIONS FOR THE DEEP OVERBURDEN WELLS ARE SHOWN.

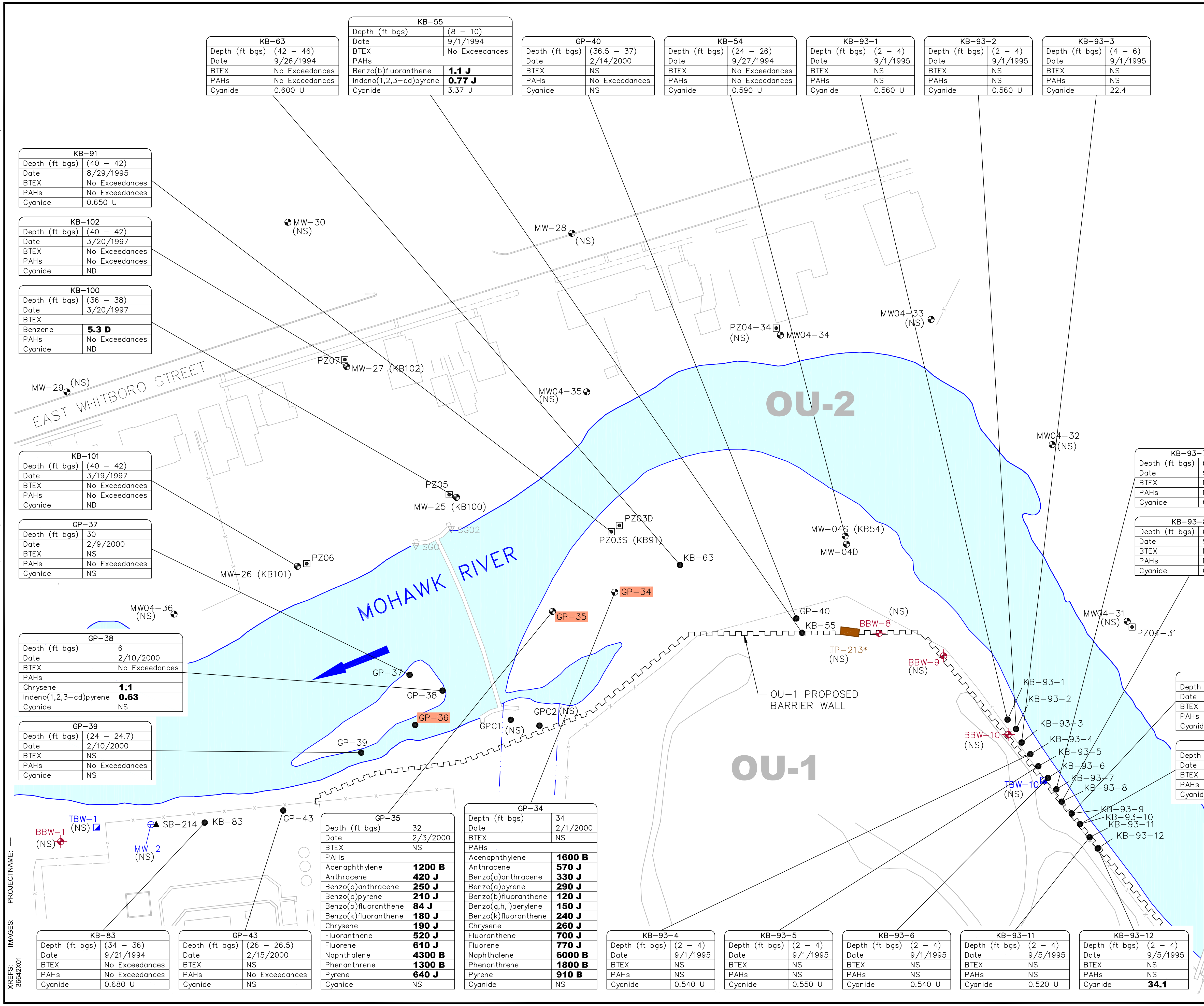
0 100' 200'
GRAPHIC SCALE

NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK
OU-2 FEASIBILITY STUDY REPORT

DEEP OVERBURDEN POTENTIOMETRIC SURFACE (OCTOBER 11, 2004)

ARCADIS

FIGURE
6



KB-63	
Depth (ft bgs)	(42 – 46)
Date	9/26/1994
BTEX	No Exceedances
PAHs	No Exceedances
Cyanide	0.600 U

KB-55	
Depth (ft bgs)	(8 – 10)
Date	9/1/1994
BTEX	No Exceedances
PAHs	
Benzo(b)fluoranthene	**1.1 J**
Indeno(1,2,3-cd)pyrene	**0.77 J**
Cyanide	3.37 J

GP-40	
Depth (ft bgs)	(36.5 – 37)
Date	2/14/2000
BTEX	NS
PAHs	No Exceedances
Cyanide	NS

KB-54	
Depth (ft bgs)	(24 – 26)
Date	9/27/1994
BTEX	No Exceedances
PAHs	No Exceedances
Cyanide	0.590 U

KB-93-1	
Depth (ft bgs)	(2 – 4)
Date	9/1/1995
BTEX	NS
PAHs	NS
Cyanide	0.560 U

KB-93-2	
Depth (ft bgs)	(2 – 4)
Date	9/1/1995
BTEX	NS
PAHs	NS
Cyanide	0.560 U

KB-93-3	
Depth (ft bgs)	(4 – 6)
Date	9/1/1995
BTEX	NS
PAHs	NS
Cyanide	22.4

KB-91	
Depth (ft bgs)	(40 – 42)
Date	8/29/1995
BTEX	No Exceedances
PAHs	No Exceedances
Cyanide	0.650 U

KB-102	
Depth (ft bgs)	(40 – 42)
Date	3/20/1997
BTEX	No Exceedances
PAHs	No Exceedances
Cyanide	ND

KB-100	
Depth (ft bgs)	(36 – 38)
Date	3/20/1997
BTEX	
Benzene	**5.3 D**
PAHs	No Exceedances
Cyanide	ND

KB-101	
Depth (ft bgs)	(40 – 42)
Date	3/19/1997
BTEX	No Exceedances
PAHs	No Exceedances
Cyanide	ND

GP-37	
Depth (ft bgs)	30
Date	2/9/2000
BTEX	NS
PAHs	No Exceedances
Cyanide	NS

GP-38	
Depth (ft bgs)	6
Date	2/10/2000
BTEX	No Exceedances
PAHs	
Chrysene	**1.1**
Indeno(1,2,3-cd)pyrene	**0.63**
Cyanide	NS

GP-39	
Depth (ft bgs)	(24 – 24.7)
Date	2/10/2000
BTEX	NS
PAHs	No Exceedances
Cyanide	NS

KB-83	
Depth (ft bgs)	(34 – 36)
Date	9/21/1994
BTEX	No Exceedances
PAHs	No Exceedances
Cyanide	0.680 U

GP-43	
Depth (ft bgs)	(26 – 26.5)
Date	2/15/2000
BTEX	NS
PAHs	No Exceedances
Cyanide	NS

GP-35	
Depth (ft bgs)	32
Date	2/3/2000
BTEX	NS
PAHs	
Acenaphthylene	**1200 B**
Anthracene	**420 J**
Benzo(a)anthracene	**250 J**
Benzo(a)pyrene	**210 J**
Benzo(b)fluoranthene	**84 J**
Benzo(k)fluoranthene	**180 J**
Chrysene	**190 J**
Fluoranthene	**520 J**
Fluorene	**610 J**
Naphthalene	**4300 B**
Phenanthrene	**1300 B**
Pyrene	**640 J**
Cyanide	NS

GP-34	
Depth (ft bgs)	34
Date	2/1/2000
BTEX	NS
PAHs	
Acenaphthylene	**1600 B**
Anthracene	**570 J**
Benzo(a)anthracene	**330 J**
Benzo(a)pyrene	**290 J**
Benzo(b)fluoranthene	**120 J**
Benzo(g,h,i)perylene	**150 J**
Benzo(k)fluoranthene	**240 J**
Chrysene	**260 J**
Fluoranthene	**700 J**
Fluorene	**770 J**
Naphthalene	**6000 B**
Phenanthrene	**1800 B**
Pyrene	**910 B**
Cyanide	NS

