PROPOSED REMEDIAL ACTION PLAN

Revere Smelting and Refining
Operable Unit 3: Off-site Environmental Media
State Superfund Project
Middletown, Orange County
Site No. 336053
February 2020

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 has resulted in threats to public health and the environment that would be addressed by the remedy proposed by this Proposed Remedial Action Plan (PRAP). The disposal of hazardous wastes at this site, as more fully described in Section 6 of this document, has contaminated various environmental media. The proposed remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This PRAP identifies the preferred remedy, summarizes the other alternatives considered, and discusses the reasons for the preferred remedy.

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 repositories 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 repositories:

Middletown Thrall Public Library
11-19 Depot Street
Middletown, NY 10940
Phone: (845) 341-5454

NYSDEC Region 3 Office
21 South Putt Corners Road
New Paltz, NY 12561
Phone: (845) 256-3154

DEC Info Locator: https://www.dec.ny.gov/data/DecDocs/336053/

A public comment period has been set from:

2/26/2020 to 3/27/2020

A public meeting is scheduled for the following date:

3/12/2020 at 7:00 pm

Public meeting location:

Wallkill Town Hall, Building A, 99 Tower Drive, Middletown, NY 10941

At the meeting, the findings of the remedial investigation (RI) and the feasibility study (FS) 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:

William Bennett
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233
william.bennett@dec.ny.gov

The Department may modify the proposed remedy or select another of the alternatives 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 Revere Smelting and Refining (Revere) site is located at 65 Ballard Road in the Town of Wallkill, Orange County. The inactive hazardous waste disposal ("Superfund") site consists of 60.6 acres of land in a mixed commercial and industrial area. The full Revere property comprises 154.9 acres.

Site Features: This active facility consists of two large buildings, the Main Plant where lead is smelted and poured into molds, and the Containment Building, which stores and processes the various parts of batteries. A smaller building known as the crystallizer building processes the battery acid into a recyclable product. A small office complex adjacent to the Main Plant houses most of the staff at the site. Beyond the buildings are several parking lots. A railroad spur is located adjacent to the Main Plant and Containment Building that is used by Revere for transporting product. Beyond the active facility to the north and east are several acres of overgrown fields, mature woodlands, wetlands, and a pond. The pond empties into an unnamed stream. To the west of the active facility are a mowed front lawn area and another unnamed stream. The two unnamed streams which run through the site converge off the site to the south of the railroad tracks to form the Phillipsburg Creek, on property still owned by Revere. The Phillipsburg Creek discharges into the Wallkill River approximately one mile south of the site.

Current Zoning and Land Use: The site is zoned as Light Enterprise by the Town of Wallkill. Approximately one quarter of the site is actively used by Revere for their operations described above.

Past Use of the Site: Processes related to battery manufacturing and recycling have resulted in soil, groundwater, sediment, and surface water contamination with lead and arsenic. Remedial actions have been completed at the site to address contamination as discussed below.

Operable Units: There are four operable units (OUs) for the site. The operable units are as follows:

OU-1 consists of all environmental media other than groundwater on the 60.6-acre Class 2 site, excluding the active facility (OU-4), as well as all environmental media other than groundwater within six off-site properties (four of which are owned by Revere) where impacts from the site have been documented;

OU-2 is groundwater in all areas other than OU-4;

OU-3 is impacted off-site environmental media (soil and sediments) other than groundwater which are not a part of OU-1; and

OU-4 is the active facility including groundwater beneath the active facility.

In February 2011, Revere signed a Consent Order with the Department which required several improvements to infrastructure and operating protocols for the active facility (OU-4), the implementation of remedial programs for OU-1 and OU-3, and the completion of a Resource Conservation and Recovery Act (RCRA) Facility Investigation and Corrective Measures Study (RFI/CMS) for OU-4.

A Record of Decision for OU-1 was issued in September 2011. The remedy set forth in that Record of Decision included excavation and treatment of soil and sediment and placement of treated materials in an on-site containment cell. As of June 2017, excavation and treatment of OU-1 materials are complete.

Operable Unit 3 (OU-3) is the subject of this document. OU-3 includes portions of seven off-site private properties. In the case of all seven properties, the impacted portions of OU-3 on these properties are not developed. Five of these properties are used for commercial use, one property is a DOT right of way, and one property is a private residence.

A Statement of Basis was issued previously for OU-4. The Statement of Basis established the required remedial action for OU-4 upon closure of the Revere Smelting & Refining facility.

Site Geology and Hydrogeology: Soils beneath and around the active plant consist of fill, reworked glacial till, and glacial till. Overburden soils generally extend ten to twenty feet below ground surface (bgs) and are underlain by bedrock composed of shale and limestone. Groundwater is encountered in both overburden soil and bedrock and generally flows to the south across the site. Overburden groundwater is generally encountered at a depth of ten feet bgs.

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, an alternative which allows for unrestricted use of the site (OU-3 area) was evaluated.

A comparison of the results of the investigation against unrestricted use standards, criteria and guidance values (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:

Eco-Bat New York LLC

RSR Corporation

Revere Smelting & Refining Corporation (Revere)

The NYSDEC entered in a Consent Order with Revere and Eco-Bat New York LLC on February 1, 2011. The order obligates the responsible parties to install a new containment liner system beneath the active facility Containment Building, construct a new trailer storage parking area, develop a spill response protocol, implement a remedial program for OU-1 and OU-3, and conduct an RFI/CMS for OU-4. As of 2020, Revere has completed requirements under the consent order for OU-4 and substantially completed remedial construction in OU-1.

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 for OU-3 of this site includes data for:

- soil
- sediment

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 contaminants of concern identified for this Operable Unit at this site are:

lead arsenic

As illustrated in Exhibit A, for OU-3 the contaminants of concern exceed the applicable SCGs for:

- soil
- sediment

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.

There were no IRMs performed for OU-3 at this site during the RI.

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.

The Fish and Wildlife Resources Impact Analysis (FWRIA) for OU-3, which is included in the RI report, presents a detailed discussion of the existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination: Prior to implementation of the OU-1 remedy, the primary contaminants of concern for the site were lead and arsenic. Lead and arsenic were found in surface soils, subsurface soils, and sediment throughout OU-1. Lead was also found in surface water in OU-1. As part of the remedial action for OU-1, contaminated media was excavated,

chemically treated to reduce leachability, and placed in an on-site containment cell. The containment cell and site restoration will be subject to a Site Management Plan and Environmental Easement.

Based upon the investigations conducted to date, the primary contaminants of concern for OU-2 (groundwater) are lead, arsenic, antimony, cadmium, and chromium. Exceedance of groundwater standards for all contaminants of concern have been documented in monitoring wells in the vicinity of the active plant. In 2014, Revere completed installation of a slurry wall and groundwater extraction and treatment system to contain groundwater contamination within the active facility (beneath OU-4). Groundwater quality is monitored quarterly and is improving as of 2020.

Operable Unit 3 (OU-3) is defined as off-site environmental media other than groundwater that are not part of OU-1 and which are impacted by contaminants originating from the Revere site. The RI for OU-1 determined that contamination may be migrating off-site into OU-3 via surface water/sediment transport in the unnamed tributaries into the Phillipsburg Creek. The Phillipsburg Creek (and its tributaries) is the primary surface water drainage pathway for OU-1. Further investigation during the RI for OU-3 determined that the extent of contamination requiring remediation in OU-3 included Phillipsburg Creek sediment and floodplain soils. The Wallkill River was also investigated under the RI for OU-3 at and immediately down gradient of its intersection with the Phillipsburg Creek as further discussed below. Phillipsburg Creek is classified as a C(t) stream and the Wallkill River is a Class B stream.

Soil and sediment samples collected from OU-3 were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), and pesticides.

Based upon the investigations conducted to date, the primary contaminants of concern for OU-3 are lead and arsenic. Lead and arsenic were found in sediment and soil in OU-3.

Surface and near surface soil samples were collected from OU-3 at various depths between 0 and 2 feet during the RI. Surface soil samples were collected from 0 to 2 inches below grade at some locations to assess direct human exposure and 0 to 6 inches below grade at all other locations for ecological evaluations. Soil samples were collected from the Phillipsburg Creek and Wallkill River floodplains. VOCs, SVOCs, PCBs, and pesticides were not detected over unrestricted soil cleanup objectives (SCOs) in any soil samples. The analytical results of soil sampling indicate that floodplain soils in OU-3 exceed unrestricted and ecological SCOs for arsenic, lead, manganese and zinc. Arsenic and lead exceeded ecological SCOs in soils in the northern and most upgradient portions of OU-3 and in several additional isolated areas adjacent to the Phillipsburg Creek. Lead concentrations in OU-3 soil range from 11.1 parts per million (ppm) to 3,090 ppm compared to a site-specific ecological SCO and residential SCO of 400 ppm. Arsenic concentrations in OU-3 soil range from non-detect to 34.4 ppm compared to a site-specific ecological SCO of 13 ppm and a residential SCO of 16 ppm. The OU-1 RI determined that sediments migrating from the Revere site into OU-3 were impacted by both lead and arsenic. Elevated levels of manganese and zinc are co-located with elevated levels of lead and arsenic in Phillipsburg Creek floodplain soils. However, elevated levels of arsenic and zinc are not co-

located with elevated levels of lead in Wallkill River floodplain soils. It is therefore likely that elevated levels of arsenic and zinc in Wallkill River floodplain soils are attributable to other sources, and soil impacts from the Revere site in OU-3 do not extend into the Wallkill River floodplain down gradient of the Phillipsburg Creek floodplain.

