PROPOSED REMEDIAL ACTION PLAN

R. Freedman & Son
State Superfund Project
Green Island, Albany County
Site No. 401033
February 2021

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

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SECTION 1: SUMMARY AND PURPOSE OF THE PROPOSED PLAN

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), is proposing a remedy for the above referenced site. The disposal of hazardous wastes at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRMs undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the RI indicate that the site no longer poses a threat to human health or the environment. The IRM(s) conducted at the site attained the remediation objectives identified for this site, which are presented in Section 6.5, for the protection of public health and the environment. No Further Action is the remedy proposed by this Proposed Remedial Action Plan (PRAP). A No Further Action remedy may include site management, which will include continued operation of any remedial system installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the proposed remedy for the site. This PRAP identifies the IRM(s) conducted and discusses the basis for No Further Action.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375. This document is a summary of the information that can be found in the site-related reports and documents in the document repository identified below.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all PRAPs. This is an opportunity for public participation in the remedy selection process. The public is encouraged to review the

reports and documents, which are available at the following repository:

Village of Green Island
Attn: Michele Bourgeois
20 Clinton Street
Village of Green Island, NY 12183
Phone: 518-273-2201

A public comment period has been set from:

February 17, 2021 to March 19, 2021

Written comments may be sent to:

Kyle Forster
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233
kyle.forster@dec.ny.gov

The Department may modify the proposed remedy presented in this PRAP based on new information or public comments. Therefore, the public is encouraged to review and comment on the proposed remedy identified herein. Comments will be summarized and addressed in the responsiveness summary section of the Record of Decision (ROD). The ROD is the Department's final selection of the remedy for this site.

Receive Site Citizen Participation Information By Email

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

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The site, currently owned by Eastern Metal Recycling (EMR), is an 11.8-acre scrap metal recycling facility located at the intersection of Tibbits Avenue and Cannon Street in the Village of Green Island. The site is situated in a primarily industrial and commercial area. To the east of the site is Cannon Street followed by the vacant former Ford Motor Company manufacturing plant. To the west is the Honeywell industrial plant. North of the site is a construction yard for the Burt Crane & Rigging Company and to the south is Tibbits Avenue

followed by residential single-family homes.

Site Features: The site is currently vacant, with metal recycling operations having ceased in recent years. Site topography is relatively flat with a 10-12 feet high berm along the majority of the perimeter. A steep embankment rises along the western site boundary up to the adjacent Honeywell property. The site includes four on-site metal buildings and one office trailer and is fenced with one active entrance located on Cannon Street. The remainder of the site is comprised of vehicle roadways and open areas, the majority of which have been covered with one foot of a compacted recycled concrete aggregate.

Current Zoning and Land Use: The site is identified on the Albany County Tax map as parcel number 21.13-1-2 and is zoned within the Village of Green Island as Industrial. The surrounding area is primarily industrial in use, with a residential area to the south.

Past Use of the Site: The site served as a scrap metal recycling facility and vehicle dismantler for over sixty-five years until recently ceasing operations. Previously, a Delaware & Hudson railroad yard with railcar manufacturing and repair occupied the site. In 1988 PCBs were found leaking from transformers stored on a concrete pad into the immediately adjacent soil. The transformers and 33 tons of PCB-contaminated soil were subsequently removed that year. The concrete pad was cleaned and encapsulated in four inches of reinforced concrete. Soil sampling concluded that all contamination above industrial use soil cleanup objectives was removed from the transformer area.

Operable Units: The site is divided into two operable units. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination. Operable Unit 1 (OU1) consists of on-site areas. OU2 consists of the off-site PCB cleanup along the Tibbits Avenue right-of-way.

Site Geology and Hydrology: Groundwater depth varies from 5 to 13 feet below grade across the site and flow is generally towards the Hudson River, which is 400 feet to the east. A stormwater and surface water drainage assessment demonstrated that surface water percolates into the soil and does not leave the site. The remedial investigation found subsurface soils between six inches and 11 feet deep to consist of brown/grey coarse-to-fine sand, a trace of silt/clayey silt, some coarse-to-fine gravel, and automotive debris. The majority of the site is covered with one foot of recycled concrete aggregate.

Operable Unit (OU) Numbers 01 and 02 are the subject of this document.

A site location map is attached as Figures 1 and 2.

SECTION 4: LAND USE AND PHYSICAL SETTING

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

Part 375-1.8(g) is/are being evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

R. Freedman & Son Inc.

The Department and Eastern Metal Recycling entered into a Consent Order on April 1, 2015. The Order obligates Eastern Metal Recycling to implement a full remedial program.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

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

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Results

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

For OU: 01

mercury	chromium
polychlorinated biphenyls (PCB)	lead

For OU: 02

polychlorinated biphenyls (PCB)

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM(s) described in Section 6.2. More complete information can be found in the RI Report and the IRM Construction Completion Report.

6.2: Interim Remedial Measures

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

The following IRMs have been completed at this site based on conditions observed during the RI.

IRM - Soil Removal and Equipment Decommissioning

Soil within the berms which exceeded industrial use SCOs, as defined by 6 NYCRR Part 375-6.8, was excavated and transported off-site for disposal. Approximately 90 tons of mercury and PCB-contaminated soil was removed from the berms at the site.

Additional soil that exceeded industrial use SCOs located near the former crusher and shredder buildings was excavated to a depth of 1 foot below grade. Approximately 203 tons of metal- and PCB-contaminated soil was removed from this area of the site.

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) was brought in to replace the excavated soil and establish the designed grades at the site. Topsoil, seed, and jute mats were placed above clean fill for erosion control and to promote vegetation.

Visually impacted materials consisting of automotive debris, residual oil, and grease were also removed from the former crusher and shredder buildings. The crusher building floor was washed to remove residual oil and grease residue, and the wash water was containerized and properly disposed off-site. Standing water in the former truck tire wash basin was containerized, properly disposed off-site, and the basin was backfilled with clean stone.

This IRM work was completed during the Fall of 2019 and is documented in the December 1, 2020 IRM Construction Completion Report.