KB-93-4	
Depth (ft bgs)	(2 – 4)
Date	9/1/1995
BTEX	NS
PAHs	NS
Cyanide	0.540 U

KB-93-5	
Depth (ft bgs)	(2 – 4)
Date	9/1/1995
BTEX	NS
PAHs	NS
Cyanide	0.550 U

KB-93-6	
Depth (ft bgs)	(2 – 4)
Date	9/1/1995
BTEX	NS
PAHs	NS
Cyanide	0.540 U

KB-93-11	
Depth (ft bgs)	(2 – 4)
Date	9/5/1995
BTEX	NS
PAHs	NS
Cyanide	0.520 U

KB-93-12	
Depth (ft bgs)	(2 – 4)
Date	9/5/1995
BTEX	NS
PAHs	NS
Cyanide	**34.1**

KB-93-7	
Depth (ft bgs)	(2 – 4)
Date	9/1/1995
BTEX	NS
PAHs	NS
Cyanide	0.540 U

KB-93-8	
Depth (ft bgs)	(2 – 4)
Date	9/5/1995
BTEX	NS
PAHs	NS
Cyanide	0.520 U

KB-93-9	
Depth (ft bgs)	4
Date	9/5/1995
BTEX	NS
PAHs	NS
Cyanide	0.97

KB-93-10	
Depth (ft bgs)	(2 – 4)
Date	9/5/1995
BTEX	NS
PAHs	NS
Cyanide	0.530 U

LEGEND:

- FORMER TAILRACE (APPROXIMATE)
- APPROXIMATE LOCATION OF PROPOSED BARRIER WALL
- MW04-34 — MONITORING WELL
- PZ02 — PIEZOMETER
- TP-204 — PRE-DESIGN TEST PIT (10/03)
- SB-201 — PRE-DESIGN SOIL BORING (10/03)
- MW-1 — PRE-DESIGN MONITORING WELL (10/03)
- SB-213 — GEOTECHNICAL SOIL BORING (10/03)
- BBW-10 — GEOTECHNICAL SOIL BORING (11/04)
- TBW-5 — GEOTECHNICAL TEST PIT (11/04)
- MW-28 — HISTORICAL MONITORING WELL
- PZ02 — HISTORICAL MONITORING WELL/PIEZOMETER
- KB-23 — HISTORICAL SOIL BORING/GEOPROBE LOCATION
- DNAPL (DENSE NON-AQUEOUS PHASE LIQUID) OBSERVED IN SOIL

NOTES:

1. BASE MAP SUPPLIED BY ERDMAN ANTHONY, AT A SCALE OF 1" = 40' TITLED "KINGSLEY AVENUE", WAS CREATED BY PHOTOGRAMMETRIC METHODS FROM DATA COLLECTED ON NOVEMBER 10, 2003.
2. ALL LOCATIONS ARE APPROXIMATE.
3. ONLY BTEX, PAHS, AND CYANIDE RESULTS ARE SHOWN. OTHER COMPOUNDS MAY HAVE BEEN DETECTED.
4. * TEST PIT TP-213 LOCATED BY FIELD MEASUREMENTS.
5. RESULTS IN BOLD EXCEED NYSDEC PART 375 RESTRICTED RESIDENTIAL USE CRITERIA.
6. ALL RESULTS ARE REPORTED IN MILLIGRAMS PER KILOGRAMS (mg/kg).
7. B: ESTIMATED VALUE BETWEEN THE INSTRUMENT DETECTION LIMIT AND THE REPORTING LIMIT.

   J: ESTIMATED VALUE.

   D: COMPOUND QUANTITATED USING A SECONDARY DILUTION.

   U: THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE COMPOUND QUANTITATION LIMIT.

   ND: COMPOUND NOT DETECTED.

   NS: NO SOIL SAMPLE WAS COLLECTED AND SUBMITTED FOR ANALYSIS OF BTEX, PAHS OR CYANIDE.

NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK
OU-2 FEASIBILITY STUDY REPORT

BTEX, PAHs, AND TOTAL CYANIDE RESULTS IN SUBSURFACE SOIL

ARCADIS

FIGURE 7

CITY: SYRACUSE DIV/GROUP: 141 DB: RCA TJR GMS PM:(Reqd) LYR: ON=*;OFF=*REF PAGESETUP: C-LD2B-PDF-TABLOID PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 2/17/2009 2:50 PM BY: SMITHGALL, NANCY
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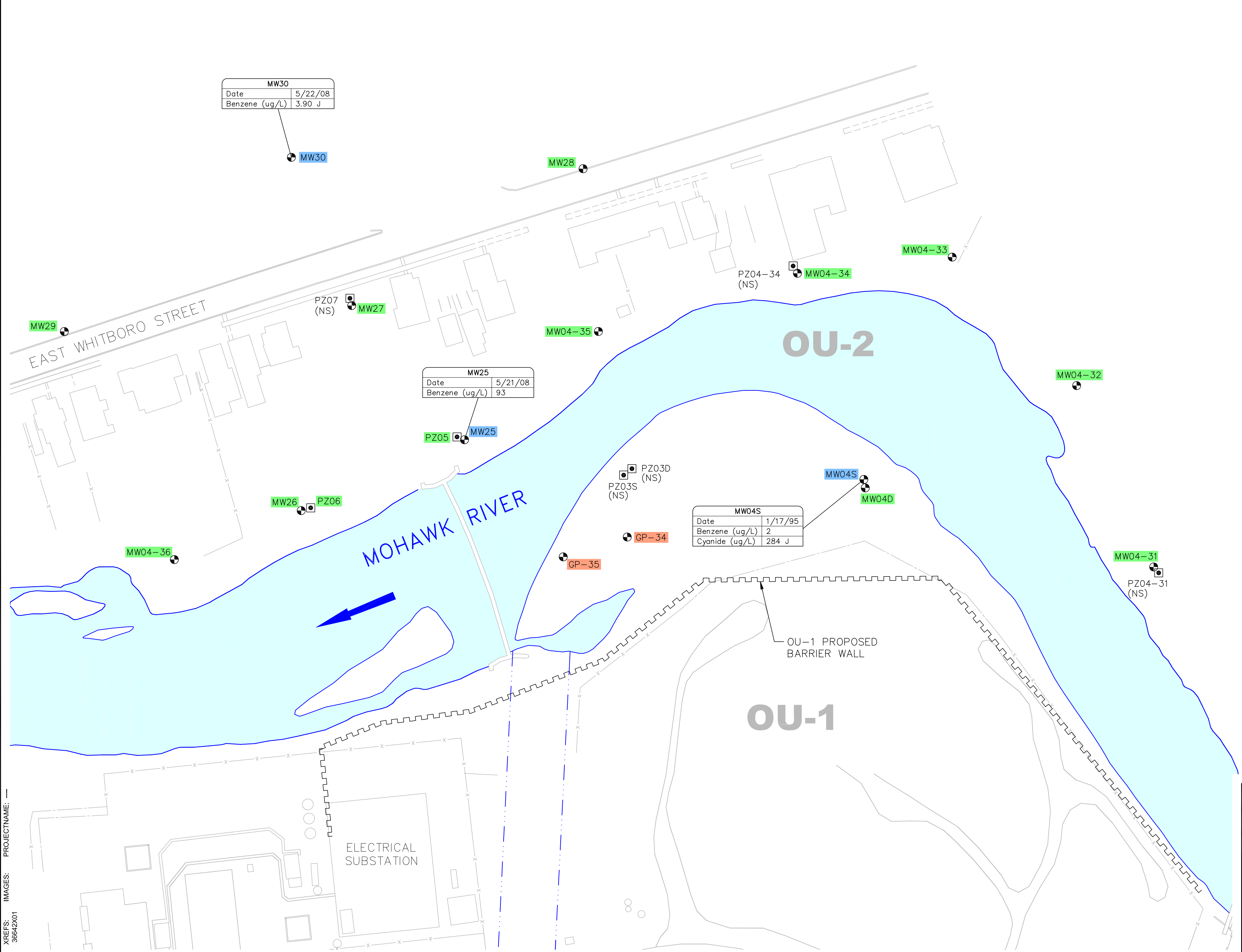
XREFS: 36642X01 IMAGES: PROJECTNAME: ---



LEGEND:

- FORMER TAILRACE (APPROXIMATE)
- APPROXIMATE LOCATION OF PROPOSED BARRIER WALL
- MW04-34 MONITORING WELL
- PZ02 PIEZOMETER
- THE MOST RECENT GROUNDWATER SAMPLE EXCEEDS THE NYSDEC CLASS GA GROUNDWATER STANDARD FOR THE LISTED COMPOUND(S)
- THE MOST RECENT GROUNDWATER SAMPLE DOES NOT EXCEED THE NYSDEC CLASS GA GROUNDWATER STANDARD FOR ANY CONSTITUENTS
- DNAPL (DENSE NON-AQUEOUS PHASE LIQUID) MEASURED DURING MOST RECENT MONITORING EVENT

NOTES:

1. BASE MAP SUPPLIED BY ERDMAN ANTHONY, AT A SCALE OF 1" = 40' TITLED "KINGSLEY AVENUE", WAS CREATED BY PHOTOGRAMMETRIC METHODS FROM DATA COLLECTED ON NOVEMBER 10, 2003.
2. ALL LOCATIONS ARE APPROXIMATE.
3. ONLY BTEX, PAH, AND CYANIDE RESULTS WERE EVALUATED FOR EXCEEDANCES OF CLASS GA STANDARDS AND GUIDANCE VALUES. OTHER COMPOUNDS MAY HAVE BEEN DETECTED. SEE ANALYTICAL TABLES FOR COMPLETE RESULTS.
4. NS: NOT SAMPLED
5. J: ESTIMATED VALUE
6. ug/L = MICROGRAMS PER LITER

NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK
OU-2 FEASIBILITY STUDY REPORT

EXCEEDANCES OF CLASS GA STANDARDS AND GUIDANCE VALUES

ARCADIS

FIGURE
8

SV-2	
Date	11/08/07
Benzene	5.2 [5.4]
Ethylbenzene	1.4 [1.8]
Toluene	13 [17]
Xylene	5.8 [7.6]
Naphthalene	0.314 B [0.225 B]

SV-6	
Date	11/08/07
Benzene	2.9
Ethylbenzene	0.82 J
Toluene	9.2
Xylene	3.47
Naphthalene	0.157 B

SV-3	
Date	11/08/07
Benzene	4.6
Ethylbenzene	1
Toluene	14
Xylene	4.70
Naphthalene	0.168 B

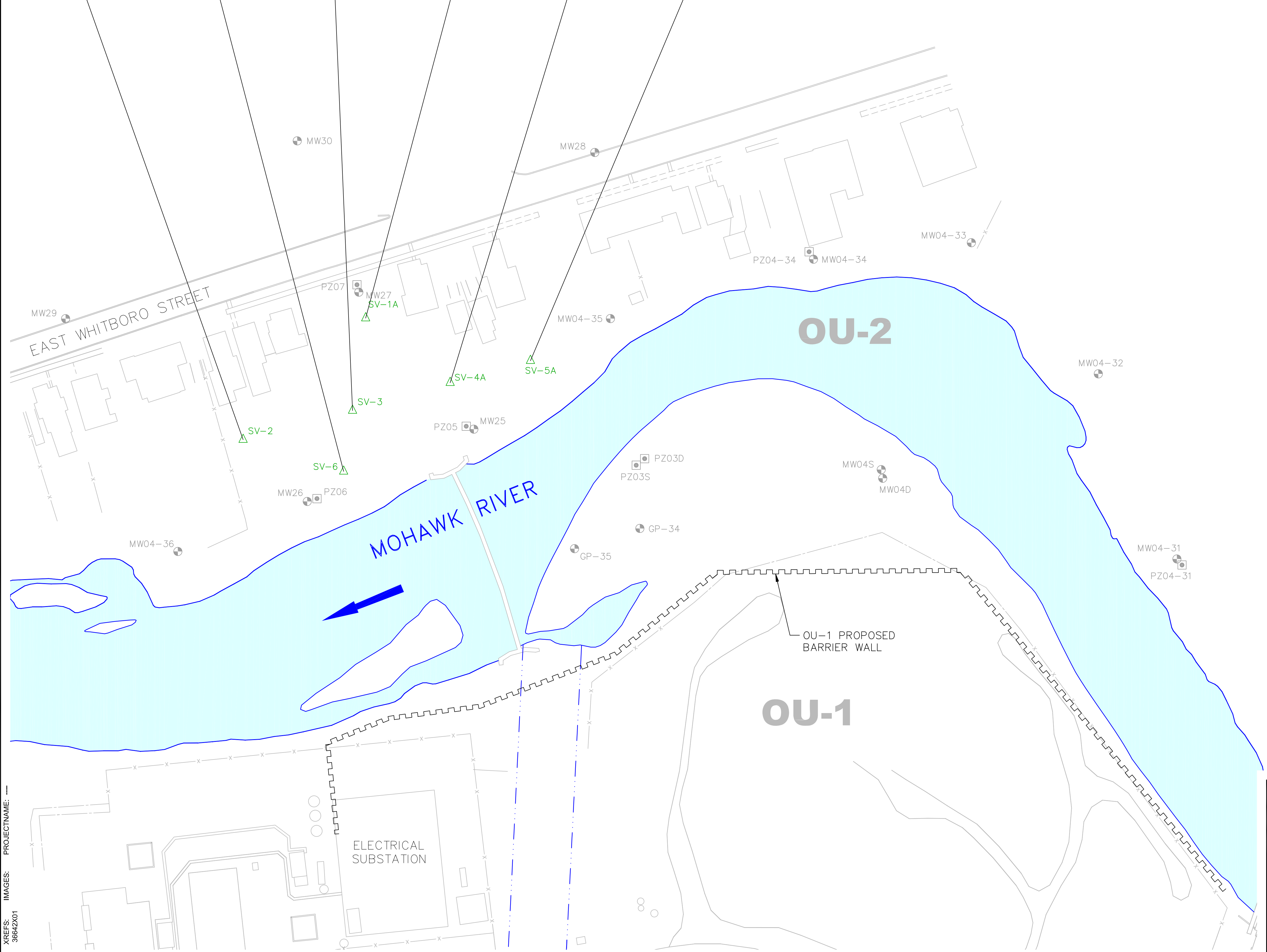
SV-1A	
Date	12/03/07
Benzene	1.7
Ethylbenzene	2.9
Toluene	13
Xylene	12.60
Naphthalene	0.613

SV-4A	
Date	12/03/07
Benzene	7
Ethylbenzene	11
Toluene	32
Xylene	43.00
Naphthalene	0.48 J

SV-5A	
Date	12/03/07
Benzene	1.8
Ethylbenzene	0.82 J
Toluene	3.9
Xylene	3.61
Naphthalene	0.739

AMBIENT AIR	
Date	11/08/07
Benzene	0.61 J
Ethylbenzene	0.152
Toluene	1.2
Xylene	0.565
Naphthalene	0.089 JB

AMBIENT AIR	
Date	12/03/07
Benzene	0.74
Ethylbenzene	0.26 J
Toluene	1.4
Xylene	0.91
Naphthalene	0.309



LEGEND:

- △ SOIL VAPOR SAMPLING POINT
- FORMER TAILRACE (APPROXIMATE)
- APPROXIMATE LOCATION OF PROPOSED BARRIER WALL
- MW04-34 MONITORING WELL
- PZ02 PIEZOMETER

NOTES:

1. BASE MAP SUPPLIED BY ERDMAN ANTHONY, AT A SCALE OF 1" = 40' TITLED "KINGSLEY AVENUE", WAS CREATED BY PHOTOGRAMMETRIC METHODS FROM DATA COLLECTED ON NOVEMBER 10, 2003.
2. ALL LOCATIONS ARE APPROXIMATE.
3. ONLY BTEX AND NAPHALENE RESULTS SHOWN (IN MICROGRAMS PER CUBIC METER [ug/m3]). OTHER COMPOUNDS MAY HAVE BEEN DETECTED. SEE ANALYTICAL TABLES FOR COMPLETE RESULTS.
4. J: ESTIMATED VALUE.
   B: ANALYTE WAS ALSO DETECTED IN THE ASSOCIATED METHOD BLANK.
5. FIELD DUPLICATE RESULTS ARE SHOWN IN BRACKETS.

