

EMERGENCY RESPONSE PLAN FOR THE REMEDIAL DESIGN/REMEDIAL ACTION

OU1, Modified Zone 1, USS Lead Superfund Site
East Chicago, Indiana
CERCLIS ID# IND 047 030 226

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Prepared for:

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1.0 Site History

The U.S. Smelter and Lead Refinery, Inc. Superfund Site (Site, Figure 1) is located in the City of East Chicago, Indiana and was placed on the National Priorities List (NPL) in April 2009. EPA divided the Superfund Site into two Operating Units (OUs). OU1 is a predominantly residential neighborhood, which is generally bounded on the north by East Chicago Avenue, on the east by Parrish Avenue, on the south by East 151st Street/149th Place, and on the west by the Indiana Harbor Canal. OU1 has been further subdivided into Zones 1, 2, and 3. OU2 includes the surface and subsurface of the 79-acre former USS Lead facility as well as groundwater beneath the entire Site.

The former Anaconda Lead Products and International Lead Refining Company is included as part of the U.S. Smelter and Lead Refinery, Inc. Superfund Site. The former Anaconda Lead Products and International Lead Refining Company occupied the OU1 modified Zone 1 Site from at least the early 20th century until the early 1970's. The Anaconda facility operated three inter-related processes. In 1912, a lead refinery was built on the Anaconda facility, which used a pyrometallurgical process to refine lead bullion. In 1919, a white lead plant was constructed at the Anaconda facility to produce white lead for use as an ingredient in lead paint. Finally, in 1922, a zinc oxide plant was added to the Anaconda facility. These facilities consisted of a pulverizing mill, white-lead storage areas, a chemical laboratory, a machine shop, a zinc-oxide experimental unit building and plant, a silver refinery, a lead refinery, a baghouse, and other miscellaneous buildings and processing areas. Byproducts of these operations included slag, lead waste, and arsenic. Significant quantities of lead were refined at the Anaconda facility from 1912 until 1946, when Anaconda Copper Mining Company sold the Anaconda facility to Eagle-Picher Company. Eagle-Picher Company appears to have continued operations at the Anaconda facility until at least 1952, though the extent of its operations is largely unknown. Sometime between 1952 and 1970, the Anaconda facility was demolished.

In the early 1970s, the West Calumet Housing Complex (WCHC) was constructed within the footprint of the former Anaconda facility and was used for multi-family, low-income housing and recreation until 2018. In 2018, utilities were disconnected and capped, and the West Calumet Housing Complex (WCHC) housing complex was demolished due to elevated arsenic and lead in soils. Following demolition of the WCHC and surface infrastructure during the summer of 2018, the Site no longer contains structures or drives with the exception of a maintenance building and associated parking lot owned by the East Chicago Housing Authority in the east-central portion of the Site and well as a tennis/basketball court and asphalt parking lot in Goodman Park. On May 26, 2020, the East Chicago City Council approved rezoning the Site to an industrial land use. A Site Plan is provided as Figure 2.

2.0 Details of Work to be Performed

The Remedial Design/Remedial Action (RD/RA) Statement of Work (SOW) details the required content of the RD/RA Work Plan. The RD/RA Work Plan follows the requirements of the SOW to provide the detailed descriptions on the execution of the OU1, modified Zone 1 RD/RA work, including project planning, selection, Site preparation, excavation, disposal, backfilling, revegetation, Institutional Controls, and O&M activities. The Work Plan also presents information on project organization, contractor selection, and schedule.

The goal of the RD/RA Work Plan is to enable Industrial Development Advantage of East Chicago, LLC (IDA) to implement the remedy for soils (Alternative 4A) set forth in the March 2020 Record of Decision (ROD) Amendment and the Explanation of Significant Differences. The primary objectives of the work plan are to layout the RD process and develop plans and specifications for implementing the RA in accordance with the ROD Amendment to:

- Reduce to acceptable levels human health risk from exposure to contaminants of concern (COCs) in impacted surface and subsurface soils through ingestion, direct contact, or inhalation exposure pathways; assuming commercial/industrial uses; and
- Prevention of the release of contaminants to off-Site media.

The selected remedy specified in the March 2020 ROD Amendment for commercial/Industrial land use (Alternate 4A) will serve as the RA for the Site. As detailed in the ROD Amendment, the major components of the selected remedy are:

- Site Preparation.
- Excavate contaminated soils that exceed the industrial/commercial RALs (787 mg/kg ppm for lead and 19 mg/kg ppm for arsenic) down to a maximum depth of 1 foot below ground surface (bgs).
- The horizontal and vertical limits of excavation will be surveyed and included in the as-built drawings.
- Following excavation, a geotextile demarcation barrier will be placed at the base of the excavation to denote and alert persons to the contact between clean and impacted soil.
- Backfill excavated areas with 1 foot of clean fill or up to 0.5 feet below final grade, covered by 0.5 feet of clean topsoil, and then the restored with sod or seed unless construction of an impermeable surface will commence over the area within 60 days of restoration to grade.
- Implement institutional controls (ICs) in the form of a restricted covenant to restrict land use to commercial/industrial purposes, restrict groundwater use, and language to notify future prospective owners that contaminated soil exists below 1 foot.
- Performance monitoring of ICs.

