PROPOSED REMEDIAL ACTION PLAN

Orchard-Whitney Site
Environmental Restoration Project
Rochester, Monroe County
Site No. E828123
February 2016

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 contaminants 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. Contaminants include hazardous wastes and/or petroleum.

Based on the implementation of the IRM(s), the findings of the investigation of this site 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 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 1996 Clean Water/ Clean Air Bond Act provides funding to municipalities for the investigation and cleanup of brownfields. Brownfields are abandoned, idled, or under-used properties where redevelopment is complicated by real or perceived environmental contamination. They typically are former industrial or commercial properties where operations may have resulted in environmental contamination. Brownfields often pose not only environmental, but legal and financial burdens on communities. Under the Environmental Restoration Program, the state provides grants to municipalities to reimburse up to 90 percent of eligible costs for site investigation and remediation activities. Once remediated, the property can then be reused.

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:

A public comment period has been set from:

February 9, 2016
to
March 25, 2016

A public meeting is scheduled for the following date:

March 9, 2016 at 6:30 pm

Public meeting location:

North West Charles Senior Center
71 Parkway
Rochester, NY 14608

At the meeting, the findings of the remedial investigation (RI) will be presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period will be held, during which verbal or written comments may be submitted on the PRAP.

Written comments may also be sent through to:

Todd Caffoe
NYS Department of Environmental Conservation
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414
todd.caffoe@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 Orchard-Whitney site is a 4.073-acre site comprised of two separate parcels, 354 Whitney Street and 415 Orchard Street in the City of Rochester. The site is bounded by commercial properties and is adjacent to a densely populated residential area to the south.

Site Features: The site is currently vacant and fenced. Cover material consists of crushed building debris, and concrete.

Current Zoning and land use: The site is currently unoccupied and it is zoned for commercial and light industrial uses.

Past Use of the Site: At one time there were several multi-story brick manufacturing buildings and a power plant on-site. The properties have a long history of industrial use. Several sources of contamination existed at this site including Underground Storage Tanks (USTs), electrical transformers, coal storage, chemical storage, metal finishing operations, and plating operations. In January 1999, USEPA completed a drum removal at the 354 Whitney St. parcel. Over 15 containers of waste material were removed.

The Department completed an investigation of a portion of the site using EPA site assessment funds in December 2006.

Site Geology and Hydrogeology: Groundwater is generally 5 to 10 feet below ground surface and generally flows to the northeast. The depth to bedrock varies, but it is generally encountered 10 to 20 feet below ground surface. Along the southern portion of the site, the depth to bedrock exceeds 38 feet.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

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

No PRPs have been documented to date.

Since no viable PRPs have been identified, there are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the state to recover state response costs should PRPs be identified. City of Rochester will assist the state in its efforts by providing all information to the state which identifies PRPs. City of Rochester will also not enter into any agreement regarding response costs without the approval of the Department.

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

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 contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized 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:

chromium
lead
cadmium
trichloroethene (TCE)
petroleum products

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 IRM(s) has/have been completed at this site based on conditions observed during the RI.

Building Demolition (October 2010)

During the RI, a building demolition IRM was completed. Prior to demolition of the former power house and remnants of the 354 Whitney Street structures, hazardous waste and asbestos abatement activities were completed. This demolition project removed all structures on-site with the exception of the 415 Orchard Street building. In addition to asbestos and other hazardous building materials, twelve drums of paint wastes, waste oil and caustics were removed from the building

prior to demolition. Even though several transformers were removed, no PCBs were encountered. These activities are documented in the SI/RAR and IRM CCR Report (December 2015).

