FREDERICK PROPERTY

ONTARIO COUNTY

MANCHESTER, NEW YORK

SITE MANAGEMENT PLAN

NYSDEC Site Number: B00131

Prepared for:

Village of Manchester

8 Clifton Street, Manchester, New York

Prepared by:

Day Environmental, Inc.

1563 Lyell, Avenue, Rochester, NY

(585)-454-0210

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date
1		Update SMP and revise long term groundwater monitoring schedule	

FEBRUARY 2019

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 8
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March 4, 2019

Village of Manchester
Mayor Nancy W. Johnsen
P. O. Box 188
Manchester, NY 14504

Subject: **Frederick Property (#B00131)**
147 State Street, Village of Manchester, NY
Site Management Plan, February 2019

Dear Mayor Johnsen:

The New York State Departments of Environmental Conservation (NYSDEC) and Health, collectively referred to as the Departments, have completed their review of the document entitled *Site Management Plan* (the Work Plan) dated February 2019 and prepared by Day Environmental, Inc. for the Frederick Property ("site") located in the Village of Manchester, Ontario County. In accordance with 6 NYCRR Part 375-1.6, the Departments have determined that the Work Plan, with modifications, substantially addresses the requirements of the State Assistance Contract. The modifications are outlined as follows.

Appendix H: The attached Special Requirements CAMP will be followed for all ground intrusive activities, including drilling holes within occupied buildings for design sampling, or when ground intrusive activities are occurring within 20 feet of a potential receptor or occupied structures. Additional information on the special requirements is provided in attachment 1.

With the understanding that the Departments' modified Work Plan is agreed to, the Work Plan is hereby approved.

Please attach this letter to the Work Plan and distribute as follows within 30 days of the date of this letter:

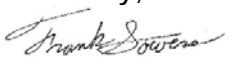
- Tasha Mumbrue (NYSDEC, Avon) - 2 hard copies;
- Steven Berninger (NYSDOH, Albany) – 1 hard copy; and
- Document repositories - 1 hard copy each.

The hard copies of the approved modified Work Plan should be submitted double-sided.

If the Village of Manchester chooses not to accept the approved modified Work Plan, you are required to notify this office within 20 days after receipt of this letter. In this event, I suggest a meeting be scheduled to discuss your concerns prior to the end of this 20-day period.

We look forward to working together to bring this site back into productive use. Please contact me before **March 24, 2019** at (585) 226-5459 if you have questions or concerns on this matter.

Sincerely,

 for Tasha Mumbrue
Tasha Mumbrue
Engineering Geologist

Attach:
1. Special Requirements CAMP

ec: w/attach
Nate Simon, Day
Charles Hampton, Day
Ray Kampf, Day
Danielle Miles, NYSDEC
Bernette Schilling, NYSDEC
Frank Sowers, NYSDEC
Steven Berninger, NYSDOH
Justin Deming, NYSDOH

ATTACHMENT 1: SPECIAL REQUIREMENTS CAMP

Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative-pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m^3 (micrograms per cubic meter), work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m^3 or less at the monitoring point.

- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

Special Requirements for Indoor Work With Co-Located Residences or Facilities

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under “Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures” except that in this instance “nearby/occupied structures” would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.

CERTIFICATION STATEMENT

I NATHAN E. SIMON certify that I am currently a NYS registered professional engineer as in defined in 6 NYCRR Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).

_____ [P.E.]

February 18, 2019
_____DATE

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MANCHESTER, NEW YORK

SITE MANAGEMENT PLAN

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bgs	below ground surface
CAMP	Community Air Monitoring Plan
COC	Certificate of Completion
CP	Commissioner Policy
CPL	Clark, Patterson Lee
DAY	Day Environmental, Inc.
DER	Division of Environmental Remediation
DUSR	Data Usability Summary Report
EC	Engineering Control
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
ERP	Environmental Restoration Program
EWP	Excavation Work Plan
ft.	Feet
HASP	Health and Safety Plan
IC	Institutional Control
IWP	Investigation Work Plan
IRM	Interim Remedial Measure
k	Hydraulic Conductivity
NAPL	Non-Aqueous Phase Liquid
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PRR	Periodic Review Report
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RAO	Remedial Action Objective
ROD	Record of Decision
ROW	Right-of-Way
RP	Responsible Party
SAC	State Assistance Contract
SCG	Standards, Criteria and Guidelines
SCO	Soil Cleanup Objective
Site	Frederick Property 147 State Street Manchester, New York
SMP	Site Management Plan
SVOC	Semi-Volatile Organic Compound
TCL	Target Compound List
TOGS	Technical and Operational Guidance Series
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound

ES EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring and reporting activities required by this Site Management Plan (SMP):

Site Identification:	Environmental Restoration Project No B00131 147 State Street, Manchester, New York
Institutional Controls:	1. The property may be used for restricted residential use;
	2.The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Ontario Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department
	3. Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP
	4. All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP
	5. Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.
	6. The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 2, and appropriate actions to address exposures must be implemented
	7. Vegetable gardens and farming on the Site are prohibited
Engineering Controls	Cover System
Inspections:	Frequency
Site-Wide Inspection	Annually
Cover Inspection	Annually

Site Identification:	Environmental Restoration Project No B00131 147 State Street, Manchester, New York
Monitoring	Frequency
Groundwater Monitoring Wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, RW-1, RW-2, RW-3 and MW-A	Annually
Evaluations	
Climate Change Vulnerability Assessment	
Soil Vapor Intrusion evaluation	Upon change in use/as needed
Reporting:	
Inspections	Annually
Certification/PRR	Annually
Final Construction report	Upon completion of Soil management/Excavation activities

Further descriptions of the above requirements are provided in detail in the subsequent sections of this Site Management Plan.

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the Frederick Property located in the Village of Manchester, Ontario County, New York (hereinafter referred to as the "Site"). Refer to Figure 1 for a Project Locus Map. The Site is currently in the New York State (NYS) Environmental Restoration Program (ERP) administered by New York State Department of Environmental Conservation (NYSDEC), and identified as Site No. B00131.

The Village of Manchester entered into a State Assistance Contract (SAC) with the NYSDEC to remediate the Site. A figure showing the Site location and boundaries of this Site is provided in Figure 2. The boundaries of the Site are more fully described in the metes and bounds site description that is part of the Environmental Easement provided in Appendix A.

After completion of the remedial work, some contamination remains at the Site, which is hereafter referred to as "remaining contamination". Institutional and Engineering controls (ICs and ECs) have been incorporated into the Site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Ontario County Clerk, requires compliance with this SMP and all ICs placed on the Site.

This SMP was prepared to manage remaining contamination at the Site until the Environmental Easement is extinguished in accordance with Environmental Conservation Law (ECL) Article 71, Title 36. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the

Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC), release or closure letter;

- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the SAC (Contract #C301640; Site #B00131) for the Site, and thereby subject to applicable penalties.

All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State. A list of contacts for persons involved with the Site is provided in Appendix B of this SMP.

This SMP was prepared by Day Environmental, Inc. (DAY) on behalf of the Village of Manchester, in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 2010, and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs and/or ECs that are required by the Environmental Easement for the Site.

1.2 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. Revisions will be necessary upon, but not limited to, the following occurring: a post-remedial removal of contaminated sediment or soil, or other significant change to the site conditions. In accordance with the Environmental Easement for the Site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.3 Notifications

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER-10 for the following reasons:

- Written 60-day advance notice of any proposed changes in site use that are required under the terms of the SAC, 6NYCRR Part 375 and/or Environmental Conservation Law.

- 7-day advance notice of any field activity associated with the remedial program.

- Written 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan (EWP).

- Notice within 48 hours or any damage or defect to EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.

- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the SAC and all approved work plans and reports, including this SMP.

- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1.3 includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B.

Table 1.3: Notifications*

Name	**Contact Information**
Danielle J. Miles EIT	(585)226-5349 danielle.miles@dec.ny.gov
Bernette Schilling P.E.	**(**585)226-5315 bernette.schilling@dec.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

2.0 SUMMARY OF PREVIOUS REMEDIAL INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The Site is located in the Village of Manchester, Ontario County, New York and is identified as Township VM 031.20, Block 1 and Lot 4 on the Village of Manchester Tax Map (refer to the figure provided in the environmental easement for the Site attached as Appendix A). The Site is an approximately 0.48-acre area and is bounded by State Street to the north, a Niagara Mohawk Power Corporation Utility Right-of-Way (ROW) to the south, residential properties to the east, and a residential property to the west (see Figure 2-Site Plan with Adjacent Properties). The boundaries of the Site are more fully described in Appendix A-Environmental Easement. The owner of the Site parcel at the time of issuance of this SMP is the Village of Manchester.

2.2 Physical Setting

2.2.1 Land Use

The Site currently consists of a grass/vegetation covered lot. The Site is zoned residential/commercial and it is currently vacant.

The properties adjoining the Site, and in the neighborhood surrounding the Site, include industrial, commercial and residential properties. The properties immediately south of the Site include a utility ROW with industrial property beyond; the properties immediately north of the Site include commercial and residential properties; the properties immediately east of the Site include residential properties; and the properties to the west of the Site include residential properties.

2.2.2 Geology

As described in the report titled *Site Investigation/Remedial Alternatives Report, Frederick Property Environmental Restoration Project, 147 State Street, NYSDEC Site B00131-8, Manchester, New York* dated September 2003 (SI/RAR), limestone bedrock is present beneath the Site at a depth of approximately 10 feet (i.e., varying in depth from about 8.5 to 11.5 feet). The overburden at the Site is comprised of a 6 inch to 1 foot thick layer of topsoil or fill depending on the location at the ground surface. [Note: In locations where contaminated soil was removed during remedial activities conducted at the Site, fill material (i.e., typically fine to coarse sand intermixed with gravel) extends to depths of about 5 feet (ft.) to 9 ft. below ground surface (bgs).] Indigenous soil beneath the topsoil or fill was described in the SI/RAR as dark brown clayey silt varying in thickness from 18 inches to 3 ft. above a 6 inch to 18 inch layer of brown medium sand. Glacial till, which overlays the bedrock was described in the SI/RAR as gray brown sandy silt with a trace of gravel.

A Site Plan showing test boring/monitoring well locations is included as Figure 3. Geologic cross sections are shown a Figure 4 and Figure 5 (refer to Figure 6 for cross section locations). Copies of test boring logs describing subsurface conditions at the Site are provided in Appendix C.

2.2.3 Hydrogeology

Eight overburden monitoring wells (designated MW-1 through MW-6, MW-A and GP-108/P-102) and three bedrock monitoring wells (i.e., designated RW-1 through RW-3) have been constructed, and remain, at the Site. The location of these monitoring wells is depicted on Figure 3. The depth to groundwater in the overburden monitoring wells, measured in July 2018, ranged between approximately 4.66 ft. bgs (i.e., GP-108/P-102) to approximately 7.75 ft. bgs (i.e., MW-A). Depths to groundwater in the bedrock monitoring wells, measured in July 2018, ranged between approximately 6.72 ft. bgs (i.e., RW-3) to approximately 8.04 ft. bgs (i.e., RW-1). Based on the depth to groundwater measurements made in July 2018, overburden groundwater flow across the Site is generally toward the east or southeast and shallow bedrock groundwater flow across the Site is generally toward the northwest.

As described in the SI/RAR, hydraulic conductivity (k) values in overburden groundwater monitoring wells, evaluated in October 2003, ranged between 0.3 feet per day and 3 feet per day. Hydraulic conductivity (k) values in bedrock groundwater monitoring wells, evaluated during the same time period, were calculated to be 7 feet per day.

A groundwater contour map based on groundwater levels measured in July 2018 is shown in Figure 7. Groundwater monitoring well construction logs for the overburden and bedrock monitoring wells identified in this section are provided in Appendix C. [Note: Monitoring wells MW-7 and GP-110/P-103, have been abandoned or are no longer functional.]

2.3 Investigation and Remedial History

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site. Full titles for each of the reports referenced below are provided in Section 6.0 - References.

Between the 1930s and 1960s, when operations ceased, the Frederick Property was used as an automobile repair, service and gasoline fueling facility. The Site was developed with an approximate 1,200 square foot concrete block structure that contained two hydraulic lifts with underground storage tanks (USTs) to the west of the building and a fuel pump island to the north of the building. A dry well was located south of the building, and drains in the building were connected to this dry well by buried pipes.

The Village of Manchester obtained ownership of the Frederick Property in 1999, and subsequently entered into the ERP administered by the NYSDEC to evaluate and remediate the Site as necessary. Between 2000 and 2003, various studies were completed to characterize environmental conditions at the Site and to identify potential remedial actions. The studies completed and the findings/conclusions are summarized in the SI/RAR a report. In conjunction with the above studies, an Interim Remedial Measure (IRM) was conducted in 2000 and 2001 to remove the USTs and petroleum-impacted soil adjacent to the tanks.

The NYSDEC, in consultation with the New York State Department of Health (NYSDOH), selected a remedy for the Site. This remedy is described in a 2004 Record of Decision (ROD), and it included:

- Demolition of the building and the removal of the floor drainage piping, in-ground hydraulic lift units, and environmentally impacted soil;
- removal of the dry well and environmentally impacted soil;
- removal of soil containing concentrations of constituents that exceeded applicable Standards, Criteria, and Guidance (SCGs) to preclude adverse impacts (i.e., generally to achieve a Restricted Residential Use Soil Cleanup Objective (SCO)];
- development of a SMP describing monitoring to document the effectiveness of the remediation and presenting procedures to address environmental impacts that could be encountered during future redevelopment or maintenance of the Site;
- annual certification, prepared and submitted by a professional engineer or environmental professional, which will certify that the institutional and engineering controls put in place are unchanged from the previous certification and nothing has occurred that will impair the ability of the control to protect public health or the environment or constitute a violation or failure to comply with any operation and maintenance or site management plan; and
- implementation of institutional controls to restrict the use of groundwater and prevent vapor intrusion into buildings constructed on the Site in the future.

In 2005, the building was demolished and removed from the Site although some features remained including the building foundation, the concrete slabs for the building and the pump island, the dry well and associated piping. In 2006 and 2007, the concrete pads, hydraulic lift system and dry well were removed. In conjunction with this work, contaminated soil was removed replaced with imported fill material.

Following the removal of structures associated with former operations conducted at the Site (e.g., USTs, in-ground hydraulic lifts, a dry well, concrete pads and footers) and contaminated soil, 'clean' backfill was placed and compacted (refer to 2016 FER) in the resulting excavations. Subsequently, a minimum of three inches of topsoil was reportedly placed above the backfill and grass seed, fertilizer and mulch was added. In June 2018, the Site was observed to be entirely covered with grass with field grass/weeds near the southern boundary. As such, exposure to remaining contamination in soil/fill at the Site is prevented by this soil cover system.

To assess the effectiveness of the remediation completed at the Site, groundwater samples were collected from monitoring wells designated MW-2, MW-3, MW-4, MW-5, MW-6, RW-1, RW-2 and RW-3 (refer to Figure 3 for the location of these monitoring wells). The samples collected, and associated Quality Assurance/Quality Control (QA/QC) samples, were

submitted to an analytical laboratory and tested for target compound list (TCL) plus CP-51 List volatile organic compounds (VOCs) and TCL plus CP-51 List semi-volatile organic compounds (SVOCs). As of the date of this report, groundwater samples have been collected from the above monitoring wells and tested on three occasions (i.e., August 22, 2007, December 22, 2009, and September 27, 2017).

Clark Patterson Lee (CPL) prepared a FER that was submitted to the NYSDEC in 2010. After addressing NYSDEC comments to the FER, CPL revised the document and submitted the 2016 FER.

The NYSDEC issued a disapproval letter dated January 9, 2017 that identified various deficiencies in the 2016 FER, and required that supplemental studies be conducted at the Site. CPL prepared a Supplemental Work Plan dated February 2017 revised May 2017 (the 2017 SWP). The supplemental studies described in the 2017 SWP included the advancement of seven testing borings, testing of select soil samples retained from the test borings and sampling/testing of nine existing groundwater monitoring wells. This work was conducted in August/September 2017; the findings of the work completed are summarized in a report titled *Frederick Property Environmental Restoration Project, NYSDEC Site B00131-8, 147 State Street, Manchester, New York* prepared by Empire GeoServices, Inc. dated October 3, 2017. [Note: During this work, evidence of apparent petroleum impact was identified beginning at a depth of about 8 to 10 ft. bgs (i.e., in proximity to the gasoline pump island that was removed in 2006).]

The NYSDEC reviewed the findings of the 2017 studies and provided a letter dated November 16, 2017 stating that the apparent petroleum impact identified in August/September 2017 in proximity to the former gasoline pump island is indicative of 'grossly contaminated media' as defined in the NYSDEC document DER-10. The NYSDEC concluded that further delineation was required to assess the nature and extent of this apparent petroleum impact and the need for subsequent remediation. The November 16, 2017, NYSDEC letter further requested that a work plan pursuant to completing an investigation at the Site for the purposes of defining the extent of 'grossly contaminated media' and determine if additional remediation and/or monitoring are warranted.

The Village of Manchester retained DAY to complete the additional studies requested by the NYSDEC and to prepare a revised FER. DAY initially prepared an Investigation Work Plan (IWP) describing the proposed actins to evaluate the nature and extent of grossly contaminated media identified in 2017 studies (i.e., the 2018 IWP). The 2018 IWP was approved by the NYSDEC on May 21, 2018, and a supplemental investigation was conducted at the Site between June 20, 2018 and July 2, 2018. The results of the investigation were summarized in a document titled *NYSDEC Site #B00131 (Frederick Property), 147 State Street, Manchester, New York,*

Data Package for Supplementary Studies: June 2018 prepared by DAY (2018 Supplementary Studies Report), which was submitted to the NYSDEC on July 26, 2018. The NYSDEC reviewed the findings of the 2018 studies and concluded in a letter dated September 5, 2018 that "further remediation at the Site is not needed at this time."

2.4 Remedial Action Objectives

As presented in Section 6 of the March 2004 ROD, the following Remedial Action Objectives (RAOs) were identified for the Site.

2.4.1 Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

2.4.2 Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

2.5 Remaining Contamination

The following sections describe contamination identified during the post-remediation, which remains at the Site subsequent to the completion of the implementation of remedial activities. The remaining contamination is discussed by media in which it was encountered.

2.5.1 Soil

Tables 2 through 5 summarize the results of confirmatory soil sample test results. These samples were collected following the completion of remedial activities conducted at the Site. As shown on the tables, several constituents were measured in the confirmatory soil samples at concentrations that exceed the Unrestricted Use SCOs. However based upon the testing completed subsequent to the remedial activities completed between 2000 and 2006 and the samples collected/tested during the supplementary studies completed in 2017 and 2018, no constituents were measured at concentrations that exceeded Restricted Residential Use SCO.

The following confirmatory soil samples contained concentrations of select constituents that exceed the Unrestricted Use SCO:

- Gas Tank Excavation West Wall-South: acetone [refer to Final Engineering Report dated November 2010 (Revised November 2016) prepared by Clark Patterson Lee (the 2016 FER) for sample location and Table 2 for test results]
- Gas Tank Excavation East Wall-South: acetone (refer to the 2016 FER for sample location and Table 2 for test results)
- Gas Tank Excavation East Wall-North: m,p-xylenes and o-xylene (refer to the 2016 FER for sample location and Table 2 for test results)
- SB-3 (10’-12’): ethylbenzene, m,p-xylenes, and o-xylene (refer to Figure 6 for sample

location and Table 2A for test results)

- TB-206A (10'-11'): m,p-xylenes, and o-xylene (refer to Figure 6 for sample location and Table 2A for test results)

- TB-207: 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, toluene, m,p-xylenes, and n-propylbenzene (refer to Figure 6 for sample location and Table 2A for test results)

- SB-7 (2"-12") and SB-7 (12"-24"): 4,4'-DDD and 4,4'-DDT (refer to Figure 6 for sample location and Table 5 for test results)

- SB-6 (0-2") and SB-6 (12"-24"): 4,4'-DDT (refer to Figure 6 for sample location and Table 2A for test results)

Note: Each of the confirmatory soil samples collected following the soil removal completed in 2006 contained a selenium concentration that exceeds the Unrestricted Use SCO (refer to Table 4). However, selenium was not detected at concentrations exceeding the Unrestricted Use in any of the other samples tested. Therefore it is not known if the selenium concentrations reported are incorrect or attributable to natural conditions.

A demarcation layer was not installed following the removal of contaminated material that was completed between 2000 and 2006. As such, the locations where concentrations of VOCs and pesticides remain that exceed the Unrestricted SCO are not known. However, 4,4'-DDE and 4,4'-DDT may be present at concentration in excess of the Unrestricted Use SCO in proximity of test borings SB-6 and SB-7 (i.e., most likely between the ground surface and 24-inches bgs). The testing completed in 2017 and 2018 suggests that soil below approximately 10 ft. in proximity of SB-3, TB-206A and TB-207 likely contains concentrations of select VOCs that exceed the Unrestricted Use SCO.

2.5.2 Groundwater

Table 6 and Table 7 summarize the results of all samples of groundwater that exceed the SCGs after completion of the remedial action. Evidence of free product was reportedly encountered on the groundwater surface (i.e., at a depth of 10.5 ft. bgs) during the advancement of test boring SB-3. Free product not encountered during the advancement of test borings completed on June 20, 2018 (i.e., located in proximity of test boring SB-3) or within monitoring well MW-A, which was installed in the reported location of SB-3. However, as presented on

Table 6 and Table 7 a sample collected from MW-A on July 2, 2018 contained various VOCs, and the SVOC naphthalene that exceed the NYSDEC standard and/or guidance values presented in NYSDEC TOGS 1.1.1 dated June 1998 as amended in January 1999, April 2000, and June 2004 (i.e., TOGs 1.1.1).

Since some contaminated soil and groundwater remains beneath the Site after completion of the Remedial Action, therefore, ICs and ECs are required to protect human health and the environment. These ICs and ECs are described in the following sections of this SMP.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

Since remaining contamination exists at the Site, ICs and ECs are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all ICs/ECs at the Site. The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC.

This plan provides:

- A description of all ICs/ECs on the Site;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- A description of plans and procedures to be followed for implementation of ICs, such as the implementation of the EWP (as provided in Appendix E for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the ICs/ECs required by the site remedy, as determined by the NYSDEC.

3.2 Institutional Controls

A series of ICs is required by the ROD, to: (1) prevent future exposure to remaining contamination; and, (2) limit the use and development of the Site to restricted residential, commercial and industrial uses only. Adherence to these ICs on the Site is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the

Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries are shown on Figure 2. These ICs are:

- The property may be used for: restricted residential, commercial, industrial use;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Ontario Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Access to the Site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 2, and appropriate actions to address exposures must be implemented; and
- Vegetable gardens and farming on the Site are prohibited;

3.3 Engineering Controls

Exposure to remaining contamination at the Site is prevented by a cover system placed over the Site. This cover system is comprised of a minimum of two feet of clean fill material/clean topsoil. Figure 6 presents the location of the cover system. Figure 4 and Figure 5 presents the construction of the topsoil cover system based on the 2017 and 2018 studies. The EWP provided in Appendix E outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection of this cover are provided in the Monitoring and Sampling Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a

Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) prepared for the Site and provided in Appendix H.

3.4 Site-Wide Inspection

Site-wide inspections will be performed at a minimum of once per year. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect the remaining contamination or ECs at the Site. A comprehensive site-wide inspection will be conducted and documented according to the SMP schedule, regardless of the frequency of the Periodic Review Report.

During an inspection, an inspection form will be completed as provided in Appendix D-Site Management Forms. The inspections will determine and document the following:

- Compliance with all ICs, including Site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General Site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement; and
- If site records are complete and up to date.

Inspections of all remedial components installed at the Site will be conducted. A comprehensive site-wide inspection will be conducted and documented according to the SMP schedule, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria; and

If site records are complete and up to date; and

- Reporting requirements are outlined in Section 5.0 of this plan.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, verbal notice to the NYSDEC must be given by noon of the following day. An inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the ICs/ECs implemented at the Site by a qualified environmental professional, as determined by the NYSDEC. Written confirmation must be provided to the NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

4.0 PERIODIC ASSESSMENTS/EVALUATIONS

4.1 Climate Change Vulnerability Assessment

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that the Site is prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

This section provides a summary of vulnerability assessments that will be conducted for the Site during periodic assessments, and briefly summarizes the vulnerability of the Site and/or engineering controls to severe storms/weather events and associated flooding.

- Flood Plain: Based on review of a Flood Insurance Rate Map for a portion of the Village of Manchester, NY (Community Panel 361014B effective date January 20, 1984) acquired from the online FEMA Flood map services Center, the Site is identified with Zone C designation. Zone C is defined as “Area of minimal flood hazard”. As such, the Site is considered outside the 500-year floodplain.
- Site Drainage and Storm Water Management: The existing Site is undeveloped and does not contain site drainage or storm water management infrastructure.
- Erosion: The majority of the Site is covered by low vegetation (i.e., grass). The grade of the Site is such that erosion should not occur during periods of severe rain events.
- High Wind: The majority of the Site is covered by low vegetation (i.e., grass). Remedial system components are not susceptible to damage from the wind itself or falling objects, such as trees or utility structures during periods of high wind.
- Electricity: The Site does not contain remedial components or engineering controls that depend on electricity and therefore is not susceptible to power loss and/or dips/surges in voltage during severe weather events, including lightning strikes.

- Spill/Contaminant Release: No areas of the Site and/or remedial system are anticipated to be susceptible to a spill or other contaminant release due to storm-related damage caused by flooding, erosion, high winds, loss of power etc.

4.2 Soil Vapor Intrusion Evaluation

A soil vapor intrusion evaluation must be performed upon a change in use of the property that will result in occupancy of a new building. The breadth of this evaluation will be determined based upon discussion with the NYSDEC Project manager and NYSDOH. Based upon these discussion and agency requirements, a work plan may need to be developed that requires that sampling to be performed. At a minimum, a soil vapor intrusion sampling work plan is anticipated to include the following information:

- A figure showing the soil vapor intrusion sample locations;
- Discussion of soil vapor sample depths;
- A table of sample locations and analytical parameters to be analyzed along with the minimum reporting limits to be achieved by the NYS ELAP-certified laboratory;

Upon completion of the evaluation, if an action is required, any actions taken or to be taken must be reflected in an updated SMP.

4.3 Post-Remediation Media Monitoring and Sampling

Groundwater monitoring will be performed annually to assess the performance of the remedy. [Note: As of the date of this SMP, post-remediation groundwater sampling has been conducted on August 22, 2007, December 22, 2009 and September 27, 2017.] Modification to the frequency or sampling requirements will require approval from the NYSDEC.

Refer to Figure 3 for a Site plan showing the location of each monitoring well associated with the Site. The encountered lithology types, monitoring well screened intervals, and monitoring well installation depths are presented on the test boring and monitoring well construction logs included in Appendix C. Although groundwater elevations may vary seasonally, the groundwater flow patterns presented on Figure 7 indicate that overburden groundwater flow is generally toward the southeast while bedrock groundwater flow is generally to the northwest.