Soils that exceed the toxicity characteristic leaching procedure (TCLP) threshold of 5 mg/L for lead and are characteristically hazardous will be handled in accordance with the Area of Concern (AOC) Policy. The characteristically hazardous soil will be stabilized within the AOC using a reagent and concentration to be determined by the Treatability Study as described in the Work Plan. Lead will be stabilized to render the material non-hazardous and disposed of at a licensed, off-Site Subtitle C or Subtitle D landfill, as appropriate. The details of the remedy are further discussed in the sections below.

2.1.1 Site Preparation

Site preparation activities will include:

- Identification of current Site conditions and features that may influence the final location of design components;
- Contractor mobilization including establishment of equipment and material staging areas located proximate to, but outside of, the active work area;
- Installation of Best Management Practices (BMPs) and Storm Water Pollution Prevention Plan (SWP3) controls;
- Clearing and grubbing of vegetation within work areas;
- Construction of access roads and cap deployment stations; and
- Installation of fencing and other site control measures.

2.1.2 Excavation

Excavation is required to remove contaminated soils that exceed the industrial/commercial Remedial Action Levels (RALs) (787 mg/kg for lead and 19 mg/kg for arsenic) down to a maximum depth of 1 foot below ground surface (bgs). Based on the results of the previous investigations and Decision Unit (DU) sampling, the limits of arsenic and lead impacted soils that will be excavated and disposed off-Site have been defined and clarified during the RD. The design for excavation is anticipated to include the following:

- Defining areas of existing aggregate to be re-used on-Site;
- Defining areas for placement of excavated aggregate for re-use on-Site;
- Defining areas requiring no action;
- Defining areas requiring excavation with no stabilization;
- Defining areas requiring stabilization prior to excavation;
- Determining temporary stormwater management measures to manage storm run-on and run-off and erosion;
- Describing dust and air quality monitoring and dust control measures that will be implemented during the excavation activities including thresholds and mitigation measures;
- Identifying requirements for placement of demarcation barrier prior to backfilling; and
- Pre- and post-excavation surveying requirements.

2.1.3 Stabilization of Lead-Impacted Material

In-situ treatment to chemically stabilize soils that exceed the toxicity characteristic (TC) threshold of 5 mg/L after TCLP testing will be necessary to meet off-Site disposal requirements. The design for stabilization is anticipated to include:

- Completing lead treatability study to determine property mixture and stabilization reagent;
- Identifying *in-situ* techniques to stabilize soil;
- Identifying requirements for confirmation sampling following stabilization;
- Defining requirements to verify that the stabilized soils are no longer characteristically hazardous; and
- Implementing dust and air quality monitoring and dust control measures that will be implemented during the stabilization activities.

2.1.4 Backfilling of Excavation

After arsenic and/or lead is excavated from the defined areas, the excavations will be backfilled and graded in accordance with the remedial design. The remedial design for backfilling the excavations is anticipated to include the following:

- Conceptual plan for backfilling operations including timing and sequencing of backfill; materials to be placed during backfilling, laydown area(s) for stockpiling backfill materials, etc.;
- Requirements for demarcation barrier;
- Placement and compaction requirements for backfill materials including maximum lift thicknesses and minimum compaction requirements;
- Requirements for imported backfill materials and potential borrow sources(s) and testing; and
- Requirements for topsoil cover where required and seeding.

2.1.5 Material Handling, Transport, and Disposal

Excavated material will be processed for transportation to off-Site location(s) for disposal. Existing Aggregate base from former roadways or structures will be removed and stockpiled on-Site for re-use during future development below hardscape surfaces. The RD for material handling, segregation, transportation, and disposal is anticipated to include the following:

- Describing mechanism for loading soils for transportation to off-Site location(s) for disposal;
- Describe mechanisms for removal of aggregate base and stockpiling;
- Evaluating the rate at which excavated materials can be managed that will be used in developing the operations and sequencing of excavation and backfilling activities;
- Describing requirements for containment of excavated materials, loading/unloading of trucks and loading and unloading areas;
- Describing requirements for truck washing prior to departing Site;
- Identifying applicable DOT transportation requirements for transporting soils to off-Site disposal facilities. This include evaluating available options for transportation, alternate roads, entrance, and exit to access Site and shipping routes; and
- Identifying off-Site disposal facilities criteria and requirements. This will include evaluating material testing requirements prior to shipment of waste to the disposal facilities.

2.1.6 Institutional Controls

An Institutional Control Implementation and Assurance Plan (ICIAP) will be developed as part of RD efforts. ICs in the form of a restricted covenant to restrict land use to commercial/industrial purposes, restrict groundwater use, and language to notified future prospective owners that contaminated soil exists below 1 foot. Data gaps associated with implementation of ICs include:

1. Boundary surveys of land subject to institutional controls; and
2. Surveys of any engineering controls (i.e., hardscape surfaces).

2.2 Hours of Operation

When the removal begins, the EPA and EPA contractors will be on Site Monday through Friday (0700 to 1730 hours). Work on weekends is at the discretion of the project coordinator. A copy of this Emergency Response Plan will be available at the Site office, if needed.