UST and Soil Removal (June 2011)

After completion of the demolition project for the power house, nine underground storage tanks, adjacent soils, and a former hydraulic lift pit were removed and disposed of at a permitted facility. The USTs were all contained within a concrete vault structure. Approximately 14,200 gallons of waste gasoline, fuel oil, and mineral spirits were pumped from the tanks and disposed of off-site. Additionally, fourteen tons of hazardous waste soils (TCLP-Lead), 1,100 gallons of sludge and tank cleaning fluids, 14,700 gallons of contaminated water and 214 tons of petroleum contaminated soils were disposed of off-site at permitted facilities. The vaults were backfilled with flowable fill and at least one foot of clean soil.

Soil Removal and In-situ Groundwater Treatment (March 2012)

The former plating area is located in the southern central area of the site and it is bound by the former UST vault, former foundation walls, and a former steam pipe tunnel. Soils and groundwater were impacted by chromium within the immediate former chrome plating area. Initial concentrations of chromium in soil ranged from 10 ppm to 737 ppm and chromium concentration in groundwater ranged from 1,100 ppb to 32,500 ppb. Approximately 530 tons of non-hazardous chromium contaminated soils and 127 tons of hazardous waste (TCLP-Chromium) soils were disposed of off-site. Due to the presence of large sub-grade concrete structures, sub-surface soils exceeding the restricted commercial SCOs remain. In order to mitigate chromium contamination in groundwater, approximately 500 gallons of food-grade molasses was sprayed into the excavation prior to backfilling to promote reduction of residual chromium from the hexavalent form to the trivalent form. The excavation was backfilled with crushed concrete and brick from former on-site buildings.

Soil Removal and Asbestos Abatement (October 2015)

After demolition of the 415 Orchard Street structure (completed outside the ERP, by the City), an investigation was conducted to determine the extent of petroleum impacted soils adjacent to the former tank vault. During the investigation, a utility trench with asbestos insulated pipes was discovered above the area of contaminated soil. Following the investigation, an asbestos abatement was conducted and approximately 700 tons of petroleum contaminated soils were removed and disposed of off-site at a permitted facility. All confirmatory soil samples met the commercial use criteria. The excavation was backfilled with concrete and masonry millings from the former 415 Orchard Street structure. The remaining millings were spread on-site as part of the site cover. The site cover consists of either concrete surfaces or at least one foot of concrete and masonry millings. There are no exposed surface soils on-site.

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 OU 01.

Remediation at the site is complete. Prior to remediation, the primary contaminants of concern were chromium, lead, cadmium, and petroleum contamination in on-site soil and groundwater, and low-levels (<10 ppb) of chlorinated solvents in groundwater. Remedial actions have successfully achieved soil cleanup objectives for commercial use. Remaining contamination in the soil and groundwater will be managed under a Site Management Plan.

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.*

Exposure to contaminated groundwater through drinking water is not expected because public water serves the area.

People may come into contact with contaminated soils or groundwater at the site if they did below the ground surface. People are not drinking contaminated groundwater since the area is served by public water. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for people to inhale site contaminants in indoor air due to soil vapor intrusion in future on-site buildings. Environmental sampling does not indicate that soil vapor intrusion is not a concern for off-site 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:

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.
- Remove the source of ground or surface water contamination.

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.

SECTION 7: SUMMARY OF PROPOSED REMEDY

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 for the site. This No Further Action remedy includes the implementation of ICs/ECs (environmental easement, cover system, groundwater monitoring, and Site Management Plan) as the selected remedy for the site. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5.

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; and
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

2. A site cover currently exists and will be maintained to allow for commercial or industrial use of the site. Any site redevelopment will maintain the existing site cover, which consists either of the structures such as buildings, pavement, sidewalks or soil where the upper foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for commercial 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 commercial and industrial uses 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 or County DOH; 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 item #3 above.

Engineering Controls: The site cover as discussed in item #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 in future buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- provisions for the management and inspection of the identified engineering controls;
- maintaining site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

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

- monitoring of groundwater to assess the performance and effectiveness of the remedy;
- a schedule of monitoring and frequency of submittals to the Department.

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 three categories: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), 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 soil and groundwater.