Six surface samples were collected during the RI from a depth of 0 to 2 inches below grade. All six samples were analyzed for lead and arsenic and one of the six samples was analyzed for total metals. Arsenic concentrations in surface soil samples ranged from 5.9 ppm to 32.6 ppm compared to a residential SCO of 16 ppm. Lead concentrations in surface soil samples ranged from 11.6 ppm to 216 ppm compared to a residential SCO of 400 ppm. No other metals besides lead and arsenic exceeded residential SCOs in the surface soil sample analyzed for total metals.

Sediment samples were collected during the OU-3 RI from the Phillipsburg Creek and the Wallkill River. The samples were collected to determine the extent of contamination which has historically migrated from the source areas in OU-1 downstream into OU-3. VOCs, SVOCs, PCBs, and pesticides were not detected over sediment guidance values in any sediment samples. The analytical results of sediment sampling conducted during the RI indicate sediment in OU-3 exceeds the Department's Class A freshwater sediment guidance values (SGVs) for arsenic, lead, cadmium, copper, nickel, silver, and zinc. Sediment in OU-3 is within the Class B freshwater SGVs range for arsenic, lead and silver. Either arsenic or lead exceeds Class A freshwater SGVs throughout the length of the Phillipsburg Creek to depths that sediment was encountered (6 to 12 inches) during the RI. Concentrations of lead and arsenic in sediment in Phillipsburg Creek generally decreased from the most up gradient portion of the Creek in OU-3 to the confluence of the Wallkill River, with higher concentrations in depositional areas. Lead concentrations in Phillipsburg Creek sediment range from 11.1 ppm to 5,890 ppm compared to a Class A freshwater SGV of 36 ppm. Arsenic concentrations in Phillipsburg Creek sediment range from 4.3 ppm to 159 ppm compared to a Class A freshwater SGV of 10 ppm. As was the case with OU-1, elevated levels of metals other than lead and arsenic in OU-3 are co-located with elevated levels of lead and arsenic in Phillipsburg Creek sediment. Therefore, removal of lead and arsenic in exceedance of Class A freshwater SGVs will result in the removal of all other metals in exceedance of Class A freshwater SGVs in Phillipsburg Creek sediment.

Wallkill River sediment is impacted by concentrations of arsenic, lead, nickel and zinc within the Class B freshwater SGVs range and by silver above the Class B SGVs range. The extent of lead and arsenic exceedance of Class A freshwater SGVs in the Wallkill River is approximately 300 feet beyond the confluence of the Phillipsburg Creek and Wallkill River. Lead and arsenic sediment concentrations within the Class B freshwater SGVs range do not consistently extend beyond the confluence of the Phillipsburg Creek in the Wallkill River.

Special Resources Impacted/Threatened: Based on the Fish and Wildlife Impact Analyses for OU-1, a site-specific ecological soil cleanup objective (SCO) of 400 ppm for lead was developed. This SCO applies to ecologically sensitive areas of OU-1 and all soils in OU-3 and was derived based on a biota study in OU-1.

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.*

Contaminated soil found in Operable Unit 1 (OU-1) has been properly treated, placed in a containment cell, and capped; therefore, contact with contaminated soil in this area of the site is not expected. Persons who enter the active facility portion of the site (OU-4), which has not been remediated, could contact contaminants in the soil by digging or otherwise disturbing the soil or by inhaling or ingesting dust that may be generated if soil is disturbed. People are not drinking the contaminated groundwater (OU-2) because the area is served by a public water supply that is not affected by this contamination. People may come in contact with contaminants present in the shallow creek and river sediments and associated flood plain soils (OU-3) while entering or exiting the creek or other wetlands downstream from the site during recreational activities.

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.

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.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

Sediment

RAOs for Public Health Protection

- Prevent direct contact with contaminated sediments.
- Prevent surface water contamination which may result in fish advisories.

RAOs for Environmental Protection

- Prevent releases of contaminant(s) from sediments that would result in surface water levels in excess of (ambient water quality criteria).
- Prevent impacts to biota from ingestion/direct contact with sediments causing toxicity or impacts from bioaccumulation through the marine or aquatic food chain.

- Restore sediments to pre-release/background conditions to the extent feasible.

SECTION 7: SUMMARY OF THE PROPOSED REMEDY

To be selected, the remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. The remedy must also attain the remedial action objectives identified for the site, which are presented in Section 6.5. Potential remedial alternatives for the Site were identified, screened and evaluated in the FS report.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit B. Cost information is presented in the form of present worth, which represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved. A summary of the Remedial Alternatives Costs is included as Exhibit C.

The basis for the Department's proposed remedy is set forth at Exhibit D.

The proposed remedy is referred to as the Excavation of Soils and Sediments, Ex-Situ Treatment, Consolidation, and Restoration remedy.

The estimated present worth cost to implement the remedy is $6,360,000. The cost to construct the remedy is estimated to be $5,320,000 and the estimated average annual cost is $205,000.

The elements of the proposed remedy are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The remedial design program will include:

- a pre-design investigation to complete delineation of contaminants in Operable Unit 3 (OU-3) soil and sediments to Department standards, criteria, and guidelines (SCGs). The pre-design investigation will focus on confirming the horizontal extent of soil contamination in and adjacent to the Phillipsburg Creek floodplain and the vertical extent of sediment contamination;
- a Department approved jurisdictional wetland delineation of all areas in OU-3 subject to excavation or disturbance by this remedial action; and

- a treatability study to develop the appropriate stabilization additive and the specific design criteria for ex-situ stabilization. The treatability study will build on the previous treatability studies completed by Revere and the NYSDEC. Stabilization will be designed to reduce the leachability of the soil and sediment. Soil and sediment must be treated to non-hazardous levels prior to disposal in the OU-1 Containment Cell.
- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gases 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; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Excavation of Soil and Sediment

Excavation, ex-situ stabilization (if needed) and disposal in the OU-1 containment cell of all sediment in Phillipsburg Creek and all soil in and adjacent to the Phillipsburg Creek floodplain which exceeds site-specific remedial objectives, including:

- sediment exceeding the Class A freshwater sediment guidance values (SGVs) for lead (36 ppm) and/or arsenic (10 ppm); and
- soil exceeding the site-specific ecological and residential soil cleanup objective (SCO) for lead (400 ppm) and/or the site-specific ecological SCO for arsenic (13 ppm).

Sediment subject to the above excavation criterion is defined as substrate within the bankfull extents of Phillipsburg Creek to a depth of 2 feet below the stream bed. Substrate extending more than two feet beneath the Phillipsburg Creek stream bed is considered soil and shall be subject to the soil removal criterion. Sediment will be accessed through the construction of a temporary diversion system to facilitate sediment removal and backfilling in dry conditions. The sediment excavation depth will be at least one foot for the entire length of the Phillipsburg Creek in OU-3. The soil excavation depth will vary from 0.5 feet to 2.5 feet.

Soil excavation will continue horizontally into the Phillipsburg Creek floodplain until site-specific ecological SCOs are achieved. Sediment excavation will continue vertically until Class A freshwater SGVs are achieved, site-specific SCOs are achieved at depths greater than 2 feet, or bedrock is encountered. Sediment excavation will continue into the mouth of Phillipsburg Creek in the Wallkill River to the extent practicable without diversion of the Wallkill River.

Approximately 6,800 cubic yards of contaminated soil and sediment will be removed from OU-3. The extent of the excavation area is approximately 4.32-acres.

3. Backfill/Restoration of Excavated Areas

Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) for unrestricted use will be brought in to replace excavated soil and establish the designed grades in OU-3. Imported clean fill will have the same physical properties as the soil removed (i.e., organic carbon, grain size, etc.) and will be determined in accordance with Restoration of Excavated Areas below.

Clean fill meeting the class A sediment requirements of Table 5 in NYSDEC Guidance "Screening and Assessment of Contaminated Sediments," will be brought in to replace excavated sediment and establish design grades in OU-3. Imported sediment will have the same physical properties as the sediment removed (i.e., organic carbon, grain size, etc.) and will be determined in accordance with Restoration of Excavated Areas below.

4. Ex-situ Stabilization; Disposal in the OU-1 Containment Cell

Ex-situ stabilization will be implemented to treat excavated soil and sediment which has a Toxicity Characteristic Leaching Protocol (TCLP) of greater than 5 parts per million (ppm) for lead and is thus characteristic hazardous waste. Following excavation, soil and sediment will be characterized to determine if treatment is necessary prior to disposal in the OU-1 containment cell. Soil and sediment exceeding the hazardous waste threshold for lead of 5 ppm, or any other hazardous waste criteria, will require ex-situ stabilization prior to placement in the OU-1 containment cell.

Ex-situ stabilization will take place within the industrial area of OU-1. Approximately 5,100 cubic yards of soil and sediment will require ex-situ stabilization. Stabilization will be designed to reduce the leachability of the soil and sediment. Soil and sediment must be treated to non-hazardous levels (less than 5 ppm TCLP for lead) prior to disposal in the OU-1 Containment Cell.

Ex-situ stabilization is a process that uses a stabilizing agent to decrease the leachability of contamination from soils and/or sediments, eliminating the hazardous characteristic of the contamination and allowing the material to be disposed of as a non-hazardous solid waste (or used beneficially). Under this process the contaminated soil and sediment will be excavated and mixed in a temporary mixing facility with stabilizing agents prior to disposal in the OU-1 on-site containment cell.

Soil and sediment not exceeding hazardous waste thresholds will not require stabilization prior to disposal in the OU-1 containment cell.

5. Restoration of Excavated Areas

The design will include a habitat restoration plan with the goal of at a minimum in-kind replacement of the disturbed habitats in Phillipsburg Creek sediment, floodplain soil, and wetland areas. The restoration plan will include natural stream and wetland restoration techniques to the extent possible and be consistent with 6 NYCRR Parts 663 and 608. Stream bed bathymetry and wetland and floodplain topography will be restored with appropriate stream

bed material and native vegetation. The design will include a monitoring plan for the restoration of areas disturbed by the remedy and repair or maintenance of the restoration of those areas, as needed.

