ENVIRONMENTAL MANAGEMENT PLAN

414-422 Genesee Street Rochester, New York NYSDEC Spill # 1203963

Prepared By: City of Rochester Department of Environmental Services Division of Environmental Quality

April, 2013

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1.0 Introduction

This site-specific Environmental Management Plan (EMP) was developed for the property located at 414-422 Genesee Street, Rochester New York (Site). This site is owned by the City of Rochester (City) and its location is depicted on the project locus map included as **Figure 1.**

Previous Phase I and Phase II Environmental Site Assessments (ESA) identified and documented the existence of soil and groundwater contamination (primarily gasoline related constituents) due to historical operations at the Site.

Recent contaminated soil removal actions have successfully addressed most of the petroleum related volatile organic compounds (VOCs) at the Site, however some residual contamination still exists. This EMP should be implemented when work performed at the Site has the potential to disturb soil/fill and/or groundwater impacted with residual petroleum VOCs on the Site.

The purpose of this EMP is to:

- Manage soil/fill impacted with elevated concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and other constituents of environmental concern (if encountered);
- Manage groundwater impacted with elevated concentrations of VOCs and other constituents of environmental concern (if encountered);
- Establish goals, procedures, and appropriate response actions to be used by on-site personnel should impacted material be encountered and disturbed;
- Implement engineering controls to reduce potential environmental impacts, if warranted, depending upon the redevelopment plans; and
- Satisfy the NYSDEC requirements for closure of Spill File #1203963.

2.0 Site Description and Previous Environmental Investigation/Remediation

The Site consists of an approximately 0.154-acre vacant parcel addressed 414 - 422 Genesee Street, Rochester, New York. The City currently owns the Site. A Project Locus Map is included as Figure 1, and a Site Plan with an Ortho-photo Overlay is included as **Figure 2.** [Note, the buildings shown on the Site in this report's figures were demolished by the City in 2012, and the Site is currently vacant land.]

2.1 Site History

Several commercial businesses formerly occupied the Site including one or more dry cleaning facility from 1926 until the mid-1950s. Farrell's appliance store occupied the Site until at least the mid-1960s. Subsequently, the Site had been used as upper story apartments and other various commercial uses on the lower floor. All Site structures were demolished in 2012 and the Site is currently vacant.

2.2 Previous Environmental Studies/Remedial Actions

Previous environmental investigations and remedial measures conducted at the Site include the following a *Phase I Environmental Site Assessment* (DAY) completed in November 2012; and a *Phase II ESA and Limited Remedial Services* (DAY) project completed in January 2013. The Phase I and Phase II ESAs are discussed in greater detail in the following sections.

Phase I ESA (DAY) November 2012:

Day Environmental, Inc. (DAY) completed a Phase I Environmental Site Assessment (ESA) at the Site, in November, 2012 and identified the following Recognized Environmental Conditions (RECs):

- Active New York State Department of Environmental Conservation (NYSDEC) Spill File #1203963 was opened for the Site on July 23, 2012. The spill report indicated that, "While demolishing a foreclosed commercial building, a 55 gallon drum was behind the property, buried in soils. Drum removed and contaminated soils encountered. Nyetech hired to overpack drum and dispose of. Soils to be placed on poly, cover and sample for disposal only. To forward [sic] disposal receipts to this department." Laboratory test results for in-situ soil and water samples that were collected from below the 55-gallon drum on July 23, 2012 indicated that petroleum-type volatile organic compounds (VOCs) and acetone were present.
- A portion of an apparent buried metal container was identified during the demolition activities that occurred at the Site on July 23, 2012. This container was different from the previously discovered drum-like container. A petroleum-type odor was detected coming from soils immediately surrounding the container.
- An EM-61 electro-magnetic survey identified four magnetic anomalies of magnitudes large enough to represent buried tanks or drums on the Site. One of the magnetic anomalies was detected in the vicinity of the previously discovered buried metal container. Five (5) additional magnetic anomalies were at the Site that required further evaluation.
- Records obtained as part of the Phase I ESA indicated that the adjoining property to the west/northwest (i.e., 411 Genesee Street) was operated as a gasoline station and automobile repair facility from at least 1960 to approximately 1975. In addition, records indicate that the adjoining property to the south (i.e., 444 Genesee Street) was operated as a dry cleaner for an unknown period around 1930.

Phase II ESA (DAY) January 2013:

The City retained DAY to complete an investigation of subsurface anomalies at the Site, and to perform limited remedial services. The work was completed in January 2013, in general conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) Practice E1903-02. Project tasks included: conducting a limited subsurface study at test pit locations; analytical laboratory testing of selected soil samples; and assessment of subsurface conditions during the removal of an underground process tank and associated contaminated soil.