3.0 Emergency Response and Reporting

3.1 Pre-Release Planning

Below are activities and conditions that may contribute to a release of waste material:

- Loading and unloading waste materials
 - Transfer of bulk waste material from track-mounted digging equipment to truck-mounted storage containers (e.g., triaxle or dump trailers)
 - spills and overfills due to operator error;
 - equipment collision.
- Storage of bulk waste materials
 - stockpiling of waste materials for extended periods of time.
- Vehicle incidents
 - “tracking” of waste material from vehicle tires entering and leaving the Site;
 - “blowing” of waste material from transport vehicles en route to the disposal facility;
 - vehicle accidents and/or collisions during waste material transport.

The potential to release waste materials during unloading/loading operations is minimal when standard procedures are followed. An increased awareness of the potential for a release is the best method for prevention. All unloading/loading operations will be performed under supervision, and a “spotter” will be used when maneuvering equipment. Stockpiling of waste material will not be performed during RA activities, as all soils will be direct loaded. If stockpiling is required because of an emergency, stockpiles shall be placed on visqueen and covered with visqueen and secured with in a manner to prevent exposure during precipitation or wind events. A decontamination pad will be utilized to clean tires before vehicles leave the Site to avoid off-Site tracking. Trucks will use tarps or other DOT-approved covers while transporting waste materials off-Site to avoid waste materials “blowing” out of the truck-mounted storage container onto roadways and surrounding landscape.

3.2 Emergency Action for Releases

If any event occurs during RA activities required by the SOW that causes or threatens to cause a release of waste material (i.e. lead and/or arsenic impacted soils) on, at, or from the Site and that either constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, the following steps will be implemented:

- immediately take all appropriate action to prevent, abate, contain, or minimize such release or threat of release;
- The waste material will be contained to the smallest area possible and recovered as quickly as possible. If possible, loose waste materials should be covered to avoid contact with precipitation until it can be recovered;
- immediately notify the authorized EPA officer (as specified in **Section 3.6**) orally;
- contact emergency responders (911), if applicable;
- take such actions in consultation with the authorized EPA officer and in accordance with all applicable provisions of the Health and Safety Plan, this Emergency Response Plan, and any other deliverable approved by EPA under the SOW.

If deemed necessary by the EPA officer or a designated representative, outside contractors will be contacted to assist the recovery procedures.

If a release of waste materials occurs off-Site (e.g., during transport to the solid waste disposal facility), emergency responders as listed in **Section 3.6** will be immediately notified, and the dispatcher will be notified to the contents of the vehicle to facilitate cleanup activities.

3.3 Release Reporting

Upon the occurrence of any event during performance of the activities required by this SOW that requires reporting pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Act (EPCRA), 42 U.S.C. § 11004, the authorized EPA officer will be immediately notified, orally. The “authorized EPA officer” for purposes of immediate oral notifications and consultations is the EPA Remedial Project Manager (RPM), the EPA Alternate RPM (if the RPM is unavailable), or the EPA Emergency Response Unit, Region 5 (if neither the RPM nor Alternate RPM is available), and contact information is provided in **Section 3.6**.

For the purposes of this ERP, a reportable release is defined as a release of a hazardous substance (e.g., lead and/or arsenic contaminated soils) that exceeds the calculated CERCLA Reportable Quantity (RQ) of 1 pound (arsenic) and 10 pounds (lead). Based on the maximum detected concentration of arsenic (1,000 mg/kg) and lead (14,000 mg/kg) detected during the 2020 characterization sampling as shown in **Table 1**, it is estimated that a release of 1,000 pounds of soil (0.36 cubic yards) would exceed the arsenic RQ, while a release of 716 pounds of soil (0.26 cubic yards) would be an exceedance of the lead RQ. For planning purposes, any release in excess of 0.26 cubic yards of soils to the environment will be reportable.

In addition to any reporting required by CERCLA § 103 and/or EPCRA § 304 the following written reports be submitted:

- submit within 7 days after the onset of the release, a report to EPA describing the actions or events that occurred and the countermeasures taken and/or to be taken; and
- within 30 days after the conclusion of such event, submit a report to EPA describing all actions taken in response to the event.

3.4 Other Emergency Situations

In the event of a required response by local emergency authorities during Site removal activities, the following protocols provide necessary guidance for the following potential response events:

- Vandalism/Trespass
- Workplace Violence Event
- Medical Emergencies
- Fire/Explosion
- Utility Strike
- Severe Weather
- Power Outages
- Slope Failure

3.4.1 Vandalism/Trespass

The Site will be secured by fencing or other means, and on-Site equipment secured and locked to eliminate vandals and/or trespassers during non-working hours.

However, any trespasser(s) should be asked to leave work areas and the local police should be notified if the trespassers fail to comply. In the event trespasser(s) enter work areas, work should immediately cease, workers should exit the area, and the EPA RPM should be notified. Work should not restart until the trespasser(s) have left the Site.

3.4.2 Workplace Violence Event

In the event of a workplace violence event on the Property, all on-Site personnel are to immediately leave the Property by the shortest route and away from the area of the workplace violence event. As soon as possible, **911** should be called. The caller will identify the location and the number and physical description of the violent individual(s). Upon leaving the property, all personnel are to meet at the designated rally point (former Carrie Gosch elementary school) and shelter in place until law enforcement personnel arrive and issue an all-clear notice.