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. Wastes and source areas were identified at the site which included, a former plating area and an underground storage tank (UST) vault. Please refer to Figure 2 for their respective locations. There are several large concrete foundations, and tunnels adjacent to these areas that limited the aerial extent of soil and groundwater contamination associated with these sources. These structures extend into bedrock.

Plating area
After completing soil excavations as part of the IRM described in section 6.2, twelve bottom and sidewall samples were analyzed for site-related contaminants. One sidewall sample exceeded the restricted commercial SCO for chromium (400 ppm) with a concentration of 863 ppm. Seven other confirmatory samples exceeded the groundwater protection number for hexavalent chromium (19 ppm) at levels ranging from 22.2 to 128 ppm. The remaining four confirmatory sample concentrations ranged from 6.38 to 15.2 ppm. Cadmium concentrations exceeded commercial SCOs (9.3 ppm) in three of twelve samples ranging from 11.9 to 90.3 ppm. Cadmium concentrations in the remaining nine samples ranged from non-detect to 6.36 ppm. All confirmatory sample locations were at least 4 feet below ground surface and there is at least one foot of cover material that meets commercial SCOs. The IRM soil removal reduced chromium contamination in groundwater within the plating area from 32,300 ppb to 2,630 ppb. Soil and groundwater contamination from contaminants within the plating area are localized to the plating area. Chromium was detected in only one on-site downgradient well from the chrome plating area at a concentration of 92 ppb. Contaminant migration appears to be limited by various sub-grade concrete structures, and there does not appear to be a significant plume of contaminants migrating off-site. Furthermore concentrations of chromium are expected to decline due to source removal and the molasses injection bioaugmentation.

UST Tank Vault
The primary contaminants of concern were petroleum products and lead from leaded gasoline. Due to the proximity to the plating area, chrome and cadmium contamination was encountered during tank excavations.

After completion of the IRM described in section 6.2, confirmatory soil samples indicate that commercial SCOs were achieved for soils at the bottom of the tank vaults and in the adjacent soil excavation beneath the former 415 Orchard Street structure. Total residual petroleum contamination in groundwater was less than 100 ppb total VOCs. Benzene concentrations ranged from 6.74 to 25.8 ppb and there was one toluene detection at 38.6 ppb. Downgradient wells outside of the former UST vault were non-detect for petroleum constituents.

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

Groundwater

During the RI, 22 permanent and 13 temporary wells were installed to assess the nature and extent of groundwater contamination. Groundwater was analyzed for VOCs, SVOCs, PCBs, pesticides, and metals. The temporary wells were installed within the plating area discussed in the previous section and the permanent monitoring wells were installed throughout the site. Please refer to Figure 3 for well locations and post-IRM groundwater quality data. Groundwater impacts from the source areas are generally localized and have been significantly mitigated by previous IRMs conducted at the site. Low-levels of chlorinated solvent were detected throughout the site at total VOC concentrations either slightly above or slightly below their respective class GA groundwater standards. Due to the low levels of chlorinated solvents on-site, there does not appear to be a significant source. Remaining petroleum contamination is limited to the area of the former USTs. There does not appear to be a significant groundwater contamination migrating off-site. The City of Rochester is served by public water and use of groundwater as a potable water source within the City limits is prohibited by City code.

Remaining chromium and cadmium detected in on-site groundwater is generally limited to the former plating areas. Although chromium contaminant levels significantly exceeded the groundwater standards, these concentration were limited to the former plating area. Chromium concentrations were reduced by an order of magnitude by the IRM and there is not a significant plume of chromium contamination migrating off-site.