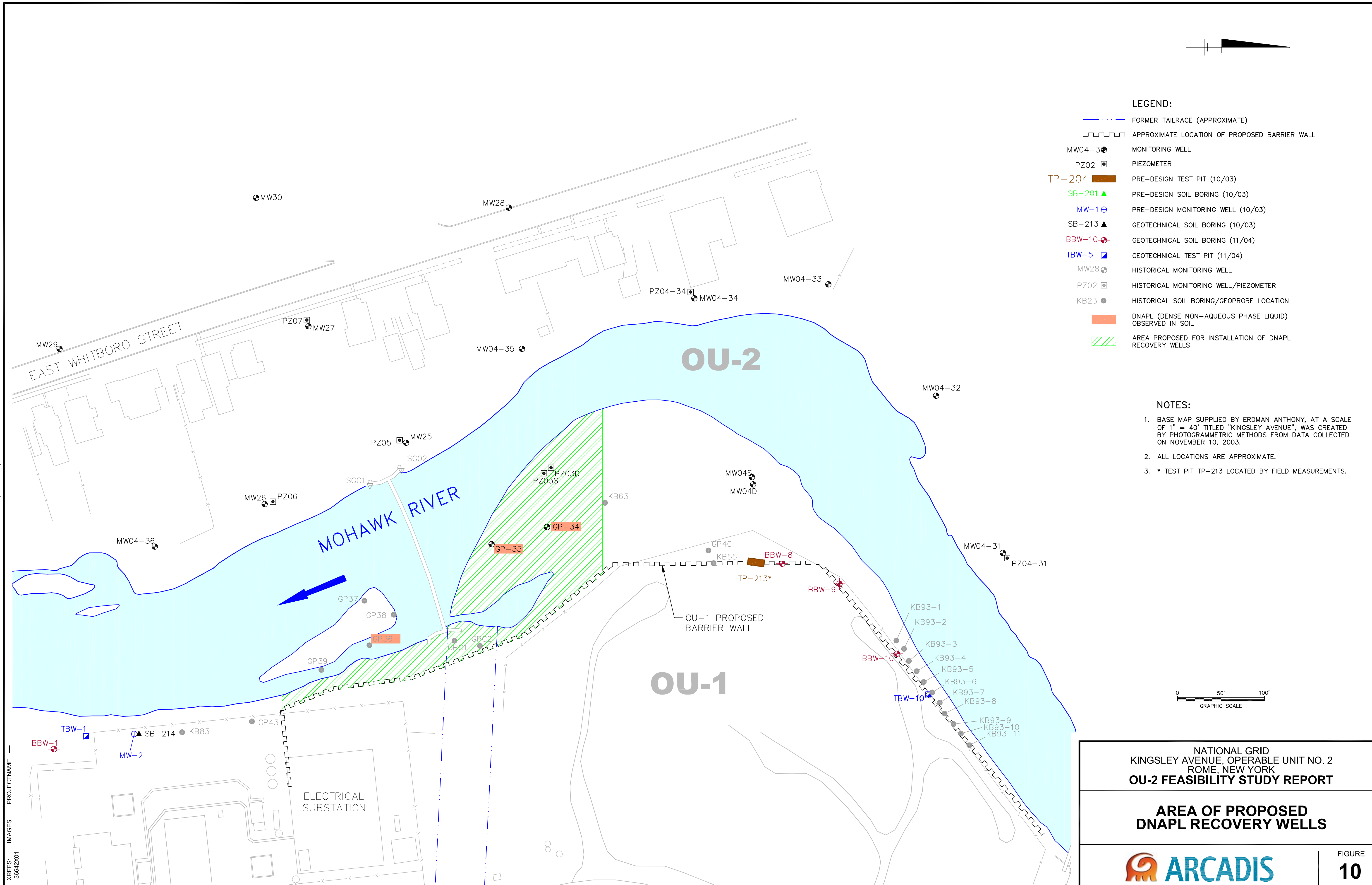
0 50' 100'
GRAPHIC SCALE

NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK
OU-2 FEASIBILITY STUDY REPORT

BTEX AND NAPHTHALENE CONCENTRATIONS DETECTED IN SOIL VAPOR

ARCADIS

FIGURE
9



NATIONAL GRID
KINGSLEY AVENUE, OPERABLE UNIT NO. 2
ROME, NEW YORK
OU-2 FEASIBILITY STUDY REPORT

AREA OF PROPOSED DNAPL RECOVERY WELLS

ARCADIS

FIGURE
10

ARCADIS

Attachment 1

EDR Database Report

The EDR Radius Map
with GeoCheck®

Ni-Mo Rome Kingsley Avenue Site
Kingsley Avenue
Rome, NY 13440

Inquiry Number: 00968711.1r

April 30, 2003

EDR® Environmental Data Resources, Inc.

***The* Source For Environmental Risk Management Data**

3530 Post Road
Southport, Connecticut 06890

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

FORM-ERK

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

KINGSLEY AVENUE
ROME, NY 13440

COORDINATES

Latitude (North):	43.206400 - 43˚ 12' 23.0"
Longitude (West):	75.452900 - 75˚ 27' 10.4"
Universal Tranverse Mercator:	Zone 18
UTM X (Meters):	463207.6
UTM Y (Meters):	4783620.0

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	2443075-B4 ROME, NY
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following government records. For more information on this property see page 6 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
NIMO - ROME - KINGSLEY AVENUE MGP KINGSLEY AVENUE ROME, NY 13440	SHWS	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL........................ National Priority List
Proposed NPL............. Proposed National Priority List Sites
CERC-NFRAP.............. CERCLIS No Further Remedial Action Planned
RCRIS-TSD................ Resource Conservation and Recovery Information System

STATE ASTM STANDARD

VCP........................ Voluntary Cleanup Agreements

SWTIRE........................ Registered Waste Tire Storage & Facility List
SWRCY........................ Registered Recycling Facility List

FEDERAL ASTM SUPPLEMENTAL

CONSENT........................ Superfund (CERCLA) Consent Decrees
ROD........................ Records Of Decision
Delisted NPL........................ National Priority List Deletions
HMIRS........................ Hazardous Materials Information Reporting System
MLTS........................ Material Licensing Tracking System
MINES........................ Mines Master Index File
NPL Liens........................ Federal Superfund Liens
PADS........................ PCB Activity Database System
RAATS........................ RCRA Administrative Action Tracking System
TRIS........................ Toxic Chemical Release Inventory System
TSCA........................ Toxic Substances Control Act
SSTS........................ Section 7 Tracking Systems
FTTS........................ FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

HSWDS........................ Hazardous Substance Waste Disposal Site Inventory
AST........................ Petroleum Bulk Storage
CBS AST........................ Chemical Bulk Storage Database

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas........................ Former Manufactured Gas (Coal Gas) Sites

BROWNFIELDS DATABASES

VCP........................ Voluntary Cleanup Agreements

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. EDR's definition of a site with an elevation equal to the target property includes a tolerance of +/- 10 feet. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property (by more than 10 feet). Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

FEDERAL ASTM STANDARD

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).
CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 03/19/2003 has revealed that there is 1 CERCLIS site within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
NMPC ROME SUBSTATION	*KINGSLEY AVE AT MILL ST*	*1/8 - 1/4E*	*B19*	*32*

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 01/15/2003 has revealed that there is 1 CORRACTS site within approximately 1.125 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
REVERE COPPER PROD INC	*SENECA ST*	*1/2 - 1 ENE*	*86*	*159*

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-LQG list, as provided by EDR, and dated 09/09/2002 has revealed that there is 1 RCRIS-LQG site within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ROME CITY OF - ACCESS ROAD	*131 MILL ST LAT 43.07.3*	*1/8 - 1/4ESE*	*21*	*34*

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-SQG list, as provided by EDR, and dated 09/09/2002 has revealed that there are 13 RCRIS-SQG sites within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SEARS OIL CO INC	*7064 LADO AVE*	*0 - 1/8 N*	*D8*	*19*
NYSDOT BRIDGE BIN 4426331 & 32	*RTE 49 OVER MOHAWK RIVE*	*1/8 - 1/4NE*	*C14*	*29*
NMPC ROME SUBSTATION	*KINGSLEY AVE AT MILL ST*	*1/8 - 1/4E*	*B19*	*32*
211 ROME REALTY CORP	*201 MILL ST*	*1/8 - 1/4SE*	*G25*	*39*
VINNYS BODY SERVICE	*205 W WHITESBORO ST*	*1/8 - 1/4WSW*	*F26*	*40*
REVERE PRINTING INC	*100 BOUCK ST*	*1/8 - 1/4W*	*F27*	*40*
ROME CITY OF D P W	*132 RACE ST*	*1/8 - 1/4SE*	*I30*	*47*
ROME IRON GROUP LTD THE	*416 CANAL ST*	*1/8 - 1/4WSW*	*J37*	*67*

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CANTERBURY PRESS	*301 MILL ST*	*1/8 - 1/4 SE*	*I38*	*68*
ARCO PETROLEUM PRODUCTS CO	*ST JAMES & ERIE*	*1/4 - 1/2 NW*	*N53*	*100*
SUNOCO SERVICE STATION	*612 E DOMINICK ST*	*1/4 - 1/2 E*	*Q60*	*116*

Lower Elevation	Address	Dist / Dir	Map ID	Page
NYSDOT BRIDGE MAINT FACILITY	*320 E WHITESBORO ST*	*1/4 - 1/2 S*	*L42*	*85*
NEW YORK TELEPHONE CO	*321 E WHITESBORO ST*	*1/4 - 1/2 S*	*L43*	*85*

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

800-262-0040

Coldwater Creek

A review of the ERNS list, as provided by EDR, and dated 12/31/2001 has revealed that there is 1 ERNS site within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ROME SUBSTATION KINGSLEY AVE	ROME SUBSTATION KINGSLE	0 - 1/8	A2	7

STATE ASTM STANDARD

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the list.

