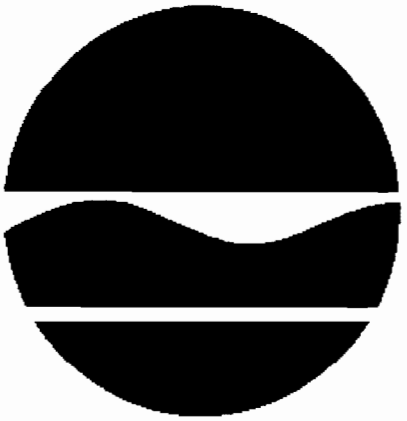
DECISION DOCUMENT

NM - Herkimer Smith St. MGP
Voluntary Cleanup Program
Herkimer, Herkimer County
Site No. V00471
December 2011



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

NM - Herkimer Smith St. MGP
Voluntary Cleanup Program
Herkimer, Herkimer County
Site No. V00471
December 2011

Statement of Purpose and Basis

This document presents the remedy for the NM - Herkimer Smith St. MGP site, a voluntary cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and applicable guidance.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the NM - Herkimer Smith St. MGP site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the remedy are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Contaminated subsurface soils located within the petroleum and former gas holder areas of the site will be excavated and disposed off-site at a permitted facility. To accomplish this removal, the former holder structure will be demolished and removed; all visible tar, oil and/or NAPL encountered will be removed; and all soil containing greater than 500 ppm total PAHs

will be excavated. The excavation will extend to approximately 12 feet bgs in the holder area and 16 feet bgs in the petroleum area, respectively. Excavations will be dewatered to permit soil removal and transport, unless otherwise approved by the Department. The contaminated groundwater will be removed, treated and sent off-site for disposal in a sanitary storm sewer or Publicly Owned Treatment Works (POTW). Soil and fill material overlying this contaminated soil that does not exceed the removal criteria (approximately 4 to 6 feet) will be excavated, stockpiled on-site and evaluated for use in backfilling the deeper excavations. Contaminated soil and NAPL will be transported off-site and treated or disposed in accordance with applicable regulations. Clean fill will then be brought in to replace the excavated soil and establish the designed grades at the site.

3. A site cover will be required to allow for restricted-residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted-residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

4. Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for restricted-residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;
- prohibits agriculture or vegetable gardens on the controlled property; and
- requires compliance with the Department approved Site Management Plan.

5. A Site Management Plan is required, which includes the following:

a) an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

i. Institutional Controls: The Environmental Easement discussed in Paragraph 4 above:

ii. Engineering Controls: The soil cover discussed in Paragraph 3. This plan includes, but may not be limited to:

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- descriptions of the provisions of the environmental easement including any land use or groundwater use restrictions;

• a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

• provisions for the management and inspection of the identified engineering controls;

• maintaining site access controls and Department notification;

• and the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b) a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

• monitoring of groundwater to assess the performance and effectiveness of the remedy;

• a schedule of monitoring and frequency of submittals to the Department;

• monitoring for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

c) an Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

• compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;

• maintaining site access controls and Department notification; and

• providing the Department access to the site and O&M records.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

12/19/11
Date

Michael Ryan, Director
Remedial Bureau C

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SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The Voluntary Cleanup Program (VCP) is a voluntary program. The goal of the VCP is to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfields." This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

Frank J. Basloe Public Library
Attn: Lesley Paul
245 N. Main Street
Herkimer, NY 13350
Phone: 315-866-1733

NYS Department of Environmental Conservation
Attn: Bernard Franklin
625 Broadway
Albany, NY 12233
Phone: 518-402-9662

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The Herkimer Smith Street MGP Site occupies approximately 0.6 acres in a mixed commercial/residential neighborhood in the City of Herkimer, New York. The site is bordered to the north by West Smith Street, to the east by Williams Street and to the west and south by residential properties.

Site Features: The site is currently vacant and not fenced.

Current Zoning/Use: The current site zoning is commercial. The surrounding neighborhood includes residential and commercial properties. The area is served by public water and sewer systems.

Historical Use: Buildings related to the former MGP are no longer present on the site. Remnants of concrete pads and a sidewalk are visible at the surface in the center of the parcel. In addition, an octagonal holder foundation, with a conical base, is still present on the west side of the site. The southern portion of the site is elevated approximately 4 feet with respect to the two adjacent properties to the south.

