Steven P. Stucker
Sr. Environmental Engineer

April 25, 2008

Mr. Bernard Franklin
Environmental Engineer
New York State Department of Environmental Conservation
Division of Environmental Remediation, Remedial Bureau C
625 Broadway
Albany, NY 12233-7014

RE: Remedial Investigation Work Plan
Herkimer (Smith Street) Former MGP Site
Herkimer, NY, Site # V00471-6

Dear Mr. Franklin:

The following revised plan is provided in response to New York State Department of Environmental Conservation's (NYSDEC's) recent request for a Remedial Investigation Work Plan (RIWP) for the above-referenced site (Site). As you are aware, National Grid has previously evaluated the Site through performance of a Site Characterization/ Interim Remedial Measure (SC/IRM) Study in 2004; additional investigations were conducted under a Supplemental Site Characterization investigation in 2005. This revised RIWP addresses all of the comments presented in NYSDEC's most recent letter, dated December 4, 2006. The remainder of this document presents the site background, objectives and technical approach for the RI program.

1.0 Background

During the SC/IRM investigations, limited evidence of non-aqueous phase liquid (NAPL) was detected in two locations at the Site:

- East of the former holder, in the vicinity of former oil storage tanks; and
- Within and beneath the former sub-grade holder foundation.

Figure 1 presents a summary of detected constituents of concern in Site soils, as well as the location/depth of detected NAPL, from the previous SC investigations. Petroleum type impacts

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were encountered in two borings (SB-07 and SB-08) in the vicinity of a former oil storage area east of the former holder. Physical indications of NAPL, consisting of oil blebs or oil-saturated seams, strong odors and sheens, were observed in soils in the vicinity of the water table at approximately seven feet below ground surface (bgs), extending to a depth of 12 to 14 feet bgs. Encountered indications of NAPL associated with the former holder consisted of weathered, non-mobile tar impacts within the inner edge of the holder vessel and immediately outside/beneath the holder wall/bottom.

Based on the presentation of these findings in the SC Summary report, NYSDEC has requested additional definition of the two NAPL-impacted areas. In response, National Grid has developed an RI scope of work which better delineates the NAPL-impacted areas.

2.0 Remedial Investigation Objectives

In response to NYSDEC's request, the program defined by this Work Plan will address the following specific investigation objectives:

- Define the extent of NAPL impacts within the former holder and estimate the volume of NAPL-impacted material;
- Characterize the physical and chemical quality of the fill material within the holder;
- Determine the extent of NAPL impacts outside of the holder and estimate the volume of NAPL-impacted material;
- Characterize the physical and chemical quality of the fill material outside of the holder;
- Determine the extent of NAPL impacts in the vicinity of the former oil storage facilities, near borings SB-07 and SB-08;
- Characterize the physical and chemical quality of the fill/soil and ground water in the NAPL-impacted former oil storage area;
- Characterize hydrogeologic conditions within the impacted areas to evaluate NAPL migration potential; and
- Develop sufficient site data to enable selection of appropriate remedial measures, if deemed necessary.

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According to NYSDEC (letter dated 09/21/06), neither a Fish and Wildlife Resources Impact Analysis (FWRIA) nor a Cultural Resources Assessment (CRA) are required as part of the RI. While a CRA may be required at a later time (i.e., during evaluation of potential remedies), the letter indicated that based on a completed FWRIA Decision Key, no FWRIA is required.

3.0 Scope of Work

Based on the recent communications with NYSDEC, it is National Grid's understanding that NYSDEC's primary interest at the referenced Site is the delineation and potential mitigation of the NAPL on-site. To address the objectives listed above, National Grid proposes the following additional investigations at the Site:

- Drilling of delineation soil borings and collection of representative soil samples in the two identified NAPL areas;
- Evaluation of encountered impacted soils for presence of NAPL using appropriate, accepted NAPL screening methods;
- Limited laboratory analysis (PAHs, BTEX) of soil samples from selected locations/depth intervals to enable evaluation of potential remedial approaches;
- Installation of an additional monitoring/recovery well to enable evaluation of conditions within the petroleum-impacted area for potential remediation and to enhance interpretation of Site groundwater behavior;
- Conduct slug testing to determine hydraulic conductivity of Site soils;
- Survey of all new sample locations;
- Collection and analysis of one additional round of ground water samples from the existing monitoring well network;
- Evaluation of the existing monitoring well network for the potential presence of NAPL; and
- Preparation of an RI Data Summary.