A review of the SWF/LF list, as provided by EDR, has revealed that there are 4 SWF/LF sites within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CITY OF ROME T.S.	132 RACE STREET	1/8 - 1/4 SE	I31	58
ROME BULK MATERIAL (C)	LIBERTY PLAZA	1/2 - 1 NW	73	132
ROME SLF (C)	CITY HALL	1/2 - 1 NNW	74	133
KOTARY T.S.	100 E THOMAS ST	1/2 - 1 N	85	158

LTANKS: Leaking Storage Tank Incident Reports. These records contain an inventory of reported leaking storage tank incidents reported from 4/1/86 through the most recent update. They can be either leaking underground storage tanks or leaking aboveground storage tanks. The causes of the incidents are tank test failures, tank failures or tank overfills

A review of the LTANKS list, as provided by EDR, and dated 01/01/2002 has revealed that there are 42 LTANKS sites within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
SEARS OIL CO INC	*7064 LADO AVE*	*0 - 1/8 N*	*D8*	*19*
ROME DPW (INSIDE)	RACE ST	1/8 - 1/4 SE	E17	30
SEARS OIL	*132 RACE ST*	*1/8 - 1/4 SE*	*E22*	*35*
REVERE PRINTING INC	*100 BOUCK ST*	*1/8 - 1/4 W*	*F27*	*40*
IN FRONT OF PLAZA RESTAUR	229 EAST DOMINICK ST	1/8 - 1/4 NNW	H29	45
ROME PUMP STATION	ERIE / BLACK RIVER BL	1/8 - 1/4 NNW	H34	62
CANTERBURY PRESS	*301 MILL ST*	*1/8 - 1/4 SE*	*I38*	*68*
ROME TURNEY RADIATOR	109 CANAL ST	1/4 - 1/2 WNW	39	75

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
MOSCA BROTHERS MOVING	***MILL ST***	***1/4 - 1/2SE***	***44***	***86***
KEMP OIL SITE	PO BOX 803	1/4 - 1/2S	M45	88
C.A. KEMP OIL CORP	250 ERIE BLVD EAST	1/4 - 1/2S	M46	89
ROME FIRE DEPT	158 BLACK RIVER BLVD	1/4 - 1/2N	K48	94
ROME (C) FIRE DEPT.	168 BLACK RIVER BLVD.	1/4 - 1/2N	K49	95
ROME(C) CENT. FIRE STA.	158 BLACK RIVER BLVD.	1/4 - 1/2N	K50	96
AM/PM MINI MART	5 JAMES / ERIE BLVD	1/4 - 1/2NW	N52	99
ARCO PETROLEUM PRODUCTS CO	***ST JAMES & ERIE***	***1/4 - 1/2NW***	***N53***	***100***
ROME(C) PUMP STATION	ERIE BLVD / BLACK RIV	1/4 - 1/2SW	O55	106
ROME(C) PUMP STATION	***RAILROAD STREET***	***1/4 - 1/2ESE***	***P56***	***107***
ROME PUMP STATION	RAILROAD ST	1/4 - 1/2ESE	P57	109
SEWAGE PUMP STATION	RAILROAD ST	1/4 - 1/2ESE	P58	110
612 E. DOMINICK ST. STATION	***612 EAST DOMINICK STREE***	***1/4 - 1/2E***	***Q59***	***111***
INLAND FUELS/NOLAN HAYES	701 LAWRENCE AVE	1/4 - 1/2SSW	O61	116
APLUS FACILITY #60003	131 SOUTH JAMES ST	1/4 - 1/2NW	62	117
J.A. CAR WASH	229 S JAMES ST	1/4 - 1/2WNW	63	119
AGWAY	SOUTH JAMES ST	1/4 - 1/2W	R65	121
GURLEY & FLEET	301 BLACK RIVER BLVD	1/4 - 1/2N	66	122
CITY OF ROME PD	301 NORTH JAMES ST	1/4 - 1/2NNW	S67	123
ROME (C) JUSTICE BUILDING	301 NORTH JAMES STREET	1/4 - 1/2NNW	S68	124
POLICE STATION	301 N JAMES ST	1/4 - 1/2NNW	S69	125
TRANSFIGURATION CHURCH	111 RIDGE RD	1/4 - 1/2W	R70	126
CARRIER SERVICES	1000 RAILROAD ST	1/4 - 1/2ESE	71	127
TAMBY'S AUTO BODY SERVICE	***6586 MARTIN STREET***	***1/2 - 1 S***	***72***	***129***
NYNEX	***137 N WASHINGTON ST***	***1/2 - 1 NNW***	***T75***	***134***
NY TEL	137 NORTH WASHINGTON ST	1/2 - 1 NNW	T76	136
FRANK'S SUNOCO SERVICES	***612 SOUTH JAMES STREET***	***1/2 - 1 W***	***U77***	***137***
ROME CITY HALL	LIBERTY ST	1/2 - 1 NW	78	143
KOTARY MOTORS	E WRIGHT ST	1/2 - 1 W	U80	150
NATIONAL CAR RENTAL	***6630 MARTIN ST***	***1/2 - 1 SSE***	***81***	***151***
ROME AGWAY COOP, INC	300 WEST ST	1/2 - 1 W	U82	155
LEE BATES & SONS	736 SOUTH JAMES STREET	1/2 - 1 WSW	83	156
MONRO MUFFLER & BRAKE CO.	301 ERIE BLVD. WEST	1/2 - 1 NW	84	157

Lower Elevation	Address	Dist / Dir	Map ID	Page
BCF UST 654-1 & 2	BARGE CANAL FACILITY	1/4 - 1/2SSE	64	120

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Conservation's Petroleum Bulk Storage (PBS) Database

A review of the UST list, as provided by EDR, and dated 01/01/2002 has revealed that there are 16 UST sites within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
XTRA MART #1624/EAST DOMINICK	268 EAST DOMINICK STREE	0 - 1/8 NNE	C7	11
EAST ROME BUSINESS PARK (CANTE	EAST DOMINICK STREET	0 - 1/8 ENE	B10	23
NORTHERN DEVELOPMENT PARCEL	MILL STREET	0 - 1/8 ENE	B11	24
ROME(C) INDUSTRIAL PARK	131 MILL STREET	0 - 1/8 ESE	B12	25
REVERE PRINTING INC	***100 BOUCK ST***	***1/8 - 1/4W***	***F27***	***40***
ROME CITY OF D P W	***132 RACE ST***	***1/8 - 1/4SE***	***I30***	***47***
ROME(C) PUMP STATION	ERIE BLVD. & BLACK RIVE	1/8 - 1/4NNW	H35	63
ROME IRON GROUP, LTD.	412 CANAL STREET	1/8 - 1/4WSW	J36	64

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CANTERBURY PRESS	*301 MILL ST*	*1/8 - 1/4 SE*	*I38*	*68*
ROME(C) CENTRAL FIRE STATION	158 BLACK RIVER BLVD.	1/4 - 1/2 N	K40	76
SPARS SERVICE STATION	176 BLACK RIVER BLVD	1/4 - 1/2 N	K47	90
ROME TURNEY RAD CO	109 CANAL STREET	1/4 - 1/2 WNW	51	97
SUNOCO #0363-2254	131 SOUTH JAMES & ERIE	1/4 - 1/2 NW	N54	101
ROME(C) PUMP STATION	*RAILROAD STREET*	*1/4 - 1/2 ESE*	*P56*	*107*
612 E. DOMINICK ST. STATION	*612 EAST DOMINICK STREE*	*1/4 - 1/2 E*	*Q59*	*111*

Lower Elevation	Address	Dist / Dir	Map ID	Page
NYNEX	*321 EAST WHITESBORO STR*	*1/4 - 1/2 S*	*L41*	*79*

CBS UST: Chemical Bulk Storage Database. Registration data collected as required by 6 NYCRR Part 596. It includes facilities storing hazardous substances listed in 6 NYCRR Part 597, in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size. Includes facilities registered (and closed) since effective date of CBS regulations (July 15, 1988) through the date request is processed.

A review of the CBS UST list, as provided by EDR, and dated 01/01/2002 has revealed that there is 1 CBS UST site within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
CANTERBURY PRESS	*301 MILL ST*	*1/8 - 1/4 SE*	*I38*	*68*

MOSF UST: Major Oil Storage Facilities Database. Facilities are licensed pursuant to Article 12 of the Navigation Law, 6 NYCRR Part 610 and 17 NYCRR Part 30. These facilities may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater. Includes MOSF's licensed or closed since April 1, 1986, (responsibility was transferred from DOT on October 13, 1985) plus available data obtained from DOT facilities licensed since Article 12 became law on April 1, 1978.