As part of the project, the process tank and a limited volume of contaminated soil were removed, transported off-site, and subsequently disposed of in accordance with applicable regulations. A

Global Positioning System (GPS) and taped measurements from existing Site structures were used to mark out/measure test locations and excavations, and the test location coordinates and information were also input into a Geographic Information System (GIS).

Subsurface Evaluation

Nine test pits (designated as TP-1 through TP-9) were excavated at the Site in areas that exhibited magnetic anomalies as identified by the EM-61 geophysical survey. Four locations were identified as possibly being locations where buried metallic tanks, drums or vessels might be located. **Figure 3** depicts the locations of the test pits in relation to the anomalies. One additional test pit (designated as TP-10) was excavated to assist in evaluating the extent of contamination encountered at Test Pit TP-8.

Test pits were excavated to depths ranging between approximately four and ten feet below the ground surface (bgs). Equipment refusal indicative of the top of inferred bedrock and/or former basement floors was encountered at Test Pits TP-1 through TP-7 and TP-10. A DAY representative documented the work performed, made visual observations, screened excavated material with a photoionization detector (PID), photographed the test pit work, collected soil samples for possible laboratory testing, and prepared test pit logs for each excavation. Significant groundwater was not encountered during the subsurface evaluation. No groundwater samples were collected for laboratory analysis. Test pits were subsequently backfilled with excavated material and tamped in-place.

Closure of Process Tank

One approximate 107-gallon capacity bare steel process tank was encountered in Test Pit TP-8. The location of the process tank is shown on **Figure 3**. The process tank was permanently closed under a permit with the City of Rochester. DAY coordinated and documented the removal of the process tank and the removal and off-site disposal of source area petroleum impacted soil from the excavation. Pertinent information, including information about the process tank, its disposition, subsurface conditions encountered, disposal documentation, and photographs were included in the Process Tank Closure Report.

Limited Source Area Soil Removal and Disposal

A limited source area soil removal was performed to address petroleum contaminated soil located in proximity to the former drum-like process tank removed in 2012 and the 107 gallon process tank removed on January 17, 2013. **Figure 4** includes the location of the limited soil removal excavation. The excavation encompassed an area of approximately 220 square feet. Contaminated soil was generally encountered at depths of approximately 4 to 8 feet bgs. The approximate limits of the excavation are depicted on **Figure 4** which also illustrates the approximate locations of former basement concrete slabs that were documented as having been left in-place during the previous demolition of buildings on the Site in 2012. Approximately 20.89 tons of contaminated soil were transported off-site and disposed of at the Mill Seat Landfill in Riga, New York. Supporting documentation and photographs of the limited soil removal work are included in the Process Tank Closure Report.

Post-Excavation Soil Conditions

The contaminated soil in the excavation was not fully removed. Soils exhibiting elevated VOCs vapors concentrations ranging between 145 ppm and 578 ppm remained in each of the four sidewalls, with thicknesses ranging between one foot and four feet, immediately above the bedrock. Since contaminated soil remained in the excavation, no post-excavation soil samples were collected from the bottom or sidewalls of the excavation. However, four soil samples from test pits located north, south, east and west of the excavation were submitted for analytical testing to assist in evaluating the extent of contamination.

Test Pit Soil Sampling and Analysis

Select soil samples (TP-5 (9'); TP-6 (7'); TP-7 (10'); and TP-10 (6')) were submitted for testing for United States Environmental Protection Agency (USEPA) Target Compound List (TCL) and NYSDEC Spill Technology and Remediation Series (STARS) list VOCs using USEPA Method 8260. Samples were selected to assist in defining the extent of soil contamination associated with the process tank removed in 2012, and the adjoining process tank identified during excavation of Test Pit TP-8. **Table 1** provides a summary of the VOC test results.

Site Restoration

Subsequent to excavating the limited volume of contaminated soil from TP-8, plastic sheeting was placed in the bottom of the excavation as a demarcation layer. The excavation was backfilled with clean overburden soils previously staged on-site and and an additional 21.22 tons of clean imported #2 Crusher Run stone. Supporting documentation for the imported backfill is attached in the Process Tank Closure Report. Disturbed areas of the Site were subsequently rough-graded, and the two previously-removed wood bollards were re-installed.