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. 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.

Soil

Surface and near surface soil samples were collected from OU-3 at various depth between 0 and 2 feet during the RI. Surface soil samples were collected from 0 to 2 inches below grade at some locations to assess direct human exposure and 0 to 6 inches below grade at all other locations for ecological evaluations. Soil samples were collected from the Phillipsburg Creek and Wallkill River floodplains. Soil samples were initially collected from depth intervals between 0 and 1 foot and analyzed for lead and arsenic. If the initial soil sampling interval exceeded unrestricted soil cleanup objectives (SCOs) for lead or arsenic, soil samples were collected and analyzed for lead and arsenic from a depth of 1 to 2 feet. OU-3 soil samples were sampled for lead and arsenic because lead and arsenic were the constituents of concern for OU-1 which contained the site source areas, and OU-3 is downstream of OU-1. A subset of surface and near surface soil samples was analyzed for VOCs, SVOCs, PCBs/Pesticides, and metals. VOCs, SVOCs, PCBs, and pesticides were not detected over unrestricted SCOs in any soil samples. Sheets 2, 3 and 4 present the analytical results of soil samples collected from the Phillipsburg Creek Floodplain and Figure 5 present the results of soil samples collected from the Wallkill River Floodplain. The analytical results of soil sampling are summarized in Table 1 and briefly discussed below.

Six surface samples were collected during the RI from a depth of 0 to 2 inches below grade. All six samples were analyzed for lead and arsenic and one of the six samples was analyzed for total metals. Arsenic concentrations in surface soil samples ranged from 5.9 ppm to 32.6 ppm compared to a residential SCO of 16 ppm. Only one of six surface soil samples exceeded the residential SCO for arsenic. Lead concentrations in surface soil samples ranged from 11.6 ppm to 216 ppm compared to a residential SCO of 400 ppm. No other metals besides lead and arsenic exceeded residential SCOs in the surface soil sample analyzed for total metals.

The floodplain soil analytical results indicate that OU-3 soils exceed unrestricted and ecological SCOs for arsenic, lead, manganese and zinc. Arsenic and lead exceeded ecological SCOs in soils in the northern and most upstream portions of OU-3 and in several additional isolated areas adjacent to Phillipsburg Creek. Lead concentrations in OU-3 soil range from 11.1 parts per million (ppm) to 3,090 ppm compared to a site-specific ecological SCO and residential SCO of 400 ppm. Arsenic concentrations in OU-3 soil range from non-detect to 34.4 ppm compared, to a site-specific ecological SCO of 13 ppm and a residential SCO of 16 ppm. Arsenic and lead above ecological SCOs were generally limited to the top one foot of floodplain soils adjacent to the Phillipsburg Creek floodplain, with the exception of two locations (WSP-OU3-24 and WSP-OU-3-60) where levels of lead and arsenic exceeded ecological SCOs to a depth of 2 feet. Manganese marginally exceeded the ecological SCO at one sample location, WSP-OU3-38, which was also found to be heavily impacted by arsenic and lead. Zinc exceeded the ecological SCO at WSP-OU3-38 as well and marginally exceeded the ecological SCO in samples collected from the Wallkill

River floodplain. Lead did not exceed ecological SCOs in floodplain soils adjacent to the Wallkill River. No other metals were detected in exceedance of unrestricted or ecological SCOs in floodplain soils.

Table 1 – 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
Inorganics					
Arsenic	ND – 34.4	13	26 of 160	13	26 of 160
Lead	11.1 – 3,090	63	68 of 205	400[d]	15 of 205
Manganese	150 – 1,990	1,600	1 of 10	1,600	1 of 10
Zinc	57.3 – 176	109	3 of 10	109	3 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 Ecological Resources
d - Site specific standards
ND – Not Detected

The primary soil contaminants are arsenic and lead. Elevated levels of arsenic and lead above ecological SCOs have historically migrated from OU-1 to OU-3 via surface water/sediment transport through the unnamed tributaries which discharge into the Phillipsburg Creek in OU-1. As was the case with OU-1, elevated levels of metals other than lead and arsenic in OU-3 are co-located with elevated levels of lead and arsenic. Elevated levels of arsenic and zinc in floodplain soils adjacent to the Wallkill River floodplain are not co-located with the primary constituent of concern from the site, lead, and therefore are likely attributable to other sources.

Based on the findings of the Remedial Investigation, the presence of arsenic and lead has resulted in the contamination of soil. The site contaminants identified in soil which are considered to be the primary contaminants of concern, to be addressed by the remedy selection process are, lead and arsenic in Phillipsburg Creek floodplain soils.

Sediments

Sediment samples were collected during the OU-3 RI from Phillipsburg Creek and the Wallkill River. The samples were collected to determine the extent of contamination which has historically migrated from the source areas in OU-1 downstream into OU-3. All the streams and wetlands impacted by the site in OU-1 drain to Phillipsburg Creek in OU-3. Sediment samples were collected from 0 to 3 and 0 to 6-inch depth intervals from the Phillipsburg Creek and analyzed for arsenic and lead. A subset of sediment samples was collected from Phillipsburg Creek at depths greater than 6 inches, however for much the stream, little fine sediment was present at depths of greater than 6 inches. Sediment samples were collected from the Wallkill River from depths of 0 to 6 inches and 6 to 12 inches (in areas where fine sediment was present at 6 to 12 inches). Sediment samples were analyzed for lead and arsenic. A subset of surface and near surface sediment samples were analyzed for VOCs, SVOCs, PCBs/pesticides, and metals. VOCs, SVOCs, PCBs, and pesticides were not detected over sediment guidance values in any sediment samples. Figures 2, 3, and 4 present the analytical results of sediment samples

collected from the Phillipsburg Creek Floodplain and Figure 5 present the results of sediment samples collected from the Wallkill River Floodplain. The analytical results of sediment sampling are summarized in Table 1.

The analytical results of sediment sampling conducted during the RI indicate sediment in OU-3 exceeds the Department's Class A freshwater sediment guidance values (SGVs) for arsenic, lead, cadmium, copper, nickel, silver, and zinc. Sediment in OU-3 exceeds Class B freshwater SGVs for arsenic, lead and silver.

Either arsenic or lead exceeds Class sediment A freshwater SGVs throughout the length of Phillipsburg Creek to depths that sediment was encountered (6 to 12 inches). Concentrations of lead and arsenic in sediment in Phillipsburg Creek generally decreased from the most upstream portion of the Creek in OU-3 to the confluence of the Wallkill River, with higher concentrations in depositional areas. Lead concentrations in Phillipsburg Creek sediment range from 11.1 ppm to 5,890 ppm compared to a Class A freshwater SGV of 36 ppm. Arsenic concentrations in Phillipsburg Creek sediment range from 4.3 ppm to 159 ppm, compared to the Class A freshwater SGV of 10 ppm. Phillipsburg Creek sediment concentrations were within the Class B freshwater SGVs range for nickel and zinc at several locations where arsenic and lead concentrations were also within the Class B freshwater SGV range. Cadmium and copper concentrations were within the Class B freshwater SGVs range in the Phillipsburg Creek at one location (WSP-SED-53) that was found to be heavily impacted by arsenic and lead. Silver concentrations were within the Class B freshwater SGVs range in the Phillipsburg Creek at one location (WSP-SED-56) that was found to be heavily impacted by arsenic and lead. Wallkill River sediment samples were within the Class B freshwater SGVs range for arsenic, lead, nickel, silver, and zinc and silver was encountered above the Class B SGVs range (Class C sediment) at one location.

Table 2 – Sediment

Detected Constituents	Concentration Range Detected (ppm)[a]	SGV[b] (ppm)	Frequency Exceeding SGV	Class B SGV Range	Frequency Exceeding SGV Range
Inorganics					
Arsenic	4.3 – 159	10	32 of 69	10 - 33	5 of 69
Lead	11.1 – 5,890	36	52 of 82	36 - 130	33 of 82
Cadmium	ND – 2.75	1	1 of 14	1 -5	0 of 14
Nickel	13.7 – 29.5	23	7 of 14	23 - 49	0 of 14
Copper	12 – 48.2	32	1 of 14	32 - 150	0 of 14
Zinc	76 – 332	109	7 of 14	109 - 460	0 of 14
Silver	ND – 6.6	1	3 of 14	1 - 2.2	2 of 14

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in sediment;
b - SGV: The Department's Class A Freshwater Sediment Guidance Value
ND - Not Detected

The primary sediment contaminants are arsenic and lead. Elevated levels of arsenic and lead above Class A and Class B freshwater SGVs have historically migrated from OU-1 to OU-3 via surface water/sediment transport through the unnamed tributaries which discharge into the Phillipsburg Creek in OU-1. As was the case with OU-

1, elevated levels of metals other than lead and arsenic in OU-3 are co-located with elevated levels of lead and arsenic in Phillipsburg Creek sediment. Therefore, removal of lead and arsenic in exceedance of Class A freshwater SGVs will result in the removal of all other metals in exceedance of Class A freshwater SGVs in Phillipsburg Creek sediment.