Summary of the proposed drilling program is provided in Table 1. Figure 2 depicts the proposed locations for the additional soil borings. Field work will be conducted in accordance

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with an updated version of the existing Health and Safety Plan (HASP). A brief description of each of the proposed investigation activities is provided below.

3.1 Field Program

Supplemental drilling activities will include completion of 16 planned soil borings, consisting of nine borings to delineate NAPL impacts in the petroleum-impacted area and seven borings to delineate NAPL impacts in the former holder area. Additional step-out borings may also be warranted, depending on field findings.

3.1.1 Petroleum Area

The petroleum area borings will be located on an approximate 20-foot grid to define the areal extent of those impacts. Where NAPL is detected in a boring, additional "step-out" borings may be completed to help delineate the full extent of those impacts. Direct-push sampling methods are proposed to be used for soil sampling where soil conditions allow. Due to the presence of relic foundations in this area, drilling methods such as diamond core-barrel will be used to advance through the foundations prior to commencement of direct-push sampling. The sample target interval extends from grade to 15 feet bgs, based on previous sampling in the area.

Based on recent discussions, the primary objective of this investigation will be the delineation of NAPL impacts on-site. Therefore, in addition to the standard soil logging and screening that will be performed in accordance with the Generic Field Sampling Plan (GFSP), National Grid proposes to use NAPL screening methods to determine the presence/absence of NAPL within each delineation boring. Specifically, hydrophobic dye screening is proposed, using Sudan IV dye. Detailed dye testing procedures and references for NAPL screening are attached as Appendix A. Where initial screening indicates the presence of significant physical impacts (e.g., strong odors, heavy sheens, visible blebs), a representative sample will be collected from the most heavily-impacted interval for dye-testing. If appropriate, additional samples above or below that interval may also be screened for the presence of NAPL via dye-testing. Effort will be made to ensure sufficient sample material remains following dye-testing to allow submission of a laboratory sample, if required. NAPL screening will be performed at each boring location; where NAPL is detected, additional step-out borings may be required to adequately define the extent of NAPL in the subject area. Multiple samples within each boring

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may be subjected to dye testing to determine the vertical extent of NAPL impacts. Step-out borings will be located on the same 20-foot spacing.

In addition to NAPL field screening, selected soil samples will be collected for laboratory analysis testing. Two soil samples will be collected from each boring for laboratory analysis for benzene, toluene, ethylbenzene and xylenes (BTEX) via EPA Method 8260, and polycyclic aromatic hydrocarbons (PAHs) via EPA Method 8270. These methods/parameters have been selected based on previous investigation results which indicated that BTEX and PAH compounds constitute the primary constituents of concern in the two subject study areas. One sample will be collected from the fill/soil above the NAPL-impacted interval (if present), and one from the NAPL-impacted zone. In addition, a minimum of two representative samples of NAPL-impacted soil will be submitted for GC Fingerprint analysis to determine the NAPL source and chemical characteristics. Appropriate QA/QC sampling and analysis (duplicates, blanks, MS/MSDs) will be conducted in accordance with the Generic Quality Assurance Project Plan (QAPP) and GFSP.

In one of the completed boring locations yielding the greatest indications of NAPL impacts, a four-inch diameter PVC well will be installed to enhance understanding of ground water behavior on-site, allow for hydraulic conductivity testing, and evaluate the presence of free-product recovery in the petroleum area. Due to the presence of NAPL, collection of analytical ground water samples from this location is not planned; rather the well is intended to be used for water table measurements, performance of slug testing, and potential evaluation of passive product recovery and other potential remedial approaches. The well will be installed using standard hollow-stem auger (HSA) methods, and will be located to intercept the water/product table. Twenty-slot screen is proposed in the construction of this well. Upon completion of the well, which will be completed as a flush-mounted installation, it will be developed in accordance with the GFSP.

Following completion of the well installation (providing sufficient time for curing of grout and cement), the well will be subjected to slug testing to determine hydraulic conductivity of the soils. Slug testing will be performed in the new well and at least one of the existing wells nearby (i.e., MW-01). Following completion of the slug testing, the test data will be downloaded

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and subjected to analysis to determine the hydraulic conductivity of Site soils, to assist in the evaluation of potential remedial options for the Petroleum Area.

3.1.2 Former Holder Area

Although the former octagonal holder foundation has been subjected to previous investigation, additional characterization will be conducted to fully define the areal and vertical extent of NAPL impacts both within and outside of this structure. To complement the existing database, up to seven additional soil borings are proposed to further evaluate the presence of NAPL, three inside and four outside.