IRM - Tibbits Avenue Right of Way Soil Removal

All off-site soil within the Tibbits Avenue right-of-way between Cannon and High Street which exceeded residential SCOs, as defined by 6 NYCRR Part 375-6.8, was excavated to approximately 6 to 8 inches below grade and transported off-site for disposal. Post excavation sampling was performed at the base of the excavation to confirm removal of soils exceeding residential SCOs. Approximately 60 tons of PCB-contaminated soil was removed from the site.

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) was brought in to replace the excavated soil and establish existing grades within the right-of-way. Topsoil, seed and/or sod was placed above clean soil to promote vegetation.

This IRM work was completed during the Summer of 2019 and is documented in the December 1, 2020 IRM Construction Completion Report.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OUs 01 and 02.

Remediation at OU1 is complete. Prior to remediation, the primary contaminants of concern were PCBs, mercury, chromium, and lead in soil. Remedial actions have successfully achieved soil cleanup objectives (SCOs) for industrial use. Excavation within the berms and the upper one foot of on-site soils was performed to address the contaminants of concern. Residual contamination in the soil will be managed under a Site Management Plan.

During the remedial investigation for OU 01, prior to the IRM, soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), PCBs, pesticides, and metals. Soil vapor was also analyzed for VOCs. PCBs were detected at concentrations up to 41 parts per million (ppm) (industrial SCO of 25 ppm), and mercury up to 82 ppm (industrial SCO of 5.7 ppm) within two distinct locations of the berms. For metals, chromium was detected at concentrations up to 8,490 ppm (industrial SCO of 6,800 ppm) and lead up to 8,200 (industrial SCO of 3,900 ppm) in shallow subsurface soils. In groundwater, benzene was detected at concentrations up to 4.9 parts per billion (ppb) (Class GA standard is 1 ppb), 1,4-dichlorobenzene up to 5.9 ppb (standard of 3 ppb), and PCBs up to 0.5 ppb (standard of 0.09 ppb).Various polycyclic aromatic hydrocarbons (PAHs) were detected above standards, but were not identified as contaminants of concern. Vinyl chloride was detected in soil vapor sample at a concentration of 153 micrograms per cubic meter ($\mu g/m^3$). Petroleum-related VOCs were also detected, including 2,2,4-trimethylpentane up to 13,300 $\mu g/m^3$.

Remediation at OU2 is complete. Prior to remediation, the primary contaminants of concern were PCBs in soil. Remedial actions have successfully achieved SCOs for residential use.

During the investigation of OU2, prior to the IRM, off-site surface soil was sampled for VOCs, SVOCs, metals, PCBs and pesticides. PCBs were detected at a maximum concentration of 1.53 ppm (residential SCO of 1 ppm), mercury up to 1.3 ppm (residential SCO of 0.18 ppm) and lead up to 700 ppm (residential SCO of 63 ppm). Various PAHs were detected above residential SCOs but were not identified as contaminants of concern.

6.4: Summary of Human Exposure Pathways

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

The site is fenced and access is restricted. However, persons who dig below the ground surface may come into contact with contaminants in subsurface soil. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not contaminated by the site. Volatile organic compounds in soil vapor (air spaces within the soil) may move into buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The inhalation of site related contaminants due to soil vapor intrusion does not

represent a current concern because the site is vacant. However, it is recommended that soil vapor intrusion be evaluated for any new buildings built on the site in the future. Sampling indicates that soil vapor intrusion is not a concern for offsite buildings.

6.5: Summary of the Remediation Objectives

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

The remedial action objectives for this site are:

For OU 01:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

For OU 02:

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

SECTION 7: SUMMARY OF PROPOSED REMEDY

For OU 01: Remedial Program:

Based on the results of the investigations at the site, the IRMs that have been performed, and the evaluation presented here, the Department is proposing No Further Action as the remedy. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5.

The elements of the IRM already completed (see Section 6.2) and the institutional and engineering controls are listed below.

1. Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows:

    - Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
    - Reducing direct and indirect greenhouse gas and other emissions;
    - Increasing energy efficiency and minimizing use of non-renewable energy;
    - Conserving and efficiently managing resources and materials;
    - Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
    - Maximizing habitat value and creating habitat when possible;
    - Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
    - Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
    - Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Cover System

A site cover currently exists in areas not occupied by buildings and will be maintained to allow for industrial use of the site. Any site redevelopment will maintain the existing site cover. The site cover includes paved surface parking areas, concrete slabs, sidewalks and soil where the upper one foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for industrial use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

3. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property which will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

- allow the use and development of the controlled property for industrial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH; and
- require compliance with the Department approved Site Management Plan.

4. Site Management Plan

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

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

   Institutional Controls: The Environmental Easement discussed in Paragraph 3 above

   Engineering Controls: The cover system discussed in Paragraph 2 above

   This plan includes, but may not be limited to:
   - an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
   - descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
   - a provision for evaluation of the potential for soil vapor intrusion for any occupied buildings on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
   - a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper one foot of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
   - provisions for the management and inspection of the identified engineering controls;
   - maintaining site access controls and Department notification; and
   - the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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

   - monitoring of groundwater to assess the performance and effectiveness of the remedy;
   - a schedule of monitoring and frequency of submittals to the Department;
   - monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

For OU 02: Off-Site Remedial Program:

Based on the results of the investigations at the site, the IRM that has been performed, and the evaluation presented here, the Department is proposing No Further Action as the remedy. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5.

The elements of the IRM already completed are listed in Section 6.2. Institutional and engineering controls are not necessary for OU 02.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium for which contamination was identified, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into four categories; volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/ polychlorinated biphenyls (PCBs), and inorganics (metals and cyanide). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 4 and Section 6.1.1 are also presented.

Waste/Source Areas

As described in the RI report, waste/source materials were identified at the site and are impacting groundwater and soil.

Wastes are defined in 6 NYCRR Part 375-1.2(aw) and include solid, industrial and/or hazardous wastes. Source areas are defined in 6 NYCRR Part 375(au). Source areas are areas of concern at a site where substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. Waste areas were identified at the site in shallow subsurface soils near former automotive crusher and shredder buildings, and two separate areas within the berms that surround the site, and within a the former automotive crushing building. The locations of these areas are shown in Figure 3.