As part of the groundwater monitoring, ten on-site wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, RW-1, RW-2, RW-3 and MW-A) will be sampled and tested to evaluate the effectiveness of the remediation completed on an annual basis. As of January 2019, post-remedial groundwater monitoring has been conducted at the Site on three occasions since 2007 and monitoring well MW-A contains the greatest concentration of residual petroleum VOC contaminants.

Monitoring well sampling activities will be completed in accordance with the procedures outlined in Appendix F-Field Sampling Plan and applicable procedures presented in Appendix G - Quality Assurance Project Plan (QAPP).

The samples will be transported under chain-of custody control to a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory, and will be tested for the following parameters:

- TCL/CP-51 VOCs using United States Environmental Protection Agency (USEPA) Target Compound List and NYSDEC Commissioner Policy (CP) List VOCs by USEPA Method 8260B.
- TCL/CP-51 SVOCs using USEPA Target Compound List and NYSDEC CP-List SVOCs by USEPA Method 8270C.

The analytical laboratory will provide an ASP Category A data package unless otherwise directed by the NYSDEC (e.g., decommissioning well). When requested an ASP Category B data package will be provided and an independent party will be retained to review the data generated by the analytical laboratory and to prepare a Data Usability Summary Report (DUSR). Following receipt of the DUSR, the validated data will be input into the EQUIS database. Refer to the QAPP requirements included in Appendix G.

If biofouling or silt accumulation occurs in the monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced, if an event renders the wells unusable. Repairs and/or

replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC. Well abandonment will be performed in accordance with NYSDEC's guidance entitled, "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC.

The sampling frequency may only be modified with the approval of the NYSDEC. This SMP will be modified to reflect changes in sampling plans approved by the NYSDEC.

Deliverables for the groundwater monitoring program are specified in Section 5.0-Reporting Requirements.

5.0. REPORTING REQUIREMENTS

5.1 Site Management Reports

All site management inspection events will be recorded on the appropriate site management forms provided in Appendix D. These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including media sampling data generated for the Site during the reporting period will be provided in electronic format to the NYSDEC. Table 5.1 presents the submittal schedule of monitoring and inspection reports to be prepared for the Site as part of this SMP.

Table 5.1: Schedule of Monitoring/Inspection Reports

Task/Report	**Reporting Frequency***
Inspection Report (Site Cover)	Annually
Periodic Review Report	Annually
Groundwater Monitoring Results Letter	Annually

* The frequency of events will be conducted as specified until otherwise modified by the NYSDEC.

All inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);

- Copies of field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sampling type and sample locations;
- Copies of laboratory data sheets and the required laboratory data deliverables required for points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether contaminant conditions have changed since the last reporting event.

If required, non-routine event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Description of non-routine activities performed; and
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet).

5.2 Periodic Review Report

The Periodic Review Report (PRR) will consist only of the certification as specified in Section 5.2.1 except in the event where there have been changes to the Site or data gathered during the certifying period. Given such an event, the submittal of a comprehensive PRR will be necessary, as specified below.

An initial PRR will be submitted to the Department beginning 30 days after the initial 15 month certifying period. This initial certifying period commences upon issuance of the Certificate of Completion is issued. After submittal of the initial Periodic Review Report, the next PRR shall be submitted annually thereafter to the Department or at another frequency as may be subsequently required by the Department. In the event that the Site is subdivided into separate parcels with different ownership, a single PRR will be prepared that addresses the Site described in Appendix A -Environmental Easement. The report will be prepared in general

accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. Media sampling results will also be incorporated into the PRR.

The PRR will include:

- Identification, assessment and certification of all ICs/ECs required by the remedy for the Site.
- Results of the required annual site inspections and severe condition inspections, if applicable.
- All applicable site management forms and other records generated for the Site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- A summary of any data and/or information generated during the reporting period, with comments and conclusions, if any
- A site evaluation, which includes the following:
  - The compliance of the remedy with the requirements of the site-specific RWP, ROD or Decision Document;
  - Any new conclusions or observations regarding site contamination based on inspections or data generated;
  - Recommendations regarding any necessary changes to the remedy; and
  - The overall performance and effectiveness of the remedy.

5.2.1 Certification of Institutional and Engineering Controls

Within 30 days after the end of each certifying period, as determined by the NYSDEC, the following certification will be provided to the Department:

"For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- *The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*

- *The institutional control and/or engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;*

- *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*

- *Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;*

- *Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;*

- *If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;*

- *Use of the Site is compliant with the environmental easement;*

- *The engineering control systems are performing as designed and are effective;*

- *To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program and generally accepted engineering practices; and*

- *The information presented in this report is accurate and complete.*

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as Village of Manchester for the Site."

- *No new information has come to my attention, including groundwater monitoring data from wells located at the site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid; and*

- *The assumptions made in the qualitative exposure assessment remain valid.*

The signed certification will be included in the PRR, if such report is required for the period. Otherwise, the Certification will be submitted as a stand-alone document.

The PRR/Certification will be submitted, in electronic format, to the NYSDEC Central Office, the NYSDEC Regional Office in which the Site is located and the NYSDOH Bureau of Environmental Exposure Investigation. The PRR/Certification may need to be submitted in hard-copy format, as requested by the NYSDEC project manager.

5.3 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a Corrective Measures Work Plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC. Upon completion of the Corrective Measure, a signed certification form must be submitted to the Department.

6.0 REFERENCES

6NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

NYSDEC DER-10 – "Technical Guidance for Site Investigation and Remediation".

NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).

Site Investigation/Remedial Alternatives Report, Frederick Property Environmental Restoration Project, 147 State Street, NYSDEC Site B00131-8, Manchester, New York dated September 2003.

Environmental Restoration, Record of Decision, Frederick Property, Village of Manchester, Ontario County, New York, Site Number B-00131-8, prepared by NYSDEC dated March 2004.

Final Engineering Report, Frederick Property Environmental Restoration Project, 147 State Street, NYSDEC Site B00131-8, Manchester, New York, prepared by Clark, Patterson, Lee dated November 2010 (Revised November 2016)

Frederick Property Environmental Restoration Project, NYSDEC Site B00131-8, 147 State Street, Manchester, New York prepared by Empire GeoServices, Inc. dated October 3, 2017

Investigation Work Plan, 147 State Street, Manchester, New York, NYSDEC ERP Site #B00131, prepared by Day Engineering P.C. dated April 2018

NYSDEC Site #B00131 (Frederick Property), 147 State Street, Manchester, New York, Data Package for Supplementary Studies: June 2018 prepared by Day Engineering P.C.

Final Engineering Report, Frederick Property, Ontario County, Manchester, New York NYSDEC Site Number: B00131 dated December 2018 prepared by Day Environmental Inc.

TABLES

TABLE 2
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER NEW YORK
NYSDEC SITE # B00131

SUMMARY OF DETECTED VOCS: CONFIRMATORY SOIL SAMPLES
UST REMOVAL IRMs COMPLETED IN 11/00 and 9/01
and SITE REMEDIATION COMPLETED IN 9/06

Compound	Unrestricted Use SCO[(1)]	Restricted Residential Use SCO[(2)]	Sample Designation and Date																
			Waste Oil Tank Exc., Bottom	Waste Oil Tank Exc., Sidewall Comp.	Gas Tank Exc. West Wall-South	Gas Tank Exc. East Wall-South	Gas Tank Exc. South Wall	Gas Tank Exc. East Wall-North	Gas Tank Exc. NorthWall	Gas Tank Exc. West Wall-North	Bottom South Tank	Bottom Middle Tank	South Wall	North Wall	Bottom North Tank	East Wall-South	East Wall-North	West Wall-North	West Wall-South
			11/1/2000	11/1/2000	11/2/2000	11/2/2000	11/2/2000	11/3/2000	11/3/2000	11/3/2000	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001
Acetone	0.05	100	ND	ND	**0.116**	**0.0746**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	52	ND	ND	ND	ND	ND	3.27	0.0263	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3,5-Trimethylbenzene	8.4	52	ND	ND	ND	ND	ND	1.14	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT
4-Isopropyltoluene	NS	NS	ND	ND	ND	ND	ND	0.201	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT
Ethylbenzene	1	41	ND	ND	ND	ND	ND	0.217	ND	ND	ND	ND	ND	ND	0.0123	ND	ND	ND	ND
Isopropylbenzene	2.3	NS	ND	ND	ND	ND	ND	0.121	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT
m,p-Xylenes*	0.26	100	ND	ND	ND	ND	ND	**1.65**	ND	ND	ND	ND	ND	ND	0.0375	ND	ND	ND	ND
n-Butylbenzene	12	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3.9	100	ND	ND	ND	ND	ND	0.304	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	12	100	ND	ND	ND	ND	ND	0.275	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT
o-Xylene*	0.26	100	ND	ND	ND	ND	ND	**0.278**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	11	100	ND	ND	ND	ND	ND	0.0684	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT
tert-Butylbenzene	5.9	100	ND	ND	ND	ND	ND	0.337	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT

Compound	Unrestricted Use SCO[(1)]	Restricted Residential Use SCO[(2)]	Sample Designation and Date														
			South 8'	South-Dry Well 6'	North 7.5'	Dry Well North 7'	East 7.5'	Dry Well East 6'	West 8'	Dry Well West 6'	Bottom 10'	Dry Well Bottom 7.5'	Parking NW 7'	Parking East 7'	Parking N Wall 6'	Parking Bottom 9'	Parking NE Corner 7'	Parking W Sidewall 6'
			9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006
Acetone	0.05	100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4-Trimethylbenzene	3.6	52	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11	ND	ND	ND	ND	0.34
1,3,5-Trimethylbenzene	8.4	52	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.04	ND	ND	ND	ND	ND
4-Isopropyltoluene	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.056	ND	ND	ND	ND	ND
Ethylbenzene	1	41	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	2.3	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.013	ND	ND	ND	ND	ND
m,p-Xylenes*	0.26	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	12	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.028	ND	ND	ND	ND	ND
n-Propylbenzene	3.9	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.024	ND	ND	ND	ND	ND
Naphthalene	12	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.029	ND	ND	ND	ND	0.34
o-Xylene*	0.26	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	11	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.017	ND	ND	ND	ND	ND
tert-Butylbenzene	5.9	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES

Results and SCOs are presented in milligrams per kilogram (mg/kg) or parts per million (ppm).

(1) = Soil Cleanup Objective (SCO) for Unrestricted Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

(2) = Soil Cleanup Objective (SCO) for Restricted Residential Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

VOCs = Volatile Organic Compounds

IRM = Interim remedial measure

ND = Not Detected at a concentration greater than the detection limit reported by the analytical laboratory

NT = Not Tested

* SCO for mixed xylenes, including the sum of m,p-xylenes and o-xylene

Highlighted value exceeds the Unrestricted Use SCO

Highlighted value exceeds the Restricted Residential Use SCO

TABLE 2A
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER NEW YORK
NYSDEC SITE # B00131
SUMMARY OF DETECTED VOCS PLUS TICS: SOIL SAMPLES
COLLECTED DURING SUPPLEMENTARY STUDIES COMPLETED BETWEEN AUGUST 2017 AND JUNE 2018

Compound	Unrestricted Use SCO[(1)]	Restricted Residential Use SCO[(2)]	Sample Designation and Date													
			South Building	North East	North West	West	Lift	Dry Well	SB-1 (0-2")	SB-1 (2-12")	SB-1 (12-24")	SB-3	SB-1A (12-24")	SB-2	SB-4	SB-7 (0-2")
			02/01/07	02/01/07	02/01/07	02/01/07	02/01/07	02/01/07	08/31/17	08/31/17	08/31/17	08/31/17	08/31/17	09/01/17	09/01/17	09/01/17
Acetone	0.05	100	0.0069 J	0.0028 J	0.0051 J	0.0035 J	ND	0.0037 J	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8.4	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.06	4.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.045 J	ND	ND
Carbon disulfide	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.1 J	ND	ND	ND	ND
Cyclohexane	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	15 J	ND	ND	ND	ND
Ethylbenzene	1	41	ND	ND	ND	ND	ND	ND	ND	ND	ND	**17**	ND	0.11	ND	ND
Isopropylbenzene	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.5**	ND	0.031 J	ND	ND
Methylcyclohexane	NS	NS	ND	ND	0.0006 J	ND	ND	0.00037 J	ND	ND	ND	18	ND	0.26	ND	ND
Methylene Chloride	0.05	100	0.00053 J	0.00044 J	0.00051 J	ND	ND	0.0006 J	ND	ND	ND	ND	ND	ND	0.002 J	ND
Toluene	0.7	100	ND	0.00056 J	0.00042 J	0.0006 J	ND	0.00093 J	ND	ND	ND	0.65 J	ND	ND	ND	ND
m,p-Xylenes	0.26*	100*	ND	ND	ND	ND	ND	0.00013 J	ND	ND	ND	**68**	0.00042 J	0.13	ND	ND
n-Butylbenzene	12	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	3.9	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	0.26*	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.1**	ND	ND	ND	ND
sec-Butylbenzene	11	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5.9	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	0.047	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0007 J	0.00079 J
Total TICs	NS	NS	NT	NT	NT	NT	NT	NT				306.1				

Compound	Unrestricted Use SCO[(1)]	Restricted Residential Use SCO[(2)]	Sample Designation and Date													
			SB-7 (2-12")	SB-7 (12-24")	SB-7	SB-6 (0-2")	SB-6 (2-12")	SB-6 (12-24")	SB-6	SB-5	SB-1B	TB-202 (12')	TB-204 (8'-9')	TB-206A (10'-11')	TB-207 (10'-11')	TB-208 (9')
			09/01/17	09/01/17	09/01/17	09/05/17	09/05/17	09/05/17	09/05/17	09/05/17	09/05/17	06/20/18	06/20/18	06/20/18	06/20/18	06/20/18
Acetone	0.05	100	ND	ND	ND	ND	ND	ND	ND	ND	0.0056 J	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	3.6	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.044	0.0095	1.90 D	**45 D**	0.0019 J
1,3,5-Trimethylbenzene	8.4	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.004	0.0057	0.093	**14 D**	0.003
4-Isopropyltoluene	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.006	0.0036 J	0.0046	0.620 D	0.0009 J
Benzene	0.06	4.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0013 J	ND	0.0038	ND	0.00064 J
Bromomethane	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.091	0.360 D	0.110	30 D	0.036
Ethylbenzene	1	41	ND	0.00017 J	ND	ND	ND	ND	ND	ND	ND	0.0011 J	0.0041	0.004	**15 D**	ND
Isopropylbenzene	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.016	0.030	0.076	2 D	0.0017 J
Methylcyclohexane	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.071	0.190	0.084	17 D	0.041
Methylene Chloride	0.05	100	ND	ND	0.0014 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0012 J	0.00081 J	0.0039	**26 D**	0.0024 J
m,p-Xylenes	0.26*	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0065 J	0.017	**0.750 D**	**26 D**	0.0023 J
n-Butylbenzene	12	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.021	0.0044	0.0085	1.5 D	0.0051
n-Propylbenzene	3.9	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.056	0.096	0.430	**6.9 D**	0.007
o-Xylene	0.26*	100*	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00081 J	0.004	**0.0095**	ND	0.00052 J
sec-Butylbenzene	11	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.014	0.018	0.01	0.85 D	0.0045
tert-Butylbenzene	5.9	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0006 J	0.00011 J	0.010	ND (0.22)	0.00067 J
Trichloroethene	0.047	21	0.00084 J	0.00061 J	0.00032 J	0.00042 J	0.00036 J	ND	ND	0.00041 J	ND	ND	ND	ND	ND	ND
Total TICs	NS	NS										ND	3.162	2.553	296.4	1.355

NOTES

Results, SCOs and SCLs are presented in milligrams per kilogram (mg/kg) or parts per million (ppm).

(1) = Soil Cleanup Objective (SCO) for Unrestricted Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

(2) = Soil Cleanup Objective (SCO) for Restricted Residential Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

*SCL and SCO for mixed xylenes, including the sum of m,p-xylenes and o-xylene

VOCs = Volatile Organic Compounds

TICs = Tentatively Identified Compounds

ND = Not Detected at a concentration greater than the detection limit reported by the analytical laboratory

Highlighted value exceeds the Unrestricted Use SCO

NS = No Standard

D = Concentration following sample dilution

Highlighted value exceeds the Restricted Residential U

TABLE 3
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER NEW YORK
NYSDEC SITE # B00131
SUMMARY OF DETECTED SVOCS: CONFIRMATORY SOIL SAMPLES
UST REMOVAL IRMs COMPLETED IN NOVEMBER 2000 and SEPTEMBER 2001 and
SITE REMEDIATION COMPLETED IN SEPTEMBER 2006

Compound	Unrestricted Use SCO[1]	Restricted Residential Use SCO[2]	Sample Designation and Date																
			Waste Oil Tank Exc., Bottom	Waste Oil Tank Exc., Sidewall Comp.	Gas Tank Exc. West Wall-South	Gas Tank Exc. East Wall-South	Gas Tank Exc. South Wall	Gas Tank Exc. East Wall-North	Gas Tank Exc. NorthWall	Gas Tank Exc. West Wall-North	Bottom South Tank	Bottom Middle Tank	South Wall	North Wall	Bottom North Tank	East Wall-South	East Wall-North	West Wall-North	West Wall-South
			11/1/2000	11/1/2000	11/2/2000	11/2/2000	11/2/2000	11/3/2000	11/3/2000	11/3/2000	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001
Isophrone	NS	NS	ND	ND	ND	0.801	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NS	NS	ND	ND	ND	ND	ND	1.604	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	100	ND	ND	ND	ND	ND	1.432	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Compound	Unrestricted Use SCO[1]	Restricted Residential Use SCO[2]	Sample Designation and Date																
			South 8'	South-Dry Well 6'	North 7.5'	Dry Well North 7'	East 7.5'	Dry Well East 6'	West 8'	Dry Well West 6'	Bottom 10'	Dry Well Bottom 7.5'	Parking NW 7'	Parking East 7'	Parking N Wall 6'	Parking Bottom 9'	Parking NE Corner 7'	Parking W Sidewall 6'	
			9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	
Isophrone	NS	NS	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
2-Methylnaphthalene	NS	NS	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Naphthalene	12	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

NOTES

Results and SCOs are presented in milligrams per kilogram (mg/kg) or parts per million (ppm).

(1) = Soil Cleanup Objective (SCO) for Unrestricted Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

(3) = Soil Cleanup Objective (SCO) for Restricted Residential Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

SVOCs = Semi-Volatile Organic Compounds

IRM = Interim remedial measure

ND = Not Detected at a concentration greater than the detection limit reported by the analytical laboratory

NT = Not Tested

Highlighted value exceeds the Unrestricted Use SCO

Highlighted value exceeds the Restricted Residential Use SCO

TABLE 3A
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER NEW YORK
NYSDEC SITE # B00131
SUMMARY OF DETECTED NYSDEC SVOCS PLUS TICS : SOIL SAMPLES
COLLECTED DURING SUPPLEMENTARY STUDIES COMPLETED BETWEEN AUGUST 2017 AND JUNE 2018

Compound	Unrestricted Use SCO[(1)]	Restricted Residential Use SCO[(2)]	Sample Designation and Date													
			South Building	North East	North West	West	Lift	Dry Well	SB-1 (0-2")	SB-1 (2-12")	SB-1 (12-24")	SB-3	SB-1A (12-24")	SB-2	SB-4	SB-7 (0-2")
			02/01/07	02/01/07	02/01/07	02/01/07	02/01/07	02/01/07	08/31/17	08/31/17	08/31/17	08/31/17	08/31/17	09/01/17	09/01/17	09/01/17
2-Methylnaphthalene	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND	0.034 J	ND	ND
Acenaphthene	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzaldehyde	NS	NS	ND	ND	ND	ND	ND	ND	0.060 J	ND	ND	ND	ND	ND	ND	0.2 J
Benzo(a)anthracene	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.022 J
Benzo(a)pyrene	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.034 J
Benzo(ghi)perylene	1	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	1	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.020 J
Di-n-butylphthalate	NS	NS	ND	0.047 J	0.049 J	0.043 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	0.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	100	ND	ND	ND	ND	ND	ND	0.021 J	ND	ND	ND	ND	ND	ND	0.027 J
Fluorene	30	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.5	ND	0.045 J	ND	ND
Phenanthrene	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	100	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.024 J
Total TICs	NS	NS										54.53				

Compound	Unrestricted Use SCO[(1)]	Restricted Residential Use SCO[(2)]	Sample Designation and Date													
			SB-7 (2-12")	SB-7 (12-24")	SB-7	SB-6 (0-2")	SB-6 (2-12")	SB-6 (12-24")	SB-6	SB-5	SB-1B	TB-202 (12')	TB-204 (8'-9')	TB-206A (10'-11')	TB-207 (10'-11')	TB-208 (9')
			09/01/17	09/01/17	09/01/17	09/05/17	09/05/17	09/05/17	09/05/17	09/05/17	09/05/17	06/20/18	06/20/18	06/20/18	06/20/18	06/20/18
2-Methylnaphthalene	NS	NS	0.022 J	ND	ND	ND	ND	ND	ND	ND	ND	0.120 J	ND	ND	0.56	ND
Acenaphthene	100	100	0.029 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	100	100	0.071 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzaldehyde	NS	NS	0.089 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	1	1	0.49	0.085 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	1	1	0.57	0.088 J	ND	0.062 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	1	1	0.73	0.13	ND	0.061 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(ghi)perylene	1	100	0.28	0.05 J	ND	0.048 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	1	1	0.24	0.043 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NS	NS	0.022 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	1	1	0.43	0.076 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	0.33	0.08 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	100	0.6	0.11	ND	ND	0.024 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	30	100	0.021 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.34	0.059 J	ND	0.054 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12	100	0.033 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.56	ND
Phenanthrene	100	100	0.24	0.035 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	100	100	0.51	0.093 J	ND	ND	0.022 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total TICs	NS	NS										ND	ND	ND	ND	ND

NOTES

Results, SCOs and SCLs are presented in milligrams per kilogram (mg/kg) or parts per million (ppm).

(1) = Soil Cleanup Objective (SCO) for Unrestricted Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

(2) = Soil Cleanup Objective (SCO) for Restricted Residential Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

Highlighted value exceeds the Unrestricted Use SCO

SVOCs = Semi Volatile Organic Compounds

TICs = Tentatively Identified Compounds

NS = No Standard

J = Estimated Concentration

ND = Not Detected at a concentration greater than the detection limit reported by the analytical laboratory

Highlighted value exceeds the Restricted Residential Use SCO

TABLE 4
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER NEW YORK
NYSDEC SITE # B00131
SUMMARY OF DETECTED TAL METALS: CONFIRMATORY SOIL SAMPLES
UST REMOVAL IRMs: COMPLETED IN NOVEMBER 2000 AND SEPTEMBER 2001 and
SITE REMEDIATION COMPLETED IN SEPTEMBER 2006

Analyte	Unrestricted Use SCO[(1)]	Restricted Residential Use SCO[(2)]	Sample Designation and Date																
			Waste Oil Tank Exc., Bottom	Waste Oil Tank Exc., Sidewall Comp.	Gas Tank Exc. West Wall-South	Gas Tank Exc. East Wall-South	Gas Tank Exc. South Wall	Gas Tank Exc. East Wall-North	Gas Tank Exc. NorthWall	Gas Tank Exc. West Wall-North	Bottom South Tank	Bottom Middle Tank	South Wall	North Wall	Bottom North Tank	East Wall-South	East Wall-North	West Wall-North	West Wall-South
			11/1/2000	11/1/2000	11/2/2000	11/2/2000	11/2/2000	11/3/2000	11/3/2000	11/3/2000	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001	9/26/2001
Aluminum	NS	NS	17,170	21,871	19,136	7,332	7,138	9,540	5,399	6,558	NT	NT	NT	NT	NT	NT	NT	NT	NT
Arsenic	13	16	**13.3**	12.4	8.33	5.08	2.37	2.76	2.19	2.23	NT	NT	NT	NT	NT	NT	NT	NT	NT
Barium	350	400	115	156	94.4	27.4	39.7	74.3	42.4	53.1	NT	NT	NT	NT	NT	NT	NT	NT	NT
Beryllium	7.2	72	ND	ND	0.521	ND	ND	ND	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT
Calcium	NS	NS	9,565	3,706	5,210	76,626	72,503	62,102	74,445	76,254	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	30	110	21	25.2	22.8	10.9	10.2	13.1	8.64	9.6	NT	NT	NT	NT	NT	NT	NT	NT	NT
Cobalt	NS	NS	10.4	12.4	9.3	5.27	4.44	6.69	4.07	4.54	NT	NT	NT	NT	NT	NT	NT	NT	NT
Copper	50	270	28.9	36.2	34.7	17.1	10.5	15.7	9.45	13	NT	NT	NT	NT	NT	NT	NT	NT	NT
Iron	NA	NS	26,844	32,442	28,272	15,105	11,897	16,883	9,644	11,444	NT	NT	NT	NT	NT	NT	NT	NT	NT
Lead	63	400	59.9	20.7	15.6	9.87	6.28	30.2	4.64	4.72	ND	ND	ND	ND	23.8	ND	31.4	ND	ND
Magnesium	NS	NS	8,440	6,294	6,728	40,463	30,752	28,099	31,999	30,700	NT	NT	NT	NT	NT	NT	NT	NT	NT
Manganese	1,600	2,000	644	712	354	638	355	452	323	352	NT	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	0.18	0.81	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	30	310	22.1	26.9	25.1	11	9.51	14.5	8.37	9.52	NT	NT	NT	NT	NT	NT	NT	NT	NT
Potassium	NS	NS	3,120	3,645	3,457	2,558	2,772	2,562	1,913	2,344	NT	NT	NT	NT	NT	NT	NT	NT	NT
Selenium	3.9	180	ND	ND	ND	0.708	0.487	ND	0.711	ND	NT	NT	NT	NT	NT	NT	NT	NT	NT
Silver	2	180	1.41	1.81	1.3	1.02	0.779	ND	ND	0.841	NT	NT	NT	NT	NT	NT	NT	NT	NT
Sodium	NS	NS	ND	ND	165	114	85.9	295	224	132	NT	NT	NT	NT	NT	NT	NT	NT	NT
Thallium	NS	NS	1.14	2.16	1.78	1.06	ND	ND	ND	1	NT	NT	NT	NT	NT	NT	NT	NT	NT
Vanadium	NS	NS	33.3	38.8	35.1	20.9	17.5	21.1	13.6	15.7	NT	NT	NT	NT	NT	NT	NT	NT	NT
Zinc	109	10,000	85.9	88.8	92.7	43.8	24	36.1	19.9	19.8	NT	NT	NT	NT	NT	NT	NT	NT	NT

Analyte	Unrestricted Use SCO[(1)]	Restricted Residential Use SCO[(2)]	Sample Designation and Date															
			South 8'	South-Dry Well 6'	North 7.5'	Dry Well North 7'	East 7.5'	Dry Well East 6'	West 8'	Dry Well West 6'	Bottom 10'	Dry Well Bottom 7.5'	Parking NW 7'	Parking East 7'	Parking N Wall 6'	Parking Bottom 9'	Parking NE Corner 7'	Parking W Sidewall 6'
			9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/22/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006	9/27/2006
Aluminum	NS	NS	2,100	3,400	3,400	3,300	6,000	34,000	5,900	38,000	3,900	3,300	4,000	4,100	3,200	4,300	4,700	6,000
Arsenic	13	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	350	400	33	23	42	40	53	38	51	34	45	43	27	39	ND	40	39	43
Beryllium	7.2	72	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	NS	NS	63,000	80,000	84,000	85,000	75,000	76,000	36,000	79,000	84,000	73,000	72,000	68,000	76,000	78,000	98,000	56,000
Chromium	30	110	3.1	4.6	4.6	4.6	7.2	5	7.1	5.8	5.4	4.7	5.2	5.9	4.7	5.9	6.5	6.6
Cobalt	NS	NS	2.1	3.4	3.1	3.2	4.5	3.5	4.9	4.3	2.8	3.5	4.3	4	3.6	4	4.6	4.5
Copper	50	270	7.8	8.6	7.5	9.2	12	11	12	11	7.4	10	13	12	13	7	13	13
Iron	NA	NS	5,100	6,200	6,900	6,400	10,000	6,400	9,500	7,000	7,400	6,600	7,000	8,600	6,800	7,600	8,700	9,900
Lead	63	400	5.5	9	7.8	25	11	8.7	15	9	8.5	8	7.3	11	11	6.9	10	15
Magnesium	NS	NS	27,000	36,000	37,000	41,000	28,000	35,000	16,000	31,000	42,000	32,000	34,000	34,000	40,000	40,000	52,000	19,000
Manganese	1,600	2,000	300	350	320	310	340	300	280	440	340	300	310	250	330	280	440	440
Mercury	0.18	0.81	0.024	ND	0.026	0.035	ND	0.036	0.04	ND	ND	0.028	ND	ND	ND	ND	ND	ND
Nickel	30	310	3.6	7	6.6	6.2	10	7.2	11	8.1	6.2	7.4	8.3	8.5	7.5	7.4	8.4	8.4
Potassium	NS	NS	530	520	560	480	690	580	840	600	800	550	720	860	580	960	920	830
Selenium	3.9	180	**11**	**6.3**	**7.4**	**8.5**	**8.3**	**5.6**	**6.7**	**5**	**13**	**8.9**	**5.4**	**9.5**	**7.8**	**8.5**	**7.3**	**6.5**
Silver	2	180	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	NS	NS	300	250	390	260	300	250	380	290	420	250	420	440	350	430	470	490
Thallium	NS	NS	21	26	27	31	22	26	18	26	39	25	22	24	26	27	32	18
Vanadium	NS	NS	4	4.3	5.8	4.9	7.8	5	8.2	6.1	5.4	4.9	5.2	6.1	5	6.2	6.4	7.7
Zinc	109	10,000	19	27	160	31	45	34	45	26	80	27	34	36	63	28	41	56

NOTES

Results and SCOs are presented in milligrams per kilogram (mg/kg) or parts per million (ppm).