Soil sampling will be performed using HSA drilling methods, with continuous split-spoon soil sampling, in accordance with the GFSP. Borings will be advanced to a target depth of 15 feet below ground surface (bgs), unless NAPL impacts are still evident. If mobile NAPL is encountered in any of the three planned borings within the holder, that boring will not be advanced through the holder bottom. However, previous investigations of the holder indicated the encountered NAPL within the holder to be weathered and relatively viscous. In those instances, deeper sampling will be performed, to a maximum depth of 25 feet. Soil samples will be logged and screened in accordance with the GFSP. Two soil samples per boring are planned to be collected for laboratory analysis for BTEX and PAHs. In addition, one composite sample of the shallow fill/soil and one composite sample of the tar-impacted material may be collected and subjected to disposal characterization analyses. If deemed necessary to better delineate NAPL impacts, additional soil samples may be collected from one or more of the planned borings.

3.1.3 Supplemental Site Survey

Following completion of the drilling program, survey of all of the new sample locations will be conducted in accordance with the GFSP. Survey information will be integrated into the existing Site survey plan.

3.1.4 Monitoring Well Network Evaluation

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One round of groundwater sampling and analysis will be performed following the drilling program. Prior to sampling, all of the wells will be evaluated for the presence of NAPL using an electronic interface probe. Sampling will be performed in the each of the wells comprising the expanded monitoring well network (i.e., four original SC wells and one new recovery well) unless measurable NAPL is detected in a specific well. Sampling will be conducted in accordance with the GFSP and samples will be analyzed for VOCs (via EPA Method 8260) and semi-volatile organic compounds (SVOCs) (via EPA Method 8270).

Periodic monitoring of the new well for presence of accumulated NAPL will be conducted on a monthly basis, for six months. If substantial accumulation of NAPL is encountered in the new well, National Grid will institute a short-term monitoring program to evaluate the accumulation rate of that product.

3.2 RI Data Summary Development

Upon completion of planned field activities and receipt of all analytical data, an RI Data Summary will be developed. Analytical data will be subjected to validation to ensure usability. The summary will incorporate all of the compiled site characterization information from the previous SC investigations. Further, the deliverable will include data summary tables, figures depicting sample locations, updated geologic cross-sections, updated summary chemical data presentation, and geologic boring logs for the new borings. A brief narrative of RI field activities, and results of those activities, will be prepared to accompany the summarized information. In addition, the Data Summary will present a delineation of the encountered NAPL on-site, a chemical and physical description of those impacts, and estimated volumes of those impacted materials.

National Grid believes the technical scope of work described in this RIWP will effectively address the issues raised by NYSDEC, particularly given the mutually-agreed upon scope of work

National Grid will use this finalized plan in combination with the existing generic plans, as the project work plan. Please note that the schedule for the RI field activities depends on the upcoming “Master Schedule” meeting between National Grid and the NYSDEC.

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If you have any questions or comments regarding this plan, please contact me at 315.428.5652.

Sincerely,

Steven Stucker

Attachments

cc: Terry Young, National Grid
Douglas Martin, TRC

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TABLE 1
Sample Location Rationale

Sample ID	Location	Planned Depth (bgs)	Location Rationale
SB-20 thru SB-28	Vicinity of former oil storage area (near SC borings SB-06 and SB-07)	15 feet	Determine the extent of NAPL impacts where petroleum product was previously detected during the SC investigations. Use field screening methods (e.g., hydrophobic dye testing) to determine the presence/absence of NAPL. In addition, collect representative samples to determine chemical quality as well as characterize the impacted material.
MW-05		15 feet	Install a NAPL evaluation well in the most heavily-impacted location of the former petroleum Area. Develop a better understanding of site shallow groundwater characteristics (e.g., flow direction, gradient and hydraulic conductivity). Evaluate the presence/absence of free product in area.
SB-29 thru SB-35	Vicinity of former holder foundation	Up to 25 feet	Determine the extent of NAPL inside/outside of foundation, where tar product was previously detected during the SC investigations. Collect representative samples to determine chemical quality as well as characterize the impacted material. Develop volume estimate of NAPL-impacted material.

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APPENDIX A
HYDROPHOBIC DYE SHAKE TEST FOR NAPL

1.0 PURPOSE AND APPLICABILITY

This SOP describes methods for field personnel to conduct a hydrophobic dye shake test. The hydrophobic dye shake test is a field screening test for the visual detection of non-aqueous phase liquids (NAPLs) in soils and ground water utilizing a hydrophobic dye (oleophilic dye) such as Sudan IV or Oil Red O. The test provides field personnel with real-time information that may be used in making field decisions regarding the presence of petroleum contamination.