The waste areas identified at the site were addressed by the IRM(s) described in Section 6.2.

Groundwater

Groundwater samples were collected from monitoring wells screened within the upper 5 to 10 feet of the water table. The samples were collected to assess groundwater conditions on-site. The results indicate that contamination in groundwater at the site exceeds the SCGs for VOCs, SVOCs, and inorganics as shown on Figure 4. The detected concentrations are marginally above SCGs, are only present within upgradient wells, and do not appear to be migrating from the site. Groundwater flows toward the Hudson River to the east. Residences adjacent to the site receive municipal water.

Table 1 - Groundwater

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
benzene	ND – 4.9	1	3 of 19
1,4-dichlorobenzene	ND – 5.9	3	1 of 19
SVOCs			
benzo(a)anthracene	ND – 0.12	0.002	5 of 19
benzo(a)pyrene	ND – 0.11	0.002	3 of 19
benzo(b)fluoranthene	ND – 0.18	0.002	5 of 19
benzo(k)fluoranthene	ND – 0.07	0.002	3 of 19
chrysene	ND – 0.13	0.002	3 of 19
indeno(1,2,3-cd)pyrene	ND – 0.09	0.002	3 of 19
Inorganics			
antimony	ND – 4.55	3	3 of 19
iron	126 – 24,400	600[c]	17 of 19
manganese	453 – 6,262	300[c]	19 of 19
sodium	23,600 – 158,000	20,000	19 of 19
Pesticides/PCBs			
PCBs, total	ND – 0.548	0.09	1 of 19

a – ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.
b – SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).
c – the sum of iron and manganese have an Ambient Water Quality Standard of 500 ppb.

No site-related groundwater contamination of concern was identified during the RI. Therefore, no remedial alternatives were evaluated for groundwater. However, due to exceedances of SCGs for drinking water, a groundwater use restriction will be placed on the site.

Soil

Surface and subsurface soil samples were collected at the site during the RI. Surface soil samples were collected from a depth of 0 – 2 inches to assess direct human exposure. Subsurface soil samples were collected from a depth of 0 – 16 feet to assess soil contamination impacts to groundwater. The results indicate that soils at the site exceed the industrial SCG for SVOCs and metals. Figure 5 illustrates the locations of the highest concentrations of SVOCs, metals, and PCBs that were detected in on-site soils. Figure 6 shows the locations of PCBs detected in off-site surface soil.

Table 2 – On-Site Surface Soil

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG[c] (ppm)	Frequency Exceeding Restricted SCG	Restricted Use SCG[d] (ppm)	Frequency Exceeding Restricted SCG
SVOCs							
benzo(a)anthracene	.063 – 0.59	1	0 of 10	11	0 of 10	1	0 of 10
benzo(a)pyrene	0.061 – 0.39	1	0 of 10	1.1	1 of 10	22	0 of 10
benzo(b)fluoranthene	0.097 – 0.89	1	0 of 10	11	0 of 10	1.7	0 of 10
benzo(k)fluoranthene	0.12 – 0.524	1	0 of 10	110	0 of 10	1.7	0 of 10
chrysene	0.07 – 0.662	1	0 of 10	110	0 of 10	1	0 of 10
indeno(1,2,3-cd)pyrene	0.12 – 0.36	0.5	0 of 10	11	0 of 10	8.2	0 of 10
Inorganics							
arsenic	1.06 – 36.8	13	2 of 10	16	2 of 10	16	2 of 10
cadmium	ND – 43.5	2.5	8 of 10	60	0 of 10	7.5	4 of 10
chromium	30.8 – 8,490	30	10 of 10	6,980	1 of 10	19/NS[e]	NA
lead	72.5 – 8,200	63	10 of 10	3,900	1 of 10	450	8 of 10
mercury	0.145 – 10.7	0.18	8 of 10	5.7	2 of 10	0.73	7 of 10
zinc	296 – 10,300	109	10 of 10	10,000	1 of 10	2,480	5 of 10
Pesticides/PCBs							
endrin	ND – 0.0646	0.014	3 of 10	410	0 of 10	0.06	1 of 10
dieldrin	ND – 0.193	0.005	5 of 10	2.8	0 of 10	0.1	2 of 10
4,4'-DDE	ND – 0.0345	0.0033	4 of 10	120	0 of 10	17	0 of 10
4,4'-DDT	ND – 0.177	0.0033	6 of 10	94	0 of 10	136	0 of 10
PCBs	0.124 – 6.81	0.1	10 of 10	25	0 of 10	3.2	5 of 10

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Industrial Use, unless otherwise noted.
d - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Groundwater.
e - The Protection of Groundwater Soil Cleanup Objective is 30 for hexavalent chromium, and there is no standard for trivalent chromium.