3.4.3 Medical Emergencies

Rescue operations on the Site, if necessary, should be conducted by personnel wearing appropriate personal protective equipment (PPE). The victim should be decontaminated to the maximum extent possible, paying particular attention to the areas of the body or clothing that were in contact with contaminants or the ground. If the injury is minor, a full decontamination should be completed, and first aid administered prior to transport. If the victim's condition is serious, at a minimum emergency decontamination should be completed. If the injured worker can be safely moved by on-Site personnel, decontamination and removal of injured personnel from the exclusion zone will be conducted prior to arrival of emergency medical services (EMS). If possible, the injured worker will be moved to the access gate for EMS personnel to treat and/or transport them for off-Site treatment to minimize potential exposure of EMS personnel to on-Site contaminants.

For emergencies requiring transport to a hospital, **911** will be called. The caller will identify that the emergency is located in East Chicago and provide the Site address. The victim should be transported St. Catherine Hospital Emergency Department, 4321 Fir Street, East Chicago, Indiana 46312, **(219) 392-7200**.

For non-emergency treatment during working hours, the victim will be transported to the St. Catherine Occupational Clinic, 4321 Fir Street, Suite 313, East Chicago, Indiana 46312, **(219) 392-7424**.

Additional detailed information for specific minor medical situations and their prevention (e.g., heat stroke, chemical exposure, etc.), please refer to the Health and Safety Plan for Remedial Action Implementation.

3.4.4 Fire/Explosion

To activate fire department resources, the Lake County Fire Department dispatcher will be notified by calling **911**. The caller will identify that the Site is located in East Chicago, Indiana and be given the Site address.

During a hazardous materials incident, law enforcement will control perimeter access; however, they are not equipped with protective clothing and their main function will be site control and

preventing unauthorized persons from entering the hazard area. Law enforcement should not enter the fenced area of the site. The fire department when called out to the scene of a hazardous materials emergency has the duty and responsibility to save lives, prevent injuries, reduce property loss, and to restore vital services. Command of the emergency will be established by the officer of the first arriving fire company. The command will be transferred utilizing fire department staff, under the Incident Command System (ICS). The Fire Chief will be in charge of the incident until such time that he relinquishes that authority.

The Lake County Local Emergency Planning Committee (LEPC) (see **Section 3.6**) should also be contacted in the event of an incident involving hazardous materials.

3.4.5 Utility Strike

In the event of a utility strike, work should immediately cease, and workers should exit the area. If safe to do so, an assessment of damage will be performed, and the owner/operator of the utility will be immediately notified. If the utility strike poses an imminent danger to human health and safety (e.g., gas leak or sudden release of water pressure), **911** will immediately be called. The caller will identify that the Site is located in East Chicago, Indiana and be given the Site address. Work in the area should not resume until the utility has been repaired and the hazard has been eliminated.

3.4.6 Severe Weather

Upon first observation of lightning or thunder, all workers outdoors will immediately stop work and enter a substantial building or vehicle until the storm has passed. Outdoor work may resume 30 minutes after hearing the last thunderclap. If a tornado warning siren sounds, all workers will find immediate safety at the emergency assembly area (former Carrie Gosch elementary school).

The work area is not located in a Federal Emergency Management Agency (FEMA) floodway or flood zone of the Indiana Harbor Canal. Carrie Gosch School is proximal to the 500-year floodplain.

3.4.7 Power Outages

A power outage would partially limit on-Site operations but would not significantly increase the potential of a release of waste material because the release and response mechanisms do not rely on electricity. Emergency communications are available using cell phones, and work will mainly be performed during daylight hours. If needed, emergency generators can be purchased or rented from local vendors.

3.4.8 Slope Failure

On-Site excavations will occur to a depth of one foot, so slope failure is not a hazard. However, the boundaries of the excavation will be sloped as needed to allow personnel and vehicles ready access into and out of the areas.

3.4.9 Emergency Assembly Area (Rally Location)

The emergency assembly area is the jobsite office building (former Carrie Gosch elementary school) at the northern end of the property. On-Site personnel will meet at this location in case of an on-Site emergency.

3.5 Spill Prevention, Control, and Countermeasures Planning

Oils, as defined in 40 CFR §112, are not anticipated to be present on-Site at a quantity that exceeds 1,320 gallons during the RD/RA activities, and therefore, a Spill Prevention, Control, and Countermeasures (SPCC) plan will not be prepared for the RD/RA. However, if oils in sufficient quantity are brought and stored on-Site in quantities that exceed 1,320 gallons, the subcontractor managing the oils (e.g., heavy equipment operators) and ancillary storage and dispensing equipment will be required to develop, maintain, and adhere to a SPCC Plan that meets the requirements set forth in 40 CFR §112.

Small amounts of oils (e.g., diesel fuel, engine lubricating oils, gear oils, etc.) will be present at the Site due to the utilization of motor vehicles and construction equipment. If a leak or spill of oils occur on the soil of the Property, the leak/spill will be cleaned up with a sorbent pad, boom, or other sorbent material, placed in a bag and disposed of properly. The affected soil will then be removed for proper off-site disposal. If a leak or spill migrates to navigable waters, the National Response Center (NRC, 800-424-8802) will immediately be notified.