A review of the MOSF UST list, as provided by EDR, and dated 01/01/2002 has revealed that there is 1 MOSF UST site within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
AMERADA HESS ROME TERMINAL	*ROME INDUSTRIAL CENTER*	*1/2 - 1 SE*	*79*	*144*

FEDERAL ASTM SUPPLEMENTAL

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 01/14/2003 has revealed that there are 2 FINDS sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
XTRAMART #1624 EAST DOMINICK S	268 E DOMINICK ST	0 - 1/8 NNE	C6	10
SEARS OIL CO INC	*7064 LADO AVE*	*0 - 1/8 N*	*D8*	*19*

STATE OR LOCAL ASTM SUPPLEMENTAL

MOSF AST: Major Oil Storage Facilities Database. Facilities are licensed pursuant to Article 12 of the Navigation Law, 6 NYCRR Part 610 and 17 NYCRR Part 30. These facilities may be onshore facilities or vessels, with petroleum storage capacities of 400,000 gallons or greater. Includes MOSF's licensed or closed since April 1, 1986, (responsibility was transferred from DOT on October 13, 1985) plus available data obtained from DOT facilities licensed since Article 12 became law on April 1, 1978.

A review of the MOSF AST list, as provided by EDR, and dated 01/01/2002 has revealed that there is 1 MOSF AST site within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
AMERADA HESS ROME TERMINAL	*ROME INDUSTRIAL CENTER*	*1/2 - 1 SE*	*79*	*144*

SPILLS: Data collected on spills reported to NYSDEC. is required by one or more of the following: Article 12 of the Navigation Law, 6 NYCRR Section 613.8 (from PBS regs), or 6 NYCRR Section 595.2 (from CBS regs). It includes spills active as of April 1, 1986, as well as spills occurring since this date.

A review of the NY Spills list, as provided by EDR, has revealed that there are 15 NY Spills sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ROME IND PK/MOSCA	131 MILL STREET	0 - 1/8 E	B3	7
GEN CABLE 20KUST	131 MILL STREET	0 - 1/8 E	B4	8
REVERE COPPER	201 MILL ST	0 - 1/8 ESE	B5	9
SEARS OIL CO INC	*7064 LADO AVE*	*0 - 1/8 N*	*D8*	*19*
SEARS OIL CO	268 EAST DOMINICK ST	0 - 1/8 N	D9	21
GUGGIS CARPET	280 E. DOMINICK ST.	1/8 - 1/4 NE	13	28
ROME(C) DPW/VIP TRANS.	132 RACE STREET	1/8 - 1/4 SE	E18	31
COSMETIC AUTO REFINISHERS	271 E DOMINICK ST	1/8 - 1/4 NE	C20	33
SEARS OIL	*132 RACE ST*	*1/8 - 1/4 SE*	*E22*	*35*
NASH METAL WARE	BTWN RR ST / MILL ST	1/8 - 1/4 E	23	37
ROME ELECTRONICS, INC.	216 ERIE BLVD. EAST	1/8 - 1/4 W	F24	38
ROME HARBOR DEVELOPMENT	MILL STREET	1/8 - 1/4 SE	G28	44
ROME ELECTRONICS	CANAL STREET / ANN ST	1/8 - 1/4 WSW	F32	59
KIRK RESIDENCE	133 2ND STREET	1/8 - 1/4 ENE	33	60
CANTERBURY PRESS	*301 MILL ST*	*1/8 - 1/4 SE*	*I38*	*68*

BROWNFIELDS DATABASES

BROWNFIELDS: Brownfields Site List

A review of the Brownfields list, as provided by EDR, and dated 05/22/2002 has revealed that there are 2 Brownfields sites within approximately 0.625 miles of the target property.

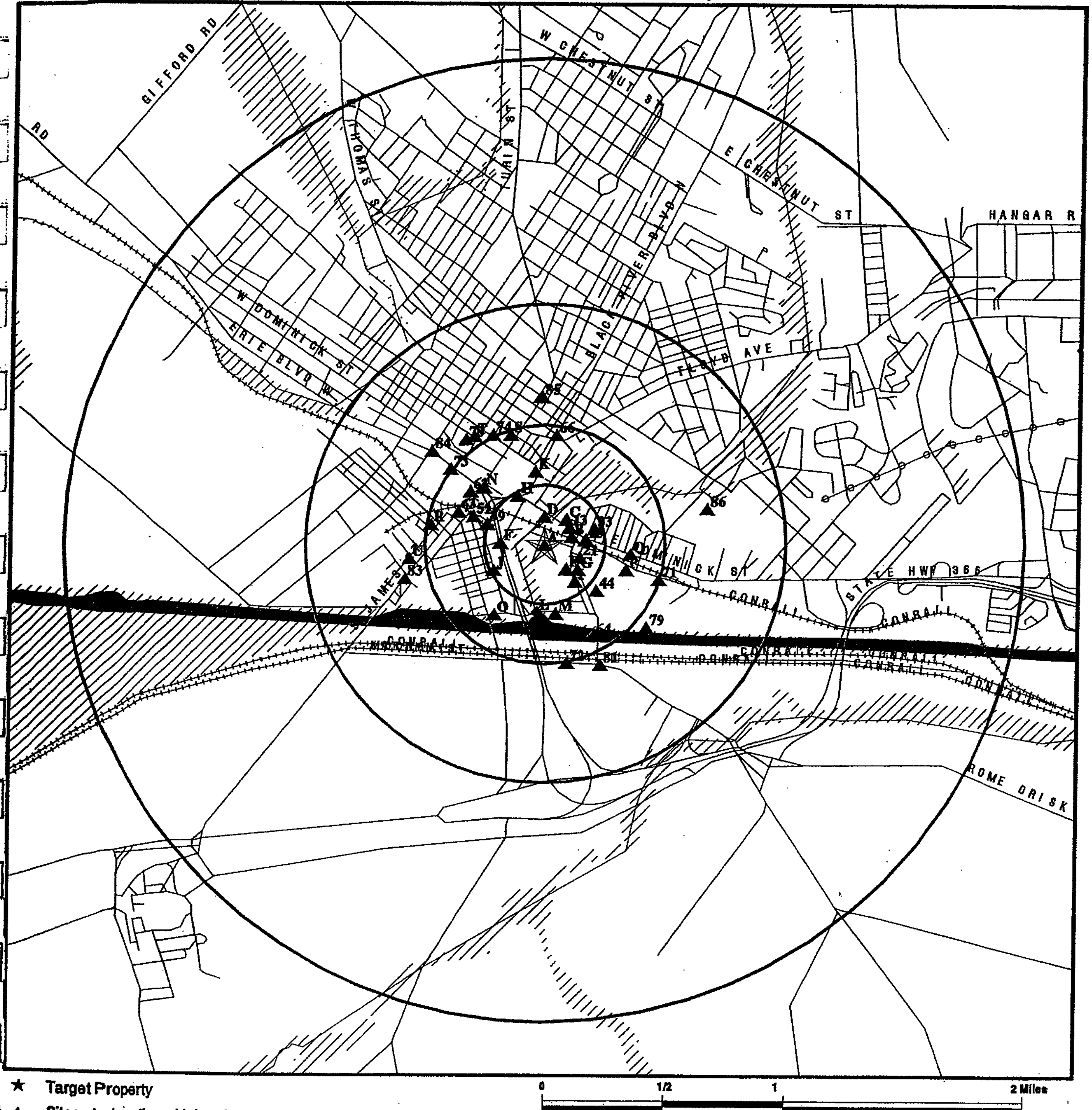
Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
EAST ROME BUSINESS PARK	MILL STREET/RAILROAD ST	1/8 - 1/4 E	B15	30
ROSSI SITE WITHIN EAST ROME BU	MILL STREET/RAILROAD ST	1/8 - 1/4 E	B16	30