Wallkill River sediment is impacted by levels of arsenic, lead, nickel and zinc within the Class B freshwater SGVs range. Metal detections in Wallkill River sediment samples over Class A freshwater SGVs, including lead and arsenic detections, are discontinuous and significantly less frequent than in Phillipsburg Creek sediment samples. Lead and arsenic are the primary constituents of concern from the source areas at OU-1 of the Revere site, yet nickel, zinc, and silver exceedances of Class A freshwater SGVs extend beyond (i.e. not entirely co-located with) lead and arsenic exceedances in Wallkill River sediment. It is therefore assumed that nickel, silver and zinc exceedances of Class A freshwater SGVs present in the Wallkill River are not related to the Revere site. Lead and arsenic in sediment at concentrations within the Class B freshwater SGVs range do not consistently extend beyond the confluence of Phillipsburg Creek and the Wallkill River. Lead exceeded the Class A freshwater SGV in 5 of 24 sediment samples collected from the Wallkill River with a maximum concentration of 107 ppm. Arsenic exceeded the Class A freshwater SGV in 8 of 23 sediment samples collected from the Wallkill River. The maximum arsenic concentration in Wallkill River sediment was 12.4 ppm compared to the Class A freshwater SGV of 10 ppm. The nature and extent of class B contaminated sediments in the Wallkill River are not a significant threat to the resource, and the impact of remediating these sediments would exceed the benefits of removal.

Based on the findings of the Remedial Investigation, the presence of arsenic and lead in the Phillipsburg Creek has resulted in the contamination of sediment. The site contaminants that are considered to be the primary contaminants of concern which will drive the remediation of sediment to be addressed by the remedy selection process are, arsenic and lead in the Phillipsburg Creek sediment.

Exhibit B

Description of Remedial Alternatives

The following alternatives were considered based on the remedial action objectives (see Section 6.5) to address the contaminated media identified at the site as described in Exhibit A.

Alternative 1: No Action

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative leaves the site in its present condition and does not provide any additional protection to public health and the environment.

Alternative 2: Monitoring

The Monitoring Alternative requires only institutional controls for the site. This alternative includes institutional controls, in the form of access agreements and a monitoring plan. This alternative would include periodic monitoring for excessive erosion of sediment and soils in OU-3 that could result in the further migration of lead and arsenic. This alternative would leave in place soil and sediment in exceedance of NYSDEC SGCs and thus not fully protect public health and the environment.

Present Worth: ..... *$ 567,000*
Capital Cost: ..... *$ 105,000*
Annual Costs (years 1-30): ..... *$ 30,000*

Alternative 3: Excavation of Soils and Sediments, Ex-Situ Treatment, Consolidation, and Restoration

This alternative consists of the following:

- excavation and disposal in the OU-1 containment cell of all floodplain and floodplain adjacent soils in OU-3 associated with the Phillipsburg Creek in exceedance of the site-specific ecological and residential SCOs for lead and the site-specific ecological SCO for arsenic and all sediment in the Phillipsburg Creek in exceedance of the Class A freshwater SGVs:
- dewatering and transporting excavated soils and sediments to OU-1 for ex-situ treatment to non-hazardous levels if needed prior to placement in the containment cell constructed as part of the remedial action for OU-1;
- backfilling excavated soil areas with soil meeting unrestricted SCOs and backfilling excavated sediment areas with sediment substrate meeting Class A freshwater SGVs; and
- restoration of the stream bed bathymetry and topography in-kind with appropriate stream bed material.

No environmental easement is needed for Alternative 3 because it does not rely on engineering or institutional controls to prevent future exposure. There is no Site Management, no restriction, and no periodic review reporting/certification. Monitoring of the restoration subject to a monitoring plan is needed.

Present Worth: ..... *$ 6,360,000*
Capital Cost: ..... *$ 5,320,000*
Annual Costs (years 1-6): ..... *$ 205,000*

Alternative 4: Restoration to Pre-Disposal or Unrestricted Conditions

This alternative achieves all of the SCGs discussed in Section 6.1.1 and Exhibit A and soil meets the unrestricted soil clean objectives listed in Part 375-6.8 (a). Like Alternative 3, this alternative includes the excavation and disposal of OU-3 soil and sediment in the OU-1 containment cell after proper dewatering, transport and ex-situ treatment. Alternative 4 differs from Alternative 3 because it removes soils in exceedance of unrestricted SCOs instead of site specific ecological SCOs. This results in a greater volume of soil and sediment removal. Alternative 4 has the same backfill and restoration requirements as Alternative 3, applied over a larger area for soil.

No environmental easement is necessary under Alternative 4 because it does not rely on engineering or institutional controls to prevent future exposure. There is no Site Management, no restriction, and no periodic. Monitoring of the restoration subject to a monitoring plan is needed.

Present Worth: ..... *$ 10,640,000*
Capital Cost: ..... *$ 9,280,000*
Annual Costs (years 1-6): ..... *$ 268,000*

Exhibit C

Remedial Alternative Costs

Remedial Alternative	Capital Cost ($)	Annual Costs ($)	Total Present Worth ($)
No Action	0	0	0
Monitoring	$ 105,000	$ 30,000 (30 years)	$ 567,000
Excavation of Soils and Sediments, Ex-Situ Treatment, Consolidation, Restoration	$ 5,320,000	$ 205,000 (6 years)	$ 6,360,000
Restoration to Pre-Disposal or Unrestricted Conditions	$ 9,280,000	$ 268,000 (6 years)	$ 10,640,000

Exhibit D

SUMMARY OF THE PROPOSED REMEDY

The Department is proposing Alternative 3, Excavation of Soils and Sediments, Ex-Situ Treatment, Consolidation, Restoration as the remedy for this site. Alternative 3 achieves the remediation goals for the site by removing sediment and soils which exceed standards for arsenic and lead. The elements of this remedy are described in Section 7. The proposed remedy is depicted in Figures 2,3 and 4.

Basis for Selection

The proposed remedy is based on the results of the RI and the evaluation of alternatives. The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. A detailed discussion of the evaluation criteria and comparative analysis is included in the FS report.

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

The proposed remedy (Alternative 3) would satisfy this criterion by removing contaminated sediments and soil from OU-3 that exceed residential and ecologically-based cleanup levels and placing this material in the containment cell in OU-1 following treatment to meet non-hazardous waste disposal requirements. Alternative 1 (No Action) does not provide any additional protection of public health and the environment and is not evaluated further. Alternative 2 includes only monitoring of contaminated soils and sediments, thus providing no additional protection of public health and the environment. Alternatives 3 and 4 provide protection to ecological resources in Phillipsburg Creek by removing sediment containing arsenic and lead and co-located metals concentrations above Class A freshwater sediment guidance values (SGVs). Class A freshwater SGVs are defined as the level above which impacts may be observed in ecological resources. Alternatives 3 and 4 provide protection of human health through the removal of soils containing arsenic and lead over residential and ecological standards. Alternative 4 provides a greater degree of protection than Alternative 3 by removal of soils to meet unrestricted soils cleanup objectives (SCOs).

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

Alternative 2 does not comply with this criterion because it leaves in place sediment and soils over NYSDEC SGCs. Therefore Alternative 2 is not considered further. Alternatives 3 and 4 both meet this criterion. Under both Alternatives 3 and 4, sediment is remediated to Class A SGVs for lead and arsenic. Class A SGVs are NYSDEC SCGs which are protective of ecological resources. Alternative 3 meets residential and site-specific ecological SCOs for lead and arsenic and Alternative 4 meets unrestricted SCOs for lead and arsenic. Both site-specific SCOs and unrestricted SCOs are NYSDEC SCGs which are protective of public health and the environment.

The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the

remedial strategies.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

Alternatives 3 and 4 have similar long-term effectiveness. Both Alternative 3 and 4 remove soils and sediments from OU-3 which would present long-term risks to human health and the environment. Alternative 4 removes additional soils to meet unrestricted SCOs. Both Alternatives 3 and 4 include the disposal of contaminated soil and sediment in the containment cell in OU-1. Alternative 4 requires the off-site disposal of a portion of the excavated material because the excavation volume is greater than the OU-1 containment cell can accommodate. Alternative 4 would require significantly more fuel and materials and results in more transportation, emissions and climate impacts than Alternative 3. The containment cell in OU-1 was designed for the long-term protection of human health and environment from soils and sediment impacted by Revere's operations excavated from OU-1 and OU-3. A Site Management Plan (SMP) implemented under the remedy for OU-1 assures the long-term effectiveness of this disposal location.

4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Alternatives 3 and 4 reduce the total volume of lead and arsenic impacted soil and sediment by approximately 6,800 cubic yards and 14,600 cubic yards respectively through excavation, stabilization, and disposal in the OU-1 containment cell. For Alternative 4, some material would be disposed of at an off-site permitted facility. Ex-situ stabilization of sediment and soils exceeding the hazardous waste threshold reduces the toxicity and mobility of excavated material. The containment cell reduces the mobility of lead and arsenic by minimizing infiltration, preventing erosion, and enabling collection of the leachate. An off-site disposal facility similarly reduces mobility of lead and arsenic through placement in a properly constructed landfill.

5. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

The type of short-term risks associated with Alternatives 3 and 4 are generally similar, though they are slightly greater for Alternative 4, due to the increased time needed to implement the remedy. These risks result from activities associated with excavation, construction, and transportation. Excavation of soil can result in fugitive dust generation and direct contact with affected soil and sediment. However, engineering controls can be applied to reduce the production of dust, and health and safety measures can reduce direct contact with contamination.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

Both Alternatives 3 and 4 are implementable. A similar remedy was successfully implemented in OU-1 which included creek diversion to excavate sediment and treatment of contaminated sediment and soil to non-hazardous

levels for disposal in the OU-1 containment cell. Alternative 4 is more difficult to implement than Alternative 3 because it includes excavation of a significantly larger amount of soil and sediment than Alternative 3 and off-site disposal of material above the capacity of the OU-1 containment cell.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.