The hydrophobic dye shake test is useful because it enhances the accuracy of NAPL identification. Many clear, colorless NAPLs (e.g., kerosene, mineral oil, perchloroethylene (PCE) and trichloroethylene (TCE)) can be difficult to visually identify in soil and ground water samples. Because the hydrophobic dye will not dissolve in water but will dissolve in organic liquids, any NAPL present will be stained and can be easily identified. The test provides qualitative information on the presence or absence of NAPL. Detection capabilities increase as the percent of NAPL increases. Ambient temperature changes will not impact results of the dye-shake test. However, it may be difficult to perform the dye-shake test in freezing conditions.

The hydrophobic dye shake test does not give a quantitative measurement of the amount of NAPL present in soil or ground water. Also, the test does not differentiate between mobile and non-mobile NAPL. Further, the test will not identify dissolved contamination in the aqueous phase.

NAPL migration in subsurface soils can follow extremely complex pathways. Therefore, the location of samples within a boring can determine whether the hydrophobic dye shake test gives positive or negative results. Criteria for sampling frequency should be determined prior to going into the field. In general, samples should be collected at least at the top and the bottom of every major change in soil type. Depending on site-specific purposes, appropriate samples may be selected for confirmatory laboratory analysis.

2.0 RESPONSIBILITIES

Field personnel are responsible for collecting the soil and/or water sample(s) for the hydrophobic dye shake test. Field personnel are also responsible for ensuring that all standard procedures for the hydrophobic dye shake test are followed and that pertinent data are recorded in a field log book or on appropriate field data forms (e.g., hydrophobic dye shake test data sheets).

3.0 MATERIALS/EQUIPMENT

Equipment and materials used to perform a hydrophobic dye shake test include:

- Hydrophobic dye in powdered form (e.g., Oil Red O or red Sudan IV available through Aldrich Chemical or Fischer Scientific) with MSDS;

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- Clean small laboratory spatula for transferring small amounts of dye into the samples;
- Clean laboratory grade glass sample containers with caps;
- Small electronic or manual scale;
- Weigh paper;
- Clean graduated cylinders or beakers;
- Clean Teflon® or stainless steel utensils to collect soil or ground water samples;
- Personal Protective Equipment (PPE) as required by the HASP;
- Decontamination supplies (as needed); and,
- Field log book.

4.0 METHOD

All sampling and field analysis activities should be conducted in accordance with the Generic Field Sampling Plan (GFSP) and using the appropriate level of protection specified in the site-specific HASP.

4.1 Hydrophobic Dye Shake Test for Soil Samples

Performing the hydrophobic dye shake test for soil samples involves the following procedures.

- Don personal protective equipment (e.g., gloves and safety glasses).
- Using a clean, small laboratory spatula, place 0.2 grams of hydrophobic dye powder into a clean glass sample container. [Note: If possible, prepare the necessary number of containers with pre-measured quantities of hydrophobic dye prior to sampling.]
- Collect a soil sample in accordance with the SOP cited in the GFSP.
- Place soil sample in a stainless steel bowl.

    – If sampling for a suspect contaminant such as mineral oil, which has negligible quantities of volatile organic compounds, the sample may be homogenized in the stainless steel bowl.

    – If the suspect contaminants are gasoline, kerosene, fuel oils, or gasoline distillates, which contain volatile organic compounds, homogenizing the soil sample is not recommended.

- Tare weigh a sheet of clean weigh paper on the scale.
- Weigh out approximately 50 grams of soil by placing the soil on the weigh paper using a clean, stainless steel spatula. Do not add large pebbles or cobbles.
- Place the weighed soil into the glass sample container. The quantity of soil should fill the container slightly less than half full.
- Measure approximately 50 ml of ultrafiltered, laboratory-grade de-ionized (DI) water in a graduated cylinder or beaker, and pour the DI water into the glass sample container.

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- Cap the glass sample container and shake the dye, soil and water mixture for at least one minute or until the soil becomes de-segregated and a slurry is formed.
- Allow the sample to sit in a shaded area for approximately five minutes.
- Hold the glass sample container against a white background in natural light. Carefully examine the walls and the bottom of the glass sample container. **Any** pink or reddish stained liquid sticking on the glass is NAPL. [NOTE: Comparing the sample to the "pre-test" container discussed in Section 5 - Quality Control may be helpful.]
- Record all appropriate data (e.g., sample identification number, sampling depth, time, description of sample, result of test, etc.) in the field log book or on a hydrophobic dye shake test data sheet (see Figure 1 for an example).
- Properly dispose of soil sample and sampling waste.