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name		Database(s)
SPARGO WIRE CO		FTTS
SPARGO WIRE CO. (TO ORC 03/09/92)		FTTS
OLD GENERAL CABLE		CERCLIS
CRASH'S AUTO DUMP		SWF/LF
LONG HORN COLLECTABLES		UST, AST
LAUBER RESIDENCE		UST
ALLIANCE PAVING MATERIALS		AST, NY Spills
MAROCCHI TRUCKING CO., INC.		AST
ROME DEPT OF TRANSPORTATION		RCRIS-SQG, FINDS
NYSDOT BRIDGE BIN 1070031 & 32		RCRIS-SQG, FINDS
NYSDOT BRIDGE BIN 1018840		RCRIS-SQG, FINDS
NYSDOT BRIDGE BIN 1094190		RCRIS-SQG, FINDS
ROME CITY SCHOOL DIST - STALEY J H		RCRIS-SQG, FINDS
DAVIDSON CHEVROLET INC		RCRIS-SQG, FINDS
AMES DEPARTMENT STORES		RCRIS-SQG, FINDS
NYSDEC ROME FISH HATCHERY		RCRIS-SQG, FINDS
ROME CITY OF BIN 2206410		RCRIS-SQG, FINDS
SUNOCO SERVICE STATION		RCRIS-SQG, FINDS
GENCABLE		RCRIS-SQG, FINDS
NYS CANAL CORP		RCRIS-SQG, FINDS
GAETANO CONSTRUCTION		RCRIS-SQG, FINDS
MOSCA BROS MOVING & STORAGE INC		RCRIS-SQG, FINDS
BONFARE 51103		RCRIS-SQG, FINDS
NMPC - DELTA LAKE SUBSTATION		RCRIS-SQG, FINDS
WHITTEMORE JAMES P - RESIDENT		RCRIS-SQG, FINDS
ROME-NORTHGATE EST WTP - CITY OF R		RCRIS-SQG, FINDS
ROME SPECIALTY COMPANY INC		FINDS
ROME RESEARCH CORPORATION		FINDS
ROME VETERINARY HOSPITAL		FINDS
ROME MFG CO DIV	RO	FINDS
REVERE WARE/ROME DIV		FINDS
ROME ENERGY COMPANY	RO	FINDS
TROUT STREAM		FINDS
NIAGARA MOHAWK		NY Spills
601 S. JAMES STREET		NY Spills
CITY OF ROME CONTRACTOR		NY Spills
ROME STRIP STEEL SUBSTATI		NY Spills
SEARS OIL TERMINAL		NY Spills
NEAR OLD ROME TERMINAL		NY Spills
RIVER ROAD		NY Spills
O.J. GULLA SWIMMING POOLS & SPAS		NY Spills
		SSTS

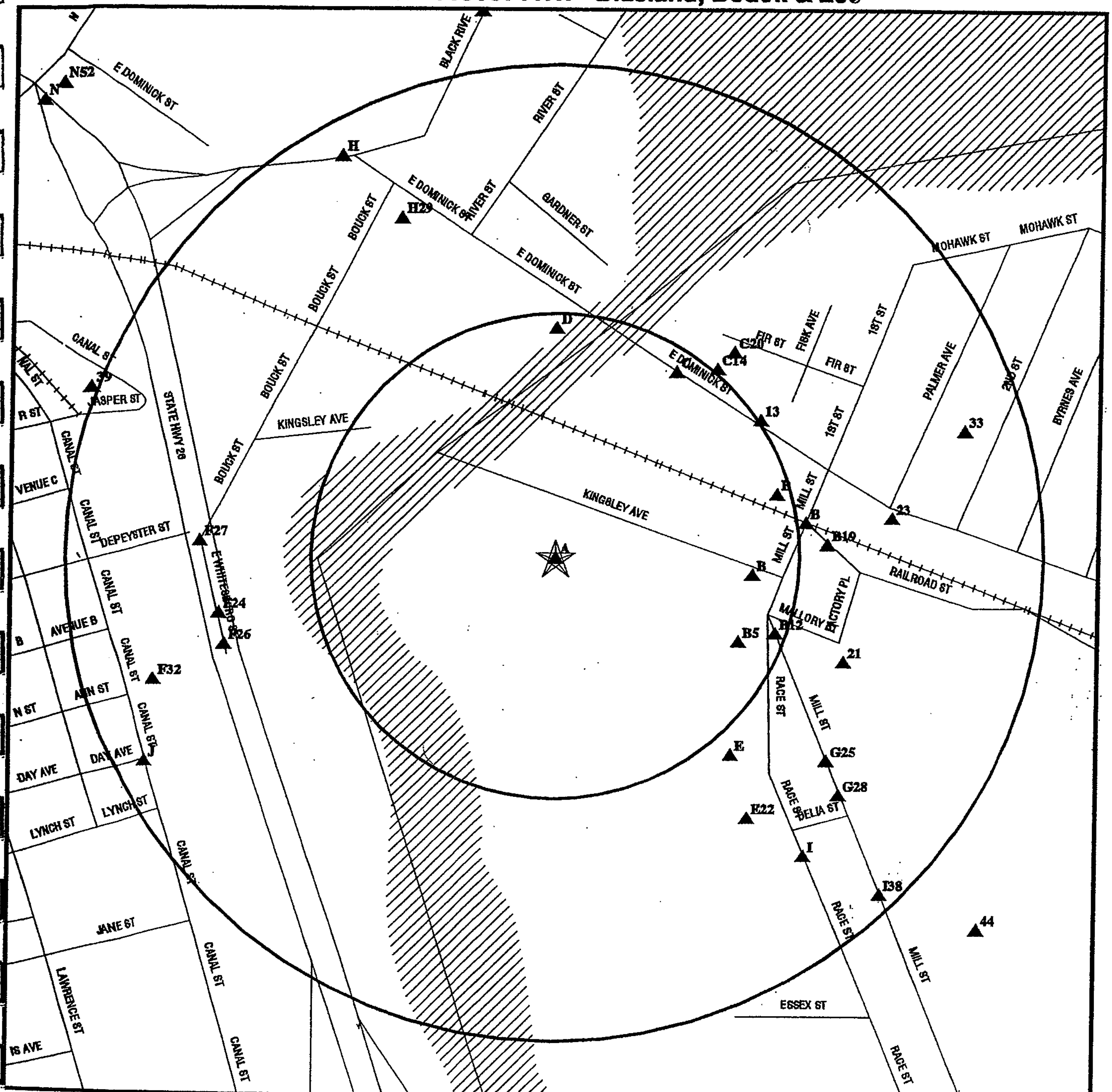
OVERVIEW MAP - 00968711.1r - Blasland, Bouck & Lee



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone

TARGET PROPERTY:	Ni-Mo Rome Kingsley Avenue Site	CUSTOMER:	Blasland, Bouck & Lee
ADDRESS:	Kingsley Avenue	CONTACT:	Fred Lont
CITY/STATE/ZIP:	Rome NY 13440	INQUIRY #:	00968711.1r
LAT/LONG:	43.2064 / 75.4529	DATE:	April 30, 2003 4:08 pm

DETAIL MAP - 00968711.1r - Blasland, Bouck & Lee



★ Target Property

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◆ Sites at elevations lower than the target property