3.6 List of Contacts

**USS Lead Site – OU1 Zone 1
East Chicago, Indiana**

Local Agency	Phone#	Contact
East Chicago Fire Department	911/219-391-8472	Emergency Dispatcher
East Chicago Police Department	911/219-391-8400	Emergency Dispatcher
Lake County EMA	219-660-0000	Emergency Dispatcher
Lake County LEPC	219-755-3549	Emergency Dispatcher
Northern Indiana Public Service Company (NIPSCO)	800-634-3524 (natural gas) 800-464-7726 (electric)	Emergency Dispatcher

Federal/State		
Authorized EPA Officer (Remedial Project Manager, RPM)	312-886-7278	Thomas Alcamo
Alternate RPM	312-353-4669	Karen Kirchner
EPA On-Scene Coordinator	312-886-7278	Thomas Alcamo
EPA Emergency Response Unit, Region 5	312-353-2000	Dispatcher
Remedial Project Manager	312-886-7278	Thomas Alcamo
National Spill Response Center	800-424-8802	24-hr Spill Reporting
Indiana Department Environmental Management (IDEM)	888-233-7745 317-233-7745	24-hr Spill Reporting
IDEM Project Coordinator	317-234-5628	Doug Petroff

IDEM Alternate Project Coordinator	317-234-0351	Jessica Fliss
Indiana Department of Health	317-233-1325	Operator
EPA Response Contractor	TBD	TBD
Verdantas, LLC	614-362-7010	David Mustafaga