Site Geology and Hydrogeology: Site geology consists of five primary overburden units: fill, extending to a depth of approximately four to six feet below ground surface (bgs) across the site; a semi-confining unit consisting of fine grained silt and clay present from 4 to 8 feet bgs; alluvial fine grained sand with some silt generally found between 8 and 10 feet bgs; coarse sand and cobbles found between 10 and 16 feet bgs; dense coarse sand and gravel that was present to at least 50 feet bgs. Bedrock, according to available information from a nearby construction project, is at a depth of approximately 80 feet bgs. A low groundwater gradient is evident across the site with a maximum elevation difference of 0.5 feet. Groundwater at the site is encountered at depth ranging from 6 to 8 feet bgs and appears to flow to the southwest.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, at a minimum, alternatives (or an alternative) that restrict(s) the use of the site to restricted-residential

use (which allows for commercial use and industrial use) as described in DER-10, Technical Guidance for Site Investigation and Remediation were/was evaluated.

A comparison of the results of the remedial investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The voluntary cleanup agreement is with a responsible party. The agreement requires the party to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary.

The Department and Niagara Mohawk/National Grid entered into a Voluntary Cleanup Order D0-0001-0011 on January 25, 2002 to address 24 former MGP sites under the Voluntary Cleanup Program. The Order obligates the responsible parties to implement a full remedial program.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.4.

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of

concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Information

The analytical data collected on this site includes data for:

- air
- groundwater
- soil
- soil vapor

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

coal tar	benzene
petroleum products	ethylbenzene
toluene	xylene (mixed)

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

6.3: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure.*

Access to the site is unrestricted. However, contact with contaminated soil or groundwater is unlikely unless people dig below the ground surface. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move

into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Because there is no on-site building, inhalation of site contaminants in indoor air due to soil vapor intrusion does not represent a concern for the site in its current condition. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development. In addition, sampling indicates soil vapor intrusion is not a concern for off-site buildings.

6.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

The primary contaminants of concern at the site include benzene, toluene, ethylbenzene, xylenes (BTEX) and polynuclear aromatic hydrocarbons (PAHs).

Soil: The Site Characterization Report and Remedial Investigation Report both indicated a non-aqueous phase liquid (NAPL) containing these contaminants is present in the subsurface soil adjacent to the former holder in the southwest corner of the site. Soil cleanup objectives were exceeded for BTEX and PAHs in subsurface soil. There are also visible petroleum impacts in the subsurface soil in the northeast portion of the site. The maximum concentrations detected in NAPL-saturated soil in the petroleum area were 1,060 parts per million (ppm) total BTEX, and 40,400 ppm total PAHs. Subsurface soil impacts were encountered at depths ranging from 4 to 16 feet with maximum total PAH and BTEX concentrations detected within the petroleum area. Surface soil impacts ranged from non-detect to 47 ppm total PAHs. BTEX analyses were all below detection limits for surface soil.

Groundwater: The groundwater is contaminated in the northern portion of the site exceeding groundwater standards for BTEX and PAHs. Groundwater contaminant levels are generally low, except in the petroleum area where benzene was detected at 6.4 parts per billion (ppb) and total xylenes were 460 ppb. Additionally, total PAH levels were 6,714 ppb, including napthalene at 2,500 ppb in the vicinity of the NAPL.

Soil Vapor/Air Samples: Analysis of soil vapor and air samples collected at the site did not show significant level of impacts to these media.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the

contamination identified at the site through the proper application of scientific and engineering principles.