Alternative 4 is significantly more costly than Alternative 3. Alternative 4 includes the removal of over twice as much material compared to Alternative 3. Off-site disposal of material which will not fit in the OU-1 containment cell is significantly more costly than disposal in the OU-1 containment cell. Both Alternatives 3 and 4 have monitoring and maintenance costs associated with the ecological restoration of sediment beds, floodplain soils and wetlands. Alternative 4 disturbs significantly more floodplain soils and ecologically sensitive areas which must be restored and monitored thus has higher long-term costs than Alternative 3.

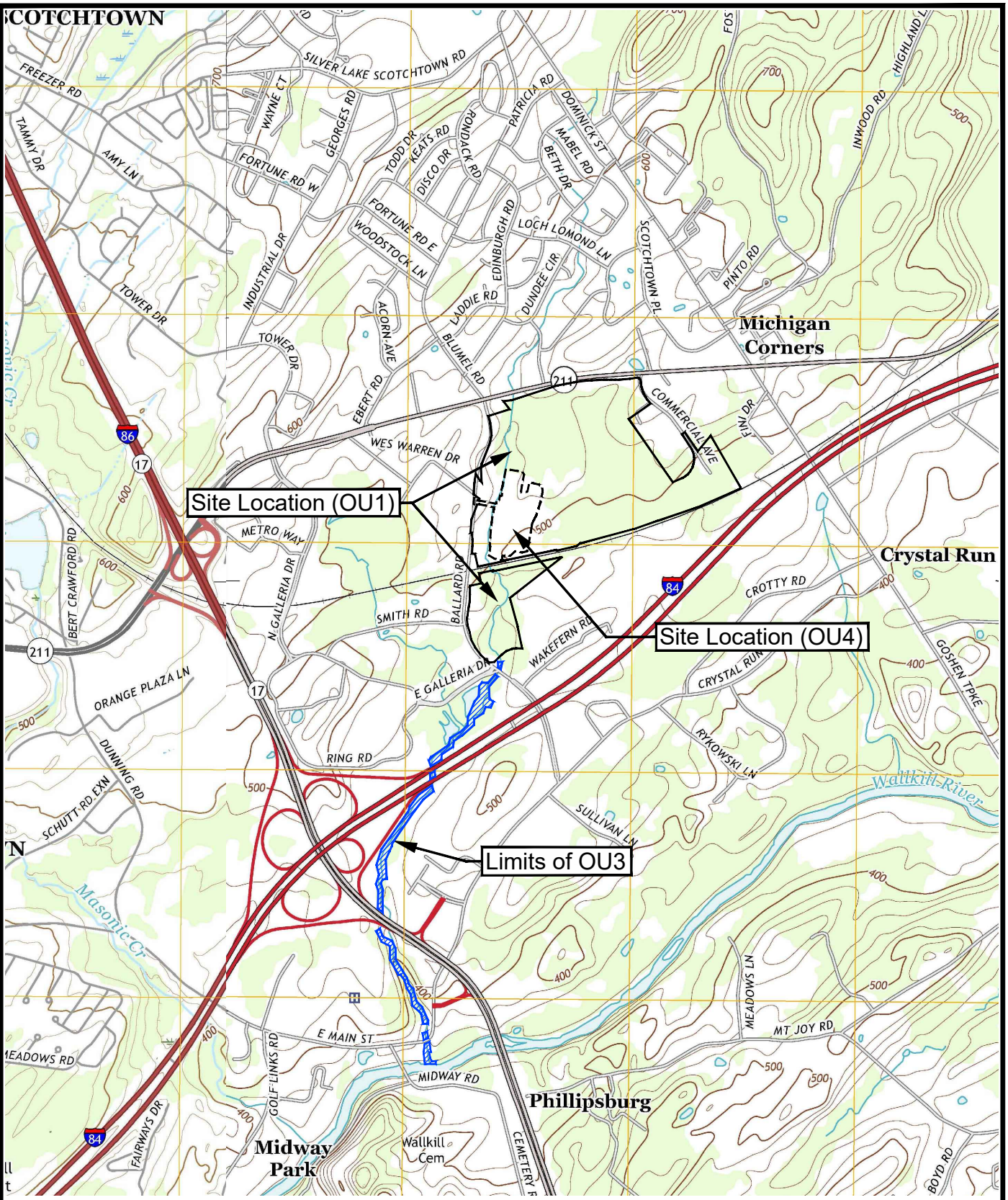
8. Land Use. When cleanup to pre-disposal conditions is determined to be infeasible, the Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings in the selection of the soil remedy.

Current land use of OU-3 is a mix of public use (roadways) and commercial. Due to the presence of I-84 and Route 17 bisecting OU-3, future land use is anticipated to be similar. Both Alternatives 3 and 4 meet residential SCOs for the contaminants of concern for lead and arsenic. Both alternatives are also consistent with the continued use of OU-3 by ecological resources because both alternatives meet sediment and soil SCGs that are protective of ecological resources. Neither alternative requires an environmental easement, however both alternatives require monitoring of ecological restoration to assure that the habitat disturbed by the remedial action is restored.

The final criterion, Community Acceptance, is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP are evaluated. A responsiveness summary will be prepared that describes public comments received and the manner in which the Department will address the concerns raised. If the selected remedy differs significantly from the proposed remedy, notices to the public will be issued describing the differences and reasons for the changes.

Alternative 3 is being proposed because, as described above, it satisfies the threshold criteria and provides the best balance of the balancing criterion.



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GOSHEN, NEW YORK
PHOTOREVISED 2013 SCALE 1:24,000

0 2000 4000
SCALE IN FEET

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

FIGURE 1

SITE LOCATION MAP

REVERE SMELTING & REFINING
MIDDLETOWN, NEW YORK

PREPARED FOR
REVERE SMELTING & REFINING CORPORATION

DWG Name: 314V1015-029
Checked:
Approved:
Drawn By: EGC
A

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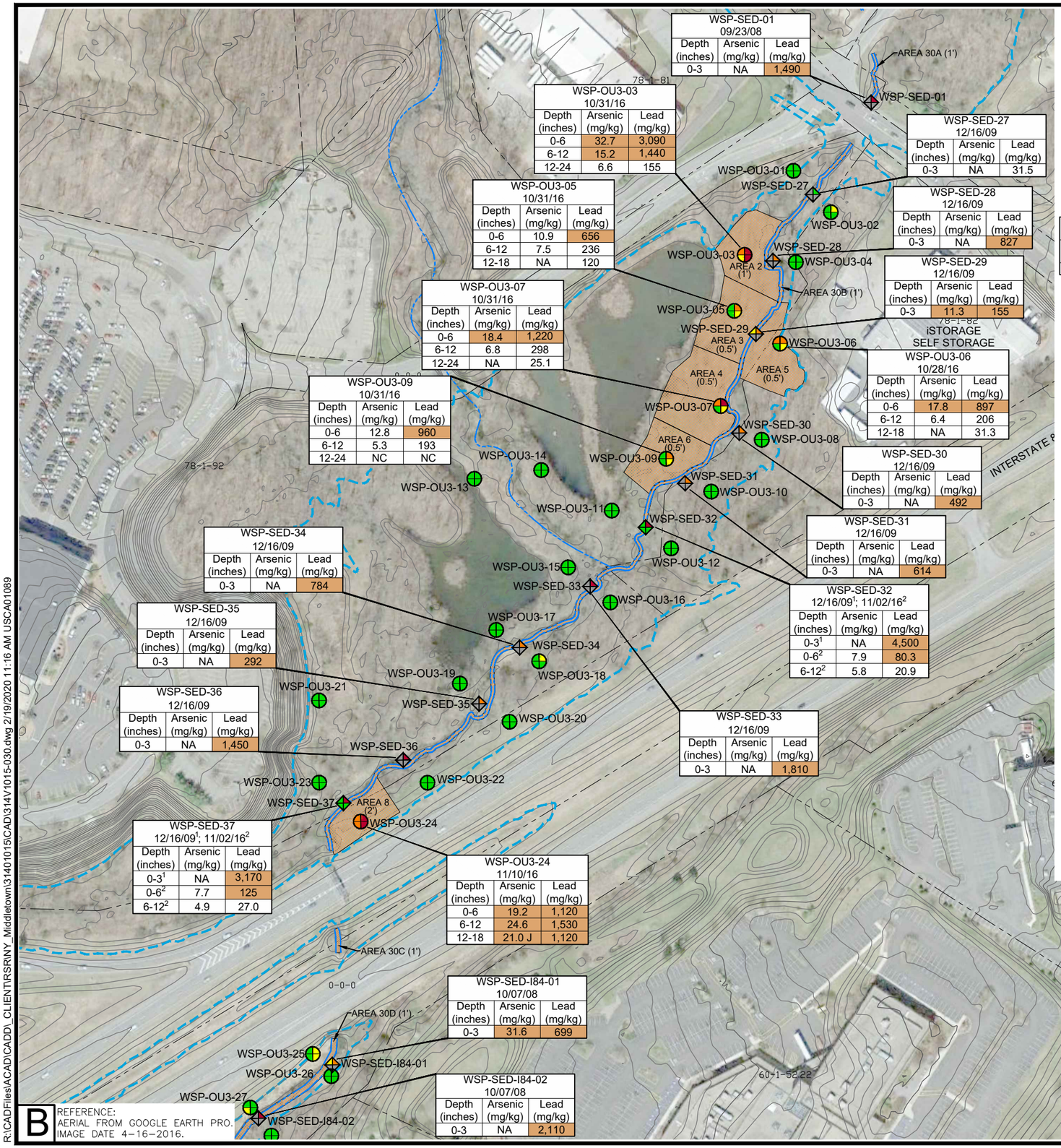

B REFERENCE: AERIAL FROM GOOGLE EARTH PRO. IMAGE DATE 4-16-2016.