4.0 Certification by Project Coordinator

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



David B. Mustafaga, PG, CPG
Project Coordinator

Table

**EAST CHICAGO
USS LEAD OPERABLE UNIT-1 ZONE 1**

TABLE 1

SUMMARY OF DECISION UNIT SAMPLING RESULTS

Decision Unit Sample Location	Sample ID	Sample Depth (ft)	Sample Date	Analytical Method	SW6010D	SW6010D	SW6010D	SW6010D
				Parameter	Arsenic	Lead	TCLP-Arsenic	TCLP- Lead
				CASNumber	7440-38-2	7439-92-1	7440-38-2	7439-92-1
				ReportingUnits	mg/kg	mg/kg	mg/L	mg/L
				Regulatory Limits	26	800	5	5
DU-A1	IDA001:DU-A1:S000010	0-1 ft	11/9/2020		11	300	<0.05	0.61
DU-A2	IDA001:DU-A2:S000010	0-1 ft	11/9/2020	triplicate sample	9.5	500	<0.05	0.4
DU-A2-TE	IDA001:DU-A2-TE:S000010	0-1 ft	11/9/2020	triplicate sample	11	520	---	---
DU-A2-TS	IDA001:DU-A2-TS:S000010	0-1 ft	11/9/2020	triplicate sample	13	570	---	---
DU-A3	IDA001:DU-A3:S000010	0-1 ft	11/10/2020		9.5	410	0.017 J	0.45
DU-A4	IDA001:DU-A4:S000010	0-1 ft	11/11/2020		23	560	0.022 J	0.93
DU-A5	IDA001:DU-A5:S000010	0-1 ft	11/11/2020		69	1,200	0.052	0.58
DU-A6	IDA001:DU-A6:S000010	0-1 ft	11/15/2020		64	1,300	0.042 J	3.6
DU-A7	IDA001:DU-A7:S000010	0-1 ft	11/15/2020		19	700	0.023 J	1.1
DU-A8:	IDA001:DU-A8:S000010	0-1 ft	11/14/2020	triplicate sample	56	2,300	0.058	7.2
DU-A8-TE	IDA001:DU-A8-TE:S000010	0-1 ft	11/14/2020	triplicate sample	42	1,700	---	---
DU-A8-TS	IDA001:DU-A8-TS:S000010	0-1 ft	11/14/2020	triplicate sample	46	1,400	---	---
DU-A9	IDA001:DU-A9:S000010	0-1 ft	11/14/2020		180	8,900	0.074	30
DU-B1	IDA001:DU-B1:S000010	0-1 ft	11/9/2020		9.3	680	0.022 J	1.1
DU-B2	IDA001:DU-B2:S000010	0-1 ft	11/10/2020		7.3	250	<0.05	0.88
DU-B3	IDA001:DU-B3:S000010	0-1 ft	11/10/2020		13	1,200	<0.05	17
DU-B4	IDA001:DU-B4:S000010	0-1 ft	11/11/2020	triplicate sample	5.0	1,600	<0.05	44
DU-B4-TE	IDA001:DU-B4-TE:S000010	0-1 ft	11/11/2020	triplicate sample	5.9	1,500	---	---
DU-B4-TS	IDA001:DU-B4-TS:S000010	0-1 ft	11/11/2020	triplicate sample	8.2	660	---	---
DU-B5	IDA001:DU-B5:S000010	0-1 ft	11/12/2020		24	2,500	0.021 J	26
DU-B6	IDA001:DU-B6:S000010	0-1 ft	11/15/2020		87	12,000	0.031 J	53
DU-B7	IDA001:DU-B7:S000010	0-1 ft	11/15/2020		97	3,100	<0.05	23
DU-B8	IDA001:DU-B8:S000010	0-1 ft	11/14/2020		20	550	<0.05	0.53
DU-B9	IDA001:DU-B9:S000010	0-1 ft	11/14/2020		280	4,700	0.1	39
DU-C1	IDA001:DU-C1:S000010	0-1 ft	11/13/2020		8.5	190	0.023 J	0.11
DU-C2	IDA001:DU-C2:S000010	0-1 ft	11/10/2020		20	1,700	<0.05	6.6
DU-C3	IDA001:DU-C3:S000010	0-1 ft	11/10/2020		14	720	<0.05	11
DU-C4	IDA001:DU-C4:S000010	0-1 ft	11/11/2020		12	3,300	<0.05	7.2
DU-C5	IDA001:DU-C5:S000010	0-1 ft	11/12/2020		25	3,400	<0.05	32
DU-C6	IDA001:DU-C6:S000010	0-1 ft	11/15/2020	triplicate sample	180	1,500	0.017 J	8.2
DU-C6-TE	IDA001:DU-C6-TE:S000010	0-1 ft	11/15/2020	triplicate sample	24	1,400	---	---
DU-C6-TS	IDA001:DU-C6-TS:S000010	0-1 ft	11/15/2020	triplicate sample	32	10,000	---	---
DU-C7	IDA001:DU-C7:S000010	0-1 ft	11/15/2020		15	830	<0.05	8.9
DU-C8	IDA001:DU-C8:S000010	0-1 ft	11/14/2020		28	940	0.044 J	9.9
DU-C9	IDA001:DU-C9:S000010	0-1 ft	11/14/2020		32	770	0.024 J	0.63
DU-D1	IDA001:DU-D1:S000010	0-1 ft	11/13/2020		25	1,000	0.04 J	25
DU-D2	IDA001:DU-D2:S000010	0-1 ft	11/10/2020		13	950	<0.05	3.8
DU-D3	IDA001:DU-D3:S000010	0-1 ft	11/11/2020		52	2,900	<0.05	1.4
DU-D4	IDA001:DU-D4:S000010	0-1 ft	11/11/2020		9.1	2,100	<0.05	9.6
DU-D5	IDA001:DU-D5:S000010	0-1 ft	11/12/2020	triplicate sample	15	4,500	<0.05	2.2
DU-D5-TE	IDA001:DU-D5-TE:S000010	0-1 ft	11/12/2020	triplicate sample	11	2,300	---	---
DU-D5-TS	IDA001:DU-D5-TS:S000010	0-1 ft	11/12/2020	triplicate sample	9.5	970	---	---
DU-D6	IDA001:DU-D6:S000010	0-1 ft	11/15/2020		20	1,900	<0.05	2.3
DU-D7	IDA001:DU-D7:S000010	0-1 ft	11/15/2020		42	1,800	<0.05	2.6
DU-D8	IDA001:DU-D8:S000010	0-1 ft	11/14/2020		70	2,300	0.038 J	29
DU-D9	IDA001:DU-D9:S000010	0-1 ft	11/14/2020		34	1,100	0.025 J	1.6
DU-E1	IDA001:DU-E1:S000010	0-1 ft	11/10/2020		12	900	<0.05	4.2
DU-E2	IDA001:DU-E2:S000010	0-1 ft	11/10/2020		30	12,000	<0.05	11
DU-E3	IDA001:DU-E3:S000010	0-1 ft	11/11/2020	triplicate sample	11	5,400	<0.05	19
DU-E3-TE	IDA001:DU-E3-TE:S000010	0-1 ft	11/11/2020	triplicate sample	14	1,200	---	---
DU-E3-TS	IDA001:DU-E3-TS:S000010	0-1 ft	11/11/2020	triplicate sample	10	1,500	---	---
DU-E4	IDA001:DU-E4:S000010	0-1 ft	11/11/2020		22	5,700	<0.05	64
DU-E5	IDA001:DU-E5:S000010	0-1 ft	11/12/2020		43	7,300	<0.05	16
DU-E6	IDA001:DU-E6:S000010	0-1 ft	11/15/2020		4.9	240	<0.05	1.3
DU-E7	IDA001:DU-E7:S000010	0-1 ft	11/15/2020		9.1	650	<0.05	6.7
DU-E8	IDA001:DU-E8:S000010	0-1 ft	11/15/2020		19	840	<0.05	1.5
DU-E9	IDA001:DU-E9:S000010	0-1 ft	11/14/2020	triplicate sample	450	10,000	0.26	69
DU-E9-TE	IDA001:DU-E9-TE:S000010	0-1 ft	11/14/2020	triplicate sample	570	8,400	---	---
DU-E9-TS	IDA001:DU-E9-TS:S000010	0-1 ft	11/14/2020	triplicate sample	1,000	14,000	---	---
DU-F0	IDA001:DU-F0:S000010	0-1 ft	11/16/2020		8.0	450 B	<0.05	0.73