(1) = Soil Cleanup Objective (SCO) for Unrestricted Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

(3) = Soil Cleanup Objective (SCO) for Restricted Residential Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

IRM = Interim remedial measure

ND = Not Detected at a concentration greater than the detection limit reported by the analytical laboratory

NT = Not Tested

Highlighted value exceeds the Unrestricted Use SCO

Highlighted value exceeds the Restricted Residential Use SCO

TABLE 4A
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER NEW YORK
NYSDEC SITE # B00131
SUMMARY OF DETECTED TAL METALS: SOIL SAMPLES
COLLECTED DURING SUPPLEMENTAL STUDIES COMPLETED BETWEEN AUGUST 2017 AND JUNE 2018

Compound	Unrestricted Use SCO[1]	Restricted Residential Use SCO[2]	Sample Designation and Date													
			South Building	North East	North West	West	Lift	Dry Well	SB-1 (0-2")	SB-1 (2-12")	SB-1 (12-24")	SB-3	SB-1A (12-24")	SB-2	SB-4	SB-7 (0-2")
			02/01/07	02/01/07	02/01/07	02/01/07	02/01/07	02/01/07	08/31/17	08/31/17	08/31/17	08/31/17	08/31/17	09/01/17	09/01/17	09/01/17
Aluminum	NS	NS	NT	NT	NT	NT	NT	NT	6,150	3,760	2,380	2,860	2,500	3,410	3,510	5,020
Antimony	NS	NS	NT	NT	NT	NT	NT	NT	0.411	0.358	ND	ND	ND	ND	ND	ND
Arsenic	13	16	NT	NT	NT	NT	NT	NT	2.88	2.04	1.5	1.82	1.52	2.72	2.68	3.37
Barium	350	400	NT	NT	NT	NT	NT	NT	45.9	23.4	12.1	46.3	13.5	51.8	41.3	37.6
Beryllium	7.2	72	NT	NT	NT	NT	NT	NT	0.286	0.187	0.108	0.137	0.116	0.183	0.154	0.274
Cadmium	2.5	4.3	NT	NT	NT	NT	NT	NT	ND	ND	ND	ND	ND	0.225	0.231	0.425
Calcium	NS	NS	NT	NT	NT	NT	NT	NT	8,930	26,800	26,500	81,800	30,800	69,600	63,800	7,450
Chromium	30	180	NT	NT	NT	NT	NT	NT	8.71	5.68	4.1	5.46	3.94	6.51	6.48	6.55
Cobalt	NS	NS	NT	NT	NT	NT	NT	NT	4.18	2.81	2.09	2.88	2.11	3.27	3.38	3.41
Copper	50	270	NT	NT	NT	NT	NT	NT	11.5	10	9.39	8.78	10.4	9.5	9.2	9.63
Iron	NS	NS	NT	NT	NT	NT	NT	NT	11,300	7,950	6,050	7,110	6,490	8,020	8,140	8,930
Lead	63	400	NT	NT	NT	NT	NT	NT	9.12	5.37	3.75	6.97	4.03	4.88	4.58	22.1
Magnesium	NS	NS	NT	NT	NT	NT	NT	NT	4,830	12,300	13,400	34,200	16,300	30,300	23,600	4,340
Manganese	1,600	2,000	NT	NT	NT	NT	NT	NT	464	289	236	281	277	313	293	325
Mercury	0.18	0.81	NT	NT	NT	NT	NT	NT	0.03	0.02	ND	0.03	ND	0.02	ND	0.02
Nickel	30	310	NT	NT	NT	NT	NT	NT	8.08	5.9	4.25	6.55	4.32	7.44	7.68	6.56
Potassium	NS	NS	NT	NT	NT	NT	NT	NT	542	369	241	440	272	528	522	384
Selenium	3.9	180	NT	NT	NT	NT	NT	NT	0.429	0.22	0.234	0.514	0.33	ND	ND	ND
Sodium	NS	NS	NT	NT	NT	NT	NT	NT	29.4	46.4	47.1	116	50	126	114	35.7
Thallium	NS	NS	NT	NT	NT	NT	NT	NT	ND	ND	ND	ND	ND	0.275	ND	ND
Vanadium	NS	NS	NT	NT	NT	NT	NT	NT	13.4	9.23	6.76	8.06	6.97	9.58	9.73	11.1
Zinc	109	10,000	NT	NT	NT	NT	NT	NT	42	29.7	23.4	21.7	25.2	83.6	24.5	43.8

Compound	Unrestricted Use SCO[1]	Restricted Residential Use SCO[2]	Sample Designation and Date													
			SB-7 (2-12")	SB-7 (12-24")	SB-7	SB-6 (0-2")	SB-6 (2-12")	SB-6 (12-24")	SB-6	SB-5	SB-1B	TB-202 (12')	TB-204 (8'-9')	TB-206A (10'-11')	TB-207 (10'-11')	TB-208 (9')
			09/01/17	09/01/17	09/01/17	09/05/17	09/05/17	09/05/17	09/05/17	09/05/17	09/05/17	06/20/18	06/20/18	06/20/18	06/20/18	06/20/18
Aluminum	NS	NS	5,560	6,840	3,340	3,980	3,970	9,390	8,640	7,530	3,820	NT	NT	NT	NT	NT
Antimony	NS	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	NT	NT	NT
Arsenic	13	16	5.01	5.09	3.32	3.22	3.54	6.01	5.58	4.81	3.12	NT	NT	NT	NT	NT
Barium	350	400	54.4	54.4	44.3	27.3	41.5	69	64	60	24.3	NT	NT	NT	NT	NT
Beryllium	7.2	72	0.296	0.354	0.188	0.209	0.199	0.459	0.408	0.386	0.18	NT	NT	NT	NT	NT
Cadmium	2.5	4.3	0.521	0.522	0.214	0.279	0.338	0.569	0.512	0.462	0.288	NT	NT	NT	NT	NT
Calcium	NS	NS	6,990	21,100	76,300	27,200	49,400	18,400	25,800	42,700	45,100	NT	NT	NT	NT	NT
Chromium	30	180	8.4	9.36	6.75	5.53	5.68	12.1	11.6	11.6	6.08	NT	NT	NT	NT	NT
Cobalt	NS	NS	3.79	5.14	3.19	3.02	2.8	6.46	5.62	4.81	3.07	NT	NT	NT	NT	NT
Copper	50	270	12.9	13.7	10.1	12.5	12.7	19.6	14.8	12.4	9.73	NT	NT	NT	NT	NT
Iron	NS	NS	10,100	12,500	7,950	8,390	8,160	15,600	14,000	13,400	8,050	NT	NT	NT	NT	NT
Lead	63	400	52.3	31.3	7.1	6.56	14.9	30.5	48.2	5.84	6.55	NT	NT	NT	NT	NT
Magnesium	NS	NS	4,030	11,300	34,800	11,000	12,900	9,280	12,100	20,200	13,800	NT	NT	NT	NT	NT
Manganese	1,600	2,000	357	353	301	347	350	605	378	303	305	NT	NT	NT	NT	NT
Mercury	0.18	0.81	0.02	0.02	0.02	ND	ND	0.02	0.02	ND	ND	NT	NT	NT	NT	NT
Nickel	30	310	7.58	10.8	7.84	6.82	6.3	14	12.8	11.7	6.72	NT	NT	NT	NT	NT
Potassium	NS	NS	357	586	595	417	421	807	771	833	400	NT	NT	NT	NT	NT
Selenium	3.9	180	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	NT	NT	NT
Sodium	NS	NS	28.3	53.2	116	50.1	74	126	148	105	88.9	NT	NT	NT	NT	NT
Thallium	NS	NS	ND	ND	ND	0.305	ND	0.432	ND	ND	ND	NT	NT	NT	NT	NT
Vanadium	NS	NS	12.1	14.7	9.03	8.98	9.09	17.8	16.5	15.3	9.75	NT	NT	NT	NT	NT
Zinc	109	10,000	67	56.7	20.5	32.3	43.1	54.5	48.7	52.1	32.8	NT	NT	NT	NT	NT

NOTES

Results and SCOs are presented in milligrams per kilogram (mg/kg) or parts per million (ppm).

(1) = Soil Cleanup Objective (SCO) for Unrestricted Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

(3) = Soil Cleanup Objective (SCO) for Restricted Residential Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

ND = Not Detected at a concentration greater than the detection limit reported by the analytical laboratory

NT = Not Tested

IRM = Interim remedial measure

Highlighted value exceeds the Unrestricted Use SCO

Highlighted value exceeds the Restricted Residential Use SCO

TABLE 5
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER NEW YORK
NYSDEC SITE # B00131
SUMMARY OF DETECTED PESTICIDES AND PCBs: SOIL SAMPLES
COLLECTED DURING SUPPLEMENTAL STUDIES COMPLETED BETWEEN AUGUST 2017 AND JUNE 2018

Compound	Unrestricted Use SCO[(1)]	Restricted Residential Use SCO[(2)]	Sample Designation and Date													
			South Building	North East	North West	West	Lift	Dry Well	SB-1 (0-2")	SB-1 (2-12")	SB-1 (12-24")	SB-3	SB-1A (12-24")	SB-2	SB-4	SB-7 (0-2")
			02/01/07	02/01/07	02/01/07	02/01/07	02/01/07	02/01/07	08/31/17	08/31/17	08/31/17	08/31/17	08/31/17	09/01/17	09/01/17	09/01/17
4,4'-DDD	0.0033	13	NT	NT	NT	NT	NT	NT	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	0.0033	8.9	NT	NT	NT	NT	NT	NT	0.000626 J	ND	ND	ND	ND	ND	ND	0.00266
4,4'-DDT	0.0033	7.9	NT	NT	NT	NT	NT	NT	ND	ND	ND	ND	ND	ND	ND	0.00205 J
Delta-BHC	0.04	100	NT	NT	NT	NT	NT	NT	ND	ND	ND	0.000908 J	ND	ND	ND	ND
Dieldrin	0.005	0.2	NT	NT	NT	NT	NT	NT	ND	ND	ND	ND	ND	ND	ND	0.000644 J
Endrin	0.014	11	NT	NT	NT	NT	NT	NT	ND	ND	ND	ND	ND	ND	ND	ND
cis-Chlordane	0.094	4.2	NT	NT	NT	NT	NT	NT	ND	ND	ND	ND	ND	ND	ND	ND
trans-Chlordane	0.094	4.2	NT	NT	NT	NT	NT	NT	ND	ND	ND	ND	0.000957 J	ND	ND	ND
Total PCBs	0.1	1	NT	NT	NT	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00426 J

Compound	Unrestricted Use SCO[(1)]	Restricted Residential Use SCO[(2)]	Sample Designation and Date													
			SB-7 (2-12")	SB-7 (12-24")	SB-7	SB-6 (0-2")	SB-6 (2-12")	SB-6 (12-24")	SB-6	SB-5	SB-1B	TB-202 (12')	TB-204 (8'-9')	TB-206A (10'-11')	TB-207 (10'-11')	TB-208 (9')
			09/01/17	09/01/17	09/01/17	09/05/17	09/05/17	09/05/17	09/05/17	09/05/17	09/05/17	06/20/18	06/20/18	06/20/18	06/20/18	06/20/18
4,4'-DDD	0.0033	13	ND	ND	ND	ND	ND	0.00083 J	ND	ND	ND	NT	NT	NT	NT	NT
4,4'-DDE	0.0033	8.9	**0.00707**	**0.00962**	ND	0.000445 J	0.000948 J	0.00114 J	ND	ND	ND	NT	NT	NT	NT	NT
4,4'-DDT	0.0033	7.9	**0.00461**	**0.00684**	ND	ND	**0.00372**	**0.00375 P**	ND	ND	ND	NT	NT	NT	NT	NT
Delta-BHC	0.04	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	NT	NT	NT	NT
Dieldrin	0.005	0.2	ND	ND	ND	ND	0.000702 J	0.00133 P	ND	ND	ND	NT	NT	NT	NT	NT
Endrin	0.014	11	ND	ND	ND	ND	ND	0.000591 J	ND	ND	ND	NT	NT	NT	NT	NT
cis-Chlordane	0.094	4.2	ND	ND	ND	ND	ND	0.000993 J	ND	ND	ND	NT	NT	NT	NT	NT
trans-Chlordane	0.094	4.2	ND	ND	ND	ND	0.000942 J	0.00122 J	ND	ND	ND	NT	NT	NT	NT	NT
Total PCBs	0.1	1	0.000639 J	0.0108 J	ND	0.00519 J	0.0185 J	0.0462 J	0.0121 J	ND	ND	NT	NT	NT	NT	NT

NOTES

Results and SCOs are presented in milligrams per kilogram (mg/kg) or parts per million (ppm).

(1) = Soil Cleanup Objective (SCO) for Unrestricted Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

(3) = Soil Cleanup Objective (SCO) for Restricted Residential Use as referenced in 6 NYCRR Part 375 dated 12/14/06.

ND = Not Detected at a concentration greater than the detection limit reported by the analytical laboratory

NT = Not Tested

IRM = Interim remedial measure

J = Estimated Concentration

P = The RPD between the results for the two columns exceeds the method-specified criteria

Highlighted value exceeds the Unrestricted Use SCO

Highlighted value exceeds the Restricted Residential Use SCO

TABLE 6
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER NEW YORK
NYSDEC SITE # B00131
SUMMARY OF DETECTED VOCS PLUS TICS: GROUNDWATER SAMPLES

Compound	NYSDEC Standard or Guidance Value[(1)]	Sample Designation and Date														
		MW-2			MW-3			MW-4			MW-5			MW-6		
		8/22/07	12/22/09	9/27/17	8/22/07	12/22/09	9/27/17	8/22/07	12/22/09	9/27/17	8/22/07	12/22/09	9/27/17	8/22/07	12/22/09	9/27/17
1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	NS	ND	NT	ND	ND	NT	ND	ND	NT	ND	ND	NT	ND	ND	NT	ND
Ethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	NS	ND	NT	ND	ND	NT	ND	ND	NT	ND	ND	NT	ND	ND	NT	ND
Methylene chloride	5	1.4	ND	ND	1.5	ND	ND	1.6	ND	ND	1.8	ND	ND	2.2	ND	ND
Toluene	5	ND	ND	ND	1.6	ND	ND	1.8	ND	ND	260	ND	ND	140	ND	ND
m,p-Xylenes	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total VOC TICs	NS															

Compound	NYSDEC Standard or Guidance Value[(1)]	Sample Designation and Date												
		RW-1			RW-2				RW-3					MW-A
		8/22/07	12/22/09	9/27/17	8/22/07	8/22/07 - DUP	12/22/09	9/27/17	8/22/07	12/22/09	12/22/2009-DUP	9/27/17	9/27/2017-DUP	07/02/18
1,2-Dichloroethene	5	7.1	4.86	ND	4.2	4.4	2.29	ND	5.8	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2,400**
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**670**
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30 J
4-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**14 J**
Acetone	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**72 J**
Benzene	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**35 J**
Cyclohexane	NS	ND	NT	ND	ND	ND	NT	ND	ND	NT	NT	ND	ND	280
Ethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1,600**
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**99 J**
Methylcyclohexane	NS	ND	NT	ND	ND	ND	NT	ND	ND	NT	NT	ND	ND	220 J
Methylene chloride	5	1.6	ND	ND	1.6	2.4	ND	ND	1.7	ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	9.3	8.9	ND	ND	ND	ND	ND	ND	ND	**490**
m,p-Xylenes	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6,300**
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**29J**
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**270**
o-Xylene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1,200**
sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**16 J**
Tetrachloroethene	5	28	22	2.45	2.4	2.6	3.1	ND	22	2.71	2.0	ND	ND	ND
Trichloroethene	5	9.8	8.44	ND	4.3	4.4	ND	ND	7.6	ND	ND	ND	ND	ND
Total VOC TICs	NS													11,744

NOTES

Results and groundwater standards/guidance values are in micrograms per liter (µg/l) or parts per billion (ppb)

(1) = Groundwater standard or guidance value as referenced in NYSDEC TOGS 1.1.1 dated June 1998 as amended in January 1999, April 2000,and June 2004.

VOCs = Volatile Organic Compounds

TICs = Tentatively Identified Compounds

NS = No Standard/Guidance Value

J = Estimated Concentration

Highlighted value exceeds the groundwater standard or guidance value

TABLE 7
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER NEW YORK
NYSDEC SITE # B00131
SUMMARY OF DETECTED SVOCS PLUS TICS: GROUNDWATER SAMPLES

Compound	NYSDEC Guidance Value[(1)]	Sample Designation and Date														
		MW-2			MW-3			MW-4			MW-5			MW-6		
		8/22/07	12/22/09	9/27/17	8/22/07	12/22/09	9/27/17	8/22/07	12/22/09	9/27/17	8/22/07	12/22/09	9/27/17	8/22/07	12/22/09	9/27/17
2-Methylnaphthalene	NS	NT	ND	ND	ND	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	NT	ND	ND	ND	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND
Total SVOC TICs	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Compound	NYSDEC Standard or Guidance Value[(1)]	Sample Designation and Date												
		RW-1			RW-2				RW-3					MW-A
		8/22/07	12/22/09	9/27/17	8/22/07	8/22/07 - DUP	12/22/09	9/27/17	8/22/07	12/22/09	12/22/2009-DUP	9/27/17	9/27/2017-DUP	07/02/18
2-Methylnaphthalene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	230
Naphthalene	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**390**
Total SVOC TICs	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,414

NOTES

Results and groundwater standards/guidance values are in micrograms per liter (µg/l) or parts per billion (ppb)

(1) = Groundwater standard or guidance value as referenced in NYSDEC TOGS 1.1.1 dated June 1998 as amended in January 1999, April 2000,and June 2004.

SVOCs = Semi-Volatile Organic Compounds

TICs = Tentatively Identified Compounds

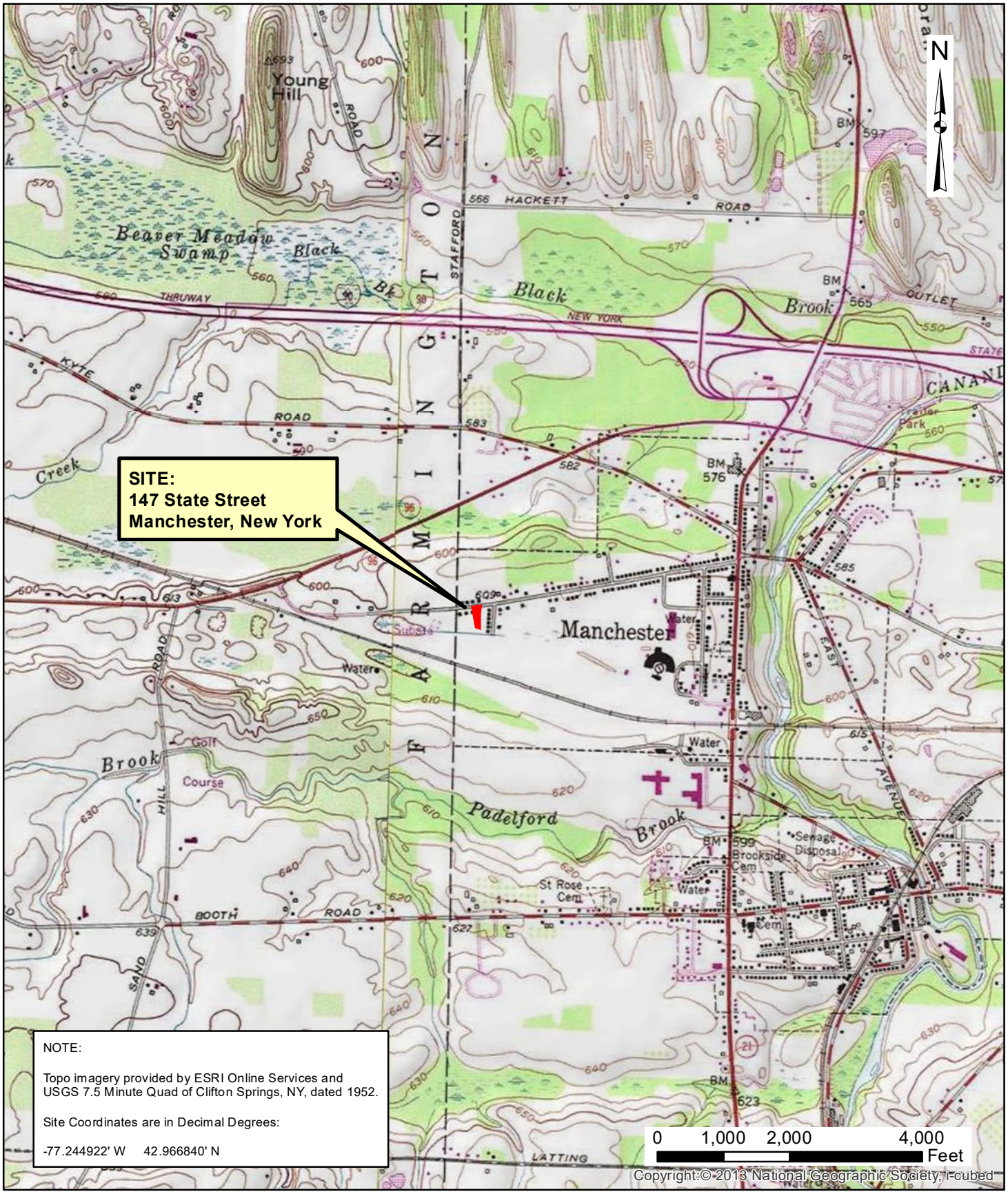
NS = No Standard/Guidance Value

ND = Not Detected at a concentration greater than the detection limit reported by the analytical laboratory

NA = Not Applicable

Highlighted value exceeds the groundwater guidance value

FIGURES



Date: 01-10-2019 Drawn By: CPS Scale: AS NOTED	**DAY ENVIRONMENTAL, INC.** Environmental Consultants Rochester, New York 14606 New York, New York 10170	Project Title: FREDERICK PROPERTY 147 STATE STREET MANCHESTER, NEW YORK NYSDEC SITE: B00131-8 SITE MANAGEMENT PLAN Drawing Title: Project Locus Map	Project No. 5474S-18 FIGURE 1

Document Path: E:\GIS Mapping\5474S-18 Manchester\Site Management Plan\5474S-04-SMP- Locus Map.mxd

Last Date Saved: 10 Jan 2019

Last Date Saved: 18 Feb 2019 Document Path: \\DAYGIS\GIS_Data\GIS Mapping\5474S-18Manche\Site Management Plan\5474S-06-SMP- SitePlan Adj Properties_updated legend.mxd

Project No.: 5474S-18

FIGURE 2

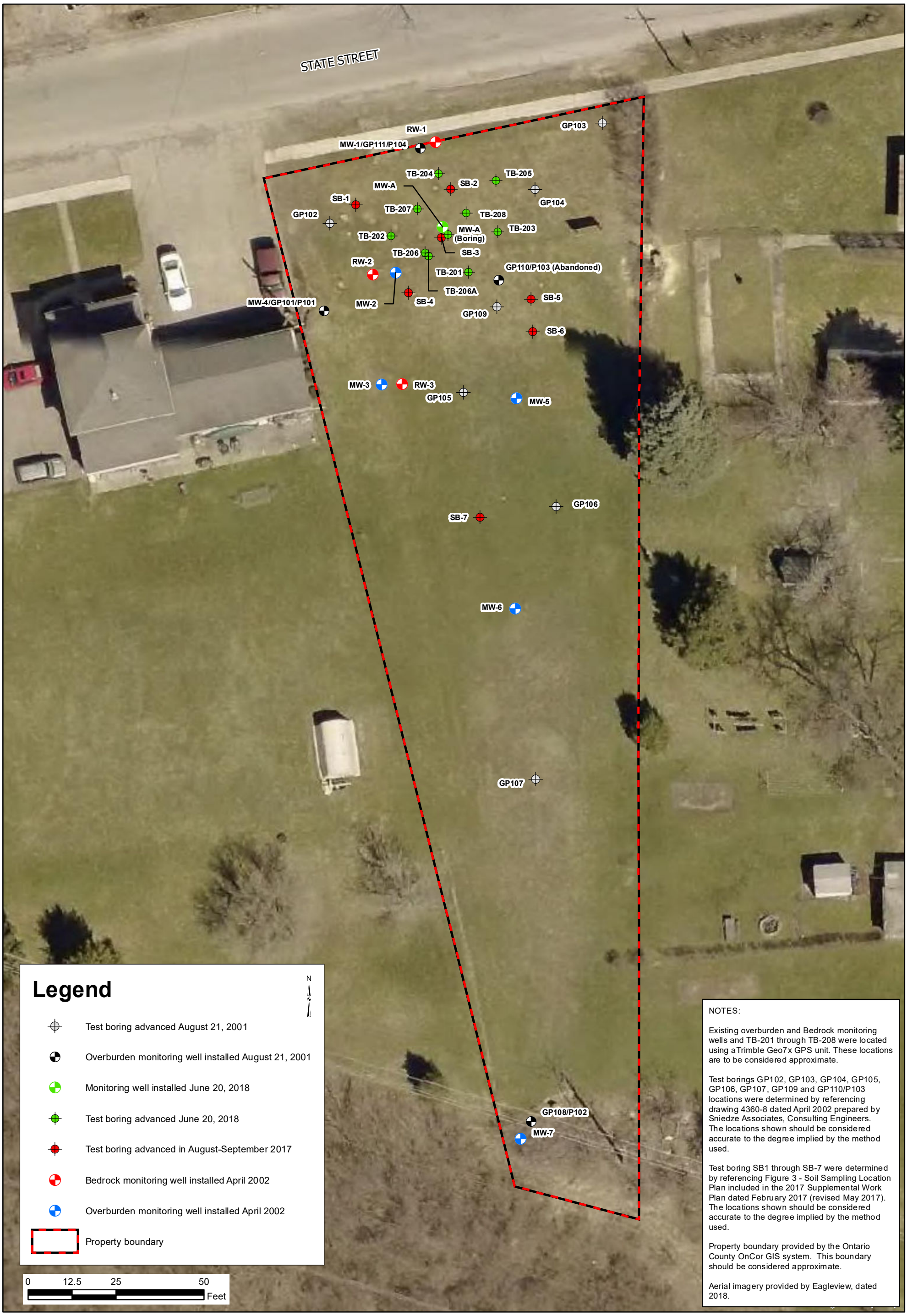
Project Title
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER, NEW YORK
NYSDEC SITE: B00131-8
SITE MANAGEMENT PLAN

Drawing Title
Site Plan with Adjacent Properties

day
DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

DESIGNED BY	DATE
RLK	01-2019
DRAWN BY	DATE DRAWN
CPS	01-2019
SCALE	DATE ISSUED
AS NOTED	01-10-2019

Last Date Saved: 10 Jan 2019 Document Path: E:\GIS Mapping\5474S-18Manche\Site Management Plan\5474S-02-SMP - SamplePlan.mxd



NOTES:

Existing overburden and Bedrock monitoring wells and TB-201 through TB-208 were located using aTrimble Geo7x GPS unit. These locations are to be considered approximate.

Test borings GP102, GP103, GP104, GP105, GP106, GP107, GP109 and GP110/P103 locations were determined by referencing drawing 4360-8 dated April 2002 prepared by Sniedze Associates, Consulting Engineers. The locations shown should be considered accurate to the degree implied by the method used.

Test boring SB1 through SB-7 were determined by referencing Figure 3 - Soil Sampling Location Plan included in the 2017 Supplemental Work Plan dated February 2017 (revised May 2017). The locations shown should be considered accurate to the degree implied by the method used.

Property boundary provided by the Ontario County OnCor GIS system. This boundary should be considered approximate.

Aerial imagery provided by Eagleview, dated 2018.

Project No. 5474S-18

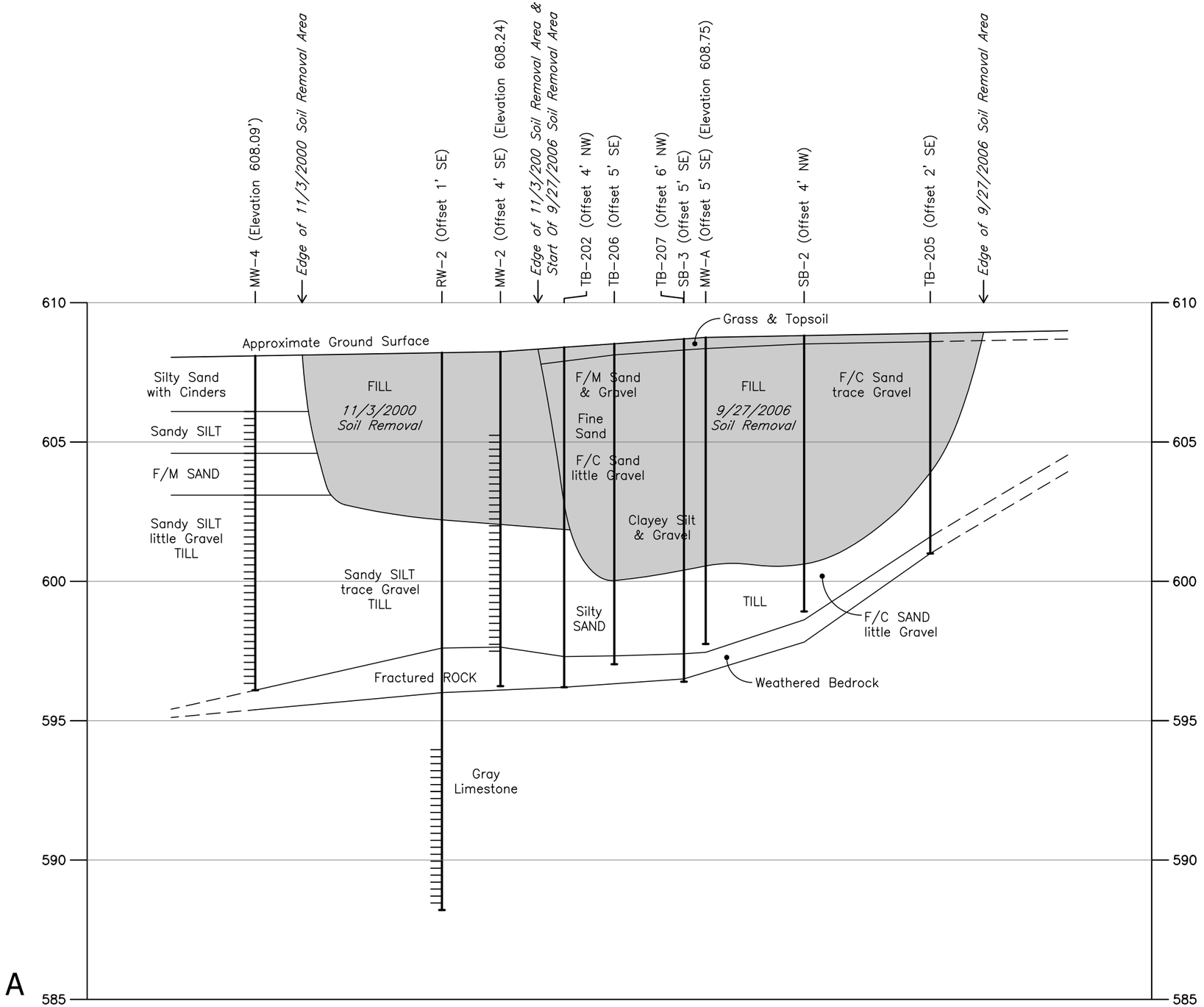
FIGURE 3

Project Title
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER, NEW YORK
NYSDEC SITE: B00131-8
SITE MANAGEMENT PLAN

Drawing Title
Site Plan with Samples Locations

day
DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

DESIGNED BY	DATE
RLK	01-2019
DRAWN BY	DATE DRAWN
CPS	01-2019
SCALE	DATE ISSUED
AS NOTED	01-07-2019



1 / Fig 5

SUBSURFACE CROSS SECTION A-A'

1" = 10' Horizontal
1" = 4" Vertical

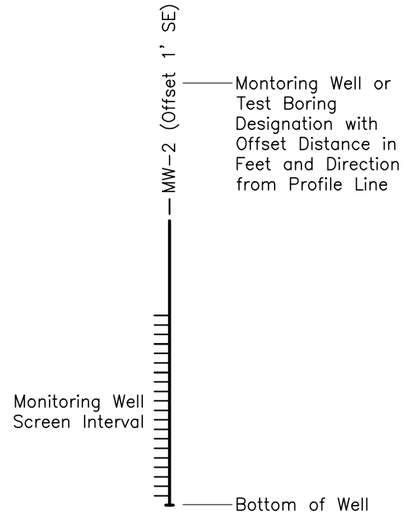
0' 10' 20' 30'

0' 4' 8' 12'

NOTES:

1. Test borings TB-202, TB-206, TB-207, SB-3, MW-A, SB-2 and TB-205 were completed in 2017 and 2018 (i.e., subsequent to the soil removal and backfilling completed in 200 and 2006).
2. The areal and vertical extent of the soil removal completed in 2000 and 2006 is based on available records and the findings of test borings advanced in 2017 and 2018. The limits shown should be considered accurate to the degree implied by the methods used.

LEGEND



FIELD VERIFIED BY	DATE
CAH	12/2018
DRAWN BY	DATE DRAWN
RJM	12/12/2018
SCALE	DATE ISSUED
As Noted	12/20/2018

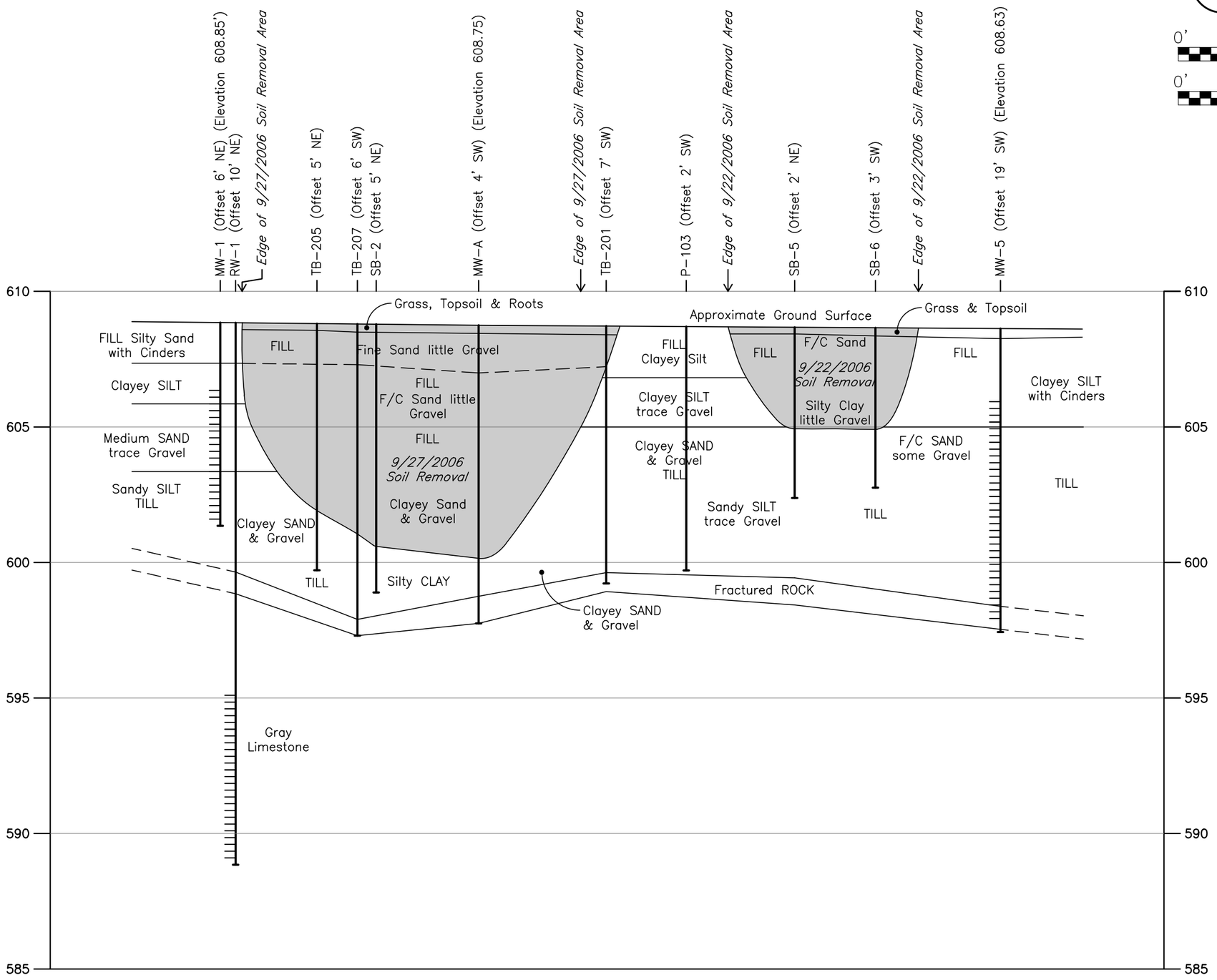
day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

PROJECT TITLE
FREDERICK PROPERTY 147 STATE STREET
MANCHESTER, NEW YORK
NYSDEC SITE B00131-8
SITE MANAGEMENT PLAN

DRAWING TITLE
Subsurface Cross Section A-A'

PROJECT NO.
5474S-18

FIGURE 4



1 / Fig 6

SUBSURFACE CROSS SECTION B–B'

1" = 10' Horizontal
1" = 4" Vertical

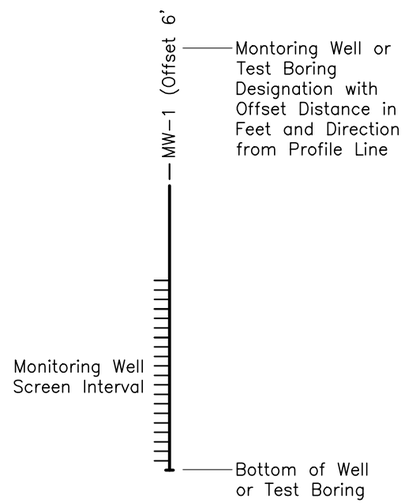
0' 10' 20' 30'

0' 4' 8' 12'

NOTES:

1. Test borings TB–202, TB–206, TB–207, SB–3, MW–A, SB–2 and TB–205 were completed in 2017 and 2018 (i.e., subsequent to the soil removal and backfilling completed in 200 and 2006).
2. The areal and vertical extent of the soil removal completed in 2000 and 2006 is based on available records and the findings of test borings advanced in 2017 and 2018. The limits shown should be considered accurate to the degree implied by the methods used.

LEGEND



FIELD VERIFIED BY	DATE
CAH	12/2018
DRAWN BY	DATE DRAWN
RJM	12/12/2018
SCALE	DATE ISSUED
As Noted	12/20/2018

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

PROJECT TITLE
FREDERICK PROPERTY 147 STATE STREET
MANCHESTER, NEW YORK
NYSDEC SITE B00131-8
SITE MANAGEMENT PLAN

DRAWING TITLE
Subsurface Cross Section B-B'

PROJECT NO.
5474S-18

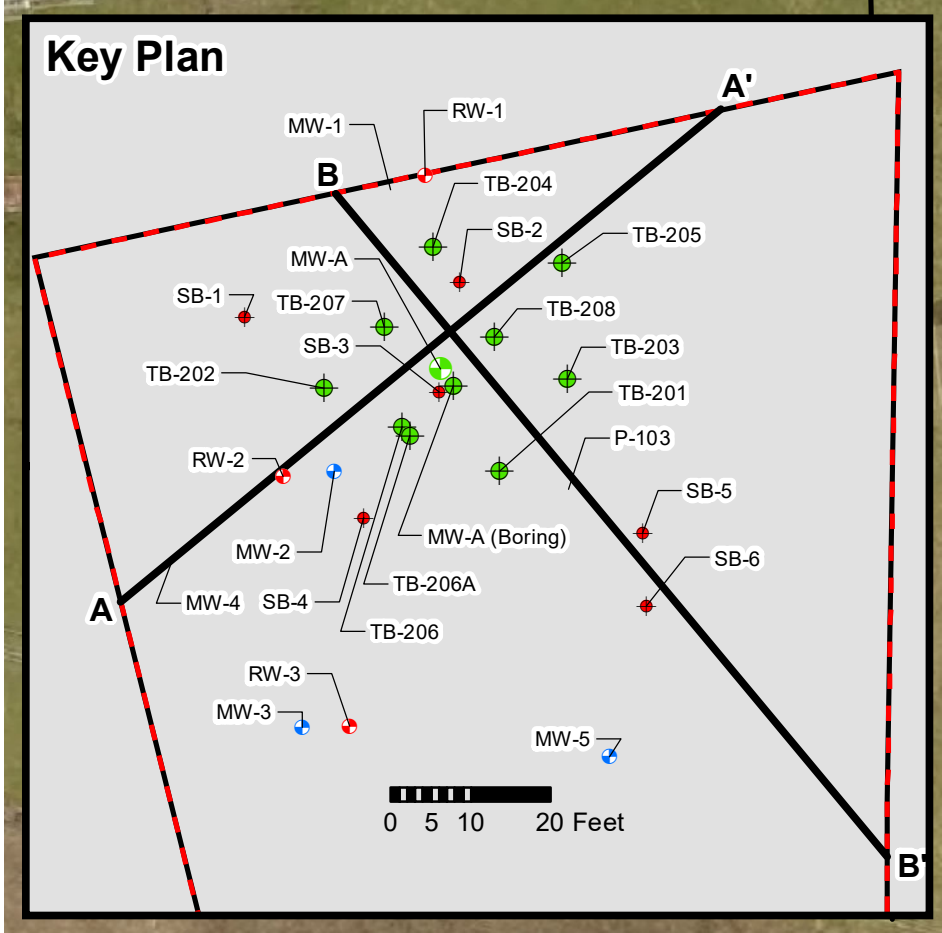
FIGURE 5

See Key Plan

SB-7

MW-6

Key Plan



Legend

N

- Monitoring well installed June 20, 2018
- Test boring advanced June 20, 2018
- Test boring advanced in August-September 2017
- Existing bedrock monitoring well installed April 2002
- Existing overburden monitoring well installed April 2002
- Abandoned piezometer
- Property boundary
- 11/1/2000 Waste Oil UST Removal
- 11/3/2000 Gasoline USTs Removal
- 9/26/2001 Gasoline USTs Removal
- 9/22/2006 Dry Well and Lift Pits Removal
- 9/27/2006 Soil Removal

NOTES:

Excavation limits were delineated based on Site records and the findings of the test borings advanced in 2017 and 2018. The excavation limits will vary from those presented herein and should be accurate to the degree implied buy the methods used.

Overburden and Bedrock monitoring wells were located using aTrimble Geo7x GPS unit. These locations are to be considered approximate.

Property boundary provided by the Ontario County OnCor GIS system. This boundary should be considered approximate.

Aerial imagery provided by Pictometry, dated 2018.

0 15 30 60 Feet

FIGURE 6

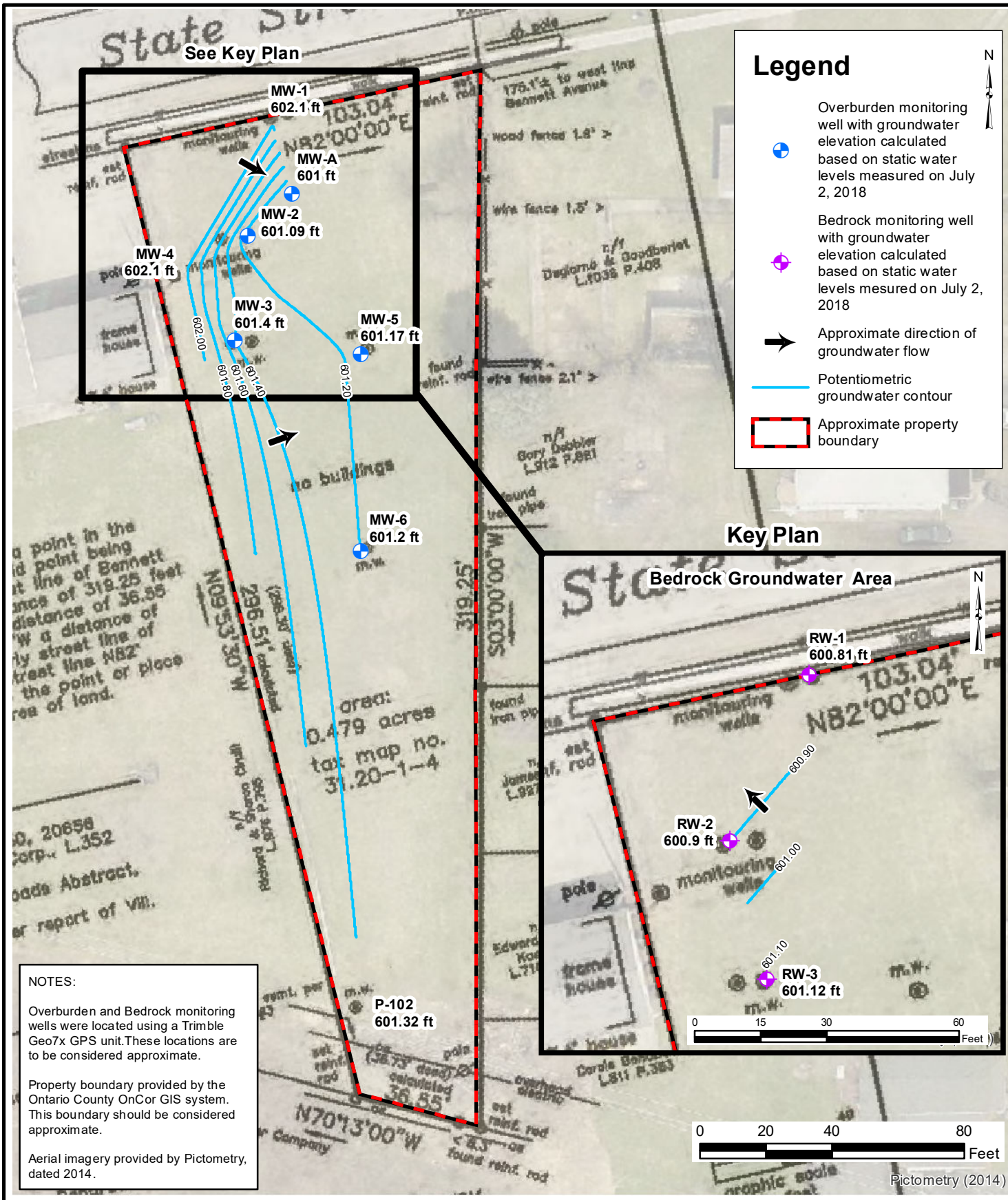
Project No. 5474S-18

Project Title
FREDERICK PROPERTY
147 STATE STREET, MANCHESTER, NEW YORK
NYSDEC SITE: B00131-8
SITE MANAGEMENT PLAN

Drawing Title
Site Plan Depicting Soil Remvoal Areas and Cross Section Lines A-A' and B-B'

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

DESIGNED BY	DATE
RLK	01-2019
DRAWN BY	DATE DRAWN
CPS	01-2019
SCALE	DATE ISSUED
AS NOTED	01-10-2019



Document Path: E:\GIS Mapping\5474S-18\Manche\Site Management Plan\5474S-01-SMP - GW Contour 20180702.mxd

Last Date Saved: 10 Jan 2019

Date: 01-10-2019 Drawn By: CPS Scale: AS NOTED	DAY ENVIRONMENTAL, INC. Environmental Consultants Rochester, New York 14606 New York, New York 10170	Project Title: FREDERICK PROPERTY 147 STATE STREET MANCHESTER, NEW YORK NYSDEC SITE NO. B00131 SITE MANAGEMENT PLAN Drawing Title: Potentiometric Overburden and Bedrock Groundwater Contour Maps measured on July 2, 2018	Project No. 5474S-18 FIGURE 7

APPENDICES

APPENDIX A – ENVIRONMENTAL EASEMENT

NTARIO COUNTY CLERK'S OFFICE
ERK'S RECORDING PAGE

This Document has been recorded
This is NOT a bill

Return To:

ZIMMERMAN AND TYO
6 EAST MAIN ST
PO BOX 7
SHORTSVILLE NY 14548-0007

Index DEED BOOK
Book 01237 Page 0878
No. Pages 0009
Instrument EASEMENT
Date : 12/29/2009
Time : 2:56:00
Control # 200912290099
IN # IN 2009 015995
T/T # TX 2010 001404
Employee ID COUNTER3

MANCHESTER VILLAGE

NYS ENVIRONMENTAL CONSERVATION

RECORDING	$	66.50
SURCHARGE	$	4.75
SURCHARGE	$	14.25
TRANS TAX	$	.00
TP-584	$	5.00
	$	.00
	$	.00
	$	.00
	$	.00
Total:	$	90.50

STATE OF NEW YORK
ONTARIO COUNTY CLERK'S OFFICE

THIS SHEET CONSTITUTES THE CLERK'S ENDORSEMENT REQUIRED BY SECTION 316-A (5) AND SECTION 319 OF THE REAL PROPERTY LAW OF THE STATE OF NEW YORK. ** DO NOT DETACH **

JOHN H. COOLEY
COUNTY CLERK

TRANSFER TAX

TRANSFER AMT $ .00

TRANSFER TAX $ .00

200912290099

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 14th day of Oct., 2009, between Owner(s) The Village of Manchester having an office at 8 Clifton Street, Manchester, New York 14504 (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of environmental easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and of ensuring the potential restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at 147 State Street, in the Village of Manchester, County of Ontario, State of New York, known and designated on the tax map of the County Clerk of Ontario as tax map parcels: Section 31.20 Block 1 Lots 4.000 being the same as that property conveyed to Grantor by Warranty Deed on September 22, 1967 and recorded in the Ontario County Clerk's Office in Liber 686 at page 661, comprised of approximately 0.479 acres, and hereinafter more fully described in Schedule "A" property description and ALTA/ACSM Land and Title Survey of "Lands of the Village of Manchester being in the Village of Manchester Ontario County, New York" prepared by Freeland-Parmello Land Surveyors, dated January 5, 2009, attached hereto and made a part hereof (the " Controlled Property"); and

WHEREAS, the Commissioner does hereby acknowledge that the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established at this Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36: and

NOW THEREFORE, in consideration of the covenants and mutual promises contained herein and the terms and conditions of State Assistance Contract Number: C 302654 Grantor grants, conveys and releases to Grantee a permanent Environmental Easement pursuant to Article 71, Title 36 of the ECL in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1 Purposes. Grantor and Grantee acknowledge that the purposes of this Environmental

Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the potential restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The following controls apply to the use of the Controlled Property, run with the land are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees, and any person using the Controlled Property:

A. The Controlled Property may be used for restricted residential, commercial or industrial use (identified future uses) in accordance with 6 NYCRR Part 375 - 1.8 (g) (2) (ii), (iii) & (iv), as long as the following long-term engineering and institutional controls are employed:

(i) Any use of groundwater as a source of potable or process water without necessary water quality treatment as determined by the New York State Department of Health, and prior notification and approval of the NYSDEC, shall not be permitted; and

(ii) Any proposed structure constructed on the property shall have an approved soil vapor intrusion barrier system installed in accordance with NYSDEC regulations and directives.

B. The Grantor hereby acknowledges receipt of a copy of the NYSDEC-approved Site Management Plan, dated February , 2009 ("SMP"). The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system on the Controlled Property, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. Upon notice of not less than thirty (30) days the Department in exercise of its discretion and consistent with applicable law may revise the SMP. The notice shall be a final agency determination. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Regional Remediation Engineer
NYSDEC - Region 8
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414-9519
Phone: (585) 226-5363 fax: (585) 226-9485

or

Site Control Section
Division of Environmental Remediation
NYS DEC
625 Broadway
Albany, New York 12233

C. The Controlled Property may not be used for a higher level of use such as residential use and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

D. Grantor covenants and agrees that until such time as the Environmental Easement is

extinguished in accordance with the requirements of Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant of Title 36 to Article 71 of the Environmental Conservation Law.

E. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

F. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury that the controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls employed at the Controlled Property were approved by the NYSDEC, and that nothing has occurred that would impair the ability of such control to protect the public health and environment or constitute a violation or failure to comply with any Site Management Plan for such controls and giving access to such Controlled Property to evaluate continued maintenance of such controls.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Controlled Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer the underlying fee interest to the Controlled Property by operation of law, by deed, or by indenture, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person intentionally violates this Environmental Easement, the Grantee may revoke the Certificate of Completion or Release provided under ECL Article 56, Title 5 with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this

Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach. Grantor shall then have a reasonable amount of time from receipt of such notice to cure. At the expiration of said second period, Grantee may commence any proceedings and take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement in accordance with applicable law to require compliance with the terms of this Environmental Easement.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar its enforcement rights in the event of a subsequent breach of or noncompliance with any of the terms of this Environmental Easement.

6. Notice. Whenever notice to the State (other than the annual certification) or approval from the State is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:
County, NYSDEC Site Number, NYSDEC Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

If for Grantee:

Site No. : B 00131
Department of Environmental Enforcement
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

If for Grantor to:

Attn: Village of Manchester
8 Clifton Street
Manchester, New York 14504

Such correspondence shall be delivered by hand, or by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. This Environmental Easement may be amended only by an amendment executed by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the

obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Grantor's Name: The Village of Manchester

By: Nancy W. Johnsen

Title: MAYOR Date: 9/4/09

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation

by:
Alexander B. Grannis, Commissioner
Dale A. Desnoyers, Director
Division of Remediation

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF Ontario)

On the 4th day of Sept., in the year 2009, before me, the undersigned, personally appeared Nancy W. Johnsen, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Rita J. Gurewitch
Notary Public - State of New York

RITA J. GUREWITCH
Notary Public, State of New York
Ontario County #01GU5027334
Commission Expires May 09, 2010

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the 14th day of October, in the year 2009, before me, the undersigned, personally appeared Alexander B. Grannis, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public - State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2010

SCHEDULE "A"
ENVIRONMENTAL EASEMENT
PROPERTY DESCRIPTION
Village of Manchester
Frederick Property
South side, State Street

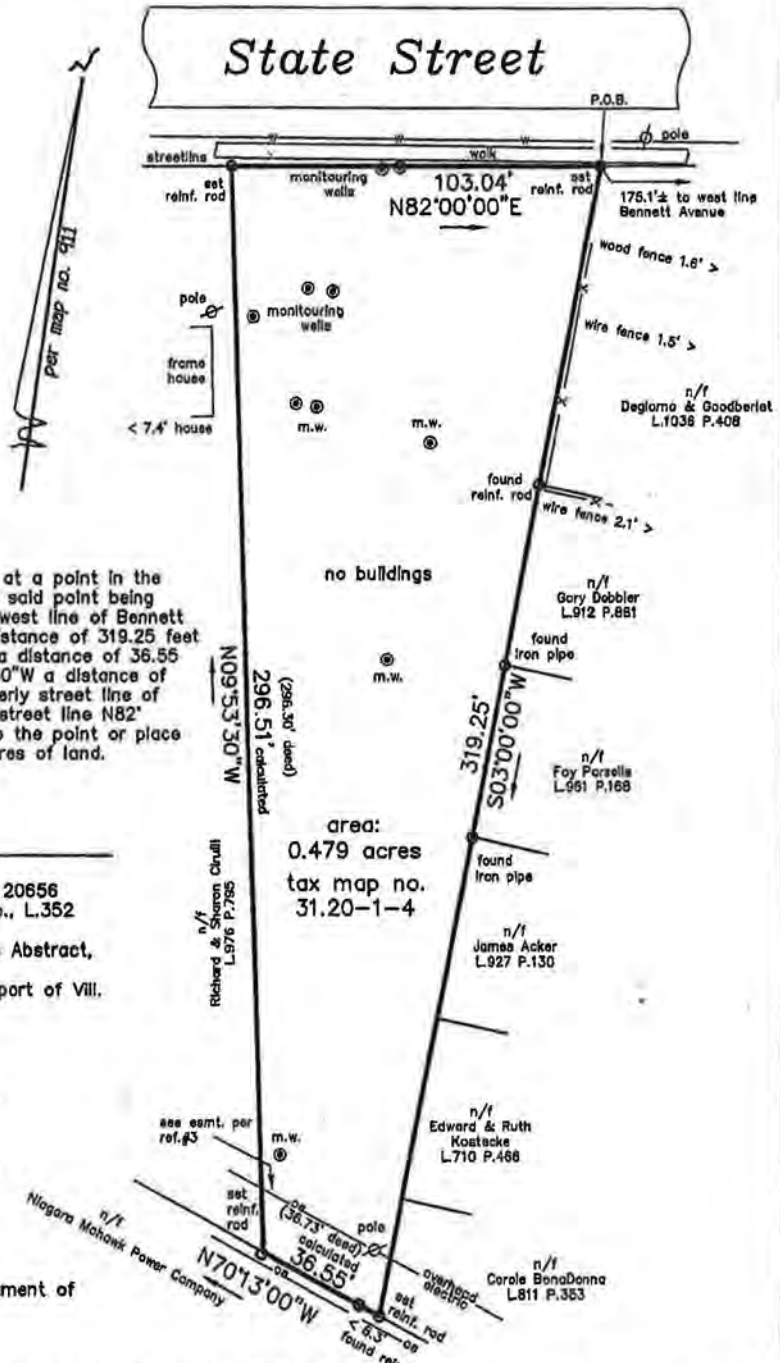
Address: 147 State Street, Manchester, Ontario, NY
Tax Id No: Section 31.20 - Block 1 - Lot 4.000

All That Tract or Parcel of Land, situate in the Village of Manchester, Town of Manchester, County of Ontario and State of New York, more particularly bounded and described as follows:

Beginning at a point marked by a reinforced rod set in the south street line of State Street, which said point is located approximately 175.1 feet west of the west line of Bennett Avenue; thence, S 03° 00' 00" W a distance of 319.25 feet along the west line of premises of various owners to a point marked by a reinforced rod; thence, N 70° 13' 00" W along the north line of premises now or formerly of Niagara Mohawk Power Company a distance of 36.55 feet to a point marked by a reinforced rod; thence, N 09° 53' 30" W along the east line of premises now or formerly of Richard Cirulli and Sharon Cirulli (Liber 976 of Deeds at page 795) a distance of 296.51 feet to a point in the south line of State Street; thence, N 82° 00' 00" E along the south line of State Street a distance of 103.04 feet to the point or place of beginning; containing an area of 0.479 acre of land as depicted upon a map of a survey prepared by Freeland-Parrinello Land Surveyors, which said map is dated January 5, 2009, a copy of which said map is annexed hereto.

Subject to easements, covenants and restriction of record, if any, affecting said premises.

Being the same premises conveyed to the Village of Manchester by Joseph S. Frederick by warranty deed dated September 22, 1967, which said deed is recorded in the Ontario County Clerk's Office in Liber 686 of Deeds, at page 661.



Property legal description: Beginning at a point in the southerly street line of State Street, said point being 175.1 feet, plus or minus, from the west line of Bennett Avenue; thence (1) S03°00'00"W a distance of 319.25 feet to a point; thence (2) N70°13'00"W a distance of 36.55 feet to a point; thence (3) N09°53'30"W a distance of 296.51 feet to a point on the southerly street line of State Street; thence (4) along said street line N82° 00'00"E a distance of 103.04 feet to the point or place of beginning. All containing 0.479 acres of land.

References

...er 686, page 661 of deeds
...d Map Nos.: 911, 348, 19950, 20656
...ie Line Easement to RG&E Corp., L.352 P.70
4. Search No. 085004 by Crossroads Abstract, dated December 31, 2008
5. NOTE: water main location per report of Vill. of Manchester official

Legend

- utility pole
- monitoring well
- survey monumentation, as noted

Certification: New York State-Department of Environmental Conservation

ALTA/ACSM Land and Title Survey
of Lands of the

Village of Manchester

being in the Village of Manchester
Ontario County, New York

Scale: 1 inch = 40 feet January 5, 2009

graphic scale in feet (0 – 40)

graphic scale in meters (0 – 15)

...y that this plan was prepared January 5, 2009 from ... of an instrument survey completed December 29, 2008 and from materials referenced hereon.

David M. Parrinello NYSPLS 049724

Freeland–Parrinello
LAND SURVEYORS
42 Beeman Street
Canandaigua, New York 14424
(585)394-5110

2001-116R

APPENDIX B – LIST OF SITE CONTACTS

Name	Phone/Email Address
Village of Manchester [Site Owner]	(585)2894340 info@villageofmanchester.org
Nathan Simon [Qualified Environmental Professional]	(585) 454 0210 x109 nsimon@daymail.net
Danielle Miles [NYSDEC DER Project Manager]	(585)226-5349 danielle.miles@dec.ny.gov
Bernette Schilling [NYSDEC Regional HW Engineer]	**(**585)226-5315 bernette.schilling@dec.ny.gov

APPENDIX C – TEST BORING AND MONITORING WELL CONSTRUCTION LOGS

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well GP101 / P101 / MW-4	Sheet 1 of 1 Job Number: Elevation:

Driller: K. EAGAN	Drilling	Date	Time
Drill Method: GEO PROBE	Started	8-21-01	09:00
Sample Method: MACRO CORE	Finished	8-21-01	09:30
Borehole Diameter: 3" Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
S1	47/48"	—	0 0 0 1	1 2 3 4		Dark brown silty SAND, with cinders, dry — FILL	CONCR. Bent.
					2.0		2.0'
					3.5	Brown sandy SILT, little to trace gravel, moist	
			3-4				
				5	5.0	Brown, medium to fine SAND, moist	
S2	36/48		0 0	6 7		Gray-brown sandy SILT, little gravel, moist to wet — GLACIAL TILL —	QUARTZ SAND (#00)
				8		Some. wet	
			15	9			
S3	46/36		0 0	10 11			
				12		Bottom of boring at 12.0 ft.	12.0'
				13			2" PVC well
				14		S3 submitted for Lab analysis (9:15)	
				15			
				16		PVC well (10 slot)	
				17		10 ft. screen, 2 ft. riser	
				18		flush mount box	
				19			
				20			

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of ~~Well~~ BORING GP 102	Sheet 1 of 1 Job Number: Elevation:

Driller: K. EAGAN		Drilling	Date	Time
Drill Method: GEOPROBE		Started	8-21-01	10:10
Sample Method: MACRO CORE		Finished	8-21-01	10:35
Borehole Diameter: 3"	Water Level:	Logged By: WL		Checked By:

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
S1	46/48	—	0 0 0 0	1 2 3 4	1.5 3.0	Brown sandy GRAVEL, some fines, dry — FILL — Brown sandy SILT, trace gravel Brown coarse to fine SAND, dry	No Well
S2	34/48		1 30-50 0	5 6 7 8	5.0	Gray brown sandy SILT, little to trace gravel, moist to wet GLACIAL TILL	
S3	30/30		0 0	9 10			
				11 12 13 14 15 16 17 18 19 20		Refusal at 10.5 ft submit S2 (10:20) for analysis	

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of ~~Well~~ BORING GP103	Sheet 1 of 1 Job Number: Elevation:

Driller: K. EAGAN	Drilling	Date	Time
Drill Method: GEOPROBE	Started	8-21-01	10:35
Sample Method: MACROCORE	Finished	8-21-01	10:50
Borehole Diameter: 3" Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
S1	36/48		0 0 0 0	1 2 3 4	0.5	FILL Brown sandy silt, trace Gravel, damp.	no well
S2	24/24		0 0	5 6	4.5	GRAY-Brown sandy SILT, little gravel, damp Fill Refusal at 6.0 ft.	
				7 8 9 10 11 12 13 14 15 16 17 18 19 20		Submit S2 (10:40) to lab.	

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well BORING GP 104	Sheet 1 of 1 Job Number: Elevation:

Driller: K. EAGAN		Drilling	Date	Time
Drill Method: GEOPROBE		Started	8-21-01	15:10
Sample Method: MACRO CORE		Finished	8-21-01	15:35
Borehole Diameter: 3"	Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
S1	35/48	—	0 0 0 0	1 2 3 4		Dark brown silty SAND, with cinders, dry	
					2.0	Brown sandy SILT, little to trace gravel, damp.	No Well
					4.0		
S2	24/36		2 2 0	5 6 7		Grey brown TILL GLACIAL TILL	
				8 9 10 11 12 13 14 15 16 17 18 19 20		Refusal at 7.0 ft. Sub Smpl S2 (15:25) to lab	

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well BORING GP 105	Sheet 1 of 1 Job Number: Elevation:

Driller: K. EAGAN	Drilling	Date	Time
Drill Method: GEOPROBE	Started		11:10
Sample Method: MACRO CORE	Finished		11:20
Borehole Diameter: 3" Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
S1	37/48	—	0 0 0 0	1 2 3 4		Brown sandy SILT, with cinders, moist. - FILL - SAME	No well
S2	37/36		0 0	5 6 7	5.0	Gray brown sandy SILT, trace gravel, wet. GLACIAL TILL	
				8 9 10 11 12 13 14 15 16 17 18 19 20		Refusal at 7.0 ft. Sent S2 (11:20) to lab	

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of ~~Well~~ BORING GP 106	Sheet 1 of 1 Job Number: Elevation:

Driller: K. EAGAN			Drilling	Date	Time
Drill Method: GEOPROBE			Started	8-21-01	11:20
Sample Method: MACRO CORE			Finished	8-21-01	12:00
Borehole Diameter: 3"	Water Level:		Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
						TOPSOIL	
			0	1	0.5	Brown sandy SILT, trace gravel, dry	
S1	47/48	-	0	2	2.0	Dark brown sandy SILT, little gravel, moist	
			0	3			
			0	4			no well
			0	5			
S2	48/48		0	6	6.0	Gray-brown sandy SILT, trace gravel, wet	
			0	7		TILL	
			0	8			
S3	12/12		0	9		Submit.	
				10		Refusal at 9.0 ft	
				11			
				12		Submit S2 (11:20) to lab	
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of ~~Well~~ BORING GP107	Sheet 1 of 1 Job Number: Elevation:

Driller: K. EAGAN	Drilling	Date	Time
Drill Method: GEOPROBE	Started	8-21-01	13:00
Sample Method: MACRO CORE	Finished	8-21-01	13:30
Borehole Diameter: 3" Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
			0	1	0.5	TOP SOIL	
S1	33/48	—	0			Brown sandy SILT, dry	
			0	2	2.0	Dark brown clayey SILT, moist.	No well
			0	3			
			0	4	4.0	Brown coarse to medium SAND, dry.	
S2	36/36		0	5	5.0	Grey brown sandy SILT, trace gravel, wet	
			0	6		— TILL —	
				7		Refusal at 7.0 ft.	
				8			
				9		Submit S2 (13:15)	
				10		to lab.	
				11			
				12			
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well GP 108 / P 102	Sheet 1 of 1 Job Number: Elevation:

Driller: K. EAGAN		Drilling	Date	Time
Drill Method: GEOPROBE		Started	8-21-01	13:30
Sample Method: MACRO CORE		Finished	8-21-01	14:00
Borehole Diameter: 3"	Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
S1	40/48	–	0 0 0 0	1 2 3 4	0.5	TOPSOIL Dark brown clayey SILT, trace gravel, moist	CONCRETE BENTONITE 2.0' QUARTZ SAND (#00)
S2	28/36		0 0 0	5 6 7	4.0 6.0	Brown coarse to fine sand, trace gravel Gray, sandy SILT, wet – TILL –	7.0'
				8 9 10 11 12 13 14 15 16 17 18 19 20		Refusal at 7.0 ft. Submit S2 (13:40) to lab.	3/4" PVC well 3' stickup

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of ~~Well~~ BORING AP109	Sheet 1 of 1 Job Number: Elevation:

Driller: K. EAGAN		Drilling	Date	Time
Drill Method: GEOPROBE		Started	8-21-01	14:15
Sample Method: MACROCORE		Finished	8-21-01	14:35
Borehole Diameter: 3"	Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
				0		CONCRETE	
S1	36/48	-	0 0 0 0	1 2 3 4	0.5	Brown medium to fine SAND. -FILL-	no well
S2	42/42		0 0 0	5 6 7	5.0 6.0	clayey SILT. Gray sandy SILT, wet. -TILL-	
				8 9 10 11 12 13 14 15 16 17 18 19 20		-Refusal at 7.5 ft. submit S2 (14:35) to lab	

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well GP 110/P103	Sheet 1 of 1 Job Number: Elevation:

Driller: V. EAGAN		Drilling	Date	Time
Drill Method: GEOPROBE		Started	8-21-01	14:35
Sample Method: MACROCORE		Finished	8-21-01	15:10
Borehole Diameter: 3"	Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
S1	16/48	-	0 0	1–4	0.5	CONCRETE Brown clayey SILT, trace gravel	BENTONITE *
S2	48/48		0 1-2 0 0	5–8	6.0	Grey brown sandy SILT trace gravel, moist to wet	QUARTZ SAND (#00) 4.0' – 9.0'
S3	12/12		0	9		same	
				10–20		Refusal at 9.0 ft. submit S2 (4:45) to lab (VOC/SVOC + lead) * INSIDE LOCATION - NO PROTECTIVE BOX	3/4" PVC well

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well GP 111 / P 104 / MW-1	Sheet 1 of 1 Job Number: Elevation:

Driller: K. EAGAN	Drilling	Date	Time
Drill Method: GEOPROBE	Started	8-21-01	15:35
Sample Method: MACRO CORE	Finished	8-21-01	16:00
Borehole Diameter: 3" Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
			1-2	1		Brown SILTY SAND, with cinders FILL	CONCR.
S1	40/48		2	2	1.5	Dark brown clayey SILT	BENT.
			2	3	3.0	Brown med.-coarse sand, trace gravel.	QUARTZ SAND (#00) 2.5'
			2	4		5 ft. block sheared wet sand	
S2	34/42		50	5	5.5	Grey brown sandy SILT, trace gravel, wet TILL	
			0	6			
			0	7			7.5'
				8		Refusal at 7.5 ft.	2" PVC Well
				9		Submit S2 (15:45) to lab (VOA/5 VOC + lead)	
				10			Flush-mount protective well box
				11			
				12			
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well RW-1	Sheet 1 of 1 Job Number: Elevation:

Driller: STEVE LARANCE	Drilling	Date	Time
Drill Method: FLUSH JOINT CASING TO LOCK	Started	4-19-02	10:00
Sample Method: MX CORE BARREL	Finished	4-19-02	15:30
Borehole Diameter: 4" Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
				1		See GP III for soil description	
				2			
				3			
				4			
				5			
				6			CEMENT GROUT
				7			
				8		Top of Rock @ 8.5ft.	
				9		Roller bit to 15.0ft.	
				10			
				11			
				12			BENTONITE
				13		Loss of drilling water at 13.0ft.	
				14			#4
				15			
		3		16		GRAY LIME STONE	#0 MORIE SAND
R1	46/60	3	NA	17			
		3		18			
	63%	3		19			#9
		3		20			
						Bottom of boring @ 20.0 ft.	2" PVC WELL FLUSH COVER

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well RW-2	Sheet 1 of 1 Job Number: Elevation:

Driller: STEVE LARAMEE	Drilling	Date	Time
Drill Method: FLUSH JOINT CASING TO TOP OF ROCK	Started	4-18-02	11:00
Sample Method: HX COKE BARREL	Finished	4-18-02	17:00
Borehole Diameter: 4" Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
		-		1–12		See MW-2 for soil description TOP OF ROCK @ 11.5 ft. Roller bit from 11.5 to 12.0 ft.	CEMENT GROUT
R1	21/24 2%	8 8	NA	12–14		GRAY LIMESTONE Coreblock from 13 to 14 ft. Rollerbit from 14.0 to 15.0 ft.	BENTONITE 14.0
R2	55/60 63%	4 5 3 3 4	NA	15–20		soft drilling from 18-19 ft.	#0 MORIE SAND 19 Bottom of Borehole @ 20.0 ft from ground surface.	2" PVC well FLUSH COVER

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well RW-3	Sheet 1 of 1 Job Number: Elevation:

Driller: Steve Laramee	Drilling	Date	Time
Drill Method: Flush Joint Casing to top of rock	Started	4-17-02	12:45
Sample Method: HX Core barrel	Finished	4-19-02	09:40
Borehole Diameter: 4" Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.) RQD	Core Extr. Blow Counts (MIN/FT)	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
				1–10		See MW-3 for soil Description	CEMENT GROUT
R1	12/24 0%	3 3	NA	11–12		Gray Limestone	
R2	56/48 85%	4 4 4 4	NA	13–16		Loss of drill water at 13.0 ft. (partial) Soft zone 15.0 - 15.2 ft.	BENTONITE #0 MORIE SAND 14.4'
R3	56/48 84%	4 4 4 4	NA	17–20		Soft zone 18.5 ft & 19.0 ft.	19.4'
						BOTTOM OF BORING AT 20.0 FT.	2" PVC WELL FLUSH COVER

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well MW-2	Sheet 1 of 1 Job Number: Elevation:

Driller: STEVE LARAMEE	Drilling	Date	Time
Drill Method: HSA - 4-1/4" ID	Started	4-17-02	09:00
Sample Method: 2" Split Spoon	Finished	4-17-02	10:45
Borehole Diameter: 8-1/4" Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
NR*	0/24	4 4 3 3	--	1–2		*No Recovery (Installed in back fill from tank excavation)	CONCRETE BENTONITE
NR*	0/24	1 1 1 1	--	3–4		- FILL -	3.0'
S1	5/24	1/1.0' -- 9 3	ND	5–6		Brown coarse to medium SAND, trace gravel, wet	#0 MORIE SAND
S2	24/24	3 7 6 12	ND	7–8		Gray-brown sandy SILT, trace gravel, wet - GLACIAC TILL - Same, except some gravel.	
S3	11/24	14 7 12 14	ND	9–10		Same, except bedrock fragment in tip.	10.5'
S4	14/24	12 16 14 20	ND	11–12		Augered to 10.5 ft below ground surface. SAMPLED to 12.0 ft.	2" PVC WELL Flush mount well Box
NR*	0/1	50/.1	--	13–20			

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well MW-3	Sheet 1 of 1 Job Number: Elevation:

Driller: STEVE CALAMEE	Drilling	Date	Time
Drill Method: HSA - 4 1/4" ID	Started	4-16-02	13:20
Sample Method: 2" SPLIT SPOON	Finished	4-16-02	16:10
Borehole Diameter: 8-1/4" Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
S1	16/24	7 6 5 5	5-10	1		Dark brown sandy SILT, trace gravel, with asphalt pieces, oily odor.	CONCRETE
				2			BENTONITE
S2	5/24	7 6 6 5	ND	3		Brown sandy SILT, some gravel, moist. - FILL -	2.8'
				4			
S3	16/24	5 6 5 9	ND	5		Brown gravelly sand, trace silt, moist	#0 MOBILE SAND
				6			
S4	13/24	10 17 20 18	ND	7		Brown sandy SILT, some gravel, wet, with layer of c-m sand from 6-6.3 ft.	
				8			
S5	19/24	8 17 20 50	ND	9		Same. - GLACIAL TILL -	9.3'
				10		Augen to 9.5 ft. below ground surface SAMPLE to 10.0 FT.	2" PVC WELL FLUSH-MOUNT WELL BOX
				11			
				12			
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well MW-5	Sheet 1 of 1 Job Number: Elevation:

Driller: STEVE LARAMEE	Drilling	Date	Time
Drill Method: HSA - 4 1/4" ID	Started	4-15-02	10:30
Sample Method: 2" SPLIT SPOON	Finished	4-15-02	14:30
Borehole Diameter: 8-1/4" Water Level: 4.7'	Logged By: W. Lanik	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
S1	8/24	1, 7, 6, 4	ND	1		Brown sandy SILT, roots. -TOPSOIL-	CEMENT
S2	2/24	2, 2, 1, 1	ND	2		Brown clayey SILT, with cinders -FILL-	BENTONITE
S3	9/24	4, 10, 20, 19	ND	3			2.5'
S4	11/11	10, 50/.4	ND	4			
				5		Gray-brown sandy SILT, some gravel, clamp	
S5	22/24	8, 10, 14, 10	ND	6		Same, except wet. -GLACIAL TILL-	#0 MORIE SAND
S6	15/20	16, 22, 76, 50/.2	ND	7		Same, except trace gravel.	
				8			
				9			
				10		Same	10.5'
				11		Augers to 11.0 ft. below ground surface. SAMPLE to 11.2ft.	2" PVC WELL FLUSH-MOUNT WELL BOX
				12			
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well MW-6	Sheet 1 of 1 Job Number: Elevation:

Driller: STEVE LARAMEE	Drilling	Date	Time
Drill Method: HSA - CME-45C 4-1/4" ID	Started	4-15-02	14:30
Sample Method: Split Spoon 2"	Finished	4-15-02	9:20
Borehole Diameter: 8-1/4" Water Level: 3.25'	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
S1	17/24	1 1 3 4	ND	1		Brown sandy SILT, trace roots at top. -TOP SOIL-	CONCRETE BENTONITE
S2	18/24	2 2 3 4	ND	2 3		Brown sandy SILT, trace gravel, moist.	3.0'
S3	6/24	1 4 12 15	ND	4 5		Brown sandy SILT, some gravel, wet	#0 MORIE SAND
S4	24/24	8 16 21 18	ND	6 7		Brown coarse to med. SAND, wet. Brown sandy SILT, some gravel, wet.	
S5	18/24	14 20 20 24	ND	8 9 10		Brown silty fine SAND, some gravel, wet same, pieces of bedrock at tip.	10.0'
S6	17/17	25 28 50/.4	ND	11		Auger to 10.5ft. below ground surface, sample to 11.4 ft.	2" PVC well FLUSH-MOUNT WELL BOX
				12 13 14 15 16 17 18 19 20			

Walter Lanik, Inc. *Consulting Geologist* PO Box 16 Webster, New York 14580-0016	Log of Well * MW-7	Sheet 1 of 1 Job Number: Elevation:

Driller: STEVE CARAMUSE	Drilling	Date	Time
Drill Method: HSA 4-1/4" ID	Started	4-16-02	10:20
Sample Method: 2" SPLIT SPOON	Finished	4-16-02	13:20
Borehole Diameter: 8-1/4" Water Level:	Logged By: WL	Checked By:	

Sample No.	Recovery (in.)	Blow Counts	PID/FID	Depth (feet)	Graphic Log	Materials Description	Well Completion
		-		1–6		Auger to 6.0 ft. without sampling. (for soil description, see GP108) *	CONCRETE BENTONITE 2.5' #0 MORIE SAND 7.5'
S1	18/24	9, 9, 10, 18	ND	7		Brown coarse to med. SAND, trace gravel, wet Brown sandy SILT, trace gravel, wet. – GLACIAL TILL –	
S2	8/8	17, 50/2	ND	8–11		Same, with bedrock fragments @ tip of spoon. Auger to 8.0 ft below ground surface. SAMPLE to 8.7 ft. * Replacement well for P102	2" PVC well FLUSH MOUNT WELL BOX
				12–20			

DATE
START 8/31/2017
FINISH 8/31/2017
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. SB-1
SURF. ELEV
G.W. DEPTH See Notes

PROJECT: BROWNFIELD PROJECT
PROJ. NO.: BD-17-092
LOCATION: FREDERICK PROPERTY
MANCHESTER, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	PID (ppm)	SOIL OR ROCK CLASSIFICATION	NOTES
	1	5	6				TOPSOIL Brown f-c SAND, tr.gravel, tr.silt (moist, FILL)	Driller noted Topsoil at the ground surface
		6	7		12	BKG		Photoionization Detector (PID) measurements recorded in parts per million (ppm)
	2	2	2				Becomes Dark Brown, Contains little f-c Gravel, little Silt, tr.cinders	
		2	3		4	BKG		
5	3	3	5				Brown f-c SAND, some f-c Gravel, little Silt, occasional silty clay partings (moist, firm, SW)	BKG- Background
		7	9		12	BKG		Sample No. 5- No recovery
	4	13	17				Contains little f-c Gravel (compact)	
		22	13		39	BKG		REF = Sample Spoon Refusal
	5	50/0.0			REF	---	Boring completed at 8.0 feet below grade with split spoon refusal	
10							Samples collected at the following intervals for analytical purposes: 0 to 2 inches 2 to 12 inches 12 to 24 inches 12 to 24 inches (field duplicate; indentified as SB-1A on chain of custody)	On 9/5/17 collected a sample for analytical purposes from 5' to 8' to be used as "bottom of hole" sample for boring SB-1, sampling location is located approximately 4' south of SB-1 Sample identified as SB-1B on chain of custoday
15								
								No Free Standing Water encountered at Boring Completion
20								

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geologist

DRILLER: S. WOLKIEWICZ

DRILL RIG TYPE : CME-550X

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 9/1/2017
FINISH 9/1/2017
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. SB-2
SURF. ELEV
G.W. DEPTH See Notes

PROJECT: BROWNFIELD PROJECT
PROJ. NO.: BD-17-092
LOCATION: FREDERICK PROPERTY
MANCHESTER, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	PID (ppm)	SOIL OR ROCK CLASSIFICATION	NOTES
	1	4	4				TOPSOIL Brown f-c SAND, tr.gravel, tr.silt (moist, FILL)	Driller noted Topsoil at the ground surface
		7	7		11	BKG		Photoionization Detector (PID) measurements recorded in parts per million (ppm)
	2	5	6					
		4	7		10	BKG		BKG- Background
5	3	2	2				Contains little f-c Gravel	
		2	4		4	BKG		
	4	3	4					
		2	4		6	BKG		Sample No. 5- very slight fuel-oil like odor, very slight staining
	5	16	17				Brown-Gray f-c SAND, some f-c Gravel, little Silt (moist, compact, SM)	
10		25	50/0.4		42	BKG		
							Boring completed at 9.9 feet below grade with split spoon refusal	No Free Standing Water encountered at Boring Completion
							Samples collected at the following interval for analytical purposes: 8 to 9.9 feet	
15								
20								

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geologist

DRILLER: S. WOLKIEWICZ

DRILL RIG TYPE : CME-550X

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 8/31/2017
FINISH 8/31/2017
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. SB-3
SURF. ELEV
G.W. DEPTH See Notes

PROJECT: BROWNFIELD PROJECT
PROJ. NO.: BD-17-092
LOCATION: FREDERICK PROPERTY
MANCHESTER, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	PID (ppm)	SOIL OR ROCK CLASSIFICATION	NOTES
	1	4	11				TOPSOIL Brown f-c SAND, little f-c Gravel, tr.silt (moist, FILL)	Driller noted Topsoil at the ground surface
		7	12		18	BKG		Sample No. 2- No recovery
	2	2	2					
		2	2		4	---		Photoionization Detector (PID) measurements recovered in parts per million (ppm)
5	3	3	5				Contains little Silt	
		5	3		10	BKG		BKG- Background
	4	3	4				Brown f-c SAND, little f-c Gravel, little Silty Clay (moist, loose, SW / Possible Fill)	
		4	7		8	60-70		
	5	2	6				Gray f-c GRAVEL, little f-c Sand, tr.silt, tr.clay (moist, firm, GW)	
10		13	14		19	70-120		
	6	5	9				Contains some f-c Sand, little Silt	
		14	19		23	400-1000		REF = Sample Spoon Refusal
	7	50/0.1			REF	500-1000	Boring completed at 12.1 feet below grade with split spoon refusal	No Free Standing Water encountered at Boring Completion
15							Samples collected at the following interval for analytical purposes: 10 to 12 feet including TICs	
20								

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geologist

DRILLER: S. WOLKIEWICZ

DRILL RIG TYPE : CME-550X

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 9/1/2017
FINISH 9/1/2017
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. SB-4
SURF. ELEV
G.W. DEPTH See Notes

PROJECT: BROWNFIELD PROJECT
PROJ. NO.: BD-17-092
LOCATION: FREDERICK PROPERTY
MANCHESTER, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	PID (ppm)	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2	3				TOPSOIL Brown f-c SAND, tr.gravel, tr.silt (moist, FILL)	Driller noted Topsoil at the ground surface
		4	5		7	BKG		Photoionization Detector (PID) measurements recorded in parts per million (ppm)
	2	5	5					
		6	5		11	BKG		BKG- Background
5	3	9	7				Contains little f-c Gravel	
		4	3		11	BKG		
	4	3	4					
		5	7		9	BKG	Brown f-c SAND, some f-c Gravel, little Silt (moist, loose, SM)	
	5	6	17					
10		12	18		29	BKG	Contains tr.clay (firm)	
							Boring Complete at 10.0 feet below grade	No Free Standing Water encountered at Boring Completion
							Samples collected at the following interval for analytical purposes: 8 to 10 feet	
15								
20								

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geologist

DRILLER: S. WOLKIEWICZ

DRILL RIG TYPE : CME-550X

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 9/5/2017
FINISH 9/5/2017
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. SB-5
SURF. ELEV
G.W. DEPTH See Notes

PROJECT: BROWNFIELD PROJECT
PROJ. NO.: BD-17-092
LOCATION: FREDERICK PROPERTY
MANCHESTER, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	PID (ppm)	SOIL OR ROCK CLASSIFICATION	NOTES
	1	1	2				TOPSOIL Brown f-c SAND, little f-c Gravel, tr.silt (moist, FILL)	Driller noted Topsoil at the ground surface
		4	5		6	BKG		Photoionization Detector (PID) measurements recorded in parts per million (ppm)
	2	2	4				Brown Silty CLAY, little f-c Sand (moist, stiff, CL)	
		5	6		9	BKG		BKG- Background
5	3	11	13				Brown f-c SAND, some f-c Gravel, little Silt (moist, firm, SW-SM)	
		10	17		23	BKG		
	4	50/0.3			REF	BKG	Gray f-c GRAVEL, tr.sand (moist, v.compact, GW)	
							Boring completed at 6.3 feet below grade with split spoon refusal	
							Samples collected at the following interval for analytical purposes: 4 to 6 feet	
10								
15								
20								

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geologist

DRILLER: S. WOLKIEWICZ

DRILL RIG TYPE : CME-550X

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 9/5/2017
FINISH 9/5/2017
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. SB-6
SURF. ELEV
G.W. DEPTH See Notes

PROJECT: BROWNFIELD PROJECT
PROJ. NO.: BD-17-092
LOCATION: FREDERICK PROPERTY
MANCHESTER, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	PID (ppm)	SOIL OR ROCK CLASSIFICATION	NOTES
	1	3	4				TOPSOIL Brown f-c SAND, little Silt, tr.gravel (moist, FILL)	Driller noted Topsoil at the ground surface
		6	9		10	1.8	Brown Clayey SILT, some f-c Sand, little f-c Gravel (moist, FILL)	Photoionization Detector (PID) measurements recorded in parts per million
	2	2	1				Brown Silty CLAY, little f-c Gravel, little f-c Sand, tr.cinders (moist, FILL)	
		1	2		2	1.1		
5	3	7	3				Brown f-c SAND, little f-c Gravel, little Silt, occasional silty clay partings (moist, loose, SM)	BKG- Background Sample No. 3- Coarse
		6	50/0.4		9	1.7	Boring complete at 5.9 feet below grade with split spoon refusal	gravel present in sampling shoe
							Samples collected at the following intervals for analytical purposes: 0 to 2 inches 2 to 12 inches 12 to 24 inches 4 to 6.9 feet	No Free Standing Water encountered at Boring Completion
10								
15								
20								

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geologist

DRILLER: S. WOLKIEWICZ

DRILL RIG TYPE : CME-550X

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

DATE
START 9/1/2017
FINISH 9/1/2017
SHEET 1 OF 1

SJB SERVICES, INC.
SUBSURFACE LOG

HOLE NO. SB-7
SURF. ELEV
G.W. DEPTH See Notes

PROJECT: BROWNFIELD PROJECT
PROJ. NO.: BD-17-092
LOCATION: FREDERICK PROPERTY
MANCHESTER, NY

DEPTH FT.	SMPL NO.	BLOWS ON SAMPLER 0/6	6/12	12/18	N	PID (ppm)	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2	7				TOPSOIL Brown SILT, some f-c Sand, little f-c Gravel, tr.cinders (moist, FILL)	Driller noted Topsoil at the ground surface
		10	10		17	BKG		Photoionization Detector (PID) measurements recorded in parts per million
	2	6	6					
		4	3		10	BKG	Gray f-c GRAVEL, little silty Clay, tr.sand (moist, loose, GW/Possible Fill)	Background- BKG
5	3	5	8					
		9	7		17	BKG	Contains some Silty Sand (firm)	Sample No. 2- Possible cobble fragments
	4	9	12				Brown Silty SAND, some f-c Gravel (moist, compact, SM)	
		19	17		31	BKG		REF = Sample Spoon Refusal
	5	50/0.4			REF	BKG	Boring complete at 8.4 feet below grade with split spoon refusal	
10								No Free Standing Water encountered at Boring Completion
							Samples collected at the following intervals for analytical purposes: 0 to 2 inches 2 to 12 inches (includes MS/MSD) 12 to 24 inches 6 to 8 feet	
15								
20								

N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW

CLASSIFIED BY: Geologist

DRILLER: S. WOLKIEWICZ

DRILL RIG TYPE : CME-550X

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

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ENVIRONMENTAL CONSULTANTS

DAY ENVIRONMENTAL, INC.

AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5474S-18
Project Address: 147 State Street
Manchester, New York
DAY Representative: CAH/HM2
Drilling Contractor: Nothnagle Drilling
Sampling Method: Direct Push/Macrocore

Test Boring TB- 201

Ground Elevation: NA Datum: NA
Date Started: 6/20/2018 Date Ended: 6/20/2018
Borehole Depth: 9.5' Borehole Diameter: 2.25
Completion Method: ☐ Well Installed ■ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): NA

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	Grass and Topsoil	
								Tan, fine Sand, little Silt, little fine to medium Gravel, damp (FILL)	
2	-	S-1	0-4	70	-		0.0		
							0.0	...Brown, medium Sand	
3							0.0		
4						0.0		Brown, Clayey SAND and GRAVEL, trace Cobbles, damp	
5							0.0		
6	-	S-2	4-8	20	-		0.0		
7						0.0	0.0		
8							0.0		
9	-	S-3	8-9.5	65	-	0.0	0.0	Gray/Tan, Clayey SAND and weathered ROCK, wet Fractured ROCK, wet	
10								Equipment Refusal @ 9.5'	
11									
12									
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard. A MiniRae 3000 equipped with a 10.6 eV lamp was used to obtain the PID readings.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB- 201

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ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5474S-18
Project Address: 147 State Street
Manchester, New York
DAY Representative: CAH/HM2
Drilling Contractor: Nothnagle Drilling
Sampling Method: Direct Push/Macrocore

Test Boring TB- 202

Ground Elevation: NA Datum: NA
Date Started: 6/20/2018 Date Ended: 6/20/2018
Borehole Depth: 12.2' Borehole Diameter: 2.25
Completion Method: ☐ Well Installed ■ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): NA

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	Grass and Topsoil	
2	-	S-1	0-4	65	-		0.0	Tan, fine to medium Sand and fine to coarse Gravel, damp (FILL)	
3						0.0		Tan, fine Sand, damp (FILL)	
4							0.0	Red/Brown, fine to coarse Sand and fine to coarse Gravel, trace Cobbles, moist (FILL)	
5									
6	-	S-2	4-8	15	-	0.0	0.0		
7									
8								...wet	
9							0.0	Brown/Gray, Silty SAND and GRAVEL, wet	
10	-	S-3	8-12	33	-				
11						1.9	0.0		
12	-	S-4	12-12.2	100	-	3.1	0.5		
13								Equipment Refusal @ 12.2'	
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard. A MiniRae 3000 equipped with a 10.6 eV lamp was used to obtain the PID readings.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB- 202

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Project #: 5474S-18
Project Address: 147 State Street
Manchester, New York
DAY Representative: CAH/HM2
Drilling Contractor: Nothnagle Drilling
Sampling Method: Direct Push/Macrocore

Test Boring TB- 203

Ground Elevation: NA Datum: NA
Date Started: 6/20/2018 Date Ended: 6/20/2018
Borehole Depth: 9.1' Borehole Diameter: 2.25
Completion Method: ☐ Well Installed ■ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): NA

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.1	Grass and Topsoil	
							6.8	Gray/Black, fine Sand and crushed Rock, damp (FILL)	
2	-	S-1	0-4	100	-	4.0		Dark Brown, SILT, little Sand, little fine Gravel, damp	
							4.6	Red/Brown, CLAY, trace fine Gravel, moist	
3							2.1		
4									
5							0.0		
							0.0	Tan, Clayey medium SAND and fine to coarse GRAVEL, moist	
6	-	S-2	4-8	90	-				
							0.0		
7						0.0		...fine Sand	
							0.0	...wet	
8									
9	-	S-3	8-9.1		-	0.0	0.0	Tan, Fractured BEDROCK, little medium to fine Sand, little Clay, wet	
10								Equipment Refusal @ 9.1'	
11									
12									
13									
14									
15									
16									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard. A MiniRae 3000 equipped with a 10.6 eV lamp was used to obtain the PID readings.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB- 203

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AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5474S-18
Project Address: 147 State Street
Manchester, New York
DAY Representative: CAH/HM2
Drilling Contractor: Nothnagle Drilling
Sampling Method: Direct Push/Macrocore

Test Boring TB- 204

Ground Elevation: NA Datum: NA
Date Started: 6/20/2018 Date Ended: 6/20/2018
Borehole Depth: 9.1' Borehole Diameter: 2.25
Completion Method: ☐ Well Installed ■ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): NA

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	Grass and Topsoil	
								Tan, fine Sand, little Silt, little fine to coarse Gravel, damp (FILL)	
2	-	S-1	0-4	85	-		0.0	Tan/Brown, fine to medium Sand, little fine to coarse Gravel, damp (FILL)	
							0.0		
3						0.0			
							0.0	Red/Brown, medium to coarse Sand, moist (FILL)	
4									
							0.3	…Sand and Gravel	
5						0.0			
							0.0		
6	-	S-2	4-8	60	-			...little Clay, wet	
							0.0		
7									
8								Gray, Silty SAND and GRAVEL, wet	
9	-	S-3	8-9.1	50	-	0.0	1.1	Fractured BEDROCK, little Clay,wet	
10								Equipment Refusal @ 9.1'	
11									
12									
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard. A MiniRae 3000 equipped with a 10.6 eV lamp was used to obtain the PID readings.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB- 204

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AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5474S-18
Project Address: 147 State Street
Manchester, New York
DAY Representative: CAH/HM2
Drilling Contractor: Nothnagle Drilling
Sampling Method: Direct Push/Macrocore

Test Boring TB- 205

Ground Elevation: NA Datum: NA
Date Started: 6/20/2018 Date Ended: 6/20/2018
Borehole Depth: 7.9' Borehole Diameter: 2.25
Completion Method: ☐ Well Installed ■ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): NA

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	Grass and Topsoil	
2	-	S-1	0-4	73	-	0.0	0.0	Tan, fine Sand, little Silt, little Gravel, damp (FILL)	
3							0.0	Tan, fine Sand, little fine to coarse Gravel (FILL)	
4								...medium to coarse Sand, moist	
5	-	S-2	4-7.7	58	-	0.0	0.2		
6							0.0	Brown, Clayey SAND and GRAVEL, moist	
7							0.0	...wet Tan, CLAY, trace fine Sand	
8	-	S-3	7.7-7.9	100	-	0.0	0.0	Fractured BEDROCK, wet	
9								Equipment Refusal @ 7.9'	
10									
11									
12									
13									
14									
15									
16									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard. A MiniRae 3000 equipped with a 10.6 eV lamp was used to obtain the PID readings.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB- 205

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Project #: 5474S-18
Project Address: 147 State Street
Manchester, New York
DAY Representative: CAH/HM2
Drilling Contractor: Nothnagle Drilling
Sampling Method: Direct Push/Macrocore

Test Boring TB- 206

Ground Elevation: NA Datum: NA
Date Started: 6/20/2018 Date Ended: 6/20/2018
Borehole Depth: 8.0' Borehole Diameter: 2.25
Completion Method: ☐ Well Installed ■ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): NA

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1						0.0	3.6	Grass and Topsoil	
								Tan, fine to medium Sand, little Silt, little fine to medium Gravel, damp (FILL)	
							1.1		
2	-	S-1	0-4	80	-				
							0.6		
3									
							0.3	Brown, medium Sand, little fine to coarse Gravel, moist (FILL)	
4									
5							0.0		
								Brown, clayey fine SAND, some fine to coarse Gravel, moist	
6	-	S-2	4-8	40	-		0.0		
7						0.0	0.0	...some cobbles	
8									
								Equipment Refusal @ 8.0'	
9									
10									
11									
12									
13									
14									
15									
16									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard. A MiniRae 3000 equipped with a 10.6 eV lamp was used to obtain the PID readings.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB- 206

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DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5474S-18
Project Address: 147 State Street
Manchester, New York
DAY Representative: CAH/HM2
Drilling Contractor: Nothnagle Drilling
Sampling Method: Direct Push/Macrocore

Test Boring TB- 206A

Ground Elevation: Datum:
Date Started: 6/20/2018 Date Ended: 6/20/2018
Borehole Depth: 11.5' Borehole Diameter: 2.25
Completion Method: ☐ Well Installed ■ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date):

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	Grass and Topsoil	
2	-	S-1	0-4	70	-	0.0	0.0	Tan, fine Sand, some fine to medium Gravel, damp (FILL)	
3							0.0	Brown, medium Sand, some fine to medium Gravel, moist (FILL)	
4									
5							0.0		
6	-	S-2	4-8	35	-	0.0		Brown, Clayey SAND and GRAVEL, moist	
7							0.0		
8									
9							0.0		
10	-	S-3	8-11.5	38	-	4.7	3.3	Gray, Clayey SAND and weathered BEDROCK, wet	**Faint petroleum-type odor ~ 9' - 11'**
11							1.6	Fractured BEDROCK, wet	
12								Refusal @ 11.5'	
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard. A MiniRae 3000 equipped with a 10.6 eV lamp was used to obtain the PID readings.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB- 206A

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day

ENVIRONMENTAL CONSULTANTS

DAY ENVIRONMENTAL, INC.

AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5474S-18
Project Address: 147 State Street
Manchester, New York
DAY Representative: CAH/HM2
Drilling Contractor: Nothnagle Drilling
Sampling Method: Direct Push/Macrocore

Test Boring TB- 207

Ground Elevation: NA Datum: NA
Date Started: 6/20/2018 Date Ended: 6/20/2018
Borehole Depth: 11.5' Borehole Diameter: 2.25
Completion Method: ☐ Well Installed ■ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): NA

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	Grass and Topsoil	
								Tan, fine Sand, little Silt, littl fine to coarse Gravel, damp (FILL)	
2	-	S-1	0-4	80	-		0.0		
							0.0		
3						0.0		Brown, medium Sand, little fine to coarse Gravel, damp (FILL)	
							0.0		
4									
							0.0	...little Silt	
5									
							0.0		
6	-	S-2	4-8	55	-				
						1.1		Brown/Gray, Clayey SAND and GRAVEL, Moist	
7							9.8		
						188.6			
8							164.4		Petroleum-type odor ~ 7.0' - 11.5'
							154.8	Gray, CLAY and weathered BEDROCK, little Sand, wet	
9									
10	-	S-3	8-11.5	70	-	702.3	1,026		Black staining ~ 10.0'
							31.1		
11						65.1	21.1		
							17.2	Fractured BEDROCK, Wet	
12								Equipment Refusal @ 11.5'	
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard. A MiniRae 3000 equipped with a 10.6 eV lamp was used to obtain the PID readings.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB- 207

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Project #: 5474S-18
Project Address: 147 State Street
Manchester, New York
DAY Representative: CAH/HM2
Drilling Contractor: Nothnagle Drilling
Sampling Method: Direct Push/Macrocore

Test Boring TB- 208

Ground Elevation: NA Datum: NA
Date Started: 6/20/2018 Date Ended: 6/20/2018
Borehole Depth: 9.7' Borehole Diameter: 2.25
Completion Method: ☐ Well Installed ■ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): NA

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.1	Grass and Topsoil	
							0.3	Tan, fine Sand, little Silt, little fine to medium Gravel, damp (FILL)	
2	-	S-1	0-4	70	-	0.0	0.3	Brown, medium Sand, little fine to coarse Gravel, moist (FILL)	
3							0.2	...little Silt	
4							0.0		
5							0.1		
6	-	S-2	4-8	60	-	0.0		Gray Clayey SAND and Gravel, little weathered Bedrock, moist	
7							0.6		
8							0.4		
							0.5		
9	-	S-3	8-9.7	50	-	7.1	0.8	…wet	
							6.4		
10								Fractured BEDROCK, wet	
11								Refusal @ 9.7'	
12									
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard. A MiniRae 3000 equipped with a 10.6 eV lamp was used to obtain the PID readings.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring TB- 208

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Project #: 5474S-18
Project Address: 147 State Street
Manchester, New York
DAY Representative: CAH/HM2
Drilling Contractor: Nothnagle Drilling
Sampling Method: Direct Push/Macrocore

Test Boring MW-A

Ground Elevation: NA Datum: NA
Date Started: 6/20/2018 Date Ended: 6/20/2018
Borehole Depth: 11.0' Borehole Diameter: 3.25
Completion Method: ☐ Well Installed ☐ Backfilled with Grout ■ Backfilled with Cuttings
Water Level (Date): NA

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1							0.0	Grass and Topsoil	
								Tan, fine Sand, little Silt, little fiine ro medium Gravel, damp (FILL)	
2	-	S-1	0-4	80	-	0.0	0.0		
								Brown, medium Sand, little fine to medium Gravel, moist (FILL)	
3							0.0		
4									
5							0.0	...little Cobbles	
6	-	S-2	4-8	20	-	0.0	0.0		
7							0.0		
8									
9	-	S-3	8-11	55	-		85.2	Gray/Brown, Clayey SAND and GRAVEL, wet	**Petroleum-type odor ~ 9' - 11'**
10						1347	1563 2281	Weathered BEDROCK, little Clay, little Sand, wet	
11						1878	747		
								Equipment Refusal @ 11.0'	
12									
13									
14									
15									
16									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to an isobutylene standard. A MiniRae 3000 equipped with a 10.6 eV lamp was used to obtain the PID readings.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring MW-A

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APPENDIX D – SITE MANGEMENT FORMS

Site-Wide Inspection Form

Frederick Property

147 State Street,

Manchester, New York

NYSDEC Site Number: B00131-8

Date of Inspection Site Visit:

Personnel Performing Inspection Site Visit:

Affiliation of Personnel:

1. **Check integrity of impermeable portions (e.g., concrete) of cover system, include whether any sloughing, cracks, settlement, damage, etc.**

Discuss observations and any corrective actions:

2. **Check integrity of permeable portions (e.g., soil) of cover system, include whether any sloughing, cracks, settlement, damage, etc.**

Discuss observations and any corrective actions:

3. **Check integrity of vegetative cover (e.g., grass), include whether any dead areas, erosion, etc.**

Discuss observations and any corrective actions:

4. **Check integrity of building floor slabs (e.g., ground floor and basement), include whether any sloughing, cracks, settlement, damage, etc.**

Discuss observations and any corrective actions:

5. **Groundwater Monitoring Well Assessment**

Discuss observations and any corrective actions:

Summary of Green Remediation Metrics for Site Management

Site Name: _____ Site Code: _____
Address: _____ City: _____
State: _____ Zip Code: _____ County: _____

Initial Report Period (Start Date of period covered by the Initial Report submittal)
Start Date: _____

Current Reporting Period
Reporting Period From: _____ To: _____

Contact Information
Preparer's Name: _____ Phone No.: _____
Preparer's Affiliation: _____

I. Energy Usage: Quantify the amount of energy used directly on-site and the portion of that derived from renewable energy sources.

	Current Reporting Period	**Total to Date**
Fuel Type 1 (e.g. natural gas (cf))		
Fuel Type 2 (e.g. fuel oil, propane (gals))		
Electricity (kWh)		
Of that Electric usage, provide quantity:		
Derived from renewable sources (e.g. solar, wind)		
Other energy sources (e.g. geothermal, solar thermal (Btu))		

Provide a description of all energy usage reduction programs for the site in the space provided on Page 3.

II. Solid Waste Generation: Quantify the management of solid waste generated on-site.

	Current Reporting Period (tons)	**Total to Date (tons)**
Total waste generated on-site		
OM&M generated waste		
Of that total amount, provide quantity:		
Transported off-site to landfills		
Transported off-site to other disposal facilities		
Transported off-site for recycling/reuse		
Reused on-site		

Provide a description of any implemented waste reduction programs for the site in the space provided on Page 3.

III. Transportation/Shipping: Quantify the distances travelled for delivery of supplies, shipping of laboratory samples, and the removal of waste.

	Current Reporting Period (miles)	Total to Date (miles)
Standby Engineer/Contractor		
Laboratory Courier/Delivery Service		
Waste Removal/Hauling		

Provide a description of all mileage reduction programs for the site in the space provided on Page 3. Include specifically any local vendor/services utilized that are within 50 miles of the site.

IV. Water Usage: Quantify the volume of water used on-site from various sources.

	Current Reporting Period (gallons)	Total to Date (gallons)
Total quantity of water used on-site		
Of that total amount, provide quantity:		
Public potable water supply usage		
Surface water usage		
On-site groundwater usage		
Collected or diverted storm water usage		

Provide a description of any implemented water consumption reduction programs for the site in the space provided on Page 3.

V. Land Use and Ecosystems: Quantify the amount of land and/or ecosystems disturbed and the area of land and/or ecosystems restored to a pre-development condition (i.e. Green Infrastructure).

	Current Reporting Period (acres)	Total to Date (acres)
Land disturbed		
Land restored		

Provide a description of any implemented land restoration/green infrastructure programs for the site in the space provided on Page 3.

Description of green remediation programs reported above (Attach additional sheets if needed)
Energy Usage:
Waste Generation:
Transportation/Shipping:
Water usage:
Land Use and Ecosystems:
Other:

CERTIFICATION BY CONTRACTOR

I, _____ (**Name**) do hereby certify that I am _____ (**Title**) of the Company/Corporation herein referenced and contractor for the work described in the foregoing application for payment. According to my knowledge and belief, all items and amounts shown on the face of this application for payment are correct, all work has been performed and/or materials supplied, the foregoing is a true and correct statement of the contract account up to and including that last day of the period covered by this application.

_____

Date **Contractor**

APPENDIX E - EXCAVATION WORK PLAN (EWP)

E-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the NYSDEC. Table 1 includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B.

Table E-1: Notifications*

Danielle J Miles EIT	(585)226-5349 danielle.miles@dec.ny.gov
Bernette Schilling P.E.	**(**585) 226-5315 bernette.schilling@dec.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix F of this SMP;
- Identification of disposal facilities for potential waste streams; and

- Identification of sources of any anticipated backfill, along with all required chemical testing results.
-

E-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided in Section E-7 of this Appendix.

E-3 SOIL STAGING METHODS

Depending upon the quantity of material excavated, impacted materials may be loaded directly into trucks for transport and off-Site for disposal, placed within roll-off containers and/or placed in a soil stockpile. Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by the NYSDEC.

E-4 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the Site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

E-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes will be provided by transporter and approved by the NYSDEC prior to transporting contaminated material off-site. All trucks loaded with Site materials will exit the vicinity of the Site using only these approved truck routes. The most appropriate route will takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; and (g) community input [where necessary]

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

E-6 MATERIALS DISPOSAL OFF-SITE

As determined by characterization results, impacted excavated and removed soil, fill or solid waste will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal

regulations. If disposal of material from this Site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this Site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility (i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc.), if appropriate. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

E-7 MATERIALS REUSE ON-SITE

In the event that excavation activities at the Site encounter potentially contaminated materials, the materials may be re-used on-Site in accordance with guidelines set forth below in this EWP. Chemical criteria for on-site re-use of material that have been approved by NYSDEC are those set forth in 6 NYCRR Part 375 Table 375-6.8(a) and Table 375-6.8(b). The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines. Soil that exceeds the Protection of Groundwater SCOs but is approved for on-site reuse must be placed below the cover system but above the groundwater table. In addition, any new guidance/regulations/policies regarding Emerging Contaminant sampling for reuse of materials on-site will be followed.

In order to qualify for on-site re-use as cover or off-Site re-use, the material must:

- Be free of extraneous debris or solid waste
- Consist of soil or other unregulated materials as set forth in 6NYCRR Part 360.
- Be tested at the rate outlined in Table E-7-A

Table E-7-A

Required number of Soil Samples to determine re-use suitability of excavated on-Site soils

Contaminant	VOCs	SVOCs Inorganics PCBs/Pesticides	
Soil Quantity (yd^3)	Discrete Samples	Composite	Discrete Samples/Composite
0-50	1	1	3-5 discrete samples from different locations in the fill or soil to be re-used will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
>1000	Add an additional 2 VOC and 1 composite for each additional 1000 cubic yards or consult with NYSDEC DER Project Manager		

Based on the testing outcome, soil may be re-used on-site as cover or off-site in the following manner:

- Soil that meets the Unrestricted Use SCOs set forth in 6 NYCRR Part 375 Table 375-6.8(a) may be re-used without restriction on-Site (backfill, cover, etc.) or off-Site.
- Soil that meets the Restricted Residential Use SCOs [set forth in 6 NYCRR Part 375 Table 375-6.8(b)] may be re-used on-Site without restriction (backfill, cover, etc.).

Soil that exceeds Restricted Residential Use SCOs [set forth in 6 NYCRR Part 375 Table 375-6.8(b)] may be re-used on-Site; however, it must be 1) placed below the existing cover system, or 2) placed below a new cover system meeting NYSDEC requirements. The location where it is

re-used must be documented. Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site will not be reused on-site.

E-8 FLUIDS MANAGEMENT

All liquids to be removed from the Site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the Site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

If appropriate, discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

E-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the RAWP. The existing cover system is comprised of a minimum of two feet of clean fill/topsoil. A demarcation layer, consisting of orange snow fencing material or black geotextile material will be installed to provide a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in an updated SMP.

E-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the Site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the Site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). In addition, any new guidance/regulations/policies regarding Emerging Contaminant sampling for imported materials will be followed. Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards for imported backfill and cover soil at the Site are Restricted Residential SCOs as referenced in 6 NYCRR 375-638(b). Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

E-11 STORMWATER POLLUTION PREVENTION

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

E-12 EXCAVATION CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the Site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC’s Project

Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

E-13 COMMUNITY AIR MONITORING PLAN

Refer to Appendix F for a copy of the site specific Health and Safety Plan that includes a community air monitoring plan.

Exceedances of action levels listed in the community Air Monitoring Program (CAMP) will be reported to NYSDEC and NYSDOH Project Managers on the day of exceedance. All data is to be reported in the final report for the excavation activity.

E-14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site. If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events within one day of the odor event and notified of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be discussed in the Excavation Activities Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods, etc.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

E-15 DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

E-16 OTHER NUISANCES

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

E-17 REPORTING

A report is to be submitted to the NYSDEC within 90 days of completion of the activities performed under this EWP. This report shall contain a summary of the activities performed; a summary of all data gathered and results; information about any media that was removed from the Site: volume, contamination levels, area from which removed; and any other information that may be indicate a change to the “remaining contamination” that is at the Site. Such changes may require revision of the SMP.

APPENDIX F - FIELD SAMPLING PLAN

Well Development

In the event that it is necessary to re-develop one or more of the existing and/or new replacement monitoring wells prior to completing a periodic groundwater monitoring event, the following procedure will be followed. Monitoring wells will be developed by utilizing either a new dedicated disposable bailer with dedicated cord, and/or a pump and dedicated disposable tubing depending on the field conditions. No fluids will be added to the wells during development without prior approval of the NYSDEC, and well development equipment will be decontaminated prior to development of each well.

The well development procedure is listed below:

- Obtain pre-development static water level and oil/water interface reading for presence of LNAPL or DNAPL using a Heron Model HO1.L oil/water interface probe or similar instrument;
- Calculate water/sediment volume in the well;
- Obtain initial field water quality measurements (e.g., pH, specific conductivity, turbidity, temperature, and PID readings). The pH, specific conductivity, turbidity and temperature readings will be obtained using Horiba U-22 water quality meter (or similar equipment);
- Select development method and set up equipment depending on method used;
- Alternate water agitation methods (e.g., moving a bailer or pump tubing up and down inside the screened interval) and water removal methods (e.g., pumping or bailing) in order to suspend and remove solids from the well;
- Obtain field water quality measurements for every two to five gallons of water removed. Record water quantities and rates removed;
- Stop development when the following water quality criteria are met and at least 10 well volumes have been removed;
    - Water is clear and free of sediment and turbidity is less than 50 nephelometric turbidity units (NTUs);
    - pH is ±0.1 standard unit between readings;
    - Specific conductivity is ±3% between readings, and;
    - Temperature is ±10% between readings.
    - Obtain post-development water level readings; and
    - Document development procedures, measurements, quantities, etc.

Pertinent information for each well will be recorded on well development logs

Groundwater Sampling Methodology

- In order to minimize the potential re-suspension of solids in the bottom of the well, well depths will not be measured prior to or during low-flow purging and sampling. Well depth information will be obtained from: 1) measurements collected during well development; 2) from well logs; or 3) will be measured after sampling is completed.

- Subsequent to obtaining static water level measurements and monitoring the wells for LNAPL, the following low-flow purge and sample techniques will be used to collect a groundwater sample from each well:

o A portable bladder pump connected to new disposable polyethylene tubing will be lowered and positioned at or slightly above the mid-point of the water column within the well screen when the screened interval is set in relatively homogeneous material. When the screened interval is set in heterogeneous materials, the pump will be positioned adjacent to the zone of highest hydraulic conductivity (as defined by geologic samples). Care will be taken to install and lower the bladder pump slowly in order to minimize disturbance of the water column.

o The pump will be connected to a control box that is operated on compressed gas (nitrogen, air, etc.) and is capable of varying pumping rates. An in-line flow-through cell attached to a Horiba U-22 water quality meter (or similar equipment) will be connected to the bladder pump effluent tubing to measure water quality data.

o The pump will be started at a pumping rate of 100 ml/min or less (for pumps that can not achieve a flow rate this low, the pump will be started at the lowest pump rate possible). The water level in the well will be measured and the pump rate will be adjusted (i.e., increased or decreased) until the drawdown is stabilized. In order to establish the optimum flow-rate for purging and sampling, the water level in the well will be measured on a periodic basis (i.e., every one or two minutes) using an electronic water level meter or an oil/water interface meter. When the water level in the well has stabilized (i.e., use goal of <0.33 ft. of constant drawdown), the water level measurements will be collected less frequently.

o While purging the well at the stabilized water level, water quality indicator parameters will be monitored on a three to five minute basis with the Horiba U-22 water quality meter (or similar equipment). Water quality indicator parameters will be considered stabilized when the parameter readings listed below are generally achieved after three consecutive readings:

  - pH (+ 0.1);
  - specific conductance (+ 3%);
  - dissolved oxygen (+ 10 %);
  - oxidation-reduction potential (+ 10 mV);
  - temperature (+ 10%); and
  - turbidity (+ 10%, when turbidity is greater than 10 NTUs)

  o Following stabilization of the water quality parameters, the flow-through cell will be disconnected and a groundwater sample will be collected from the bladder pump effluent tubing. The pumping rate during sampling will remain at the established purging rate or it may be adjusted downward to minimize aeration, bubble formation, or turbulent filling of sample containers. A pumping rate below 250 ml/min will be used when collecting VOC samples.

- The procedures and equipment used during the purging and groundwater sampling, and the field measurement data obtained, will be documented in the field and recorded on Monitoring Well Sampling Logs.

- During sampling, the following parameters will be measured using a water quality meter(s) and will later be presented on Monitoring Well Sampling Logs:

    - Dissolved Oxygen (DO)
    - Conductivity
    - Oxidation/Reduction Potential (redox)
    - pH
    - Temperature
    - Turbidity

The procedures and equipment used during the purging and groundwater sampling, and the field measurement data obtained, will be documented in the field and recorded on Monitoring Well Sampling Logs.

In addition to the samples collected from the long-term groundwater monitoring system, one trip blank sample, one field blank sample and one MS/MSD sample will be collected and submitted under chain-of-custody control to a NYSDOH ELAP-certified analytical laboratory and tested via ASP protocol for the following:

- TCL VOCs plus TICS
- TCL SVOCs plus TICs
- Trip blank will only be tested for TCL VOCs plus TICs.

APPENDIX G - QUALITY ASSURANCE PROJECT PLAN

QUALITY ASSURANCE/QUALITY CONTROL

The objective of the QA/QC protocol and procedures is to ensure that the information, data, and decisions associated with this project are technically sound and properly documented. The QA/QC protocol and procedures pertain to the collection, evaluation, and review of activities and data that are part of this project.

EQUIPMENT DECONTAMINATION PROCEDURES

In order to reduce the potential for cross-contamination of samples collected most of the materials used to assist in obtaining samples will be disposable one-time use materials (e.g., sampling containers, pump tubing, latex gloves, etc.). However, when equipment must be re-used (e.g., static water level indicator, split bladder pump, etc.), it will be decontaminated by the following method:

- Rough wash in tap water; wash in mixture of tap water and Alconox-type soap; double rinse with deionized or distilled water; and air dry and/or dry with clean paper towel.

The effectiveness of the equipment decontamination of non-dedicated sampling equipment such as the low flow bladder pump will be evaluated via analytical laboratory testing of field blanks (e.g., rinsate samples). Decontamination liquids and disposable equipment and PPE will be containerized and left on-site until a proper disposal method is determined.

SAMPLE HANDLING AND CUSTODY REQUIREMENTS

During sampling activities, personnel will wear disposable latex or nitrile gloves. Between collection of samples, personnel performing the sampling will discard used latex gloves and put on new gloves to preclude cross-contamination between samples. As few personnel as possible will handle samples or be in charge of their custody prior to shipment to the analytical laboratory.

New laboratory-grade sample containers will be used to collect samples. Sufficient volume will be collected to ensure that the laboratory has adequate sample volume to perform the specified analyses. Samples with zero headspace will be collected when VOC analysis is going to be performed. Samples will be kept on ice in a cooler for shipment to the analytical laboratory.

Samples will be preserved as specified by the analytical laboratory for the type of parameters and matrices being tested. The required amount of preservatives will be added by the analytical laboratory to the sample containers prior to delivery to the Site. The sample preservation requirements and holding times will be in accordance with the NYSDEC ASP requirements.

Chain-Of-Custody

Samples that are collected for subsequent testing as part of this project will be handled using chain-of-custody control. Chain-of-custody documentation will accompany samples from their inception to their analysis, and copies of chain-of-custody documentation will be included with the laboratory's report. The chain-of-custody will include the date and time the sample was collected, the sample identity and sampling location, the requested analysis, and any request for accelerated turnaround time.

Sample Labels

Sample labels for field samples and QC samples with adhesive backing will be placed on sample containers in order to identify the sample. Sample information will be clearly written on the sample labels using waterproof ink. Sufficient sample information will be provided on the label to allow for cross-reference with the field sampling records or sample logbook.

The following information will be provided on each sample label:

Name of company;
Initials of sampler;
Date and time of collection;
Sample identification;
Intended analyses; and
Preservation required.

Custody Seals

Custody seals are preprinted adhesive-backed seals that are designed to break if disturbed. Seals will be signed and dated before being placed on the shipping cooler. Seals will be placed on one or more location on each shipping cooler as necessary to ensure security. Shipping tape will be placed over the seals on the coolers to ensure that the seals are not accidentally broken during shipment. Sample receipt personnel at the laboratory will check and document whether the seals on the shipping coolers are intact when received.

Sample Identification

The following format will be used on the labels affixed to sample containers to identify samples:

The sample test location will be provided using the following test location designations:

IA-xx	Indoor Air Sample
MW-Axx/xx/xx / day /year	Groundwater sample with monitoring well letter and month
TBxx/xx/xx-	Trip Blank sample with month/day /year
FBxx/xx/xx-	Field Blank sample (rinsate) with month/day /year

As an example, assuming the first project sample is a groundwater sample collected from a monitoring well MW-A on July 1, 2020, the sample will be designated as MW-A-07/01/20.

Transportation of Samples

Samples will be handled, packaged and shipped in accordance with applicable regulations, and in a manner that does not diminish their quality or integrity. Samples will be delivered to the laboratory within the holding times indicated for the specific analysis and sample media.

ANALYTICAL LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

The ELAP-certified analytical laboratory test results will be reported in NYSDEC Analytical Services Protocol (ASP) Category B deliverable reports. Analytical laboratory test results for soil samples will be reported on a dry-weight basis. The ELAP-certified analytical laboratory will make every effort to analyze the samples using the lowest practical quantitation limits (PQLs) possible for air and groundwater samples. In addition, analytical laboratory results will be provided to the NYSDEC using the NYSDEC's Equis Format.

The ELAP-certified analytical laboratory will provide internal QA/QC checks that are required by NYSDEC ASP protocol, such as analyses performed, spike blanks, internal standards, surrogate samples, calibration standards, and reference standards. Laboratory results will be compared to data quality indicators in accordance with the ELAP-certified analytical laboratory QAP/SOP and the NYSDEC ASP.

In order to provide control over the collection, analysis, review, and interpretation of analytical laboratory data, the following QA/QC samples will be included as part of this project.

- During each periodic groundwater monitoring event, one trip blank sample, one field blank sample (i.e., equipment rinsate sample) and one matrix spike/matrix spike duplicate (MS/MSD) sample will be collected and submitted under chain-of-custody control and tested via ASP protocol for TCL VOCs plus TICS and

TCL SVOCs plus TICs (except the trip blank, which would only be tested for TCL VOCs plus TICs).

Data Usability Summary Report

A qualified data validator will be retained to complete a data usability summary report (DUSR) on the Category B deliverables analytical laboratory data that is generated as part of the long term monitoring program. The DUSR will be conducted in accordance with the provisions set forth in Appendix 2B of *DER-10, Technical Guidance for Site Investigation and Remediation* dated May 2010. The findings of the DUSR will be incorporated in the periodic review report and will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.

APPENDIX H – HEALTH AND SAFETY PLAN

TABLE OF CONTENTS

1.0 INTRODUCTION

This Health and Safety Plan (HASP) for environmental work being conducted at the Frederick Property site located at 147 State Street, in the Village of Manchester, Ontario County, New York (the Site). This HASP acts as a supporting document for field activities, consisting of soil, fill, surface water and ground water sampling at the Site. This plan will apply to all personnel and all subcontractors involved with the above mentioned activities.

The procedures set forth in this HASP are designed to reduce the risk of chemical and physical hazards that may be present at the Site. These procedures follow applicable federal, state, and local regulations, including Occupational Safety and Health Administration (OSHA) requirements governing activities at hazardous waste sites and the requirements in 29 CFR 1910.120. Specific practices and procedures, including the level of personal protective equipment (PPE), are based on review of currently available information for the Site.

This HASP for conformance with the requirements of a Hazardous Communication Program as specified in 29 CFR 1910.120. Every potential safety hazard associated with work at the Site cannot be predicted or anticipated. This HASP does not attempt to establish rules to cover every contingency that may arise, but it does provide a basic framework for the safe completion of field activities and plans for reasonable contingencies.

2.0 FIELD ACTIVITIES

A detailed description of upcoming field activities to be conducted at the Site is included in the Work Plan. Planned remedial activities include drilling and media sampling.

3.0 POTENTIAL CHEMICAL AND PHYSICAL HAZARDS

Volatile Organic Compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals are the major groups of chemicals that may be present in potentially hazardous concentrations at the Site.

These compounds may present hazards for inhalation; however, some may also present a concern through dermal absorption. As field activities normally involve subsurface disturbance for generally short periods of time, these pathways should be considered and planning, development, and implementation of specific procedures should be conducted to mitigate these potential concerns.

A summary of occupational exposure limits for chemicals of potential concern at the Site is presented in Table.

	ACGIH Threshold Limit Value (TLV)[1]		Permissible Exposure Limits (PEL)[4]		NIOSH Recommended Exposure Limits (REL)[5]	
Volatile Organics	8 Hour TWA[2] (PPM)	STEL/C[3] (PPM)	8 Hour TWA[2] (PPM)	STEL/C[3] (PPM)	8 Hour TWA[2] (PPM)	STEL/C[3] (PPM)
1,2-Dichloroethene (all isomers)	200	NE	200	NE	200	NE
Toluene	50	NE	200	C 300 STEL 500**	100	C 150
Trichloroethylene	50	C 100	100	C 200 STEL 300*	25 (10-Hr TWA)	25 (10-Hr TWA)

Metals

Arsenic	0.01		0.002	NE	0.01	NE
Barium	0.5		0.5	NE	0.5	NE
Cadmium	0.01		0.005	NE	LFC	NE
Chromium	0.5		0.5	NE	1.0	NE
Lead	0.15		0.05	NE	0.05	NE
Mercury	0.025		0.05	NE	0.1	NE
Selenium	0.2		0.2	NE	0.2	NE
Silver	0.1		0.01	NE	0.01	NE

NOTES:

Concentrations on table are in parts per million (PPM) for VOCs and SVOC. Metals are reported as mg/M^3

(1) American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value. L = ACGIH recommends exposure by all routes should be carefully controlled to levels as low as possible.

(2) Time Weighted Average (TWA) is the employee's average exposure in any 8-hour work shift of a 40-hour workweek. An employee's exposure to a material listed in this table, in any 8-hour work shift of a 40-hour workweek, shall not exceed the 8-hour TWA PEL given for that material in the table.

(3) Ceiling is a concentration that should not be exceeded at any time.

(4) Permissible Exposure Limit (PEL) is the exposure, inhalation, or dermal permissible exposure limit listed in 29CFR 1910.

(5) National Institute of Occupational Safety and Health (NIOSH) Recommended Exposure Limits.

(6) LFC = Lowest Feasible Concentration

N.E. = not established.

* = 5-minute peak in any 3-hour period

** = 10-minute peak per 8-hour shift

***= Cyclohexane-extractable fraction

4.0 HAZARDS EVALUATION

4.1 CHEMICAL HAZARDS

Standard safety procedures will be followed to minimize exposure of Site personnel to compounds of concern during field. Potential chemical hazards may include the following:

- exposure by inhalation, ingestion, and/or skin absorption of toxic gases, vapors, or dust contaminated with the chemicals of concern;
- injury by contact with corrosive or irritating chemical contaminants; and
- off-site migration of potentially contaminated airborne chemicals or dusts.

Site Personnel in the work zones must observe each other for signs of chemical exposure. Indications of adverse effects include, but are not limited to:

- changes in complexion and skin color;
- changes in coordination;
- changes in demeanor;
- excessive salivation and preliminary response; and
- changes in speech patterns.

Personnel should also inform their Field Team Leader of non-visible effects of overexposure to chemical materials. These symptoms may include, but are not limited to:

- headaches;
- dizziness;
- nausea;
- blurred vision;
- cramps; and/or
- irritation of eyes, skin or respiratory track.

4.1.1 Site Monitoring for Chemical Hazards

The primary compounds of concern in the work areas are selected VOCs, SVOCs and metals. Work area ambient air monitoring and good work practices will be used during the field activities to ensure that appropriate personal protection is used to minimize potential exposures. Organic vapors and particulate concentrations will be monitored routinely in the breathing zone with an appropriate direct-reading instrument. A calibrated flame ionization detector (FID) or a calibrated photoionization detector (PID) will be used to screen for VOCs during intrusive Site activities. Particulate concentrations will be measured in real time using a calibrated electronic aerosol monitor. Organic vapor and particulate concentrations, in conjunction with field observations, will be used as action level criteria for upgrading or downgrading personal protective equipment (PPE) and implementing additional precautions or procedures.

The potential risks associated with working in hot or cold weather will also be considered when upgrading levels of personal protective equipment. Work area ambient air and employee personal exposure level monitoring will be conducted by or under the supervision of the Health and Safety Officer (HSO). The HSO will properly maintain and calibrate work area ambient air and employee exposure level monitoring instruments throughout field activities to ensure their accuracy and reliability.

4.1.1.1 Organic Vapor Monitoring

Work area ambient air monitoring for VOCs will be conducted in the worker's breathing zone periodically at intervals recommended by the HSO. Screening for specific organic compounds will not be performed unless specific circumstances arise. Rather, action levels will be based on total VOC concentrations. Background VOC concentrations will be measured and recorded on a daily basis prior to initiation of work activities. Action levels listed below are above background.

Total VOC Concentration above background	Action Level	PPE Level
0 to 1 PPM	None	Level D
1 to 5 PPM	Full-Face Respirator with organic vapor cartridges	Level C
>5 PPM	Suspend Work or Supplied-Air Full-Face Respirator	Level B

In order to prevent unnecessary upgrading or downgrading, when the total VOC concentration in the breathing zone is close to an action level, the breathing zone of employees will be continuously monitored for a period of not less than 15 minutes to evaluate whether or not the exceedance is a temporary fluctuation.

4.1.1.2 Particulates Monitoring

Monitoring for particulates will be conducted in the breathing zone periodically at intervals recommended by the HSO. Screening for specific inorganic compounds will not be performed. Rather, action levels of airborne particulate in work area ambient air will be based on the mercury PEL. The decision to upgrade levels of protection must be made in conjunction with consideration of precipitation, wind conditions, and the anticipated duration of field activity. Background particulate concentrations will be measured and recorded on a daily basis prior to initiation of work activities. The action levels listed below are above background.

Sustained Reading in Breathing Zone	Action Level	PPE Level
5 mcg/m^3	None	Level D
5 mcg to 10 mcg/m^3	Full-Face Respirator with organic vapor cartridges	Level C
>10 mcg/m^3	Suspend Work or Supplied-Air Full-Face Respirator	Level B

In order to prevent unnecessary upgrading or downgrading, when the airborne particulate concentration in the breathing zone is close to an action level, the breathing zone of employees will be continuously monitored for a period of not less than 15 minutes to determine whether or not the exceedance is a temporary fluctuation.

4.1.2 Chemical Hazard Action Levels

Based upon the lowest occupational exposure value for the compounds listed in Table 3-1, action levels have been established for activity cessation and the upgrade or downgrade in the level of PPE. These action levels are guidelines; the HSO will have the ability to adjust PPE requirements as appropriate based on field conditions. Level D protection shall be used at a minimum for Site activities. The PPE requirements for additional protective equipment, if necessary, will be determined by the HSO based on weather and wind conditions, the particular field activity, the length of time in one location, potential for exposure, and applicable action levels. Descriptions of the various levels of PPE are presented in Section 6.0.

4.2 PHYSICAL HAZARDS

Standard safety procedures will be followed to minimize potential physical hazards. The primary physical safety hazards at the Site include, but are not limited to:

- • common slip, trip, and fall hazards;
- • overhead and buried utility hazards;
- • drill rig operation;
- • excavation equipment operation;
- • vehicular traffic;
- • lifting excessive weights;
- • sampling hazards;
- • excessive noise levels;
- • heat and cold stress; and
- • Other common industrial hazards.

4.2.1 Common Slip, Trip, Fall Hazards

Personnel should be aware of common slip, trip, or fall hazards that are encountered frequently in industrial and commercial environments. Heightened awareness and emphasis on good housekeeping are the most effective ways to prevent accidents.

4.2.2 Overhead and Buried Utility Hazards

Utility lines, both above and below ground, may pose a safety hazard for Site personnel during soil boring or other heavy equipment operations. If overhead utilities have been identified as a hazard, the equipment operator must maintain a safe clearance between the lines and the equipment at all times during work operations. High voltage lines require greater clearance distances. As a safe work practice, equipment operators will maintain a 20-foot clearance between equipment and power lines or other energized sources unless the source is greater than 350 KV, in which case 29CFR 1910.180(j)(ii) must be applied. The location of buried utilities lines must be determined prior to the start of work activities. A request for subsurface utility clearance will be filed through Dig Safely New York.

4.2.3 Drill Rig Operation

Drill rigs present multiple hazards while in operation. Excessive noise, boom raising, lowering and swing, cable and hook damage and operator error may result in injuries. To minimize potential accidents, the following safety measures should be required for all drilling operations. The drilling subcontractor is responsible for the health and safety of its personnel, equipment, and operations. Operators (drillers) of equipment used on site will be familiar with the requirement for inspection and operation of such equipment;

1. The drilling subcontractor is responsible for ensuring proficiency in safe operation the equipment;
2. Drilling operations shall be performed from a stable ground position. If unable to locate on level ground, the drill rig shall be appropriately checked, blocked, and braced prior to the derrick being raised;
3. A person employed by the drilling subcontractor competent in drilling safety shall make daily inspections of the drilling area;
4. Before drilling, the existence and location of utility lines (electric and gas) will be determined by Dig Safely New York
5. If flammable or combustible materials are encountered, no ignition sources are permitted if the ambient airborne concentration of flammable vapors exceeds 10 percent of the Lower Explosive Limit (LEL) during drilling activities;

6. A combustible gas indicator supplied by the driller will be used as needed to make this determination in conjunction with chemical specific LEL percentages. Operations must be suspended and the area evacuated if the airborne flammable vapor concentration reaches 10 percent of the LEL in an area of an ignition source, such as an internal combustion engine or an exhaust pipe;
7. If drilling equipment is located in the vicinity of overhead power lines, a distance of 20 feet must be maintained between the lines and any point on the drill rig;
8. Daily inspection of the drill rig and associate machinery must be conducted and documented by the driller prior to each day's operation of the rig;
9. In the event that repairs to the drilling rig derrick are required, personnel climbing the derrick to affect such repairs must wear a restraint system, including parachute harness and lifeline, to prevent an accidental fall.

4.2.4 Tools - Hand and Power

Hand and power tools will be utilized during Site activities. Any tools used during field activities will conform to the standards set in both OSHA 29CFR-1926.300 and 1926.305.

To minimize the potential for any safety-related accidents, the following measures will be required:

- all hand and power tools shall be maintained in a safe condition;
- power-operated tools shall be equipped with protective guard when in use;
- all hand-held power tools shall be equipped with a constant pressure switch that will shut off the power when the pressure is released;
- hand tools shall be kept free of splinters or cracks;
- electrical power tools shall have double-insulated type grounding;
- electrical cords are not permitted for hoisting or lowering tools;
- all fuel powered tools shall be stopped while being refueled, serviced or maintained;
- Indoor ambient air will be measured for oxygen and toxic gases when fuel powered tools are used in enclosed spaces.

4.2.5 Vehicular Traffic

Vehicular traffic associated with routine site operations at the Site may pose a significant hazard to project personnel. Precaution should be taken when Site activities make it necessary to work near traveled areas.

4.2.6 Lifting Excessive Weights

Personnel should exercise caution when lifting any object, but particularly objects that weigh greater than 40 pounds. For objects that weigh less than 40 pounds, proper lifting technique is essential to minimize the potential for injury. No excessively bulky objects should be lifted without assistance.

4.2.7 Sampling Hazards

Field activities will consist of collecting soil vapor and ground water samples for analysis and evaluation. The hazards of this operation are primarily associated with the sample collection methods and procedures utilized. Standard methods and procedures that will be utilized for sampling activities are described in the NYSDEC-approved Quality Assurance Project Plan.

4.2.8 Excessive Noise Levels

Noise generated by routine Site operations and heavy equipment such as drilling rigs and excavators may present a hazard during Site operations. Excessive noise can physically damage the ear, hinder communications, and startle or annoy workers. On-site personnel will wear hearing protection when working near heavy equipment and whenever noise levels may exceed 85dBA. The HSO should be consulted if there are any questions regarding the need for hearing protection during a particular activity or a particular work area.

4.2.9 Heat Stress

Heat stress is the aggregate of environmental and physical work factors that make up the total heat load imposed on the body. The environmental factors of heat stress include air temperatures, humidity, radiant heat exchange, wind, and water vapor pressure (related to humidity). Physical work contributes to the total heat stress by producing metabolic heat in the body, proportional to the intensity of work. Heavy physical labor can greatly increase the likelihood of heat fatigue,

heat exhaustion, and heat stroke, the latter being a life threatening condition. Heat stress monitoring of personnel shall commence when the ambient temperature is 80°F (70°F if chemical protective clothing is worn) or above. Frequency of monitoring shall increase as the ambient temperature rises. Various control measures shall be employed if heat stress becomes a problem. These include:

- provision of liquids to replace lost body fluids;
- establishment of a work regimen that allows for rest periods to cool down; and,
- training workers in the recognition and prevention of heat stress.

Specific steps to implement should ambient temperatures pose a hazard include:

- Site workers will be encouraged to drink water throughout the day;
- They will be advised to slightly increase their salt intake by lightly salting their food;
- on-site drinking water will be kept cool to encourage personnel to drink frequently;
- a work regimen that will provide adequate rest periods for cooling down will be established as required;
- Site personnel will be advised of the dangers and symptoms of heat stroke, heat exhaustion, and heat cramps;
- employees should be instructed to monitor themselves and co-workers for signs of heat stress and to take additional breaks as necessary;
- a shaded rest area must be provided, breaks should take place in the shaded rest area;
- employees shall not be assigned to other tasks during breaks.

Site employees shall be informed of the importance of adequate rest, acclimation, and proper diet in the prevention of heat stress disorders. Heat cramps are caused by heavy sweating and inadequate electrolyte replacement. Signs and symptoms include muscle spasms and pain in the hands, feet, and abdomen.

Heat exhaustion occurs from increased stress on various body organs. Signs and symptoms include pale, cool, moist skin, heavy sweating; dizziness, nausea, fainting.

Heat stroke is the most serious form of heat stress, and should always be treated as a medical emergency. The body's temperature regulation system fails and the body temperature rapidly rises to critical levels. Immediate action must be taken to cool the body before serious injury or death occurs. Signs and symptoms of heat stroke include;

- red, hot, unusually dry skin;
- lack of, or reduced, perspiration;
- nausea;
- dizziness and confusion;
- strong, rapid pulse and confusion; and,
- coma.

4.2.10 Cold Stress

Cold and/or wet environmental conditions can place workers at risk of cold related illness. Hypothermia can occur whenever temperatures are below 45°F. It is most common during wet windy conditions, with temperatures between 30° to 40°F. The principal cause of hypothermia in these conditions is loss of insulating properties of clothing due to moisture, coupled with heat loss due to wind and evaporation of moisture on the skin. Frostbite, the other hazard associated with exposure to the cold, is the freezing of body tissue, which ranges from superficial freezing of surface skin layers to deep freezing of underlying tissue. Frostbite will only occur when ambient temperatures are below 32°F. The risk of frostbite increases as the temperature drops and the wind speed increases. Most cold-related worker fatalities have resulted from failure to escape low environmental temperatures, or from immersion in low temperature water. The single most important aspect of life-threatening hypothermia is a rapid decrease in the deep core temperature of the body. Site workers should be protected from exposure to cold so that the deep core temperature does not fall below 97°F. Lower body temperatures will very likely result in reduced mental alertness, reduction in rational decision making, or loss of consciousness with the threat of fatal consequences.

4.2.11 Excavation Activities

Excavation activities shall conform to safe work practices in accordance with OSHA regulations 1926.651 and 1926.652. The excavation subcontractor will excavate soil and evaluate soil type and slope the excavation appropriately in conformance with OSHA and any applicable federal, state, and/or local laws, rules, codes, standards, or regulations. Excavation materials shall be contained in approved containers, tanks or in appropriate lay down areas. Appropriate care shall be taken in the recognition that excavated material from areas at the site may contain hazardous materials.

5.0 PERSONNEL RESPONSIBILITIES

The Field Team Leader (FTL) will act in a supervisory capacity over all employees who participate in the field activities specified in this HASP. As part of these responsibilities, the FTL will distribute the HASP to all field team personnel and discuss the HASP prior to the start of field activities. All field personnel will sign the HASP Review Record verifying that they have read and are familiar with the contents of this HASP.

The HSO will be responsible for oversight, implementation and compliance of applicable health and safety regulations on-Site. The HSO has the following authority and responsibilities:

- responsibility for the field implementation, evaluation, and any necessary field modifications of this HASP;
- responsibility for maintaining adequate supplies of all PPE as well as calibration and maintenance of all relevant monitoring instruments;
- authority to suspend field activities due to imminent danger situations;
- responsibility to initiate emergency response activities;
- presentation and documentation of field safety briefings;
- maintenance of daily log of all on-site safety activities.

All personnel entering the site will have completed training requirements for hazardous waste site operations in accordance with OSHA 29 CFR 1910.120 or be certified by their employers as having equivalent training or experience. All personnel entering the site must have completed appropriate medical surveillance as required by OSHA 29 CFR 1910.120(f). All personnel entering the site wearing a negative pressure air purifying respirator must have successfully passed a quantitative fit test in accordance with OSHA 29 CFR 1910.1025 or 1926.58 within the previous 12 months. Employees will be permitted to wear only those brands and models of respirator for which a fit test have been successfully performed.

6.0 PERSONAL PROTECTIVE EQUIPMENT

6.1 PURPOSE /APPROACH

A critical aspect of worker field crew safety is selection and proper use of appropriate PPE. PPE refers to the types of footwear, headwear, eyewear, hearing protection, coveralls, gloves and respiratory protection each individual will wear while performing a specific task(s) and exposed to a particular chemical(s) at a given concentration(s). The levels of PPE protection that may be applied at the Site are commonly referred to as Level D, Level C, and Level B, with Level D requiring the least amount of PPE and Level B the most protective.

Prior experience at the Site indicates that the majority of Site activities will be conducted in Level D protection. The HSO will decide when it is necessary to upgrade, downgrade or modify the existing level of protection based on field monitoring and action levels described in Section 4.0. The HSO will make entries in the health and safety field book detailing each day's PPE requirements, tasks and if the level of PPE is modified, the reason for each change. Each level's PPE requirements may be modified by the HSO as needed. The different levels of PPE and equipment required at each level are described in the following sections and are based on 29 CFR 1910.120.

6.2 LEVEL D PROTECTION

Level D PPE will generally consist of the following:

- coveralls or long pants and shirt affording protection from dermal exposure;
- steel-toe, steel-shank work boots;
- safety glasses; and
- a hard hat.

6.3 LEVEL C PROTECTION

Level C PPE will generally consist of:

- Full-face air purifying respirator (APR) equipped with appropriate organic vapor canisters and/or other chemical cartridges (all personnel requiring respiratory protection must be "fit-tested" with the respirator model to be used in the field). HEPA filters will be available and utilized as warranted by Site conditions. Powered air purifying respirators may be utilized if specified by the HSO. Half-mask air purifying respirators can be donned only with the approval of the HSO;
- chemical-resistant clothing such as Tyvek®, poly-coated Tyvek® or Saranex®. Suits will be hooded and one piece with booties and elastic wristbands;
- outer chemical-resistant (recommend nitrile or neoprene) gloves and inner latex surgical gloves;
- steel-toe, steel-shank work boots with rubber overboots; and
- hard hat.

6.4 LEVEL B PROTECTION

Level B PPE will generally consist of:

- a self-contained breathing apparatus (SCBA) in a pressure demand mode, or supplied air with escape SCBA in the pressure demand mode;
- chemical-resistant clothing such as poly-coated Tyvek® or Saranex®. Suits will be hooded and one piece with booties and elastic wrist bands;
- chemical-resistant (recommend nitrile or neoprene) outer gloves and inner latex surgical gloves (both chemical resistant);
- steel-toe, steel-shank work boots with rubber overboots;
- chemical-resistant tape over protective clothing (as necessary); and
- hard hat.

7.0 SITE WORK AREAS AND DECONTAMINATION

Site operation areas will be formally set up for all field activities. Personal decontamination procedures will be adhered to upon entering or leaving all work areas. Section 7.1 describes the three zones used to control Site operation areas, and Section 7.2 describes decontamination procedures.

7.1 SITE OPERATION AREAS

A three-zone control system will be used during all intrusive Site activities. The purpose of these zones is to control the flow of personnel to and from potentially affected work areas. Guidelines for establishing work areas and support zones are as follows.

7.1.1 Exclusion Zone (EZ)

Primary exclusion zones will be established around each intrusive field activity. Appropriate personal protective equipment must be worn in this zone. This zone will be separated from the contaminant reduction zone (see below) by cones or barrier tape to prevent personnel from entering the exclusion zone boundary without appropriate protective equipment or leaving without proper decontamination.

7.1.2 Contaminant Reduction Zone (CRZ)

The CRZ is the transition area between the EZ and the Support Zone (clean area). All personnel and equipment must be decontaminated in the CRZ upon exiting the EZ and before entering the Support Zone. The CRZ will be set up along the perimeter of the EZ at a point upwind of field activities.

7.1.3 Support Zone (SZ)

The support zone is considered to be clean; as such, protective clothing and equipment are not required but should be available for use in emergencies. All equipment and materials are stored and maintained within this zone. Protective clothing is donned in the support zone before entering the contaminant reduction zone.

7.2 DECONTAMINATION GUIDELINES

In the situation where work areas are controlled using the three-zone concept, all personnel must exit the EZ through an established CRZ. All personnel leaving the point of operations should wash outer gloves and boots, if applicable. The outer boots shall be washed and removed and then either stored in an appropriate area or disposed of properly. If PPE is affected, personnel shall then remove and dispose of their chemical resistant coveralls with care so that inner clothing does not come in contact with any affected surfaces. After chemical resistant coverall removal, personnel shall remove and clean gloves, inspect the gloves, and discard if damaged. Personnel shall then remove the respirator, when applicable. Respirators shall be disinfected between uses by utilizing sanitizing methods and stored in a clean plastic container/bag. Potable water, at a minimum, will be present so that Site personnel can thoroughly wash hands and face if desired after leaving the point of operations.

For Site work not using the three-zone concept (e.g., soil or ground water sampling with typical equipment), portable wash stations will be utilized for easy and efficient access. The wash station shall consist of a potable water supply, soap, and clean towels. Portable sprayer units filled with Alconox® solution and potable water will also be available to wash and rinse off boots, gloves, and other equipment if necessary.

Modifications of the decontamination procedure may be necessary as determined by HSO observations. All reusable equipment brought on must be cleaned at the Site prior to use. Site Decontamination of all field equipment will be conducted as follows:

7.2.1 Heavy Equipment

The drill rig and all downhole tools will be steam cleaned between each field activity location. If necessary, equipment will be scrubbed manually to remove heavy soils prior to steam cleaning. Equipment must be steam cleaned prior to leaving the site.

7.2.2. Sampling Equipment (e.g., scoops, hand-auger, bowls, bailers, etc.)

All non-disposable sampling equipment will be cleaned before each use by washing with solutions in the following order:

- phosphate-free detergent wash;
- potable water rinse;
- distilled or analyte-free lab water;
- air dry unless re-use is imminent;
- wrap in aluminum foil until use.

7.2.3. Meters and Probes

All meters and probes that are used in the field will be cleaned between uses by washing with a phosphate-free detergent/potable water solution followed by rinsing with distilled water or analyte-free water supplied by the project laboratory.

7.3 MANAGEMENT OF GENERATED WASTES

All wash and rinse waters, discarded health and safety equipment, discarded sampling equipment, and other investigation- or remediation derived wastes will be handled and managed in accordance with DER-10.

8.0 SITE ACCESS AND SITE CONTROL

Access to Site activities are normally limited by the Site owner and will be limited to authorized personnel. Access into the established contaminant reduction and exclusion zones will be limited to those authorized personnel with required certifications and wearing appropriate PPE. The exclusion zones will be monitored by the HSO to ensure personnel do not enter without proper personal protection equipment. Failure to comply with Site access and Site control provisions is performed at one's own risk and may result in cancellation of authorization to visit the work area.

9.0 EMERGENCY RESPONSE

In the event of an emergency, the HSO will coordinate on-Site emergency response activities. Appropriate authorities will be notified immediately of the nature and extent of the emergency. This Section provides emergency telephone numbers that will be posted within the support zone or any other visible location. Directions to the nearest hospital are also included.

9.1 RESPONSIBILITIES

The HSO will be primarily responsible for initiating response to all emergencies and will:

1. notify appropriate authorities and health care facilities of the hazards of the field activities;
2. ensure that the following safety equipment is available at the site: fire extinguisher, eyewash station and first aid supplies;
3. have working knowledge of all safety equipment available at the site;
4. ensure that a map that details the most direct route to the nearest hospital is posted with the emergency telephone numbers;
5. for a release incident, determine safe distances and places of refuge.

Others shall initiate emergency response activities if the HSO is not available or if there is a perceived, imminent threat to the health and safety of Site personnel, property, or equipment.

EMERGENCY CONTACTS

Frederick Property Site
Village of Manchester, Ontario County

Project Consultant Refer to update at end of HASP

Emergency Numbers

Ambulance 911
Fire Dept. 911
Police 911
NYSDEC Spill Hotline 1-800-457-7362

Hospital

Clifton Springs Hospital
2 Coulter Road
Clifton Springs, New York 14432
Phone # 315.462.1911

9.2 ACCIDENTS AND INJURIES

In the event of a safety or health emergency, appropriate emergency measures will be taken immediately to assist those who have been injured or exposed and to protect others from hazards. The HSO will be notified immediately and will respond according to the injury.

9.3 SITE COMMUNICATIONS

Telephones (either landlines or cellular) will be located prior to the startup of field activities and will be used as the primary communication network. Radios may be used to communicate with workers on the Site if deemed necessary by the HSO or Field Team Leader.

10.0 ADDITIONAL SAFETY PRACTICES

The following are important safety precautions and practices that will be enforced during the field activities.

1. Eating, drinking, chewing gum or tobacco, smoking, or any practice that increases that probability of hand-to-mouth transfer and possible ingestion of toxic material is prohibited in any area designated by the HSO.
2. Hands and face should be thoroughly washed upon leaving the work area and before eating, drinking, or any other activity.
3. Whenever decontamination procedures for outer garments are in effect, the entire body should be thoroughly washed as soon as possible after the protective garment is removed.
4. No facial hair, which may interfere with the effectiveness of a respirator, will be permitted on personnel required to wear respiratory protection equipment as allowed by law. The respirator must seal against the face so that the wearer receives air only through the air purifying cartridges attached to the respirator. In addition to the OHSA required physician's evaluation, approval to work while wearing respiratory protection, and qualitative fit testing, a negative and positive pressure fit-test shall be performed prior to each respirator use to ensure a proper seal is obtained by the wearer.
5. Even when wearing protective clothing, contact with potentially contaminated surfaces should be avoided whenever possible. One should not walk through puddles, mud, or other discolored surfaces that may be affected; kneel on ground; lean, sit or place equipment on drums, containers, vehicles, or the ground in areas that may be affected.
6. Medicine and alcohol can enhance the effect from exposure to certain compounds. Alcoholic beverages will not be consumed during work hours by personnel involved in the project. Personnel using prescription drugs during the project may be precluded from performing specific tasks (e.g. operating heavy equipment) without authorization from a licensed physician.
7. Personnel and equipment in the work areas will be minimized.

8. Procedures for leaving the work area will be planned and implemented prior to going to the Site. Work areas and decontamination procedures will be established on the basis of prevailing site conditions.
9. Respirators will be issued for the exclusive use of one worker and are required to be cleaned, disinfected, and properly stored after each use.
10. Safety gloves and boots shall be taped to the disposable, chemical protective suits as necessary.
11. Cartridges for air-purifying respirators in use will be changed daily at a minimum.

February 2018 Updates to Site Specific Health and Safety Plan

147 State Street, Manchester, New York

BCP Site #B00131

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Community Air Monitoring Plan

During intrusive activities, this Community Air Monitoring Plan (CAMP) will be implemented. The CAMP includes real-time monitoring for VOCs and particulates (i.e., dust) at the downwind perimeter of each designated work area when activities with the potential to release VOCs or dust are being conducted at the Site. This CAMP is based on the NYSDOH Generic CAMP included as Appendix 1A of the NYSDEC document titled *"DER-10, Technical Guidance for Site Investigation and Remediation"* dated May 2010. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of project activities. An upwind background station will be established at the beginning of the day and monitored throughout the day to verify the location is upwind. In the event wind direction changes, a subsequent background location will be established and monitored, and the change in wind direction will be noted. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air. Reliance on the CAMP should not preclude simple, common sense measures to keep VOCs, dust, and odors at a minimum around, and downwind of, the work areas.

Continuous monitoring will be conducted during all ground intrusive potentially contaminated soil, fill material or groundwater. Ground intrusive activities include, but are not limited to installation of buried utilities, soil excavation, repairs to the cover system, etc.

Periodic monitoring for VOCs will be conducted during non-intrusive activities involving potentially contaminated soil, fill material or groundwater where deemed appropriate (e.g., during groundwater sampling, management of derived wastes, etc.).

VOC and particulate 15-minute readings, and instantaneous readings (if collected), will be recorded daily and will be available for NYSDEC and NYSDOH personnel to review.

8.3.1 VOC Monitoring, Response Levels, and Actions

VOCs must be monitored at the downwind perimeter of the immediate work area (i.e., areas within the work zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or work zone exceeds 5 ppm above background for the 15-minute average, work activities must be temporarily halted and monitoring must be continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background,

work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or work zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source or vapors identified, corrective actions taken to abate emissions (e.g., application of BioSolve), and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the work zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less (but in no case less than 20 feet), is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the Site, activities must be shutdown.

8.3.2 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations must be monitored continuously at the upwind and downwind perimeters of the Site at temporary particulate monitoring stations. The particulate monitoring must be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during work activities.

- If the downwind PM-10 particulate level is 100 ug/m^3 greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 ug/m^3 above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 ug/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 ug/m^3 of the upwind level and in preventing visible dust migration.

The following chart summarizes the direct reading instrumentation and appropriate action levels that will be utilized during CAMP monitoring.

Monitoring Device	CAMP Action level	Response/Level of PPE
PID Volatile Organic Compound Meter	< 5 ppm at Site perimeter, over an integrated period not to exceed 15 minutes.	Continue work.
	5-25 ppm at Site perimeter over an integrated period not to exceed 15 minutes.	Stop work, identify vapor source, take corrective actions, and continue monitoring. Resume work if <5 ppm for 15-minute average at 200 feet downwind or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less (but in no case <20 feet).
	>25 ppm at Site perimeter.	Stop work, further evaluate the use of engineering controls, etc.
RTAM Particulate Meter	< 100 ug/m^3 over an integrated period not to exceed 15 minutes, and no observable dust leaving the work area.	Continue working.
	> 100 ug/m^3 over an integrated period not to exceed 15 minutes, or if observable dust leaving the work area.	Cease work, implement dust suppression, change in way work performed, etc. Resume work if levels brought below 150 ug/m^3 above background and no visible dust leaving the work area.

APPENDIX I RESPONSIBILITIES of OWNER and REMEDIAL PARTY

Responsibilities

The responsibilities for implementing the Site Management Plan ("SMP") for the Fredrick Property site (the "Site"), number (ERP Site #B00131), are divided between the site owner(s) and a Remedial Party, as defined below. The owner(s) is/are currently listed as:

Village of Manchester, Clifton Street, Manchester, New York (the "owner")

Solely for the purposes of this document and based upon the facts related to a particular site and the remedial program being carried out, the term Remedial Party ("RP") refers to any of the following: certificate of completion holder, volunteer, applicant, responsible party, and, in the event the New York State Department of Environmental Conservation ("NYSDEC") is carrying out remediation or site management, the NYSDEC and/or an agent acting on its behalf. The RP is:

Village of Manchester, Clifton Street, Manchester, New York

Nothing on this page shall supersede the provisions of an Environmental Easement, Consent Order, Consent Decree, agreement, or other legally binding document that affects rights and obligations relating to the Site.

Site Owner's Responsibilities:

1) The owner shall follow the provisions of the SMP as they relate to future construction and excavation at the Site.

2) In accordance with a periodic time frame determined by the NYSDEC, the owner shall periodically certify, in writing, that all Institutional Controls set forth in a(n) Environmental Easement remain in place and continue to be complied with. The owner shall provide a written certification to the RP, upon the RP's request, in order to allow the RP to include the certification in the site's Periodic Review Report (PRR) certification to the NYSDEC.

3) In the event the Site is delisted, the owner remains bound by the Environmental Easement and shall submit, upon request by the NYSDEC, a written certification that the Environmental Easement is still in place and has been complied with.

4) The owner shall grant access to the Site to the RP and the NYSDEC and its agents for the purposes of performing activities required under the SMP and assuring compliance with the SMP.

5) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. In the event that damage to the remedial components or vandalism is evident, the owner shall notify the Site's RP and the NYSDEC in accordance with the timeframes indicated in Section 1.3-Notifications.

6) In the event some action or inaction by the owner adversely impacts the Site, the owner must notify the Site's RP and the NYSDEC in accordance with the time frame indicated in Section 1.3- Notifications and (ii) coordinate the performance of necessary corrective actions with the RP.

7) The owner must notify the RP and the NYSDEC of any change in ownership of the Site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner of the Site property. 6 NYCRR Part contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: Sixty days prior written notification must be made to the NYSDEC. Notification is to be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section. Notification requirements for a change in use are detailed in Section 2.4 of the SMP. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html.

8) In accordance with the tenant notification law, within 15 days of receipt, the owner must supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds NYSDOH or OSHA guidelines on the Site, whether produced by the NYSDEC, RP, or owner, to the tenants on the property. The owner must otherwise comply with the tenant and occupant notification provisions of Environmental Conservation Law Article 27, Title 24.

Remedial Party Responsibilities

1) The RP must follow the SMP provisions regarding any construction and/or excavation it undertakes at the Site.

2) The RP shall report to the NYSDEC all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to, periodic review reports and certifications, electronic data deliverables, corrective action work plans and reports, and updated SMPs.

3) Before accessing the Site property to undertake a specific activity, the RP shall provide the owner advance notification that shall include an explanation of the work expected to be completed. The RP shall provide to (i) the owner, upon the owner's request, (ii) the NYSDEC, and (iii) other entities, if required by the SMP, a copy of any data generated during the site visit and/or any final report produced.

4) If the NYSDEC determines that an update of the SMP is necessary, the RP shall update the SMP and obtain final approval from the NYSDEC. Within 5 business days after NYSDEC approval, the RP shall submit a copy of the approved SMP to the owner(s).

5) The RP shall notify the NYSDEC and the owner of any changes in RP ownership and/or control and of any changes in the party/entity responsible for the operation, maintenance, and monitoring of and reporting with respect to any remedial system (Engineering Controls). The RP shall provide contact information for the new party/entity. Such activity constitutes a Change of Use pursuant to 375-1.11(d) and requires 60-days prior notice to the NYSDEC. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html.

6) The RP shall notify the NYSDEC of any damage to or modification of the systems as required under Section 1.3- Notifications of the SMP.

7) Prior to a change in use that impacts the remedial system or requirements and/or responsibilities for implementing the SMP, the RP shall submit to the NYSDEC for approval an amended SMP.

8) Any change in use, change in ownership, change in site classification (*e.g*., delisting), reduction or expansion of remediation, and other significant changes related to the Site may result in a change in responsibilities and, therefore, necessitate an update to the SMP and/or updated legal documents. The RP shall contact the Department to discuss the need to update such documents.

Change in RP ownership and/or control and/or Site ownership does not affect the RP's obligations with respect to the Site unless a legally binding document executed by the NYSDEC releases the RP of its obligations.

Future site owners and RPs and their successors and assigns are required to carry out the activities set forth above.