2.3 Geology and Hydrogeology

In general, fill consisting of reworked soil (i.e., sand with some silt) intermixed with lesser amounts of concrete, brick, asphalt, metallic debris, wood, wiring, plastic, ash, slag, plastic, polyvinyl chloride (PVC) piping, floor tile, and gravel was present at each of the ten test pits extending from at or near the ground surface to depths up to 9.0 feet bgs. Indigenous soils generally consisting of fine sand with lesser amounts of silt and gravel were observed beneath the overlying fill material. Bedrock at the site is a dolomitic limestone (Lockport Dolomite).

Wet soil potentially attributable to a groundwater table was noted at Test Pits TP-1 through TP-6 at depths ranging between approximately 7.0 and 8.0 feet bgs. No sheen or free product was observed in the ten test pits. The groundwater flow direction for the Site is inferred to be east-northeast, towards.

3.0 Environmental Management Plan

This EMP provides procedures to mitigate exposure to petroleum -contaminated soil, fill and groundwater that could be encountered should the Site be disturbed. In addition, this EMP

provides information on how to identify impacted material, and also provides options for the management, disposal and/or re-use of impacted subsurface material. The procedures presented herein are intended to reduce potential exposure to construction workers and building occupants during future operation of the Site should impacted material be encountered that requires management.

During construction activities that have the potential to disturb impacted subsurface materials, a qualified environmental professional must monitor and document the work completed for compliance with the requirements of this EMP. It is recommended that the New York State Department of Environmental Conservation (NYSDEC) Spills Unit be notified at least two (2) business days before intrusive site work is initiated. Additionally, the NYSDEC must be notified within two (2) hours if residual impacted media is encountered. The owner of the Site is responsible for impacted media unless a different entity acceptable to the NYSDEC is indentified as the responsible party.

3.1 Identification of Impacted Media

This section describes the types of impacted media documented at the Site and provides information on the identification, handling, analytical laboratory testing, disposal or re-use of these materials.

Identification of potentially impacted media will be part of the construction process, so that appropriate actions can be taken. A qualified environmental professional must be present during any future intrusive work at the Site to monitor for evidence of impacted media via visual and olfactory observations and screening for VOCs using a photoionization detector (PID). The owner of the Site will be responsible for the proper handling and disposal of impacted media if it is encountered at this site in the future. The following sub-sections provide guidance for this identification process:

3.1.1 Petroleum Impacted Soil:

Soils may be impacted with petroleum contamination along in the north-central portion of the Site where residual contamination was left in place. Additional areas of petroleum impacted soil or other environmental concerns may exist. If petroleum impacts are present, the soil or fill will likely appear stained black, gray etc. and emit petroleum like odors. In addition, screening of the ambient air surrounding the material may result in elevated PID responses. For the purpose of this EMP, soil/ fill exhibiting the properties described above should be considered to be petroleum impacted, and should be handled as such unless further testing is done to quantify the constituents of the material.

3.1.2 Groundwater:

Although the depth to the local groundwater table was not confirmed, the depth to groundwater is assumed to be approximately 7 to 8 feet below the ground surface at the Site. No analytical testing was performed on groundwater at the Site. However, petroleum impacted groundwater may be identified by the presence of petroleum/chemical odors or sheen on the water. Additionally, screening the ambient air above samples of groundwater may result in elevated PID responses.

3.1.3 Heterogeneous fill:

Heterogeneous fill material may be located across the Site extending to variable depths. If present, this fill material may contain elevated concentrations of VOCs, SVOCs, and metals, and may not emit a discerning odor. Screening of the ambient air surrounding the material may not result in positive PID responses.

3.2 Handling and Disposal

Impacted soil/fill that is excavated or disturbed should be removed, segregated from non-impacted media, and placed on, and covered with, plastic sheeting. Alternatively, the impacted material can be placed in 55-gallon drums or a roll-off disposal container (depending on the quantity of material generated), or the material may be directly loaded onto trucks for off-site disposal if pre-approved by the disposal facility. If impacted material is to be staged on-site, any disposal, treatment, etc. must be conducted within 60 days, unless otherwise authorized by the appropriate regulatory agency. Representative samples of the stockpiled media will be collected and analyzed by a New York State Department of Health (NYSDOH) approved laboratory. Laboratory testing of petroleum/chemical impacted soils will typically include VOCs, as well as additional waste characterization parameters as required by the disposal facility. Following the receipt of the laboratory results, approval from a permitted disposal facility will be obtained and the soil will be properly transported to by a licensed waste hauler and disposed of at the disposal facility.