EAST CHICAGO
USS LEAD OPERABLE UNIT-1 ZONE 1

TABLE 1

SUMMARY OF DECISION UNIT SAMPLING RESULTS

Decision Unit Sample Location	Sample ID	Sample Depth (ft)	Sample Date	Analytical Method	SW6010D	SW6010D	SW6010D	SW6010D
				Parameter	Arsenic	Lead	TCLP-Arsenic	TCLP- Lead
				CASNumber	7440-38-2	7439-92-1	7440-38-2	7439-92-1
				ReportingUnits	mg/kg	mg/kg	mg/L	mg/L
				Regulatory Limits	26	800	5	5
DU-F1	IDA001:DU-F1:S000010	0-1 ft	11/16/2020	triplicate sample	47	2,000 B	<0.05	0.43
DU-F1-TE	IDA001:DU-F1-TE:S000010	0-1 ft	11/16/2020	triplicate sample	37	2,400 B	---	---
DU-F1-TS	IDA001:DU-F1-TS:S000010	0-1 ft	11/16/2020	triplicate sample	18	770 B	---	---
DU-F2	IDA001:DU-F2:S000010	0-1 ft	11/16/2020		18	900 B	<0.05	0.47
DU-F3	IDA001:DU-F3:S000010	0-1 ft	11/16/2020		26	1,300 B	<0.05	0.36
DU-F4	IDA001:DU-F4:S000010	0-1 ft	11/16/2020		25	1,300 B	<0.05	0.41
DU-F5	IDA001:DU-F5:S000010	0-1 ft	11/16/2020		6.1	200 B	<0.05	0.08
DU-F6	IDA001:DU-F6:S000010	0-1 ft	11/17/2020		7.7	240 B	<0.05	1.1
DU-F7	IDA001:DU-F7:S000010	0-1 ft	11/16/2020	triplicate sample	13	610 B	<0.05	0.3
DU-F7-TE	IDA001:DU-F7-TE:S000010	0-1 ft	11/16/2020	triplicate sample	17	620 B	---	---
DU-F7-TS	IDA001:DU-F7-TS:S000010	0-1 ft	11/16/2020	triplicate sample	10	310 B	---	---
DU-F8	IDA001:DU-F8:S000010	0-1 ft	11/17/2020		33	880 B	<0.05	0.44
DU-F9	IDA001:DU-F9:S000010	0-1 ft	11/17/2020		46	740 B	<0.05	0.29

Notes

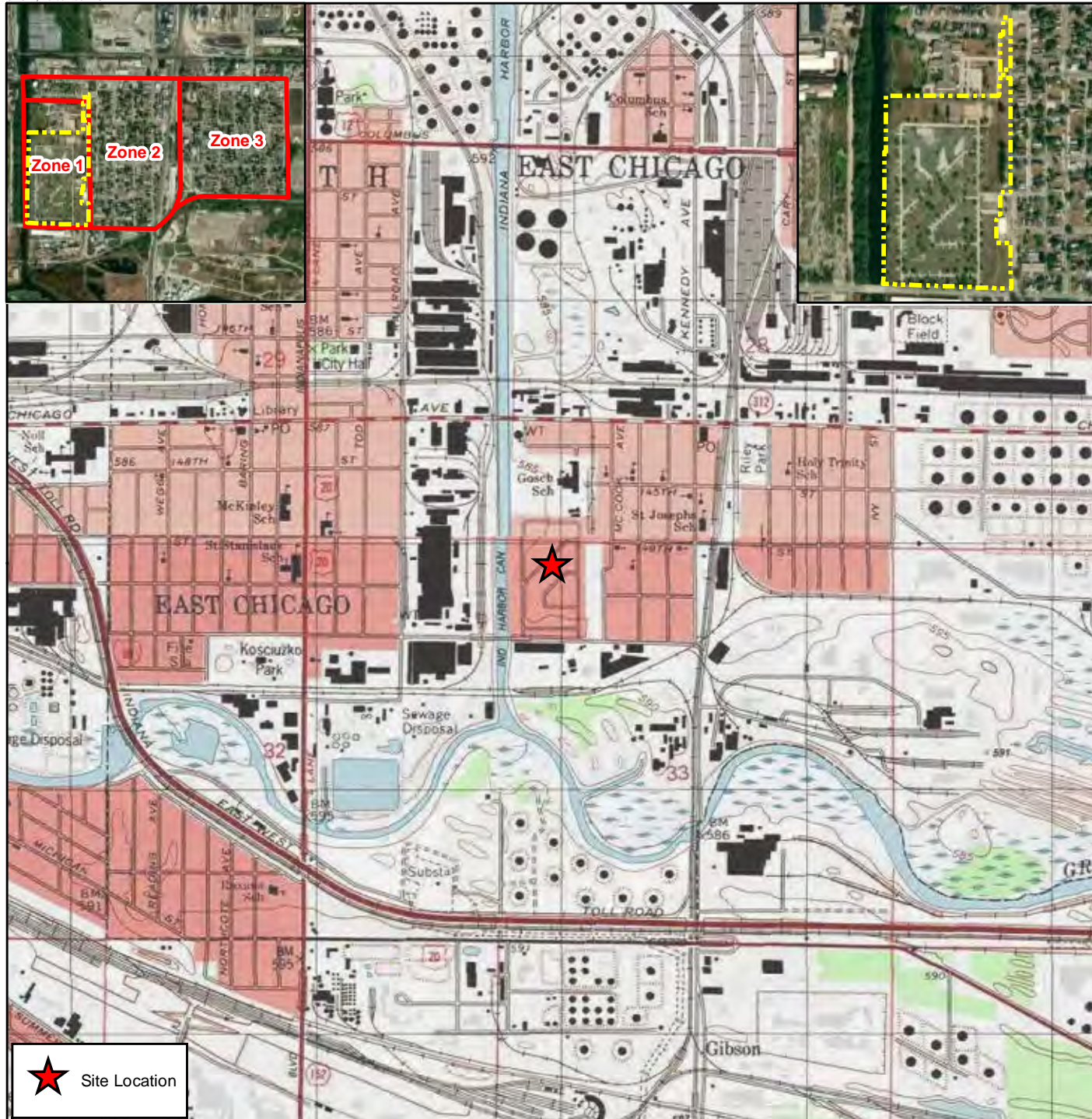
BOLD and shaded indicates detected parameter exceeding regulatory threshold.