Table 1 - Groundwater

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
VOCs			
Benzene	ND to 25.8	1.0	3 of 26
Toluene	ND to 38.6	5.0	1 of 26
Xylenes	ND to 85.5	5.0	1 of 26
Trichloroethene	ND to 5.25	5.0	1 of 26

Detected Constituents	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)	Frequency Exceeding SCG
cis-1,2-dichloroethene	ND to 3.78	5.0	0 of 26
Vinyl Chloride	ND to 8.32	2.0	1 of 26
Inorganics			
Cadmium	ND to 26	5.0	2 of 26
Chromium	ND to 2,630	50	4 of 26
Lead	ND to 70	25	3 of 26

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).

Groundwater contamination identified during the RI was addressed during the IRM described in Section 6.2.

Soil

Currently, the site is covered by concrete surfaces or at least one foot of concrete and brick building debris from the former 415 Orchard Street structure. There are no exposed surface soils and the majority of the site is fenced. During the RI and the IRMs conducted at the site, subsurface soil samples were collected for site characterization and confirmatory samples. Four off-site surface soil samples were collected during the RI. Soils were analyzed for VOCs, SVOCs, PCBs, pesticides, and metals.

Due to the presence of coal and coal ash found throughout the site, the concentrations of PAHs exceeded commercial SCOs at several locations. Additionally, the concentration of PAHs in off-site surface soils exceed the commercial SCOs. Off-site samples do not appear to be impacted by contaminants from the Orchard-Whitney site. Please refer to Figure 4 for soil sample results.

VOC concentration in soils within the IRM soil excavations meet the commercial SCOs and were not detected in significant concentrations in soils outside the former source areas.

Metals concentrations in the subsurface on-site soils generally meet the commercial SCOs with the exception of the former plating area and UST area. Very low levels of PCBs were detected in subsurface soils either at or below the unrestricted use SCO. No Pesticides were detected in subsurface soils.

In general, there are no remaining significant sources of contamination in subsurface soils.