4.2 Hydrophobic Dye Shake Test for Water Samples

Performing the hydrophobic dye shake test for water samples involves the following procedures.

- Don personal protective equipment (e.g., gloves and safety glasses).
- Using a clean, small laboratory spatula, place 0.2 grams of hydrophobic dye powder into a glass sample container. [Note: If possible, prepare the necessary number of containers with pre-measured quantities of hydrophobic dye prior to sampling.]
- Collect a water sample in accordance with the SOP cited in the site-specific Work Plan or QAPP.
- Place some of the sample in a graduated cylinder or beaker.
- Pour 100 ml of water from the graduated cylinder or beaker into the glass sample container containing the hydrophobic dye. The quantity of water should fill the container approximately half full.
- Cap the glass sample container and shake the dye and water mixture for at least one minute.
- Allow the sample to sit in a shaded area for approximately five minutes.
- Hold the glass sample container against a white background in natural light. Carefully examine the walls and the bottom of the glass sample container. **Any** pink or reddish stained liquid sticking on the glass is NAPL. [NOTE: Comparing the sample to the "pre-test" container discussed in Section 5 - Quality Control may be helpful.]
- Record all appropriate data (e.g., sample identification or well number, time, description of sample, result of test, etc.) in the field log book or on a hydrophobic dye shake test data sheet (see Figure 1 for an example).
- Properly dispose of water sample and sampling waste.

5.0 QUALITY CONTROL

If the procedures described in this SOP are followed consistently, the hydrophobic dye shake test should be reliable and accurate. Field personnel must realize that the hydrophobic dye will stain in

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a dark red color. Pre-testing with suspected NAPL is recommended to pre-determine color characteristics of suspect NAPLs with the soil/water.

6.0 DOCUMENTATION

Documentation of observations and data acquired in the field will provide information on the presence or absence of NAPL in the soil and/or ground water. These observations and data will be recorded with permanent ink in a bound weatherproof field log book with consecutively numbered pages. The information in the field log book will provide a permanent record of the observations and field data. All documentation will remain in the project files following completion of the project.

Notes will be recorded daily when in the field. The information in the field book will include the following as a minimum:

- Project name and number;
- Name(s) of field personnel (both sampler(s) and dye shake tester(s));
- Sampling observations (including sample identification number, matrix, location, depth, collection time and date, and a description of the sample);
- Hydrophobic dye testing observations including sample identification number, sampling depth, time and date, result of test, and observations of liquid phase (may be provided on hydrophobic dye shake test results sheet);
- Sample identification number(s) for sample(s) submitted for confirmatory laboratory analysis (if applicable);
- Air monitoring readings (as required);
- Decontamination procedures; and,
- Weather conditions.

7.0 REFERENCES

Cohen, R., A. Bryda, S. Shaw and C. Spalding, *Evaluation of Visual Methods to Detect NAPL in Soil and Water*, Groundwater Monitoring review, Fall 1992.

NJDEP, *Field Analysis Manual - Hydrophobic Dye Test for Determination of NAPL in Saturated Soils and Ground Water Samples*, July 1994.