--- Not Applicable

J - Estimated Value

B - Analyte detected in the associated method blank above the reporting limit.

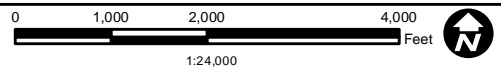
Figures



 Site Location



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Quadrangles: Whiting and Highland, IN

Source: The topographic map was acquired through the USGS Topographic Map web service.

The aerial photo was acquired through the Esri Imagery Web Service. Aerial photography dated 2020.



Emergency Response Plan for the RD/RA
 OU1, Modified Zone 1, USS Lead Superfund Site

Site Location Map

East Chicago, Lake County, Indiana

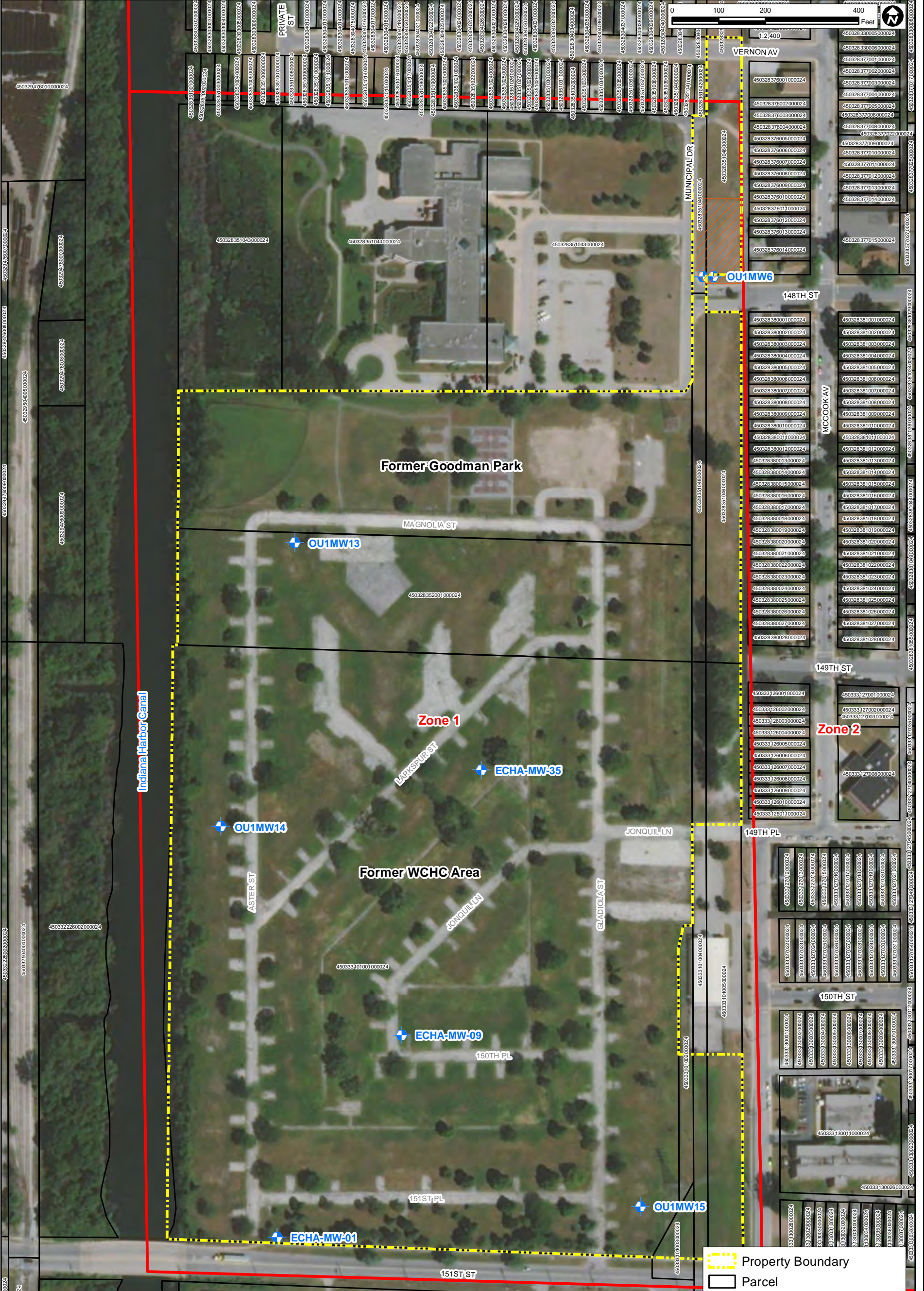
Date:

February 2023

File Name:
 15773_04_Fig01_SLM.mxd
 Edited: 2/2/2023 By: dreed

Figure

1



Notes:
 1) The aerial photo was acquired through the Esri Imagery Web Service. Aerial photography dated 2020.
 2) Road names in gray have been vacated and removed.

- Property Boundary
- Parcel
- 2019 Remediated Soil Area
- Operable Unit 1
- + Existing Monitoring Wells



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February 2022
 Emergency Response Plan for the RD/RA
 OU1, Modified Zone 1, USS Lead Superfund Site

Site Plan

East Chicago, Lake County, Indiana

Figure
2