In the event that impacted groundwater or standing water is encountered and needs to be removed from excavations, the water must be containerized (i.e., placed in sealed New York State Department of Transportation (NYSDOT)-approved 55-gallon drums or a holding tank) prior to characterization and disposal. Once the impacted groundwater has been transferred to the storage container, options for the proper disposal of the water will be evaluated. Options include 1) discharge to the municipal sewer system after first performing waste characterization analysis and obtaining a temporary sewer discharge permit and 2) off-site disposal at an approved facility following proper characterization.

3.2.1 Analytical Laboratory Testing:

Based on previous test results for samples from the Site, the recommended analytical laboratory testing program for petroleum VOC impacted media (soil, fill, and/ or groundwater) is summarized below:

- NYSDEC Spill Technology and Remediation Series (STARS) list VOCs- via USEPA Method 8260.
- NYSDEC STARS-list SVOCs via USEPA Method 8270

The actual analytical laboratory testing program may vary depending on the nature of the soil, fill, and groundwater encountered, and requirements of the disposal facility or publicly-owned treatment works (POTW).

The analytical laboratory test results for characterization of soil and groundwater samples should be compared to the appropriate criteria listed below.

- NYSDEC Part 375 Soil Cleanup Objectives (SCOs) to assist in determining if soil or fill media require removal, off-site disposal and/or treatment, or can be re-used on-site.
- NYSDEC CP-51 Soil Cleanup Guidance to assist in determining if soil or fill media require removal, off-site disposal and/or treatment, or can be re-used on-site.
- Technical and Operational Guidance Series (NYSDEC TOGS 1.1.1) groundwater standards and guidance values to assist in determining if groundwater: 1) can be discharged on-site; 2) requires pre-treatment and/or can be discharged to the public combined sewer system under a sewer use permit; or 3) requires off-site disposal at a regulated treatment/disposal facility.
- Applicable portions of the Monroe County Pure Waters (MCPW) Rules and Regulations, and Sewer Use Law, to assist in determining if water from the Site (groundwater, excavation water, well water, etc.) requires pre-treatment and/or can be discharged to the public combined sewer under a Sewer Use Permit, or requires off-site disposal at a treatment/disposal facility.

3.2.2 Disposal of Petroleum Impacted Media

Comparison of analytical laboratory test results to the appropriate criteria may indicate that petroleum-impacted soil and/or fill encountered during construction activities at the Site requires disposal off-site in accordance with applicable regulations. In addition, excavated subsurface material may require off-site disposal due to construction requirements (e.g., geotechnical considerations, space available on-site for storage and subsequent re-use, etc.). Based on existing data and information, the petroleum-impacted fill and/or soil that contain VOCs described herein will likely be characterized as non-hazardous waste. Written permission of the NYSDEC will be required for any on-site treatment (i.e., aeration biopile, etc.) of petroleum-impacted soil.

Water (e.g., groundwater, standing water) that is generated/removed during construction activities (if any) that meet TOGS 1.1.1 groundwater standards and guidance values can be discharged on-site. Water that is generated and removed during construction activities at the Site (if any) that does not meet TOGS 1.1.1 groundwater standards and guidance values must be: 1) discharged to the public combined sewer under a sewer use permit; or, 2) transported and disposed off-site at a regulated facility. If the water contains free phase gasoline, petroleum sheen, or a total VOC and SVOC concentration greater than 2.13 mg/l, it should be anticipated that MCPW will require pre-treatment and confirmatory sampling prior to authorizing discharge to the public combined sewer system under a sewer use permit.

Transporters removing contaminated media from the Site must have the appropriate regulatory permits (e.g., NYSDEC Part 364 permit, etc.), and the selected disposal facility of each waste stream (e.g., soil/fill to landfill, water to POTW, etc.) must be approved by the appropriate regulatory agency for accepting the specific waste. This includes contaminated material that may be defined as non-hazardous waste and hazardous waste.

3.2.3 Re-Use of Soil or Fill:

Soil or fill material that does not contain petroleum constituents above NYSDEC Part 375 Unrestricted Use SCOs can be left in place, or re-used on or off-site. Any soils to be used off-Site must be approved by the NYSDEC. However, to the extent deemed appropriate, geotechnical properties of the soil or fill should be considered prior to it being re-used on or off-Site.

3.3 Health and Safety Monitoring Plan

Workers involved with future on-site work (e.g., new installation/repair of buried utilities, etc.) that have the potential to disturb petroleum-impacted soil, fill and/or groundwater should be made aware of the potential exposure hazards. The owner of the Site will be responsible for notifying future on-site workers of potential exposure hazards. Workers should be provided with the previous reports, the exposure assessment, and this EMP. These documents contain information on the type and location of petroleum impact encountered at the Site and address how to handle, treat, transport, dispose, or re-use the impacted materials in a manner that precludes exposure. Precautions should be implemented to minimize disturbance of soil or fill that result in air-borne release of particulates. Areas where work has been completed should be repaired (e.g., clean soil/fill re applied, paved, etc.).

3.4 Management of Potential Future Disturbances

Anyone involved with on-site work that may potentially disturb impacted soils should be made aware of potential exposure hazards. The owner of the site is responsible for notifying on-site workers of potential hazards. On-site workers should be provided with the previous reports and this EMP. These documents contain information on previous uses of the Site, location and type of contamination on the Site, and how to address and manage impacted material should it be encountered. Precautions should be implemented to attempt to minimize disturbances of impacted material that may allow for the release of harmful airborne particulates.

4.0 Engineering Controls

Considerations should be made for potential vapor intrusions in buildings, should any be constructed. It is anticipated that a sub-slab depressurization system (SSDS) will be required under the slab floor of new buildings at the Site unless an SSDS is deemed not necessary (i.e., soil vapor investigations (SVI) indicate no need, use of other vapor mitigation measures or engineering controls – First floor parking, etc.). In the event that engineering controls are deemed necessary for new construction, the appropriate regulatory agencies should be consulted for approval of such controls.

5.0 Institutional Controls

As an environmental institutional control (IC), the City will "flag" the Site on its computerized Building Information System (BIS) database of parcels located in the City. The BIS is utilized by all City staff involved with the issuance of new City permits. Sites "flagged" in the City's BIS with an environmental institutional control cannot obtain new permits without review and

approval of City DEQ. The flagging in BIS ensures that environmental conditions are evaluated by the City prior to issuing of any new permits for this Site.

If the proposed permit activity has the potential to result in the exposure to or disturbance of residual contamination at the Site, City DEQ provides the permit applicant with copies of the EMP, and discusses the technical elements of the EMP and potential mitigation measures. In addition, the City has the ability to condition the new permit to comply with:

- The site-specific EMP;
- Notification of the City or environmental regulatory agencies prior to start of work;
- Installation of Environmental Engineering Controls (e.g., sub-slab depressurization system);
- Consultation and written approval from environmental regulatory agencies as deemed warranted.

6.0 Site Contacts

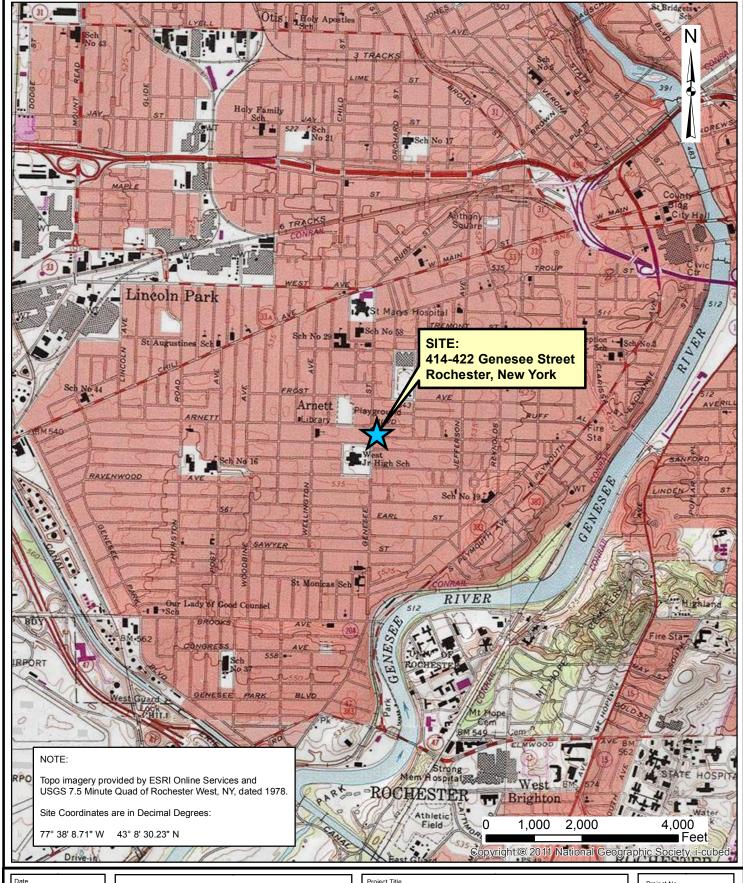
Contact information for NYSDEC and other parties this EMP will be distributed to is listed below.