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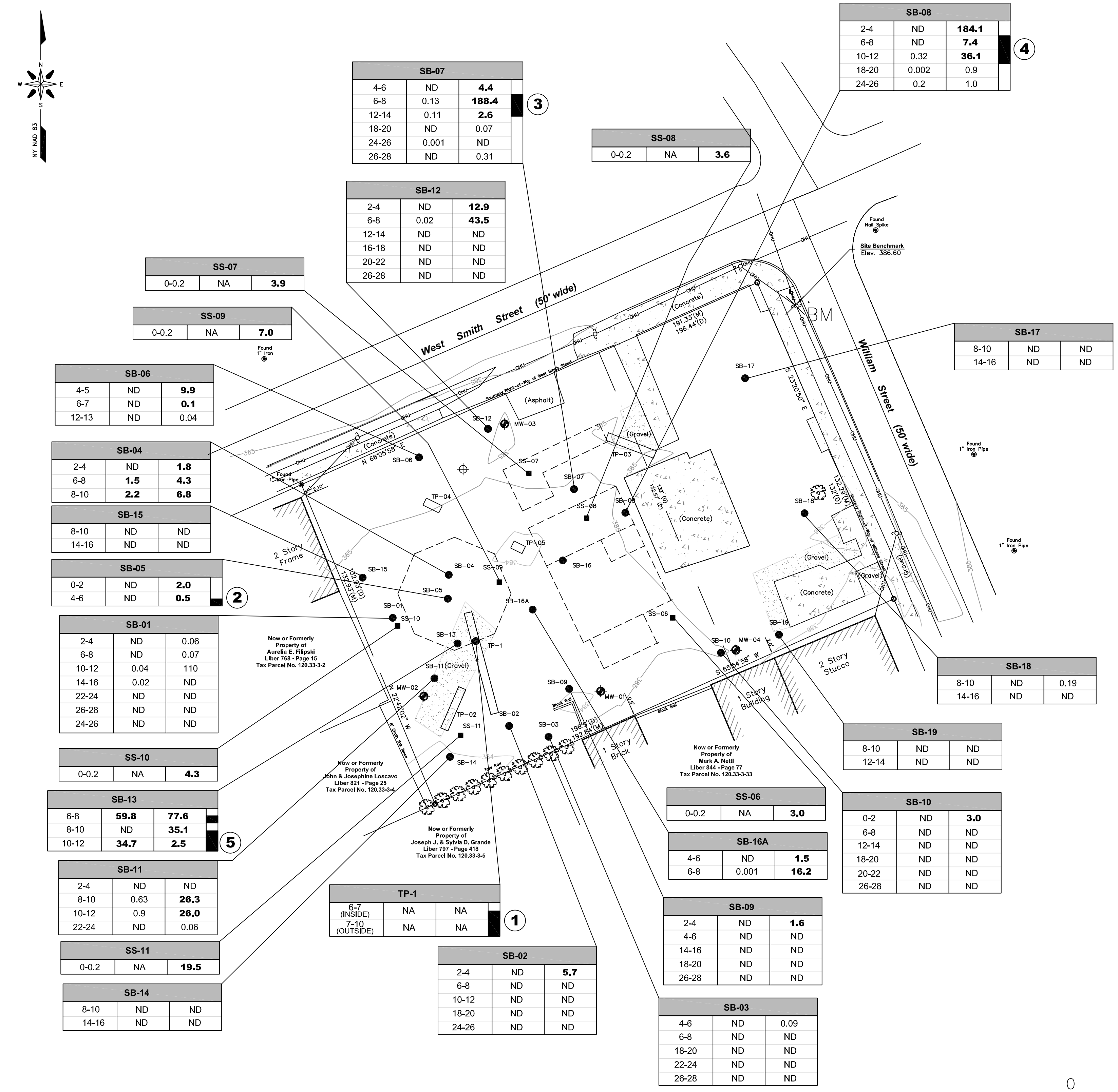
J:\CAD\38278\1000\PLATE-4.dwg, FIG-1, 10/27/2006 4:06:22 PM

Map ID	Sample Location	Summary of Observed NAPL Impacts
1	TP-01	Tar notedin fill along inner edge of holder wall, from 6 to 7 feet bgs. Tar impacts noted in soils immediately outside holder wall, from 7 to 10 feet bgs.
2	SB-05	Tar (1/4-inch layer)noted on surface of holder bottom brick, at 6 feet bgs.
3	SB-07	Petroleum impacts noted within soils, from 6 to 9 feet bgs.
4	SB-08	Petroleum blebs and seams noted within soils, from 6 to 12 feet bgs.
5	SB-13	Tar (2-inch layer) noted on surface of holderbottom brick at 7 feet bgs. Tar impacts noted in soils beneath holder, from 9.2 to 12 feet bgs.

Note: NAPL descriptions do not includeobserved impactsthat consisted solely of staining, sheens and/or odor