There are no remedial action objectives chosen for this site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

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- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification;
- and the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b) a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- monitoring of groundwater to assess the performance and effectiveness of the remedy;
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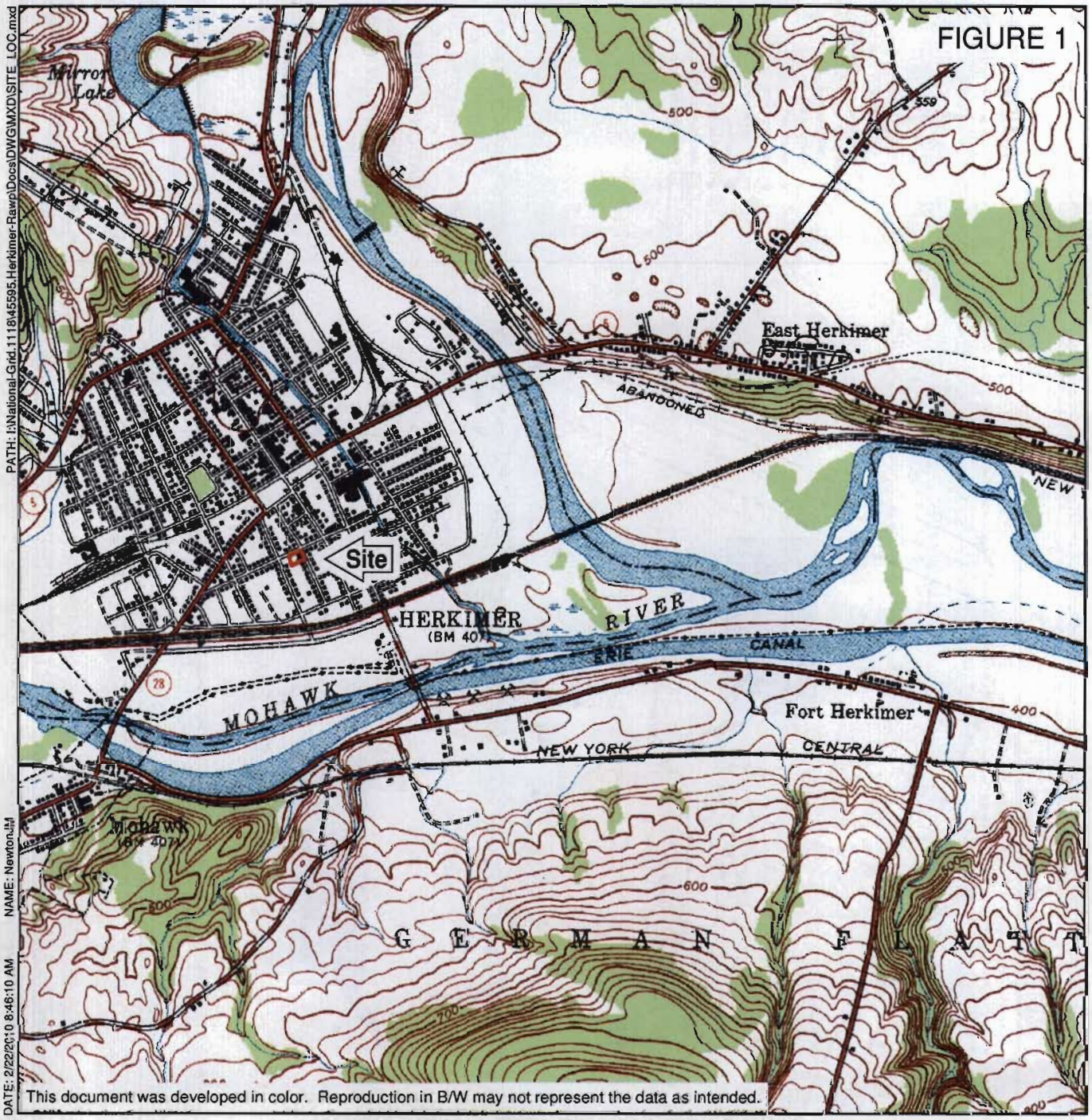
• maintaining site access controls and Department notification; and

• providing the Department access to the site and O&M records.



ADAPTED FROM: (HERKIMER) USGS QUADRANGLE

NATIONAL GRID
FORMER MGP SITE
HERKIMER, NEW YORK

MAP LOCATION

SITE LOCATION

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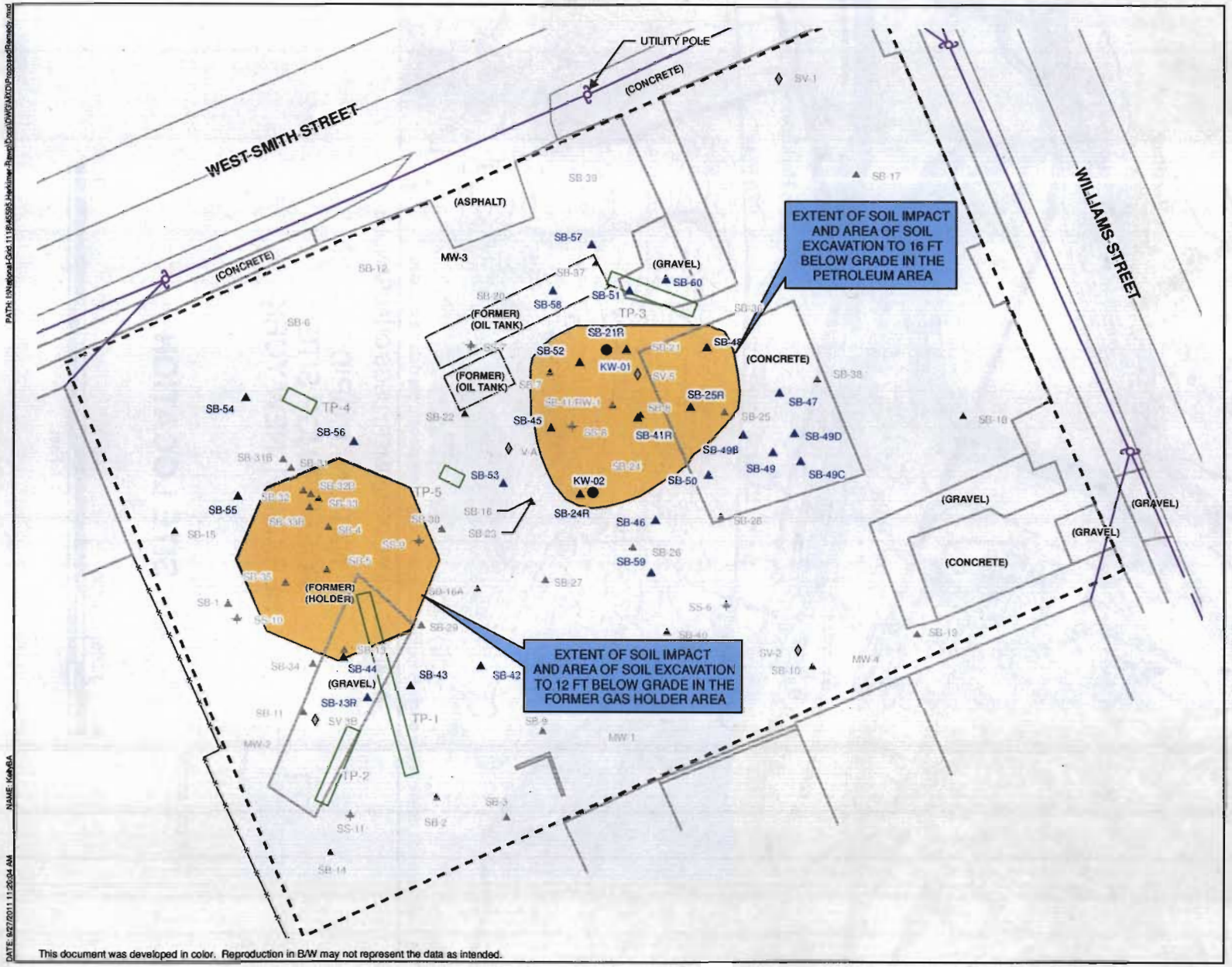
FIGURE 2



LEGEND

- CURRENT PROPERTY BOUNDARY
- LOCATIONS
- AMBIENT AIR SAMPLE
- MONITORING WELL
- SOIL BORING
- SOIL VAPOR SAMPLE
- SURFACE SOIL SAMPLE
- K-TEST WELL
- ADDITIONAL SOIL BORINGS (JUNE 2010)
- HEAVILY IMPACTED MATERIAL
- FORMER MGP STRUCTURE

NATIONAL GRID
FORMER MGP SITE
HERKIMER, NEW YORK

SELECTED REMEDY

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Feet

NOVEMBER 2011
1118.45595

O'BRIEN & GERE

This document was developed in color. Reproduction in B/W may not represent the data as intended.

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NAME: KeithSA
DATE: 9/27/2011 11:26:04 AM