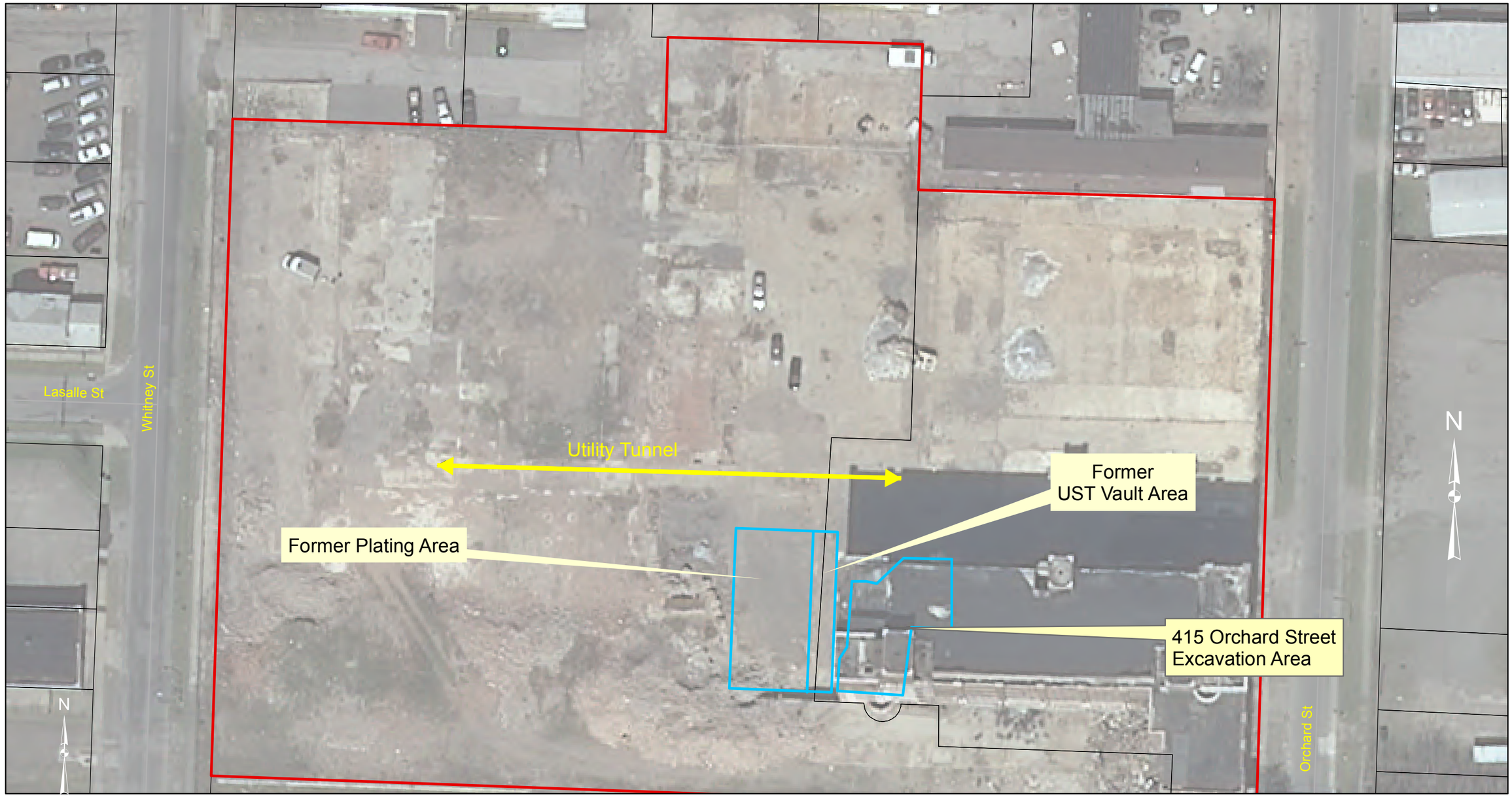
Table 2 - Soil

Detected Constituents	Concentration Range Detected (ppm)[3]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use Commercial SCG[c] (ppm)	Frequency Exceeding Restricted SCG
SVOCs					
Benzo(a)anthracene	ND to 27	1	6 of 48	5.6	3 of 48
Benzo(a)pyrene	ND to 30	1	6 of 48	1	5 of 48
Benzo(b)fluoranthene	ND to 33	1	7 of 48	5.6	4 of 48
Benzo(k)fluoranthene	ND to 23.6	0.8	6 of 48	56	0 of 48
Chrysene	ND to 28.1	1	6 of 48	56	0 of 48
Dibenzo(a,h)anthracene	ND to 6.48	0.33	3 of 48	0.56	3 of 48
Indeno(1,2,3,cd)pyrene	ND to 19	0.5	6 of 48	5.6	1 of 48
Inorganics					
Cadmium	ND to 90.3	2.5	5 of 70	9.3	3 of 70
Chromium	ND to 863	19[d]	10 of 70	19[d]	10 of 70
Lead	ND to 670	63	2 of 70	1,000	0 of 70

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

Soil contamination identified during the RI was addressed during the IRM described in Section 6.2.