SB-08

2-4	ND	**184.1**	4
6-8	ND	**7.4**	
10-12	0.32	**36.1**	
18-20	0.002	0.9	
24-26	0.2	1.0	

SB-07

4-6	ND	**4.4**	3
6-8	0.13	**188.4**	
12-14	0.11	**2.6**	
18-20	ND	0.07	
24-26	0.001	ND	
26-28	ND	0.31	

SS-08

0-0.2	NA	**3.6**

SB-12

2-4	ND	**12.9**
6-8	0.02	**43.5**
12-14	ND	ND
16-18	ND	ND
20-22	ND	ND
26-28	ND	ND

SS-07

0-0.2	NA	**3.9**

SS-09

0-0.2	NA	**7.0**

SB-06

4-5	ND	**9.9**
6-7	ND	**0.1**
12-13	ND	0.04

SB-04

2-4	ND	**1.8**
6-8	**1.5**	**4.3**
8-10	**2.2**	**6.8**

SB-15

8-10	ND	ND
14-16	ND	ND

SB-05

0-2	ND	**2.0**	2
4-6	ND	**0.5**	

SB-01

2-4	ND	0.06
6-8	ND	0.07
10-12	0.04	110
14-16	0.02	ND
22-24	ND	ND
26-28	ND	ND
24-26	ND	ND

SS-10

0-0.2	NA	**4.3**

SB-13

6-8	**59.8**	**77.6**	5
8-10	ND	**35.1**	
10-12	**34.7**	**2.5**	

SB-11

2-4	ND	ND
8-10	0.63	**26.3**
10-12	0.9	**26.0**
22-24	ND	0.06

SS-11

0-0.2	NA	**19.5**

SB-14

8-10	ND	ND
14-16	ND	ND

TP-1

6-7 (INSIDE)	NA	NA	1
7-10 (OUTSIDE)	NA	NA	

SB-02

2-4	ND	**5.7**
6-8	ND	ND
10-12	ND	ND
18-20	ND	ND
24-26	ND	ND

SS-06

0-0.2	NA	**3.0**

SB-16A

4-6	ND	**1.5**
6-8	0.001	**16.2**

SB-09

2-4	ND	**1.6**
4-6	ND	ND
14-16	ND	ND
18-20	ND	ND
26-28	ND	ND

SB-03

4-6	ND	0.09
6-8	ND	ND
18-20	ND	ND
22-24	ND	ND
26-28	ND	ND

SB-17

8-10	ND	ND
14-16	ND	ND

SB-18

8-10	ND	0.19
14-16	ND	ND

SB-19

8-10	ND	ND
12-14	ND	ND

SB-10

0-2	ND	**3.0**
6-8	ND	ND
12-14	ND	ND
18-20	ND	ND
20-22	ND	ND
26-28	ND	ND

0 50 100
GRAPHIC SCALE

Legend:

- Found Iron (Rebar, Pipe, etc.) as noted
- Set 5/8" x 30" Reinforcement rod with Red Plastic Cap 1 1/4" in diameter marked "J. Thew, LS No. 050226", and set flush with the ground (Except as noted)
- Parcel Line
- Utility Pole
- OHU — Overhead Utility Lines
- MW-03 Monitor Well
- SB-01 Soil Boring
- SS-06 Surface Sample
- Pre-Existing Monitoring Well
- 120.33-3-3 Tax Parcel Number
- (M) Measured Distance
- (D) Deeded Distance
- Historic MGP Structure

SB-13

6-8	**59.8**	**77.6**
8-10	ND	**35.1**
10-12	**34.7**	**2.5**

Depth Interval Where Visual NAPL Was Noted
Total PAH Concentration (mg/Kg)
Total BTEX Concentration (mg/kg)
Depth Interval (feet bgs)

NA = Not Analyzed ND = Not Detected

BOLD Values indicate exceedance of one or more TAGM 4046 criterion

General Notes:

1) North arrow as shown indicates Grid North referenced to NAD83 and projected on the New York State Plane Coordinate System (East Zone).

2) This survey is referenced horizontally to the North American Datum of 1983 (NAD83) and projected on the New York State Plane Coordinate System (East Zone) and vertically to the North American Vertical Datum of 1988 (NAVD88).

3) Base information taken from drawing by Thew Associates, PLLC Title: "Map Showing Existing Topography Former MGP Facility Niagara Mohawk Power Corporation Herkimer, New York" Dated: 7/18/2003, Project Number CK2727B-06-03.

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NATIONAL GRID
FORMER MGP SITE
HERKIMER, NEW YORK

FIGURE 1
SUMMARY OF NAPL OBSERVATIONS AND TOTAL BTEX and PAHs DETECTED IN SOIL (mg/Kg)