Coal Gasification Sites

Sensitive Receptors

National Priority List Sites

Landfill Sites

0 1/16 1/8 1/4 Miles

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

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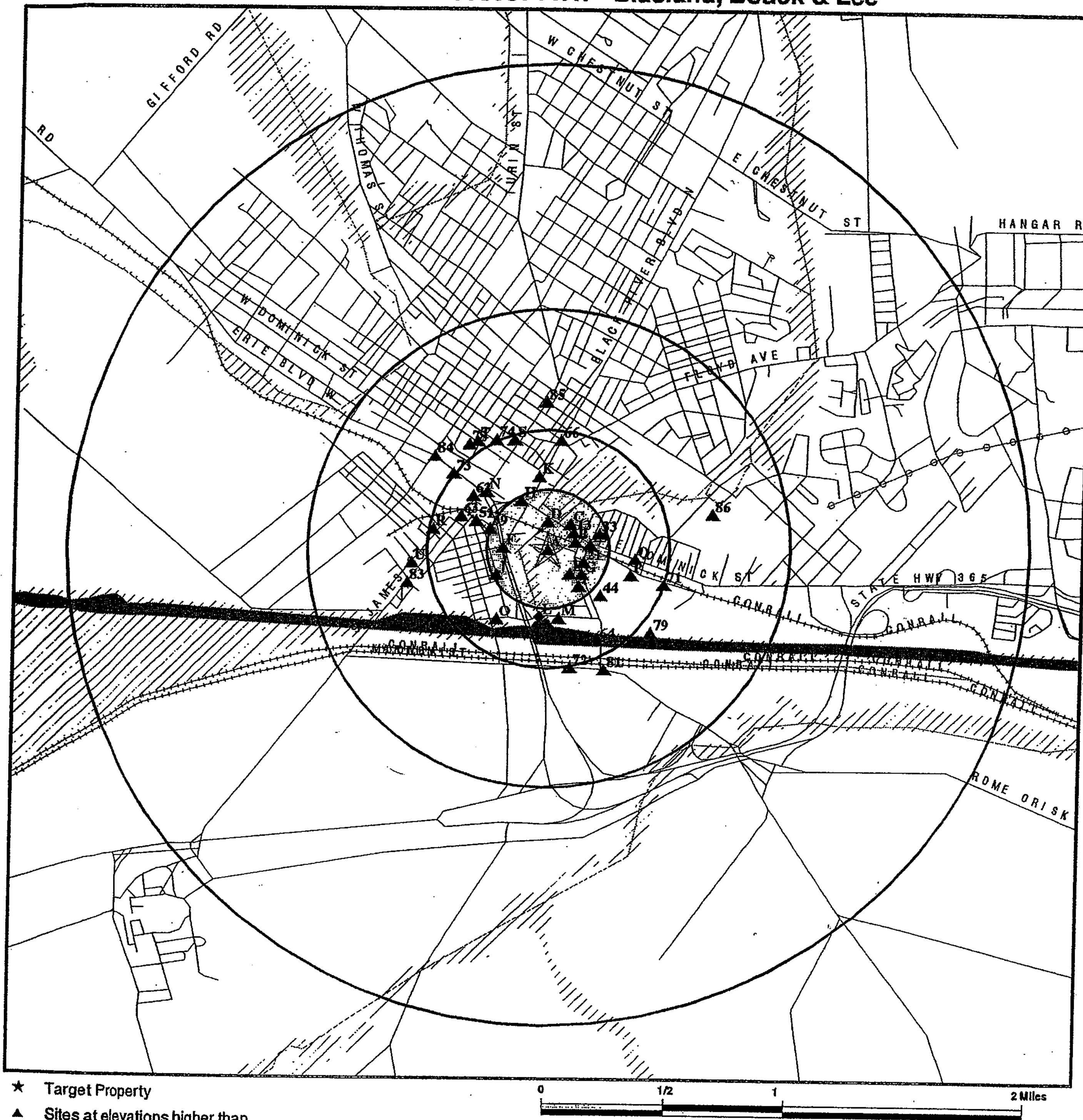

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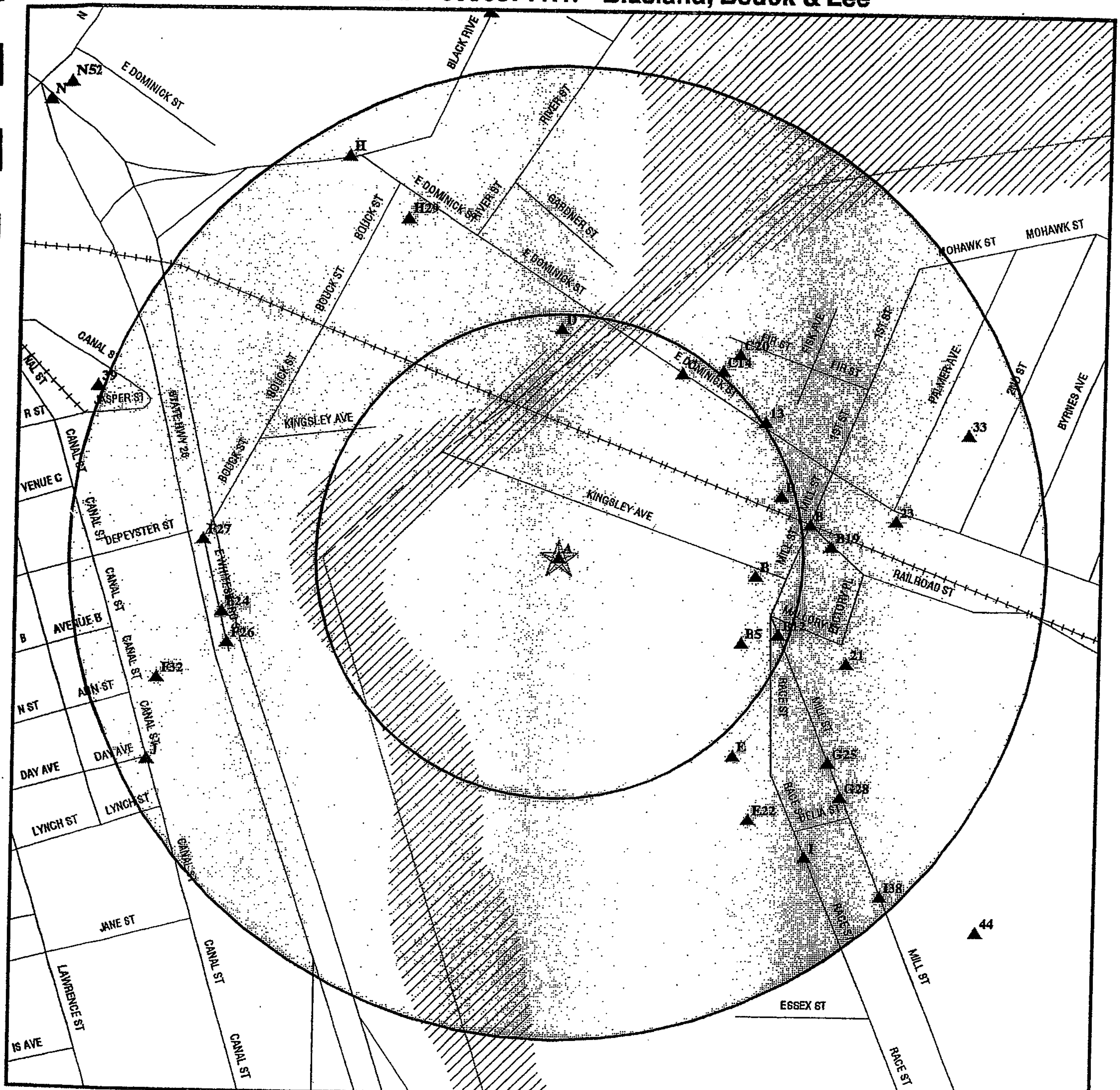

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LAT/LONG:	43.2064 / 75.4529	DATE:	April 30, 2003 4:08 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARD								
NPL		1.125	0	0	0	0	0	0
Proposed NPL		1.125	0	0	0	0	0	0
CERCLIS		0.625	0	1	0	0	NR	1
CERC-NFRAP		0.375	0	0	0	NR	NR	0
CORRACTS		1.125	0	0	0	1	0	1
RCRIS-TSD		0.625	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		0.375	0	1	0	NR	NR	1
RCRIS Sm. Quan. Gen.		0.375	1	8	4	NR	NR	13
ERNS		0.125	1	NR	NR	NR	NR	1
STATE ASTM STANDARD								
State Haz. Waste	X	1.125	0	0	0	0	0	0
State Landfill		0.625	0	1	0	3	NR	4
LTANKS		0.625	1	6	25	10	NR	42
UST		0.375	4	5	7	NR	NR	16
CBS UST		0.375	0	1	0	NR	NR	1
MOSF UST		0.625	0	0	0	1	NR	1
VCP		0.625	0	0	0	0	NR	0
SWTIRE		0.625	0	0	0	0	NR	0
SWRCY		0.625	0	0	0	0	NR	0
FEDERAL ASTM SUPPLEMENTAL								
CONSENT		1.125	0	0	0	0	0	0
ROD		1.125	0	0	0	0	0	0
Delisted NPL		1.125	0	0	0	0	0	0
FINDS		0.125	2	NR	NR	NR	NR	2
HMIRS		0.125	0	NR	NR	NR	NR	0
MLTS		0.125	0	NR	NR	NR	NR	0
MINES		0.375	0	0	0	NR	NR	0
NPL Liens		0.125	0	NR	NR	NR	NR	0
PADS		0.125	0	NR	NR	NR	NR	0
RAATS		0.125	0	NR	NR	NR	NR	0
TRIS		0.125	0	NR	NR	NR	NR	0
TSCA		0.125	0	NR	NR	NR	NR	0
SSTS		0.125	0	NR	NR	NR	NR	0
FTTS		0.125	0	NR	NR	NR	NR	0
STATE OR LOCAL ASTM SUPPLEMENTAL								
HSWDS		0.625	0	0	0	0	NR	0
AST		0.125	0	NR	NR	NR	NR	0
CBS AST		0.375	0	0	0	NR	NR	0
MOSF AST		0.625	0	0	0	1	NR	1
NY Spills		0.250	5	10	NR	NR	NR	15

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR PROPRIETARY HISTORICAL DATABASES								
Coal Gas		1.125	0	0	0	0	0	0
BROWNFIELDS DATABASES								
Brownfields		0.625	0	2	0	0	NR	2
VCP		0.625	0	0	0	0	NR	0

NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database