LEGEND

- EDGE OF WATER
- 100-YEAR FLOODPLAIN BOUNDARY
- 78-1-15 TAX PARCEL IDENTIFICATION NUMBER
- PROPOSED EXCAVATION

ARSENIC / LEAD
WSP-SED-29 — 0-3" or 0-6" BGS RESULT; SEDIMENT SAMPLE; 6-12" BGS RESULT; SAMPLE ID

ARSENIC / LEAD
WSP-OU3-02 — 0-2", 2-6", OR 0-6" BGS RESULT; SOIL SAMPLE; 6-12" BGS RESULT; SAMPLE ID

WSP-SED-01 09/23/08 — SAMPLE ID; DATE SAMPLED

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-3	NA	1,490

HIGHLIGHTED VALUES EXCEED NYSDEC'S CLASS A FRESHWATER SEDIMENT GUIDANCE VALUES OF <10 mg/kg FOR ARSENIC OR <36 mg/kg FOR LEAD

WSP-OU3-03 10/31/16 — SAMPLE ID; DATE SAMPLED

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	32.7	3,090
6-12	15.2	1,440
12-24	6.6	155

HIGHLIGHTED VALUES EXCEED NYSDEC'S SITE-SPECIFIC CRITERIA OF 13 mg/kg FOR ARSENIC OR 400 mg/kg FOR LEAD

BGS BELOW GROUND SURFACE
NA NOT ANALYZED
NC NOT COLLECTED
J ESTIMATED RESULT

FRESHWATER SEDIMENT GUIDANCE VALUES (SGVs)

ARSENIC	LEAD
<10 mg/kg (CLASS A)	<36 mg/kg (CLASS A)
>10 mg/kg AND <33 mg/kg (CLASS B)	>36 mg/kg AND <130 mg/kg (CLASS B)
>33 mg/kg (CLASS C)	>130 mg/kg (CLASS C)
>1,000 mg/kg	>1,000 mg/kg
NOT COLLECTED	NOT COLLECTED

SOIL CLEANUP OBJECTIVES (SCOs)

ARSENIC	LEAD
<13 mg/kg (UNRESTRICTED USE SCO)	<63 mg/kg (UNRESTRICTED USE SCO)
>13 mg/kg AND <16 mg/kg	>63 mg/kg AND <400 mg/kg
>16 mg/kg AND <1,000 mg/kg	>400 mg/kg AND <1,000 mg/kg
>1,000 mg/kg	>1,000 mg/kg
NOT COLLECTED	NOT COLLECTED

NOTES:

1. PROPERTY LINES SHOWN ARE BASED ON THE MOST RECENT (2019) TAX RECORDS OBTAINED FROM THE ORANGE COUNTY NY REAL PROPERTY TAX SERVICES OFFICE (propertydata.orangecountygov.com).
2. THE OU LIMITS ARE DEFINED IN CONSENT ORDER #3-20100528-80 DATED FEBRUARY 1, 2011.
3. CONTOUR LINES USED TO DEFINE PROPOSED EXCAVATION LIMITS ARE 2-FOOT CONTOURS OF ORANGE COUNTY NY CREATED USING THE USGS 3 COUNTY 2014 LiDAR COLLECTION, AND OBTAINED FROM THE NYS GIS CLEARING HOUSE (https://gis.ny.gov/elevation/contours/contours-orange.htm).
4. FRESHWATER SEDIMENT GUIDANCE VALUES LISTED IN TABLE 5 OF THE NYSDEC'S SCREENING AND ASSESSMENT OF CONTAMINATED SEDIMENT REPORT (JUNE 2014).
5. IF A DUPLICATE SAMPLE WAS COLLECTED, ONLY THE GREATER CONCENTRATION IS SHOWN FOR CLARITY.
6. IF SAMPLES WERE COLLECTED FROM BOTH 0-3" AND 0-6", THE GREATER CONCENTRATION IS USED FOR COMPARISON TO APPLICABLE CRITERIA.
7. FOR CLARITY, CONCENTRATION BOXES ARE ONLY SHOWN FOR SAMPLES WHICH REQUIRE EXCAVATION TO MEET APPLICABLE CRITERIA.

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SCALE IN FEET

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Checked: CDA 2/13/2020
Approved: 2/13/2020
DWG Name: 314V1015-030

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MIDDLETOWN, NEW YORK
PREPARED FOR
REVERE SMELTING & REFINING CORPORATION
MIDDLETOWN, NEW YORK

Figure 2

PROPOSED EXCAVATION TO MEET SITE-SPECIFIC CRITERIA AND CLASS A FRESHWATER SGVs
OU3 FEASIBILITY STUDY (PAGE 1 OF 3)

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

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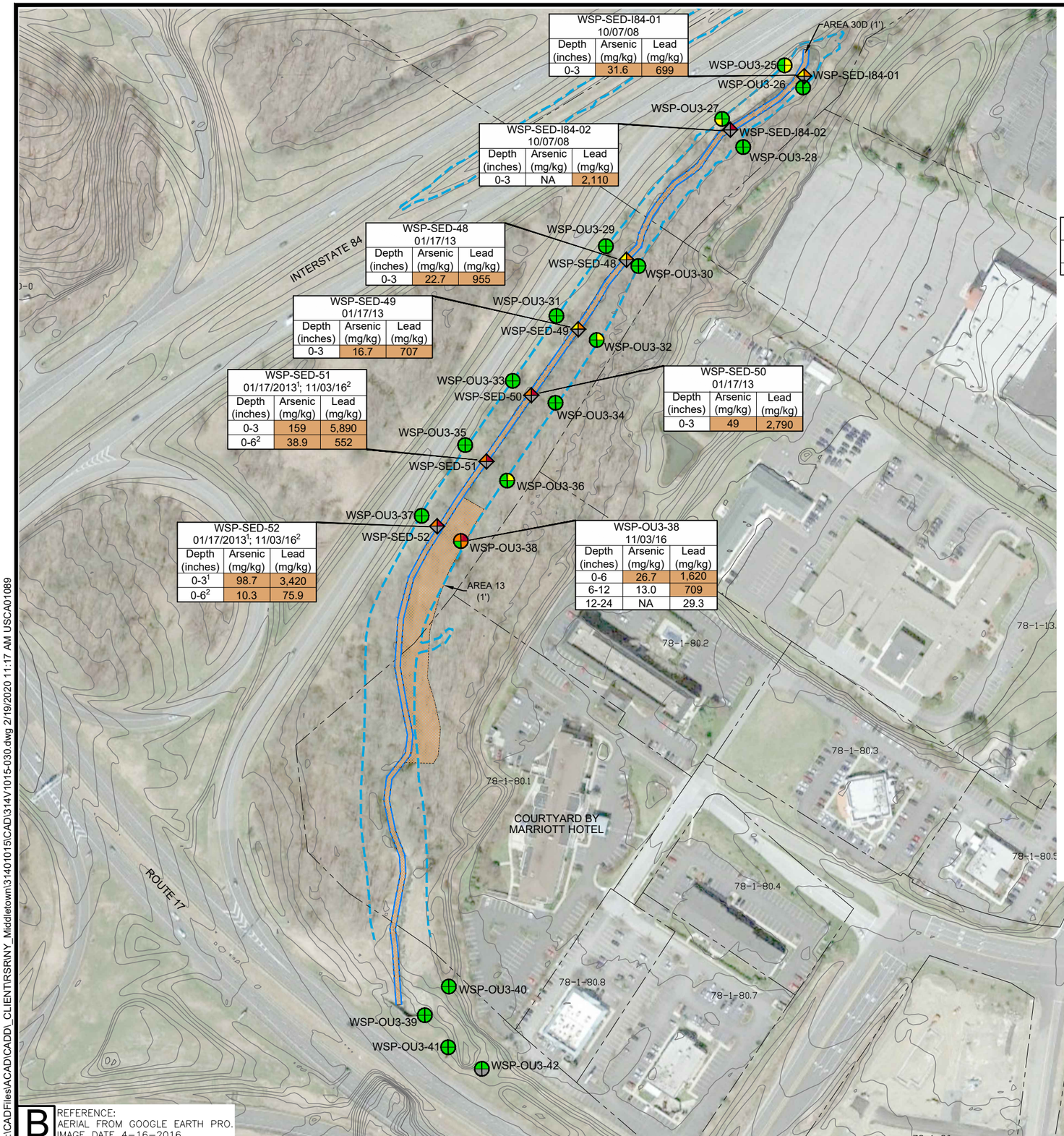

B REFERENCE:
AERIAL FROM GOOGLE EARTH PRO.
IMAGE DATE 4-16-2016.