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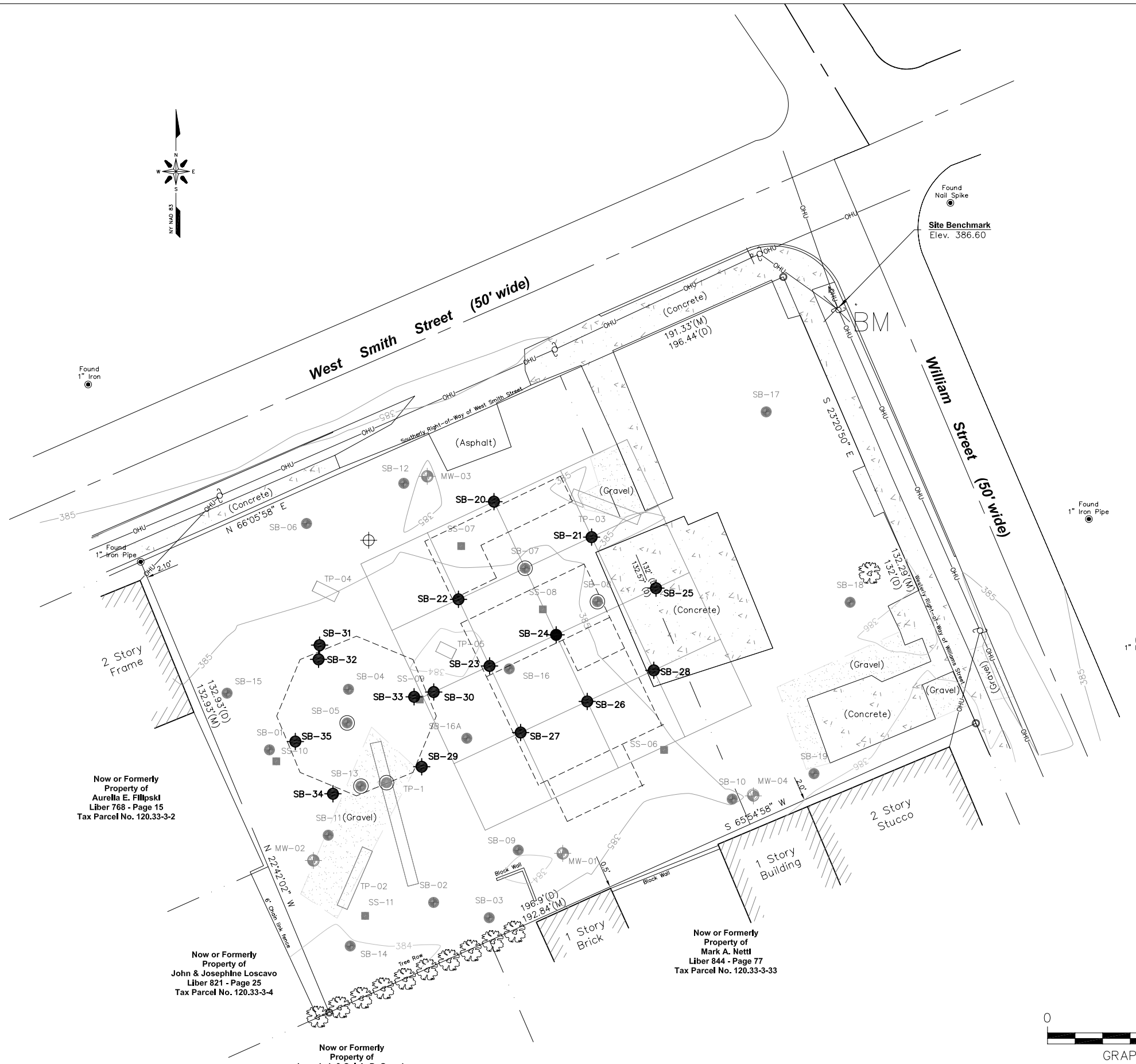
PLATE-4.dwg Layout:FIG-1 October 27, 2006-4:06PM Raloma



Legend:

SB–20	Proposed Soil Boring Location
SB–01	Location of Previous NAPL Detection
	Found Iron (Rebar, Pipe, etc.) as noted
	Set 5/8" x 30" Reinforcement rod with Red Plastic Cap 1 1/4" in diameter marked "J. Thew, LS No. 050226", and set flush with the ground (Except as noted)
	Parcel Line
	Utility Pole
OHU	Overhead Utility Lines
MW–03	Monitor Well
SB–01	Soil Boring
SS–06	Surface Sample
	Pre–Existing Monitoring Well
120.33-3-3	Tax Parcel Number
(M)	Measured Distance
(D)	Deeded Distance
	Historic MGP Structure

General Notes:

1) North arrow as shown indicates Grid North referenced to NAD83 and projected on the New York State Plane Coordinate System (East Zone).

2) This survey is referenced horizontally to the North American Datum of 1983 (NAD83) and projected on the New York State Plane Coordinate System (East Zone) and vertically to the North American Vertical Datum of 1988 (NAVD88).

3) Base information taken from drawing by Thew Associates, PLLC Title: "Map Showing Existing Topography Former MGP Facility Niagara Mohawk Power Corporation Herkimer, New York" Dated: 7/18/2003, Project Number CK2727B–06–03.

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NATIONAL GRID
FORMER MGP SITE
HERKIMER, NEW YORK

PROPOSED REMEDIAL INVESTIGATION SAMPLE LOCATIONS

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J:\CAD\38278\1000\PLATE–4.dwg Layout:FIG–2 October 27, 2006–4:07PM Raloma

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