Table 3 – On-Site Subsurface Soil

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG[c] (ppm)	Frequency Exceeding Restricted SCG	Restricted Use SCG[d] (ppm)	Frequency Exceeding Restricted SCG
VOCs							
hexachlorobenzene	ND – 0.53	0.33	1 of 67	12	0 of 67	3.2	0 of 67
SVOCs							
benzo(a)anthracene	ND – 6.3	1	8 of 67	11	0 of 67	1	8 of 67
benzo(a)pyrene	ND – 3	1	8 of 67	1.1	8 of 67	22	0 of 67
benzo(b)fluoranthene	ND – 4.4	1	8 of 67	11	0 of 67	1.7	7 of 67
benzo(k)fluoranthene	ND – 1.8	0.8	4 of 67	110	0 of 67	1.7	1 of 67
chrysene	ND – 5.5	1	8 of 67	110	0 of 67	1	8 of 67
indeno(1,2,3-cd)pyrene	ND – 1.7	0.5	12 of 67	11	0 of 67	8.2	0 of 67
dibenz(a,h)anthracene	ND – 0.61	0.33	3 of 67	1.1	0 of 67	1,000	0 of 67
phenol	ND – 2	0.33	3 of 67	1,000	0 of 67	0.33	3 of 67
p-cresol	ND – 1.3	0.33	3 of 67	1,000	0 of 67	0.33	3 of 67
Inorganics							
arsenic	2.6 – 27	13	5 of 66	16	1 of 66	16	1 of 66
cadmium	ND – 18	2.5	19 of 66	60	0 of 66	7.5	16 of 66
chromium	7.2 – 440	30	28 of 66	6,800	0 of 66	19/NS[e]	34 of 66
copper	18 – 7,900	50	38 of 66	10,000	0 of 66	1,720	17 of 66
lead	8.4 – 2,800	63	38 of 66	3,900	0 of 66	450	20 of 66
manganese	197 – 2,500	1,600	2 of 66	10,000	0 of 66	2,000	1 of 66
mercury	ND – 82	0.18	37 of 66	5.7	1 of 66	0.73	24 of 66
nickel	10.7 – 280	30	28 of 66	10,000	0 of 66	130	18 of 66
silver	ND – 3.2	2	7 of 66	6,800	0 of 66	8.3	0 of 66
Zinc	42.7 – 12,000	109	33 of 66	10,000	1 of 66	2,480	10 of 66
Pesticides/PCBs							
aldrin	ND – 0.0057	0.005	1 of 67	1.4	0 of 67	0.19	0 of 67
endrin	ND – 0.066	0.014	3 of 67	410	0 of 67	0.06	1 of 67
dieldrin	ND – 0.313	0.0005	15 of 67	2.8	0 of 67	0.1	2 of 67
4,4'-DDE	ND – 0.0133	0.0033	1 of 67	120	0 of 67	17	0 of 67

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG[c] (ppm)	Frequency Exceeding Restricted SCG	Restricted Use SCG[d] (ppm)	Frequency Exceeding Restricted SCG
4,4'-DDT	ND – 0.446	0.0033	10 of 67	94	0 of 67	136	0 of 67
4,4'-DDD	ND – 0.0596	0.0033	10 of 67	180	0 of 67	14	0 of 67
PCBs	ND – 41.4	0.1	41 of 67	25	1 of 53	3.2	18 of 67

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Industrial Use, unless otherwise noted.
d - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Groundwater.
e – The Protection of Groundwater Soil Cleanup Objective is 30 for hexavalent chromium, and there is no standard for trivalent chromium.

Table 4 – Off-Site Surface Soil

Detected Constituents	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG[c] (ppm)	Frequency Exceeding Restricted SCG	Restricted Use SCG[d] (ppm)	Frequency Exceeding Restricted SCG
SVOCs							
benzo(a)anthracene	0.56 – 3.4	1	1 of 2	1	1 of 2	1	1 of 2
benzo(a)pyrene	0.66 – 3.5	1	1 of 2	1	1 of 2	22	0 of 2
benzo(b)fluoranthene	0.94 – 5.2	1	1 of 2	1	1 of 2	1.7	1 of 2
benzo(k)fluoranthene	0.29 – 1.7	0.8	1 of 2	1	1 of 2	1.7	0 of 2
chrysene	0.65 – 3.8	1	1 of 2	1	1 of 2	1	1 of 2
indeno(1,2,3-cd)pyrene	0.49 – 2.3	0.5	1 of 2	0.5	1 of 2	8.2	0 of 2
dibenz(a,h)anthracene	0.12 – 0.66	0.33	1 of 2	0.33	1 of 2	1,000	0 of 2
Inorganics							
copper	340 – 540	50	2 of 2	270	2 of 2	1,720	0 of 2
lead	370 – 700	63	2 of 2	400	1 of 2	450	1 of 2
mercury	0.87 – 1.3	0.18	2 of 2	0.81	2 of 2	0.73	2 of 2
Pesticides/PCBs							
dieldrin	0.003 – 0.0082	0.005	1 of 2	0.039	0 of 2	0.1	0 of 2
4,4'-DDT	0.021 – 0.023	0.0033	2 of 2	1.7	0 of 2	136	0 of 9
PCBs	0.01 – 1.53	0.1	7 of 9	1	2 of 9	3.2	0 of 9

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.

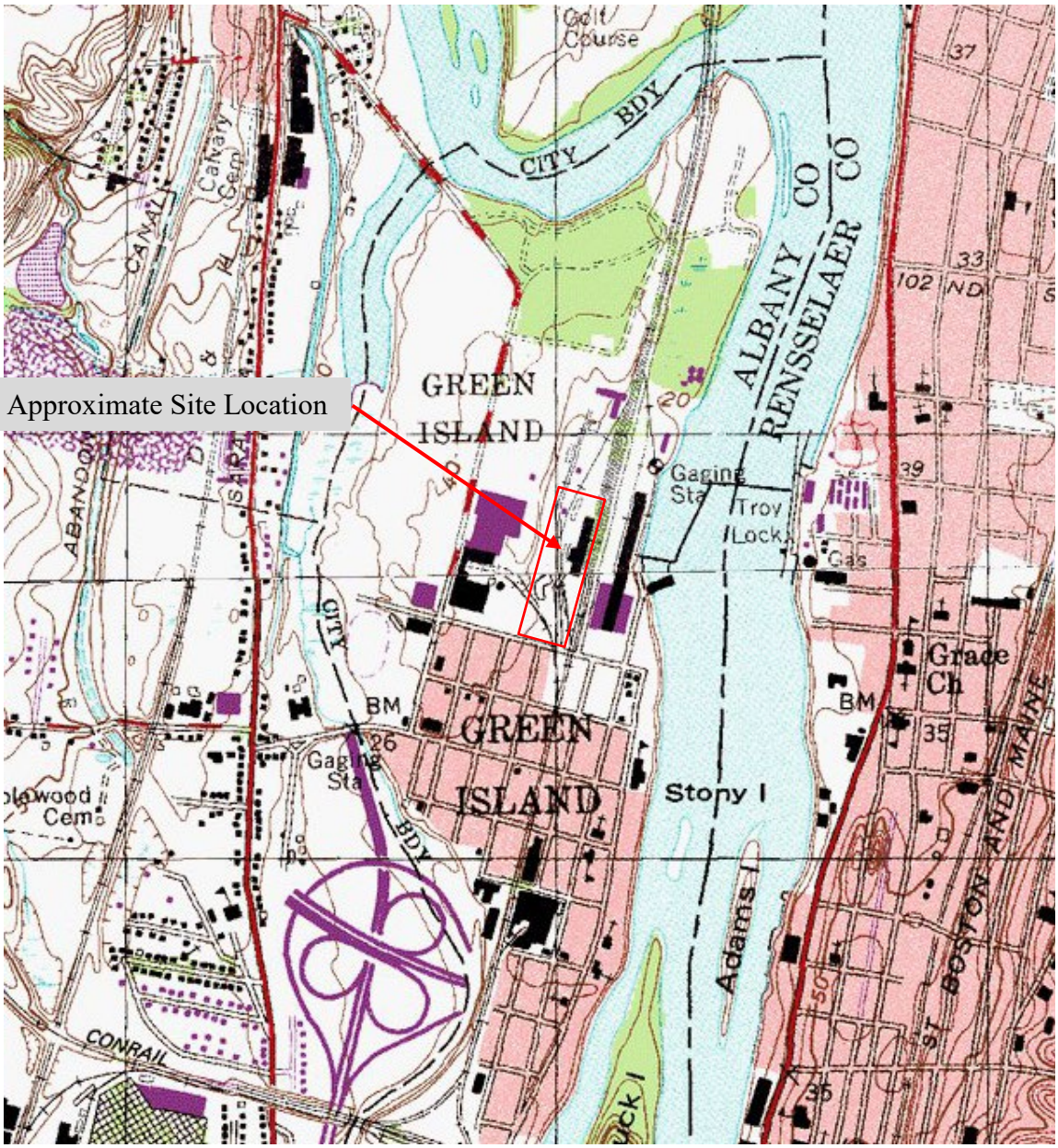
c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Residential Use, unless otherwise noted.
d - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Groundwater.

The PCB- and metals-related contamination identified during the RI in on-site soil (Operable Unit 1) was addressed during the IRM described in Section 6.2.

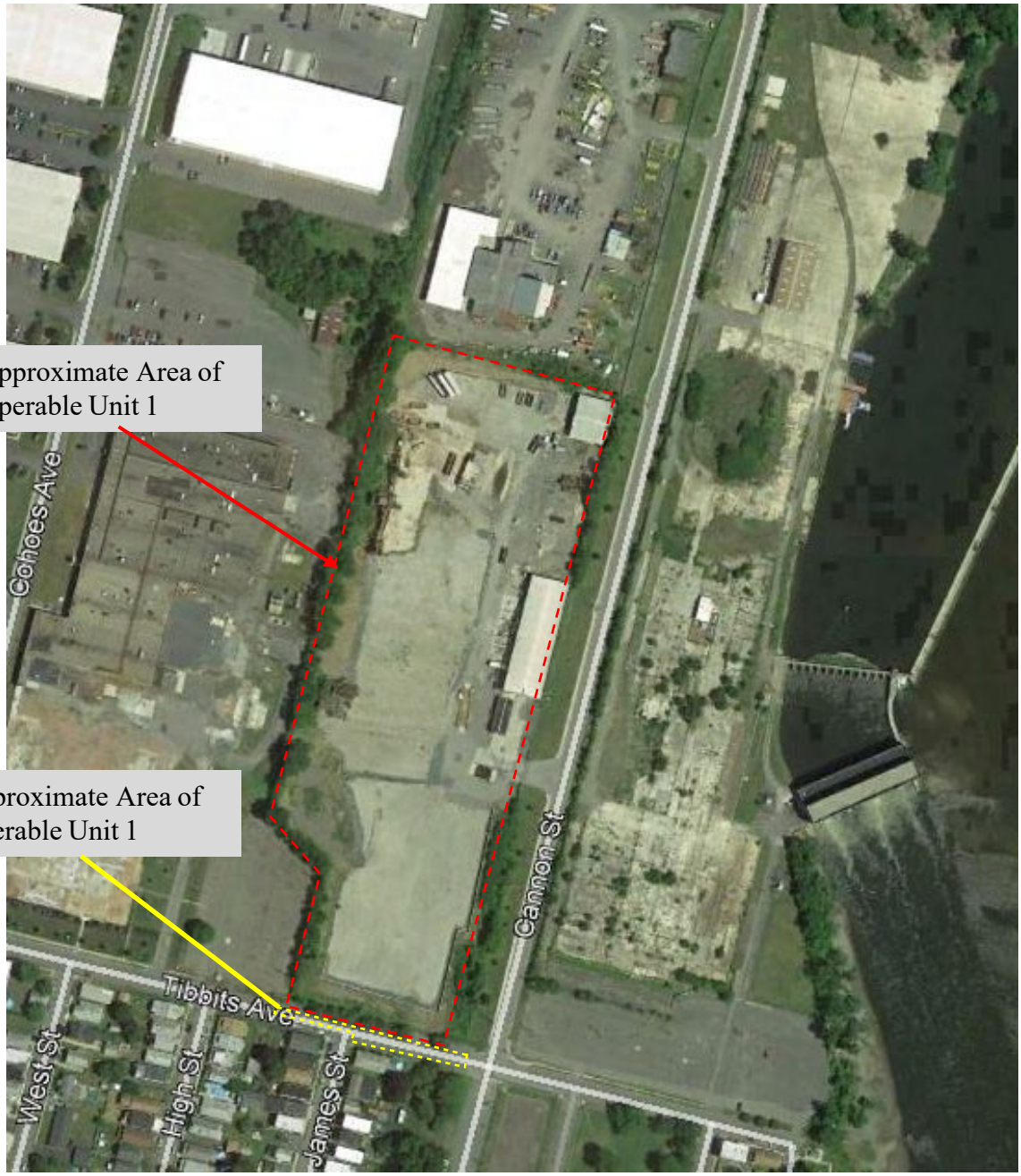
The PCB-related soil contamination identified during the RI in off-site surface soil (Operable Unit 2) was addressed during the IRM described in Section 6.2.