LEGEND

EDGE OF WATER

100-YEAR FLOODPLAIN BOUNDARY

78-1-15 TAX PARCEL IDENTIFICATION NUMBER

PROPOSED EXCAVATION

ARSENIC / LEAD
WSP-SED-29
0-3" or 0-6" BGS RESULT
SEDIMENT SAMPLE
6-12" BGS RESULT
SAMPLE ID

ARSENIC / LEAD
WSP-OU3-02
0-2", 2-6", OR 0-6" BGS RESULT
SOIL SAMPLE
6-12" BGS RESULT
SAMPLE ID

WSP-SED-01
09/23/08
Depth (inches) | Arsenic (mg/kg) | Lead (mg/kg)
0-3 | NA | 1,490

SAMPLE ID
DATE SAMPLED
HIGHLIGHTED VALUES EXCEED NYSDEC's CLASS A FRESHWATER SEDIMENT GUIDANCE VALUES OF <10 mg/kg FOR ARSENIC OR <36 mg/kg FOR LEAD

WSP-OU3-03
10/31/16
Depth (inches) | Arsenic (mg/kg) | Lead (mg/kg)
0-6 | 32.7 | 3,090
6-12 | 15.2 | 1,440
12-24 | 6.6 | 155

SAMPLE ID
DATE SAMPLED
HIGHLIGHTED VALUES EXCEED NYSDEC's SITE-SPECIFIC CRITERIA OF 13 mg/kg FOR ARSENIC OR 400 mg/kg FOR LEAD

BGS BELOW GROUND SURFACE
NA NOT ANALYZED
NC NOT COLLECTED
J ESTIMATED RESULT

FRESHWATER SEDIMENT GUIDANCE VALUES (SGVs)

ARSENIC	LEAD
<10 mg/kg (CLASS A)	<36 mg/kg (CLASS A)
>10 mg/kg AND <33 mg/kg (CLASS B)	>36 mg/kg AND <130 mg/kg (CLASS B)
>33 mg/kg (CLASS C)	>130 mg/kg (CLASS C)
>1,000 mg/kg	>1,000 mg/kg
NOT COLLECTED	NOT COLLECTED

SOIL CLEANUP OBJECTIVES (SCOs)

ARSENIC	LEAD
<13 mg/kg (UNRESTRICTED USE SCO)	<63 mg/kg (UNRESTRICTED USE SCO)
>13 mg/kg AND <16 mg/kg	>63 mg/kg AND <400 mg/kg
>16 mg/kg AND <1,000 mg/kg	>400 mg/kg AND <1,000 mg/kg
>1,000 mg/kg	>1,000 mg/kg
NOT COLLECTED	NOT COLLECTED

NOTES:

1. PROPERTY LINES SHOWN ARE BASED ON THE MOST RECENT (2019) TAX RECORDS OBTAINED FROM THE ORANGE COUNTY NY REAL PROPERTY TAX SERVICES OFFICE (propertydata.orangecountygov.com).
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6. IF SAMPLES WERE COLLECTED FROM BOTH 0-3" AND 0-6", THE GREATER CONCENTRATION IS USED FOR COMPARISON TO APPLICABLE CRITERIA.
7. FOR CLARITY, CONCENTRATION BOXES ARE ONLY SHOWN FOR SAMPLES WHICH REQUIRE EXCAVATION TO MEET APPLICABLE CRITERIA.

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Checked: CDA 2/13/2020
Approved: 2/13/2020
DWG Name: 314V1015-030

REVERE SMELTING & REFINING
MIDDLETOWN, NEW YORK

PREPARED FOR
REVERE SMELTING & REFINING CORPORATION
MIDDLETOWN, NEW YORK

Figure 3

PROPOSED EXCAVATION TO MEET SITE-SPECIFIC CRITERIA AND CLASS A FRESHWATER SGVs
OU3 FEASIBILITY STUDY (PAGE 2 OF 3)

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

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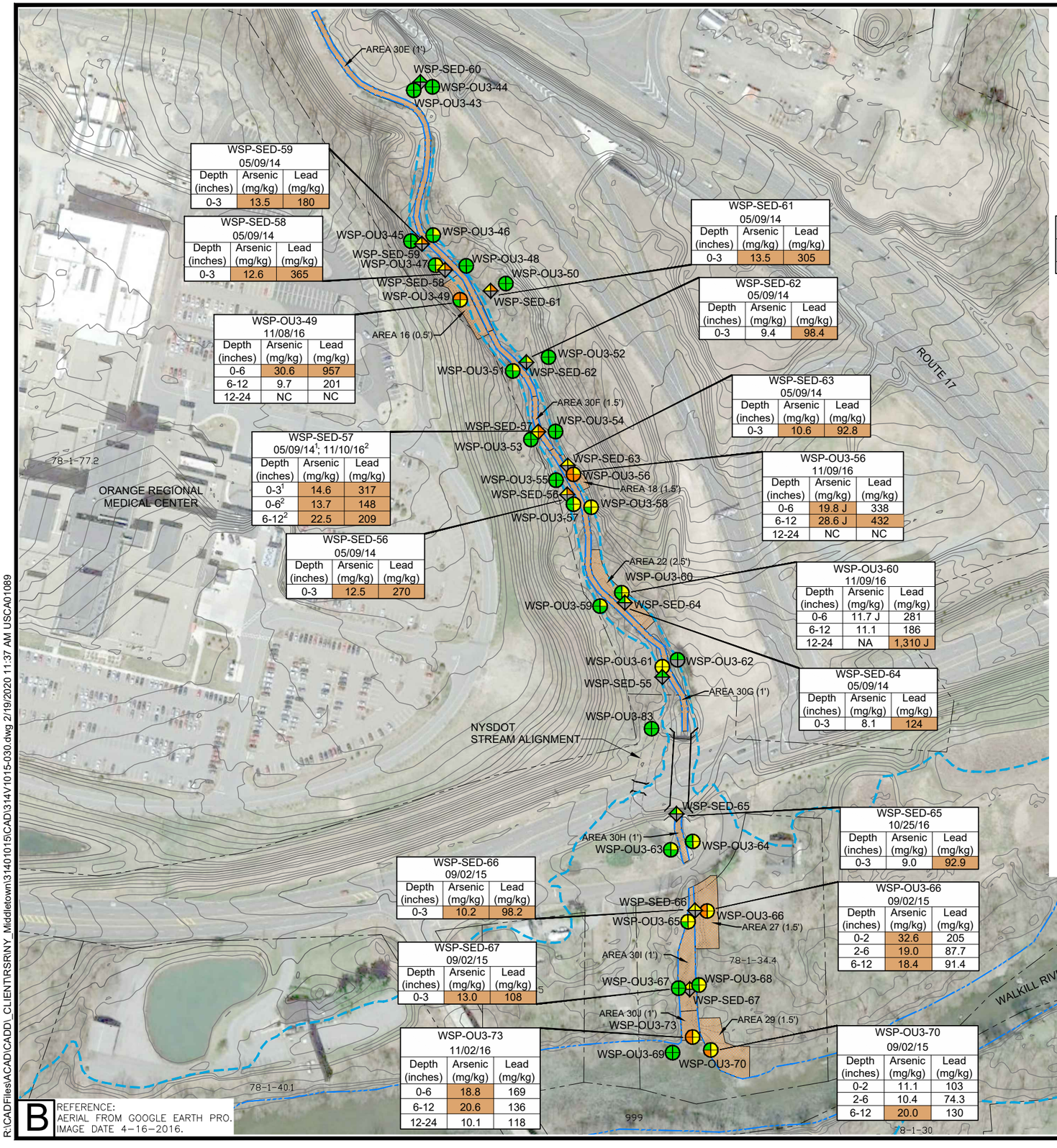

LEGEND

- EDGE OF WATER
- 100-YEAR FLOODPLAIN BOUNDARY
- 78-1-15 TAX PARCEL IDENTIFICATION NUMBER
- PROPOSED EXCAVATION

WSP-SED-29: ARSENIC / LEAD; 0-3" or 0-6" BGS RESULT; SEDIMENT SAMPLE; 6-12" BGS RESULT; SAMPLE ID

WSP-OU3-02: ARSENIC / LEAD; 0-2", 2-6", OR 0-6" BGS RESULT; SOIL SAMPLE; 6-12" BGS RESULT; SAMPLE ID

WSP-SED-01 09/23/08 — SAMPLE ID / DATE SAMPLED

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-3	NA	1,490

HIGHLIGHTED VALUES EXCEED NYSDEC's CLASS A FRESHWATER SEDIMENT GUIDANCE VALUES OF <10 mg/kg FOR ARSENIC OR <36 mg/kg FOR LEAD

WSP-OU3-03 10/31/16 — SAMPLE ID / DATE SAMPLED

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	32.7	3,090
6-12	15.2	1,440
12-24	6.6	155

HIGHLIGHTED VALUES EXCEED NYSDEC's SITE-SPECIFIC CRITERIA OF 13 mg/kg FOR ARSENIC OR 400 mg/kg FOR LEAD

BGS BELOW GROUND SURFACE
NA NOT ANALYZED
NC NOT COLLECTED
J ESTIMATED RESULT

FRESHWATER SEDIMENT GUIDANCE VALUES (SGVs)

ARSENIC	LEAD
<10 mg/kg (CLASS A)	<36 mg/kg (CLASS A)
>10 mg/kg AND <33 mg/kg (CLASS B)	>36 mg/kg AND <130 mg/kg (CLASS B)
>33 mg/kg (CLASS C)	>130 mg/kg (CLASS C)
>1,000 mg/kg	>1,000 mg/kg
NOT COLLECTED	NOT COLLECTED

SOIL CLEANUP OBJECTIVES (SCOs)

ARSENIC	LEAD
<13 mg/kg (UNRESTRICTED USE SCO)	<63 mg/kg (UNRESTRICTED USE SCO)
>13 mg/kg AND <16 mg/kg	>63 mg/kg AND <400 mg/kg
>16 mg/kg AND <1,000 mg/kg	>400 mg/kg AND <1,000 mg/kg
>1,000 mg/kg	>1,000 mg/kg
NOT COLLECTED	NOT COLLECTED

NOTES:

1. PROPERTY LINES SHOWN ARE BASED ON THE MOST RECENT (2019) TAX RECORDS OBTAINED FROM THE ORANGE COUNTY NY REAL PROPERTY TAX SERVICES OFFICE (propertydata.orangecountygov.com).
2. THE OU LIMITS ARE DEFINED IN CONSENT ORDER #3-20100528-80 DATED FEBRUARY 1, 2011.
3. CONTOUR LINES USED TO DEFINE PROPOSED EXCAVATION LIMITS ARE 2-FOOT CONTOURS OF ORANGE COUNTY NY CREATED USING THE USGS 3 COUNTY 2014 LiDAR COLLECTION, AND OBTAINED FROM THE NYS GIS CLEARING HOUSE (https://gis.ny.gov/elevation/contours/contours-orange.htm).
4. FRESHWATER SEDIMENT GUIDANCE VALUES LISTED IN TABLE 5 OF THE NYSDEC'S SCREENING AND ASSESSMENT OF CONTAMINATED SEDIMENT REPORT (JUNE 2014).
5. IF A DUPLICATE SAMPLE WAS COLLECTED, ONLY THE GREATER CONCENTRATION IS SHOWN FOR CLARITY.
6. IF SAMPLES WERE COLLECTED FROM BOTH 0-3" AND 0-6", THE GREATER CONCENTRATION IS USED FOR COMPARISON TO APPLICABLE CRITERIA.
7. FOR CLARITY, CONCENTRATION BOXES ARE ONLY SHOWN FOR SAMPLES WHICH REQUIRE EXCAVATION TO MEET APPLICABLE CRITERIA.

N

0 200 400
SCALE IN FEET

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Drawn By: EGC
Checked: CDA 2/13/2020
Approved: 2/13/2020
DWG Name: 314V1015-030

REVERE SMELTING & REFINING
MIDDLETOWN, NEW YORK

PREPARED FOR
REVERE SMELTING & REFINING CORPORATION
MIDDLETOWN, NEW YORK

Figure 4

PROPOSED EXCAVATION TO MEET SITE-SPECIFIC CRITERIA AND CLASS A FRESHWATER SGVs
OU3 FEASIBILITY STUDY (PAGE 3 OF 3)

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

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NYSDOT STREAM ALIGNMENT

E. MAIN STREET

78-1-35

78-1-34.4

78-1-40.1

78-1-30

73-1-27

999

WSP-OU3-71 WSP-OU3-73 WSP-OU3-75 WSP-OU3-77 WSP-OU3-79 WSP-OU3-81

WSP-SED-70 WSP-SED-71 WSP-SED-72 WSP-SED-73A WSP-SED-73 WSP-SED-74 WSP-SED-75 WSP-SED-76 WSP-SED-77 WSP-SED-78 WSP-SED-79A WSP-SED-79 WSP-SED-80 WSP-SED-81 WSP-SED-82 WSP-SED-83 WSP-SED-84 WSP-SED-85 WSP-SED-86 WSP-SED-87

WSP-OU3-72 WSP-OU3-74 WSP-OU3-76 WSP-OU3-78 WSP-OU3-80 WSP-OU3-82

WSP-OU3-71
11/02/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	6.1	37.9
6-12	3.9	21.4
12-24	NA	NA

WSP-OU3-73
11/02/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	**18.8**	**169**
6-12	**20.6**	**136**
12-24	10.1	**118**

WSP-OU3-75
11/02/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	9.9	**125**
6-12	9.4	**96.3**
12-24	NA	39.3

WSP-OU3-77
11/02/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	6.7	40.9
6-12	5.3	27.8
12-24	NA	NA

WSP-OU3-79
11/03/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	10.6	43.5
6-12	7.2	**98.3**
12-24	NA	41.1

WSP-OU3-81
11/03/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	7.6	22.4
6-12	8.6	21.5
12-18	NA	NA

WSP-SED-70
10/25/16[1]; 11/04/16[2]

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6[1]	8.3	13.7
6-12[2]	7.1	14.9
12-24	NC	NC

WSP-SED-73[1], WSP-SED-73A[2]
10/25/2016[1]; 11/04/16[2]

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6[1]	**10.5**	14.3
6-12[2]	**12.4**	**70.3**
12-24	NC	NC

WSP-SED-76
10/26/16[1]; 11/04/16[2]

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6[1]	**11.4**	**39.0**
6-12[2]	**12.0**	**76.1**
12-24	NC	NC

WSP-SED-79[1], WSP-SED-79A[2]
10/26/16[1]; 11/04/16[2]

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6[1]	7.3	10.2
6-12[2]	8.8	14.7 J
12-24	NC	NC

WSP-SED-82
10/26/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	7.3	12.5
6-12	NC	NC
12-24	NC	NC

WSP-SED-85
10/27/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	8.9	18.4
6-12	NC	NC
12-24	NC	NC

WSP-SED-71
10/25/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	8.4	12.2
6-12	NC	NC
12-24	NC	NC

WSP-SED-74
10/25/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	7.9	11.1
6-12	NC	NC
12-24	NC	NC

WSP-SED-77
10/26/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	7.9	9.6
6-12	NC	NC
12-24	NC	NC

WSP-SED-80
10/26/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	**12.4**	17.1
6-12	NC	NC
12-24	NC	NC

WSP-SED-83
10/26/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	8.6	15.5
6-12	NC	NC
12-24	NC	NC

WSP-SED-86
10/27/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	7.2	**40.9**
6-12	NC	NC
12-24	NC	NC

WSP-SED-72
10/25/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	6.5	18.6
6-12	NC	NC
12-24	NC	NC

WSP-SED-75
10/25/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	6.8	11.6
6-12	NC	NC
12-24	NC	NC

WSP-SED-78
10/26/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	**11.0**	28.2
6-12	NC	NC
12-24	NC	NC

WSP-SED-81
10/26/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	8.3	17.6
6-12	NC	NC
12-24	NC	NC

WSP-SED-84
10/26/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	**11.4**	**107**
6-12	NC	NC
12-24	NC	NC

WSP-SED-87
10/27/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	**10.7**	18.6
6-12	NC	NC
12-24	NC	NC

WSP-OU3-72
10/26/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	8.5	28.5
6-12	9.1	32.1
12-24	NA	NA

WSP-OU3-74
10/26/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	7.8	24.7
6-12	9.4	28.4
12-24	NA	NA

WSP-OU3-76
10/26/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	10.5	26.1
6-12	**28.9**	42.9
12-24	**34.4**	NA

WSP-OU3-78
10/26/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	8.5	**113**
6-12	11.2	**72.8**
12-24	NC	NC

WSP-OU3-80
10/27/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	11.3	**101**
6-12	7.6	45.8
12-24	NC	NC

WSP-OU3-82
10/27/16

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	6.7	29.7
6-12	6.4	28.8
12-18	NA	NA

LEGEND

- 2015-2016 OU3 RI SEDIMENT SAMPLE LOCATION
- 2015-2016 OU3 RI SOIL SAMPLE LOCATION
- EDGE OF WATER
- 100-YEAR FLOODPLAIN BOUNDARY
- 78-1-15 TAX PARCEL IDENTIFICATION NUMBER
- NA NOT ANALYZED
- NC NOT COLLECTED DUE TO AUGER REFUSAL
- J ESTIMATED RESULT

WSP-OU3-76 (SAMPLE ID)
10/26/16 (DATE)

Depth (inches)	Arsenic (mg/kg)	Lead (mg/kg)
0-6	10.5	26.1
6-12	**28.9**	42.9
12-24	**34.4**	NA

VALUES IN BOLD FOR SEDIMENT SAMPLES EXCEED NYSDEC'S CLASS A FRESHWATER SEDIMENT GUIDANCE VALUE; HIGHLIGHTED VALUES ALSO EXCEED NYSDEC CLASS B FRESHWATER SEDIMENT GUIDANCE VALUE (SEE TABLE BELOW)

VALUES IN BOLD FOR SOIL SAMPLES EXCEED NYCRR SUBPART 375-6.8(a) - UNRESTRICTED USE SOIL CLEANUP OBJECTIVES; HIGHLIGHTED VALUES ALSO EXCEED OU1 REMEDIAL GOALS OF 16 mg/kg FOR ARSENIC AND 400 mg/kg FOR LEAD IN ECOLOGICAL AREAS (SEE TABLE BELOW)

NYSDEC Freshwater Sediment Guidance Values (see Note 3)

Sediment Class	Arsenic (mg/kg)	Lead (mg/kg)
Class A	< 10	< 36
Class B	10 - 33	36 - 130
Class C	> 33	> 130

NYCRR Subpart 375-6.8 Soil Cleanup Objectives, and OU1 Remedial Goals in Ecological Areas

Criteria	Arsenic (mg/kg)	Lead (mg/kg)
Unrestricted Use	13	63
OU1 Remedial Goals	16	400

NOTES:

1. PROPERTY LINES SHOWN ARE BASED ON THE MOST RECENT (2019) TAX RECORDS OBTAINED FROM THE ORANGE COUNTY NY REAL PROPERTY TAX SERVICES OFFICE (propertydata.orangecountygov.com).
2. THE OU LIMITS ARE DEFINED IN CONSENT ORDER #3-20100528-80 DATED FEBRUARY 1, 2011.
3. FRESHWATER SEDIMENT GUIDANCE VALUES LISTED IN TABLE 5 OF THE NYSDEC'S SCREENING AND ASSESSMENT OF CONTAMINATED SEDIMENT REPORT (JUNE 2014).
4. IF A DUPLICATE SAMPLE WAS COLLECTED, ONLY THE GREATER CONCENTRATION IS SHOWN FOR CLARITY.

B REFERENCE: AERIAL FROM GOOGLE EARTH PRO. IMAGE DATE 4-16-2016.

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SCALE IN FEET

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Drawn By: EGC
Checked: CDA 2/13/2020
Approved: 2/13/2020
DWG Name: 314V1015-031

REVERE SMELTING & REFINING
MIDDLETOWN, NEW YORK

PREPARED FOR
REVERE SMELTING & REFINING CORPORATION
MIDDLETOWN, NEW YORK

Figure 5

OU3 REMEDIAL INVESTIGATION WALLKILL RIVER
SOIL AND SEDIMENT SAMPLE RESULTS

WSP USA Inc.
75 ARLINGTON STREET
4th FLOOR
BOSTON, MA 02116
TEL: +1 617.426.7330

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