Figure 1
Site Location
Orchard-Whitney Site E828123

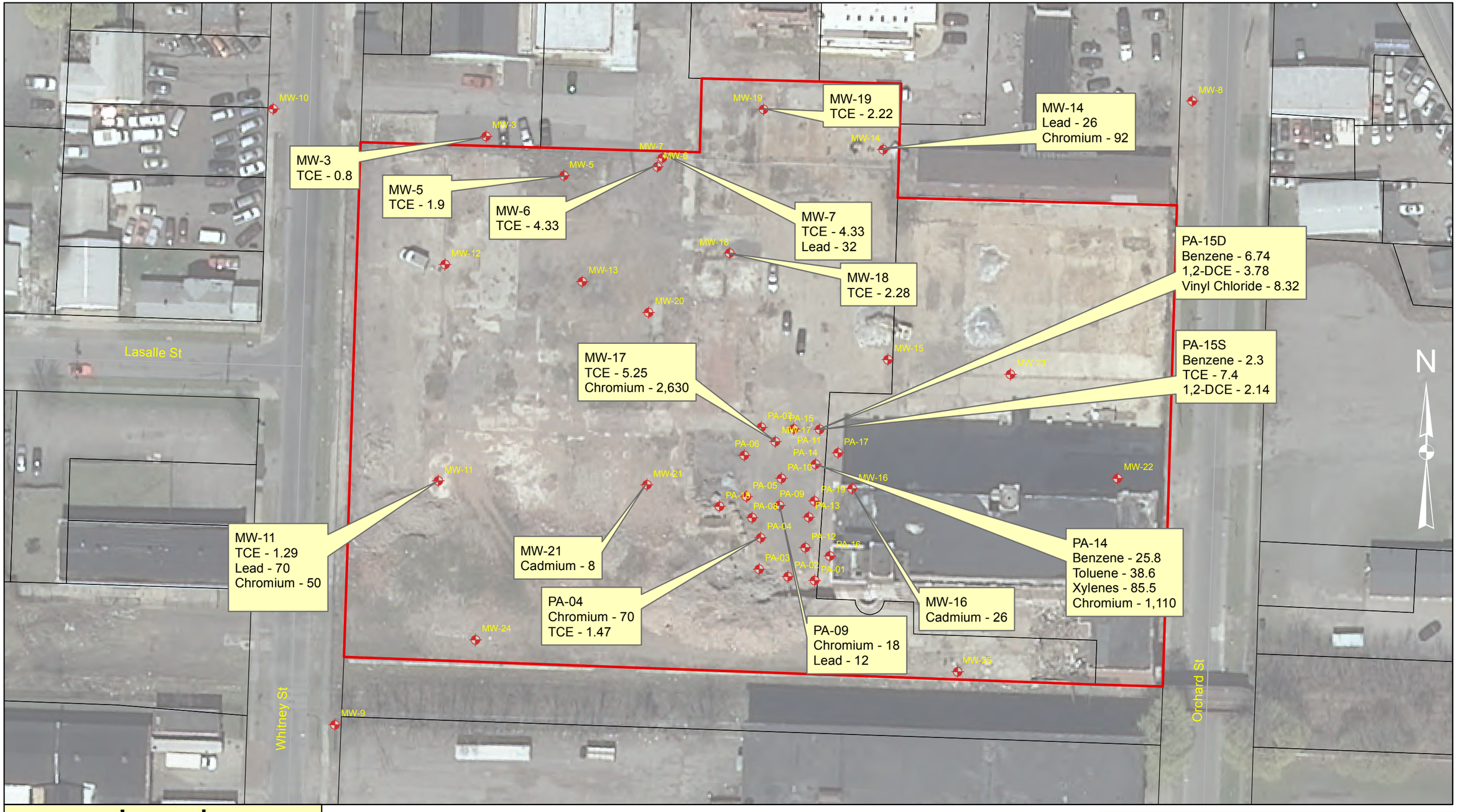


0 75 150 300 Feet

Legend

- Orchard-Whitney Site Boundary
- Real Property Boundaries
- IRM Excavation Areas