Soil Vapor

Vinyl chloride was detected at a maximum concentration of 153 micrograms per cubic meter ($\mu g/m^3$) at one of three soil vapor sampling points installed approximately 5 feet below grade. Some gasoline constituents were also detected in on-site soil vapor, including 2,2,4-trimethylpentane at concentrations up to 13,300 $\mu g/m^3$.



Title: Site Location Freedman & Sons Property Green Island, NY	Leader Professional Services 271 Marsh Road, Suite 2 Pittsford, NY 14534 (585) 248-2413 FAX (585) 248-2834	Project 842.002 Date 10/16/19 Scale As Shown	Drawn Checked MPR File Name Site Map	Figure 1
Prepared For: Eastern Metal Recycling, LLC 143 Harding Avenue, 1st. Floor Bellmawr, New Jersey 08031				



Title	2018 Aerial Photograph Freedman & Sons Property Green Island, NY
Prepared For	Eastern Metal Recycling, LLC 143 Harding Avenue, 1st. Floor Bellmawr, New Jersey 08031

Leader Professional Services
271 Marsh Road, Suite 2
Pittsford, NY 14534
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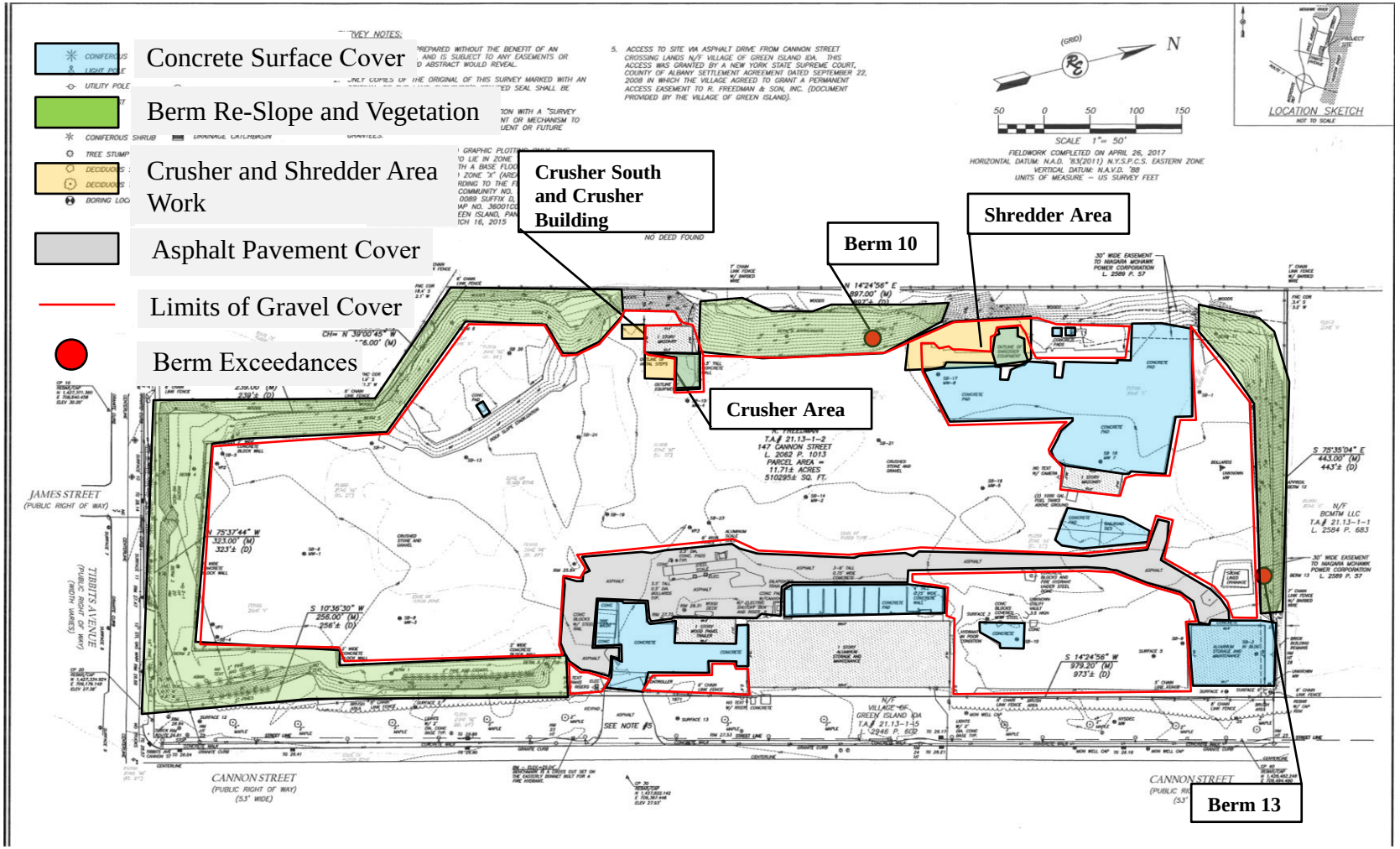
FAX (585) 248-2834

Project	842.002
Date	10/16/18
Scale	As Shown
Drawn	
Checked	MPR
File Name	Site Map
Figure	2



Title	On-Site IRM Areas Former Freedman & Sons Property Green Island, New York
Prepared For	Eastern Metal Recycling, LLC 143 Harding Avenue, 1st Floor Bellmawr, New Jersey

Leader Professional Services, Inc
271 Marsh Road-Suite 2
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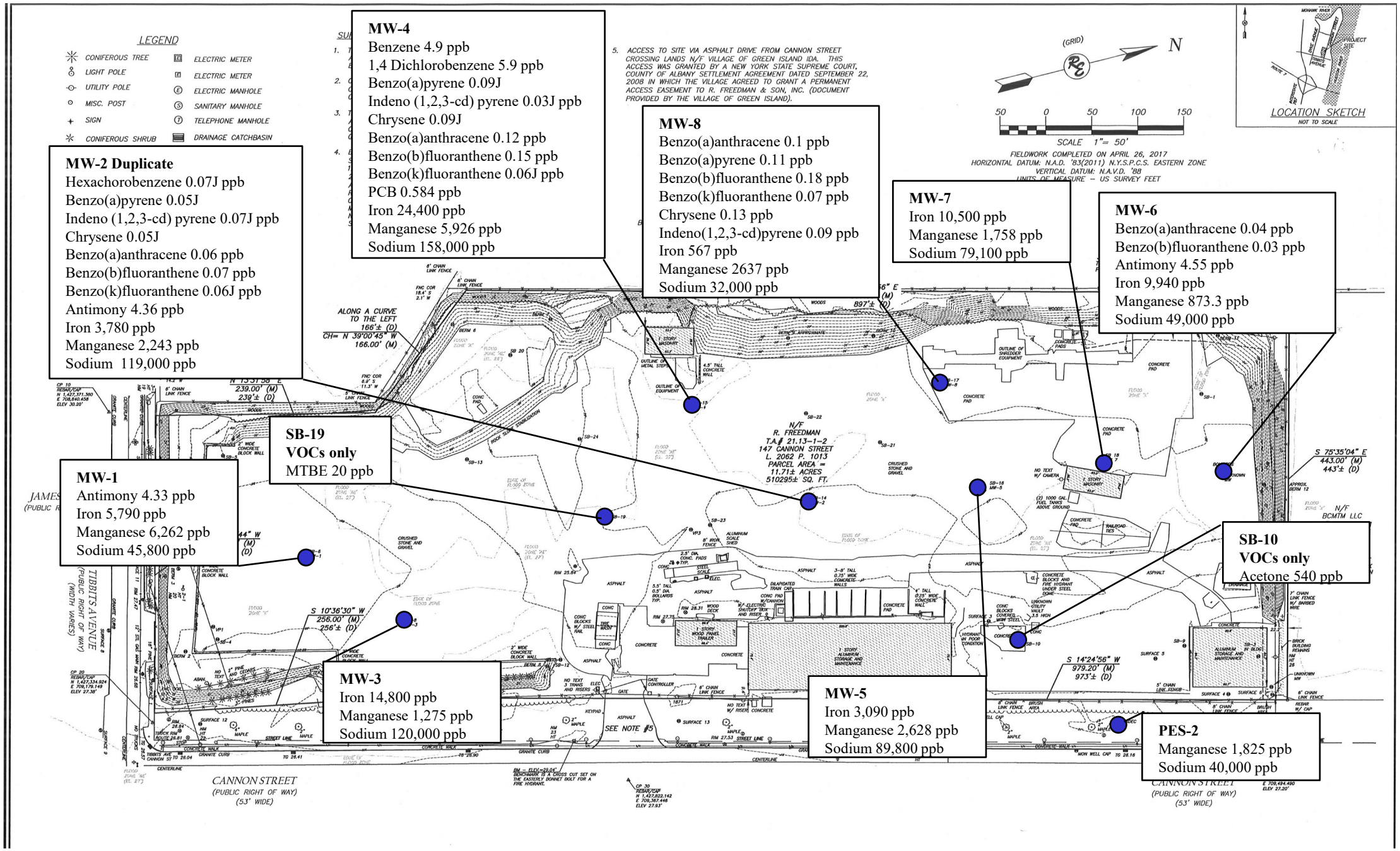
Project	842.002
Date	1/07/21
Scale	As shown
Drawn	PVS
Checked	MPR
File Name	Site drawing
Figure	3



Title	Groundwater Results Exceeding TOGS Former Freedman & Sons Property Green Island, New York
Prepared For	Eastern Metal Recycling, LLC 143 Harding Avenue, 1st Floor Bellmawr, New Jersey

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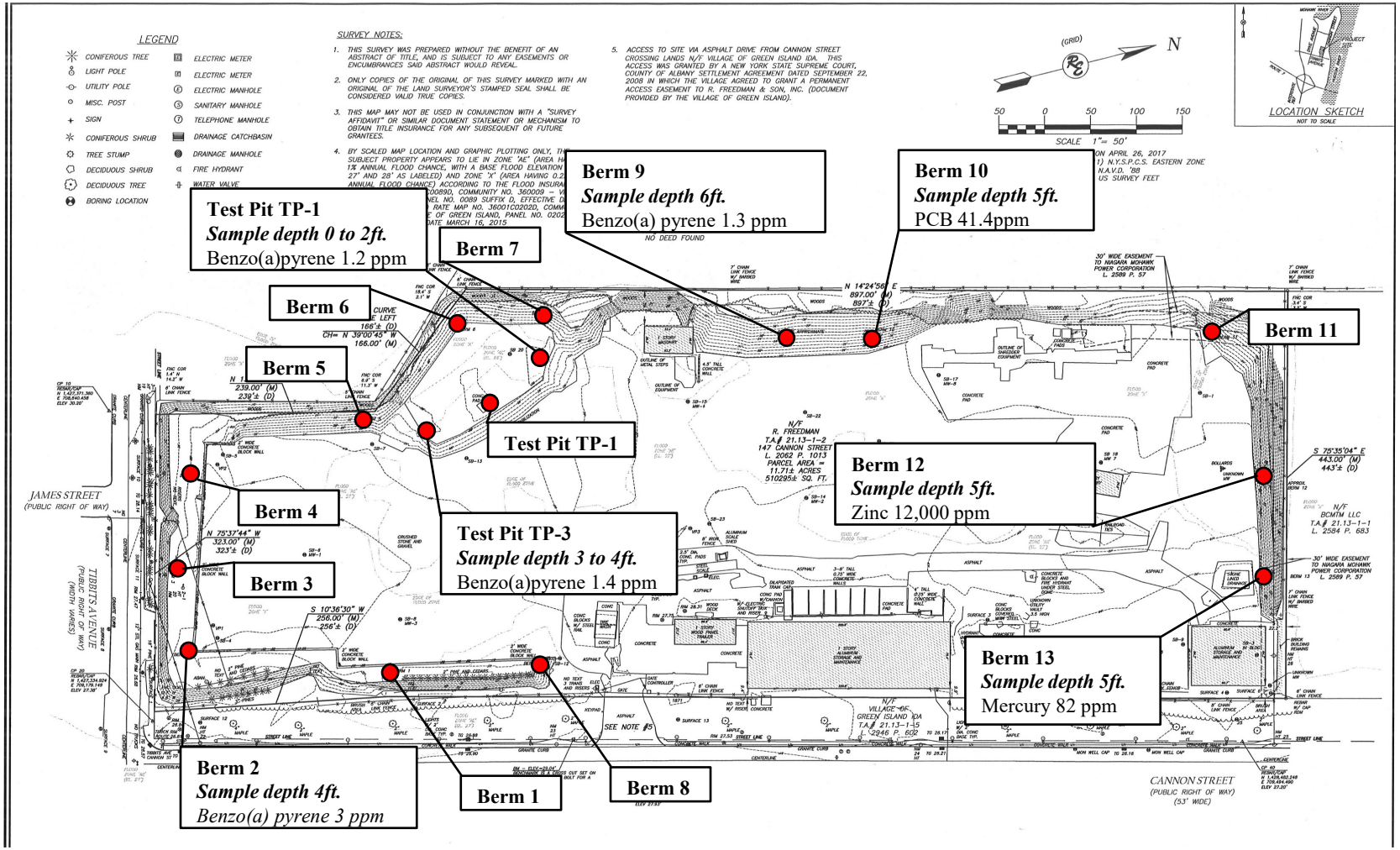
Project	842.002
Date	10/16/2019
Scale	As shown
Drawn	PVS
Checked	**MPR**
File Name	GW drawing
Figure	4



Title	Subsurface Soil Results Exceeding IUSCOs Former Freedman & Sons Property Green Island, New York
Prepared For	Eastern Metal Recycling, LLC 143 Harding Avenue, 1st Floor Bellmawr, New Jersey

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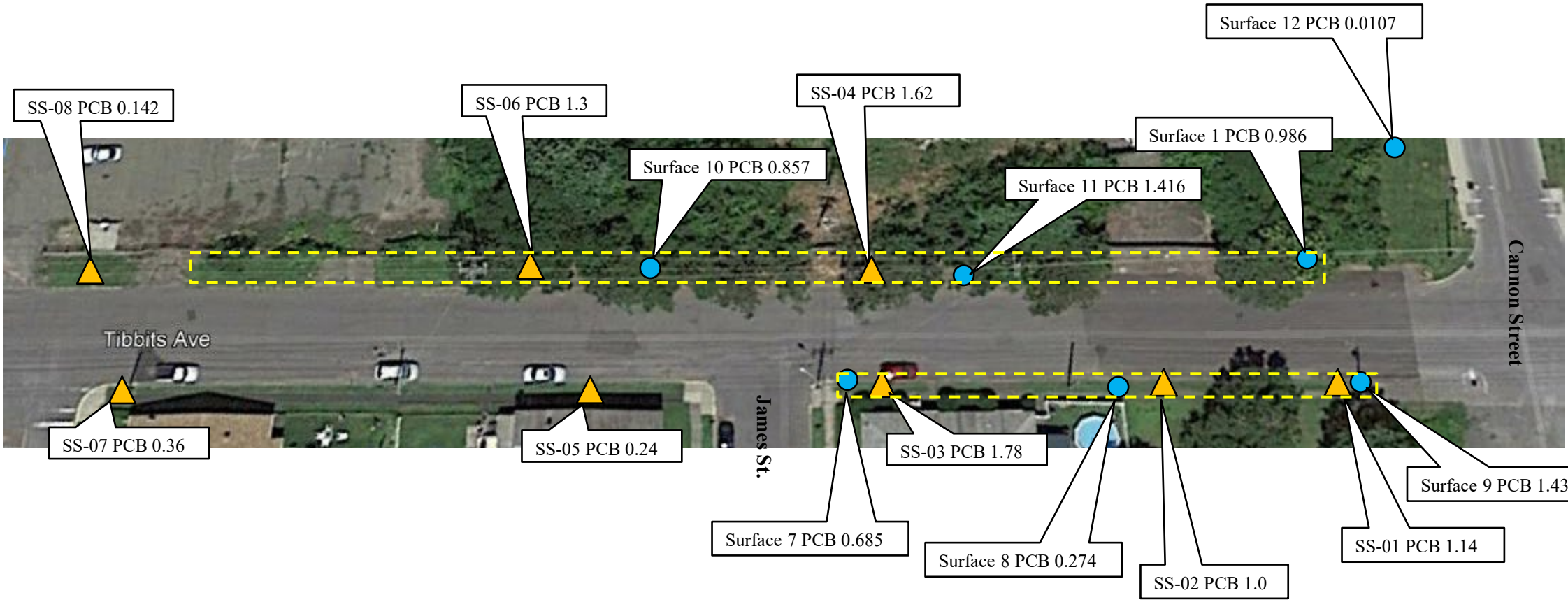
Project	842.002
Date	10/16/2019
Scale	As shown
Drawn	PVS
Checked	MPR
File Name	Site drawing
Figure	5



SS-07 PCB 0.36 Sample Id. PCB Value in milligrams per kilogram

IRM Completion Area
Limits of Excavated Soils
Operable Unit 2

RI Surface Soil Sample Locations collected at a depth of approximately 0 to 2-inches below the ground surface.

Samples collected for Freedman and Sons, locations cannot be confirmed.

Title: Tibbits Avenue Sample Locations and IRM Area
Former Freedman & Sons Property
Green Island, New York

Prepared For: Eastern Metal Recycling, LLC
143 Harding Avenue, 1st Floor
Bellmawr, New Jersey

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Project: 842.002
Date: 10/16/2019
Scale: 1" = 50'

Drawn: PVS
Checked: MPR
File Name: Off site drawing

Figure: 6