NYSDEC Region 8 6274 East Avon-Lima Road Avon, New York 14414 Phone: (585) 226-5438 Or 1-800-457-7362 Contact: Dave Tilton

Monroe County Department of Health 111 Westfall Road Room 914 Rochester, New York 14620 Contact: Jeffery Kosmala, P.E. Senior Public Health Engineer

City of Rochester Division of Environmental Quality City Hall Room 300B 30 Church Street Rochester, New York 14614 Contact: Joseph Biondolillo

Phone: (585) 428-6649



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RJM

AS NOTED

DAY ENVIRONMENTAL, INC.

Environmental Consultants Rochester, New York 14606 New York, New York 10170

414-422 GENESEE STREET ROCHESTER, NEW YORK

PHASE II ENVIRONMENTAL SITE ASSESSMENT

Drawing Title

Project Locus Map

4801S-13

FIGURE 1



03-07-2013

CPS

AS NOTED

DAY ENVIRONMENTAL, INC.

Environmental Consultants Rochester, New York 14606 New York, New York 10170

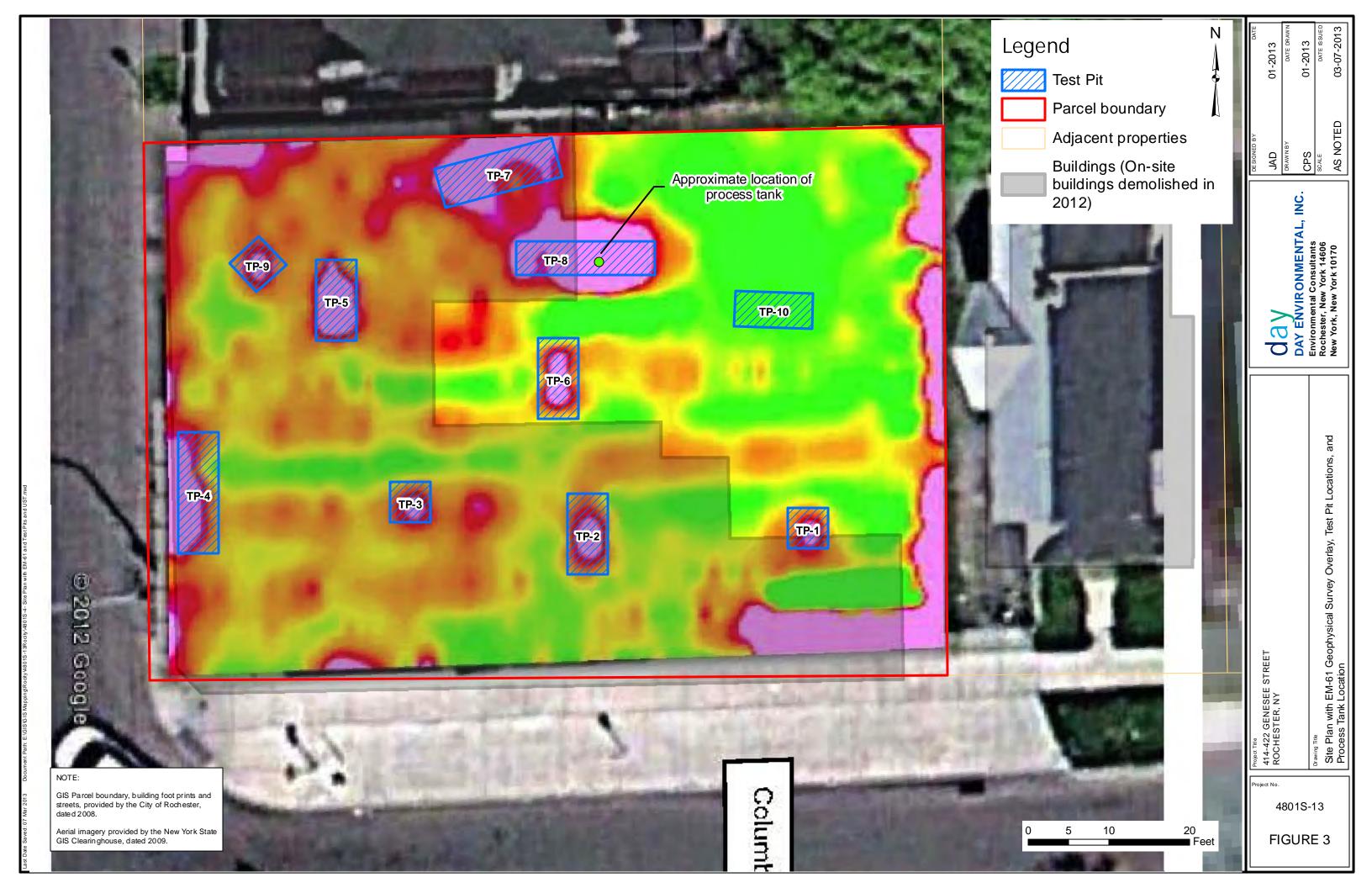
414-422 GENESEE STREET ROCHESTER, NY

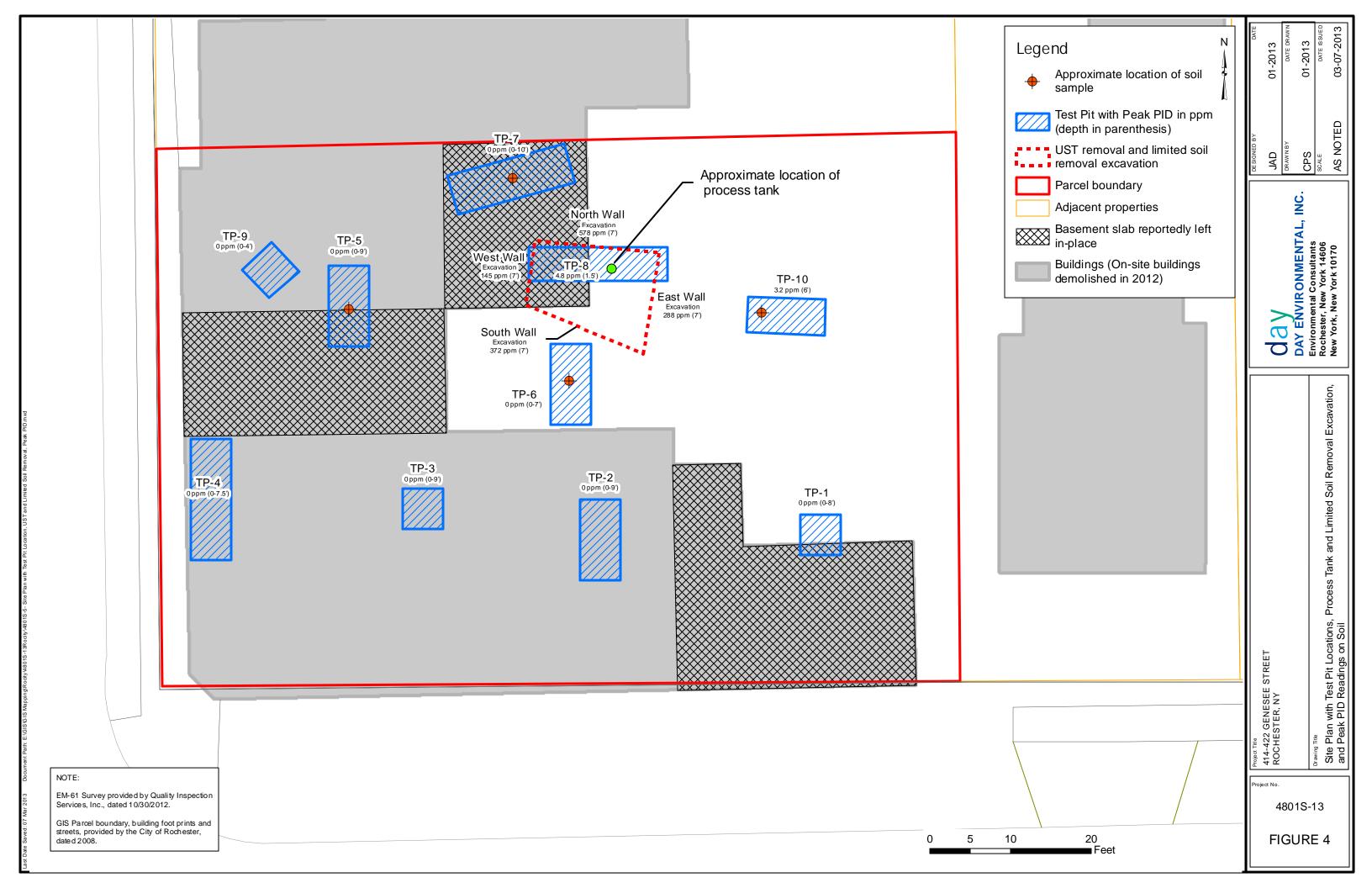
Drawing Title

Site Plan with Orthophoto Overlay

4801S-13

FIGURE 2





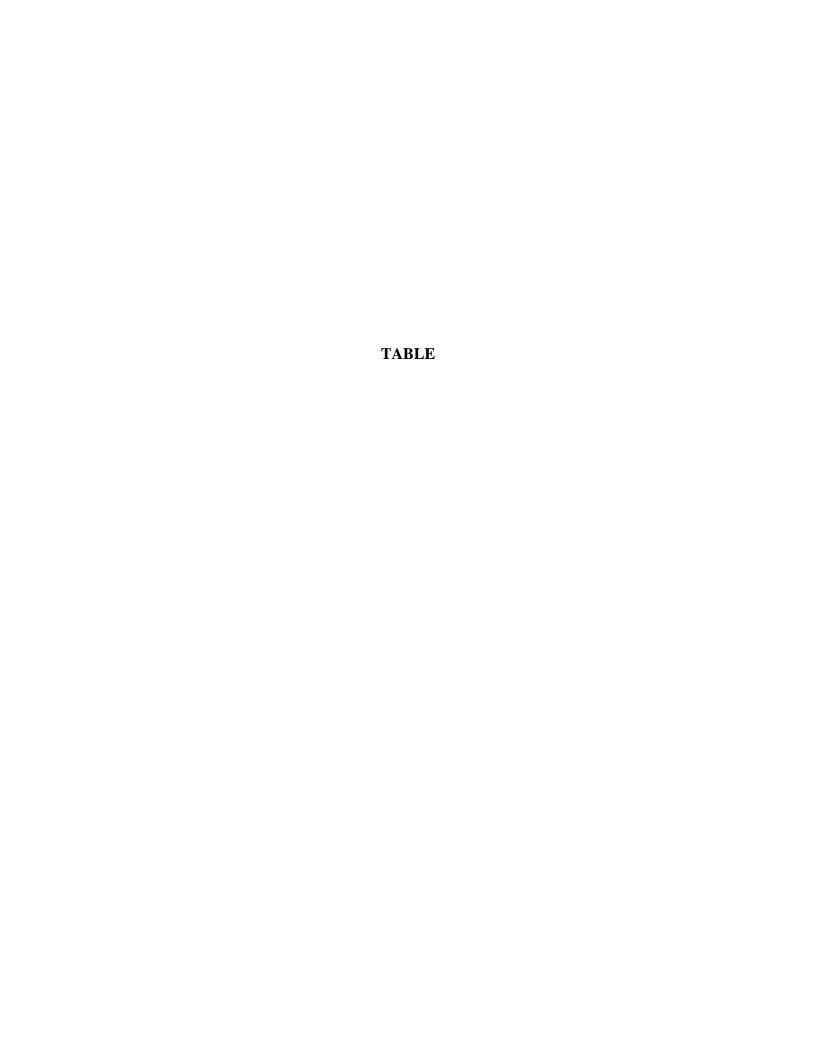


Table 1 414-422 Genesee Street Rochester, New York

Summary of Detected VOCs and Naphthalene Results in mg/Kg or Parts per Million (ppm)

Soil Samples

Detected Compound	Unrestricted Use SCO ⁽¹⁾	Commercial Use SCO (2)	Protection of Groundwater SCO ⁽³⁾	SCL ⁽⁴⁾	TP-5 (9') 01/14/13	TP-6 (7') 01/14/13	TP-7 (10') 01/14/13	TP-10 (6') 01/17/13
Methylene Chloride	0.05	500	0.05	NA	0.0068 J,L	0.0057 J,L	0.0055 J,L	0.0514 J,D,L
Naphthalene	12	500	12	12	U	U	U	0.0641 J,D

VOC = Volatile Organic Compound

U = Not detected at concentration above reported analytical laboratory detection limit

J = Estimated Value, analyte detected below quantitation limits

D = Data reported from a dilution

L = Compound is a common laboratory contaminant

NA = Not available

- (1) = Soil Cleanup Objective (SCO) for Unrestricted Use as referenced in 6 NYCRR Part 375 dated 12/14/06
- (2) = SCO for Commercial Use as referenced in 6 NYCRR Part 375 dated 12/14/06.
- (3) = SCO for Protection of Groundwater as referenced in 6 NYCRR Part 375 dated 12/14/06
- (4) = Soil Cleanup Level (SCL) as referenced in NYSDEC CP-51 dated 10/21/10