Figure 2
Orchard-Whitney Site E828123
IRM Excavation Areas



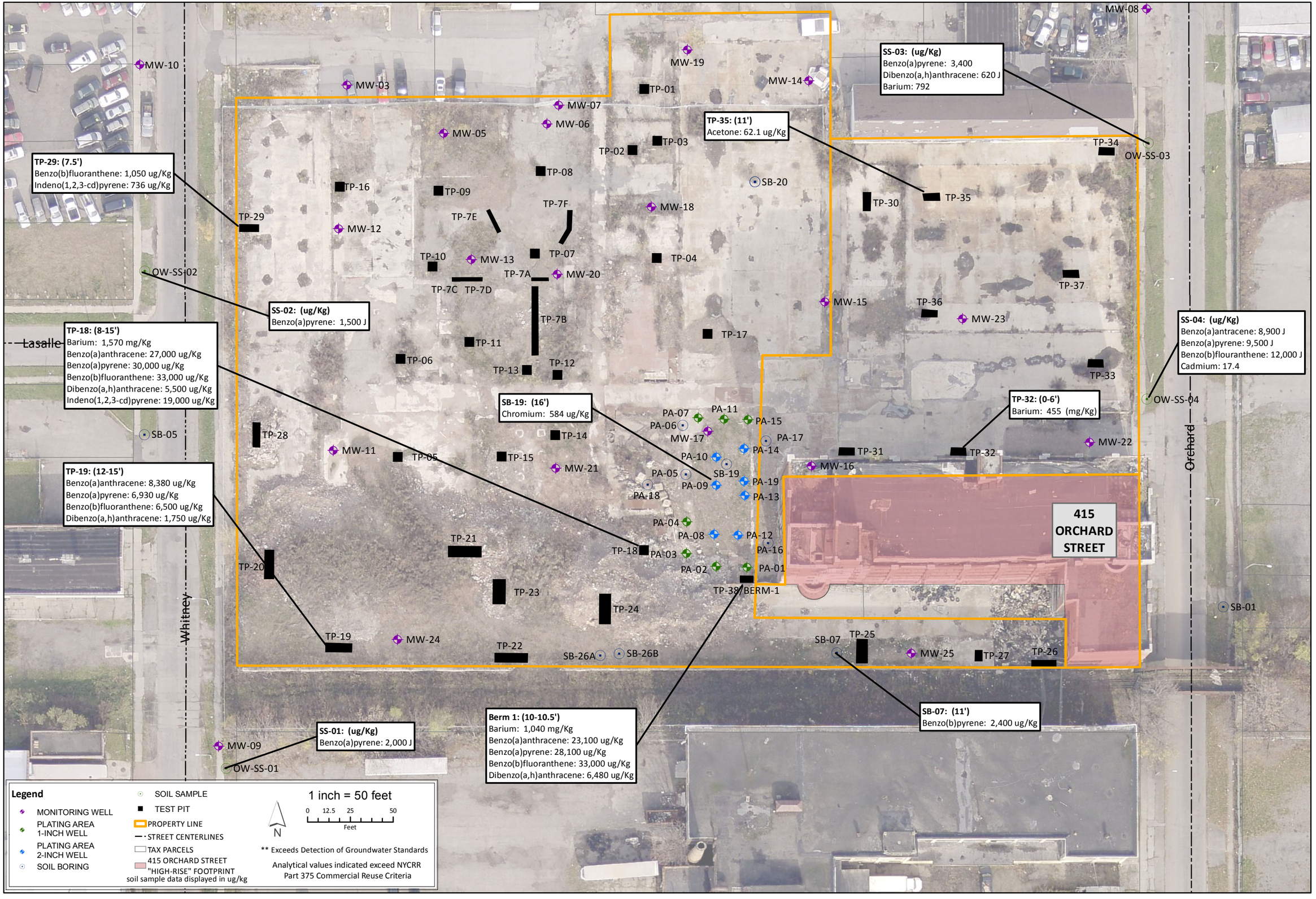
Legend

All concentrations are in ug/l (ppb)

- Monitoring Wells
- Orchard-Whitney Site Boundary
- Real Property Boundaries

0 75 150 300 Feet

Figure 3
December 2012 Groundwater Data
Orchard-Whitney Site E828123



DATE: DECEMBER 2015
SCALE: 1 Inch= 50 Feet
DRAWN/CHECKED: CSB/AC
DATA SOURCE: PICTOMETRY

FLOWER CITY - FLOUR CITY - CITY OF ROCHESTER N.Y.

FIGURE 4 Orchard Whitney PRAP
POST-IRM COMMERICAL EXCEEDANCES
ERP SITE #E828123
ROCHESTER, NY

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL